



ICAO

The Fifth Meeting of the Aerodromes Operations and
Planning Sub-Group (AOP/SG/5)

Video Teleconference, 29 June to 2 July 2021

Agenda Item 4: Provision of AOP in the Asia/Pacific Region
– Reports of Working Group/Task Force Meetings

**REPORT ON THE THIRD MEETING OF ASIA/PACIFIC AERODROME
ASSISTANCE WORKING GROUP (AP-AA/WG/3)**

(Presented by Chairperson of AP-AA/WG)

SUMMARY

This paper presents the Report of the Third Meeting of the Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG/3).

This paper relates to –

Strategic Objectives:

*A: **Safety** –Enhanced global civil aviation safety*

*B: **Air Navigation Capacity and Efficiency** – Increase Capacity and improve efficiency of the global civil aviation system*

1. INTRODUCTION

1.1 The Third Meeting of Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG/3) was held as a video teleconference from 23 to 26 March 2021.

1.2 63 participants from 11 Member States and 2 International Organisations attended the meeting.

1.3 The full report of the meeting was posted on the ICAO APAC Office website and can be accessed through the following link:
<https://www.icao.int/APAC/Meetings/Pages/2021-AP-AA-WG3.aspx>.

1.4 The **Attachment A** to this Paper provides a Summary Report of the AP-AA/WG/3 for review by the AOP/SG/5.

1.5 Appendices referred in this Working Paper and **Attachment A** carry the same Appendix number as those in the Report of AP-AA/WG/3 for easy reference.

2. DISCUSSION

AP-AA/WG/3

2.1 There were 18 Working Papers and 4 Information Papers considered by the AP-AA/WG/3 Meeting.

2.2 Some important discussions of the AP-AA/WG/3 Meeting are summarized as below:

Report on Survey Questionnaire for Aerodrome Assistance in APAC States

2.3 India and Nepal presented the analysis of the survey questionnaire for aerodrome assistance, which was circulated among APAC States and Administrations subsequent to AOP/SG/4.

2.4 Only 13 APAC States/Administrations responded to the survey questionnaire.

2.5 Most of the respondent states had Air Navigation Deficiencies. Meanwhile, in some States no international aerodromes were certified and in a few others not all international aerodromes were certified. The numbers of other aerodromes (i.e. aerodromes not used for international operations) in the responding 13 states were 563. Among them 275 (49%) were certified and 288 (51%) were yet to be certified.

2.6 The meeting clarified that the survey questionnaire was intended for all States and Administrations, whether or not they had certified all aerodromes used for international operations, with an AGA EI score below 75% or having Air Navigation Deficiency in AOP Field. Considering the low response rate, AP-AA/WG/3 adopted the following Decision to obtain more responses of the survey questionnaire so as to understand the need for aerodrome assistance among APAC States:

Decision AP-AA/WG/3–1: Survey Questionnaire for Aerodrome Assistance in APAC States

That,

The survey questionnaire for aerodrome assistance in APAC States, available in **Appendix G to the Report of AOP/SG/4**, be re-circulated to the States and Administrations which had yet to respond.

Generic Documents for Aerodrome Certification

2.7 AP-AA/WG/3 reviewed and updated following generic documents:

- a) Generic Aerodrome Certification Specific Operating Regulations (**Appendix B to the Report**) developed by Malaysia, India and Nepal in response to AP-AA/WG Task 1/3 (a);
- b) Generic Organization Structure of the Aerodrome Regulatory Unit (**Appendix C to the Report**) developed by Malaysia, India and Nepal in response to AP-AA/WG Task 1/3 (b);
- c) Generic Aerodrome Inspector Handbook (**Appendix D to the Report**) developed by Thailand and Bangladesh in response to AP-AA/WG Task 1/3 (d);

- d) Generic Document for Training Program and Training Plan for Aerodrome Inspectors (**Appendix E to the Report**) developed by India in response to AP-AA/WG Task 1/3 (f);
- e) Generic Surveillance Programme at Aerodromes (**Appendix F to the Report**) developed by Malaysia, India and Nepal in response to AP-AA/WG Task 1/3 (h); and
- f) Generic Aerodrome Manual (**Appendix G to the Report**) developed by India in response to AP-AA/WG Task 1/3 (e).

2.8 The meeting considered the above six generic documents developed by States and formulated the following Draft Decision for adoption by AOP/SG/5:

Draft Decision AP-AA/WG/3–2: Generic Documents related to Aerodrome Certification			
What:	That,		Expected impact:
a)	the generic documents in Appendix B, C, E, F and G to the Report of AP-AA/WG/3 be made available on the ICAO APAC Office Website for the reference by States in the APAC Regions; and		☐ Political / Global
b)	the draft generic document in Appendix D to the Report of AP-AA/WG/3 be enhanced jointly by Thailand and the Secretariat and submit to AOP/SG/5 for approval to make it available on the ICAO APAC Office Website for the reference by States in the APAC Regions.		☐ Inter-regional
			☐ Economic
			☐ Environmental
			☒ Ops/Technical
Why:	To provide guidance to States which have yet to complete the aerodrome certification process.		Follow-up: ☐ Required from States
When:	2-Jul-21		Status: Draft to be adopted by Subgroup
Who:	☒ Sub groups ☐ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☐ Other:		

2.9 Post meeting, the draft generic document in **Appendix D** to the Report of AP-AA/WG/3 has been improved jointly by Thailand and the Secretariat and the finalized version is provided in **Appendix D**.

AP-AA/WG Task List

2.10 The meeting reviewed and updated the AP-AA/WG task list presented by the Secretariat. The updated task list is placed in **Appendix H** to the Report of AP-AA/WG/3.

Terms of Reference of AP-AA/WG

2.11 The TOR of AP-AA/WG was first adopted by AOP/SG/2 (Bangkok, Thailand, 27 – 29 June 2018) and last amended by AOP/SG/4 (video teleconference, 10 – 13 November 2020).

2.12 When the TOR was first developed, considering the scope of works, it was determined that the AP-AA/WG should last for three years initially, i.e. until September 2021.

Agenda Item 4

2.13 While the main objective of AP-AA/WG was ‘to realize the commitment of the “Beijing Declaration” – to certify all aerodromes used for international operations by 2020’, it had been identified that there were 38 such aerodromes yet to be certified, as of March 2021. In addition, some tasks of this Working Group were outstanding as the current COVID-19 pandemic had reorganized priorities among States and Administrations.

2.14 The proposed extension of AP-AA/WG until September 2023 was supported by DPR Korea, India, Nepal and Philippines, and no objection was received from other Members. As such, AP-AA/WG/3 formulated the following Draft Decision for adoption by AOP/SG/5:

Draft Decision AP-AA/WG/3-3: TOR of AP-AA/WG			
What:		That, the Terms of Reference of the Asia/Pacific Aerodrome Assistance Working Group be amended as in Appendix I of the Report of AP-AA/WG/3.	
		Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical	
Why:		To allow additional time to assist States in aerodrome certification and complete the tasks of the Working Group.	
		Follow-up: ☐ Required from States	
When:		2-Jul-21	
		Status: Draft to be adopted by Subgroup	
Who:		AA/WG	
		☒ Sub groups ☐ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☒ Other: AP-	

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) review the Summary Reports on the Third Meeting of AP-AA/WG;
- b) review the Draft Decisions presented in Paragraphs 2.08 and 2.14 for adoption by the AOP/SG/4; and
- c) discuss any relevant matters as appropriate.

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Summary Report of AP-AA/WG/3

HISTORY OF THE MEETING

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INTRODUCTION

1. Meeting

1.1 The Third Meeting of Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG/3) was held as a video teleconference from 23 to 26 March 2021.

2. Attendance

2.1 63 participants from 11 Member States and 2 International Organisations attended the meeting.

2.2 The List of Participants is placed at **Attachment 1** to the Report.

3. Language and Documentation

3.1 The working language of the meeting and all documentation was English. There were 18 Working Papers and 4 Information Papers considered by the Meeting. A List of Papers is included at **Attachment 2** to this Report.

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Agenda Item 1: Adoption of Provisional Agenda (WP/01)

1.1 The Provisional Agenda (WP/01) was adopted by the Meeting without amendment.

Agenda Item 1: Adoption of Provisional Agenda

Agenda Item 2: Review Outcomes of Relevant Meetings

Agenda Item 3: Aerodrome Certification and Safety Management System

Agenda Item 4: Runway Safety and GRF Implementation

Agenda Item 5: APANPIRG Air Navigation Deficiency in AOP Field

Agenda Item 6: USOAP CMA in AGA

Agenda Item 7: AP-AA/WG Task List

Agenda Item 8: Any Other Business

Agenda Item 9: Date and Venue of Next Meeting

Agenda Item 2: Review Outcomes of Relevant MeetingsReview Outcomes of AOP/SG/4 (WP/02)

2.1 WP/02 provided a summary of the outcomes of the Fourth Meeting of the Aerodromes Operations and Planning Sub-group (AOP/SG/4, video teleconference, 10 – 13 November 2020).

Review Outcomes of APANPIRG/31 (WP/03)

2.2 WP/03 provided a summary of the outcomes of the 31st Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/31, video teleconference, 14 – 16 December 2020).

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Agenda Item 3: Aerodromes Certification and Safety Management SystemImplementation of Requirements for Certification of Aerodromes in the Asia/Pacific Region (WP/04)

3.1 AP-AA/WG/3 noted that there were still 38 out of 342 aerodromes (approximately 11% of the total) used for international operations in the APAC Region which had yet to be certified, despite the *Beijing Declaration* commitment of certifying all such aerodromes by 2020, **55th DGCA Conference Action Item 55/42** and various APANPIRG Conclusions. In addition, there were 29 States / Administrations which had yet to include the status of certification of aerodromes into their Aeronautical Information Publication (AIP) AD 1.5.

3.2 The identified States, Administrations and aerodromes had been included in the APANPIRG AOP Deficiency List with effect from 1 January 2021, in accordance with **Conclusion APANPIRG/30/4**. A list of the States, Administrations and aerodromes is also available in **Appendix A** to this report.

3.3 AP-AA/WG/3 urged States and their aerodrome operators that have yet to certify aerodromes used for international operations to take an effective action on 55th DGCA Conference Action Item 55/42.

3.4 In order to facilitate understanding and monitoring of the situation, States were urged to provide periodic updates on the progress of the certification of aerodromes and AIP AD 1.5 to the ICAO APAC Office. In addition, AP-AA/WG/3 also urged States that had not published the status of certification of aerodromes in AIP to do so as soon as possible.

3.5 The meeting reminded States and Administrations to request ICAO, regional organizations and/or cooperative programmes (e.g. COSCAP) assistance in aerodrome certification whenever needed. Pacific Aviation Safety Office (PASO) advised that it had a new AGA technical advisor who will work to assist its member States in aerodrome certification and AIP AD 1.5 matters. The Secretariat updated the meeting that Mr Nicholas Rallo had been appointed as the new Chief Technical Advisor of COSCAP-SEA, and reminded COSCAP-SEA member States to approach him if required.

3.6 United States updated the meeting that aerodrome technical assistance had been offered to Micronesia (Federated States of) and neighbouring aerodromes in the form of on-site visits, responses to enquiries, workshops and personnel exchange.

Virtual APEX in Safety (IP/02)

3.7 Submitted by ACI, the information paper introduced that ACI had launched a new safety review service online based on the existing APEX in Safety Review programme, as COVID-19 pandemic had effectively shut down international travels since early 2020.

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Agenda Item 4: Runway Safety and GRF Implementation

Enhanced Global Reporting Format for Assessing and Reporting Runway Surface Conditions (GRF), Runway Safety Team (RST) and Runway Safety Go-Team (RSGT) (WP/05)

4.1 AP-AA/WG/3 noted the new applicability date of the SARPs and PANS related to GRF, i.e. 4 November 2021. To create awareness and support States actions on GRF implementation, a number of seminars, webinars and workshops had been conducted at the global, regional and sub-regional levels by ICAO HQ, ICAO ROs/COSCAPs and PASO. In addition, the meeting noted the GRF training courses jointly offered by ICAO and industry partners, which were tailored to meet the needs of various aviation professions. States and Administrations were urged to arrange attendance of such courses.

4.2 The meeting noted **Conclusion APANPIRG/31/5** and urged States / Administrations to submit GRF Implementation Action Plan to ICAO APAC Office if they had yet to do so, and provide periodic updates thereafter. The meeting also noted **Conclusion APANPIRG/31/6** and urged States / Administrations to take actions on runway safety team (RST) establishment and participation in ICAO RST Survey.

4.3 States and Administrations in need of assistance in the areas of runway safety and GRF were urged to request for Runway Safety Go-Team Missions through ICAO APAC Office and/or its corresponding COSCAPs.

4.4 The 2020 edition of USOAP CMA Protocol Questions (PQs) had been made available through USOAP CMA online framework. It is noted that RST establishment had been included in a new AGA PQ.

4.5 On item GRF 5 regarding initial training specified in the implementation action plan, the meeting noted that such training needs might be met by online courses co-organised by ICAO and industry partners, or other courses / training activities recognized by the respective CAAs.

Agenda Item 5: APANPIRG Air Navigation Deficiency in AOP FieldStatus of Air Navigation Deficiencies in AOP Field (WP/06)

5.1 AP-AA/WG/3 reviewed the list of Air Navigation Deficiencies updated and endorsed by APANPIRG/31 (video teleconference, 14 to 16 December 2020) in the AOP field.

5.2 The meeting recalled that APANPIRG/30 (4 to 6 November 2019, Bangkok, Thailand) adopted the following Conclusion formulated by AOP/SG/3:

Conclusion APANPIRG/30/4: Certification of aerodromes used for international operations in Asia Pacific States

That, the Ministers of Asia and Pacific States committed to certify all aerodromes used for international operations by 2020 through the Beijing Declaration. The AOP/SG monitors the aerodrome certification implementation commitment of the Beijing Declaration and reports progress to the annual APAC DGCA Conference through the APANPIRG. States and Aerodrome Operators should take effective actions on Action Item 55/42 agreed at the 55th Conference of the APAC DGCA.

In view of above, the Meeting:

- a) Urged States and their Aerodrome Operators that have yet to certify aerodromes used for international operations to take an effective action on the 55th DGCA Action Item 55/42;
- b) Urged States to provide periodic updates on the progress of the certification of aerodromes to the ICAO APAC Office;
- c) Urged States that have not published the status of certification of aerodromes in State's AIP to publish the status as soon as possible in accordance with Annex 14 Volume I (para. 2.13.1), PANS-Aerodromes (para. 2.3.7) and Appendix 2 to PANS-AIM (Doc 10066);
- d) Agreed that, if any aerodrome used for international operations fails to obtain an aerodrome certificate from the Regulatory Authority by fulfilling ICAO Annex 14 requirements under the aerodrome certification process by 2020, or fails to maintain the aerodrome certificate already obtained, will be subject to being included on the APANPIRG AOP Air Navigation Deficiency list against para. 1.4 (certification of aerodromes) of the Annex 14, Volume I;
- e) Agreed that, if any States fail to achieve the target of the Beijing Declaration on certification of aerodromes by 2020 will be subject to being included on the APANPIRG AOP Air Navigation Deficiency list against para. 1.4 of the Annex 14, Volume I;
- f) Agreed that, if any States fails to publish the status of certification of aerodromes in State's AIP by December 2019 will be subject to being included on the APANPIRG AOP Air Navigation Deficiency list against ICAO Annex 14 para. 2.13.1 a), PANS-Aerodromes, para. 2.3.7 and Appendix 2 to PANS-AIM.

5.3 In connection with **Conclusion APANPIRG/30/4**, the States / Administrations / aerodromes concerned had been included in the APANPIRG AOP Deficiency List after review and endorsement by APANPIRG/31, with effect from 1 January 2021.

5.4 For States and Administrations listed in the Deficiency list, the meeting urged them to establish action plans with defined dates for resolution of deficiencies, update the status on the corrective action taken, and report progress in the Reporting Form of Air Navigation Deficiencies identified in AOP field for further follow-up by ICAO APAC Office.

5.5 The meeting also reviewed a list of AOP Focal Points which was first adopted by AOP/SG/4 (video teleconference, 10 to 13 November 2020) through the following Conclusion:

Conclusion AOP/SG/4–15: AOP Focal Points

That, States / Administrations be urged to review and update contact details of AOP Focal Points, as contained in **Appendix O to AOP/SG/4 Report**, for the coordination of actions to resolve the APANPIRG Air Navigation Deficiencies in the AOP Field and for other AOP matters.

5.6 States who would like to initiate updates on their AOP Focal Points were requested to contact ICAO APAC Office.

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Agenda Item 6: USOAP CMA in AGAICAO USOAP and AGA Findings (WP/07)

6.1 AP-AA/WG/3 noted ICAO USOAP CMA activities conducted in APAC States in 2020 and those planned for 2021.

6.2 The meeting also noted the USOAP Effective Implementation (EI) results in the APAC Region, taken from the Integrated Safety Trend Analysis and Reporting System (iSTARS) 3.0 SPACE. APAC average EI in AGA area was **61.43%**, as compared to the global average of **63.02%** as at 9 March 2021 and the Global Aviation Safety Plan (GASP) 2022 Target of **75%**.

6.3 Table 1 below illustrated the APAC Average AGA EI scores in all 8 Critical Elements derived from PQ Tester in iSTARS 3.0 SPACE for 2017 – 2010:

Table 1: APAC Average AGA EI scores in all 8 Critical Elements

	APAC average EI in AGA (in %)	Critical Elements (CEs)							
		CE-1	CE-2	CE-3	CE-4	CE-5	CE-6	CE-7	CE-8
Mar 2021	61.43 <i>[Global Average 63.02]</i>	75.00	71.33	62.56	41.40	68.04	64.51	58.16	46.96
Oct. 2020	61.41 <i>[Global Average 62.65]</i>	75.00	68.64	64.44	42.73	58.61	63.26	58.11	38.42
June 2019	60.52 <i>[Global Average 61.59]</i>	75.68	66.80	62.13	42.30	58.14	63.87	58.87	39.77
June 2018	57.87 <i>[Global Average 59.5%]</i>	68.57	65.78	55.71	38.18	49.60	60.45	53.01	~~51.13~~
May 2017	56.29 <i>[Global Average 57.99]</i>	68.57	63.3	53.65	33.17	51.9	59.78	55.2	39.44

6.4 The meeting urged APAC States to:

- arrange necessary resources to recruit, train and retain qualified and experienced technical staff to effectively perform safety oversight of aerodromes;
- complete and continuously update the compliance checklist/EFOD and SAAQ;
- submit/update the Corrective Action Plans (CAPs) on the OLF, informing the ICAO Regional Office when complete and ready for review;
- implement the CAPs and complete the self-assessment of the PQs on the OLF, including uploading the evidence documents, to report the progress on the OLF, informing the ICAO Regional Office when complete and ready for validation; and
- approach respective COSCAPs, Pacific Aviation Safety Office or ICAO APAC Office if they require assistance in USOAP CMA.

USOAP CMA Protocol Questions – 2020 Edition and State Safety Programme Implementation Assessment (WP/08)

6.5 AP-AA/WG/3 noted ICAO Electronic Bulletin 2021/3 which promulgated the 2020 edition of USOAP CMA PQs. The PQs had been posed on the USOAP CMA online framework (OLF) (<https://www.icao.int/usoap>) under the heading “CMA Library”.

6.6 The 2020 edition of the PQs would become applicable to all USOAP CMA activities starting after 1 June 2021. For those activities starting before 1 June 2021, the 2017 edition of the PQs would continue to apply. The meeting reminded States to perform self-assessment for the newly added or modified PQs.

6.7 The Secretariat supplemented that the priority PQs and other PQs would have equal weighing when calculating the EI scores. Priority PQs was identified in response to a recommendation from the Groups of Experts for the USOAP CMA Structured Review (GEUSR). If priority PQs were found not satisfactory, there might be a lack of capability by a State to identify and/or resolve operational safety and fundamental accident investigation deficiencies effectively.

6.8 The meeting also noted that ICAO had rolled out SSP implementation assessments (SSPIAs), a qualitative (non-quantitative) assessment of a State’s progress in implementing an SSP, under the USOAP CMA using SSP-related PQs that have been updated to reflect Annex 19, ICAO Safety Management Manual (Doc 9859) as well as the lessons learned from the voluntary and confidential SSP implementation assessments conducted previously.

6.9 SSPIA had a set of PQs which fell into various areas including AGA. However, it was noted that the SSPIA PQs were not linked to the critical elements. In addition, the SSPIA PQs would not be assessed as satisfactory, non-satisfactory or not applicable, but in terms of maturity levels. As such, the assessment results of the SSPIA PQs would not affect the USOAP CMA EI scores.

6.10 The meeting noted the criteria for the prioritization of SSPIAs, which were:

- a) A good level of implementation of SSP Foundation PQs and evidence of:
 - (i) a robust and sustainable safety oversight system and aircraft accident / serious incident investigation system; and
 - (ii) an effective mandatory safety reporting system, State aircraft accident and incident database and safety analyses; and
- b) Effective completion and updates of self-assessment of all PQs, including those related to SSP, by the State.

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Agenda Item 7: AP-AA/WG Task ListReport on Survey Questionnaire for Aerodrome Assistance in APAC States (WP/12)

7.1 India and Nepal presented the analysis of the survey questionnaire for aerodrome assistance, which was circulated among APAC States and Administrations subsequent to AOP/SG/4.

7.2 The survey questionnaire was sent out to 40 States including United States, and 2 Special Administration Regions of China, Hong Kong and Macao. Till the last date for submission of completed questionnaire i.e., 15 March 2021, only 13 APAC States/Administrations responded to the survey questionnaire. The percentage of States/Administrations responding to survey questionnaire was merely 33.3 %.

7.3 Most of the respondent states had Air Navigation Deficiencies. Meanwhile, in some States no international aerodromes are certified and in a few others not all international aerodromes are certified. The numbers of other aerodromes (i.e. aerodromes not used for international operations) in the responding 13 states are 563. Among them 275 (49%) are certified and 288 (51%) are yet to be certified.

7.4 The questionnaire also highlighted the gap between responses received from States and USOAP CMA statistics in AGA area particularly related to EIs of CE 4 and CE 8. This shift might be due to possible corrective actions taken by States in the intervening period or maybe there was a need to review the survey questionnaire for its objectivity.

7.5 The questionnaire had clearly underlined the area of action required in respect of Air Navigation Deficiencies. If there would be more responses from the remaining States, action plan could be derived to provide assistance to the concerned States to develop their respective corrective action plans.

7.6 The meeting clarified that the survey questionnaire was intended for all States and Administrations, whether or not they had yet to certified all aerodromes used for international operations, with an AGA EI score below 75% or having Air Navigation Deficiency in AOP Field. Considering the low response rate, AP-AA/WG/3 adopted the following Decision:

Decision AP-AA/WG/3–1: Survey Questionnaire for Aerodrome Assistance in APAC States			
What: That, The survey questionnaire for aerodrome assistance in APAC States, available in Appendix G to the Report of AOP/SG/4 , be re-circulated to the States and Administrations which had yet to respond.		Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical	
Why: To obtain more responses of the survey questionnaire so as to understand the need for aerodrome assistance among APAC States		Follow-up: ☒ Required from States	
When: 26-Mar-21		Status: Adopted by Working Group	
Who: ☐ Sub groups ☐ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☒ Other: AP-AA/WG			

Generic Aerodrome Certification Specific Operating Regulations (WP/13)

7.7 With reference to AP-AA/WG Task 1/3 (a), Malaysia presented a generic specific operating regulations which was modified from Aerodrome Regulations used in Malaysia and developed based on Model Aerodrome Regulations provided in Doc 9774 – Manual on Certification of Aerodromes.

7.8 With the recommendation from PASO, the generic document would be added with a remark reminding the users to customize the generic documents before adoption, and that links to the regulations or guidance materials developed by selected CAAs would be included for ease of reference. In addition, PASO expressed that, in a number of States, no interim aerodrome certificates would be issued. Instead, those States would issue an aerodrome certificates with conditions and limitations.

7.9 Regarding aeronautical studies related to obstacle limitation surfaces (OLS), the meeting noted that the State would normally be responsible for maintaining the OLS around an aerodrome. In addition, ICAO Technical Cooperation Bureau (TCB) could assist in conducting aeronautical studies upon request by the States.

7.10 The generic document is available in **Appendix B**.

Generic Organization Structure of the Aerodrome Regulatory Unit (WP/14)

7.11 With reference to AP-AA/WG Task 1/3 (b), Malaysia presented a generic organization structure of the aerodrome regulatory unit which was modified from an existing manual used in Malaysia.

7.12 The generic document is available in **Appendix C**.

Generic Aerodrome Inspector Handbook (WP/15)

7.13 With reference to AP-AA/WG Task 1/3 (d) and based on the draft generic aerodrome inspector handbook endorsed by AP-AA/WG/2 (Bangkok, Thailand, 27 to 30 January 2020) and adopted by AOP/SG/4 (Video Teleconference, 10 to 13 November 2020), Thailand presented an updated version of the generic aerodrome inspector handbook.

7.14 The meeting noted that the generic aerodrome inspector handbook was a combination of similar documents used in Thailand and South Asian States. Checklists were updated with ICAO PANS-Aerodromes (Doc 9981), guidance materials and the new USOAP CMA AGA PQs.

7.15 The meeting determined that there were still room for improvement before finalising the generic document, e.g. referencing to regulations. The Secretariat would continue to work with Thailand in enhancing the generic document and submit a final version to AOP/SG/5 scheduled for June 2021 for approval. As such, this generic document would remain in draft status.

7.16 The draft generic document is available in **Appendix D**.

Generic Document for Training Program and Training Plan for Aerodrome Inspectors (WP/16)

7.17 With reference to AP-AA/WG Task 1/3 (f), India presented a generic document for the training program and training plan which was modified from an existing manual used by DGCA India - Training policy of Regulatory Authority.

7.18 The generic document is available in **Appendix E**.

Generic Surveillance Programme at Aerodromes (WP/17)

7.19 With reference to AP-AA/WG Task 1/3 (h), Malaysia presented a generic surveillance programme at aerodromes, which was modified from an existing manual used in some States.

7.20 Malaysia and Nepal supplemented that the inspections performed by aerodrome operators might be conducted by one or multiple aerodrome staff, as long as they were competent with the corresponding inspection areas.

7.21 The generic document is available in **Appendix F**.

Generic Aerodrome Manual (WP/18)

7.22 With reference to AP-AA/WG Task 1/3 (e) and based on the draft generic aerodrome manual endorsed by AP-AA/WG/2 (Bangkok, Thailand, 27 to 30 January 2020) and adopted by AOP/SG/4 (Video Teleconference, 10 to 13 November 2020), India presented an updated version of the generic aerodrome inspector handbook.

7.23 The generic document is available in **Appendix G**.

7.24 The meeting considered the six generic documents presented by States through WP/13 to WP/18, and formulated the following Draft Decision for adoption by AOP/SG/5:

Draft Decision AP-AA/WG/3–2: Generic Documents related to Aerodrome Certification			
What:		That,	
a)		the generic documents in Appendix B, C, E, F and G to the Report of AP-AA/WG/3 be made available on the ICAO APAC Office Website for the reference by States in the APAC Regions; and	
b)		the draft generic document in Appendix D to the Report of AP-AA/WG/3 be enhanced jointly by Thailand and the Secretariat and submit to AOP/SG/5 for approval to make it available on the ICAO APAC Office Website for the reference by States in the APAC Regions.	
Expected impact:			
☐ Political / Global			
☐ Inter-regional			
☐ Economic			
☐ Environmental			
☒ Ops/Technical			
Why:		To provide guidance to States which have yet to complete the aerodrome certification process.	
Follow-up:		☐ Required from States	
When:		26-Mar-21	
Status:		Draft to be adopted by Subgroup	
Who:		☒ Sub groups ☐ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☐ Other:	

AP-AA/WG Task List (WP/09)

7.25 The meeting reviewed and updated the AP-AA/WG task list presented by the Secretariat. The updated task list is placed in **Appendix H**.

7.26 DPR Korea enquired if AP-AA/WG should develop a generic document for GRF implementation. The Secretariat advised the meeting that there were a number of ICAO provisions at current, such as PANS-Aerodromes (Doc 9981), Aeroplane Performance Manual (Doc 10064) and Circular 355 on Assessment, Measurement and Reporting of Runway Surface Conditions. The Secretariat would relay the suggestion to ICAO HQ and explore the development of a comprehensive guidance with industry partners. In the meantime, the meeting noted that the ICAO EUR/NAT office published a regional guidance on issuance of SNOWTAM (EUR Doc 041).

[Post-meeting notes: EUR Doc 041 can be downloaded through this [link](#). Alternatively, States may visit ICAO EUR/NAT Document page at <https://www.icao.int/EURNAT/Pages/EUR-and-NAT-Document.aspx>, then select “EUR Region Documents”, again “EUR Region Documents” and look for Doc 041.]

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Agenda Item 8: Any Other BusinessTerms of Reference (WP/10)

8.1 The TOR of AP-AA/WG was first adopted by AOP/SG/2 (Bangkok, Thailand, 27 – 29 June 2018) and last amended by AOP/SG/4 (video teleconference, 10 – 13 November 2020):

Decision AOP/SG/4-9 (AP-AA/WG/2–3): Proposal for Amendment to TOR of Asia/Pacific Aerodrome Assistance Working Group

That, the AP-AA/WG/2 Meeting agreed to propose an amendment to the TOR of AP-AA/WG as placed in Appendix H to AOP/SG/4 Report.

8.2 When the TOR was first developed, considering the scope of works, it was determined that the AP-AA/WG should last for three years initially, i.e. until September 2021.

8.3 While the main objective of AP-AA/WG was ‘to realize the commitment of the “Beijing Declaration” – to certify all aerodromes used for international operations by 2020’, it had been identified that there were 38 such aerodromes yet to be certified, as of March 2021. (WP/04 refers.) In addition, some tasks of this Working Group were outstanding as the current COVID-19 pandemic had reorganized priorities among States and Administrations.

8.4 The proposed extension of AP-AA/WG until September 2023 was supported by DPR Korea, India, Nepal and Philippines, and no objection was received from other Members. As such, AP-AA/WG/3 formulated the following Draft Decision for adoption by AOP/SG/5:

Draft Decision AP-AA/WG/3-3: TOR of AP-AA/WG			
What: That, the Terms of Reference of the Asia/Pacific Aerodrome Assistance Working Group be amended as in Appendix I of the Report of AP-AA/WG/3.		Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical	
Why: To allow additional time to assist States in aerodrome certification and complete the tasks of the Working Group.		Follow-up: ☐ Required from States	
When: 26-Mar-21		Status: Draft to be adopted by Subgroup	
Who: ☒ Sub groups ☐ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☒ Other: AP-AA/WG			

The Theory of Development of Four Characteristics Airport to Improve Airport Operation and Service Capacity (IP/04)

8.5 Presented by China, this information paper introduced the theory of development of Four Characteristics Airports, with the cores being safe, green, smart and humanistic. The meeting noted the benefits brought to a number of Chinese airports and that the theory would be beneficial in promoting high quality development of airports.

Agenda Item 9: Date and Venue of Next MeetingProvisional Agenda, Date and Venue of Next Meeting (WP/11)

9.1 The Meeting reviewed the draft agenda proposed by the Secretariat and agreed on the following Provisional Agenda for the AP-AA/WG/4:

AP-AA/WG/4**DRAFT PROVISIONAL AGENDA**

Agenda Item 1:	Adoption of Provisional Agenda
Agenda Item 2:	Review Outcomes of Relevant Meetings
Agenda Item 3:	Aerodrome Certification and Safety Management System
Agenda Item 4:	Runway Safety and GRF Implementation
Agenda Item 5:	APANPIRG Air Navigation Deficiency in AOP Field
Agenda Item 6:	USOAP CMA in AGA
Agenda Item 7:	AP-AA/WG Task List
Agenda Item 8:	Any Other Business
Agenda Item 9:	Date and Venue of Next Meeting

9.2 The next AP-AA/WG Meeting will be held in February / March 2022 for three to five days. The meeting determined that AP-AA/WG/4 should be in the form of face-to-face meeting if international travel resumes. State/Administration interested to host the AP-AA/WG/4 was requested to contact the Secretariat. The venue of the AP-AA/WG/4 will be communicated to States/Administrations through ICAO APAC Invitation Letter.

9.3 Mr Srivastava, Chairperson of AP-AA/WG congratulated the meeting on the achievements, and sincerely thanked the members for their contribution to and cooperation during the meeting. The Chairperson also expressed appreciation to Mr Steven Ka Ho Pang, the meeting secretary, for his excellent service and support to AP-AA/WG since its establishment, as he was about to depart ICAO APAC Office.

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Attachment A to AP-AA/WG/3 WP/04

List of Aerodromes used for International Operations in APAC Regions that have yet to be Certified

Last updated: 1 Feb 2021

Serial #	Sub-region	State / Admin	ICAO Code	Name of City	Name of Aerodrome	Type	Listed in...			Info Source
							APAC ANP	Doc 7910	AIP AD 1.5	
1	SA	Afghanistan	OAHR	Herat	Herat Intl	UNK	0	1	1	0 FR24 / FG website
2	SA	Afghanistan	OAKB	Kabul	Kabul Intl	RS	1	1	1	0
3	SA	Afghanistan	OAKN	Kandahar	Kandahar Intl	AS	1	1	1	0
4	SA	Afghanistan	OAMS	Mazar-e-Sharif	Mazar-e-Sharif	UNK	0	1	1	0 FR24 / TK website
29	SEA	Brunei	WBSB	Brunei	Brunei Intl	RS	1	1	1	0
59	NA	China	RCYU	Hualien	Hualien	UNK	0	1	1	0 Airport website
92	NA	China	RCMQ	Taichung	Cingcyuangang	UNK	0	1	1	0
93	NA	China	RCNN	Tainan	Tainan	UNK	0	1	1	0 Airport website
134	SA	India	VICG	Chandigarh		UNK	0	1	1	0 FR24
139	SA	India	VOGO	Goa		UNK	0	1	1	0
150	SA	India	VOPB	Port Blair		UNK	0	1	1	0 Nil Intl Flight found
151	SA	India	VAPO	Pune		UNK	0	1	1	0 FR24
152	SA	India	VISR	Srinagar		UNK	0	1	1	0 Nil Intl Flight found
197	NA	Japan	RJAH	Hyakuri		UNK	0	1	1	0 FR24
202	NA	Japan	RJNK	Komatsu		UNK	0	1	1	0 FR24
218	NA	Japan	RJOS	Tokushima		UNK	0	1	1	0 Airport website
222	NA	Japan	RJOH	Yonago	Miho	UNK	0	1	1	0 FR24
223	PAC	Kiribati	PLCH	Kiritimati	Christmas I.	RS	1	1	1	0 PSIDS 7 Jun 19
224	PAC	Kiribati	NGTA	Tarawa	Bonriki Intl	RS	1	1	1	0 PSIDS 7 Jun 19
225	SEA	Lao PDR	VLVT	Vientiane	Wattay Intl	RS	1	1	1	0
226	SEA	Lao PDR	VLLB	Luangprabang	Luangprabang Intl	RS	1	1	1	0 COSCAP-SEA 21 Sep 18
227	SEA	Lao PDR	VLSK	Kaisongphimvihan	Savannakhet Intl	RS	1	1	1	0 COSCAP-SEA 21 Sep 18
228	SEA	Lao PDR	VLPS	Pakse	Pakse Intl	RS	1	1	1	0 COSCAP-SEA 21 Sep 18
237	SEA	Malaysia	WMKD	Kuantan	Haji Ahmad Shah	RNS	1	1	1	0 FR24
239	SEA	Malaysia	WBKL	Labuan		RNS	1	1	1	0 FR24
253	PAC	Micronesia	PTPN	Pohnpei I.	Pohnpei Intl	RS	1	1	?	FR24
254	PAC	Micronesia	PTKK	Weno I.	FM Chuuk Intl	RS	1	1	?	FR24
255	PAC	Micronesia	PTYA	Yap I.	Yap Intl	RS	1	1	?	
256	PAC	Micronesia	PTSA	Kosrae I.	Kosrae	UNK	0	1	?	FAA IP AOP/SG/2 27 Jun 1
263	PAC	Nauru	ANYN	Nauru I.	Nauru intl	RS	1	1	1	0
322	SEA	Thailand	VTSG	Krabi		RS	1	1	1	1
324	SEA	Thailand	VTPH	Prachuap Khiri Khan	Hua Hin	RS	1	1	1	1 COSCAP-SEA 21 Sep 18
325	SEA	Thailand	VTBU	Rayong	U-Taphao Pattaya Intl	RS	1	1	1	1
327	SEA	Thailand	VTSM	Surat Thani	Samui	RS	1	1	1	1 COSCAP-SEA 21 Sep 18
328	SEA	Thailand	VTSB	Surat Thani		RS	1	1	1	1
329	SEA	Timor Leste	WPDL	Dili	Presidente Nicolau Lobato	RS	1	1	1	0 COSCAP-SEA 21 Sep 18
					Commander-in-Chief of the FALINTIL – Kay Rala					
330	SEA	Timor Leste	WPDB	Suai	Xanana Gusmão Intl	RNS	1	1	1	0 COSCAP-SEA 21 Sep 18
333	PAC	Tuvalu	NGFU	Funafuti	Funafuti Intl	RS	1	1	1	0

INTERNATIONAL CIVIL AVIATION ORGANIZATION



GENERIC AERODROME CERTIFICATION SPECIFIC OPERATING REGULATIONS

VERSION 1.0 – MARCH 2021

Introductory Notes

This generic document was developed by the ICAO Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG) for reference by States in the APAC Regions. When referring to this generic document, States are expected to customize the content in accordance to the States' legislations, regulations and situations.

It would be approved by XXX (Video Teleconference, XXX) and published by ICAO Asia and Pacific Office, Bangkok.

ICAO Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services and Guidance Materials shall take prevalence in the event of any conflict between the aforementioned provisions and this generic document.

Enquiries and feedbacks regarding this generic document can be made to ICAO APAC Office at apac@icao.int.

RECORD OF AMENDMENTS

[illegible]

CIVIL AVIATION AUTHORITY

GENERIC AERODROME CERTIFICATION SPECIFIC OPERATING REGULATIONS

Foreword

This manual is a [CAA] safety programme document. It contains processes determined to be necessary in supporting operational safety at aerodromes in the [State]. This manual is being issued under the authority of the Director General of [CAA].

Copies are available at the office of:

[Post holder]

[Address]

This document may be amended from time to time as necessary, and the Director General of [CAA] will provide such amendment service.

The term "Head" as referred to in this manual describes the most senior [CAA] officer responsible for certification, registration and continuing safety oversight functions and surveillance of aerodromes, heliports and air navigation services. The incumbent official holding this position reports directly to the Director General, [Civil Aviation Authority (CAA)].

Comments from staff members of [CAA], stakeholders, (or members of the) concerned aviation industry users and public about the contents of this manual are welcome. Clarifications or inquiries can be directed to:

Head of Aerodrome Standards

[Office]

[Address]

[Telephone]:

[Email]:

Amendments

[illegible][illegible]

Revision History

Revisions to this Document shall be made by authorised personnel only. After inserting the revision, enter the required data in the revision sheet below. The '*Initials*' has to be signed off by the personnel responsible for the change.

[illegible]

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CHAPTER 1 – AERODROME CERTIFICATION MODEL REGULATIONS

A. Introduction

In this chapter describes the requirement for aerodromes to operate with an Aerodrome Certificate in accordance with the [\[State regulation\]](#).

B. Aerodrome Certification Model Regulations

The aerodrome certification model regulations in this chapter are divided into five sections:

- Section 1 — General
- Section 2 — Aerodrome Certification
- Section 3 — Aerodrome Manual
- Section 4 — Obligations of the Aerodrome Operator
- Section 5 — Exemptions

SECTION 1 - GENERAL

1.1 Introduction

- 1.1.1 These regulations are intended to apply to land aerodromes.
- 1.1.2 Provisions for the use of military aerodromes by civil aircraft have to be address in [\[State regulations\]](#).

MODEL REGULATIONS

1.2 Application

Sections 1 to 5 inclusive apply to land aerodromes.

1.3 Definitions

The terms described in this subsection have the following meanings whenever they appear in these regulations:

Aerodrome. A defined area on land (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aerodrome certificate. The certificate to operate an aerodrome issued by the appropriate authority under Section B of these regulations subsequent to the acceptance/approval of the aerodrome manual.

Aerodrome facilities and equipment. Facilities and equipment, inside or outside the boundaries of an aerodrome, that are constructed or installed and maintained for the arrival, departure and surface movement of aircraft.

Aerodrome manual. The manual that forms part of the application for an aerodrome certificate pursuant to these regulations, including any amendments thereto accepted/approved by the [\[CAA\]](#).

Aerodrome operator. In relation to a certificated aerodrome, means the aerodrome certificate holder.

Apron. A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fueling, parking or maintenance.

Certified aerodrome. An aerodrome whose operator has been granted an aerodrome certificate.

Manoeuvring area. That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

Marker. An object displayed above ground level in order to indicate an obstacle or delineate a boundary.

Marking. A symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical information.

Maximum carrying capacity. In relation to an aircraft, means the maximum passenger-seating capacity, or the maximum payload, permitted under the aircraft's certificate of type approval.

Maximum passenger-seating capacity. In relation to an aircraft, means the maximum number of seats for passengers permitted under the aircraft's certificate of type approval.

Movement area. That part of the aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).

Obstacle. All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that:

- a) are located on an area intended for the surface movement of aircraft; or
- b) extend above a defined surface intended to protect aircraft in flight; or
- c) stand outside those defined surfaces and that have been assessed as being a hazard to air navigation.

Obstacle free zone (OFZ). The airspace above the inner approach surface, inner transitional surfaces, and balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than a low-mass and frangibly mounted one required for air navigation purposes.

Obstacle limitation surfaces. A series of surfaces that define the volume of airspace at and around an aerodrome to be kept free of obstacles in order to permit the intended aeroplane operations to be conducted safely and to prevent the aerodrome from becoming unusable by the growth of obstacles around the aerodrome.

Runway strip. A defined area including the runway and stopway, if provided, intended:

- a) to reduce the risk of damage to aircraft running off a runway; and
- b) to protect aircraft flying over it during take-off or landing operations.

Safety management system. A systematic approach to managing safety including the necessary organizational structure, accountabilities, policies and procedures.

Taxiway strip. An area including a taxiway intended to protect an aircraft operating on the taxiway and to reduce the risk of damage to an aircraft accidentally running off the taxiway.

Unserviceable area. A part of the movement area that is unfit and unavailable for use by aircraft.

Work area. A part of an aerodrome in which maintenance or construction works are in progress.

1.4 Standards and practices

Any reference in these regulations to aerodrome standards and practices is a reference to the Standards and Recommended Practices (SARPs) in the latest version of Annex 14 Volume I to the Convention on International Civil Aviation, and the [\[State regulations\]](#) and practices as amended from time to time.

SECTION 2 - AERODROME CERTIFICATION

2.1 Introduction

- 2.1.1 This section includes model regulations covering the requirement for aerodrome certification; application for issuance of an aerodrome certificate; grant of the certificate; endorsement of conditions in the certificate; duration of the certificate; surrender of the certificate; transfer of the certificate; grant of an interim certificate and amendment of the certificate.
- 2.1.2 The specifications in ICAO Annex 14, Volume I, unless otherwise indicated in a particular context, apply to all aerodromes open to public use in accordance with the provisions of Article 15 of the Convention on International Civil Aviation (reference Annex 14, Volume I, Chapter 1, 1.2.2). [CAA] is responsible to ensure safety and order at all aerodromes open to public use. Aerodromes used for international operations shall not be exempted from the requirement.
- 2.1.3 Before granting an aerodrome certificate, the [CAA] has ensured that the aerodrome manual accurately describes the facilities, services and equipment at the aerodrome and that it contains all the details and information as set out in Section 3 of these regulations. The [CAA] also has ensured that the aerodrome facilities and equipment conform to the standards and practices specified in 1.4. The [CAA] has ensured the aerodrome will offer a safe environment for the operation of the aircraft it is intended for and that the aerodrome operator has the necessary competence and experience to operate and maintain the aerodrome properly.
- 2.1.4 If there are deviations from the standards and practices specified in regulation 1.4, the [CAA] may, after the aerodrome operator conducted aeronautical studies and/or safety risk assessments to the satisfaction of [CAA] to ensure safety (if and where permitted by the standards and practices), decide to grant a certificate subject to certain conditions and procedures to be complied with by the aerodrome operator. Some guidance material on accepting non-compliances in aerodromes is included in Appendix III.
- 2.1.5 An aerodrome operator may voluntarily choose to surrender the aerodrome certificate. There should however be a provision for adequate notice to be given to the [CAA] for the processing of the request and the cancelling of the certificate.
- 2.1.6 Transfer of an aerodrome certificate from one operator to another may be agreed upon and effected by the [CAA]. The [CAA] must be satisfied that the proposed transferee will be able to properly operate and maintain the aerodrome.
- 2.1.7 An amendment to an aerodrome certificate are required if there is a change in the ownership or management structure, a change in the use, operation or boundaries of the aerodrome or if the aerodrome operator requests an amendment.

MODEL REGULATIONS

2.2 Requirement for an aerodrome certificate

- 2.2.1 The operator of an aerodrome used for international operations shall, in accordance with the [State regulation], be in possession of an aerodrome certificate.
- 2.2.2 The operator of an aerodrome for which an aerodrome certificate is not required may nevertheless apply for an aerodrome certificate.

2.3 Application for an aerodrome certificate

- 2.3.1 [State regulation] stipulates that an application for a certificate of aerodrome shall be made to the [DG/CEO] in the form and manner as may be determined by the [DG/CEO];
- 2.3.2 The Applicant shall submit but not limited to:
 - a) Completed application form [Appendix II];
 - b) Aerodrome Manual;
 - c) Aerodrome Emergency Plan;
 - d) Safety Management System (SMS) Manual;
 - e) Wildlife Hazard Management Plan; and
 - f) Aerodrome Disabled Aircraft Removal Plan (ADARP).
- 2.3.3 The [CAA] may require other documentation to facilitate the assessment of application.
- 2.3.4 The application for the certificate of aerodrome shall be accompanied by the prescribed fee specified in the [State regulations].
- 2.3.5 The interval between application and grant of a certificate may depend upon matters within or outside the control of the Applicant and no undertaking can be given that the [CAA] will be able to reach a decision within a particular time period.

2.4 Grant of an aerodrome certificate

- 2.4.1 Before granting an aerodrome certificate, the [CAA] must be satisfied that:
 - a) the applicant employs the necessary competence and experience staff to operate and maintain the aerodrome;
 - b) the aerodrome manual and other required documents prepared and submitted with the application contains all the relevant information;
 - c) the aerodrome facilities, services and equipment are in accordance with the standards and practices specified in [Directive/Manual etc.];
 - d) the aerodrome operating procedures make satisfactory provision for the safety of aircraft; and
 - e) an acceptable safety management system (SMS) is in place at the aerodrome.

- 2.4.2 The [CAA] may refuse to grant an aerodrome certificate to an applicant. In such cases, the [CAA] must notify the applicant, in writing, of its reasons no later than [.....] days after making that decision.

2.5 Endorsement of conditions on an aerodrome certificate

After successful completion of the processing of the application and the inspection of the aerodrome, the [CAA] when granting the aerodrome certificate, will endorse the conditions for the type of use of the aerodrome and other details as shown in Appendix IV.

2.6 Duration of an aerodrome certificate

An aerodrome certificate shall remain in force until it is suspended or cancelled or, alternatively, an aerodrome certificate shall be valid for [.....] years or until it is suspended or cancelled, whichever is earlier.

2.7 Surrender of an aerodrome certificate

- 2.7.1 An aerodrome certificate holder must give the [CAA] not less than [.....] days written notice of the date on which the certificate is to be surrendered in order that suitable promulgation action can be taken.
- 2.7.2 The [CAA] will cancel the certificate on the date specified in the notice.
- 2.7.3 If the aerodrome is to be closed to all traffic, the aerodrome operator shall take sufficient safety measures such as removal of windsocks and markings, the provision of closed markings, unserviceability markers and such other visual aids as necessary.
- 2.7.4 The Aeronautical Information Services shall be advised by the certificate holder to take appropriate action regarding the closure of the aerodrome.

2.8 Transfer of an aerodrome certificate

- 2.8.1 Aerodrome Certificate shall not be transferable to any person without the prior consent in writing of the [CEO/DGCA], and any purported transfer of an Aerodrome Certificate shall be void and of no effect.
- 2.8.2 The [CAA] may give its consent to and provide a process of transfer of an aerodrome certificate to a transferee when:
- a) the current holder of the aerodrome certificate notifies the [CAA], in writing, at least [.....] days before ceasing to operate the aerodrome, that the current holder will cease to operate the aerodrome as of the date specified in the notice;
 - b) the current holder of the aerodrome certificate notifies the [CAA], in writing, of the name of the transferee;
 - c) the transferee applies to the [CAA], in writing, within [.....] days before the current holder of the aerodrome certificate ceases to operate the aerodrome for the aerodrome certificate to be transferred to the transferee; and
 - d) the requirements set out in 2.3.1 are met in respect of the transferee.

- 2.8.3 If the [CAA] does not consent to the transfer of an aerodrome certificate, it shall notify the transferee, in writing, of its reasons no later than [.....] days after making that decision.

2.9 Interim aerodrome certificate (Only applicable to CAAs that will issue interim aerodrome certificate)

- 2.9.1 The [CAA] may issue an interim aerodrome certificate to the applicant referred to in 2.2 or the proposed transferee of an aerodrome certificate referred to in 2.7.1 authorizing the applicant or transferee to operate an aerodrome if the [CAA] is satisfied that:

- a) an aerodrome certificate in respect of the aerodrome will be issued to the applicant or transferred to the transferee as soon as the application procedure for the grant or transfer of an aerodrome certificate has been completed; and
- b) the grant of the interim certificate is in the public interest and is not detrimental to aviation safety.

- 2.9.2 An interim aerodrome certificate issued pursuant to 2.8.1 shall expire on:

- a) the date on which the aerodrome certificate is issued or transferred; or
- b) the expiry date specified in the interim aerodrome certificate;

whichever is earlier.

- 2.9.3 These regulations apply to an interim aerodrome certificate in the same manner as they apply to an aerodrome certificate.

2.10 Amendment of an aerodrome certificate

- 2.10.1 The [CAA] may, provided that the requirements of 2.4.1, 3.6 and 3.7 have been met, amend an aerodrome certificate when:

- a) there is a change in the ownership or management of the aerodrome;
- b) there is a change in the use or operation of the aerodrome;
- c) there is a change in the boundaries of the aerodrome; or
- d) the holder of the aerodrome certificate requests an amendment.

SECTION 3 - AERODROME MANUAL

3.1 Introduction

3.1.1 Purpose and scope of the aerodrome manual.

The aerodrome manual is a fundamental requirement of the certification process. It contains all the pertinent information concerning the aerodrome site, facilities, services, equipment, operating procedures, organization and management including the safety management system. The information presented in the aerodrome manual should demonstrate that the aerodrome conforms to the certification standards and practices and that there are no apparent shortcomings which would adversely affect the safety of aircraft operations. The manual is a reference document and provides a checklist of aerodrome certification standards to be maintained and the level of airside services at the aerodrome. Information provided in the aerodrome manual will enable the [CAA] to assess the suitability of the aerodrome for the aircraft operations proposed and to judge an applicant's fitness to hold a certificate. It is a basic reference guide for conducting site inspections for granting an aerodrome certificate and for subsequent safety inspections. The aerodrome manual is a reference document agreed between the aerodrome operator and the [CAA] with respect to the standards, conditions and the level of service to be maintained at the aerodrome.

3.1.2 Structure and contents of the aerodrome manual.

For the purpose of uniformity and to facilitate the [CAA] review and acceptance/approval of the aerodrome manual, the regulations should set out the structure and content of the aerodrome manual. Examples of the particulars to be included in the aerodrome manual as schedules of the aerodrome certification regulations are given in Appendix I to this manual. The applicant for an aerodrome certificate is entirely responsible for the accuracy of the information provided in the aerodrome manual.

3.1.3 The aerodrome manual — a living document.

The aerodrome manual is subject to amendment in order to ensure that it provides current and accurate information. The aerodrome certificate holder should therefore be made responsible for the amendment of the manual and for notifying the [CAA] of any such amendments. The content of an aerodrome manual should be treated with due respect to the confidentiality requirements of individual States.

MODEL REGULATIONS

3.2 Preparation of the aerodrome manual

3.2.1 [State Regulations] requires an applicant for an Aerodrome Certificate to submit an Aerodrome Manual which shall:

- a) contain information and instructions relating to the matters specified in the [directive/manual etc.]; and
- b) contain all such other information and instructions as may be necessary to enable the aerodrome operating staff to perform their duties.
- c) be typewritten or printed, and signed by the aerodrome operator;

- d) have a system for recording the currency of pages and amendments thereto, including a page for logging revisions; and
- e) be organized in a manner that will facilitate the preparation, review and acceptance/approval process.

3.3 Location of the aerodrome manual

- 3.3.1 The aerodrome operator must provide the [\[CAA\]](#) with a complete and current copy of the aerodrome manual.
- 3.3.2 The aerodrome operator must keep at least one complete and current copy of the aerodrome manual at the aerodrome and one copy at the operator's principal place of business if other than the aerodrome.
- 3.3.3 The aerodrome operator must make the copy referred to in 3.2.2 available for inspection by authorized [\[CAA\]](#) personnel.

3.4 Information to be included in the aerodrome manual

- 3.4.1 The aerodrome operator must include the following particulars in an aerodrome manual, under the following parts:

Part 1. General information set out in Part 1 of the schedule of these regulations (see Appendix I) on the purpose and scope of the aerodrome manual; the legal requirement for an aerodrome certificate and an aerodrome manual as prescribed in the [\[State regulations\]](#); conditions for use of the aerodrome; the aeronautical information services available and the procedures for their promulgation; the system for recording aircraft movements and the obligations of the aerodrome operator as specified in Section 4 of these regulations.

Part 2. Particulars of the aerodrome site as set out in Part 2 of the schedule of these regulations.

Part 3. Particulars of the aerodrome required to be reported to the aeronautical information service as set out in Part 3 of the schedule of these regulations.

Part 4. The aerodrome operating procedures and safety measures as set out in Part 4 of the schedule of these regulations. This may include references to air traffic procedures such as those relevant to low visibility operations. Air traffic management procedures are normally published in the air traffic services manual with a cross-reference to the aerodrome manual.

Part 5. Details of the aerodrome administration and the safety management system as set out in Part 5 of the schedule of these regulations.

- 3.4.2 If, under 5.2.1 the [\[CAA\]](#) exempts the aerodrome operator from complying with any requirement set out in 2.3.1, the aerodrome manual must show the identifying number given to that exemption by the [\[CAA\]](#) and the date the exemption came into effect and any conditions or procedures subject to which the exemption was granted.
- 3.4.3 If a particular is not included in the aerodrome manual because it is not applicable to the aerodrome, the aerodrome operator must indicate in the manual the reason for non-applicability of the particular.

3.5 Amendment of the aerodrome manual

3.5.1 The aerodrome operator shall make such amendment or addition to the aerodrome manual, whenever necessary, in order to:

- a) maintain the accuracy of the information in the manual.
- b) ensuring the safe and efficient operation of aircraft at the aerodrome; or
- c) ensuring the safety of air navigation.

3.5.2 To maintain the accuracy of the aerodrome manual, the [CAA] may issue a written directive to an aerodrome operator requiring the operator to alter or amend the manual within [...] days in accordance with that directive.

3.6 Notification of changes to the aerodrome manual

The aerodrome operator must notify the [CAA], as soon as practicable, of any amendment made to the aerodrome manual.

3.7 [CAA] acceptance/approval of the aerodrome manual

The [CAA] shall accept/approve the aerodrome manual and any amendments thereto, provided these meet the requirements of the preceding regulations in this section.

SECTION 4 - OBLIGATIONS OF THE AERODROME OPERATOR

4.1 Introduction

4.1.1 The grant of an aerodrome certificate obliges the aerodrome operator to ensure the safety, regularity and efficiency of operations at the aerodrome, to allow [CAA] authorized personnel access to the aerodrome to carry out safety audits, inspections and testing and to be responsible for notifying and reporting as prescribed.

MODEL REGULATIONS

4.2 Compliance with standards and practices

The aerodrome operator shall comply with the standards and practices specified in 1.4 and with any conditions endorsed in the certificate pursuant to regulations 2.5 and 5.2.1.

4.3 Competence of operational and maintenance personnel

4.3.1 The aerodrome operator shall employ an adequate number of qualified and skilled personnel to perform all critical activities for aerodrome operation and maintenance.

4.3.2 If the [CAA] or any other competent authority of the government requires competency certification for the personnel referred to 4.2.1, the aerodrome operator shall employ only those persons possessing such certificates.

4.3.3 The aerodrome operator shall implement a programme to upgrade or maintain the competency of the personnel referred to 4.2.1.

4.4 Aerodrome operation and maintenance

- 4.4.1 Based on [Directive/Manual etc.], the aerodrome operator shall operate and maintain the aerodrome in accordance with the procedures set out in the aerodrome manual.
- 4.4.2 To ensure the safety of aircraft, the [CAA] may give written directives to an aerodrome operator to alter the procedures set out in the aerodrome manual.
- 4.4.3 The aerodrome operator should ensure proper and efficient maintenance of the aerodrome facilities.
- 4.4.4 The aerodrome certificate holder shall coordinate with the ATS provider in order to be satisfied that appropriate air traffic services are available to ensure the safety of aircraft in the airspace associated with the aerodrome. The coordination shall cover other areas related to safety such as aeronautical information service, air traffic services, designated meteorological authorities, and security.

4.5 Aerodrome operator's safety management system

- 4.5.1 The aerodrome operator shall establish a safety management system for the aerodrome describing the structure of the organization and the duties, powers and responsibilities of the officials in the organizational structure, with a view to ensuring that operations are carried out in a demonstrably controlled way and are improved where necessary.
- 4.5.2 The aerodrome operator shall oblige all users of the aerodrome, including fixed-base operators, ground handling agencies and other organizations that perform activities independently at the aerodrome in relation to flight or aircraft handling, to comply with the requirements laid down by the aerodrome operator with regard to safety at the aerodrome. The aerodrome operator shall monitor such compliance.
- 4.5.3 The aerodrome operator shall require all users of the aerodrome, including fixed-base operators, ground handling agencies and other organizations referred to 4.5.2, to cooperate in the programme to promote safety at, and the safe use of, the aerodrome by immediately informing it of any accidents, incidents, defects and faults which have a bearing on safety.

4.6 Aerodrome operator's internal safety audits and safety reporting

- 4.6.1 The aerodrome operator shall arrange for an audit of the safety management system, including an inspection of the aerodrome facilities and equipment. The audit shall cover the aerodrome operator's own functions. The aerodrome operator shall also arrange for an external audit and inspection programme for evaluating other users, including fixed-base operators, ground handling agencies and other organizations working at the aerodrome as referred to 4.5.2.
- 4.6.2 The audits referred to 4.6.1 shall be carried out every [.....] months, or less, as agreed with the [CAA].
- 4.6.3 The aerodrome operator shall ensure that the audit reports, including the report on the aerodrome facilities, services and equipment, are prepared by suitably qualified safety experts.

4.6.4 The aerodrome operator shall retain a copy of the report(s) referred to 4.6.3 for a period to be agreed with the [CAA]. The [CAA] may request a copy of the report(s) for its review and reference.

4.6.5 The report(s) referred to in 4.6.3 shall be prepared and signed by the persons who carried out the audits and inspections.

4.7 Access to the aerodrome

4.7.1 Personnel so authorized by the [CAA] may inspect and carry out tests on the aerodrome facilities, services and equipment, inspect the aerodrome operator's documents and records and verify the aerodrome operator's safety management system before the aerodrome certificate is granted or renewed and, subsequently, at any other time, for the purpose of ensuring safety at the aerodrome.

4.7.2 An aerodrome operator shall, at the request of the person referred to 4.7.1, allow access to any part of the aerodrome or any aerodrome facility, including equipment, records, documents and operator personnel, for the purpose referred to 4.7.1.

4.7.3 The aerodrome operator shall cooperate in conducting the activities referred to 4.7.1.

4.8 Notifying and reporting

4.8.1 An aerodrome operator shall adhere to the requirement to notify and report to the [CAA], air traffic control and pilots within the specified time limits required by these regulations.

4.8.2 *Notification of inaccuracies in aeronautical information service (AIS) publications.*

An aerodrome operator shall review all Aeronautical Information Publications (AIPs), AIP Supplements, AIP Amendments, Notices to Airmen (NOTAMs), Pre-flight Information Bulletins and Aeronautical Information Circulars issued by AIS on receipt thereof and immediately after such reviews shall notify AIS of any inaccurate information contained therein that pertains to the aerodrome.

4.8.3 *Notification of changes to the aerodrome facilities, equipment and level of service planned in advance.*

An aerodrome operator shall notify AIS unit and the [CAA], in writing, at least [.....] days before effecting any change to the aerodrome facility or equipment or the level of service at the aerodrome that has been planned in advance and which is likely to affect the accuracy of the information contained in any AIS publication referred to 4.8.2.

4.8.4 *Issues requiring immediate notification.*

Subject to the requirements of 4.8.5, an aerodrome operator shall give AIS and shall arrange for air traffic control and the flight operations unit to receive immediate notice detailing any of the following circumstances of which the operator has knowledge:

a) obstacles, obstructions and hazards:

- 1) any projections by an object through an obstacle limitation surface relating to the aerodrome; and

- 2) the existence of any obstruction or hazardous condition affecting aviation safety at or near the aerodrome;
- b) level of service:

reduction in the level of service at the aerodrome as set out in any of the AIS publications referred to in regulation 3D.7.2;
- c) movement area:

closure of any part of the movement area of the aerodrome; and
- d) any other condition that could affect aviation safety at the aerodrome and against which precautions are warranted.

4.8.5 *Immediate notification to pilots.*

When it is not feasible for an aerodrome operator to arrange for the air traffic control and the flight operations unit to receive notice of a circumstance referred to in 4.8.4 in accordance with that regulation, the operator must give immediate notice direct to the pilots who may be affected by that circumstance.

4.9 **Special inspections**

An aerodrome operator shall inspect an aerodrome, as circumstances require, to ensure aviation safety:

- a) as soon as practicable after any aircraft accident or incident within the meaning of these terms as defined in Annex 13 to the Convention on International Civil Aviation;
- b) during any period of construction or repair of the aerodrome facilities or equipment that is critical to the safety of aircraft operation; and
- c) at any other time when there are conditions at the aerodrome that could affect aviation safety.

4.10 **Removal of obstructions from the aerodrome surface**

An aerodrome operator shall remove from the aerodrome surface any vehicle or other obstruction that is likely to be hazardous.

4.11 **Warning notices**

When low flying aircraft, at or near an aerodrome, or taxiing aircraft are likely to be hazardous to people or vehicular traffic, the aerodrome operator shall:

- a) post hazard warning notices on any public way that is adjacent to the manoeuvring area; or
- b) if such a public way is not controlled by the aerodrome operator, inform the authority responsible for posting the notices on the public way that there is a hazard.

SECTION 5 – EXEMPTIONS

MODEL REGULATIONS

- 5.1 The [CAA] may exempt, in writing, an aerodrome operator from complying with specific provisions of these regulations.
- 5.2 Before the [CAA] decides to exempt the aerodrome operator, the [CAA] shall take into account all safety related aspects.
- 5.3 An exemption is subject to the aerodrome operator complying with the conditions and procedures specified by the [CAA] in the aerodrome certificate as being necessary in the interest of safety.
- 5.4 When an aerodrome does not meet the requirement of a standard or practice specified in 1.4, the [CAA] may determine, after the aerodrome operator conducted aeronautical studies and/or safety risk assessments to the satisfaction of [CAA] to ensure safety, only if and where permitted by the standards and practices, the conditions and procedures that are necessary to ensure a level of safety equivalent to that established by the relevant standard or practice.
- 5.5 Deviation from a standard or practice and the conditions and procedures referred to in regulation 2.5 shall be set out in an endorsement on the aerodrome certificate.

Appendices

Appendix I Schedule of the Aerodrome Certification Regulations — Particulars to be included in an Aerodrome Manual

PART 1 - GENERAL

General information, including the following:

- a) purpose and scope of the aerodrome manual;
- b) the legal requirement for an aerodrome certificate and an aerodrome manual as prescribed in the national regulations;
- c) conditions for use of the aerodrome — a statement to indicate that the aerodrome shall at all times, when it is available for the take-off and landing of aircraft, be so available to all persons on equal terms and conditions;
- d) the available aeronautical information system and procedures for its promulgation;
- e) the system for recording aircraft movements; and
- f) obligations of the aerodrome operator.

PART 2 - PARTICULARS OF THE AERODROME SITE

General information, including the following:

- a) a plan of the aerodrome showing the main aerodrome facilities for the operation of the aerodrome including, particularly, the location of each wind direction indicator;
- b) a plan of the aerodrome showing the aerodrome boundaries;
- c) a plan showing the distance of the aerodrome from the nearest city, town or other populous area, and the location of any aerodrome facilities and equipment outside the boundaries of the aerodrome; and
- d) particulars of the title of the aerodrome site. If the boundaries of the aerodrome are not defined in the title documents particulars of the title to, or interest in, the property on which the aerodrome is located and a plan showing the boundaries and position of the aerodrome.

PART 3 - PARTICULARS OF THE AERODROME REQUIRED TO BE REPORTED TO THE AERONAUTICAL INFORMATION SERVICE (AIS)

3.1 General Information

- a) the name of the aerodrome;
- b) the location of the aerodrome;
- c) the geographical coordinates of the aerodrome reference point determined in terms of the World Geodetic System — 1984 (WGS-84) reference datum;

- d) the aerodrome elevation and geoid undulation;
- e) the elevation of each threshold and geoid undulation, the elevation of the runway end and any significant high and low points along the runway, and the highest elevation of the touchdown zone of a precision approach runway;
- f) the aerodrome reference temperature;
- g) details of the aerodrome beacon; and
- h) the name of the aerodrome operator and the address and telephone numbers at which the aerodrome operator may be contacted at all times.

3.2 Aerodrome Dimensions and Related Information

General information, including the following:

- a) runway — true bearing, designation number, length, width, displaced threshold location, slope, surface type, type of runway and, for a precision approach runway, the existence of an obstacle free zone;
- b) length, width and surface type of strip, runway end safety areas, stopways;
- c) length, width and surface type of taxiways;
- d) apron surface type and aircraft stands;
- e) clearway length and ground profile;
- f) visual aids for approach procedures, viz. approach lighting type and visual approach slope indicator system (PAPI/APAPI and T-VASIS/AT-VASIS); marking and lighting of runways, taxiways, and aprons; other visual guidance and control aids on taxiways (including runway holding positions, intermediate holding positions and stop bars) and aprons, location and type of visual docking guidance system; availability of standby power for lighting;
- g) the location and radio frequency of VOR aerodrome checkpoints;
- h) the location and designation of standard taxi routes;
- i) the geographical coordinates of each threshold;
- j) the geographical coordinates of appropriate taxiway centre line points;
- k) the geographical coordinates of each aircraft stand;
- l) the geographical coordinates and the top elevation of significant obstacles in the approach and take-off areas, in the circling area and in the vicinity of the aerodrome. (This information may best be shown in the form of charts such as those required for the preparation of aeronautical information publications, as specified in Annexes 4 and 15 to the Convention);
- m) pavement surface type and bearing strength using the Aircraft Classification Number — Pavement Classification Number (ACN-PCN) method;

- n) one or more pre-flight altimeter check locations established on an apron and their elevation;
- o) declared distances: take-off run available (TORA), take-off distance available (TODA), accelerate-stop distance available (ASDA), landing distance available (LDA);
- p) disabled aircraft removal plan: the telephone/telex/facsimile numbers and e-mail address of the aerodrome coordinator for the removal of a disabled aircraft on or adjacent to the movement area, information on the capability to remove a disabled aircraft, expressed in terms of the largest type of aircraft which the aerodrome is equipped to remove; and
- q) rescue and fire-fighting: the level of protection provided, expressed in terms of the category of the rescue and fire-fighting services, which should be in accordance with the longest aeroplane normally using the aerodrome and the type and amounts of extinguishing agents normally available at the aerodrome.

Note.— The accuracy of the information in Part 3 is critical to aircraft safety. Information requiring engineering survey and assessment should be gathered or verified by qualified technical persons.

PART 4 - PARTICULARS OF THE AERODROME OPERATING PROCEDURES AND SAFETY MEASURES

4.1 Aerodrome Data and Reporting

Particulars of the procedures for reporting any changes to the aerodrome information set out in the AIP and procedures for requesting the issue of NOTAMs, including the following:

- a) arrangements for reporting any changes to the CAA and recording the reporting of changes during and outside the normal hours of aerodrome operations;
- b) the names and roles of persons responsible for notifying the changes, and their telephone numbers during and outside the normal hours of aerodrome operations; and
- c) the address and telephone numbers, as provided by the CAA, of the place where changes are to be reported to the CAA.

4.2 Control of Airside Access

Particulars of the procedures that have been developed and are to be followed in coordination with the agency responsible for preventing unlawful interference in civil aviation at the aerodrome and for preventing unauthorized entry of persons, vehicles, equipment, animals or other things into the *movement area*, including the following:

- a) the role of the aerodrome operator, the aircraft operator, aerodrome fixed-base operators, the aerodrome security entity, the CAA and other government departments, as applicable; and
- b) the names and roles of the personnel responsible for controlling access to the aerodrome, and the telephone numbers for contacting them during and after working hours.

4.3 Aerodrome Emergency Plan

Particulars of the aerodrome emergency plan, including the following:

- a) plans for dealing with emergencies occurring at the aerodrome or in its vicinity, including the malfunction of aircraft in flight; structural fires; sabotage, including bomb threats (aircraft or structure); unlawful seizure of aircraft; and incidents on the airport covering “during the emergency” and “after the emergency” considerations;
- b) details of tests for aerodrome facilities and equipment to be used in emergencies, including the frequency of those tests;
- c) details of exercises to test emergency plans, including the frequency of those exercises;
- d) a list of organizations, agencies and persons of authority, both on- and off-airport, for site roles; their telephone and facsimile numbers, e-mail and SITA addresses and the radio frequencies of their offices;
- e) the establishment of an aerodrome emergency committee to organize training and other preparations for dealing with emergencies; and
- f) the appointment of an on-scene commander for the overall emergency operation.

4.4 Rescue and Fire-Fighting

Particulars of the facilities, equipment, personnel and procedures for meeting the rescue and fire-fighting requirements, including the names and roles of the persons responsible for dealing with the rescue and fire-fighting services at the aerodrome.

Note.— This subject should also be covered in appropriate detail in the aerodrome emergency plan.

4.5 Inspection of Movement Area and Obstacle Limitation Surface

Particulars of the procedures for the inspection of the aerodrome movement area and obstacle limitation surfaces, including the following:

- a) arrangements for carrying out inspections, including runway friction and water-depth measurements on runways and taxiways, during and outside the normal hours of aerodrome operations;
- b) arrangements and means of communicating with air traffic control during an inspection;
- c) arrangements for keeping an inspection logbook, and the location of the logbook;
- d) details of inspection intervals and times;
- e) inspection checklist;
- f) arrangements for reporting the results of inspections and for taking prompt follow-up actions to ensure correction of unsafe conditions; and
- g) the names and roles of persons responsible for carrying out inspections, and their telephone numbers during and after working hours.

4.6 Movement Area Maintenance

Particulars of the facilities and procedures for the maintenance of the movement area, including:

- a) arrangements for maintaining the paved areas;
- b) arrangements for maintaining the unpaved runways and taxiways;
- c) arrangements for maintaining the runway and taxiway strips; and
- d) arrangements for the maintenance of aerodrome drainage.

4.7 Hazardous Meteorological Condition

Particulars of the procedures for the prevention and mitigation of harmful consequences of adverse weather conditions, such as ice, frost, freezing rain, strong winds, rain, snow, fog and low visibility. The particulars include:

- a) procedures and criteria for suspension of runway operations; and
- b) coordination with the meteorological service provider in order to be advised of any significant meteorological conditions.

4.8 Visual Aids and Aerodrome Electrical Systems

Particulars of the procedures for the inspection and maintenance of aeronautical lights (including obstacle lighting), signs, markers and aerodrome electrical systems, including the following:

- a) arrangements for carrying out inspections during and outside the normal hours of aerodrome operation, and the checklist for such inspections;
- b) arrangements for recording the result of inspections and for taking follow-up action to correct deficiencies;
- c) arrangements for carrying out routine maintenance and emergency maintenance;
- d) arrangements for secondary power supplies, if any, and, if applicable, the particulars of any other method of dealing with partial or total system failure; and
- e) the names and roles of the persons responsible for the inspection and maintenance of the lighting, and the telephone numbers for contacting those persons during and after working hours.

4.9 Aerodrome Works Safety

Particulars of the procedures for planning and carrying out construction and maintenance work safely (including work that may have to be carried out at short notice) on or in the vicinity of the movement area which may extend above an obstacle limitation surface, including the following:

- a) arrangements for communicating with air traffic control during the progress of such work;
- b) the names, telephone numbers and roles of the persons and organizations responsible for planning and carrying out the work, and arrangements for contacting those persons and organizations at all times;
- c) the names and telephone numbers, during and after working hours, of the aerodrome fixed-base operators, ground handling agents and aircraft operators who are to be notified of the work;
- d) a distribution list for work plans, if required.

4.10 Apron Management

Particulars of the apron management procedures, including the following:

- a) arrangements between air traffic control and the apron management unit;
- b) arrangements for allocating aircraft parking positions;
- c) arrangements for initiating engine start and ensuring clearance of aircraft push-back;
- d) marshalling service; and
- e) leader (van) service.

4.11 Apron Safety

Procedures to ensure apron safety, including:

- a) protection from jet blasts;
- b) enforcement of safety precautions during aircraft refuelling operations;
- c) apron sweeping;
- d) apron cleaning;
- e) arrangements for reporting incidents and accidents on an apron; and
- f) arrangements for auditing the safety compliance of all personnel working on the apron.

4.12 Airside Vehicle Control

Particulars of the procedure for the control of surface vehicles operating on or in the vicinity of the movement area, including the following:

- a) details of the applicable traffic rules (including speed limits and the means of enforcing the rules); and
- b) the method of issuing driving permits for operating vehicles in the movement area.

4.13 Wildlife Hazard Management

Particulars of the procedures to deal with the danger posed to aircraft operations by the presence of birds or mammals in the aerodrome flight pattern or movement area, including the following:

- a) arrangements for assessing wildlife hazards;
- b) arrangements for implementing wildlife control programmes; and
- c) the names and roles of the persons responsible for dealing with wildlife hazards, and their telephone numbers during and after working hours.

4.14 Obstacle Control

Particulars setting out the procedures for:

- a) monitoring the obstacle limitation surfaces and Type A Chart for obstacles in the take-off surface;
- b) controlling obstacles within the authority of the operator;
- c) monitoring the height of buildings or structures within the boundaries of the obstacle limitation surfaces;
- d) controlling new developments in the vicinity of aerodromes; and
- e) notifying the CAA of the nature and location of obstacles and any subsequent addition or removal of obstacles for action as necessary, including amendment of the AIS publications.

4.15 Removal of Disabled Aircraft

Particulars of the procedures for removing a disabled aircraft on or adjacent to the movement area, including the following:

- a) the roles of the aerodrome operator and the holder of the aircraft certificate of registration;
- b) arrangements for notifying the holder of the certificate of registration;
- c) arrangements for liaising with the air traffic control unit;
- d) arrangements for obtaining equipment and personnel to remove the disabled aircraft; and
- e) the names, role and telephone numbers of persons responsible for arranging for the removal of disabled aircraft.

4.16 Low-Visibility Operations

Particulars of procedures to be introduced for low-visibility operations, including the measurement and reporting of runway visual range as and when required, and the names and telephone numbers, during and after working hours, of the persons responsible for measuring the runway visual range.

4.17 Handling of Hazardous Materials

Particulars of the procedures for the safe handling and storage of hazardous materials on the aerodrome, including the following:

- a) arrangements for special areas on the aerodrome to be set up for the storage of inflammable liquids (including aviation fuels) and any other hazardous materials; and
- b) the method to be followed for the delivery, storage, dispensing and handling of hazardous materials.

Note.— Hazardous materials include inflammable liquids and solids, corrosive liquids, compressed gases and magnetized or radioactive materials. Arrangements for dealing with the accidental spillage of hazardous materials should be included in the aerodrome emergency plan.

4.18 Protection of Sites for Radar and Navigational Aids

Particulars of the procedures for the protection of sites for radar and radio navigational aids located on the aerodrome to ensure that their performance will not be degraded, including the following:

- a) arrangements for the control of activities in the vicinity of radar and navaids installations;
- b) arrangements for ground maintenance in the vicinity of these installations; and
- c) arrangements for the supply and installation of signs warning of hazardous microwave radiation.

Note 1.— In writing the procedures for each category, clear and precise information should be included on:

- when, or in what circumstances, an operating procedure is to be activated;*
- how an operating procedure is to be activated;*
- actions to be taken;*
- the persons who are to carry out the actions; and*
- the equipment necessary for carrying out the actions, and access to such equipment*

Note 2.— If any of the procedures specified above are not relevant or applicable, the reason should be given.

4.19 Reporting of Runway Surface Conditions

Particulars of the procedures to comply with the new global reporting format for runway surface conditions in compliance with PANS-Aerodromes (Doc 9981).

PART 5 - AERODROME ADMINISTRATION AND SAFETY MANAGEMENT SYSTEM

Aerodrome administration

Particulars of the aerodrome administration, including the following:

- a) an aerodrome organizational chart showing the names and positions of key personnel, including their responsibilities;
- b) the name, position and telephone number of the person who has overall responsibility for aerodrome safety; and
- c) airport committees.

Safety management system (SMS)

Particulars of the safety management system established for ensuring compliance with all safety requirements and achieving continuous improvement in safety performance, the essential features being:

- a) the safety policy, insofar as applicable, on the safety management process and its relation to the operational and maintenance process;
- b) the structure or organization of the SMS, including staffing and the assignment of individual and group responsibilities for safety issues;
- c) SMS strategy and planning, such as setting safety performance targets, allocating priorities for implementing safety initiatives and providing a framework for controlling the risks to as low a level as is reasonably practicable keeping always in view the requirements of the Standards and Recommended Practices in Volume I of Annex 14 to the Convention on International Civil Aviation, and the national regulations, standards, rules or orders;
- d) SMS implementation, including facilities, methods and procedures for the effective communication of safety messages and the enforcement of safety requirements;
- e) a system for the implementation of, and action on, critical safety areas which require a higher level of safety management integrity (safety measures programme);
- f) measures for safety promotion and accident prevention and a system for risk control involving analysis and handling of accidents, incidents, complaints, defects, faults, discrepancies and failures, and continuing safety monitoring;
- g) the internal safety audit and review system detailing the systems and programmes for quality control of safety;
- h) the system for documenting all safety-related airport facilities as well as airport operational and maintenance records, including information on the design and construction of aircraft pavements and aerodrome lighting. The system should enable easy retrieval of records including charts;
- i) staff training and competency, including the review and evaluation of the adequacy of training provided to staff on safety-related duties and of the certification system for testing their competency; and

- j) the incorporation and enforcement of safety-related clauses in the contracts for construction work at the aerodrome.

Appendix II

Sample Application Form for An Aerodrome Certificate

Note: Another example is available in the Appendix of Generic Aerodrome Certification Procedure. CAAs are expected to compare the two samples and prepare the application form that best suits the needs.

[CAA]

APPLICATION FOR AERODROME CERTIFICATION

[Xxxxxx]/CERT/APL1

New Application	
Renewal	

1. Particulars of Applicant

1.1 Name* : _____

1.2 Address : _____

1.3 Position : _____

1.4 Telephone : _____ Fax : _____

1.5 Is the Applicant the Owner of the Aerodrome Site? YES / NO

If NO, provide:

- [a] Details of Rights Held in Relation to the Site;
- [b] The period and/or dates Applicant holds these rights; and
- [c] Name and address of the owner of the site and written evidence to show permission has been obtained for the site to be used by the applicant as an aerodrome.

Note:

**Name of person[s], company or club designated as Aerodrome Operator and that will be responsible for giving effect to the conditions of the aerodrome certificate.*

2. Particulars of The Aerodrome site

2.1 Name of Aerodrome : _____

2.2 State : _____ District : _____

Lot No. : _____ Plan No. : _____

2.3 Geographical Coordinates of the ARP: Latitude : _____

Longitude : _____

2.4 Ground Elevation Aerodrome [meters] : _____

3. Aerodrome Operations

3.1 Is the aerodrome to be used by Public Transport Aircraft? YES / NO

3.2 Aerodrome operational hours : _____ hours

If not 24-hour operations, state;

[a] Opening time : _____

[b] Closing time : _____

3.3 Type of aircraft to be operated at the aerodrome:

[a] Aeroplanes YES / NO

[b] Helicopters YES / NO

[c] Microlights YES / NO

[d] Others (specify) : _____

3.4 The heaviest type of aircraft in reference to item 3.3:

[a] Aircraft type : _____

[b] Maximum Total Weight Authorized (kilograms) : _____

3.5 Expected number of movement per calendar month of heaviest aircraft type.

[One movement is one take-off or one landing]

_____ per month

3.6 Is aircraft fuelling expected to take place at the aerodrome? YES / NO

4. OBSTACLE CONTROL**4.1 Obstacle Limitation Surfaces**

[a] Approach Slope : _____ %

[b] Take-off Slope : _____ %

[c] Transitional Slope : _____ %

4.2 Is there a Controlled Area gazetted, under Civil Aviation Act 1969 Section IV, for the aerodrome? YES / NO

If YES, state

[a] Gazetted reference : _____ [b] Date of gazetted : _____

5. AIR TRAFFIC MANAGEMENT

5.1 Is the aerodrome located within controlled airspace? YES / NO

If YES, state

[a] Vertical Limits (feet) : _____

[b] Lateral Limit : _____

(In Reference to ARP)

5.2 Is Air Traffic Control service with licensed Air Traffic Controllers be provided at the aerodrome? YES / NO

[a] AFIS YES / NO

[b] NOTAM YES / NO

5.3 In reference to item 5.3, who is responsible to provide the services?

[a] AFIS : _____

[b] NOTAM : _____

6. LOCAL AUTHORITIES APPROVAL

6.1 Before submitting this application, the Local Authorities, should be consulted and their approval obtained.

[a] Local Authorities for land-use? YES / NO

[b] Certificate of Fitness? YES / NO

[c] Fire and Rescue Services Department approval? YES / NO

[d] Environmental Impact Assessment? YES / NO

7. DOCUMENTATION

7.1 Applicant shall submit together with this application form, the following:

[a] Aerodrome Manual;

[b] Aerodrome Emergency Plan (AEP);

[c] Safety Management Systems Manual (SMS);

[d] Aerodrome Wildlife Hazard Management Plan (AWHMP);

[e] Aerodrome Disabled Aircraft Removal Plan (ADARP);

All Document must be submitted in 1 hardcopy and softcopy (.pdf)

8. DETAILS TO BE SHOWN ON AERODROME CERTIFICATE

Aerodrome Name : _____

Aerodrome Operator : _____

9. CERTIFICATION**I hereby:-****[a] Apply for a certificate to operate the aerodrome (on behalf of the aerodrome operator above shown*)****[b] Certify that the foregoing information is correct in every respect and no relevant information has been withheld.****Delete if not applicable*.....
[Signature of Applicant].....
[Company stamp]

Name : _____

Position : _____

Date : _____

INFORMATION

[a] Before certificate of aerodrome is granted, the Authority will require to be satisfied that the physical conditions on the manoeuvring area and its environs are acceptable, that the scale of equipment and services are adequate, and that the aerodrome is organized, staffed and other arrangements sufficient to ensure the safe operations of the aerodrome. The requirements are set out in detail in the ICAO Annex 14 and the relevant [directive/manual etc.] published and issued by the [CAA].

[b] Completed application form together with the necessary documentation required for the certification shall be submitted to [CAA] at the following address:

Office]
[Address]
[Telephone]:
[Email]:

Appendix III Accepting Non-compliances in Aerodromes

[Please refer to the *Generic Procedures for Accepting Non-compliances in Aerodromes*]

Appendix IV Sample Aerodrome Certificate*

[Please refer to the Appendix to *Generic Aerodrome Certification Procedure*.]

References

1. Civil Aviation Safety Regulations 1998 – Part 139, Australia
https://www.legislation.gov.au/Details/F2021C00238/Html/Volume_4#_Toc63852638
2. Civil Aviation Rules – Part 139, New Zealand
<https://www.aviation.govt.nz/rules/rule-part/show/139>
3. Title 14, Code of Federal Regulations, Part 139 (14 CFR Part 139), Federal Aviation Administration (FAA)
https://www.faa.gov/airports/airport_safety/part139_cert/
<https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=8313bccee050ec81d7e8fb3377331177&rqn=div5&view=text&node=14:3.0.1.1.14&idno=14>
4. Easy Access Rules for Aerodromes (Regulation (EU) No 139/2014)
<https://www.easa.europa.eu/document-library/easy-access-rules/easy-access-rules-aerodromes-regulation-eu-no-1392014>
5. AC 139.C-01 on Aerodrome Manual – by Civil Aviation Safety Authority Australia (CASA)
<https://www.casa.gov.au/rules-and-regulations/current-rules/advisory-circulars>
6. Aerodrome Manual Template and Guide – by CASA
<https://www.casa.gov.au/standard-page/aerodrome-manual-template-and-self-check>

INTERNATIONAL CIVIL AVIATION ORGANIZATION



GENERIC ORGANIZAION STRUCTURE OF THE AERODROME REGULATORY UNIT

VERSION 1.0 – MARCH 2021

Introductory Notes

This generic document was developed by the ICAO Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG) for reference by States in the APAC Regions. When referring to this generic document, States are expected to customize the content in accordance to the States' legislations, regulations and situations.

It would be approved by XXX (Video Teleconference, XXX) and published by ICAO Asia and Pacific Office, Bangkok.

ICAO Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services and Guidance Materials shall take prevalence in the event of any conflict between the aforementioned provisions and this generic document.

Enquiries and feedbacks regarding this generic document can be made to ICAO APAC Office at apac@icao.int.

RECORD OF AMENDMENTS

[illegible]

CIVIL AVIATION AUTHORITY

GENERIC ORGANIZATION STRUCTURE OF THE AERODROME REGULATORY UNIT

Foreword

This manual is a [CAA] safety programme document. It contains processes determined to be necessary in supporting operational safety at aerodromes and heliports in the [State]. This manual is being issued under the authority of the Director General of Civil Aviation, [CAA].

Copies are available at the office of:

[Post holder]

[Address]

This document may be amended from time to time as necessary, and the Director General of [CAA] will provide such amendment service.

The term "Head, " as referred to in this manual describes the most senior CAA officer responsible for certification, registration and continuing safety oversight functions and surveillance of aerodromes and heliports. The incumbent official holding this position reports directly to the Director General, [CAA] through senior managerial officers e.g. Deputy Director General, depending on the organizational structure.

Comments from staff members of [CAA], stakeholders, (or members of the) concerned aviation industry users and public about the contents of this manual are welcome. Clarifications or inquiries can be directed to:

Head of Aerodrome Standards

[Office]

[Address]

[Telephone]:

[Email]:

Amendments

[illegible][illegible]

Revisions to this Document shall be made by authorised personnel only. After inserting the revision, enter the required data in the revision sheet below. The '*Initials*' has to be signed off by the personnel responsible for the change.

[illegible]

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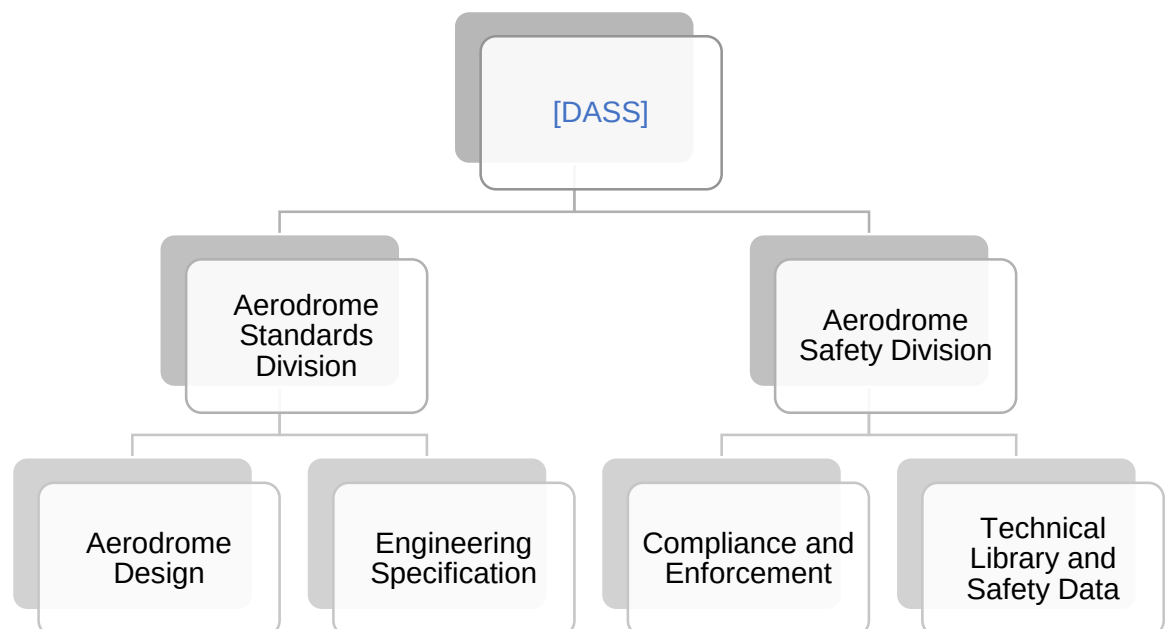
Chapter 1 – Regulatory Authority

1.1 Organization

1.1.1 The primary responsibility of the [CAA] with respect to regulations and operations of aerodromes in [State] is to ensure that:

- a) the aerodromes under the jurisdiction of the Authority offer a safe operational environment in accordance with the Convention on International Civil Aviation; and
- b) the obligation of [State] under Article 38 of the Convention to notify ICAO of differences between its national regulations and practices and the International Standards contained in Annex 14 is met. It is also recommended that differences between the Recommended Practices contained in the Annex 14 and the [State]'s national regulations and practices be notified to ICAO.

1.2 A typical organizational structure of a [DASS] is given below.



1.3 Methodology in determining the number of Inspectors

1.3.1 [DASS] has developed and established the methodology in determining aerodrome inspector needs to carry out all safety oversight related task, including review and revision of regulations, training of technical staff, development of guidance material, issuance of approvals, conducting of surveillance and resolution of identified safety concerns. Basically, the number of inspectors required are derived from the following formula:

$$\frac{[TOTAL\ MAN-DAYS\ REQUIRED\ FOR\ ALL\ RESPONSIBILITIES]}{[TOTAL\ WORKING\ DAYS\ PER\ YEAR]}$$

1.3.2 The details in determining aerodrome inspector needs are as follow:

(Remarks: The following calculation serves as an example only. [CAA] using this generic document should derive the requirement by themselves.)

	OBLIGATIONS	INSP	DAYS	TOTAL
1	Aerodrome Certification	5	100	500
2	Notifications to AIS and other organizations	2	50	100
3	Safety Audit	5	50	250
4	Compliance and enforcement	5	50	250
5	Aerodrome Design	3	50	150
6	Consultation and Investigation	3	50	150
7	Technical Library & Safety Data	2	50	100
8	General Task	3	50	150
Total Man-Days				1650
Total [2020] Calendar Year Working Days			205	/
INSPECTOR REQUIRED				8.05

Note.— e.g. If 1 person completes a task in 1 day, that means the effort is 1 manday. If 5 people complete a task in 1 day, that means 5 mandays. If 5 people complete the task in 2 days that means 10 mandays. E.g.:

a) Certification of Aerodrome:

- Number of days required : 20 days
- Number of airports per year : 5 airports
- Number of personnel required : 5 Inspectors

Number of Man-Days
= 500 MD

b) Safety Audit:

- Number of days required : 10 days
- Number of airports per year : 5 airports
- Number of personnel required : 5 Inspectors

Number of Man-Days
= 250 MD

.....

1.3.3 Depending upon the level of aviation activity, the number of aerodromes and the volume of work, the functions of the sections under each division may be combined and even the functions of the two divisions may be combined.

1.4 Functions and Responsibilities of the [DASS]**1.4.1 General Task**

These general tasks and responsibilities include the following:

- a) reviewing ICAO State letters on the subject of aerodromes, preparing responses thereto and taking action thereon;
- b) developing and continuing to review Civil Aviation Regulation for Aerodromes and other national standards and practices for aerodrome design, operation and maintenance, and engineering specifications;

- c) developing and issuing directives, rules, advisory circulars and guidance material relating to aerodrome standards and practices;
- d) reviewing plans and designs for new aerodromes or the further development of, or modification to, existing aerodromes, submitted to the Authority for approval, to ensure that the requirements of the national regulations, standards and the ICAO SARPs are complied with; and
- e) advising the aerodrome inspectors, as required, on aerodrome standards and practices.

1.4.2 Aerodrome certification

These tasks and responsibilities include:

- a) receiving, recording, reviewing and processing, in cooperation with the Flight Operations Division of the [CAA] if necessary, the expressions of interest received from an intending applicant for an aerodrome certificate;
- b) receiving, recording, reviewing and processing, in cooperation with the Flight Operations Division of the [CAA] if necessary, the formal application for an aerodrome certificate, including the initial inspection covering the review of the aerodrome manual, on-site verification, inspection and testing of aerodrome particulars, facilities and equipment, including aeronautical studies;
- c) grant or refusal of an aerodrome certificate;
- d) estimating, recording and collecting the cost of the services from applicants;
- e) receiving, recording, reviewing and processing applications for the transfer of an aerodrome certificate;
- f) grant or refusal of the transfer of an aerodrome certificate;
- g) receiving, recording, reviewing and processing applications for the surrender of an aerodrome certificate;
- h) cancelling or suspending an aerodrome certificate;
- i) grant of an interim aerodrome certificate; and
- j) reviewing the factors requiring the amendment of an aerodrome certificate and issuing the required amendments.

1.4.3 Notifications to Aeronautical Information Services (AIS) and Other Organizations

These tasks and responsibilities include:

- a) notifying AIS of the certification status of an aerodrome and providing the particulars of the aerodrome described in the Aerodrome Manual for promulgation by the AIS;

- b) reviewing any amendments to aerodrome manuals and notifying AIS of the changes to be made in the AIS publications;
- c) coordinating with AIS in the review of any notification received from an aerodrome operator for promulgation by AIS, such as notification of:
 - i) inaccuracies in AIS publications;
 - ii) changes in aerodrome facilities, equipment and level of services planned in advance;
 - iii) obstacles, obstructions and hazards;
 - iv) closure of any part of the manoeuvring area;
 - v) immediate reduction in the level of service at the aerodrome and any other conditions that could affect the safety at or near the aerodrome and warrant precautions to be taken; and
- d) coordinating with other agencies and service providers such as aeronautical information service, air traffic services, designated meteorological authorities, and security.

1.4.4 Safety audits

1.4.4.1 These tasks and responsibilities include:

- a) periodic or special on-site audits of the aerodrome safety management system including verification of the aerodrome, and data published in the AIP and inspection of the aerodrome facilities, equipment and operating procedures; and
- b) review of the aerodrome operator's daily audits and special safety audit reports and actions thereon.

1.4.4.2 Periodic inspections are therefore required to ensure that aerodrome certificate holders meet their obligations under the terms of the certificate and the requirements of the accepted/approved aerodrome manual.

1.4.4.3 The frequency of inspections may correspond to the class of the aerodrome as categorized by the [CAA] but at least [.....] a year for international airport and once in every [.....] years for domestic airport. Other aerodromes will be subject to inspection from time to time as determined by the [CAA].

1.4.4.4 The tasks and responsibilities associated with periodic inspections are described in 1.4.4.2 These tasks may be carried out in the following phases:

- a) *Pre-inspection briefing* with aerodrome management, including coordination with air traffic control tower personnel.
- b) *Administrative inspection* of the aerodrome safety management system, including such items as:
 - i) current NOTAMs;
 - ii) medical and RFF training records;
 - iii) aviation fuel suppliers safety records;
 - iv) fuelling agents certificates and fire safety training records;
 - v) documentation of the annual review of the aerodrome emergency plan, including full-scale emergency exercises; and

- vi) the aerodrome operator's records of the safety audits of fixed-base operators, ground handling agents and other agencies engaged in airside activities.
- c) *Movement area inspection* including:
 - i) the inspection and checking of runways and taxiways in order to ascertain the condition of pavements, markings, lighting, signs, shoulders, strips and runway end safety areas;
 - ii) checking for potentially hazardous conditions if construction work is in progress, such as excavations, trenches, stockpiled material, inadequate construction area markings, construction equipment in the movement area and inadequate marking and lighting of temporary thresholds;
 - iii) checking ground vehicle operations in the movement area to verify that only authorized vehicles have access to the area and that the required procedures are being followed, the vehicles are properly marked and the drivers know and use the proper communication terminology;
 - iv) checking that the public is protected against unauthorized entry to the movement area and against jet or propeller blast;
 - v) checking for wildlife hazards and wildlife attractants; and
 - vi) checking landing direction indicators and wind direction indicators.
- d) *Rescue and fire-fighting* including:
 - i) the checking of training records;
 - ii) random testing of the knowledge of firefighters;
 - iii) checking that the equipment is in position, is functional and meets the category requirements;
 - iv) conducting a time response drill;
 - v) checking the alarm system; and
 - vi) checking and examining proximity suits, other protective clothing and fire-fighting and rescue tools and supplies in the inventory.
- e) *Fuel facilities* including the examination of the inspection records by qualified and authorized personnel, particularly checking that the aerodrome fire-fighting standards are adequately covered in the inspection checklist, and spot checking, including fuel sampling, for compliance with the applicable requirements.
- f) *Night inspections* including the evaluation and checking for compliance with the standards related to:
 - i) runway, taxiway and apron lighting and signage;
 - ii) pavement markings;
 - iii) aerodrome beacons;

- iv) wind direction indicator lighting;
 - v) obstacle lighting and the marking; and
 - vi) lighting of construction areas.
- g) *Post inspection briefing* with the aerodrome management, including the determination of appropriate enforcement action for non-compliance with the regulations.

1.4.5 Other safety functions

These tasks and responsibilities may include:

- a) evaluation of full-scale airport emergency exercises to identify problems and deficiencies;
- b) the provision of guidance at the design and construction stages of aerodrome projects, particularly complex projects or where there is significant work that may impact compliance with the regulations;
- c) final inspection of completed projects involving complex or significant work to identify problems or deficiencies that need to be corrected in order to comply with the requirements of the regulations;
- d) the organization of, and participation in, aerodrome safety seminars and other training programmes to promote a safety culture.

1.4.6 Compliance and enforcement

- 1.4.6.1 It is the responsibility of aerodrome operators to comply with the requirements of the aerodrome certification regulations. Aviation safety at aerodromes depends primarily on voluntary adherence to these requirements by the aerodrome operators. Promoting compliance with the regulations through education, training and counselling is therefore of primary importance, and only when these efforts have failed should formal enforcement action be taken. Sanctions can be administrative or legal depending on the severity of the violation of the regulations and its impact on aviation safety. It is recognized that States may have their own policies for enforcement of their regulations.
- 1.4.6.2 Administrative action in the form of a warning letter or correction letter may be considered appropriate when legal action is deemed unnecessary. Administrative enforcement action is intended to bring the violation to the attention of the aerodrome operator, to document corrective action and to require future compliance. Such actions are warranted when the violation does not result in a significant unsafe condition, is not caused by incompetence or lack of required qualifications on the part of the aerodrome operator, is not deliberately caused, the attitude of the operator is constructive and positive towards compliance with the regulations and there is no history of such a violation by the operator.
- 1.4.6.3 Formal legal enforcement action may be warranted to prevent future violations of the regulations. Such action may include the issuance of cease-and-desist orders and injunctions and the imposition of sanctions after the act to deter violations. Such sanctions may include revocation, suspension or amendment of the certificate. Legal enforcement actions are pursuant to appropriate statutory provisions in the civil aviation legislation of a State.

- 1.4.6.4 In determining the appropriate type and measure of sanction to be applied, the factors to be considered may include the nature of the violation, whether it was deliberate or inadvertently caused; the potential or actual hazard to aviation safety created by the violation; the aerodrome operator's level of responsibility; records of previous violations; the operator's attitude toward the violation, including whether the operator voluntarily disclosed the violation and whether action was taken to correct it; the impact of the proposed sanction on the violator and its value as a deterrent to other operators in similar situations.
- 1.4.6.5 Certificate-related legal sanctions can have a significant impact on air services and may also have other repercussions. Since the public interest and aviation safety are the principal objectives of aerodrome certification regulations, recourse to the imposition of sanctions may be warranted only after all other means of resolving safety violations have failed to ensure compliance.
- 1.4.6.6 Suspension of an aerodrome certificate may be considered if:
- a) the aerodrome operator's safety management system is found to be inadequate;
 - b) it is in the interest of operational safety;
 - c) all other means for timely correction of the unsafe condition or ensuring safe aircraft operations have not yielded the required results;
 - d) the technical proficiency or qualifications of the aerodrome operator to perform the duties to meet the critical safety requirements in accordance with the regulations are found inadequate;
 - e) the operator resists or is unwilling to take action to correct or mitigate the condition affecting aviation safety; or
 - f) the operator wilfully fails to perform an already agreed upon corrective action and suspension of the certificate is the last resort to avoid unsafe operations in the aerodrome movement area.
- 1.4.6.7 Revocation of an aerodrome certificate may be warranted if the aerodrome operator:
- a) is incapable or unwilling to carry out corrective action or has committed/repeated serious violations;
 - b) has demonstrated a lack of responsibility, such as deliberate and flagrant acts of non-compliance or falsification of records jeopardizing aviation safety; or
 - c) has made it convincingly clear that the continued operation of the aerodrome will be detrimental to the public interest.

1.5 Technical Library and Records.

- 1.5.1 To enable [\[DASS\]](#) personnel to keep abreast of the subject of aerodrome design, specifications, operation and maintenance, it is essential to establish a properly organized and administered technical library. The library should contain all documents issued by ICAO relating to the design, operation and maintenance of aerodrome facilities and equipment, and all national standards, rules, orders, advisory circulars and guidance material. Additionally, the standards and other relevant documentation

issued by other States which are commonly used as reference material, and important textbooks and magazines on the subject should also be kept in the technical library. It is important that the documents in the library be promptly amended to keep them current.

- 1.5.2 [DASS] will need to maintain files for each aerodrome in the State including certified aerodromes. The file for each certified aerodrome should contain records from the expression of interest stage to the issuance or refusal of the certificate, and the file should remain open thereafter for further documentation and correspondence on the subject. Additionally, an aerodrome certificate register should be maintained for each aerodrome as well as a reference log of the date of issue of important letters, forms and certificate numbers.
- 1.5.3 Close liaison should be maintained with the Accident Investigation and Prevention Unit of the State to obtain data on aircraft accidents and incidents at or near aerodromes for use by [DASS] staff in their continuing work.

1.6 Duties And Responsibilities of Aerodrome Inspectors

1.6.1 Qualification

- a) Aerodrome inspectors may be an engineer (civil or electrical) or air traffic controller or AFF personnel with minimum [numbers] years experience in aerodrome planning, operation or maintenance and should possess a sound knowledge of the national legislation, standards and practices, and ICAO Annex 14, all relevant manuals published by ICAO. Airport management experience and knowledge of modern safety management systems are desirable qualifications.
- b) The [CAA] may also consider hiring persons with other qualifications, experience and knowledge suitable for carrying out the duties of aerodrome inspector, subject to any conditions that the [CAA] may have regarding the person's qualifications, experience and knowledge. Such persons may have airport management or flight operations. Training in the appropriate elements of aerodrome engineering relevant to aerodrome inspection should be an essential requirement.
- c) Training in the appropriate fields as specified in Training Programme should be an essential requirement.

1.6.2 Inspector Training

[Note: Please also refer to Generic Training Programme and Training Plan for Aerodrome Inspectors]

The training objective is to provide the aerodrome inspector with a basic knowledge of aerodrome operations which will enable him/her to administer the regulatory function. Such knowledge may be acquired through a combination of formal training courses and on-the-job training. The minimum training that must be completed prior to issuance of an aerodrome inspectors credential includes all of the following courses offered by any institution recognized by the [CAA]:

- a) ICAO Annex 14 Vol. I Course;

- b) Aerodrome Certification Course;
- c) Safety Management System (SMS) Course; and
- d) On-Job-Training Aerodrome Inspectors Training.

1.6.3 Duties and responsibilities of Director of [DASS]:

Duties and responsibilities of Director of Aerodrome Standards as a Management Position:

- a) to administer the overall activity and functions of the Division;
- b) to adopt the SARPs of ICAO Annexes into [State regulation] as required;
- c) to implement [State regulation] and the ICAO SARPs;
- d) to examine changes in ICAO requirements for incorporation into national requirements, or the filing of appropriate differences;
- e) to verify and ensure the quality of the services provided by the aerodrome operator as per ICAO SARPs and Standards established by ASD;
- f) to review Policy and Procedures, Manuals, Directives, Aerodrome Circulars, Guidance Materials and exemption procedures;
- g) to check and monitor the fitness of movement area, maneuvering area, equipment, fire- fighting facilities, signage, marking and lighting systems;
- h) to monitor the Obstacle Limitation Surface (OLS) at the vicinity of the airport;
- i) to monitor safety management system at the airside area;
- j) to monitor the surveillance programme;
- k) to monitor the implementation of training programme;
- l) to develop and conduct in house training and OJT for the inspectors;
- m) to form an aerodrome certification team to issue, renew, cancel, suspend of aerodrome certificates to aerodrome operators as per regulations;
- n) to detail assignment for the inspectors for different checks, inspection;
- o) to review observations and reporting findings;
- p) to recommend for enforcement against the aerodrome operator if any; and
- q) to perform any other duties assigned by the [CAA].

1.6.4 Duties and Responsibilities of Aerodrome Inspectors

- a) Aerodrome inspectors will report to the Director of Aerodrome Standards, through the appropriate departmental Head and will be responsible for carrying out the functions as described. Adequate on-the-job training should be provided

before entrusting the whole spectrum of aerodrome inspection duties to an inspector.

- b) Duties and responsibilities of an aerodrome inspectors are divided into the following disciplines:
 - i) Aerodrome Operations Officer;
 - ii) Engineering (Electrical & Civil) Officer;
 - iii) Standards and Policy Officer; and
 - iv) Fire Fighting Rescue Officer.

Aerodrome Operation and Engineering Officer

- c) The duties of Aerodrome Operation and Engineering officer should include but not be limited to:

Verification of the aerodrome data in the Aerodrome Manual including details of:

- i) the location of the aerodrome;
- ii) the name and address of the aerodrome operator;
- iii) the movement area;
- iv) aeronautical ground lighting;
- v) the runway declared distances available;
- vi) ground services;
- vii) notices of special conditions and procedures, if any;
- viii) exemptions; if any
- ix) obstacle limitation chart (If Available);
- x) aerodrome/facility directory; and
- xi) aerodrome layout plan.

On-site verification and audits of aerodrome operating procedures including:

- i) the overall aerodrome safety management system;
- ii) the aerodrome emergency plan and periodic aerodrome emergency exercises;
- iii) inspection and maintenance of aeronautical ground lighting;
- iv) promulgation of changes to published aerodrome information;
- v) the prevention of unauthorized entry to the aerodrome, particularly the movement area and protection of the public against jet or propeller blast;
- vi) the operators daily inspection of the aerodrome;
- vii) the planning and carrying out of aerodrome construction and maintenance work including compliance with construction safety requirements;
- viii) apron management and parking control;
- ix) the control of vehicles operating on or in the vicinity of the movement area;
- x) wildlife hazard management;
- xi) the monitoring of obstacle limitation surfaces and notification;
- xii) the removal of disabled aircraft;
- xiii) the protection of radar and navigational aids;
- xiv) low-visibility operations;
- xv) drivers use proper terminology and possess airside driving permit;
- xvi) vehicles are properly marked; and
- xvii) check traffic and wind direction indicators.

If construction is in progress, check for the following:

- i) adherence to construction safety plan requirements;

- ii) potentially hazardous conditions to the movement area such as excavations, trenches or stockpiled material or presence of FOD's;
- iii) adequate construction area marking and lighting
- iv) marking of temporary runway thresholds;
- v) construction equipment in the movement area; and
- vi) observe ground vehicle operations.

on-site checking and testing of aerodrome facilities and equipment including:

- i) aeronautical ground lighting systems including flight check records;
- ii) standby power;
- iii) the dimensions and surface conditions and strengths of runways, taxiways, stopways, runway end safety areas, runway and taxiway strips, shoulders and aprons;
- iv) landing direction indicators and wind direction indicators, aerodrome markings and markers;
- v) guidance signs and warning signs in the movement area;
- vi) aerodrome maintenance equipment;
- vii) disabled aircraft removal plan;
- viii) wildlife control equipment;
- ix) the presence of obstacles in obstacle limitation surfaces;
- x) runway visual range measuring equipment;
- xi) the presence of dangerous lights; and
- xii) runway surface friction measuring equipment;

Night Inspection

During this phase of the inspection, the Inspector shall:

- i) evaluate runway/taxiway and apron lighting and signage, pavement marking; and
- ii) inspect OLS marking & lighting and construction areas on or adjacent to movement areas for adequate marking and lighting.

Rescue and Firefighting (RFF) Officer

- d) The duties of RFF Inspectors should include but not be limited to:
 - i) check for acceptability of the RFFS curriculum and training records;
 - ii) randomly question fire-fighters in the subject areas to determine validity of the training program and general knowledge of the job;
 - iii) perform a walk-around inspection to determine if the aircraft rescue firefighting equipment is operational and meets the category with the required agents;
 - iv) make a check of RFFS vehicle maintenance records;
 - v) at the RFFS station check the alarm and communication system for serviceability;
 - vi) examine proximity suits, other protective clothing and equipment for condition and availability;
 - vii) check SOP of a RFFS;
 - viii) check of records of live fire drills; and
 - ix) sufficient RFFS personnel are available to operate the required RFFS vehicles.

Standards and Policy Officer

- e) The duties of Standards and Policy Officer should include but not be limited to:
- i) safety assessments and aeronautical studies at aerodromes:

in cooperation with aerodrome operator and other specialists as required, organize safety assessments at aerodromes and conduct aeronautical studies, if and were permitted by the [\[State regulations\]](#), standards and practices.
 - ii) review and update the Audit PQs and inspection checklist;
 - iii) review and update the provisions and requirements on Standards to ensure those provisions and requirements are developed and established in accordance with ICAO SARPs and guideline of Annex 5, 14 & 19 and others related documents;
 - iv) develop Policy and Procedures, Manuals, Directives, Aerodrome Circulars, Guidance Materials and exemption procedures;
 - v) prepare audit or inspection reports; and
 - vi) assist to review and provide comments on draft new or amendment to the related ICAO SARPs.
- f) General duties for all inspectors

All other functions relating to the certification/Inspection of aerodromes including:

- i) receiving and processing of expressions of interest and applications for aerodrome certificates;
 - ii) evaluating all certification document including aerodrome manual;
 - iii) processing requests for the amendment, transfer or surrender of certificates or requests for interim certificates;
 - iv) reporting to AIS;
 - v) initiating NOTAMs and determining appropriate enforcement action in the event of non-compliance with the regulations;
 - vi) ensure proper directives, charts, advisory circulars, and other appropriate information, are available while conducting the inspection; and
 - vii) determine the status of follow-up actions in correcting all previously listed deficiencies.
-

INTERNATIONAL CIVIL AVIATION ORGANIZATION



DRAFT GENERIC AERODROME INSPECTOR HANDBOOK

VERSION 1 – 2021

Introductory Notes

This is a draft generic document developed by the ICAO Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG). When referring to this draft generic document, States are expected to customize the content in accordance to the States' legislations, regulations and situations.

It was approved by XXX (Video Teleconference, dd/mm/yy) and published by ICAO Asia and Pacific Office, Bangkok.

ICAO Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services and Guidance Materials shall take prevalence in the event of any conflict between the aforementioned provisions and this generic document.

Enquiries and feedbacks regarding this generic document can be made to ICAO APAC Office at apac@icao.int.

Generic Aerodrome Inspector Handbook

Draft Version 1, ... 2021

This is a CAA safety programme document. It contains processes determined to be necessary for supporting operational safety elements at aerodromes in [STATE], and for ensuring the effective safety oversight of aerodrome related activities by officers of CAA.

This manual is issued under the authority of the Director General for Civil Aviation, CAA.

This manual may be amended from time to time, and Director General of Civil Aviation will provide such amendment service.

Copies of this manual are available from the Chief, Directorate of Aerodrome Safety and Standard [DASS], CAA. Comments about the content are welcome from staff members of CAA or members of the aviation industry. Any requests for issue of the document or comments or requests for clarification should be directed to:

Chief, [DASS] Civil Aviation Authority of [STATE]
[ADDRESS]

Phone : xxxxxxxx
Fax : xxxxxxxx
Email : xxxxxxxx

FOREWORD

The Civil Aviation Authority of the [STATE] is responsible under [CIVIL AVIATION ACT], for the regulation of civil aviation activities, including activities in the aerodrome sector of the air transportation industry, within the Republic of the [STATE].

This handbook for aerodrome inspectors is one in a series of manuals that have been adopted by CAA to meet the responsibilities devolved from the Civil Aviation Act or the Civil Aviation Authority Act [as applicable] to ensure the safety regulation of aerodrome matters. This manual describes how staff will implement the procedures specified for conducting certification and surveillance of domestic and international aerodromes throughout the nation.

The information contained within this Aerodrome Inspector Handbook has been developed to be in conformity with ICAO standards and recommended practices and the applicable [STATE] legal requirements including the Civil Aviation Regulations [CAR], the [ANNEX 14] and the Manual of Aerodrome Regulatory Procedures.

I expect CAA officers will comply with the specified processes and activities that are provided in this document. It is important that the CAA is able to demonstrate consistency, equity and leadership in its day to day regulatory activity to the aviation industry, and compliance with our own published procedures is one way that we can demonstrate effective discharge of our functions and obligations to industry participants and the travelling public.

Users of this document are invited to pass advice of errors, inconsistencies or suggestions for improvements to Chief, [DASS].

Director General

Date: _____

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Note:

Finalization of this distribution list is subject to the completion of organizational structure and staffing arrangements. The distribution list is provided as an example only and is to be completed when appropriate.

RECORD OF REVISION

The revision listed below have been incorporated in this copy of the Inspector Handbook.

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CHAPTER - 1 About this manual

1.1. Objective

- 1.1.1. This handbook provides information and guidance for activities by Aerodrome Inspectors conducting CAA safety oversight functions. It provides guidance for Inspectors involved in system safety audits of aerodromes. Specific procedures associated with aerodrome certification can be found in the [Generic Aerodrome Certification Procedure].
- 1.1.2. This handbook establishes various actions required to be undertaken by Aerodrome Inspectors so that aerodrome operations within [STATE] are maintained in accordance with:
- relevant aviation legislation that impacts on safe aerodrome operations, and specifically that which addresses aerodromes - Civil Aviation Regulations [CAR];
 - Manual of Aerodrome Standards [MAS];
 - Annex 14 to the Convention on International Civil Aviation, Aerodromes, Volume I (ICAO Annex 14 Volume I); and
 - any other directive issued by the CAA relevant to civil aerodromes.

Note: In this document ICAO Annex 14 Volume I is considered as [MAS].

1.2. Applicability

- 1.2.1. This handbook contains information for safety audit processes to be adopted for:
- a) Certified aerodromes;
 - b) Uncertified/registered aerodromes; and
 - c) any other aerodrome specified by the CAA;
- 1.2.2. Responsibility for the development, implementation and maintenance of aerodrome standards rests with the CAA. Specifically designated CAA Aerodrome Inspectors are accountable for the ongoing tasks required to ensure that the contents of this handbook are being effectively implemented in order to satisfy the following objectives;
- a) verify the effective implementation of aerodrome standards;
 - b) monitor the level of compliance with the provisions of [CAR].
 - c) determine the adequacy and effectiveness of the handbook through the establishment of legislation, regulations, inspections and audits;
 - d) ensure all persons who are assigned aerodrome audit duties or responsibilities are trained and instructed to carry out such duties;
 - e) ensure that violation of standards are investigated; and
 - f) review and re-evaluate aerodrome standards and controls immediately following an act of violation and on a periodic basis.
- 1.2.3. Appropriate legislation

- 1.2.3.1. The legal authority governing the implementation of this handbook derives from [CAR] [XXX] that empowers the Director General with authority to issue certificates for aerodromes. The Civil Aviation Regulations governing Aerodromes [CAR], contains details of the mandatory requirements associated with [STATES] aerodromes.
- 1.2.4. Under the CAR [XXXX], an aerodrome operator is obligated to allow the Director General or his authorized representative access to any aerodrome to carry out safety inspections or evaluations.
- 1.2.5. Power of access to aerodrome for inspections under CAR [XXX] provides that:
 - a) The operator of an aerodrome must allow CAA to inspect and conduct tests on aerodrome facilities, equipment, services or operating procedures and inspect the aerodrome operator's documents and records and verify the Aerodrome Safety Management System at the aerodrome for the purpose of aviation safety;
 - b) The aerodrome operator must allow access for personnel authorized by CAA to any part of the aerodrome, or any aerodrome facilities, equipment, records, documentation or records for the purpose referred to in paragraph (1) above; and
 - c) CAA must give reasonable notice to the operator about the tests to be conducted and carry out the tests at a reasonable time.

1.3. Overview and concepts

- 1.3.1. The system described in this handbook covers the following basic elements;
 - a) Conduct of surveys by CAA of various airports and other aviation stakeholders to determine aerodrome requirements;
 - b) Setting of operational standards by the CAA through the requirement for, and approval of, aerodrome certificate (AC);
 - c) Voluntary compliance(internal quality assurance) by the holders of aerodrome certificates;
 - d) Surveillance, including the detection of non-conformity with standards, conducted by the CAA;
 - e) Investigation and reporting of non-compliance by the CAA;
 - f) Notification of violations to stated aerodrome operation requirements by the CAA to aerodrome operators;
 - g) Enforcement action by CAA in case of non-compliance with requirements by aerodrome operators;
 - h) Surveillance and detection of non-conformity with aerodrome regulatory requirements as applied within [STATE], conducted by foreign governments, airlines, and ICAO under the Universal Safety Oversight Audit Programme (USOAP).
- 1.3.2. Under the [civil air regulations] there is a requirement for specified entities to develop and submit an aerodrome manual to the CAA. Aerodrome manuals describe in detail how operators implement the various standards required of them. If an aerodrome manual is accepted by the CAA, it is an indication that, at the time, information and processes contained within the manual were to the standards required to be met by the operator, and that the aerodrome certificate holder is expected to consistently maintain compliance with the mandatory safety requirements. The contents of the manual form the basis for any audit or inspection conducted by the CAA.

1.4. Definitions

- 1.4.1. Within the contents of this handbook, certain terms are referred to that have a specific technical meaning. A list of these terms and the definition of their technical meanings is included at Appendix 1.

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CHAPTER - 2 Authority and responsibility

2.1. CAA responsibilities

2.1.1. The organizational structure of the CAA

The organizational structure of the CAA is shown on the following organization chart (See next page).

2.1.2. Tasks and responsibilities of the [DASS]

The tasks and responsibilities of the [DASS] include, but are not limited to:

- a) Receiving, recording, reviewing and processing an expression of interest received from an intending applicant for an aerodrome certificate;
- b) Receiving, recording, reviewing and processing a formal application for an aerodrome certificate including the initial inspection review of the aerodrome manual, on-site audit and verification, inspection and testing of aerodrome particulars, facilities and equipment including aeronautical studies;
- c) Certifying that aerodromes subject to the regulations will achieve an acceptable level of safety when operated and maintained in accordance with an approved Aerodrome Manual;
- d) Grant or refusal of an aerodrome certificate;
- e) Receiving, recording, reviewing & processing applications for the registration of an aerodrome;
- f) Grant or refusal for registration of an aerodrome;
- g) Receiving, recording, reviewing & processing applications for the surrender of an aerodrome certificate;
- h) Cancelling or suspending an aerodrome certificate; and
- i) Approval of persons to conduct aerodrome safety inspections.

2.1.3. Aerodrome Inspectors/Auditors Code of Conduct

2.1.3.1. As the leader of or as a participant in a CAA audit team, each individual auditor is required to comply with a code of conduct that directs his/her actions during the entire process of the audit. These rules of conduct for each individual auditor are as follows;

- a) To exercise in all loyalty, discretion and conscience the functions entrusted to them as a member of the CAA aerodrome safety oversight audit team;
- b) To discharge these functions to the best of their ability;
- c) To conduct themselves with integrity, impartiality and honesty;
- d) To abide by the rules, procedures and guidance prescribed in this handbook;
- e) Not to misuse their official position as part of the CAA aerodrome safety oversight audit team;
- f) Not to receive benefits of any kind from a third party which might reasonably be seen to compromise their personal judgment or integrity;

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CAA ORGANIZATIONAL STRUCTURE

[STATE ORGANIZATION CHART]

- g) To avoid giving cause for resentment and abstain from conduct which would reflect adversely on the CAA; and
- h) Not to disclose any information of a confidential nature related to the findings of the audit to any other party other than those identified in this handbook.

2.1.4. Auditor Feedback

2.1.4.1. Following the conclusion of an audit and the compilation of the audit report, each individual auditor is required to complete and submit an Auditor Feedback Form (see Appendix 3) providing his/her observations on the conduct of the audit. These forms will be utilized to provide a qualitative assessment on the audit process so as to identify areas of improvement for future audits. The assessment will be carried out by the Chief, [DASS].

2.1.4.2. If an individual auditor or group of auditors has reason to believe that they are under any pressure to act illegally, improperly or in an unethical manner, or are asked to take any action that is in contravention of the procedures laid out in this Handbook, they shall report this matter in writing to the Director General CAA through the Chief, [DASS] without delay.

2.1.5. Aerodrome Inspector powers and authority

2.1.5.1. Aerodrome Inspectors carry formal authorizations, to be produced if required, enabling them to exercise their powers in accordance with all the elements of [CAR]. These powers include the ability:

- a) to inspect any part of any aerodrome;
- b) to investigate and test the effectiveness of aerodrome practices and procedures;
- c) to require an aerodrome operator, aerodrome manager or occupier of land outside the aerodrome occupied for business purposes in connection with the aerodrome to provide information relevant to inspections, surveys, tests and investigations;
- d) to enter on any land or in any buildings, access to which is necessary, for the purpose of inspecting an aerodrome; and
- e) to record an operation, procedure or installation in written, photographic or other electronic form.

2.1.5.2. The above powers apply equally to air navigation installations. Furthermore, Aerodrome Inspectors are allowed to take into restricted zones of airports, and use, any equipment necessary to their duties, including but not limited to cameras, video recorders and tape recorders. These powers may be exercised when CAA Aerodrome Inspectors are conducting audits, surveys and inspections.

2.2. Aerodrome Certificate holder's responsibilities

2.2.1. Tasks and responsibilities of the aerodrome operator:

The tasks and responsibilities of the aerodrome operator include:

- a) The aerodrome operator shall arrange for internal audits of the safety management system, including inspections of the aerodrome facilities and equipment.
- b) The aerodrome operator shall ensure that the internal audit reports, including the report on the aerodrome facilities, services and equipment, are prepared by suitably qualified safety personnel.
- c) The aerodrome operator shall retain a copy of the report(s) referred to in paragraph (b) above for a period to be agreed with the CAA. The CAA may request a copy of the report(s) for its review and reference.
- d) The report(s) referred to in paragraph (b) above must be prepared and signed by the persons who carried out the audits and inspections.
- e) The aerodrome operator shall maintain a procedure for preventive action to ensure that potential causes of problems that have been identified within the system are remedied;
- f) The aerodrome operator shall maintain a process to capture staff suggestions for improvement, followed by management review and possible implementation of those suggestions;
- g) The aerodrome operator shall maintain an internal quality audit programme to audit the aerodrome certificate holder's organization for conformity with the procedures in its manual and achievement of the goals set out in it.

2.2.1.2. Each certified aerodrome operator will incorporate an internal audit process to provide factual information for management to make appropriate decisions in accordance with the aerodrome manual. This internal audit should be able to;

- a) Determine the compliance or non-compliance of the audit elements with specified requirements;
- b) Determine the effectiveness of the implemented standards in meeting the specified objectives; and
- c) Provide the audited organization with the opportunity to improve the operational standard and overall performance.

2.2.1.3. The aerodrome operator's audit process will be contained in an internal quality audit programme that shall;

- a) Specify the frequency and the scope(s) of the audits taking into account the nature of the activity to be audited;
- b) Ensure audits are carried out by trained auditing personnel who are independent of those having direct responsibility for the activity being audited;
- c) Ensure the results of audits are recorded and reported to the personnel responsible for the activity being audited and the manager responsible for internal audits;
- d) Require preventive or corrective action to be taken by the personnel responsible for the activity being audited if problems are found by the audit; and

- e) Ensure follow up audits to review the effectiveness of any preventive or corrective actions taken are regularly carried out.

2.2.2. Corrective Action

2.2.2.1. The procedure for corrective action shall specify how;

- a) to correct an existing problem;
- b) to follow up a corrective action to ensure the action is effective; and
- c) management will measure the effectiveness of any corrective action.

2.2.3. Preventive Action

2.2.3.1. The procedure for preventive action shall specify how;

- a) to correct a potential problem;
- b) to follow up a preventive action to ensure the action is effective;
- c) to amend any operational procedure as a result of a preventive action; and
- d) management will measure the effectiveness of any preventive actions taken.

2.2.4. Management Review

2.2.4.1. The procedure for management review shall;

- a) specify the frequency of management reviews of the quality assurance system taking into account the need for the continuing effectiveness of the system;
- b) identify the responsible manager who shall review the operational standards; and
- c) ensure the results of the review are evaluated and recorded.

2.2.5. Tests

2.2.5.1. Each aerodrome certificate holder shall test its level of compliance with standards, the objective of which is to determine the effectiveness of both the processes and systems involved and the individual performance of staff members tasked with carrying out those processes in the system.

2.2.6. Records

2.2.6.1. Each aerodrome certificate holder shall maintain records to demonstrate the achievement of quality operational standards. Most of the records will be normal business processes and statistical information, however such records should include:

- a) Training reports and training records of all members of the organization, including management;
- b) Incident and occurrence reports;
- c) Internal audit reports;
- d) External audit reports;
- e) Recurrent testing reports;
- f) Equipment testing and servicing reports;
- g) Proposals for change;

- h) Records of work improvement coordination meetings and outcomes; and
- i) Management review meetings and reports.

CHAPTER - 3 Aerodrome manual

Note – Also see Generic Aerodrome Certification Procedure, Chapter 4.

3.1. Requirement for aerodrome operation

- 3.1.1. The general requirement for certain aviation entities and service providers to develop aerodrome manuals and submit them to the CAA for formal review derives its authority from the [Civil Aviation Act XXXX]. Additionally, the [Civil Aviation Regulations governing Aerodromes] [CAR] specifically requires certain aerodromes to be certified by CAA.
- 3.1.2. Aerodromes must be certified if:
 - a) international operations are conducted: or
 - b) *domestic operations are conducted by aircraft certified to carry more than [##] passengers; or
 - c) *the aerodrome is open to public use and has a published instrument approach procedure.

**Note to CAA – Please refer to State's legislation and policy to determine if these sub-items are appropriate. The Standards and Recommended Practices regarding aerodrome certification are available in Annex 14, Volume I, Paragraph 1.4.*
- 3.1.3. Certified aerodromes must have a current acceptable aerodrome manual to describe aeronautical data and other information specific to each particular aerodrome.

3.2. Aerodrome manuals

- 3.2.1. Submission of aerodrome manuals
 - 3.2.1.1. An aerodrome manual is required to be submitted to CAA as a component of a formal application for certification.
- 3.2.2. Acceptance of aerodrome manuals
 - 3.2.2.1. Upon receipt of a submitted aerodrome manual, the Chief, [DASS], has authority to accept, reject or require modification to the submitted aerodrome manual. Notification to the aerodrome operator of any disapproval or requirement for modification will be made in writing to the operator. Where an aerodrome manual is acceptable and the other elements of certification have been complied with, an aerodrome certificate will be issued.
 - 3.2.2.2. An accepted aerodrome manual also provides a basis for on-going surveillance of aerodromes and aerodrome operators by CAA Inspectors after initial certification has been achieved.
- 3.2.3. Amendment of aerodrome manuals
 - 3.2.3.1. Whenever necessary to retain currency or if directed by the CAA, an aerodrome operator shall amend the aerodrome manual and provide copy of the amendment(s) to CAA. The Chief, [DASS], has authority to accept, reject or require modification of the submitted aerodrome manual amendment.

- 3.2.3.2. Acceptance will result in an amended aerodrome manual. Notification to the aerodrome certificate holder of that acceptance, or rejection, or requirement for change to the amendment as a result of a submitted amendment or adjustment will be made in writing to the operator as soon as is practicably possible, and wherever possible prior to the proposed effective date of implementation of the proposed amendment or adjustment.

CHAPTER - 4 Aerodrome safety oversight

4.1. Aerodrome safety oversight

- 4.1.1. Aerodrome safety oversight in the broad sense means the total scope of activity conducted by CAA to assess that aerodrome operations are conducted to a level that is as safe as is reasonably practicable. Aerodrome certification and registration involves, but is not limited to, initial entry (via a permission from CAA in the form of a certificate or entry of data onto a formal registration list), continuing oversight action by way of audits and/or inspections, education activity and, where necessary, enforcement action (ranging from warnings to action to suspend or cancel certificates) as well as the imposition of fines.
- 4.1.2. Aerodrome safety oversight is a CAA function and is additional to any internal audit conducted by an individual aerodrome operator.
- 4.1.3. In this manual the safety oversight activity is limited to inspection and audit processes as they may be applied to certification, registration and surveillance activity by CAA. Although enforcement is mentioned, staff will be required to undertake specific additional actions when a need for certificate action (suspension or revocation) is determined or a decision to impose a fine is taken, such procedure should be contained within the CAA Enforcement Manual.

4.2. Safety oversight audit

- 4.2.1. Distinct differences between the aims and objectives of audits and inspections

There are distinct differences between the aims and objectives of audits and inspections, and the methodologies used to conduct each of them. An audit is a systematic and independent comparison of the way in which an aerodrome standard is being implemented, against the way in which the published procedures say it should have been implemented. See Fig 4-1 Overview of Audit Activities. An inspection is basically the act of observing a particular aerodrome operation, action, facility, equipment or document to verify whether the established procedures and requirements are followed, and whether the required standard of performance is achieved.

Audits are more comprehensive, focusing on system issues, and are more complex and time consuming than inspections. Inspections, by comparison, are more specifically focused on specific integral parts of aerodrome operations and are usually of shorter duration. Each of the two types needs to be planned for and a schedule created that allows for the regular conduct of both.

- 4.2.2. Safety Oversight Auditors and Inspectors

Aerodrome safety oversight audits and inspections shall only be carried out by CAA authorized and certified personnel. These personnel will have undergone audit training and be in possession of competency certificates in the conduct of aerodrome audits issued by the CAA. Staff appointed as CAA Aerodrome Inspectors will be required to possess the necessary qualifications and experience to serve as aviation safety lead auditors. Those without the necessary qualifications or experience may carry out audits and inspections only under the supervision of a person who is appropriately qualified and experienced.

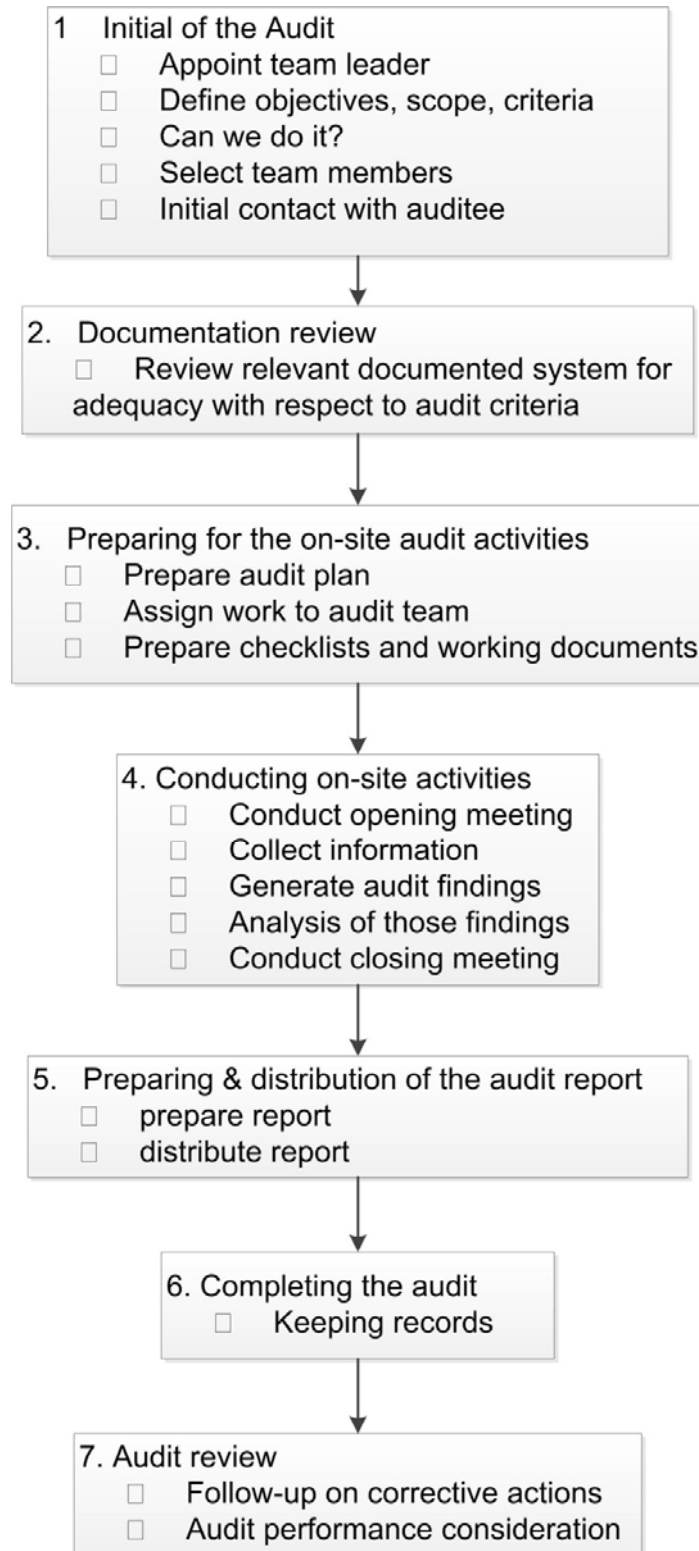


Fig. 4-1 Overview of Audit Process and Activities

4.2.3. Scheduling Audits/Inspections

4.2.3.1. The Chief, [DASS], is responsible for scheduling inspections and audits of all aerodrome certificate holders and other aerodrome operators.

4.2.3.2. The selection of the aerodrome and the frequency of the inspections and audits will be at the discretion of the Chief, [DASS], subject to the following;

- a) In normal circumstances each nominated aerodrome certificate holder will be the subject of audit at least once (1) per calendar year;
- b) In normal circumstances each registered aerodrome operator will be subject to audit at least once every two years;

Note – Applicable only when a State has “registered” but uncertified aerodromes.

- c) Other aerodromes will be subject to inspection from time to time as determined by the Chief, [DASS];
- d) In the intervening period between scheduled audits, inspections of relevant parts of aerodrome operations may take place, e.g. Inspectors may attend at aerodrome emergency exercises;
- e) In certain situations, or following the occurrence of an accident/incident, or at the discretion of the Director General, additional full or partial audits may be scheduled in addition to any other action that may take place.

4.2.4. Notifying Audits/Inspections

4.2.4.1. The Chief, [DASS] shall notify in writing each selected aerodrome operator that an audit has been planned for that facility or service provider (See Appendix 4).

4.2.4.2. Every notification shall include;

- a) The dates of the intended audit;
- b) The details of the CAA auditors;
- c) Scope of activities to be covered under the audit;
- d) List of persons to be made available to the audit team for interview;
- e) Deadlines for the submission of the pre-audit questionnaire (if applicable); and
- f) Request for essential documentation, as specified by the CAA that may be required to be reviewed prior to the actual audit.

4.2.5. Roles of Auditors

4.2.5.1. All auditors (including the audit leader) are responsible for:

- a) complying with the CAA aerodrome audit procedures;
- b) clarifying audit requirements if necessary;
- c) planning and preparing for the audit;
- d) carrying out the audit,
- e) documenting observations;
- f) reporting the audit results;
- g) recording findings in the CAA aerodrome audit database;

- h) ensuring corrective and preventative actions are followed up for effective completion;
- i) safeguarding all documents relating to the audit;
- j) maintaining confidentiality and treating privileged information with discretion;
- k) cooperating with and supporting the audit leader.

4.2.6. Roles of Audit Leader

- 4.2.6.1. In addition to the roles of an auditor, the audit leader has additional responsibility for:
- a) liaison with the aerodrome certificate holder regarding the date and time of the audit;
 - b) ensuring travel and accommodation is booked, if required;
 - c) assigning responsibilities to team members;
 - d) preparation of the audit timetable;
 - e) ensuring team members are adequately prepared
 - f) resolving any issues regarding written programmes and manuals before the audit;
 - g) carrying out the opening meeting;
 - h) leading and supporting the audit team throughout the audit;
 - i) raising and resolving issues with the aerodrome certificate holder during the audit;
 - j) ensuring findings are soundly based, and properly recorded;
 - k) coordinating preparation of the audit report;
 - l) writing the draft and final audit/inspection report;
 - m) ensuring adequate preparation for the exit meeting;
 - n) carrying out the exit meeting; and
 - o) presenting findings, identifying causal factors, and negotiating corrective and preventive actions;

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CHAPTER - 5 Aerodrome safety system audit

Note – See Generic Aerodrome Certification Procedure, Chapter 5 for information on different types of audit/inspection and off-site or on-site verification activities.

5.1. System safety audit process

5.1.1. Three (3) stages to an audit,

- a) Preparation for the audit;
- b) Conduct of the audit on-site; and
- c) Recording of findings, reporting and follow-up.

5.1.2. Preparation for Audit/Inspection

5.1.2.1. As mentioned in Section 4.2.1, there are distinct differences between audits and inspections. However, many of the processes for the two remain essentially the same, albeit that an audit is far more detailed.

5.1.2.2. There are four (4) phases to the preparation for an audit or inspection, namely:

- a) Identification and review of all pertinent documentation, including receipt and review of pre-audit questionnaire;
- b) Development of checklists;
- c) Preparation of audit timetable.
- d) Confirmation of audit arrangements with the aerodrome certificate holder being audited.

5.1.3. Review of Documentation

5.1.3.1. With regard to the essential documentation that needs to be reviewed, this depends on the aerodrome certificate holder being audited and the scope of their operations. Generally speaking, the following documents need to be reviewed before each audit is carried out;

- a) The aerodrome documents for the entity being audited; e.g. Aeronautical data, Aerodrome Operations procedures, AEP Manual, SMS Manual;
- b) Appropriate regulatory and other legislative texts; e.g. Manual of Standards for Aerodromes;
- c) Operating manuals and/or standard operating procedures;
- d) Site plans and descriptions of the aerodrome certificate holders operations;
- e) Log books on facilities and equipment;
- f) Flight schedules;
- g) Previous audit or inspection reports; and
- h) Information contained in the pre-audit questionnaire.

5.1.3.2. The purpose of this review is to determine the status of the documentation as it relates to the entity being audited, and to identify key areas that need to be observed and analyzed during the actual audit. Particular attention should be paid to previously identified items of non-compliance from previous reports. This review will also assist in

the preparation of checklists to be used by the audit team during the actual conduct of the audit.

- 5.1.3.3. The pre-audit questionnaire may provide an opportunity to gather useful information about the entity being audited. This questionnaire shall be developed by the audit leader and transmitted to the aerodrome certificate holder in accordance with the requirements of this handbook. See Appendix 5 for a pre-audit questionnaire for an airport operator.
- 5.1.4. Preparation of Checklists
 - 5.1.4.1. The use of checklists is to provide a structure to the audit that allows for consistent and standardized conduct of audits. Standardizing the conduct of audits guarantees objectivity, impartiality and credibility. In addition, this will also provide a degree of transparency for all stakeholders subject to audit.
 - 5.1.4.2. Checklists will be prepared by Team Leader and distributed to the members of the audit team in advance of the audit in order that they are fully prepared. Generic checklists have been developed and are included in this handbook, and they are applicable to each category of aerodrome (such as certified aerodromes, registered aerodromes and heliports). However, the operational details may vary from one aerodrome to any other, so checklists specific to that aerodrome operator need to be developed prior to the audit.
- 5.1.5. Preparation of Audit Timetable
 - 5.1.5.1. An integral part of the preparation phase of an audit is the development of the audit timetable. This is done by the audit team leader once the notification process has been completed and all necessary documentation has been received and reviewed.
 - 5.1.5.2. When determining the audit timetable, the audit leader will take into consideration the following elements;
 - a) Determine the principal persons needed to be interviewed; (e.g. Fire Chief, Apron Supervisor, SMS Manager);
 - b) Determine the sequence of the audit, including meetings, interviews, document / record review, observations of facilities and operations, and discussions with operational staff;
 - c) Estimate the time needed to complete each anticipated activity;
 - d) Make allowances for travelling between areas being audited (if necessary);
 - e) Schedule entry and exit meetings;
 - f) Make allowances for peak, off-peak, and out of normal hours observations of activities, facilities and equipment;
 - g) Allow for review of operational documentation not received prior to the audit; and
 - h) Allow time for delays and unforeseen occurrences.
- 5.1.6. Confirmation of Audit Arrangements
 - 5.1.6.1. Prior to the scheduled date of the audit, the audit leader should confirm to the aerodrome certificate holder the date(s) and location of the audit, and the availability of senior management and key staff identified in the preparation of the timetable. It is highly desirable to forward the audit timetable to the aerodrome operator to assist in their preparation for the audit.

5.1.7. On-site conduct of Audits and Inspections

5.1.7.1. The purpose of the conduct phase of the audit is to gather information and then compare that gathered information to the information contained within the approved documentation which establishes the standards for operation of the entity being audited. In this case:

- a) [Civil Air Regulations governing Aerodromes];
- b) Aerodrome standards to which the aerodrome certificate holder may be subject; and
- c) The aerodrome manual and other documents of the entity being audited.

5.1.7.2. Information can be gathered by:

- a) Observations;
- b) Review of documentation; and
- c) Formal and informal interviews.

5.1.8. Entry meeting

5.1.8.1. The first action taken when commencing an audit is the conduct of an entry meeting. The purpose of the entry meeting is to:

- a) Establish communication between the audit team and representatives of the aerodrome certificate holder;
- b) Ensure there is clear understanding of the purpose of the audit;
- c) Explain how the audit will be carried out;
- d) Brief the auditee about expectations for support for the audit team;
- e) Clarify and confirm the audit timetable; and
- f) Resolve any other matters of concern.

5.1.8.2. A sample of the typical agenda items for an opening meeting can be found at Appendix 6.

5.1.9. Evidence of conformity

5.1.9.1. Observations of operational equipment, activities and procedures form the main source of evidence that the aerodrome is conforming to regulatory requirements or otherwise. Verifiable evidence is necessary to provide the true measure of compliance or non-compliance with required standards and procedures. Checklists for the inspectors' guidance can be found in **Appendix 7**. Evidence provides the verification that written procedures are in fact implemented.

5.1.9.2. Additionally evidence by assessment of each facility, equipment or procedure through observations and discussions to determine compliance with requirements and documentation plus implementation assists to establish compliance with mandatory obligations.

5.1.9.3. If non conformities are found, look for facts to establish proof and make a formal record (copy of relevant document, checklist notes, photos etc.).

5.1.9.4. Exercise discretion when making observations in the workplace. The presence of an auditor (often accompanied by a senior person within the organization) can have a

disrupting impact on the workflow in what may be a potentially hazardous environment. Take care to ensure the presence of the auditor does not create an abnormal situation that could lead to errors or omissions being made by those being observed. Do not do anything that could disrupt the workflow, or refocus staff away from their primary tasks.

- 5.1.9.5. Where appropriate, watch as technical processes are performed, and observe the work practices of those involved. Observe the facilities and equipment that are being used, the work instructions provided, and the working environment. Talk to the people in the workplace. Establish how many people are involved, and if they have duties other than those they perform in support of aerodrome operations.
- 5.1.9.6. Identify reporting actions for identified or perceived problems. Also identify what the actual documentation process is and whether it conforms to the required process. If deficiencies are seen, discuss them with the management representatives away from the workplace.
- 5.1.9.7. Make use of the checklists developed for the audit to structure and record the observations.
- 5.1.10. Interviewing
 - 5.1.10.1. Another principal element of the audit is the interview of selected staff members from the aerodrome certificate holder. The position and job function of the interviewee will determine the type and scope of questions to be put to the interviewee. It is always best to interview the most senior representative available first, (manager can have a viewpoint/overview of all operations) and follow this with interviews of other managers and key personnel identified in the audit plan. This can extend to individual staff members if necessary, but normally an informal conversation at their workplace would achieve the same result.
 - 5.1.10.2. Establish how the senior person expects the aerodrome certificate holder to operate from an aerodrome operation perspective. Identify any changes that have been made, or are being planned. Gain knowledge of other issues that may be affecting the organization, for example, changes in the scope of work carried out, industrial relations (union, agreement) etc. Establish how the senior person satisfies him or herself that the entity is in compliance with the approved aerodrome documents. Determine how identified or perceived problems are recorded and handled.
 - 5.1.10.3. Ask open questions based on the checklists. If necessary, and depending on the information received, adjust the depth of examination. Try to avoid asking questions that can be answered with a simple 'yes' or 'no'. Try to focus on what is occurring now, not what might occur in the future as the audit relies on verifiable evidence.
 - 5.1.10.4. Formal interviews need to be carefully structured. The objective of the formal interview is to meet the main representatives of the aerodrome certificate holder and discuss existing measures. Interviews are usually preceded by on-site observations so the auditor is already aware of the situation and has perhaps already noticed discrepancies or exceptional performance. Any discrepancy must be mentioned to the audited party during subsequent interviews. The location of the interview is important. The selection of the person's office is usually the best option, as interviewing him/her in his/her natural environment might make it easier to establish a climate of trust and reduce possible tension. The auditor is the one who, as a rule, travels to meet the interviewee. This is preferable to having individuals meet in the auditor's office and helps avoid the impression of an interrogation.
- 5.1.11. Recording of Audit Findings

- 5.1.11.1. Findings are the result of an observed action once it has been compared to the required approved documentation. An observation of a documented requirement or an implemented requirement will indicate whether compliance with required procedures is achieved or not. A non-compliance is classified as a finding, and it should be accompanied by a request for corrective action. Findings are not opinion, but statements of facts as observed by the auditor. As such they must be backed up by proof, or other evidence of non-compliance, such as a photograph or the completed checklist, explanation of deficiency, or a statement of findings by the auditor.
- 5.1.11.2. Audit findings shall be classified into different categories, as follows:
- a) Non-compliance Level 1 finding, defined as a finding with the regulations, requirements, standards, aerodrome procedures and manuals, the terms of an approval or certificate which lower standard or has the potential to result in loss of life, serious injury or damage to facilities, and require immediate corrective action. The risk shall be assessed in accordance with, [Reference to provision on SMS]. Risks associated with Category A finding are considered unacceptable.
 - b) Non-compliance Level 2 finding, defined as finding with the regulations, requirements, standards, aerodrome procedures and manuals, the terms of an approval or certificate which could lower standard or has the potential to cause significant safety problems., and which requires corrective action to be completed within an agreed time frame. Risks associated with Level 2 finding are considered tolerable but will require mitigations to become acceptable.
 - c) Not Applicable (NA), being an element or item on a check list that does not apply to the entity being audited although a standard may exist, (e.g. de-icing facility).
 - d) Not Confirmed (NC), being an element whose compliance with required documentation could not be verified during the audit for whatever reason, (e.g. lack of time, absence of key personnel).
 - e) Observations are comments intended to identify possible improvement or trends toward non-compliances. Comments are not binding on the auditee and are made for consideration.
- 5.1.11.3. It is important that the senior management of organizations being audited are made aware of the results of the audit, including the specific findings. Obviously Level 1 finding needs to have priority. Therefore, it is necessary to conduct a post audit or exit meeting where these findings can be communicated. It may not be necessary to inform the aerodrome certificate holder of everything that may be included in the final written report, as the audit team may need time to reflect upon their observations before concluding a finding, so the onus is on providing the aerodrome operator with an initial explanation of the major findings. Additionally, all issues of concern may be communicated to the auditee's staff during the audit as they arise.
- 5.1.12. Exit meeting
- 5.1.12.1. The objectives and activities of the post audit, or exit, meeting are to;
- a) Review the purpose of the audit and how it was carried out;
 - b) Record attendance at the meeting;
 - c) Present the major audit findings;
 - d) Request comments or explanations on any of the findings;
 - e) Confirm corrective actions (if possible) and agree time frames for their implementation;

- f) Advise what to expect in the final audit report together with time frame for delivery; and
- g) Identify, and where possible resolve, any other issues of concern.

5.1.13. Audit/Inspection Reports

- 5.1.13.1. The audit report formally documents the compliance performance of the aerodrome operator by recording matters of non-compliance with mandatory regulatory standards and other safety-related obligations. The report must accurately record all that took place during the audit, should reflect the tone of the audit and contain no surprises.
- 5.1.13.2. It is the responsibility of the team leader to coordinate the development of the audit report. The team leader must sign the report.
- 5.1.13.3. While each report will contain factually varying information, it is important that the reports should be similarly structured and formatted to allow for comparison and analysis and to ensure that each audit completed conforms to a consistent standard. A standardized report format is contained in Appendix 9.
- 5.1.13.4. Audit reports generally will not include recommendations to address findings. The responsibility for proposing and implementing appropriate remedial activities rests with the aerodrome operator.
- 5.1.13.5. The audit or inspection report shall also specify a time frame for the organization being audited or inspected to respond to the findings made in the report.
- 5.1.13.6. It is the responsibility of the team leader to ensure that the completed audit or inspection report is sent/delivered to the aerodrome operator within [XX] weeks from the on-site audit or inspection exit meeting. This period must be adhered to.

5.1.14. Corrective Actions

Note – Also see Generic Aerodrome Certification Procedure, Para. 5.5

- 5.1.14.1. On receipt of an audit or inspection report, the organization concerned is required to submit a Corrective Action Plan (CAP) within an agreed period.
- 5.1.14.2. The CAP is a written confirmation by the aerodrome certificate holder detailing the measures they intend to implement, to address all of the findings of non-compliance. The CAP must incorporate actions that at least will remedy the deficiency in the short term and prevent a future recurrence.
- 5.1.14.3. Failure to compile a CAP, or failure to comply with the deadline for submission of the CAP, or failure to implement the measures outlined in the CAP may result in enforcement action, including possible sanctions against an aerodrome certificate and/or imposition of a fine.
- 5.1.14.4. Every CAP generated as a result of findings communicated to an aerodrome certificate holder, following an inspection or audit, must contain, as a minimum;
 - a) The recommendations/elements in need of improvement;
 - b) Planned corrective action;
 - c) Identification of the person(s) responsible for implementing and finalizing the corrective action; and
 - d) Time frame for completion.

- 5.1.14.5. Where the CAA has not received advice that corrective action has been taken by the due date, the aerodrome operator is to be advised that it is overdue, and that the CAA expects the matter to be resolved within ten (10) days. If a formal notice has not been received with satisfactory closing action, within the ten (10) day period, the aerodrome certificate holder should be advised in writing by the audit leader that, unless immediate action is taken to close the findings, then action may be taken against the aerodrome certificate holder in accordance with regulatory provisions.
- 5.1.14.6. In cases where the aerodrome certificate holder being audited or inspected does not implement action regarding the findings made by the audit team because it disagrees with any of them, it should direct a formal written notice of disagreement to [CAA] with [XX] days after receiving the audit report, laying down the reasons for the disagreement. [CAA] may review this and determine subsequent action in accordance with the regulatory requirements and the best interests of safety for the industry within the [STATE].
- 5.1.14.7. The team leader is responsible to ensure that a follow-up audit or inspection takes place as necessary after the actions mentioned in the CAP have been advised as completed, in order to ensure that the stated corrective action has taken place within the agreed time frame, and that the corrective action has been successful in ensuring compliance with the aerodrome standards and/or other regulatory obligation.
- 5.1.14.8. The Chief, [DASS], is responsible for maintaining a database of audit and inspection findings. Each team leader is to enter their respective results onto this database, and review the contents on a regular basis to ensure that timeframes are being respected and overdue actions are identified.
- 5.1.15. Audit Records
- 5.1.15.1. All documents relevant to the audit or inspection should be retained and placed on the aerodrome certificate holder's file after completion of the audit. These should include, where applicable, the following;
- a) A copy of the initial notification of the audit;
 - b) The audit timetable;
 - c) Completed checklists;
 - d) All notes made during the audit by the audit team;
 - e) Records of any interviews;
 - f) Records of entry and exit meetings;
 - g) A copy of the Corrective Action Plan (CAP);
 - h) Results of follow-up activities to ascertain compliance;
 - i) Post Audit feedback form from operator (See Appendix 9)

- 5.1.15.2. It is the responsibility of the Chief, [DASS] to establish and maintain an audit database that will contain all the findings gained from the audits and inspections of all aerodrome certificate holders. This database will be utilized by CAA to monitor the constant surveillance on all aerodrome certificate holders and registered aerodrome operators, and in the development of audit and inspection schedules and timetables.

5.2. Guidance for Inspection

5.2.1. Evaluation of Aerodrome Data

5.2.1.1. Purpose

The purpose to provide guidance and information to aerodrome inspectors to use when checking or evaluating aerodrome data required to be published in the Aeronautical Information Publication.

5.2.1.2. References

- a) [CAR XXXX] or [MAS]
- b) Checklist reference:
 - 1) Appendix C.5 Aerodrome Certification Manual Contents Checklist (Form [AGA CHECKLIST]) Part 3
 - 2) Appendix C.5 Aerodrome Certification Manual Contents Checklist (Form [AGA CHECKLIST]) Part 4.1 Aerodrome Reporting
 - 3) AIH Appendix 7A – Aerodrome Manual Checklist, Part 3

5.2.1.3. Guidance and Procedures

- a) General Information
 - 1) Paragraph of [MAS] contains a complete list of aerodrome data to be originated and included by the Aerodrome Operator in the Aerodrome Manual. The information must be available to the operator prior to initial certification.
 - 2) Before being sent to the Aeronautical Information Services for publication in the AIP, the Authority must be satisfied that the information is adequate. It must be ensured that all parties in the data chain including the data originator, the data provider and the data publisher have quality systems for maintaining the integrity of aeronautical data.
 - 3) Any proposed changes by the Aerodrome Operator to published information in the AIP must be checked and approved by the Authority before being sent to AIS for publication.
- b) Checklist
 - 1) Part 3 of Aerodrome Certification Manual Contents Checklist (Form [AGA CHECKLIST]) contained in Appendix C.5 of the [MAS] relating to aerodrome data and aerodrome reporting procedures must be completed by the Aerodrome Inspector when assessing aerodrome data during initial certification and during inspection for certificate renewal. Subpart 4.1 of Part 4 Aerodrome Reporting of the same Checklist could also be used in evaluating reporting procedures during surveillance inspections. AIH Appendix 7A – Aerodrome Manual Checklist, Part 3 can also be utilized.
- c) Evaluation

The AI must determine if:

- 1) There is a system to forward any new data or variation of existing data to the aeronautical information service;
- 2) There is a quality system for protecting aeronautical data from the point of origination in the data chain to the next intended user;
- 3) There is a system for prompt notification of changes to variable and permanent data.

Note: Information requiring engineering survey and assessment should be gathered for verification by qualified technical person.

Examples of temporary data are limitations and warnings such as temporary runway or taxiway closure, temporary obstacles, runway surface condition reports, system failures and bird hazards. Examples of variable data are runway declared distances, hours of operation, visual aids and such facilities as rescue and firefighting. Examples of permanent data are aerodrome reference point, runway strength, runway dimensions and layout, elevations and permanent obstacle.

5.2.2. Evaluation of Aerodrome Physical Characteristics

5.2.2.1. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when evaluating the aerodrome physical characteristics of an aerodrome.

5.2.2.2. Reference

- a) Relevant provisions in [CAR]
- b) Checklist reference/s:
 - 1) AIH Appendix 7B-2: Physical Characteristics, Visual Aid and Aerodrome Facilities FORM AGA-ATI-0002;
 - 2) AIH Appendix 7C-1: On-site verification Checklist; and
 - 3) AIH Appendix 11: Aerodrome Surveillance Checklist.

5.2.2.3. Guidance and Procedures

- a) General Information.
 - 1) Prior to initial certification, the aerodrome designs and drawings must be evaluated by appropriate aerodrome standards inspectors, who would ensure that they meet requirements before initial approval is given by the Authority and in case of construction activities, prior to commencement of aerodrome construction work.

- 2) Details relating to the physical characteristics in approved designs/drawings must be consistent with what is to be provided in the aerodrome manual and on site.
 - 3) After initial certification and where a change to the physical characteristics of the airside facilities is proposed by the Aerodrome Operator, such a proposal must be processed in accordance with the procedure in the [MAS] MOWP, [MAS] and SMS requirement on management of change.
 - 4) Changes to physical characteristics of airside facilities at an aerodrome may include but not limited to:
 - i) Construction, realignment, or alteration of the manoeuvring area;
 - ii) Construction, realignment or alteration of apron.
- b) Checklist.
- AIH Checklist, Physical Characteristics, Visual Aid And Aerodrome Facilities FORM AGA-ATI-0002 presented in Appendix 7B-2 and Appendix C.5 Aerodrome Certification Manual Contents Checklist (Form [AGA CHECKLIST]) Part 4.5 relating to aerodrome movement area, must be completed prior to initial certification and during the inspection for certificate renewal.
- c) Evaluation
- 1) During initial certification inspection, the AI must check the dimensions and surface conditions of runway(s), runway shoulders, runway strip(s), runway end safety areas, stopway(s) and clearways, taxiway(s), taxiway shoulders, taxiway strips and aprons.
 - 2) **Pavement.**

[To be developed]
 - 3) **Safety Areas.**

The AI should:

 - i) Determine if there are any hazardous ruts, depressions, humps or variations from the normal smooth surface.
 - ii) Check to ensure no object is located in a safety area, except objects that must be in the safety areas because of their functions (such as runway lights, signs, or navigational aids). These objects must be constructed on frangibly mounted structures of the lowest practical height.
 - iii) Determine if the base for any equipment in safety areas flushes with surrounding ground and equipment and NAVAIDs mounted on frangible couplings.
 - iv) Check to ensure that manhole and handhole covers are at grade level and can support vehicles and aircraft. Check to ensure that mounts for light fixtures are at grade level.
 - v) Check for surface variation and other damage caused by rodents or other animals.

- vi) Take note of any objects that are not frangible or not at grade level. Also note extraneous equipment and objects, such as construction equipment, and surface variations that would cause damage to an aircraft or impede emergency response vehicles.
- vii) The AI must determine if all unpaved areas available for aeroplanes, including loading aprons and parking areas, are maintained to meet the required conditions; if the safety areas and runway strips are maintained to the required conditions. Unusual aerodrome conditions caused by seasonal variations, such as, mud, water, etc., are evaluated on a case-by-case basis. The AI may have the vehicle operator drive in portions of the safety areas to evaluate surface conditions, provided conditions allow it.

5.2.3. Evaluation of Obstacles

5.2.3.1. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when evaluating obstacle limitation surfaces associated with aerodromes.

5.2.3.2. Reference

- a) Relevant provisions in [CAR], [MAS]
- b) ICAO Doc. 9137 Part 6 (Control of Obstacles).
- c) Checklist reference/s:
 - 1) Relevant checklists in [MAS], if applicable
 - 2) AIH Appendix 7A: Aerodrome Manual Checklist, Section 13
 - 3) AIH Appendix 7B-1: Obstacle Restriction Form AGA-ATI-0001
 - 4) AIH Appendix 7C-1: On-site Verification Checklist 4.13
 - 5) AIH Appendix 7C-13: Obstacle Control 4.13
 - 6) AIH Appendix 11: Aerodrome Surveillance Checklist, Area of Inspection, Aerodrome Operations III (vi), (xi), (xii)

5.2.3.3. Guidance and Procedures

- a) General Information
 - 1) It is required that a number of imaginary surfaces be established around the vicinity of aerodromes operated under [MAS] x. These surfaces must be free of penetration by any object including structures, vegetation (e.g. tree) and terrains.
 - 2) The aerodrome operator is required to establish a process for monitoring the airspace around their aerodromes to ensure that they are free from these objects. Aerodrome operators are also required to report new or on-going construction around aerodrome to the Authority who is statutorily responsible for determining whether such construction would constitute a hazard to air navigation and subsequently providing aviation height clearance.

- 3) In determining whether an object constitutes a hazard to air navigation, an inspector must apply the ultimate aerodrome development approach in his evaluation. In the ultimate aerodrome development approach, the obstacle limitation surface of the ultimate aerodrome layout as provided in the aerodrome master plan is taken into account in determining whether or not a permanent obstacle would constitute a hazard. Temporary obstacles may be evaluated based on existing aerodrome development only.

b) Checklist

Checklists listed in 5.2.3.2 e) (i, ii, iii & iv) relating to obstacle limitation surfaces, would normally have to be completed during initial certification and certificate renewal inspections. Checklist in Appendix 7-11 may be used during surveillance and other special-purpose inspections. As circumstances warrant, depending on the objective and scope of the inspection, the checklist should be tailored to meet specific needs.

c) Evaluation

The AI must determine that:

- 1) All fixed and mobile objects, as defined in the manual of standards (or amend as appropriate) within the aerodrome operators authority are either marked or lighted or removed, unless determined to be unnecessary by an aeronautical study or the shielding principle, where applicable.
- 2) There are no objects extending above the obstacle protection surface for visual approach slope indicator system and that the approach light plane is free of infringements.
- 3) The operator has conducted an obstacle survey to produce a chart and if follow-up surveys are conducted whenever significant changes occur. The Chart shall show a plan view of the entire aerodrome and its environs to the outer limit of the conical surface where established), together with profile views of all obstacle limitation surfaces. Each obstacle should be identified in both plan and profile with its description and height above the datum, which should be specified on the chart.
- 4) Electronic and visual aids which are obstacles are frangibly designed and constructed and mounted on frangible couplings (marking may be omitted if the obstacle is lighted by high intensity obstacle lights).
- 5) The operator has established a programme of regular and frequent visual inspection, of all areas around the aerodrome including a daily observation of all obstacle lights both on and off the aerodrome and corrective action in the case of light failure, in order to be sure that any construction activity or natural growth (i.e. trees) likely to infringe any of the OLS is discovered before it may become a problem.

5.2.4. Evaluation of Visual Aids for Navigation

5.2.4.1. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when evaluating visual aids for navigation.

5.2.4.2. Reference

- a) Relevant provisions in [CAR], [MAS]
- b) ICAO Doc. 9157 Part 4 (Visual Aids).

c) Checklist reference/s:

- 1) Relevant checklists in [MAS]
- 2) AIH Appendix 7A: Aerodrome Manual Checklist, Part 2, 3 & Part 4, Section 6
- 3) AIH Appendix 7B-1: Obstacle Restriction Form AGA-ATI-0001
- 4) AIH Appendix 7B-2: Physical Characteristics, Visual Aid and Aerodrome Facilities Form AGA-ATI-0002
- 5) AIH Appendix 7C-6: Visual Aids and Aerodrome Electrical Systems
- 6) AIH Appendix 7-11: Aerodrome Surveillance Checklist, Area of Inspection, IC Operational Area (iii)
- 7) AIH Appendix 7-11: Aerodrome Surveillance Checklist, Area of Inspection; III. Aerodrome Operations (x)

5.2.4.3. Guidance and Procedures

a) General Information

- 1) It is required that all aerodromes operated under [CAR] x.x.xxx; x.x.xxx; x.x.xxx and [MAS] x.x; x.x; xx be provided with visual aids. The type of aids to be provided would depend on traffic density, visibility condition and complexity of the aerodrome layout.
- 2) Where a change to the configuration and specification of visual aids at an aerodrome is proposed by the Aerodrome Operator, such a proposal shall be processed in accordance with the procedures.
- 3) Proposed change to visual aids at an aerodrome may arise from:
 - i) Construction, realignment, or alteration of the manoeuvring area;
 - ii) Construction, realignment or alteration of the apron;
 - iii) Change status from Visual Flight Rules (VFR) to Instrument Flight Rules (IFR); and
 - iv) Change in time of use from daylight operation only to day and night operations.

b) Checklist

Checklists listed in 5.2.4.2 e relating to Visual Aids, would normally have to be completed during initial certification and certificate renewal inspections. AIH Appendix 7-11: Aerodrome Surveillance Checklist, Area of Inspection; III. Aerodrome Operations (x) may be used when evaluating alterations made to an airside visual aids arising from the factors listed in 3) above. The checklist is to be used during surveillance inspection and other special- purpose inspections. As circumstances warrant, depending on the objective and scope of the inspection, the checklist should be tailored to meet specific needs.

c) Evaluation

1) **Markings.**

The AI must determine if:

- i) The status of markings with respect to correct color-coding, peeling, blistering, chipping, fading, and obscurity due to rubber buildup are adequate or not.
- ii) All runway hold position markings are clearly visible.
- iii) During and after construction projects, new markings for compliance with [Manual of Standards for Aerodromes].
- iv) If the markings have glass beads, the reflectivity of glass beads is adequate at night.
- v) Road holding position marking is provided at runway/road intersections.
- vi) There are non-standard marking or markings that are obscured, faded or deteriorating.

2) **Signs.**

The AI must determine if:

- i) Signs are easy to read, in accordance with color standards, retro-reflective, and that all lighted signs are working and not obscured by vegetation, dirt, dust, etc.
- ii) Signs are frangibly mounted and concrete bases are properly.
- iii) Sign panels are not missing or damaged, that they have the correct legend and arrow orientation, and that they are not cracked or broken.
- iv) During and after construction projects, new signs are in compliance with specifications in the [MAS] x.x.
- v) During periods of darkness, signs are properly illuminated, if mandatory instruction signs are illuminated with the associated runway lighting system, check signs for correct operations; that they are on the correct circuits, they do not flicker and that they follow the intensity setting of the runway or taxiway lights.
- vi) There is non-standard sign or any sign that is not functioning, is faded or damaged.

3) **Lighting.**

The AI must determine if:

- i) The following are operable, if installed, and that vegetation or deposits of foreign material do not obscure the light fixture.
 - Runway and taxiway lights, including approach lighting and visual approach slope indicator system;
 - Taxiway centerline or edge markers (i.e. reflectors);
 - Stop bars and no-entry bar;
 - Intermediate holding position lights;
 - De-icing/anti-icing facility exit lights;

- Runway guard lights (both elevated and in-pavement, if installed);
 - Apron floodlighting;
 - (Advanced) visual docking guidance system;
 - Aircraft stand manoeuvring guidance lights; and
 - Runway status lights.
- ii) The following are operable, if installed:
- Apron lights and floodlights used in construction to ensure they do not cause glare or confusion to pilots and air traffic controllers;
 - Obstruction lights; and
 - Lighting in fuel storage areas within the aerodrome.
- iii) Note all fixtures missing and lights that are not working or appear dim.
- iv) Note any missing or broken light fixture lenses.
- v) Runway and taxiway lights and runway threshold lights are the proper color and are oriented correctly.
- vi) The aerodrome has an operational wind direction indicator to provide aerodrome surface wind direction information. If the aerodrome is open to flight operations during hours of darkness, the required wind direction indicators must be lighted. [MAS] x.x.x.x provides specification for the construction of a circular band around a wind cone. The segment circle must be clear of vegetation and be seen easily from the air.
- vii) An aeronautical beacon has been installed to specification where conditions necessitate such installation.
- viii) Performance level objectives for approach and runway lighting in a precision approach lighting system are in accordance with specification. Particular attention should be paid to situations where two or more consecutive lights are missing.
- ix) Road holding position light is provided at runway/road intersections.
- x) There is a visual docking guidance system which provides alignment and stopping position guidance, where marshaling services is not provided.

5.2.5. Evaluation of Visual Aids for Denoting Obstacles

5.2.5.1. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when evaluating visual aids denoting obstacles.

5.2.5.2. Reference

- a) Relevant provisions in [CAR], [MAS]
- b) ICAO Doc. 9157 Part 4 (Visual Aids)
- c) Checklist reference/s:

- 1) AIH Appendix 7B-2: Physical Characteristics, Visual Aid and Aerodrome Facilities Form AGA-ATI-0002.

5.2.5.3. Guidance and Procedures

a) General Information

- 1) It is required that the operators of aerodromes regulated under [CAR] x.x.xxx and [MAS] x.x.x.x should establish a mechanism for continually monitoring existing obstacles around their aerodromes for the purpose of ensuring among others, that markings and lights fitted to these obstacles are maintained in serviceable condition.
- 2) CAA must ensure that operators carry out a regular inspection or visual monitoring of their obstacle limitation surfaces around airport to ensure that serviceable marking and lighting are in place and the height of such structures have not been increased without approval.

b) Checklist

The checklist in 5.2.5.2 e) may be used during other special-purpose inspections to the extent applicable

c) Evaluation

The AI must:

- 1) Determine if marking and lighting are in accordance with specification in [MAS] x.xx.x and [MAS] x.xx.x
- 2) Determine, if wind direction indicator, apron floodlighting and other tall structures within the airside are fitted with obstacle light and if obstacle lights are operable. Check the operator's Aerodrome Manual (AM) for a list of lighted obstructions.
- 3) Check to see if construction is underway on or near the aerodrome that could affect aircraft operations, check for any vegetation, especially, trees, that may penetrate the obstacle limitation surfaces.
- 4) Check to ensure that construction equipment, especially tall cranes being used at construction sites, are not an obstruction.
- 5) Determine if obstructions are properly marked and lighted.
- 6) Report any obstruction light that is missing, inoperative or damaged, and any object that appears to be an obstruction and is not properly marked or lit.

5.2.6. Evaluation of Visual Aids for Denoting Restricted Use Area

5.2.6.1. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when evaluating visual aids denoting restricted use areas.

5.2.6.2. Reference

- a) Relevant provisions in [CAR], [MAS]
- b) ICAO Doc. 9157 Part 4 (Visual Aids)
- c) Checklist reference:

1) AIH Appendix 7C-8: Aerodrome Works Safety 4.8

5.2.6.3. Guidance and Procedures

a) General Information

- 1) It is required that aerodrome operators establish procedures for temporary and permanent movement area closures and safety precautionary measures to be taken during routine and major construction work on the airside of an aerodrome.
- 2) Safety precautionary measures for major construction work in an aerodrome airside are to be incorporated in a work safety plan which must be approved by the Authority before the commencement of such work. A template work safety plan is provided in [MAS] xx.xx and xx.xx. Aerodrome Inspectors should use the template as guidance when reviewing an operator's plan.
- 3) Where circumstances necessitate the imposition of restriction on the use of a runway that would result in a reduction in the length of the runway, the Aerodrome Operator is required to ensure that runway threshold is displaced using appropriate specification of markings and light if applicable.
- 4) Where an aerodrome certificate is suspended or withdrawn by the Authority or voluntarily surrendered by the operator, the Authority shall carry out inspection to ensure that appropriate measures have been taken to prevent inadvertent use of the runway, taxiway or aerodrome as the case may be.

b) Checklist

The checklist in 5.2.6.2 e) is to be used by inspectors while inspecting aerodrome works, to review a draft work safety plan submitted by the operator to the Authority for approval and can also be used for inspection after withdrawal or voluntary surrender of an aerodrome certificate.

c) Evaluation

The AI must determine if:

- 1) Procedures have been established for temporary and permanent movement area closures, for reduction of declared distances or displacement of threshold. Where threshold have been displaced, displaced threshold marking and lighting should be evaluated.
- 2) Procedures have been established by the aerodrome operator for briefing of contractors for avoiding damage to existing utilities or other underground facilities. When a complex construction project is in progress, the AI shall inquire about the existence of and adherence to the safety plan. Additional information is available in (Insert Advisory Circular on work safety plan).

- 3) Procedures have been established by the aerodrome operator for avoiding damage to existing utilities, such as the review of appropriate utility plans prior to construction.
- 4) Each construction area, construction equipment construction roadway, NAVAID area, and unserviceable area, is marked, and lighted if appropriate, in an acceptable manner.
- 5) Procedures are in place to repair any accidental damage to existing utilities.

5.2.7. Evaluation of Electrical Systems

5.2.7.1. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when evaluating electrical systems.

5.2.7.2. Reference

- a) Relevant provisions in [CAR], [MAS]
- b) ICAO Doc. 9157 Part 5 (Electrical Systems)
- c) Checklist reference/s:
 - 1) Relevant checklist in [MAS], if applicable
 - 2) AIH Appendix 7A: Aerodrome Manual Checklist, Part 4, Section 6
 - 3) AIH Appendix 7B-2: Physical Characteristics, Visual Aid and Aerodrome Facilities Form AGA-ATI-0002, No.2 Aerodrome Facilities
 - 4) AIH Appendix 7C-6: Visual Aids and Aerodrome Electrical Systems

5.2.7.3. Guidance and Procedures

a) General Information

- 1) It is required that electrical systems provided at aerodromes are of adequate design to facilitate the steady operation of aerodrome lighting system.
- 2) The capacity of power supply and design of electrical systems at an aerodrome are dependent on the type of operation at the aerodrome and the category of lighting supported.
- 3) A proposed change by an aerodrome operator from a VFR to IFR or day only to 24-hour operation would require an inspection of the aerodrome electrical system before a determination is made.

b) Checklist

The Checklist listed in 5.2.7.2 e) relating to power supply and electrical systems, would normally have to be completed during initial certification and certificate renewal inspections.

c) Evaluation

The AI must determine if:

- 1) Adequate primary and secondary power supply are available at the aerodrome for the safe functioning of visual and non-visual aids. Check, if steady power supply is assured through availability of automatic switchover system and see, if the switchover requirement for the category of operation, specified in the [MAS] is met.

- 2) Adequate precautions have been put in place against system failure. Examples of such precautions are: interleaving of circuits supplying the runway lighting system, phasing of the supply to approach lighting system.
- 3) There is a monitoring and intensity control panel for airfield lighting, where applicable and control is from one point i.e. the control tower supported by a back- up control point in the event of failure of the panel in the control tower.

5.2.7.4. Aerodrome Operational Services, Equipment and Installations

5.2.7.5. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when evaluating aerodrome operational services equipment and installations including aerodrome rescue and firefighting service, aerodrome emergency planning, apron management service and Aerodrome Fencing.

5.2.7.6. Reference

- a) Relevant provisions in [CAR], [MAS]
- b) ICAO Doc. 9137 Part 1 (Rescue and Fire Fighting)
- c) ICAO Doc. 9137 Part 7 (Aerodrome Emergency Planning)
- d) CAA Advisory Circular No... (Aerodrome Emergency Planning)
- e) Checklist reference
 - 1) Relevant checklists in [MAS]
 - 2) AIH Appendix 7B-3: Rescue and Fire-Fighting FORM AGA-ATI-0003
 - 3) AIH Appendix 7C-4: Rescue and Fire-Fighting
 - 4) AIH Appendix 11: Aerodrome Surveillance Checklist, II. ARFF
 - 5) AIH Appendix 7A: Aerodrome Manual Checklist, Part 4, Section 3
 - 6) AIH Appendix 7C-3: Aerodrome Emergency Plan
 - 7) AIH Appendix 11: Aerodrome Surveillance Checklist, III. Aerodrome Operations (iii)
 - 8) AIH Appendix 7A: Aerodrome Manual Checklist, Part 4, Section 14
 - 9) AIH Appendix 7C-14: Removal of Disabled Aircraft
 - 10) AIH Appendix 7A: Aerodrome Manual Checklist, Part 4, Section 10
 - 11) AIH Appendix 7C-10: Apron Safety Management

- 12) AIH Appendix 11: Aerodrome Surveillance Checklist, III. Aerodrome Operations (vii)
- 13) AIH Appendix 7B-3: Rescue And Fire-Fighting FORM AGA-ATI-0003, Question no.16 (Fencing)
- 14) AIH Appendix 7C-4: Rescue and Fire-Fighting
- 15) AIH Appendix 7C-5: Inspection of the Movement Area by the Aerodrome Operator
- 16) AIH Appendix 7C-7: Maintenance of the Movement Area
- 17) AIH Appendix 7C-12: Wildlife Hazard Management
- 18) AIH Appendix 11: Aerodrome Surveillance Checklist, IC. Operational Area, (i)

5.2.7.7. Guidance and Procedures

a) General Information

- 1) It is required that the level of rescue and firefighting service provided at an aerodrome be adequate to support the designated firefighting category of the aerodrome.
- 2) During initial certification, the evaluation of rescue and fire fighting service at the aerodrome should be based strictly on the dimensions of the longest aeroplane planned for the aerodrome, that is, the aeroplane overall length and fuselage width.
- 3) A provisional aerodrome emergency plan should be available before commencement of flight operations at the aerodrome. The aerodrome operator should be allowed some time to constitute an emergency committee that would test the emergency plan. The aerodrome emergency plan must be tested not later than nine (9) months.

b) Checklist

The checklist presented listed in 5.2.7.6 h) (ii) (iii) relating to rescue and firefighting, would normally have to be completed during initial certification and certificate renewal inspections. The same applies to 5.2.7.6 h) (xv-xvii), (xvi) and (xi) for Apron safety, Apron management service and Disable Aircraft Removal respectively.

Other checklists are available for special purpose inspections and should be further tailored to meet specific needs. Checklist in 5.2.7.6 h) (vii) can be used for evaluating emergency exercises (partial and full scale). Checklist in 5.2.7.6 h) (xxiii) can be used to check adequacy or otherwise of the surface movement guidance and control systems at the aerodrome Checklists in 5.2.7.6 h) (iii) (xvii) and can be used in evaluating an operators disable aircraft removal plan during surveillance inspection while checklist in 5.2.7.6 h) (xiv) (xv) can be used for assessing apron management service.

c) Evaluation

1) Aerodrome Emergency Plan

The AI must determine if:

- i) The operator should also be encouraged to include procedures for response to other utility failures in addition to electrical power failure such as fuel spills, hazardous materials, natural gas, water and sewage.
- ii) It is written in sufficient detail to give adequate guidance to all concerned

parties.

- iii) The certificate holder has made adequate provisions for the agencies and personnel addressed in the AEP to participate in the development of the plan. Look for agency listing, or letters addressing meetings/reviews, and coordination.
- iv) The plan contains procedures for notifying facilities, agencies, and personnel of the location of an aircraft accident on the aerodrome, the number of persons involved, and any other necessary information as soon as it is available. At the discretion of the AI, conduct a communications test of the emergency plan notification procedures of mutual aid agencies to evaluate the timeliness and telephone numbers listed in the emergency plan and contact the mutual aid agency listed to verify telephone number currency.

v) [Water rescue – to be developed]

- vi) All aerodrome personnel having duties and responsibilities under the AEP are familiar with their assignments and are properly trained. Randomly question personnel in the AEP to determine validity of the training programme and to ensure that all aerodrome personnel having duties and responsibilities under the plan are familiar with their assignments and are properly trained. Testing, written or oral may be used if determined to be necessary by the AI.
- vii) The AEP is reviewed with all participating agencies in the preceding 12 months. An annual review of the AEP may consist of the aerodrome operator conducting a tabletop exercise or a review meeting with a representative of each of the agencies with which the plan was coordinated or after a full-scale or partial emergency has been carried out. Look for letters addressing tabletop exercise, Full-scale and partial exercises AEP review meetings and AEP revisions. During pre-inspection preparation, look for letters concerning annual review in the aerodrome files.
- viii) The aerodrome operator has conducted a full scale exercise of its AEP in the preceding 2 years.
- ix) During pre-inspection preparation, look for letters concerning full scale exercise of the AEP. Examine any record of critique. The full-scale aerodrome exercise must involve, to the extent practicable, all mutual aid participants, a reasonable amount of equipment specified in the AEP, and include a summary report and/or critique. Aerodromes which have experienced an aircraft accident and exercised a substantial portion of their AEP related to, or as would respond to, an air carrier accident can substitute this accident for the full-scale exercise. If such a substitution is made, the certificate holder should conduct a critique of their performance during the accident response.
- x) For the purpose of this requirement, the biennial exercise may be conducted within the calendar month it is due. For example, if the last biennial exercise was held on August 4, 1990, the next biennial exercise is due by August 31, 1992. Unique or special cases may affect the need to vary the schedule slightly, and where supportable justification exists, a reasonable extension may be approved. For example: the biennial is due

in April, but the county is planning a much larger exercise for June in which the aerodrome will play an important part and gain the same benefit.

- xi) The purpose of this biennial exercise is to test the effectiveness of AEP through a response of the aerodrome and its mutual aid for a disaster at the aerodrome. It should also be used to familiarize emergency mutual aid personnel with the location of staging areas and other aerodrome facilities.
 - xii) For these reasons the full-scale exercise should be conducted at the aerodrome. However, at the discretion of the AI, the drill may be conducted on property adjoining or adjacent to the aerodrome (such as for a water rescue exercise) if the AEP can still be properly exercised.
 - xiii) The AI should determine the adequacy of facilities in the Emergency Operations centre and the mobile command post. The communication equipment in these facilities should be tested for adequacy and serviceability. The AI should rely on guidance in the Advisory circular on Aerodrome Emergency in determining if human factor principle has been taken into account in preparing the Aerodrome Emergency Plan.
 - xiv) When possible, aerodrome managers should be encouraged to participate in off-aerodrome disaster exercises involving downed aircraft and provide their expertise and resources.
 - xv) AIs are encouraged to attend the full-scale exercise of the AEP whenever possible.
- 2) Rescue and Firefighting Service: Determination of Fire Category

The AI must determine if:

- i) The aerodrome category shall be determined from the Aerodrome Standards Manual and shall be based on the longest aeroplanes normally using the aerodrome and their fuselage width. To categorize the aeroplanes using the aerodrome, first evaluate their overall length and second, their fuselage width. If, after selecting the category appropriate to the longest aeroplane's overall length, that aeroplane's fuselage width is greater than the maximum width for that category, then the category for that aeroplane shall actually be one category higher. Guidance on categorizing aerodromes for rescue and firefighting purposes and on providing rescue and firefighting equipment and services is given in [MAS] Attachment A, Section 5.3 and in the Aerodrome Services Manual, Part 1. During anticipated periods of reduced activity, the level of protection available shall be no less than that needed for the highest category of aeroplane planned to use the aerodrome during that time irrespective of the number of movements.
- ii) The following examples illustrate the method for determination of the aerodrome category.

Example 1

Aircraft	Overall Length	Fuselage width	Category
Tupolev Tu-154	47 m	3.45	7
B 707-320	46.61	3.55	7

The longest aeroplanes are categorized by evaluating, from Table 9-1, Annex 14 first their over-all length and second, their fuselage width. The aerodrome in this case would be category 7.

3) Extinguishing Agents.

The AI must determine if:

- i) ARFF vehicle discharge capacities and agent capacities meet [MAS] xx.x.x.
- ii) The amounts of water for foam production meet the requirement in [MAS] xx.x.x.
- iii) The amount of water and foam concentrate separately provided on vehicles for foam productions are adequate.
- iv) The quantity of foam in reserve is adequate.
- v) The discharge rates of foam solution are adequate.
- vi) There is a means of supplementary water supply for expeditious replenishment.
- vii) Water tanker(s) or other suitable means is acceptable.

4) Emergency Rescue and Firefighting Vehicles

The AI must determine if:

- i) The aerodrome is equipped with ARFF vehicles meeting the aerodrome firefighting category during flight operations. ARFF equipment required to meet the category must be listed in the AM.
- ii) Each required ARFF vehicle is equipped with appropriate radio communications, beacon, and is marked in colors to contrast with the background and optimize daytime/nighttime visibility.
- iii) Each required vehicle is operationally capable of performing the required functions. Technically, a required ARFF vehicle is inoperative during preventive maintenance if it cannot meet response requirements. At aerodromes which do not have extra ARFF equipment, maintenance must be scheduled during periods when aircraft operators are not operating. Notification to CAA and airlines would be expected when ARFF equipment required to meet Category requirements breaks down and cannot be immediately repaired.

5) Rescue Equipment.

The AI must determine if Rescue equipment commensurate with the level of fire protection is provided in accordance with [MAS] xx.x.x and ICAO Doc 9137

Part 1 Table 5-2.

6) Personnel

The AI must determine if:

- i) Sufficient ARFF personnel are available to operate the required ARFF vehicles taking into account the requirement specified in CAA guidance document.
- ii) Training requirement is available incorporating initial and recurrent training, and covering the subject areas enumerated in the ASM has been developed and is being implemented. Training programme shall include initial and recurrent training and training in human performance and team coordination.
- iii) Training records are maintained and readily available and the records indicate that all ARFF personnel have participated in live-fire drill and pressure-fed fuel fires. "live-fire drill" has the same meaning as "simulated aircraft fire."
- iv) All ARFF personnel are equipped in a manner needed to perform their duties.
- v) Such equipment shall include protective coat, protective trousers, protective helmet, gloves and respiratory equipment. This requirement does not apply to ARFF vehicle driver/operators unless they are expected to man handlines or effect rescue operations. The ARFF vehicle driver/operator shall have protective equipment readily accessible.
- vi) All personnel assigned to rescue duties have been given first aid and cardiopulmonary resuscitation (CPR) training. At least two full time members per shift of the aerodrome rescue and firefighting service or other on-aerodrome personnel should be trained to an emergency medical treatment level.

7) Response Time.

The AI must determine if:

- i) At least one required ARFF vehicle achieves a response time not exceeding 3 minutes to any point of each operational runway. Any other vehicles should arrive no more than one minute after the first responding vehicles. At the option of the AI, a discharge of water may be used in lieu of other agents for a timed response. However, a demonstration of the discharge of the agents not used in the response drill is to be conducted for at least one required response vehicle before the conclusion of the inspection to insure the adequate capability.
- ii) During the certification inspection, the AI should request that a refractometer test be conducted by ARFF personnel on at least one required response vehicle with a foam proportioning system. By observing the preparation for and performance of this test the following will be achieved.
- iii) Get an indication of ARFF personnel knowledge of the vehicle and its systems. In some cases, ARFF personnel may have a refractometer but not know how to use it. In those cases be prepared to conduct a refractometer test and provide some basic training. If the ARFF

department does not conduct periodic refractometer test advise them to do so. Other refractometer procedures may be used. Be sure to read manufacturer's instructions.

- iv) Gain some indication of the maintenance level for the foam proportioners and, therefore, vehicle systems. If the results of the refractometer test indicate a foam mixture that is too lean or rich, advise the ARFF officer in charge that the system needs to be checked to determine if the proportioning device is adjusted properly.
 - v) ARFF response drills may be conducted at night or during inclement weather. However discretion shall be used to ensure that safety is not derogated. If there is a question as to whether or not a drill can be conducted safely, it should be postponed until later. When conducting the timed response, the AI should keep in mind that the times given in [MAS] xx.x.x and [MAS] xx.x.x are based on a direct path on dry pavement under good weather conditions. If the drill is conducted at night or in other than dry conditions, the times may be adjusted at the discretion of the AI to allow for the adverse condition.
 - vi) It shall be at the AI's discretion as to the location from which he/she conducts the response drill on the aerodrome.
 - vii) The alarm system is acceptable. The timing for the response requirement begins upon activation of the first alarm signal to the RFF unit responsible for ARFF at the aerodrome. This will normally be ATC activating whatever alarm system is used by the aerodrome. The signal may be audible (klaxon, telephone ring, siren, etc.), visual (dormitory illumination, strobe light, etc.), or a combination. The RFF unit is usually the fire house where the vehicles and crews are stationed. It is important that the timing begin with the activation of the first alarm signal and include any message passing, crew assembly, coordination, and other processes which occur as part of the response. If there are problems with meeting the response time it may be that the alarm enters the fire station at the wrong point, and that the system needs to be changed to modify or eliminate time consuming communications, coordination, etc.
- 8) Emergency Access Roads.
- The AI must determine if all designated emergency access roads are maintained for all weather conditions. Emergency access roads are those required to meet ARFF requirements. Roads constructed specifically for use by emergency vehicles must be considered as an emergency access road. Additionally, service roads that are located in the safety area must be considered by the aerodrome operator as an emergency access road and maintained during all weather conditions.
- 9) Fire Station
- The AI must determine if adequate shelter is provided to protect RFF vehicles from the harmful effects of exposure to the sun.

10) Communication and Alerting Systems.

The AI must determine if:

- i) A discrete communication system links all the fire stations within the aerodrome, the control tower and rescue and fire fighting vehicles.
- ii) An alerting system links all the fire stations within the aerodrome, the control tower and rescue and fire fighting vehicles. The alerting system should be such that it can be operated from the fire station.

11) Disabled Aircraft Removal Plan.

The AI must determine if:

- i) The aerodrome operator has developed a disabled aircraft removal plan. The plan should be developed in consultation with aircraft owners and operators. The extent of the plan will depend on user aircraft weights and sizes and the density of air traffic at the aerodrome.
- ii) The plan provides for permission to disturb the accident site to be obtained from Aircraft Accident and Incident Investigation Board (AAIIB). Where a disabled aircraft has been involved in an accident, notwithstanding this general rule, the aircraft may be moved where necessary to preserve life or to prevent additional hazard to persons or property. A claim for damages could follow an attempts to move a crashed aircraft if it was proven the act of moving worsened the damage. Therefore, the invariable rule is that only aircraft owner, operator or his appointed representatives should control the aircraft removal operation.
- iii) The plan includes:
 - Nominated person or organization authorized to act on their behalf at the aerodrome owner or operators using the aerodrome to avoid delay.
 - Nominated representative of the aerodrome operator to coordinate the aircraft removal operation. All major users of the aerodrome will be informed of the aerodrome management's preparations and capabilities, as well as policies regarding disabled aircraft removal. The officer assigned responsibility to coordinate this plan should be made known to all aircraft owners or operators.
 - A list of equipment available on or near the aerodrome on demand.
 - A list of additional equipment available from nearby aerodromes on request.
 - A list of nominated agents acting on behalf of each aircraft operator at the aerodrome.
 - A statement of the aircraft operator arrangements for the use of pooled specialist equipment.
 - A list of local contractors (with names and telephone numbers) with suitable removal equipment for hire.

12) Apron Management Service.

The AI must determine if:

- i) Responsibility for marshalling service, leader van service, gate and parking allocation, start up, push back and taxi clearances, control of vehicles on the apron, maneuvering areas are clearly and unambiguously assigned.
- ii) A written agreement exist between both parties defining method of coordination and points of transfer of responsibilities, where coordination between air traffic service unit and apron management unit is required.
- iii) Adequate aircraft stand clearances and apron safety lines have been provided in accordance with manual of standards. Apron safety lines include wing tip clearance lines and service road boundary lines.

13) Fencing.

The AI must determine if:

- i) The aerodrome operator has appropriate safeguards against inadvertent entry to the movement area by unauthorized persons or vehicles. These safeguards may consist of a combination of natural barriers, fencing and warning signs which are effective in deterring personnel or vehicles from inadvertently entering the movement area.
- ii) The aerodrome operator has provided reasonable protection of persons and property from aircraft blast. This includes persons who are required to use airstairs; and public areas adjacent to air carrier ramps and movement areas.

5.2.8. Evaluation of Operational Services- Wildlife Strike Management

5.2.8.1. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when evaluating wildlife strike hazard management programmes at aerodromes.

5.2.8.2. Reference

- a) Relevant provisions in [CAR], [MAS]
- b) ICAO Annex 14 Vol I Chapter 9 **or equivalent national reference** (Wildlife Strike Hazard Reduction)
- c) ICAO Doc. 9137 Part 3 – Wildlife Hazard Management
- d) CAA Advisory Circular No: Establishment of Wildlife Hazard Management at Aerodromes by Aerodrome Operators
- e) Checklist reference
 - 1) AIH Checklist Appendix 7B-4: Wildlife Hazard Management Form AGA-ATI-0004
 - 2) AIH Appendix 7C-12: Wildlife Hazard Management
 - 3) AIH Appendix 11: Aerodrome Surveillance Checklist, III. Aerodrome Operations, (viii)

5.2.8.3. Guidance and Procedures

- a) General Information

It is required that aerodromes exposed to wildlife hazard analyse the level of risk posed by the existing hazards to enable a determination of the need for a wildlife hazard management plan. It is not anticipated that such a determination can always be reached before the commencement of initial operations at the aerodrome. Data collection on bird activity in the vicinity of the aerodrome and subsequent analysis may take sometime after aerodrome operations begin before a meaningful conclusions can be drawn concerning wildlife management programme to be implemented, where applicable. However it is anticipated that a procedure for monitoring bird activity and of recording and reporting bird strike be established and incorporated in the Aerodrome Manual before approval of the Manual is given by the Authority.

b) Checklist

Checklist listed in 5.2.8.2 f) relating to wildlife hazard management, would normally have to be completed during initial certification and certificate renewal inspections and surveillance. AIH checklist in Appendix 11: Aerodrome Surveillance Checklist, III. Aerodrome Operations, (viii) can be used for other special purpose inspection relating to wild life hazard management.

c) Evaluation

The AI must determine that:

- 1) the aerodrome operator has adequate procedures to take immediate measures to alleviate wildlife hazards whenever they are detected. During the movement area inspection, the AI should be on the lookout for wildlife of a size or in numbers capable of triggering the conduct of an ecological study. If the AI feels that wildlife activity on or in the vicinity of the aerodrome constitutes a wildlife hazard, the conduct of an ecological study must be addressed in the corrective plan of action. The ATC shall also be consulted concerning wildlife hazards.
- 2) if records of reported strike are maintained and transmitted to CAA for onward transmission to ICAO.
- 3) procedures are established by the aerodrome operator for the conduct of a wild life risk assessment
- 4) if a Wildlife Hazard Management Plan is in effect, the AI must review the following:
 - i) Its effectiveness in dealing with the wildlife hazard.
 - ii) Indications that the existence of the wildlife hazard, described in the ecological survey, should be reevaluated.
 - iii) Personnel with responsibilities in the Wildlife Hazard Management Plan are adequately trained.
 - iv) Procedures outlined in the Plan, such as inspections prior to air carrier operations, are carried out.
 - v) Status of habitat modification projects or changes in land use identified in the Plan.

5.2.9. Evaluation of Operational Services - Ground Servicing of Aircraft

5.2.9.1. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when evaluating aircraft ground servicing operations.

5.2.9.2. Reference

- a) Relevant provisions in [CAR], [MAS]
- b) Checklist reference/s
 - 1) Relevant checklists in [MAS], if applicable
 - 2) AIH Appendix 7A: Aerodrome Manual Checklist, Part 4, Section 10
 - 3) AIH Appendix 7C-10: Apron Safety Management
 - 4) AIH Appendix 11: Aerodrome Surveillance Checklist, III. Aerodrome Operations (ix) (Refueling and Defueling)

5.2.9.3. Guidance and Procedures

- a) General Information
 - 1) It is required that aerodrome operators have qualified personnel who are familiar with safety precautionary measures which should be in place during the fueling and defueling of aircraft by fueling companies.
 - 2) The scope of inspection by aerodrome inspectors should cover both the facilities of the fueling companies at the operational base and on the actual aircraft fueling on the apron.

b) Checklist

The checklist in 5.2.9.2 e) are to be used during initial certification and certificate renewal inspections. Likewise, 5.2.9.2 e) (iii) checklist relating to aircraft fueling and defueling can be used for special purpose inspection relating to handling and storage of aviation fuel.

1) Evaluation

The AI must determine that:

- i) Fire extinguishing equipment are positioned sufficient close to areas designated for ground servicing of aircraft.
- ii) Extinguishing agents bear serviceability tags and the dates on tags.
- iii) An efficient means is available for quickly summoning rescue and firefighting service in the event of a fire or major fuel spill. Apron management unit and ARFF service are connected on a designated frequency. Where apron management unit is not available, check if airline or ground staff or aerodrome personnel who have responsibilities on the apron are familiar with the frequency on which to reach RFF service.

5.2.10. Evaluation of Operational Services- Ground Vehicle Operations

5.2.10.1. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when inspecting and evaluating ground vehicle operations

5.2.10.2. Reference

- a) Relevant provisions in [CAR], [MAS]

b) Checklist reference/s:

- 1) AIH Appendix 7C-11: Airside Vehicle Control
- 2) AIH Appendix 11: Aerodrome Surveillance Checklist, IC. Operational Areas, (ii), III Aerodrome Operations, (xiv)

5.2.10.3. Guidance and Procedures

a) General Information

Each employee, tenant, or contractor, who operates a ground vehicle on any portion of the airside of an aerodrome is required to be familiar with and complies with the aerodrome's airside driving rules and procedures. In order to comply with this section, the aerodrome operator shall develop an appropriate driver's training programme for aerodrome personnel, tenants, contractors and others who operate on, or have access to movement areas. The programme shall be consistent with the guidance provided by the Authority on Aerodrome Vehicle Operations and shall be approved by the Authority before being put to use.

b) Checklist

The checklist listed in 5.2.10.2 d) (i) relating to airside vehicle control, would normally have to be completed during initial certification and certificate renewal inspections. The checklist in 5.2.10.2 d) (ii) can be used for surveillance and other special purpose inspection relating to ground vehicle operations. The checklist may be further tailored to meet specific needs.

c) Evaluation

The AI must determine that:

- 1) Roads located on the movement areas and safety areas are restricted to only those vehicles necessary for aerodrome operations. During the course of the inspection, be on the lookout for unnecessary operations of vehicles on or adjacent to movement areas.
- 2) Vehicles authorized in the movement area include ARFF vehicles, ambulances, mowers, aerodrome operations and maintenance vehicles, fuel trucks catering vehicles, toilet service vehicles etc.
- 3) Procedures for these vehicles to cross the runway or taxiway such as two-way communications with the Control Tower or escort have been established for continued operations. Vehicles must be radio equipped or escorted. These procedures need to be clearly addressed in the Aerodrome Manual.
- 4) For aerodromes with Control Tower in operation, each vehicle operating on the movement areas is controlled by two-way radio, escort vehicle with two-way radio.
- 5) For aerodromes without Control Tower in operation, adequate procedures are established to control ground vehicles through prearranged signals or other procedures.

- 6) Look for distribution of aerodrome procedures/training curriculum or permit process to control applicable tenants. At aerodromes with a SMGCS Plan, requirements should also be included in the driver training as applicable.

5.2.11. Aerodrome Maintenance

5.2.11.1. Purpose

The purpose is to provide guidance and information to aerodrome inspectors to use when inspecting and evaluating aerodrome maintenance programmes and their levels of implementation at aerodromes.

5.2.11.2. Reference

- a) Relevant provisions in [CAR], [MAS]
- b) Advisory Circular No xxx (Movement Area Maintenance)
- c) ICAO Doc. 9137 Part 2 (Pavement Surface Condition)
- d) ICAO Doc. 9137 Part 9 (Pavement Maintenance Practices)
- e) Checklist reference/s:
 - 1) AIH Appendix 7C-5: Inspection of the Movement Area by the Aerodrome Operator
 - 2) AIH Appendix 7C-6: Visual Aids and Electrical Systems
 - 3) AIH Appendix 7C-7: Maintenance of the Movement Area
 - 4) AIH Appendix 11: Aerodrome Surveillance Checklist, IA. Physical Characteristics, (iii)
 - 5) AIH Appendix 11: Aerodrome Surveillance Checklist, IB. Apron (i)

5.2.11.3. Guidance and Procedures

a) General Information

- 1) It is required that the frictional characteristic of runway pavements be periodically determined by the aerodrome operator using a continuous friction measuring device with self-wetting features for the purpose of the monitoring pavement friction characteristics and taking prompt preventive maintenance action.
- 2) The regulation obligates operators to include in their operations manual, maintenance programmes for paved and unpaved movement areas, runway strips and aerodrome drainage.
- 3) Although the subject of maintenance in the [MAS] xx.xx is presently limited to safety critical areas such as pavement and visual aids, the Aerodrome Inspectors should, for the purpose of promoting efficiency and regularity of aeronautical operations encourage operators to include maintenance programmes for other aspects, namely terminal facilities including passenger loading bridges, elevators, travelators, lifts, conveyor belts, chillers, Flight information displays, etc. Guidance for the development of maintenance programmes for these areas is contained in ICAO Doc 9137 Part 9 on Aerodrome Maintenance Practices.

b) Checklist

The checklist presented in 5.2.10.6 g) relating to Maintenance, would normally have to be completed during initial certification and certificate renewal inspections. The checklist in 5.2.10.6 g) (iv) (v) is to be used during surveillance inspections and other special purpose inspections relating to Airport Pavement Friction Assessment.

c) Evaluation

The AI must determine that:

- 1) Preventive maintenance procedures have been established for pavements, visual aids power supply drainage and buildings and specialized vehicles such as rescue and fire fighting vehicles. Check procedures for calibration of VASIS. These procedures should also be addressed in the AM.
- 2) Maintenance procedures are being implemented. Check maintenance records for airfield lighting, power supply and RFF vehicle and compare with sample maintenance schedules.
- 3) Debris, rubber deposit removal and friction measurement programmes have been developed. See when the last friction measurement was conducted and review result against minimum requirement. If the friction measuring equipment is owned and operated by aerodrome operator's personnel, check if personnel have been trained on the use of the equipment and if the equipment is calibrated as required before use.
- 4) The pavements are free of debris and surface irregularities (cracks depressions or other distress features). The AI should use his judgement to determine when a pavement distress is significant to constitute a finding.
- 5) Marking and lighting systems on the aerodrome are well maintained. Maintenance action shall include: cleaning, replacing, or repairing any faded, missing, or nonfunctional item of marking or lighting; keeping each item clearly visible; and ensuring that each item provides an accurate reference (this includes alignment of fixtures) to the user. If the aerodrome operator owns a standby generator for movement area lighting, inquire about testing procedures. The AI should consider a test operation of the generator if periodic testing procedures do not appear to be adequate.
- 6) There are adequate spares for replacement of any electrical fixture that may become defective.

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CHAPTER - 6 Aerodrome safety review

6.1. General

In this Handbook, an aerodrome safety review refers to actions undertaken by an [DASS] Aerodrome Inspector regarding an evaluation of the impacts of specified changes at an airport on the continuing safety of existing operations.

An aerodrome safety review may be undertaken by an individual, team or group depending on the scope of impact and the specialist aviation knowledge required for an evaluation. The Chief, [DASS] will specify formal working and leadership arrangements for team or group activities.

6.2. Safety Review requirement

When a proposal is made which will involve a significant change to aerodrome physical characteristics, facilities or equipment, CAA shall initiate an aerodrome safety review.

The scope of an aerodrome safety review will generally be restricted to events associated with planned changes. Events associated with unplanned changes or emergency situations will be dealt with by use of appropriate alternative procedures to ensure safety is properly considered and to determine if continuing operations may be permitted.

6.3. References

The [CAR] refers to matters that need to be considered in regard to aerodrome safety reviews. These references include but are not limited to:

- a) Matters to be notified regarding certified and registered aerodromes:
 - x.x.xxx Notice of changes in physical condition of aerodrome
 - x.x.xxx Notice of changes in information published in AIP
 - x.x.xxx Physical characteristics of movement area
 - x.x.xxx Notice of changes in physical condition of aerodrome (Registered)
 - x.x.xxx Notice of changes in information published in AIP
- b) CAA empowered to issue direction to aerodrome operator:
 - x.x.xxx Amendments of Aerodrome Manual
 - x.x.xxx Aerodrome Manual procedures
- c) Aerodrome operator to notify CAA:
 - x.x.xxx Notice of changes in physical condition of aerodrome
- d) Aerodrome operator to comply with standards:
 - x.x.xxx Physical characteristics of movement area
 - x.x.xxx Applicable standards for registered aerodromes

6.4. Safety review action plan

- 6.4.1. Aerodrome safety reviews may only be conducted, or supervised, by certified CAA personnel. Such CAA personnel shall be deemed to be certified if they have

successfully completed an ICAO safety management system course, or a CAA equivalent training course.

- 6.4.2. Other CAA aviation specialist staff or external experts may be consulted for comment and advice during an aerodrome safety review to any extent necessary in the opinion of the Chief, [DASS].
- 6.4.3. Aerodrome safety reviews shall be conducted in accordance with the methodology for an aeronautical study as provided for in the CAA Manual of Regulatory Procedures, Chapter 9.
- 6.4.4. The Division Chief, [DASS] is responsible for scheduling aerodrome safety reviews, and for the nomination of an appropriate Aerodrome Inspector and/or review group. When a group activity is considered necessary, the Chief, [DASS], will nominate the group leader.
- 6.4.5. The nominated Aerodrome Inspector or Group Leader of the Review Team is responsible for conducting the review and providing a report that includes all appropriate recommendations to ensure satisfactory on-going operational safety.
- 6.4.6. The conduct of an aerodrome safety review should be timed so that outputs can be communicated effectively to all stakeholders prior to any changes coming into effect.
- 6.4.7. The outputs of an aerodrome safety review should include, but not limited to:
 - a) A statement summarizing the proposal under consideration;
 - b) The changes that will be generated as a result of the proposal;
 - c) Alternatives to the proposal that were considered, and reasons for selection of the proposal over the alternatives;
 - d) Whether or not a site visit was made;
 - e) Any non-conformity with mandatory standards;
 - f) Listing of hazards identified;
 - g) Listing of risks associated with non-compliances or hazards;
 - h) Safety analysis of each risk together with its ranking in priority order from highest to lowest;
 - i) Summary analysis of the proposal; and
 - j) Recommendations on the proposal.
- 6.4.8. The Aerodrome Inspector or Team Leader responsibilities include:
 - a) Record activities undertaken during the review;
 - b) Formulate conclusions;
 - c) Recommend resulting action requirements; and
 - d) Draft reports on safety review conducted.
- 6.4.9. The Chief, ARCID responsibilities include:
 - a) Review the draft safety review report;
 - b) Make recommendations to Chief, [DASS]; and

- c) Direct the Aerodrome Inspector/Team Leader if additional activity is required.

6.4.10. The Chief, [DASS], is responsible to:

- a) If in agreement with the recommendations, refer them to the Director General for formal approval before initiating action as necessary; and
- b) If not in agreement, refer the issues back to the Aerodrome Inspector/Team Leader with instruction for additional activity.

6.5. Aerodrome Safety Review work flow process

6.5.1. The process of work undertaken in an aerodrome safety review will broadly follow that which is used in an aeronautical study, and is described in Fig 6-1 below.

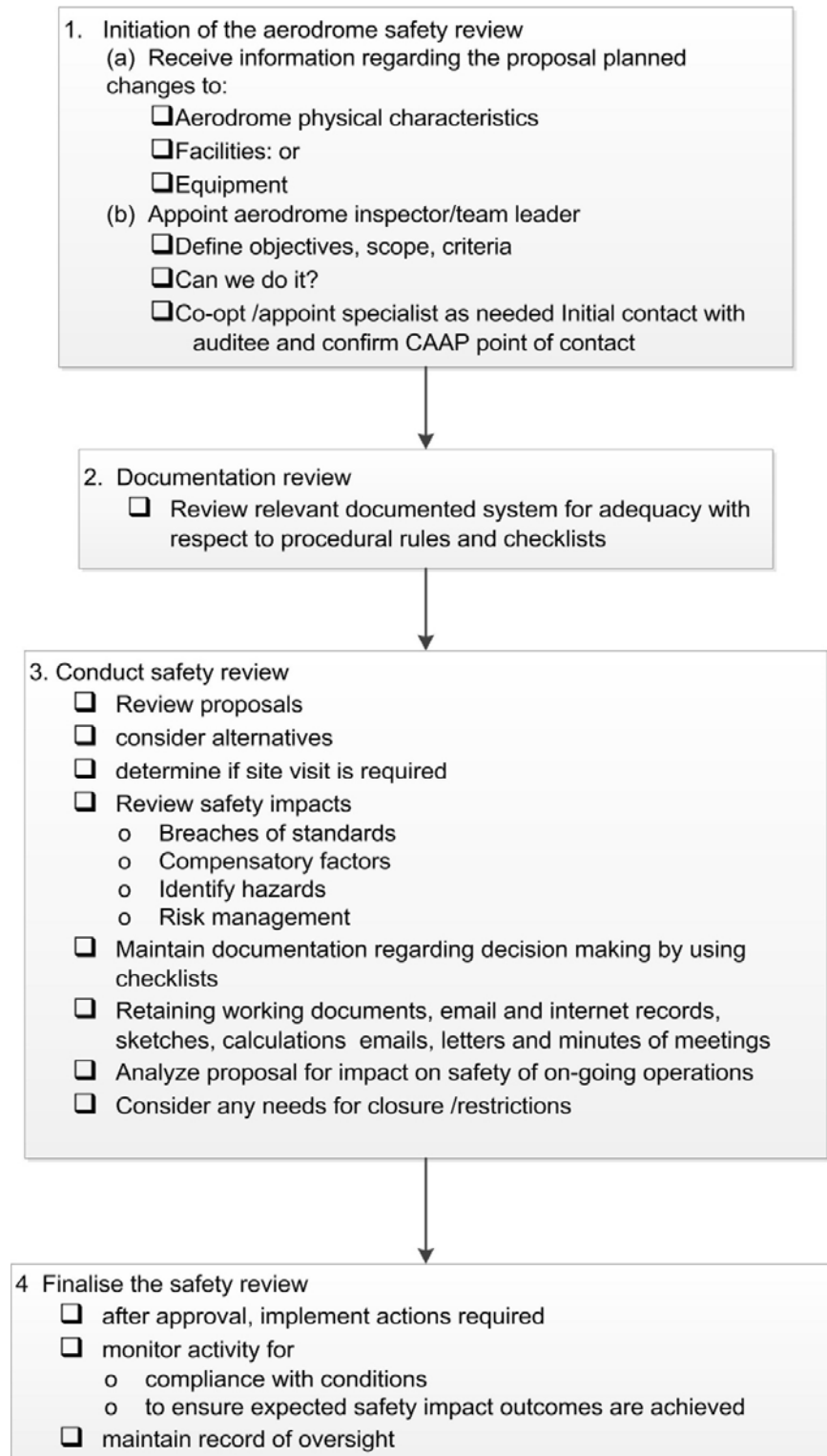


Fig 6-1 Aerodrome Safety Review

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CHAPTER - 7 Regulatory enforcement

[Please refer to Generic Aerodrome Certification Procedure Manual]

CHAPTER - 8 COMPETENCE OF PERSONNEL AT CERTIFIED AERODROMES

Note: Please refer to section 8.6 for a relevant reference material.

8.1. General

- 8.1.1. This chapter is details on the existing regulatory requirements regarding the appointment of specific aerodrome safety, maintenance, operational and management personnel. It also establishes a framework to obtain formal CAA acceptance of the person prior to the individual taking up responsibilities and accountabilities of the position.
- 8.1.2. Pursuant to [CAR] x.x.xxx, an operator shall ensure that there are an adequate number of qualified and skilled personnel to perform activities for aerodrome operation and maintenance.
- 8.1.3. It is emphasized that such qualifications and number of personnel are established: firstly, prior to certification of an aerodrome; and secondly, during any change to Aerodrome Post Holders at an aerodrome which is already certified.

8.2. KEY POST HOLDERS AT A CERTIFIED AERODROME

- 8.2.1. General
- 8.2.2. An aerodrome will have a number of key management personnel. The following are positions which shall be referred to as Aerodrome Post Holders in relation to Aerodrome Certification are as follows:
 - a) Accountable Manager (or Airport Director)
 - b) Head of Aerodrome Safety and Compliance (responsible for safety management and compliance with the regulatory requirements);
 - c) Head of Aerodrome Operations;
 - d) Head of Aerodrome Maintenance;
 - e) Head of Aerodrome Emergency Services (Chief Fire Officer)

8.3. PERSONNEL REQUIREMENTS AT A CERTIFIED AERODROME

- 8.3.1. An Aerodrome Operator under the certification process and prior to the grant of an Aerodrome Certificate and on an on-going basis shall engage, employ or contract: Aerodrome Post Holders to include the following:
 - a) **Airport Manager/ General Manager** - a senior person who has the authority within the Aerodrome Operator's organization to ensure that all activities undertaken by the organization can be financed and carried out in accordance with the requirements prescribed by the Regulations;
 - b) **Head of Aerodrome Safety and Compliance** - a person who shall be the responsible individual and focal point person for the development and maintenance of an effective safety management system and compliance with the regulations;

- c) **Head of Aerodrome Operations** – a senior person who is responsible for ensuring that the aerodrome and its operation comply with the requirements of these Regulations. Such nominated person or persons shall be ultimately responsible to the Accountable Manager;
- d) **Head of Aerodrome Maintenance** – a senior person who is responsible for ensuring that the aerodrome's maintenance programmes for safety critical infrastructure comply with the requirements of these Regulations. Among the maintenance responsibilities include the pavements, visual aids and electrical systems;
- e) **Head of Aerodrome Emergency Services (CFO)** – a senior person who is responsible for ensuring that the aerodrome's emergency services comply with the requirements of the Regulations. Such nominated person or persons shall be ultimately responsible to the Accountable Manager; and sufficient and appropriately qualified personnel to manage, operate and maintain the aerodrome and its services and facilities, taking into account the structure of the organization and the number of personnel employed, in accordance with the requirements of these Regulations.

8.3.2. The Aerodrome Operator should inform the Authority prior to any changes of Aerodrome Post Holders.

8.3.3. The Aerodrome Operator shall update its Aerodrome Manual including the organizational structure with respect to the accepted Aerodrome Post Holders.

8.3.4. Where the Authority has prescribed a competency certification requirement or medical standards for operations or maintenance personnel, the Aerodrome Operator shall employ only those persons possessing such certificates or meeting such medical and fitness requirements.

8.3.5. 4.5 The Aerodrome Operator shall implement a programme to maintain the competency of the safety critical personnel including training.

8.4. CRITERIA FOR ASSESSMENT OF AERODROME OPERATION POST HOLDERS

8.4.1. During the assessment process which under normal circumstances will be conducted during an on-site verification of aerodrome manual. CAA will inquire the post holders capabilities in areas that includes:

- a) understanding and knowledge the roles and responsibilities of the operator and regulatory authority, the regulatory framework and specifically Safety Management System requirements;
- b) information from the nominated person concerning his knowledge on work area;
- c) enforcement methodology of the CAA;
- d) the roles and responsibilities of the Aerodrome Post Holder;
- e) competence requirement of the nominated person in relation to present personal status and experience presented in their curriculum vitae or equivalent documentation;
- f) discussion concerning depth of knowledge and understanding of the applicable legislation and regulations;
- g) understanding of aviation in general and for the specific nominated post, how operators/activities at the aerodrome;

- 8.4.2. Details of criteria for assessment of aerodrome operation post holders at a certified aerodrome are provided as Appendix 7D.

8.5. OBLIGATIONS OF AERODROME OPERATOR ON COMPETENCE OF OPERATIONAL PERSONNEL

- 8.5.1. An aerodrome operator is required to ensure that all technical and operational personnel are competent and skilled in their areas of jurisdiction.
- 8.5.2. It is also imperative that the aerodrome operator provides continuous and relevant training to acquaint all personnel with the current operational practices and remain competent on their responsibilities in line with the regulatory requirements

8.6. REFERENCE (Not to be included in States' own inspector handbook)

- 8.6.1. The Asia/Pacific Regional Guidance on Aerodrome Operations Personnel Competency Requirement Framework has been developed to assist States in the area. The regional guidance can be downloaded at ICAO APAC Website under "eDocuments" followed by "AGA". Link: <https://www.icao.int/APAC/Pages/eDocs.aspx>.

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APPENDICES

APPENDIX - 1: Definitions

For the purposes of this Handbook, the following terms and words have the following meanings;

Aerodrome. A defined area on land, including any building, installations and equipment, intended to be used either wholly or in part for the arrival, departure, and surface movement of aircraft.

Aerodrome Beacon. Aeronautical beacon used to indicate the location of an aerodrome from the air.

Aerodrome Certificate. The certificate to operate an aerodrome issued by the CAA under the provisions of [CAR] for the operation of an aerodrome.

Aerodrome Elevation. The elevation of the highest point of the landing area.

Aerodrome Facilities and Equipment. Facilities and equipment, inside or around the boundaries of an aerodrome, that are constructed or installed and maintained for the arrival, departure, and surface movement of aircraft.

Aerodrome Manual. The manual that forms part of the application for an aerodrome certificate pursuant to [CAR], as amended from time to time.

Aerodrome Operator. The holder of an aerodrome certificate issued under the Civil Aviation Regulations governing Aerodromes.

Aerodrome or Airport Tenant. Any enterprise that is resident at an aerodrome and offers services and products at that aerodrome.

Aerodrome Reference Point. The designated geographical location of an aerodrome.

Aeronautical Study. A study of an aeronautical problem to identify possible solutions and select a solution that is acceptable without degrading safety.

Apron. A defined area on an aerodrome intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fueling, parking or maintenance.

Apron Management Service. A service provided to regulate the activities and the movement of aircraft and vehicles on an apron.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Aircraft Operator. A national or foreign aircraft operator.

Aircraft stand. A designated area on an apron intended to be used for parking an aircraft.

Airside. The movement area of an airport, adjacent terrain and buildings or portions thereof, access to which is controlled.

Apron passenger vehicle. Any vehicle used to convey passengers between aircraft and terminal buildings.

Audit. A systematic, independent and documented process for obtaining compliance status of the facility with mandatory regulatory requirements including aerodrome standards.

Auditor. A person with competence to conduct audits at national level.

Audit criteria. Legislation and CAA approved standards, policies, procedures or requirements.

Audit evidence. Records, statements of fact or other information, which are relevant to the audit criteria and are verifiable.

Audit Finding. Results of the collected audit evidence as compared against audit criteria.

Audit Programme. A set of one or more audits planned for a specific time frame and directed towards a specific purpose

Note: An audit programme includes all activities necessary for planning, organizing and conducting audits.

Audit Plan. A description of the activities and arrangements for an audit.

Certified Aerodrome. An aerodrome whose operator has been granted an aerodrome certificate by the Authority.

Director General means the Director General of the Civil Aviation Authority of the [STATE] (CAA).

Deficiency. A failure to comply with mandatory requirements.

Frangible Object. An object of low mass designed to break, distort or yield on impact so as to present the minimum hazard to aircraft.

General Aviation. An aircraft operation other than a commercial air transport operation.

Human Factors Principles. Principles which apply to design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.

Human performance means human capabilities and limitations which have an impact on the safety, security and efficiency of aeronautical operations.

Heliport. An aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure, and surface movement of helicopters.

International Airport. An airport designated as an airport of entry and departure for international air traffic, where the formalities incident to customs, immigration, public health, animal and plant quarantine and similar procedures are carried out.

Lighting System Reliability. The probability that the complete lighting installation operates within the specified tolerances and that the system is operationally usable.

Movement Area. That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft consisting of the maneuvering area and the apron(s).

Maneuvering Area. That part of an aerodrome to be used for the take-off, landing, and taxiing of aircraft, excluding aprons.

Marker. An object displayed above ground level in order to indicate an obstacle or delineate a

boundary.

Marking. A symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical information.

Obstacle. All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that are located on an area intended for the surface movement of aircraft or that extended above a defined surface intended to protect aircraft in flight.

Obstacle Free Zone (OFZ). The airspace above the inner approach surface, inner transitional surfaces and balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than a low-mass and frangibly mounted one required for air navigation purposes.

Obstacle Limitation Surfaces (OLS). A series of surfaces that define the volume of airspace at and around an aerodrome to be kept free of obstacle in order to permit the intended aircraft operations to be conducted safely and to prevent the aerodrome from becoming unusable by the growth of obstacles around the aerodrome.

Record. Any writing, drawing, map, tape, film, photograph or other means by which information is preserved.

Runway. A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

Runway Strip. A defined area including the runway and stopway intended:

- a) to reduce the risk of damage to aircraft running off a runway. and
- b) to protect aircraft flying over it during take-off or landing operations.

Runway Visual Range (RVR). The range over which the pilot of an aircraft on the center line of a runway can see the runway surface markings or the lights delineating the runway or identifying its center line.

Shoulder. An area adjacent to the edge of a pavement so prepared as to provide a transition between the pavement and the adjacent surface.

Safety Management System (SMS). A system for the management of safety at aerodromes including the organization structure, responsibilities, procedures, processes and provisions for the implementation of aerodrome safety policies by an aerodrome operator, which provides for the control of safety at, and the safe use of the aerodrome. SMS is a systematic, explicit and comprehensive process for managing safety risks.

Runway End Safety Area (RESA). An area symmetrical about the extended centerline and adjacent to the end of the strip primarily intended to reduce the risk of damage to an aeroplane undershooting or overrunning a runway.

Taxiway strip. An area including a taxiway intended to protect an aircraft operating on a taxiway and to reduce the risk of damage to an aircraft accidentally running off the taxiway.

Unserviceable Area. A part of the movement area that is unfit and unavailable for use by aircraft.

Work Area. A part of an aerodrome in which maintenance or construction works are in progress.

Wildlife hazard. A potential for a damaging aircraft collision with birds or animals on or near an

aerodrome.

APPENDIX - 2: Amendment of this Manual

1. This manual is issued as a controlled document. Each page is uniquely identifiable and amendments will be made from time to time to reflect necessary changes. All copies of the handbook are numbered and issued in accordance with the distribution list. All copy holders are responsible for the safe custody and maintenance of their numbered copy of the handbook.
2. The Chief, [DASS] (See Organizational structure diagram in Chapter 2.1.1) is responsible for the development, issue and control of amendments to this handbook. Individual handbook copy holders indicated on the distribution list are responsible for insertion of all amendments.
3. Within thirty days of the issue of an amendment, confirmation will be provided to the Chief, [DASS] that the required amendment action has been accomplished by the return of the amendment control page, signed and dated by the individual amending an issued Inspector Handbook.
 - a) Each handbook issued must show the amendment number and the date, as described in the list of effective pages.
 - b) All amendments will be shown in the Record of Amendment.
4. Minor changes (e.g. telephone number, typographical errors) can be accommodated by 'pen and ink' if so indicated in any amendment documentation issued by Chief, [DASS] prior approval. All such changes will be incorporated accordingly. Distribution of the changes will be the same as described above and a record of these changes will be shown in the Record of Amendments. However, minor changes will generally be collated over a period of three to six months and actioned by a formal amendment.

APPENDIX - 3: Auditor Feedback Form

1. General Conduct of the Audit

Audit Component	Answers and Comment (If "Yes", provide explanation)	
1. Did the team experience difficulties working together? If so what aspects could be improved? Were there any individual auditors who did not function as part of the team? If so, who were they?	☐ Yes ☐ No	
2. Did the audit team leader function effectively as a team leader? Were the functions of the team adequately and fairly distributed?	☐ Yes ☐ No	
3. Was all the documentation used by the team the current version? Were there adequate copies of all documents, manuals and guidance material made	☐ Yes ☐ No	
4. Were there any major impediments to the successful conclusion of the audit? If 'yes', were they resolved or not? If answer to Q4 is yes, describe how impediments were resolved.	☐ Yes ☐ No	

2. Preparation for the Audit

Audit Component	Answers and Comment (If "Yes", provide explanation)	
1. Did you experience any difficulties with travel arrangements, such as air tickets, hotels, allowances etc.?	☐ Yes ☐ No	
2. Were all the documents required from the audited organization supplied on time prior to the audit? If no, was there a reason for this?	☐ Yes ☐ No	
3. Were the pre-audit questionnaire fully completed and submitted in sufficient time before the audit? Did the answers help, or were they of limited use? How best can this be improved?	☐ Yes ☐ No	
4. Were there any scheduling problems with the audited organization, or failures in communication with the audited organization?	☐ Yes ☐ No	
5. Did you have sufficient time to review all the documentation prior to the actual audit?	☐ Yes ☐ No	
6. Was the audit timetable realistic and achievable?	☐ Yes ☐ No	

3. Conduct of the Audit

Audit Component	Answers and Comment (If "Yes", provide explanation)	
1. Was the entry briefing of value? Did it sufficiently deliver the scope and objectives of the audit to the audited organization? If not, why?	☐ Yes ☐ No	
2. Did you experience any difficulties in communicating with representatives of the audited organization, and if so, why?	☐ Yes ☐ No	
3. Did you experience any lack of cooperation or reluctance on the part of the audited organization during the audit?	☐ Yes ☐ No	
4. Were there any incidents during the audit that require management attention? If so please describe.	☐ Yes ☐ No	
5. Was the guidance material provided current and adequate?	☐ Yes ☐ No	
6. Were the checklists current and adequate?	☐ Yes ☐ No	
7. Did the exit briefing cover all the findings of the team?	☐ Yes ☐ No	
8. Did the audited organization respond positively or negatively to the findings in the briefing?	☐ Yes ☐ No	

4. Reporting and Other Issues

Audit Component	Answers and Comment (If "Yes", provide explanation)	
1. Did you experience any difficulties with the preparation of the audit report? If so, what aspects need improving?	☐ Yes ☐ No	
2. Were there any other issues that need to be brought to the attention of senior Management? Describe them.	☐ Yes ☐ No	
3. Are there any areas of the audit process that require revision or could be done better? If so, please describe.	☐ Yes ☐ No	
4. Are there any areas in the Civil Aviation Regulations Part 12 (aerodromes) or any other supplied guidance material that warrants revision or amendment?	☐ Yes ☐ No	

APPENDIX - 4: Audit Notification Letter to Aerodrome Operator

Address information

Dear Sir,

Civil Aviation Authority of the [STATE] (CAA) Aerodrome
Audit

As part of the CAA safety oversight of aerodrome safety, an audit of your organization is required and has been scheduled during the week commencing mm/dd/yyyy.

The demonstrated performance of organizations (personnel, equipment, information, facilities, etc.) as observed during these audits is the prime means used by the CAA when establishing the approval of, and continuing compliance for, certificated and registered aerodromes, as well as providing an indicator for the frequency and scope of future surveillance programmes.

Audit Reference Number

All enquiries relating to this audit should refer to Aerodrome Audit Reference Number nnn.

Objective

The objective of the audit is to assess your organization's aerodrome safety compliance in respect to aviation legislation and safety standards specified by the CAA.

Documents, records, equipment and facilities

Documents and records will be sampled, and a physical inspection of the relevant procedures, equipment or facilities is likely to be carried out. To facilitate this process would you please have available any of the following that may be relevant to the audit:

- ☐ Local training records;
- ☐ Personnel competency records for individual aerodrome Officers;
- ☐ Recurrent testing procedures and records;
- ☐ Operations Manuals and/or Standard Operating Procedures (SOPs);
- ☐ Records of meetings and decisions taken regarding safety matters; and
- ☐ Management must be available for interview.

Access to key staff associated with aerodrome operations and management will also be required.

Personnel

At the commencement of the audit the Senior Executive of the aerodrome should be present and available. The person responsible within your organization for quality assurance is welcome to attend.

The requirements for their ongoing presence throughout the audit will be discussed at that time. If for any reason a senior person is unavailable to attend this audit then please contact the Audit Leader.

Confirmation of date and time

The audit leader for this audit will be Mr Nnn NNnnnn and he will contact you directly to confirm the audit dates. Any audit enquiries should be addressed directly to him.

Yours faithfully

Name

Chief, _____,

[DASS]

Date: _____

APPENDIX - 5: Aerodrome Pre-Audit Questionnaire

AERODROME PRE-AUDIT QUESTIONNAIRE AIRPORT OPERATOR:

Name of Airport: _____

Name of Airport Manager _____ Contact # _____

Name of Head of Operations _____ Contact # _____

Part 1 - Airport

S/N	QUESTION	ANSWERS BY AIRPORT OPERATOR
1.1	Does the airport have an approved aerodrome manual?	
1.2	Who is responsible within the airport management for the maintenance of this manual?	
1.3	Who is responsible for coordinating the implementation of the contents of the manual at the airport?	
1.4	Has the airport established procedures for the amendment of this manual, and if so, where are these measures described.	
1.5	When was the manual last amended?	
1.6	List ground handling agencies, and their functions, at the airport. e.g. airlines, ground service providers and fuel organizations	
1.7	Is there any document on Airport Emergency Procedures?	
1.8	Who are the officers responsible for its implementation?	
1.9	Is there any Aerodrome plan?	
2.0	Is there any Aerodrome development programme in place?	
2.1	Any Safety Management Systems in place?	
2.2	Who monitors implementation?	
2.3	Any Quality Management System in place?	
2.4	How effective is the system?	
2.5	Does the airport have a copy of the Manual of Standards for Aerodromes?	
2.6	Is it being implemented?	
2.7	Have you received the Audit checklist and other relevant documentation manual?	

APPENDIX - 6: Suggested agenda items for an Opening Meeting

- a) Welcome
- b) Introduction of the auditors and interviewees from the audited sectors
- c) Presentation of the audit team members (if not already done)
- d) Presentation of the audit approach
- e) Presentation of the audit context
- f) If appropriate, mention the previous audit
- g) Review of objectives and the field of application of the audit
- h) Brief presentation of the audit methodology while insisting on its standardized nature
- i) Presentation of the audit sequence: discussions, visits (ask if it is possible to take photos), consulting of documents
- j) Auditor's code of ethics: non-argumentative, non-intrusive, non-accusatory, confidentiality assured
- k) Presentation of the advantages of the audit (progress and improvements in the aerodrome programme)
- l) Presentation of the audit plan with possible last-minute changes
- m) Confirmation of the date and time of all discussions and of the final meeting
- n) Clarification of any unclear aspects of the audit plan
- o) Resolution of material aspects: Confirmation of the availability of the necessary equipment and installations
- p) Clarification of any unclear aspect of the aerodrome certificate holders aerodrome programmes or pre-audit questionnaire
- q) Answer the questions of the representatives from the different services responsible for aerodrome operations.
- r) Record of attendees
- s) Audit termination
- t) Conclusion

APPENDIX - 7: Aerodrome Audit Checklists

A system safety audit is the usual means for a regulatory organization to assess initial and on-going compliance of a service provider with the minimum mandatory obligations that are associated with activity in the aviation industry. These checklists pertain to aerodrome operations, and encompass the full gamut of activity required by CAA for initial audit of a complex airport to determine if a certificate can be issued. The checklists may need to be reviewed at subsequent surveillance audits or inspections depending on the scope and depth of regulatory oversight activity that is planned to occur.

It is important to consider [at least] the following when verifying a process:

- a) The adequacy of the available Infrastructure and how it supports the process.
- b) How does the auditee monitor the performance of the process and determine the need for, and implement, any improvements?
- c) Has the organization assigned a responsible and competent person to ensure the process remains adequate and the documentation is current?
- d) Is there a competent person who has the appropriate authority to change the process?
- e) Are the people involved adequately trained?

When identifying a non-compliance with the regulations standards and mandatory obligations, look beyond the immediate occurrence and ask:

- a) Why?
- b) Who?
- c) When?
- d) What led to this? What's the history?
- e) What are the broader factors involved, and how do they inter-relate in the chain of events leading to the conditions that allowed the non-compliance to exist?

For a certification audit the required elements are to be tested for conformity with mandatory obligation imposed by [CAR] and the safety specifications of the [STATE] (and ICAO Annex 14 Volume 1, if appropriate).

Within the checklists, status of individual items may be 'Yes' , 'No', 'Not Applicable', (NA), for remarks: the entry may be 'Satisfactory' (S), 'Not Satisfactory' (NS), and/or description of observation/s.

Appendix 7A: Aerodrome Manual Checklist

This checklist is a tool for inspectors in evaluating the initial submission of an aerodrome manual by the aerodrome operators. This checklist is in accordance with the ICAO format for aerodrome manual detailed in ICAO Document 9774-Manual on Aerodrome Certification as referenced in the [ANNEX 14]([MAS]) and ICAO Doc. 9981 (PANS-Aerodromes).

The checklist is organized as follows:

PART 1	GENERAL INFORMATION
PART 2	AERODROME SITE INFORMATION
PART 3	AIS INFORMATION
PART 4	AERODROME OPERATING PROCEDURES
PART 5	AERODROME ADMINISTRATION

PARTICULARS	NO.	DETAILS	STATUS	REMARKS
FIRST PAGE:				
Signature	1.	The aerodrome manual must be signed by the most senior officer who is responsible and directly accountable for general management of the aerodrome.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Foreword	2.	A general statement indicating the importance of the manual and that the contents are binding on staff.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	3.	The foreword also provides a convenient mechanism for the manual to be signed by the most senior officer responsible for the general management of the aerodrome.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
PART 1: GENERAL INFORMATION				
Conditions of use	4.	Airport operates 24 hours per day for take-off and landing of aircraft and when it is so available it shall be so under equal terms and conditions to all persons and operators.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Aeronautical Information	5.	All data relating to the aeronautical aspect of this aerodrome are published in the Republic of the [STATE] Aeronautical Information Publication.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	6.	The Airside Safety Manager is responsible for complete and correct promulgation of data to AIS section of the CAA in accordance with procedures described in [MAS].	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Recording Aircraft Movements	7.	All data relating to the recording of aircraft movements is collected and recorded by Air Traffic Control.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	8.	The Tower Team Leader is responsible for complete and correct collection recording and reporting to the Airport General Manager in accordance with procedures described in [MAS].	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Obligation of the Aerodrome Operator	9.	[MAS] Appendix 1- Part 1.4 a) Comply with mandatory standards and practices;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	10.	b) Employ an adequate number of qualified and skilled staff;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	11.	c) Operate the aerodrome in accordance with the procedures set out in the Aerodrome Manual;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	12.	d) Have an acceptable aerodrome safety management system;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	13.	e) Arrange for audit of the safety management system and the management of airport organizations;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	14.	f) Permit access to authorized ATO officers for inspection and testing purposes related to ensuring safety at the aerodrome;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	15.	g) Make required notifications to the CAA, ATC or pilots;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	16.	h) Conduct special inspections as necessary;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	17.	i) Remove obstructions on the aerodrome that are likely to be a hazard; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	18.	j) Erect warning signs if low flying or taxiing aircraft are likely to be hazardous to people or vehicles.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
PART 2: AERODROME SITE INFORMATION				
Aerodrome Plan	19.	DOC 9774 Appendix 1 - Part 2 a) A plan of the aerodrome showing the main aerodrome facilities for the operation of the aerodrome including, particularly, the location of each wind direction indicator;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	20.	b) A plan of the aerodrome showing the aerodrome boundaries;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	21.	c) A plan showing the distance of the aerodrome from the nearest city, town or other populous area, and the location of any aerodrome facilities and equipment outside the boundaries of the aerodrome; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	22.	d) Particulars of the title of the aerodrome site. If the boundaries of the aerodrome are not defined in the title documents particulars of the title to, or interest in, the property on which the aerodrome is located and a plan showing the boundaries and position of the aerodrome.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
Aerodrome Land Titles	23.	Parcellary Plan/s	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
PART 3: AIS INFORMATION				
Aerodrome Dimensions	24.	Doc 9774 Appendix 1 - Part 3.2 True bearing, designation number, length, width, displaced threshold location, slope, surface type, type of runway and, for a precision approach runway, the existence of an obstacle free zone	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Runway				
- Strip	25.	length, width and surface type of strip, runway end safety areas, stop ways.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Taxiway	26.	length, width and surface type of taxiways	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Apron	27.	apron surface type and aircraft stands	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Clearway	28.	clearway length and ground profile	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- visual aids for approach procedures	29.	approach lighting type and visual approach slope indicator system (PAPI/APAPI and T-VASIS/AT-VASIS); marking and lighting of runways, taxiways, and aprons; other visual guidance and control aids on taxiways (including runway holding positions, intermediate holding positions and stop bars) and aprons, location and type of visual docking guidance system; availability of standby power for lighting.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Radio frequency of VOR	30.	the location and radio frequency of VOR aerodrome checkpoints	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- standard taxi routes	31.	the location and designation of standard taxi routes	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
- geographical coordinates	32.	the geographical coordinates of each threshold	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	33.	the geographical coordinates of appropriate taxiway center line points	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	34.	the geographical coordinates of each aircraft stand	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	35.	the geographical coordinates and the top elevation of significant obstacles in the approach and take-off areas, in the circling area and in the vicinity of the Aerodrome.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- pavement surface type and bearing strength	36.	pavement surface type and bearing strength using the Aircraft Classification Number — Pavement Classification Number (ACN-PCN) method.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- pre-flight altimeter check locations	37.	one or more pre-flight altimeter check locations established on an apron and their elevation	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- declared distances	38.	take-off run available (TORA), take-off distance available (TODA), accelerate-stop distance available (ASDA), landing distance available (LDA)	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- disabled aircraft removal plan	39.	the telephone/telex/facsimile numbers and e-mail address of the aerodrome coordinator for the removal of a disabled aircraft on or adjacent to the movement area, information on the capability to remove a disabled aircraft, expressed in terms of the largest type of aircraft which the aerodrome is equipped to remove.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- rescue and fire-fighting	40.	the level of protection provided, expressed in terms of the category of the	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
		rescue and fire-fighting services, which should be in accordance with the longest aeroplane normally using the aerodrome and the type and amounts of extinguishing agents normally available at the Aerodrome.		
AIP Data - Aerodrome diagram	41.	[MAS] Chapter x.x.x.x a) layout of runways, taxiways and apron(s);	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	42.	b) nature of the runway surfaces;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	43.	c) designations and length of runways;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	44.	d) designations of the taxiways, where applicable;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	45.	e) location of illuminated and non-illuminated wind direction indicators;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	46.	f) location of the aerodrome reference point;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	47.	g) the direction and distance to the nearest town;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	48.	h) location of terminal buildings; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	49.	i) location of helipads	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Aerodrome operation	50.	a) name, address, telephone and facsimile numbers of the aerodrome operator; including after-hours contacts;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	51.	b) aerodrome usage, public or private;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	52.	c) aerodrome charges, where notification is desired	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Aerodrome location	53.	a) name of aerodrome;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	54.	b) World Aeronautical Chart number, if known;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	55.	c) latitude and longitude, based on the aerodrome reference point;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	56.	d) magnetic variation;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	57.	e) time conversion-universal time coordinated (UTC) plus local time difference;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	58.	f) aeronautical location code indicator, if known;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	59.	g) aerodrome elevation;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	60.	h) currency of Type A charts, if provided	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Movement area	61.	a) aerodrome reference code number;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	62.	b) runway bearings - in degrees magnetic;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	63.	c) runway length and surface type;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	64.	d) runway pavement strength rating;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	65.	e) runway and runway strip width;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	66.	f) runway slope;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	67.	g) runway declared distances, and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	68.	h) elevation of the midpoint of runway threshold, for instrument runways	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Lighting systems	69.	a) lighting systems for runways;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	70.	b) approach lighting system;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	71.	c) visual approach slope indicator system;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	72.	d) lighting systems for taxiways; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	73.	e) any other lighting systems	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Navigation aids	74.	Details of any navigation aid provided by the aerodrome Operator	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Rescue and fire-fighting services	75.	The category of aerodrome-based rescue and fire-fighting services provided by CAA or the aerodrome operator	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Ground services	76.	a) fuel suppliers and their contact details, including after hours;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	77.	b) automatic weather information broadcast if provided by aerodrome operator; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	78.	c) any other services available to pilots	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Special procedures	79.	Include any special procedures unique to the aerodrome, which pilots need to be advised.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
- Notices	80.	Include important cautionary or administrative information relating to the use of the aerodrome.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
PART 4: AERODROME OPERATING PROCEDURES				
Sec 1: Aerodrome Reporting	81.	Doc 9774 Appendix 1 - Part 4.1 a) arrangements for reporting any changes to the CAA and recording the reporting of changes during and outside the normal hours of aerodrome operations;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	82.	b) the names and roles of persons responsible for notifying the changes, and their telephone numbers during and outside the normal hours of aerodrome operations; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	83.	c) The address and telephone numbers, as provided by the CAA, of the place where changes are to be reported to the CAA.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 2: Access to Aerodrome Movement Area	84.	Doc 9774 Appendix 1 - Part 4.2 a) The role of the aerodrome operator, the aircraft operator, aerodrome fixed-base operators, the aerodrome security entity, the CAA and other government departments, as applicable; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	85.	b) The names and roles of the personnel responsible for controlling access to the aerodrome, and the telephone numbers for contacting them during and after working hours.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 3: Aerodrome Emergency Plan	86.	Doc 9774 Appendix 1 - Part 4.3 a) plans for dealing with emergencies occurring at the aerodrome or in its vicinity, including the malfunction of aircraft in flight; structural fires; sabotage, including bomb threats (aircraft or structure); unlawful seizure of aircraft; and incidents on the airport covering "during the emergency" and "after the emergency" considerations;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	87.	b) details of tests for aerodrome facilities and equipment to be used in emergencies, including the frequency of those tests;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	88.	c) details of exercises to test emergency plans, including the frequency of those exercises;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	89.	d) a list of organizations, agencies and persons of authority, both on- and off-airport, for site roles; their telephone and facsimile numbers, e-mail and SITA addresses and the radio frequencies of their offices;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	90.	e) the establishment of an aerodrome emergency committee to organize training and other preparations for dealing with emergencies; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	91.	f) The appointment of an on-scene commander for the overall emergency operation.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 4: RFFS	92.	Doc 9774 Appendix 1 - Part 4.4 Particulars of the facilities, equipment, personnel and procedures for meeting the rescue and fire-fighting requirements, including the names and roles of the persons responsible for dealing with the rescue and fire-fighting services at the aerodrome.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 5: Inspection of the Aerodrome Movement Area and Obstacle Limitation Surface by the Aerodrome Operator	93.	Doc 9774 Appendix 1 - Part 4.5 a) arrangements for carrying out inspections, including runway friction and water-depth measurements on runways and taxiways, during and outside the	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
		normal hours of aerodrome operations;		
	94.	b) arrangements and means of communicating with air traffic control during an inspection;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	95.	c) arrangements for keeping an inspection logbook, and the location of the logbook;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	96.	d) details of inspection intervals and times;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	97.	e) inspection checklist;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	98.	f) arrangements for reporting the results of inspections and for taking prompt follow-up actions to ensure correction of unsafe conditions; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	99.	g) The names and roles of persons responsible for carrying out inspections, and their telephone numbers during and after working hours.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 6: Visual Aids, Electrical Systems and Lighting	100.	Doc 9774 Appendix 1 - Part 4.6 a) Arrangements for carrying out inspections during and outside the normal hours of aerodrome operation, and the checklist for such inspections;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	101.	b) Arrangements for recording the result of inspections and for taking follow-up action to correct deficiencies;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	102.	c) Arrangements for carrying out routine maintenance and emergency	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
		maintenance;		
	103.	d) Arrangements for secondary power supplies, if any, and, if applicable, the particulars of any other method of dealing with partial or total system failure; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	104.	e) The names and roles of the persons responsible for the inspection and maintenance of the lighting, and the telephone numbers for contacting those persons during and after working hours.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 7: Maintenance of The Movement Area	105.	Doc 9774 Appendix 1 - Part 4.7 a) Arrangements for maintaining the paved areas;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	106.	b) Arrangements for maintaining the unpaved runways and taxiways;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	107.	c) Arrangements for maintaining the runway and taxiway strips; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	108.	d) Arrangements for the maintenance of aerodrome drainage.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 8: Aerodrome Works Safety	109.	Doc 9774 Appendix 1 - Part 4.8 a) Arrangements for communicating with air traffic control during the progress of such work;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	110.	b) The names, telephone numbers and roles of the persons and organizations responsible for planning and carrying out the work, and arrangements for contacting those persons and organizations at all times;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	111.	c) The names and telephone numbers, during and after working hours, of the aerodrome fixed-base operators, ground handling agents and aircraft operators who are to be notified of the work;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	112.	d) A distribution list for work plans, if required.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 9: Aircraft Parking Control	113.	Doc 9774 Appendix 1 - Part 4.9 a) Arrangements between air traffic control and the apron management unit;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	114.	b) Arrangements for allocating aircraft parking positions;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	115.	c) Arrangements for initiating engine start and ensuring clearance of aircraft push-back;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	116.	d) Marshaling service; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	117.	e) Leader (van) service.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 10: Apron Safety Management	118.	Doc 9774 Appendix 1 - Part 4.10 a) Protection from jet blasts;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	119.	b) Enforcement of safety precautions during aircraft refueling operations;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	120.	c) Apron sweeping;	☐ Yes ☐ No	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
			☐] N/A	
	121.	d) Apron cleaning;	☐] Yes ☐] No ☐] N/A	☐ S ☐ NS
	122.	e) Arrangements for reporting incidents and accidents on an apron; and	☐] Yes ☐] No ☐] N/A	☐ S ☐ NS
	123.	f) Arrangements for auditing the safety compliance of all personnel working on the apron.	☐] Yes ☐] No ☐] N/A	☐ S ☐ NS
Sec 11: Airside Vehicle Control	124.	Doc 9774 Appendix 1 - Part 4.11 a) Details of the applicable traffic rules (including speed limits and the means of enforcing the rules); and	☐] Yes ☐] No ☐] N/A	☐ S ☐ NS
	125.	b) The method of issuing driving permits for operating vehicles in the movement area.	☐] Yes ☐] No ☐] N/A	☐ S ☐ NS
Sec 12: Wildlife Hazard Management	126.	a) arrangements for assessing wildlife hazards	☐] Yes ☐] No ☐] N/A	☐ S ☐ NS
	127.	b) Arrangements for implementing wildlife control programmes; and	☐] Yes ☐] No ☐] N/A	☐ S ☐ NS
	128.	c) The names and roles of the persons responsible for dealing with wildlife hazards, and their telephone numbers during and after working hours.	☐] Yes ☐] No ☐] N/A	☐ S ☐ NS
Sec 13: Obstacle Control	129.	Doc 9774 Appendix 1 - Part 4.13 a) Monitoring the obstacle limitation surfaces and Type A Chart for obstacles in the take-off surface;	☐] Yes ☐] No ☐] N/A	☐ S ☐ NS
	130.	b) Controlling obstacles within the authority of the operator;	☐] Yes ☐] No ☐] N/A	☐ S ☐ NS

PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	131.	c) Monitoring the height of buildings or structures within the boundaries of the obstacle limitation surfaces;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	132.	d) Controlling new developments in the vicinity of aerodromes; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	133.	e) Notifying the CAA of the nature and location of obstacles and any subsequent addition or removal of obstacles for action as necessary, including amendment of the AIS publications.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 14: Removal of Disabled Aircraft	134.	Doc 9774 Appendix 1 - Part 4.14 a) The roles of the aerodrome operator and the holder of the aircraft certificate of registration;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	135.	b) Arrangements for notifying the holder of the certificate of registration;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	136.	c) Arrangements for liaising with the air traffic control unit;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	137.	d) Arrangements for obtaining equipment and personnel to remove the disabled aircraft; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	138.	e) The names, role and telephone numbers of persons responsible for arranging for the removal of disabled aircraft.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 15: Handling of Hazardous Materials	139.	Doc 9774 Appendix 1 - Part 4.15 a) Arrangements for special areas on the aerodrome to be set up for the storage of inflammable liquids (including aviation fuels) and any other hazardous materials; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	140.	b) The method to be followed for the delivery, storage, dispensing and handling of hazardous materials.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 16: Low Visibility Operations	141.	Doc 9774 Appendix 1 - Part 4.16 Particulars of procedures to be introduced for low-visibility operations, including the measurement and reporting of runway visual range as and when required, and the names and telephone numbers, during and after working hours, of the persons responsible for measuring the runway visual range.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 17: Protection of Radar & Navigation Aids	142.	Doc 9774 Appendix 1 - Part 4.17 a) Arrangements for the control of activities in the vicinity of radar and nav aids installations;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	143.	b) Arrangements for ground maintenance in the vicinity of these installations; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	144.	c) Arrangements for the supply and installation of signs warning of hazardous microwave radiation.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Section 18: Snow and Ice Control, and Hazardous Meteorological Condition	145.	PANS-Aerodromes (Doc 9981) A) At aerodromes subjected to snow and icing conditions: a) A snow and ice control plan, including the means and procedures used as well as the responsibilities and criteria for closing and reopening the runway;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	146.	b) a formal coordination for snow and ice removal between the aerodrome operator and ATS	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	147.	B) For other hazardous meteorological situations that may occur at the aerodrome (such as thunderstorms, strong surface winds and gusts, sandstorms): a) Procedures describing the actions that have to be taken and defining the responsibilities and criteria for suspension of operations on the runway;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	148.	b) a formal coordination with the meteorological service provider in order to be advised of any significant meteorological conditions;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Section 19: Reporting of Runway Surface Conditions	149.	PANS-Aerodromes (Doc 9981) a) Procedure for assessing and reporting runway condition code (RWYCC) for each third of the runway in the prescribed format; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	150.	b) Procedure for reporting significant changes to RWYCC without delay.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
PART 5: AERODROME ADMINISTRATION				
Sec 1: Organization Contacts & Structure	151.	Doc 9774 Appendix 1 - Part 5 a) an aerodrome organizational chart showing the names and positions of key personnel, including their responsibilities;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	152.	b) The name, position and telephone number of the person who has overall responsibility for aerodrome safety; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	153.	c) Airport committees.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 2: Exemptions, Directions, Approvals	154.	Are there exemptions applied at the aerodrome?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Sec 3: Aerodrome Safety Management System	155.	Doc 9774 Appendix 1 - Part 5 a) the safety policy, insofar as applicable, on the safety management process and its relation to the operational and maintenance process;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	156.	b) The structure or organization of the SMS, including staffing and the assignment of individual and group responsibilities for safety issues;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	157.	c) SMS strategy and planning, such as setting safety performance targets, allocating priorities for implementing safety initiatives and providing a framework for controlling the risks to as low a level as is reasonably practicable keeping always in view the requirements of the Standards and Recommended Practices in Volume I of Annex 14 to the Convention on International Civil Aviation, and the national regulations, standards, rules or orders;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	158.	d) SMS implementation, including facilities, methods and procedures for the effective communication of safety messages and the enforcement of safety requirements;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	159.	e) A system for the implementation of, and action on, critical safety areas which require a higher level of safety management integrity (safety measures programme);	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	160.	f) measures for safety promotion and accident prevention and a system for risk control involving analysis and handling of accidents, incidents, complaints, defects, faults, discrepancies and failures, and continuing safety monitoring;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	161.	g) The internal safety audit and review system detailing the systems and programmes for quality control of safety;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	162.	h) The system for documenting all safety-related airport facilities as well as airport operational and maintenance records, including information on the design and construction of aircraft pavements and aerodrome lighting. The system should enable easy retrieval of records including charts;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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PARTICULARS	NO.	DETAILS	STATUS	REMARKS
	163.	i) Staff training and competency, including the review and evaluation of the adequacy of training provided to staff on safety-related duties and of the certification system for testing their competency; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	164.	j) The incorporation and enforcement of safety-related clauses in the contracts for construction work at the aerodrome.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

Appendix 7B: Technical Inspection Checklist (Aerodrome Infrastructure and Ground Aids)

Note:- Please insert relevant Articles/reference to National Regulations, Standards, Advisory Circulars, Aerodrome Manual etc. as relevant

Appendix 7B-1: OBSTACLE RESTRICTIONS FORM AGA-ATI-0001

REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
1.1 OBSTACLE RESTRICTIONS			
STD&RP A14 Vol.I,4.1,4.2,4.3.1,4.3.2 GM Doc9137,P6,1.1.3 Doc9981,P1,2.4.5	1. Are the OLS surfaces defined?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	2. Are objects infringing the OLS?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	3. Are obstacles that penetrate the OLS appropriately marked or lit?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	4. Are the OFZ surfaces defined, when required?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	5. Are objects penetrating the OFZ and is frangible?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	6. Are the objects near the following areas comply with the OLS requirements? • Runway • Runway strip • Clearway • Stopway • RESA • Taxiway • Taxiway strip • Pre-threshold area • Radio altimeter operating area	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	7. Are fixed objects, temporary and permanent, which extends above the OLS but are permitted to remain or objects which are present on the movement area regarded as obstacles explicitly marked?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	8. Are there procedures for monitoring the obstacle limitation surfaces and Type A Chart for obstacles in the take-off surface?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	9. controlling obstacles within the authority of the operator;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	10. monitoring the height of buildings or structures within the	☐ Yes ☐ No	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	boundaries of the obstacle limitation surfaces	☐ N/A	
	11. controlling new developments in the vicinity of aerodromes; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	12. notifying the CAA of the nature and location of obstacles and any subsequent addition or removal of obstacles for action as necessary, including amendment of the AIS publications.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	13. And the procedure for monitoring building developments (in relation to the height of buildings and other structures) within the horizontal limits of the obstacle limitation surfaces?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	14. And if the aerodrome has instrument approach procedures, the procedures for monitoring for new objects or building developments in any other areas nominated by the instrument procedure designers?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	15. And the arrangements with CAA, local planning authorities and other relevant organizations in relation to the approval of building developments that may infringe the obstacle limitation surfaces?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	16. Including the process for asking CAA to assess proposed obstacles? (If applicable to the aerodrome)	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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Appendix 7B-2: PHYSICAL CHARACTERISTICS, VISUAL AID AND AERODROME FACILITIES FORM AGA-ATI-0002

No	Reference	Audit Area	Actual	Standard	Remarks
1)	STD A14 Vol.I,C3,C5 GM Doc9157,P1,C5 Doc9157,P4	Aerodrome Physical Characteristics and visual aids			
	STD A14 Vol.I,3.1 GM Doc9157,P1,5.1	a) Runway			☐ S ☐ NS
	RP A14 Vol.I,3.1.5,3.1.6,Att.A,11 GM Doc9157,P1,2.2	• Runway Threshold Location			☐ S ☐ NS
	RP A14 Vol.I,C3,3.1.7-3.1.9 GM Doc9157,P1,C3	• Runway length			☐ S ☐ NS
	RP A14 Vol.I,3.1.10 GM Doc9157,P1,5.1.1-5.1.3	• Runway Width			☐ S ☐ NS
	STD& RP A14 Vol.I,3.3.1-3.3.12 GM Doc9157,P1,App.4	• Runway turn pads			☐ S ☐ NS
	RP A14 Vol.I,3.1.11,3.1.12 GM Doc9157,P1,2.1.15-2.1.18 Doc9643,C4,4.3	• Spacing for parallel runways			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
	RP A14 Vol.I,3.1.13-3.1.16 GM Doc9157,P1,5.1.4–5.1.7	Runway longitudinal slope			☐ S ☐ NS
	RP A14 Vol.I,3.1.17 GM Doc9157,P1,5.1.8,5.1.9	Runway sight distance			☐ S ☐ NS
	RP A14 Vol.I,3.1.19,3.1.20 GM Doc9157,P1,5.1.12,5.1.13 Doc9157,P3,5.2.6.2	Transverse slopes on runways			☐ S ☐ NS
	STD& RP A14 Vol.I,3.1.22-3.1.27,Att.A,5 GM Doc9137,P2,1.2,1.3 Doc9157,P1,5.1.16–5.1.24 Doc9157,P3,C5	Runway surface			☐ S ☐ NS
	RP A14 Vol.I,C3,3.1.21 GM Doc9157,P1,5.1.15	Runway bearing strength			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
	STD A14 Vol.I,C3,3.2 GM Doc9157,P1,5.2 Doc9981,P1,App.toC4,2.3	b) Runway shoulders			☐ S ☐ NS
	STD A14 Vol.I,C3,3.2.1 GM Doc9157,P1,5.2.1-5.2.8 Doc9981,P1,App.toC4,2.3.1	Characteristics of runway shoulders			☐ S ☐ NS
	STD A14 Vol.I,C3,3.2.5,3.2.6 GM Doc9157,P1,5.2.11,5.2.12	Surface of runway shoulder			☐ S ☐ NS
	RP A14 Vol.I,C3,3.2.2 GM Doc9157,P1,5.2.8 a) c)	Width of runway shoulder			☐ S ☐ NS
	RP A14 Vol.I,C3,3.2.3 GM Doc9157,P1,5.2.9	Slopes on runway shoulder			☐ S ☐ NS
	RP A14 Vol.I,C3,3.2.4 GM Doc9157,P1,5.2.10	Strength of runway shoulder			☐ S ☐ NS
	STD A14 Vol.I,5.2.2-5.2.7,5.2.9	c) Runway Markings			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
	GM Doc9157,P3,8.3.3.1 c)				
	RP A14 Vol.I,7.3	• Pre-Threshold area (a chevron marking)			☐ S ☐ NS
	STD A14 Vol.I,5.2.3	• Runway centerline markings			☐ S ☐ NS
	STD A14 Vol.I,5.2.3.3	➤ Length			☐ S ☐ NS
	STD A14 Vol.I,5.2.3.2	➤ Dist. of 1 st stripe			☐ S ☐ NS
	STD A14 Vol.I,5.2.3.4	➤ Width			☐ S ☐ NS
	STD A14 Vol.I,5.2.2	• Runway designation markings			☐ S ☐ NS
	STD A14 Vol.I,5.2.4.8 RP A14 Vol.I,5.2.4.7 GM Doc9157,P4	• Runway transverse stripe markings			☐ S ☐ NS
	STD A14 Vol.I,5.2.4.8	➤ Width			☐ S ☐ NS
		➤ Length			☐ S ☐ NS
	STD A14 Vol.I,5.2.7	• Runway side-stripe markings			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
	RP A14 Vol.I,5.2.7.5	➤ Width			☐ S ☐ NS
	STD A14 Vol.I,5.2.5	• Runway aiming point markings			☐ S ☐ NS
		➤ No. of stripes			☐ S ☐ NS
		➤ Dimensions & lateral spacing's			☐ S ☐ NS
	STD A14 Vol.I,5.2.6	• Runway touch down zone markings			☐ S ☐ NS
		➤ Distance between thresholds			☐ S ☐ NS
	STD A14 Vol.I,5.2.6.4	➤ Rectangular dimension			☐ S ☐ NS
	STD A14 Vol.I,5.2.6.4	➤ Longitudinal spacing			☐ S ☐ NS
	STD A14 Vol.I,5.2.4	• Runway threshold markings			☐ S ☐ NS
		➤ Length			☐ S ☐ NS
		➤ Width			☐ S ☐ NS
		• Runway end markings			☐ S ☐ NS
		➤ Width			☐ S ☐ NS
		➤ Length			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
	STD A14 Vol.I,5.2.4.9,5.2.4.10	Temporary displaced threshold markings			☐ S ☐ NS
		➤ Width			☐ S ☐ NS
		➤ Arrowheads			☐ S ☐ NS
	STD A14 Vol.I,3.7 A14 Vol.I,Att.A,2 Doc9157,P1,3.3,5.6	d) Stopway			☐ S ☐ NS
	GM A14 Vol.I,Att.A,2	Dimensions of stopways			☐ S ☐ NS
		➤ Dist. Before the runway strip			☐ S ☐ NS
	STD A14 Vol.I,3.7.1 GM Doc9157,P1,5.6.1	➤ width			☐ S ☐ NS
	STD A14 Vol.I,3.7.4 GM Doc9157,P1,5.6.4,5.6.5	Surface of stopway			☐ S ☐ NS
	RP A14 Vol.I,3.7.2 GM Doc9157,P1,5.6.2	Stopway slopes and slope changes			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
.	RP A14 Vol.I,3.7.3	Bearing strength of stopway			☐ S ☐ NS
	STD A14 Vol.I,3.5.1-3.5.6,Att.A,10 GM Doc9157,P1,5.4 Doc9981,P1,App.toC4,3	e) RESA			☐ S ☐ NS
	STD& RP A14 Vol.I,3.5.3,3.5.4 GM Doc9157,P1,5.4.4-5.4.7	Length			☐ S ☐ NS
	STD A14 Vol.I,3.5.5,3.5.6 GM Doc9157,P1,5.4.8,5.4.9	width			☐ S ☐ NS
	RP A14 Vol.I,3.5.10 GM Doc9157,P1,5.4.13	Downward longitudinal slope			☐ S ☐ NS
	RP A14 Vol.I,3.5.11 GM Doc9157,P1,5.4.15	Transverse slope			☐ S ☐ NS
	STD A14 Vol.I,3.6,Att.A,2 Doc9157,P1,5.5	f) Clearway			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
	RP A14 Vol.I,3.6.1 GM Doc9157,P1,5.5.1	Location of clearways			☐ S ☐ NS
	RP A14 Vol.I,3.6.2- 3.6.5 GM Doc9157,P1,5.5.2,5.5.3	Dimensions of clearways			☐ S ☐ NS
	RP A14 Vol.I,3.6.2 GM Doc9157,P1,5.5.2	➤ Length of Clearway			☐ S ☐ NS
	RP A14 Vol.I,3.6.3	➤ Width of clearway			☐ S ☐ NS
	RP A14 Vol.I,3.6.4,3.6.5 GM Doc9157,P1,5.5.4–5.5.6	Slopes on clearways			☐ S ☐ NS
	RP A14 Vol.I,3.6.6 GM Doc9157,P1,5.5.7	Objects on clearways			☐ S ☐ NS
	STD A14 Vol.I,3.4,Att.A,9 GM Doc9157,P1,5.3 Doc9981,P1,App.toC4,2.5	g) Runway Strip			☐ S ☐ NS
	STD A14 Vol.I,3.4.2 GM Doc9157,P1,5.3.2	Runway strip length			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
.	STD& RP A14 Vol.I,3.4.3-3.4.5 GM Doc9157,P1,5.3.3-5.3.5	Runway strip width			☐ S ☐ NS
	RP A14 Vol.I,3.4.13 GM Doc9157,P1,5.3.17	Longitudinal slope on graded area of runway strip			☐ S ☐ NS
	RP A14 Vol.I,3.4.14 GM Doc9157,P1,5.3.18,5.3.19	Longitudinal Slope Changes on Graded Area of Runway Strip			☐ S ☐ NS
	STD A14 Vol.I,3.4.10 GM Doc9157,P1,5.3.15,5.3.16	Surface of graded area of runway strip			☐ S ☐ NS
	STD A14 Vol.I,3.8,4.3 GM Doc9157,P1,5.3.19	Radio Altimeter Operating Area			☐ S ☐ NS
	RP A14 Vol.I,3.4.15,3.4.16 GM Doc9157,P1,5.3.20-5.3.23	Runway Strip Transverse Slope			☐ S ☐ NS
	RP A14 Vol.I,3.4.8,3.4.9 GM Doc9157,P1,5.3.12-5.3.16	Grading of Runway Strips			☐ S ☐ NS
	STD& RP A14 Vol.I,3.4.6-3.4.7 GM	Objects on runway strips			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
	Doc9157,P1,5.3.7 Doc9981,App.1toC2,2.1,App.toC4,2.5.2				
	RP A14 Vol.I,3.4.17,3.4.18 GM Doc9157,P1,5.3.24–5.3.26	Runway strip strength			☐ S ☐ NS
	STD A14 Vol.I,3.9 GM Doc9157,P2,C1 Doc9981,P1,App.1toC2,2.2.1 b) 4),App.toC4,4	h) Taxiways			☐ S ☐ NS
	RP A14 Vol.I,3.9.4 GM Doc9157,P2,Table1-1,1.2.8,1.7.5,1.7.6 Doc9981,P1,App.toC4,4.1.2	Taxiway width			☐ S ☐ NS
	RP A14 Vol.I,3.9.7	Taxiway edge clearance			☐ S ☐ NS
	RP A14 Vol.I,3.9.5 GM Doc9157,P2,1.2.9,1.2.10 Doc9981,App.toC4,4.2	Taxiway curves			☐ S ☐ NS
	RP A14 Vol.I,3.9.8	Taxiway Longitudinal Slope			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
.	GM Doc9157,P2,Table1-1				
	RP A14 Vol.I,3.9.11 GM Doc9157,P2,Table 1-1	Taxiway Transverse Slope			☐ S ☐ NS
	STD A14 Vol.I, Fig 5-6 GM Doc9981, App.1 to C.2, 2.2.1 d) 1) ii)	i) Taxiway Markings			☐ S ☐ NS
	STD A14 Vol.I, 5.2.8	Taxiway centerline marking			☐ S ☐ NS
	STD A14 Vol.I, 5.2.10	Runway holding position markings			☐ S ☐ NS
	STD A14 Vol.I, 5.2.10	➤ Markings for Pattern A			☐ S ☐ NS
	STD A14 Vol.I, 5.2.10	➤ Markings for Pattern B			☐ S ☐ NS
	STD A14 Vol.I, 5.2.11	Intermediate holding position markings			☐ S ☐ NS
		➤ Width			☐ S ☐ NS
		➤ Length of lines and gaps			☐ S ☐ NS
		Taxiway edge markings			☐ S ☐ NS
		➤ Width			☐ S ☐ NS
		➤ Spacing of two			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
		yellow lines			
	GM Doc9157,P2,2.5	Holding bay markings			☐ S ☐ NS
		Taxiway pavement strength limit markings			☐ S ☐ NS
		➤ Height			☐ S ☐ NS
		➤ Width			☐ S ☐ NS
		➤ Line width			☐ S ☐ NS
		➤ Spacing			☐ S ☐ NS
	STD A14 Vol.I,3.10 GM Doc9157,P2,1.6 Doc9981,P1,App.toC4,8	j) Taxiway shoulders			☐ S ☐ NS
	STD A14 Vol.I,3.10.1 GM Doc9157,P2,1.6.2,Table1-1	Width of Taxiway shoulders			☐ S ☐ NS
	STD A14 Vol.I,3.10.2 GM Doc9157,P2,1.6.4 Doc9981,P1,App.toC4,8.2	Surface of Taxiway shoulders			☐ S ☐ NS
	STD A14 Vol.I,3.11 GM Doc9157,P2,1.6	k) Taxiway strips			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
.	STD A14 Vol.I,3.11.2 GM Doc9157,P2,1.6.2,Table1-1	Width of taxiway strip			☐ S ☐ NS
	STD A14 Vol.I,3.11.4 GM Doc9157,P2,1.7.15	Width of graded area of taxiway strip			☐ S ☐ NS
	RP A14 Vol.I,3.11.5,3.11.6 GM Doc9157,P2,1.6.4	Slope of Taxiway Strip			☐ S ☐ NS
	RP A14 Vol.I,3.11.5 GM Doc9157,P2,1.6.4	upward transverse slope			☐ S ☐ NS
	RP A14 Vol.I,3.11.5 GM Doc9157,P2,1.6.4	downward transverse slope			☐ S ☐ NS
	RP A14 Vol.I,3.11.6 GM Doc9157,P2,1.6.4	Upward slope			☐ S ☐ NS
	RP A14 Vol.I,3.11.3 GM Doc9157,P2,1.6	Objects on taxiway strip			☐ S ☐ NS
	RP A14 Vol.I,3.10 GM Doc9157,P2,1.4,1.4.4	Taxiways on bridges (minimum width)			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
	Doc9981,P1,App.toC4,7				
	RP A14 Vol.I,3.9.7 GM Doc9157,P2,1.2.12-1.2.20 Doc9981,P1,App.toC4,5,6	Taxiway minimum separation distances			☐ S ☐ NS
	RP A14 Vol.I,3.9.15-3.9.18 GM Doc9157,P2,1.3,1.3.1-1.3.4	Rapid exit taxiway			☐ S ☐ NS
	STD A14 Vol.I,3.12 GM Doc9157,P2,C2	l) Holding Bays, Runway-Holding Positions, Intermediate Holding Positions and Roar-Holding Positions.			☐ S ☐ NS
	STD A14 Vol.I,3.12.2,3.12.5 GM Doc9157,P2,2.1.2 RP A14 Vol.I,3.12.1,3.12.4	Provision of a Holding Bay, Runway-holding Position, Intermediate Holding Position and Road-holding Position			☐ S ☐ NS
	STD&RP A14 Vol.I,3.12.2-3.12.5,3.12.9 GM Doc9157,P2,2.4	Location of Holding Bay, Runway-holding Position, Intermediate Holding Position or Road-holding Position			☐ S ☐ NS
	STD A14 Vol.I,3.12.6-3.12.8,Table3-2	Distance from Runway-holding Position,			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
.	GM Doc9157,P2,2.4.3–2.4.8,Table2-1	Intermediate Holding Position or Road-holding Position to Runway Centerline			
Note: Please refer to ACI Apron Marking and sign handbook for additional references					
	STD A14 Vol.I,3.13 GM Doc9157,P2,C3	m) Aprons			☐ S ☐ NS
	RP A14 Vol.I,3.13.1 GM Doc9157,P2,C3	Location of apron			☐ S ☐ NS
	RP A14 Vol.I,3.13.6 GM Doc9157,P2,3.4.4	Clearance distances on Aircraft stands			☐ S ☐ NS
	RP A14 Vol.I,3.13.4,3.13.5 GM Doc9157,P2,3.2.6.2	Slopes on Aprons			☐ S ☐ NS
	RP A14 Vol.I,9.5.1 c) GM Doc9476,3.4.9	Apron road			☐ S ☐ NS
	RP	n) Apron markings			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
.	A14 Vol.I,5.2.13 GM Doc9157,P4,2.3				
	RP A14 Vol.I,5.2.13.6–5.2.13.12 GM Doc9157,P4,2.3.5–2.3.11,2.3.13– 2.3.14	Apron taxi guideline markings			☐ S ☐ NS
		Apron edge markings			☐ S ☐ NS
		➤ Width			☐ S ☐ NS
		➤ Spacing			☐ S ☐ NS
		➤ Edge of gravel, grass or other natural surface aprons			☐ S ☐ NS
	STD A14 Vol.I,5.2.14 GM Doc9157,P2,2.3.20	Apron Safety Line (Parking clearance line)			☐ S ☐ NS
		➤ Width of red line			☐ S ☐ NS
		➤ Width of yellow or white line			☐ S ☐ NS
		➤ The word "PARKING CLEARANCE"			☐ S ☐ NS
		Aircraft type limit line			☐ S ☐ NS
		➤ Comprising strip			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
		length			
		➤ Width			☐ S ☐ NS
		➤ Spacing			☐ S ☐ NS
		➤ Distance of designator from the line			☐ S ☐ NS
		➤ Height of letters & numbers			☐ S ☐ NS
		➤ Marking intervals			☐ S ☐ NS
		• Parking weight limit line			☐ S ☐ NS
		➤ Comprising strip length			☐ S ☐ NS
		➤ Width			☐ S ☐ NS
		➤ Spacing of strips			☐ S ☐ NS
		➤ Distance of designator from the line			☐ S ☐ NS
		➤ Height of letters & numbers			☐ S ☐ NS
		➤ Marking intervals			☐ S ☐ NS
		• Leased area line			☐ S ☐ NS
		• Equipment clearance line			☐ S ☐ NS
		➤ Length of stripe			☐ S ☐ NS
		➤ Width of each stripe			☐ S ☐ NS
		➤ Gap distance			☐ S ☐ NS
		➤ Designation of "EQUIPMENT CLEARANCE"			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
		➤ Height of letters & numbers			☐ S ☐ NS
		➤ Distance of designator from the line			☐ S ☐ NS
		• Equipment storage markings			☐ S ☐ NS
		➤ Designation of "EQUIPMENT STORAGE"			☐ S ☐ NS
		➤ Height of letters & numbers			☐ S ☐ NS
		➤ Distance of designator from the line			☐ S ☐ NS
		➤ Marking intervals			☐ S ☐ NS
		• Apron service road markings			☐ S ☐ NS
	RP A14 Vol.I,5.2.13	• Aircraft parking position markings			☐ S ☐ NS
		➤ Primary positions			☐ S ☐ NS
		➤ Secondary positions			☐ S ☐ NS
	RP A14 Vol.I,5.2.13.6 GM Doc9157,P4,2.3.5,2.3.6	• Lead-in line			☐ S ☐ NS
		➤ Lead-in lines to primary aircraft			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
		parking position			
		➤ Lead-in lines to secondary parking position			☐ S ☐ NS
		• Taxi lead-in line designation			☐ S ☐ NS
		➤ parking position number designation			☐ S ☐ NS
		➤ aircraft type limit designation			☐ S ☐ NS
		➤ aircraft weight limit designation			☐ S ☐ NS
		• Pilot turn line			☐ S ☐ NS
		➤ Line length			☐ S ☐ NS
		➤ Width			☐ S ☐ NS
		➤ aircraft type designation			☐ S ☐ NS
		➤ Offset distance of designation from the lead-in line			☐ S ☐ NS
		• Primary aircraft parking position			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
		markings			
		➤ Alignment line width			☐ S ☐ NS
		➤ Stop line width			☐ S ☐ NS
		• Marshaller stop line			☐ S ☐ NS
		➤ aircraft type designation			☐ S ☐ NS
		• Pilot stop line			☐ S ☐ NS
		➤ Line length			☐ S ☐ NS
		➤ Offset distance from the alignment line			☐ S ☐ NS
		➤ aircraft type designation			☐ S ☐ NS
		• Alignment line			☐ S ☐ NS
		➤ 1m long section of the alignment line			☐ S ☐ NS
		• Secondary aircraft parking position markings			☐ S ☐ NS
		• Keyhole marking			☐ S ☐ NS
		➤ Diameter of the keyhole			☐ S ☐ NS
		➤ Alignment line length			☐ S ☐ NS
		➤ Width			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
		➤ Distance of designator from the alignment line			☐ S ☐ NS
		➤ Height of letters and numbers			☐ S ☐ NS
		• Triangle marking			☐ S ☐ NS
		➤ Side length of triangle			☐ S ☐ NS
		➤ Alignment line length			☐ S ☐ NS
		➤ Distance of designator from the alignment line			☐ S ☐ NS
		➤ Height of letters and numbers			☐ S ☐ NS
	RP A14 Vol.I,5.2.13.6,5.2.13.7 GM Doc9157,P4,2.3.10	• Lead-out line			☐ S ☐ NS
		➤ Stripe length			☐ S ☐ NS
		➤ Width			☐ S ☐ NS
		➤ Intervals			☐ S ☐ NS
		➤ Distance of 1 st arrow from the alignment line (if arrow indicators are inserted)			☐ S ☐ NS
		• Designation markings			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
		Aircraft parking position designation			☐ S ☐ NS
		➤ Position designation for fixed wing a/c			☐ S ☐ NS
		➤ Aerobridge position			☐ S ☐ NS
		Designation characters for taxi and apron markings			☐ S ☐ NS
		Tug operator guidance marking			☐ S ☐ NS
		Aircraft push-back lines			☐ S ☐ NS
		➤ Comprising stripe length			☐ S ☐ NS
		➤ Width of stripes			☐ S ☐ NS
		➤ Intervals of stripes			☐ S ☐ NS
		Tug parking position lines			☐ S ☐ NS
		➤ Line width			☐ S ☐ NS
		➤ Shape			☐ S ☐ NS
		➤ Height of shape "U"			☐ S ☐ NS
		➤ Width of shape "U"			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
		Tow bar disconnect markings			☐ S ☐ NS
		➤ Line length			☐ S ☐ NS
		➤ Line width			☐ S ☐ NS
		Push-back limit markings			☐ S ☐ NS
		➤ Line Length & gap			☐ S ☐ NS
		➤ Line width			☐ S ☐ NS
		➤ Line spacing			☐ S ☐ NS
		Push-back alignment Bars			☐ S ☐ NS
		➤ Comprising stripe length			☐ S ☐ NS
		➤ Stripe width			☐ S ☐ NS
		➤ Intervals			☐ S ☐ NS
		➤ Total Alignment desired direction			☐ S ☐ NS
		Passenger path markings			☐ S ☐ NS
		➤ Width of the passenger pathway			☐ S ☐ NS
	STD A14 Vol.I,5.2.15	Road holding position marking			☐ S ☐ NS
	STD&RP A14 Vol.I,5.2.17.1,5.2.17.2, 5.2.17.4, App.3	Information Marking			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
	STD A14 Vol.I,5.4	Movement Area Guidance Signs (MAGS)-Signs			☐ S ☐ NS
		Introduction			☐ S ☐ NS
	STD& RP A14 Vol.I,5.4.2,5.4.2.12,5.4.2.13 GM Doc9157,P4,12.4	mandatory instruction signs			☐ S ☐ NS
	STD A14 Vol.I,5.4.3,5.4.3.25 GM Doc9157,P4,12.5	information signs			☐ S ☐ NS
	STD&RP A14 Vol.I,5.4.2,5.4.3,5.4.3.34- 5.4.3.37,App.4	Naming of taxiway location signs			☐ S ☐ NS
	STD&RP A14 Vol.I,5.4.2.8-5.4.2.11, 5.4.3.14-5.4.3.24 GM Doc9157,P4,12.6	Dimensions, location and lettering			☐ S ☐ NS
	STD A14 Vol.I,5.4.3.14				☐ S ☐ NS
	STD A14 Vol.I,App.4	Sign size and location distances, incl. runway exit signs			☐ S ☐ NS
	STD&RP A14 Vol.I,5.4.1.3-5.4.1.11 GM Doc9157,P4,2.1.5	Structural requirements			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
.	STD A14 Vol.I,5.4.1.7,App.4,4	• Illumination			☐ S ☐ NS
	STD A14 Vol.I,5.4.2 GM Doc9157,P4,12.4	• Mandatory Instruction Signs			☐ S ☐ NS
	STD&RP A14 Vol.I,5.4.2.1-5.4.2.7 GM Doc9157,P4,12.4	• Runway designation signs			☐ S ☐ NS
	STD A14 Vol.I,5.4.2.9 GM Doc9157,P4,12.4.7	• Category I, II or III Runway designation signs			☐ S ☐ NS
	STD A14 Vol.I,5.4.2.11,5.4.2.12 GM Doc9157,P4,12.4.6,12.4.7	• Runway holding position sign			☐ S ☐ NS
	STD A14 Vol.I,5.4.2.10,5.4.2.12, Fig.5-30 GM Doc9157,P4,12.4.9	Aircraft NO ENTRY sign			☐ S ☐ NS
	STD A14 Vol.I,5.4.7 GM Doc9157,P4,12.4.10	• Vehicle STOP signs			☐ S ☐ NS
	STD A14 Vol.I,5.2.10.2	• Runway/Runway intersection signs			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
	GM Doc9157,P4,12.4.7				
	STD A14 Vol.I,5.4.3	MAGS with information / Information Signs			☐ S ☐ NS
		Taxiway location signs			☐ S ☐ NS
		Direction signs			☐ S ☐ NS
		Destination signs			☐ S ☐ NS
	STD A14 Vol.I,5.4.3.29	Take-off Run Distance Available sign			☐ S ☐ NS
	STD A14 Vol.I,5.4.3.16	Runway exit signs			☐ S ☐ NS
	STD A14 Vol.I,5.2.16	Mandatory Instruction markings			☐ S ☐ NS
	STD A14 Vol.I,5.1.1	a) Wind Direction Indicators			☐ S ☐ NS
	STD A14 Vol.I,5.1.1.1	Requirements			☐ S ☐ NS
	RP A14 Vol.I,5.1.1.3-5.1.1.5	Characteristics			☐ S ☐ NS
	RP A14 Vol.I,5.1.4.1-5.1.4.3,Att.A,17 GM Doc9157,P4,C3	b) Ground Signals			☐ S ☐ NS
		Signal Areas			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
		Ground Signals in Signal Area			☐ S ☐ NS
	STD A14 Vol.I,C7	c) Visual Aids denoting Restricted Use Areas			☐ S ☐ NS
	STD A14 Vol.I,7.1	Closed runways and taxiways or parts thereof			☐ S ☐ NS
	STD A14 Vol.I,7.2	Non-load-bearing surfaces			☐ S ☐ NS
	RP A14 Vol.I,7.3	Pre-threshold area			☐ S ☐ NS
	STD A14 Vol.I,7.4	Unserviceable areas			☐ S ☐ NS
	STD A14 Vol.I,7.4.3	Works Limit markers			☐ S ☐ NS
	STD A14 Vol.I,C6 GM Doc9157,P4,C15	d) Obstacle Markings			☐ S ☐ NS
	STD A14 Vol.I,6.1 GM Doc9157,P4,C15	Objects to be marked and/or lighted			☐ S ☐ NS
	STD&RP A14 Vol.I,6.1.1	Objects within the lateral boundaries of the obstacle limitation surfaces			☐ S ☐ NS
	RP A14 Vol.I,6.1.2	Objects outside the lateral boundaries of the obstacle			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
		limitation surfaces			
		e) Marking of temporary and transient obstacles			☐ S ☐ NS
	STD A14 Vol.I,6.2.2	f) Marking of Vehicles			☐ S ☐ NS
	STD& RP A14 Vol.I,5.3.3.3-5.3.3.5	g) Aerodrome Beacons			☐ S ☐ NS
	STD A14 Vol.I,5.3.5.24 GM Doc9157,P4,8.3	h) Precision approach path indicator (PAPI) system			☐ S ☐ NS
2.)		Aerodrome Facilities			
	STD A14 Vol.I,C8 GM Doc9157,P5,C3,5.9.4	a) Power Supply			☐ S ☐ NS
		• Primary Source			☐ S ☐ NS
		• Secondary Power Supply			☐ S ☐ NS
	STD&RP A14 Vol.I,8.1.4,Table8-1,8.1.15 GM Doc9157,P5,3.4.5,3.4.6	• Switch-over time limits			☐ S ☐ NS
	RP A14 Vol.I,8.1.11 GM Doc9157,P5,3.3	• Requirement for Secondary Power Supply			☐ S ☐ NS

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No	Reference	Audit Area	Actual	Standard	Remarks
	STD & RP A14 Vol.I,5.3	b) Aerodrome Lighting			☐ S ☐ NS
		• Portable Lighting			☐ S ☐ NS
	GM Doc9157,P6	• Light fixtures and supporting structures			☐ S ☐ NS
		• Elevated and inset lights			☐ S ☐ NS
	STD A14 Vol.I,5.3.1.4-5.3.1.6	➤ Elevated lights			☐ S ☐ NS
	STD&RP A14 Vol.I,5.3.1.7,5.3.1.8 GM Doc9157,P4,9.1	➤ Inset lights (pavement lights)			☐ S ☐ NS
	STD A14 Vol.I,5.3.1.9-5.3.1.12,Att.A,16 GM Doc9157,P4,C19	• Light intensity and control			☐ S ☐ NS
		➤ Lighting Systems if Provided			☐ S ☐ NS
		➤ Intensity			☐ S ☐ NS
	STD A14 Vol.I,10.5,10.5.2 GM Doc9137,P9,C2	• Maintenance performance of aerodrome lighting			☐ S ☐ NS
	STD A14 Vol.I,6.2.1.1 GM	• Obstacle Lighting			☐ S ☐ NS

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No .	Reference	Audit Area	Actual	Standard	Remarks
	Doc9157,P4,15.4				
	STD A14 Vol.I,Table 6-2	➤ Low intensity			☐ S ☐ NS
	STD A14 Vol.I,Table 6-3	➤ Medium intensity			☐ S ☐ NS
	STD A14 Vol.I,Table 6-3	➤ High intensity obstacle lights			☐ S ☐ NS
	RP A14 Vol.I,5.1.1.5	• Illuminated Wind Direction Indicator			☐ S ☐ NS
	STD A14 Vol.I,5.3.4	• Approach lighting systems			☐ S ☐ NS
	STD&RP A14 Vol.I,5.3.4.2-5.3.4.9	➤ Simple approach lighting system			☐ S ☐ NS
	STD&RP A14 Vol.I,5.3.4.10-5.3.4.21	➤ Precision approach Category I lighting system			☐ S ☐ NS
	STD&RP A14 Vol.I,5.3.4.22-5.3.4.39	➤ Precision Approach Category II and III Lighting System			☐ S ☐ NS
	STD A14 Vol.I,9.8	Surface Movement Guidance Control System (SMGCS)			☐ S ☐ NS

Appendix 7B-3: RESCUE AND FIRE-FIGHTING FORM AGA-ATI-0003

REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
1.3 RESCUE AND FIRE-FIGHTING			
	GENERAL		
STD A14 Vol.I,9.2.1	1. Is there a rescue and firefighting service provided at certified and registered aerodromes?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.44	2. Are there sufficient trained and competent personnel designated to be readily available to ride the rescue and fire fighting vehicles and to operate the equipment at maximum capacity?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD&RP A14 Vol.I,9.2.3-9.2.7	LEVEL OF PROTECTION		
STD A14 Vol.I,9.2.5 GM Doc9137,P1,2.1.2, Table 2-1 Doc9774,App.1,P3,3.2 (q)	3. Is the level of protection provided at an aerodrome for rescue and firefighting determined from [MAS] and based on the longest aeroplane normally using the aerodrome and its maximum fuselage width?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,2.11.3	4. Is the changes in the level of protection	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	normally available at an aerodrome for rescue and firefighting notified to the appropriate Air Traffic Service (ATS) unit and Aeronautical Information Service (AIS) unit to enable those units to provide the necessary information to arriving and departing aircraft?		
STD A14 Vol.I,9.2.8-9.2.25	EXTINGUISHING AGENTS		
RP A14 Vol.I,9.2.8 GM Doc9137,P1,2.2.1	5. Are both principal and complementary agents provided at the aerodrome?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.9 GM Doc9137,P1,2.2.2	6. Is the principal extinguishing agent meet either of the following? (a) a foam meeting the minimum performance Level A; or (b) a foam meeting the minimum performance Level B; or (c) a foam meeting the minimum performance Level C; or (d) a combination	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	of these agents; except that the principal extinguishing agent for aerodromes in categories 1 to 3 should preferably meet a performance Level B or C foam.		
RP A14 Vol.I,9.2.10 GM Doc9137,P1,8.2.4	7. Does the RFFS using dry chemical powder as complementary extinguishing agent suitable for extinguishing hydrocarbon fires?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD&RP A14 Vol.I,9.2.14, 9.2.15 GM Doc9137,P1,2.3.4	8. Is the quantity of foam concentrates separately provided on vehicles for foam production in proportion to the quantity of water provided and the foam concentrate selected?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	9. Is the amount of foam concentrate provided on a vehicle sufficient to produce at least two loads of foam solution?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD&RP	10. Is the discharge	☐ Yes	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
A14 Vol.I,9.2.18,Table 9-2,9.2.20,Table 9-2 GM Doc9137,P1,2.5.1,2.5.2,Table 2-3	rate of the foam solution and complementary agent not less than the rates shown in [MAS]?	[] No [] N/A	
STD A14 Vol.I,9.2.19	11. Does the complementary agents comply with the appropriate specifications of the International Organization for Standardization (ISO)? Note: - Guidance on complementary agents is given in ISO Publication 7202 (Powder)	[] Yes [] No [] N/A	☐ S ☐ NS
	RESPONSE		
RP A14 Vol.I,9.1.5	12. Are the RFF service provided with an up-to-date map of its response area, including the access roads?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,9.2.27 GM Doc9137,P1,2.7.1	13. Does the rescue and firefighting service able to achieve a response time not exceeding three minutes to any other part of the movement area, in optimum visibility and surface conditions?	[] Yes [] No [] N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
RP A14 Vol.I,9.2.33 GM Doc9137,P1,17.2.1	14. Is there a system of preventive maintenance of rescue and fire fighting vehicles employed to ensure the effectiveness of the equipment and compliance with the specified response time throughout the life of the vehicle?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	EMERGENCY ACCESS ROADS		
RP A14 Vol.I,9.2.34 GM Doc9137,P1,3.2.1	15. Is there an emergency access roads provided on an aerodrome where terrain conditions permit their construction so as to facilitate achieving minimum response times?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	16. Was the need for convenient access to outside areas taken into account where fencing is established?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.35	17. Are the emergency	☐ Yes ☐ No	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
GM Doc9137,P1,3.2.2	access roads capable of supporting the heaviest vehicles which will use them and be usable in all weather conditions?	[] N/A	
	18. Are roads within 90 m of a runway designed, constructed and maintained to prevent surface erosion and to prevent transfer of debris to an aircraft pavement surface?	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.36 GM Doc9137,P1,3.2.3	19. Are there edge markers placed at intervals of about 10 m when the surface of the road is indistinguishable from the surrounding area?	[] Yes [] No [] N/A	☐ S ☐ NS
	FIRE STATIONS		
RP A14 Vol.I,9.2.37,9.2.38 GM Doc9137,P1,2.8.1,2.8.2	20. Are all rescue and firefighting vehicles housed in a fire station?	[] Yes [] No [] N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	21. Is the fire station located so that the access for rescue and firefighting vehicles into the runway area is direct and clear, requiring a minimum number of turns?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	COMMUNICATIONS AND ALERTING SYSTEM		
RP A14 Vol.I,9.2.39 GM Doc9137,P1,2.9.1	22. Is there a discrete communication system provided linking a fire station with the control tower, any other fire station on the aerodrome and rescue and firefighting vehicles?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.40 GM Doc9137,P1,2.9.2	23. Is there an alerting system for rescue and firefighting personnel provided at all fire stations on the aerodrome?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	24. Is the alerting system capable of being operated from	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	any fire station on the aerodrome and the aerodrome control tower?		
	RESCUE AND FIREFIGHTING VEHICLES		
RP A14 Vol.I,9.2.41 GM Doc9137,P1,2.10.1,Table 2-5	25. Are the minimum number of rescue and firefighting vehicles provided at an aerodrome in accordance with [MAS]?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	PERSONNEL		
RP A14 Vol.I,9.2.44 GM Doc9137,P1,10.1.2	26. Are there sufficient trained and competent personnel designated readily available to ride the rescue and firefighting vehicles and to operate the equipment at maximum capacity?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.2.42	27. Are all RFFS personnel trained to properly perform their duties in an efficient manner and participate in live fire drills commensurate with the type of aircraft type of	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	rescue and firefighting equipment in use at the aerodrome, including pressure fed fuel fires?		
RP A14 Vol.I,9.2.45 GM Doc9137,P1,10.1.2 Doc9981,P1,App.1toC2, 2.2 b) 1)	28. Is there a task resource analysis completed in determining the minimum number of rescue and firefighting personnel required and the level of staffing documented in the Aerodrome Manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.2.46	29. Are all responding RFFS personnel provided with protective clothing and respiratory equipment to enable them to perform their duties in an effective manner?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,Att.A,18.1.4 GM Doc9137,P1,1.2.4	30. Is there a grid map of the aerodrome and its immediate vicinity provided for the use of the aerodrome services concerned?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	31. Is the grid map	☐ Yes	☐ S ☐ NS

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		STATUS	REMARKS
	conspicuously posted in the control tower and fire station, and available on the rescue and fire fighting vehicles and such other supporting vehicles required to respond to an aircraft accident or incident?	☐ No ☐ N/A	
STD A14 Vol.I,Att.A,18.4.1 GM Doc9137,P1,2.10.3	32. Are there suitable rescue equipment and services available at an aerodrome where the area to be covered by the service includes water, swampy areas or other difficult environment that cannot be fully served by conventional wheeled vehicles?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,Att.A,19.1	33. Are the authorities responsible for the operation of vehicles on the movement area ensure that the operators are properly qualified? This includes, as appropriate to the	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	driver's function, knowledge of: a) the geography of the aerodrome; b) aerodrome signs, markings and lights; c) radiotelephone operating procedures; d) terms and phrases used in aerodrome control including the ICAO spelling alphabet; e) rules of air traffic services as they relate to ground operations; f) airport rules and procedures; and g) specialist functions as required, for example, in rescue and firefighting.?		

Appendix 7B-4: WILDLIFE HAZARD MANAGEMENT FORM AGA-ATI-0004

REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
1.4 WILDLIFE HAZARD MANAGEMENT			
STD A14 Vol.I,9.4 GM Doc9137,P3	1. Does the aerodrome operator have a problem of wildlife/bird strikes?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.4.3 GM Doc9137,P3,9.1.5	2. Are there any measures taken for reducing wildlife/bird strikes?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.4 GM Doc9137,P3,4.3,4.4,5.3	3. Does a serviceability inspection include:	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	a) The condition of aerodrome fencing, particular in critical areas;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	b) Climatic or seasonal considerations, such as the presence of birds at certain times of the year, or related to the depth of water in drainage ponding areas;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	c) Possible shelter provided by aerodrome infrastructure such as buildings, equipment and gable markers;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	d) Wildlife hazard mitigating procedures incorporated in the environmental management procedures for the aerodrome;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	e) Off-airport attractors like animal sale yards, picnic areas, aeration facilities and waste disposal or landfill area, and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	f) Use of harassment procedures where appropriate?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
STD A14 Vol.I,9.10.1 Generic Aerodrome Manual,P4.2,4.5	4. Does the serviceability inspection check damaged fences, open gates, and signs of attempted entry by either animals or humans?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.4 GM Doc9137,P3,9.1 Doc9981,P2,C6	Does the aerodrome operator has a procedure describing the actions taken for discouraging the presence of wildlife, including:	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	• Who is in charge of those actions and what their training is;		
	• How and when these actions are carried out, including reporting and filing of these actions;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	• What equipment is used to conduct these actions;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	• Analyzes of the aerodrome vicinity and the preventive actions to be taken subsequently to discourage wildlife;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	• Monitoring of these actions, including, where applicable, the conduct of appropriate wildlife assessments; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	• Coordination with ATS.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.4.1 GM Doc9137,P3,9.1.3	Does the aerodrome operator has a procedure to: a. Record and analyze the incidents involving animals;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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		STATUS	REMARKS
	b. Collect the animals' remains;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	c. Monitor the corrective actions to be taken subsequently; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	d. Report to CAA incidents involving wildlife	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9137,P3,9.1.1.2,9.1.3	5. Does the aerodrome operator monitor and record, on a regular basis, the presence of birds or animals on or in the vicinity of the aerodrome?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	6. Are the monitoring personnel suitably trained for this purpose?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9137,P3,2.2.4.12, Generic Aerodrome Manual,P4.13	7. Where regular monitoring confirms existence of a bird or animal hazard to aircraft operations, or when CAA so directs, is the aerodrome operator produce a bird or animal hazard management plan, which would be included as part of the Aerodrome Manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9981,P2,6.3.5,6.3.7	8. Does a comprehensive wildlife management plan including coordination among the aviation regulatory authority, airport operator, aircraft operators and the surrounding communities implemented to successfully deal with land-use issues?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9137,P3,2.7.1	9. If directed by the CAA, is the WHMP prepared by a suitably qualified person such as an ornithologist or a biologist, etc.?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
GM Doc9137,P3,9.1	10. Does the WHMP address: a) hazard assessment, including monitoring action and analysis;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	b) pilot notification;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	c) liaison and working relationships with land use planning authorities;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9137,P3,4.3	d) on-airport bird and animal attractors which provide food, water or shelter;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	e) suitable harassment methods; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	f) an ongoing strategy for bird and animal hazard reduction, including provision of appropriate fencing?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9137,P3,9.2	11. Does the bird and animal hazard management plan reviewed for effectiveness, on a regular basis, at least as part of each technical inspection?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9137,P3,8	12. Where the presence of birds or animals is assessed as constituting an ongoing hazard to aircraft, does the aerodrome operator notify the CAA in writing, and include a warning notice for publication in the AIP?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9137,P3,8.3	13. Where a bird or animal hazard is assessed as acute, of short term or seasonal nature, are additional warning given to pilots by NOTAM?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9137,P3,9.1.6 Doc9981,P2,6.3.7.1	14. Do airport operators, local government units (LGUs), and other stakeholders assist in identifying and managing wildlife issues	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	at the aerodrome?		
STD A14 Vol.I,9.4.1	15. Does the wildlife strike hazard on, or in the vicinity of, an aerodrome assessed through:	[] Yes [] No [] N/A	☐ S ☐ NS
	(a) the establishment of a national procedure for recording and reporting wildlife strikes to aircraft;		
	(b) the collection of information from aircraft operators, aerodrome personnel and other sources on the presence of wildlife on or around the aerodrome constituting a potential hazard to aircraft operations; and	[] Yes [] No [] N/A	☐ S ☐ NS
	(c) an ongoing evaluation of the wildlife hazard by competent personnel?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,9.4.2 GM Doc9137,P3,2.5.4 (c)	16. Are wildlife strike reports collected and forwarded to ICAO for inclusion in the ICAO Bird Strike Information System (IBIS) database?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,9.4.3	17. Is an action taken to decrease the risk to aircraft operations by adopting measures to minimize the likelihood of collisions between wildlife and aircraft?	[] Yes [] No [P] N/A	☐ S ☐ NS
GM Doc9981,P2,6.3.7.4	18. Does a bird/wildlife strike control program describe a process for liaison with non-airport agencies and local landowners, etc., to ensure that airport operator is aware of developments that may contribute to creating additional bird hazards in the infrastructure, vegetation, land use and activities in the airport vicinity (e.g. crop harvesting, seed planting, ploughing, establishment of land or water features, hunting, etc., that might attract birds/wildlife)?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14Vol.I,9.4.34	19. Does the appropriate authority take action to	[] Yes [] No	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	eliminate or to prevent the establishment of garbage disposal dumps or any other source which may attract wildlife to the aerodrome, or its vicinity, unless an appropriate wildlife assessment indicates that they are unlikely to create conditions conducive to a wildlife hazard problem?	[] N/A	
	20. Invite relevant external stakeholders to quarterly Runway Safety meetings to assist with wildlife management at off airport sites?	[] Yes [] No [] N/A	☐ S ☐ NS
GM Doc9137,P3,9.1.1.6 (d)	21. Is the operator maintaining records?	[] Yes [] No [] N/A	☐ S ☐ NS
GM Doc9137,P3,2.2.4.12	22. Is the staff aware of safety requirements related to bird and animals hazards?	[] Yes [] No [] N/A	☐ S ☐ NS
GM Doc9137,P3,9.1.3	23. Are bird and animal hazard related incidents noted, reported and followed up?	[] Yes [] No [] N/A	☐ S ☐ NS
	24. List of documents checked. If yes, what are the documents checked?	[] Yes [] No [] N/A	☐ S ☐ NS

Appendix 7C: On-site Verification Checklist

Note:- Please insert relevant Articles/reference to National Regulations, Standards, Advisory Circulars, Aerodrome Manual etc. as relevant

Appendix 7C-1: AERODROME REPORTING

REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
GM Doc9774,App.1-4.1 Doc9981,P1,App.1toC2,3.1 a) Generic Aerodrome Manual,P4.1	4.1 AERODROME REPORTING		
STD A14 Vol.I,2.1.1	1. Are aerodrome-related aeronautical data determined and reported in accordance with the accuracy and integrity requirements set forth in the Manual of Standards for Aerodromes?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,2.13.4	2. Is there an established quality system procedure to maintain the data quality?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
STD A14 Vol.I,2.9.2	3. Is there a procedure for monitoring the conditions of the movement area and operational status of related facilities such as: (a) construction or maintenance work; (b) rough or broken surfaces on a runway, a taxiway or an apron; (c) water on a runway, a taxiway or an apron; (d) other contaminants on a runway, taxiway or apron; (e) other temporary hazards, including parked aircraft; (f) failure or irregular operation of part or all of the aerodrome visual aids; and (g) failure of the normal or secondary power supply?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,2.9.1	4. Is there an arrangement to provide the appropriate aeronautical information service unit information regarding condition of the movement area and the operational status of related facilities?	[] Yes [] No [] N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
STD A14 Vol.I,2.9.2	5. Is there an arrangement to provide the appropriate air traffic service unit information regarding the condition of the movement area and the operational status of related facilities that has significance to aircraft operation?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,2.9.1	6. Does the arrangement ensure timely provision of such information to arriving and departing aircraft?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,2.9.1	7. Does the arrangement ensure that the above-mentioned information is kept up to date?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,2.9.1	8. Does the arrangement ensure any changes on the above information are reported immediately to the appropriate authority?	[] Yes [] No [] N/A	☐ S ☐ NS
GM Doc9981,P1,2.4.4	9. Whenever a change to the aerodrome physical characteristics, facilities or equipment is proposed, does the aerodrome operator has a procedure for evaluating the impact of this change on the safety of the existing operation?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,2.9.4 GM Doc9981,P2,C2	10. Does the aerodrome operator have means or arrangement to ensure that the personnel assessing and reporting runway surface conditions are	[] Yes [] No [] N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	trained and competent to meet criteria set by CAA?		
STD A14 Vol.I,2.9.5-2.9.7 GM Doc9981,P2,C2	11. Is the runway surface condition reported through a runway condition code (RWYCC) and described using the following terms? DRY STANDING WATER WET	[] Yes [] No [] N/A	☐ S ☐ NS
STD&RP A14 Vol.I,2.9.9,2.9.10,10.2.3,10.2.4,10.2.8 GM Doc9981,P2,C2 Cir355	12. Is there a procedure or arrangement to notify the relevant aerodrome users when the friction level of a paved runway or portion thereof is less than the minimum friction level?	[] Yes [] No [] N/A	☐ S ☐ NS
STD&RP A14 Vol.I,2.9.9,2.9.10,10.2.3,10.2.4,10.2.8 GM Doc9981,P2,C2 Cir355	13. Does the procedure or arrangement ensure that the notification specifies the location or portion of the runway with which the friction level is below the minimum?	[] Yes [] No [] N/A	☐ S ☐ NS
Generic Aerodrome Manual,P4.1	14. Is there a procedure or arrangement to report to CAA infringements or potential infringements of the OLS?	[] Yes [] No [] N/A	☐ S ☐ NS
Generic Aerodrome Manual,P4.1	15. Does the procedure or arrangement ensure that information on new obstacles is passed on to pilots through NOTAM?	[] Yes [] No [] N/A	☐ S ☐ NS

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Generic Aerodrome Manual ,P4.1	16. Does the procedure or arrangement ensure that the following information is included when reporting new obstacle? (a)the nature of the obstacle (for instance structure or machinery); (b)distance and bearing of the obstacle from the start of the take-off end of the runway if the obstacle is within the take-off area, or else from the ARP; (c)height of the obstacle in relation to the aerodrome elevation; and if it is a temporary obstacle, the time it exists as an obstacle.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
Generic Aerodrome Manual,P4.1 GM Doc9774,App.1-4.1	17. Are the particulars of the procedures for reporting any changes to aerodrome information or for requesting the issuance of a NOTAM included in the aerodrome manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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GM Doc9981,P1,2.4.3.3,Att.toC8,5.13 c)	18. Is there an arrangement or means to report significant objects found during inspection, such as parts which may have fallen from aircraft, or the remains of birds which may have been struck by an aircraft, immediately to Air Traffic Control, where appropriate, and to the CAA?	[] Yes [] No [] N/A	☐ S ☐ NS
	19. Does the arrangement include details of coordination with ATC during normal and outside the normal hours of operations?	[] Yes [] No [] N/A	☐ S ☐ NS
	20. Is there an arrangement to report changes (temporary or permanent) in the published aerodrome information including additional changes to current permanent NOTAMs to NOTAM Office?	[] Yes [] No [] N/A	☐ S ☐ NS
	21. Is there an arrangement to report changes (temporary or permanent) in the published runway information including further changes to information contained in current permanent NOTAMs to ATC or the NOTAM office?	[] Yes [] No [] N/A	☐ S ☐ NS
	22. Is there an arrangement to report changes in the level of	[] Yes [] No [] N/A	☐ S ☐ NS

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	protection that is normally available at the aerodrome for rescue and firefighting to NOTAM Office?		
	23. Is there an arrangement to report aerodrome works, including time-limited works that require more than 10 minutes to re-instate to serviceable order, affecting runways or the obstacle limitation surfaces to ATC or the NOTAM Office?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	24. Is there an arrangement to report to the NOTAM office information regarding unserviceable portions of the runway?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	25. Is there an arrangement to report to ATC or the NOTAM office outages or failures beyond the specified limits in aerodrome lighting?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	26. Is there an arrangement to report to ATC or the NOTAM office outages or failures beyond the specified limits in obstacle lighting?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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	27. In the event of an obstacle light outage, does the arrangement ensure that the notification or reporting is done immediately if such obstacle light has been determined by CAA as being a requirement for aircraft operations?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	28. Does the arrangement ensure that a NOTAM action is initiated to advise pilots of such light outage?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	29. Does the arrangement ensure that the aerodrome operator liaise with the owner of the obstacle light to effect a speedy repair?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	30. For obstacles located outside the obstacle limitation surface area of the aerodrome, is there coordination arrangement to ensure that the owners of the lights establish a program monitor and report to CAA or ATC obstacle light failures?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	31. Is there an arrangement to report temporary obstacles to aircraft operations to NOTAM office?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	32. Is there an arrangement to report temporary obstacles to aircraft operations to ATC?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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	33. Is there an arrangement to ensure that the aerodrome operator report to ATC or the NOTAM office any significant increase in, or concentration of birds or animals on or in the vicinity of the aerodrome?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	34. Is there an arrangement to report changes in excess of 0.05% of the published gradient data to NOTAM office?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	35. Is there an arrangement to report to the ATC or the NOTAM office any emergence of new obstacles?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	36. Is there a procedure or arrangement to report to the ATC or the NOTAM office the unserviceability and return to service of a radio navigation aid or landing aid owned by the aerodrome operator?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	37. Is there a procedure or arrangement to report to NOTAM office or ATC any other significant event which affects the safety of aircraft using the aerodrome?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	38. Is there a procedure or arrangement to report to ATC changes	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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	resulting in obstruction of the OLS?		
	39. Is there an arrangement to ensure reports are carried out as expeditiously as possible to ATC and subsequent NOTAM issued as appropriate?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	40. Is there a procedure for reporting time-limited NOTAM?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	41. Is there a procedure for reporting permanent NOTAM?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	42. Is there a procedure for making changes to aerodrome information published in AIP?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	43. Is there an arrangement or procedure to report in writing to CAA-AIS changes to AIP information which does not have an immediate impact on the safety of aircraft operations?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	44. Is there an arrangement to ensure information regarding certification status of the aerodrome is reported directly to CAA-AIS by the aerodrome operator?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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	45. Does the arrangement ensure that reports when reporting changes for NOTAM action includes the following: (a) aerodrome name; (b) the aerodrome facility affected and details of unserviceability; (c) reason for change; (d) start time and expected end time of the unserviceability; and (e) daily duration or time schedule of the unserviceability, where applicable?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	46. Is there a process or procedure for checking the accuracy of NOTAM?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	47. Are there procedures or arrangements for keeping records of reports made for NOTAM action or for changes in the AIP information?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	48. Does the record/logbook shows details of all reports and subsequent NOTAM or changes to AIP?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	49. Are copies of reports and NOTAMS kept with the logbook?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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	50. Are the names of persons making the reports and his contact details included in the manual?	[] Yes [] No [] N/A	☐ S ☐ NS
	51. Are the names of the reporting officers responsible for reporting changes and his contact details during and after working hours included in the manual?	[] Yes [] No [] N/A	☐ S ☐ NS
	52. Did the aerodrome operator appoint a suitably trained person/s as the nominated reporting officer/s?	[] Yes [] No [] N/A	☐ S ☐ NS
	53. Is the nomination/s of the reporting officer notified in writing to the NOTAM office and CAA?	[] Yes [] No [] N/A	☐ S ☐ NS
	54. Are persons other than employees of the aerodrome operator appointed as aerodrome reporting officers have appropriate training and experience?	[] Yes [] No [] N/A	☐ S ☐ NS
	55. Does the reporting officer possess the following attributes? (a) a sound knowledge of the physical characteristics of the aerodrome movement area, the aerodrome obstacle limitation surfaces,	[] Yes [] No [] N/A	☐ S ☐ NS

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	aerodrome markings, lighting and ground signals and essential aerodrome safety equipment; (b) an understanding of the aerodrome information included in AIP; (c) the ability to carry out a serviceability inspection of (d) procedures the aerodrome; (e) a knowledge of the aerodrome emergency procedures; and (f) a knowledge of the NOTAM system and the ability to carry out aerodrome reporting.		

Appendix 7C-2: ACCESS TO THE AERODROME MOVEMENT AREA

REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
STD A14 Vol.I,2.9 GM Doc9774,App.1-4.2 Doc9981,P1,App.1toC2,3.1 b)	4.2 ACCESS TO THE AERODROME MOVEMENT AREA <i>Particulars of the procedures that have been developed and are to be followed in coordination with the agency responsible for preventing unlawful interference in civil aviation at the aerodrome and for preventing unauthorized entry of persons, vehicles, equipment, animals or other things into the movement area, including the following:</i>		
Generic Aerodrome Manual,P4.2	1. the roles of the aerodrome operator, the aircraft operator, aerodrome fixed-base operators, the aerodrome security entity and other government departments, as applicable.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	2. the names and roles of the persons who are responsible for controlling access to the movement area and the telephone numbers for contacting them during and after working hours.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	3. particulars of information about preventing the unauthorized entry of persons, vehicles, equipment, plant or animals, or other things that may endanger aircraft safety, into the movement area.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	4. Does it include details of the arrangements for controlling airside access?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	5. aerodromes catering for air transport operations, a fence or other suitable barrier are provided around the movement area of the aerodrome.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.10	Facilities		
	6. Does aerodrome operators comply with regulations for providing a fence or suitable barriers to aerodromes and off-aerodrome ground installations and facilities, including sewers, ducts and tunnels as well as the requirements for the lighting of security fences and barriers?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	7. Does the physical control measures in place in accordance with the aerodrome manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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		STATUS	REMARKS
	8. Are adequate and suitable staff and resources available?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	Procedures		☐ S ☐ NS
	9. Are the arrangements for controlling airside access in accordance with the aerodrome manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	10. Is the staff aware of safety requirements related to unauthorized entry?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	11. Are any conditions or exemptions complied with?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	Product Check		☐ S ☐ NS
	12. Was airside control observed to be effective and in accordance with the manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	Feedback		☐ S ☐ NS
	13. Are unauthorized entry incidents noted, reported and followed up?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	List of documents checked. If yes, what are the documents checked?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

Appendix 7C-3: AERODROME EMERGENCY PLAN (AEP)

REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
STD A14 Vol.I,9.1 GM Doc9137,P7 Doc9774,App.1-4.3 Doc9981,P1, App.1toC2,3.1 c) Generic Aerodrome Manual,P4.3	4.3 AERODROME EMERGENCY PLAN <i>Particulars of the aerodrome emergency plan, including the following:</i>		
STD A14 Vol.I,9.1.1	1. Is there an Aerodrome Emergency Plan (AEP) in place that commensurate to an aircraft operating in the aerodrome?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,9.1.12	2. Does the AEP contain procedures for periodic testing of the adequacy of the plan and for reviewing the results in order to improve its effectiveness? The currency and adequacy of the AEP must be reviewed at least once every twelve (12) months.	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,9.1.13 GM Doc9137,P7,13.5.1	3. Is the plan tested by conducting: (a) a full-scale aerodrome emergency exercise at intervals not exceeding two years and partial emergency exercises in the intervening year to ensure that any deficiencies found	[] Yes [] No [] N/A	☐ S ☐ NS

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	during the full-scale aerodrome emergency exercise have been corrected? or (b) a series of modular tests commencing in the first year and concluding in a full-scale aerodrome emergency exercise at intervals not exceeding three (3) years? and (c) reviewed thereafter, or after an actual emergency, so as to correct any deficiency found during such exercises or actual emergency?		
Generic Aerodrome Manual,P4.3	4. Has the aerodrome operator established and chaired an Aerodrome Emergency Committee (AEC)?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	5. Does the AEC includes representatives of agencies on and off the aerodrome that would be likely to be asked to assist in an emergency?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	6. Does the manual contain details of the	☐ Yes ☐ No	☐ S ☐ NS

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	members of the aerodrome emergency committee and contact details for each member?	[] N/A	
	7. Does it contain a description of the role of each emergency service organization involved in the plan?	[] Yes [] No [] N/A	☐ S ☐ NS
	8. Is the AEC responsible for the development of the AEP which includes procedures for coordinating the responses of assisting agencies?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,9.1.13 a)	9. Does the plan ensure that a full scale emergency exercise must be carried out at least once every two years, commensurate with the size and scale of operations at the airport, unless the emergency plan was activated for a major emergency within the two (2) year period?	[] Yes [] No [] N/A	☐ S ☐ NS
	10. Does the manual include that a partial exercise is to be conducted in the intervening year?	[] Yes [] No [] N/A	☐ S ☐ NS
GM Doc9137,P7,2.2 Doc9774,App.1-4.3	11. Does the AEP include organizational and procedural arrangements for responding to at least the following situations:	[] Yes [] No [] N/A	☐ S ☐ NS

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	• aircraft emergencies; • local standby and full emergency; • sabotage including bomb threats; • unlawfully seized aircraft; • disabled aircraft; • hazardous material incident; • building fire and natural disaster; • public health emergencies; or • medical emergency.		
GM Doc9137,P7,2.2.3	12. Does the manual clearly define the activation sequence including call out arrangements for Local Standby and Full Emergency?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.1.5 e) GM Doc9137,P7,7.1.1	13. Is a grid map of the aerodrome and its vicinity provided with detailed location of primary and secondary access gates?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	14. Are the grid maps made available to all responding agencies?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	15. Does the plan includes the responsibility of the AEC to ensure that the level and availability of emergency equipment	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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	and services are adequate for the aerodrome?		
STD A14 Vol.I,9.1.14	16. Does the plan includes ready availability and coordination of appropriate specialist agencies able to respond to an emergency where an aerodrome is located close to water and/or swampy areas and where a significant portion of approach or departure operations takes place over those areas?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.1.15	17. Does the plan include the establishment, testing and assessment at regular intervals of a predetermined response for the specialist rescue services at those aerodromes located close to water and/or swampy areas, or difficult terrain?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.1.16	18. Does the plan include an assessment of the approach and departure areas within 1000 m of the runway threshold to	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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	determine the options available for intervention?		
STD A14 Vol.I,9.1.3	19. Does the plan coordinate the response or participation of all existing agencies which, in the opinion of the appropriate authority, could be of assistance in responding to an emergency?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	20. Does the plan ensure that records and reviews of exercises including real emergencies are kept and retained for at least three (3) years?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	21. Does the Disabled Aircraft Removal Plan (DARP) prepared by aerodrome operators ensure continuity of airport operation as part of AEP?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.3.1	22. Is a DARP plan for the removal of an aircraft disabled on, or adjacent to, the movement area established at the aerodrome?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	23. Does the DARP designate a coordinator to implement the plan, when necessary?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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RP A14 Vol.I,9.3.2	24. Is the plan based on the characteristics of the aircraft that normally operates at the aerodrome, and include among other things: a) a list of equipment and personnel on, or in the vicinity of, the aerodrome which would be available for such purpose; and b) an arrangement for the rapid receipt of aircraft recovery equipment kits available from other aerodromes.	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,2.10.1,2.10.2,9.3.1,9.3.2	25. Does the plan ensure that the information concerning the capability to remove an aircraft disabled on or adjacent to the movement area is published in the AIP?	[] Yes [] No [] N/A	☐ S ☐ NS
	26. Is the aerodrome emergency plan commensurate with the scale and type of aircraft operations, the surrounding geography and other activities conducted at the aerodrome?	[] Yes [] No [] N/A	☐ S ☐ NS
	27. With the assistance of the AEC, does the aerodrome certificate holder planned for the worse type of emergency situations	[] Yes [] No [] N/A	☐ S ☐ NS

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	that might conceivably occur with respect to size, location, timing and weather?		
	28. The off-aerodrome responding agencies will have been established to deal with most, if not all, emergency situations occurring in the community. Therefore, does the aerodrome emergency procedures have the highest degree of similarity with the procedures used in the community generally?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.1.6	29. Does the plan observe Human Factors principles to ensure optimum response by all existing agencies participating in emergency operations?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	30. On a larger aerodrome, is there Medical Subcommittee established to delegate the preparation of the medical plan?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	31. Does the medical sub-committee plan the deployment of medical personnel called to an aircraft emergency;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	32. Does the medical sub-committee develop procedures for triage, emergency treatment and movement of casualties; and	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	33. Does the medical sub-committee nominate a	☐ Yes ☐ No	☐ S ☐ NS

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	coordinator of crash site medical resources?	[] N/A	
	34. Are the facilities used in the responses by the various agencies including communications systems tested at intervals not exceeding one year?	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,9.1.7,9.1.8 GM Doc9137,P7,App.2,1 c)	35. Is there a fixed emergency operation center and a forward mobile command post available for use in an emergency?	[] Yes [] No [] N/A	☐ S ☐ NS
	36. Is there a establishment and manning of emergency operations centres and mobile command posts, and for communication between them?	[] Yes [] No [] N/A	☐ S ☐ NS
	37. Is the fixed emergency operations center (EOC) part of the aerodrome facilities and be used to co-ordinate and direct the overall response to the emergency.	[] Yes [] No [] N/A	☐ S ☐ NS
	38. The location and staffing of the emergency operations center clearly identified in the plan.	[] Yes [] No [] N/A	☐ S ☐ NS
	39. Is the forward mobile command post easily recognizable structure capable of being moved rapidly to the scene of an emergency?	[] Yes [] No [] N/A	☐ S ☐ NS
	40. Is the aerodrome emergency plan clearly set out the discrete roles of the emergency	[] Yes [] No [] N/A	☐ S ☐ NS

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	operations center (EOC) and the forward command post, highlighting the physical location of the emergency coordinator?		
STD A14 Vol.I,9.1.10	41. Is there a person to assume control of the emergency operations center (<i>Responsible Official</i>) and, when appropriate, another person (<i>Incident Commander</i>) the command post (<i>Incident/Mobile Command Post</i>).?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.1.11	42. Is there an adequate communication systems linking the command post and the emergency operations center with each other and with the participating agencies in accordance with the plan and consistent with the particular requirements of the aerodrome?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	43. Area the details of the command, control and coordination of the emergency service organizations observed during an emergency?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9137,P7,3.4.1	44. As soon as any police presence is established at the scene of an aerodrome emergency or exercise, is the senior police officer required to assume overall	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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	coordination of the agencies responding to the emergency?		
	45. Is the person who initially assumes coordination of the situation hand over to police when they arrive?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
GM Doc9137,P7,4.2.5	46. Is the police responsible for guarding any aircraft wreckage on behalf of Aircraft Accident Investigation and Inquiry Board (AAIIB)?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	47. And the arrangements to return the aerodrome to operational status after an emergency?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	48. And arrangements for reviewing actual emergencies or exercises as soon as practicable to assess the plan's adequacy and take corrective action?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	49. And keeping records of each review for at least 3 years?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	50. And arrangements to ensure that the exercise tests the coordination of the emergency services and the adequacy of the procedures and facilities provided for in the plan?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	51. Does the manual observe human factor principles?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	52. Are the current membership and contact arrangements for the Aerodrome Emergency	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	committee updated?		
	53. Is the frequency of meetings in accordance with the manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	54. Are all of the necessary participating/responding agencies adequately represented?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	55. Are copies of the AEP distributed in accordance with the manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	56. Is the staff aware of safety requirements for emergency planning?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	57. CAA staff may/may not attend AEP exercises. If it is considered necessary to attend, the check should be done as an observation exercise. In other cases, the following product check can be conducted from records kept by the operator.	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	58. Was the exercise planned in accordance with the manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	59. Date of last exercise?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	60. Did the appropriate agencies attend?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	61. Was an appropriate objective tested?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	62. Were appropriate	☐ Yes	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	amendments made to the AEP?	☐ No ☐ N/A	
	63. List of documents checked. If yes, what are the documents checked?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

Appendix 7C-4: RESCUE AND FIRE-FIGHTING

REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
STD A14 Vol.I,9.2 GM Doc9137,P1 Doc9774,App.1,-4.4 Doc9981,P1,Att.CtoC2,5.4 Generic Aerodrome Manual,P4.4	4.4 RESCUE AND FIRE-FIGHTING <i>Particulars of the facilities, equipment, personnel and procedures for meeting the rescue and firefighting requirements, including the names and roles of the persons responsible for dealing with the rescue and fire-fighting services at the aerodrome.</i>		
STD A14 Vol.I,9.2.1	1. Are all aerodromes provided with rescue and firefighting service taking into account the aerodrome location and surrounding terrain?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.2.2	2. When an aerodrome is located close to water or swampy areas, or difficult terrain, are there any special rescue services and firefighting equipment appropriate to the hazard and risk available?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.44 GM Doc9137,P1,10.1.2	3. During flight operations, are there sufficient trained and competent personnel designated to be readily available to ride the rescue and fire fighting vehicles and to operate the equipment at maximum capacity?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	4. Are these personnel deployed in a way that ensures minimum response times is achieved and continuous agent	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	application at the appropriate rate is fully maintained?		
	5. Are there considerations given for personnel to use hand lines, ladders and other rescue and firefighting equipment normally associated with aircraft rescue and firefighting operations? [] Yes [] No [] N/A		☐ S ☐ NS
STD A14 Vol.I,9.2.5 GM Doc9137,P1,2.1.2,Table 2-1 Doc9774,App.1-3.2 (q)	6. Is the level of protection provided at the aerodrome for RFFS categorized appropriately based on the longest aeroplane normally using the aerodrome? [] Yes [] No [] N/A		☐ S ☐ NS
STD A14 Vol.I,9.2.7	7. During periods of reduced activity, is there a provision that the level of protection for RFFS available at the aerodrome will be no less than that needed for the highest category of aeroplane planned to use the aerodrome during that time, irrespective of the number of movements? [] Yes [] No [] N/A		☐ S ☐ NS
STD A14 Vol.I,2.11.3 GM Doc9137,P1,16.1.3	8. Are changes in the level of protection normally available at an aerodrome for rescue and firefighting notified to the	[] Yes [] No [] N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	appropriate Air Traffic Service (ATS) unit and Aeronautical Information Service (AIS) unit to enable those units to provide the necessary information to arriving and departing aircraft?		
RP A14 Vol.I,2.11.4 GM Doc9137,P1,16.1.2	9. Are the changes expressed in terms of the new category of level of protection available?	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.8 GM Doc9137,P1,2.2.1	10. Are both principal and complementary agent provided at the aerodrome?	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.10 GM Doc9137,P1,2.2.3 a)	11. Is the RFFS using dry chemical powders as complementary extinguishing agent suitable for extinguishing hydrocarbon fires?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,9.2.11,Table 9-2 GM Doc9137,P1,2.3.1,Table 2-3	12. Are the amounts of water for foam production and complementary agents on the RFFS vehicles in accordance with the aerodrome category in table 14-2?	[] Yes [] No [] N/A	☐ S ☐ NS
STD&RP A14 Vol.I,9.2.14,9.2.15 GM Doc9137,P1,2.3.4	13. Is the quantity of foam concentrates separately provided on vehicles for foam production in proportion to the	[] Yes [] No [] N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	quantity of water provided and the foam concentrate selected?		
	14. Is the amount of foam concentrate provided on a vehicle sufficient to produce at least two loads of foam solution?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD&RP A14 Vol.I,9.2.12,9.2.13 GM Doc9137,P1,2.3.7	15. At aerodromes where operations by aeroplanes larger than the average size in a given category are planned, are the quantities of water recalculated and the amount of water for foam production and the discharge rates for foam solution increased accordingly?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,9.2.19 GM Doc9137,P1,8.2.4	16. Are the complementary agents provided comply with the appropriate specifications of the International Organization for Standardization (ISO)?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.16 GM Doc9137,P1,3.1.1	17. Are there provision for supplementary water supplies for the expeditious replenishment of rescue and fire fighting vehicles at the scene of an aircraft accident?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.26	18. Are the rescue equipment commensurate with the level of aircraft	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	operations shall be provided on the rescue and fire fighting vehicle(s)?		
STD A14 Vol.I,9.2.27 GM Doc9137,P1,2.7.1	19. Was the operational objective of the rescue and firefighting service achieved a response time not exceeding three minutes to any point of each operational runway, in optimum visibility and surface conditions?	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.32 GM Doc9137,P1,2.7.3	20. Does any vehicles, other than the first responding vehicles, required to deliver the amounts of extinguishing agents ensuring continuous agent application arrives no more than four minutes from the initial call?	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.33 GM Doc9137,P1,2.10.4,17.2.1	21. Is there a preventive maintenance system of RFFS vehicles to ensure effectiveness and compliance with the specified response time throughout the life of the vehicle?	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.34 GM Doc9137,P1,3.2.1	22. Are there adequate emergency access roads provided on the aerodrome where terrain conditions permit their construction so as to	[] Yes [] No [] N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	facilitate achieving minimum response times?		
	23. Is there a provision of ready access to approach areas up to 1,000 meters from the threshold, or at least within the aerodrome boundary?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	24. Where fencing is established, is the need for convenient access to outside areas were taken into account?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.35 GM Doc9137,P1,3.2.2	25. Is the emergency access road capable of supporting the heaviest vehicles in all weather conditions?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	26. Are the emergency access roads within 90 m of a runway designed, constructed and maintained to prevent surface erosion and to prevent transfer of debris to an aircraft pavement surface?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	27. Are sufficient vertical clearance provided from overhead obstructions for the largest vehicles?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.36 GM Doc9137,P1,3.2.3	28. Are there edge markers in place at intervals of about 10 m when the surface of the	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	road is indistinguishable from the surrounding area?		
RP A14 Vol.I,9.2.37,9.2.38 GM Doc9137,P1,2.8.1,2.8.2	29. Can the fire station house all the vehicles?	[] Yes [] No [] N/A	☐ S ☐ NS
	30. Is the fire station located with direct and clear access into the runway area requiring minimum number of turns?	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.39 GM Doc9137,P1,2.9.1	31. Is there a discrete communication system provided linking the fire station with the control tower, any other fire station on the aerodrome and rescue and firefighting vehicles?	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,9.2.40 GM Doc9137,P1,2.9.2	32. Is there an alerting system for rescue and firefighting personnel provided at all fire stations on the aerodrome?	[] Yes [] No [] N/A	☐ S ☐ NS
	33. Is the alerting system capable of being operated from any fire station on the aerodrome and the aerodrome control tower?	[] Yes [] No [] N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S																							
		STATUS	REMARKS																						
RP A14 Vol.I,9.2.41 GM Doc9137,P1,2.10,Table 2-5	34. Is the number of vehicles meets the <table border="1"> <thead> <tr> <th>Aerodrome category</th><th>Number of RFFS vehicles</th></tr> </thead> <tbody> <tr><td>1</td><td>1</td></tr> <tr><td>2</td><td>1</td></tr> <tr><td>3</td><td>1</td></tr> <tr><td>4</td><td>1</td></tr> <tr><td>5</td><td>1</td></tr> <tr><td>6</td><td>2</td></tr> <tr><td>7</td><td>2</td></tr> <tr><td>8</td><td>3</td></tr> <tr><td>9</td><td>3</td></tr> <tr><td>10</td><td>3</td></tr> </tbody> </table> Table 14-3 Number of RFFS vehicles requirements in accordance with table 14-3?	Aerodrome category	Number of RFFS vehicles	1	1	2	1	3	1	4	1	5	1	6	2	7	2	8	3	9	3	10	3	[] Yes [] No [] N/A	☐ S ☐ NS
Aerodrome category	Number of RFFS vehicles																								
1	1																								
2	1																								
3	1																								
4	1																								
5	1																								
6	2																								
7	2																								
8	3																								
9	3																								
10	3																								
STD A14 Vol.I,9.2.42	35. Are all RFFS personnel appropriately trained and have participated in live fire drills? - Initial fire-fighter requirements? - Continuing training? - Pressure fed fuel fires?	[] Yes [] No [] N/A	☐ S ☐ NS																						
RP A14 Vol.I,9.2.45 GM Doc9137,P1,10.1.2,10.5.1	36. Was a Task Resource Analysis (TRA) conducted to determine the minimum number of firefighting personnel?	[] Yes [] No [] N/A	☐ S ☐ NS																						
STD A14 Vol.I,9.2.43	37. Are the RFFS personnel training program include training in human performance, including team coordination?	[] Yes [] No [] N/A	☐ S ☐ NS																						
STD A14 Vol.I,9.2.46	38. Are all RFFS personnel provided with proper personal protective	[] Yes [] No [] N/A	☐ S ☐ NS																						

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	clothing and respiratory equipment to enable them to perform their duties in an effective manner?		
Generic Aerodrome Manual,P4.4	39. Does the manual include the names and roles of the persons responsible for dealing with the rescue and fire-fighting services at the aerodrome?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	40. Does the manual include procedures for meeting the needs of a RFFS, including the information on facilities, equipment, personnel and vehicles?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	41. Is the operator maintaining records in accordance with the aerodrome manual and/or Fire Service Manual SOPs?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
STD A14 Vol.I,18.1.4	42. Are adequate and suitable staff and resources available including grid map in each vehicle?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	43. Are the current procedures specified in the manual able to be verified?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	44. Procedures for testing equipment provided?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	45. Is the communication system tested in accordance with the manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	46. Do field inspections of RFFS facilities and records confirm on-going compliance with existing procedures?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	47. Are RFFS-related hazards, incidents and accidents noted, reported and followed up?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	48. List of documents checked. If yes, what are the documents checked?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

Appendix 7C-5: INSPECTION OF THE MOVEMENT AREA BY THE AERODROME OPERATOR

REFERENCE NO.	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
GM Doc9774, App. 1-4.5 Doc9981, P1, App. 1 to C2, 3.1 e), P2, C3 Generic Aerodrome Manual, P4.5	4.5 INSPECTION OF THE MOVEMENT AREA BY THE AERODROME OPERATOR <i>Particulars of the procedures for the inspection of the aerodrome movement area, including the following:</i>		
STD A14 Vol. I, 2.9.3 Generic Aerodrome Manual, P4.5	1. Does the operator of a certified aerodrome require an arrangement for aerodrome serviceability inspections to be carried out at least 2 times each day including one inspection during hours of darkness, and additionally after a natural phenomena such as severe wind or rain storm, earthquake, or when requested by air traffic control or by CAA?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	2. Is serviceability inspections which are subject to CAA agreement and the frequency of inspections may be reduced to not less than 2 per week at aerodromes with low numbers of traffic movements?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	3. At aerodromes restricted to VFR operations, is the serviceability inspection conducted before the first aircraft movement during daylight hours?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

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REFERENCE NO.	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	4. Does the notification of changes in the published aerodrome information or any other occurrence or emergency affecting the availability of the aerodrome and safety of aircraft using the aerodrome are being reported?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	5. When carrying out serviceability inspections, are checklists used for reporting any changes in the aerodrome information or for request of issuance of NOTAMs included in the aerodrome manual?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	6. During an inspection, are there arrangements and means of communication with ATC regarding significant objects found in the movement areas?	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS
	7. Does the serviceability inspection include the following surface conditions: (a) ponding of water; (b) pavement cracking or spalling; (c) rubber build up; (d) surface irregularities; (e) damage caused by spillage of corrosive fluids;	☐ Yes ☐ No ☐ N/A	☐ S ☐ NS

REFERENCE NO.	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	(f) pipe drain faults particularly in fine grain non cohesive sub grades, in high rainfall areas; (g) scour or erosion ditches; (h) termite mounds or other ground obstacles obscured by long grass; (i) soft ground, particularly in combination with surface roughness and slipperiness; and (j) any other sign of pavement distress which has the potential to develop quickly into a hazardous situation.		
	8. Does the serviceability inspection include checking the following conditions of aerodrome markings, lightings, WDIs, and ground signals? (a) loss of visibility of markers and markings; (b) use of incorrect markers and markings; (c) any disturbance to level and alignment of lights; (d) visual light intensity consistency	[] Yes [] No [] N/A	☐ S ☐ NS

REFERENCE NO.	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	check (does a light stand out less bright than others in the same system?) (e) discolored or dirty lenses; (f) outage lamps, incorrect lamps fitted, or lamps fitted wrongly; (g) the condition of the frangibility of light bases; (h) exposed edges around footings and other aerodrome installations; (i) damage to wind indicator assembly or mounting; and (j) damage to wind indicator sleeve fabric, or loss of conspicuous color.		
	9. Does the serviceability inspection also include the following? (a) foreign objects, such as aircraft fastening devices and other parts; (b) mechanics tools, small items of equipment and personal items; (c) debris, such as sand, loose rocks, concrete, wood, plastic, pieces of tire and mud; and (d) with particular	[] Yes [] No [] N/A	☐ S ☐ NS

REFERENCE NO.	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	vigilance during and after construction activity, any debris or material which may have been generated by vehicle movement, spillage, storage other extraneous activity.		
Generic Aerodrome Manual ,P4.5.5	Wildlife on, or in the vicinity of, the movement area		☐ S ☐ NS
	10. Does a serviceability inspection checklist include wildlife on or in the vicinity of the movement area?	[] Yes [] No [] N/A	☐ S ☐ NS
	11. Does a serviceability inspection checklist for wildlife include the following? (a) the condition of aerodrome fencing, particularly in critical areas; (b) climatic or seasonal considerations, such as the presence of birds at certain times of the year, or related to the depth of water in drainage ponding areas; (c) possible shelter provided by aerodrome infrastructure such as buildings, equipment and gable markers; (d) wildlife hazard mitigating procedures incorporated in the environmental management	[] Yes [] No [] N/A	☐ S ☐ NS

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REFERENCE NO.	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	procedures for the aerodrome; (e) off-airport attractors like animal sale yards, picnic areas, aeration facilities and waste disposal or landfill areas, and (f) use of harassment procedures where appropriate		
Generic Aerodrome Manual ,P4.5.6	Currency of NOTAMs		
	12. Does a serviceability inspection checklist include any outstanding NOTAMs which are current? [] Yes [] No [] N/A		☐ S ☐ NS
Generic Aerodrome Manual ,P4.5.5	Aerodrome Fencing		☐ S ☐ NS
	13. Does a serviceability inspection include checking of damaged fences, open gates and signs of attempted entry by either animals or humans? [] Yes [] No [] N/A		☐ S ☐ NS
STD A14 Vol.I,9.10.1,9.10.2	14. Is there a fence or other suitable barrier provided in the aerodrome to prevent the entrance to the movement area of animals large enough to be a hazard to aircraft and to deter the inadvertent or premeditated access of an unauthorized person onto a non-public area of the aerodrome? [] Yes [] No [] N/A		☐ S ☐ NS
STD A14 Vol.I,9.10.3	15. Are there means of protection provided to deter the inadvertent or premeditated [] Yes [] No [] N/A		☐ S ☐ NS

REFERENCE NO.	QUESTIONS	REVIEW BY AERODROME INSPECTOR/S	
		STATUS	REMARKS
	access of unauthorized persons into ground installations and facilities essential for the safety of civil aviation located off the aerodrome?		
STD A14 Vol.I,9.10.4	16. Is the fence or barrier located so as to separate the movement area and other facilities or zones on the aerodrome vital to the safe operation of aircraft from areas open to public access?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,9.10.5	17. When greater security is thought necessary, is there a cleared area provided on both sides of the fence or barrier to facilitate the work of patrols and to make trespassing more difficult?	[] Yes [] No [] N/A	☐ S ☐ NS
STD A14 Vol.I,9.10.5	18. Is there a consideration given to the provision of a perimeter road inside the aerodrome fencing for the use of both maintenance personnel and security patrols?	[] Yes [] No [] N/A	☐ S ☐ NS
RP A14 Vol.I,9.11	Security Lighting 19. Where it is deemed desirable for security reasons, is a fence or other barrier provided for the protection of international and domestic aerodromes and its facilities illuminated at a	[] Yes [] No [] N/A	☐ S ☐ NS

INTERNATIONAL CIVIL AVIATION ORGANIZATION



GENERIC TRAINING PROGRAMME AND TRAINING PLAN FOR AERODROME INSPECTORS

VERSION 1.0 – MARCH 2021

Introductory Notes

This generic document was developed by the ICAO Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG) for reference by States in the APAC Regions. When referring to this generic document, States are expected to customize the content in accordance to the States' legislations, regulations and situations.

It would be approved by XXX (Video Teleconference, XXX) and published by ICAO Asia and Pacific Office, Bangkok.

ICAO Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services and Guidance Materials shall take prevalence in the event of any conflict between the aforementioned provisions and this generic document.

Enquiries and feedbacks regarding this generic document can be made to ICAO APAC Office at apac@icao.int.

RECORD OF AMENDMENTS

[illegible]

**[Name and Address
Of
Civil Aviation
Authority]**

**TRAINING POLICY
&
TRAINING PROGRAM
FOR
[CAA] TECHNICAL
STAFF/INSPECTORS**

EDITION - XXXX

PREFACE

[Name of the Civil Aviation Authority] being a regulatory body has to ensure the competency of its workforce. Hence [CAA] is committed to provide training or take other actions to reach the established level of competency, and evaluate the effectiveness of these actions. This policy document provides an overview of various training requirement of [CAA Technical Staff/INSPECTORS] at all level. The training as envisaged will enable the Technical Staff/Inspectors to understand the context, duties and responsibilities, relevant regulatory provisions and make them familiar with the relevant ICAO documents.

This policy document of the [CAA] provides common guidelines regarding various trainings to enhance the skills and competency of Technical Staff/Inspectors/inspectors. The policy document sets forth the authority and procedural methods to execute various trainings of [CAA Technical Staff/Inspectors] at all level.

[head or CAA /DGCA]

[Place, date month and year]

TRAINING POLICY FOR [CAA TECHNICAL STAFF/INSPECTORS]

1. INTRODUCTION

- 1.1. International aviation standards require that a civil aviation authority provide its safety inspectors with comprehensive training to ensure the competency of its inspector workforce.
- 1.2. [Name of the Civil Aviation Authority] is a regulatory body responsible for the safety oversight of aircraft operations in the country. [CAA] is committed to establish and control the competencies of its Technical Staff/Inspectors. For this purpose [CAA] is committed to provide training or take other actions to reach the established level of competency, and shall evaluate the effectiveness of these actions. The [CAA] shall ensure that Technical Staff/Inspectors of [CAA] are competent to carry out the tasks assigned to them and have the necessary qualification, experience and training to perform their respective functions.
- 1.3. In order to ensure that the Technical Staff/Inspectors in [CAA] are qualified, have operational or technical work experience and their training is compatible with the activities they are required to carry out, [CAA] has prepared this Training Policy.

2. OBJECTIVE:

Objective of this Policy is to provide an overview of various training requirement of [CAA Technical Staff/Inspectors] at all level. The training as envisaged will enable the Technical Staff/Inspectors to understand the context, duties and responsibilities, relevant regulatory provisions and make them familiar with the relevant ICAO requirements and materials. The training imparted will ensure to meet the vision of CAA – ‘Endeavour to promote safe and efficient air transportation through regulation and proactive safety oversight system’ vision of Safety Regulator

3. TRAINING PROGRAM

Each [Section /Unit / division] shall prepare its training programme for its Technical Staff/Inspectors as per this training policy.

- 3.1 The training program for Technical Staff/Inspectors shall contain primarily the following trainings:
 - 3.1.1 **Initial/ Induction Training:** The newly inducted Technical Staff/Inspectors shall be provided an induction training to enable Technical Staff/Inspectors to get a general understanding about the organisation, its vision, mission and acquire necessary competencies required for performing their job.

- 3.1.2 **On-the -job Training:** After Completion of Initial Induction Training, the newly inducted Technical Staff/Inspectors will be provided on-the-job training to enable them to handle their responsibilities independently. An inspector has to undergo corresponding OJT training for a given job/ function before independently performing that job/ function.
- 3.1.3 **Recurrent Training:** Technical Staff/Inspectors will be provided recurrent training to maintain/upgrade the competency level and also for updating their awareness to relevant regulations/developments etc. This training shall be conducted at least once in two years.
- 3.1.4 **Specialized/Technical Training:** (one-time courses taken any time – ongoing process): [CAA] shall nominate Technical Staff/Inspectors for technical and developmental courses as applicable.

4. INITIAL/ INDUCTION TRAINING

- 4.1 Initial/Induction Training course will be conducted for each newly inducted Inspectors in [CAA]. There will be 3 modules.

Module-I will be organised by the [Training division of the CAA]. The purpose of this Module is to familiarize Technical Staff/Inspectors with the organization setup business and applicable national legislations and functioning of the organization.

Modules II & III will be structured and conducted in the concerned area [e.g. PEL , AGA, AIG, OPS etc.] by the concerned section /division / unit.

The generic Topics/Contents for Induction Module is placed at **Appendix ‘A’**.

- 4.2 Newly recruited Technical Staff/Inspectors are required to complete the Initial Training course within the stipulated time frame in order to start On-the-job Training (OJT) for their respective areas of posting. This will enable them to be more useful in providing assistance to senior Technical Staff/Inspectors at the preparatory level of work.

4.3 ON-THE-JOB TRAINING

- 4.3.1 On-the-Job Training entails the completion of three levels of training for each technical job function. The three levels encompass the study of reference materials, task observation, and task performance, as further defined below. An OJT trainer must validate all Levels (I, II, and III) of performance. The OJT training process follows a logical progression of three levels as shown in the table below:

<u>Level</u>	<u>Trainee</u>	<u>Trainer</u>
Level I – Knowledge	Study	Discuss
Level II – Understanding	Observe	Demonstrate
Level III – Performance	Perform	Evaluate

- 4.3.2 Level-I training (Knowledge) is typically a self-study effort on the part of the trainee with guided discussion and validation conducted by the OJT trainer afterwards. The time allowed for this should be appropriate to the complexity of the task and the amount of material to be studied.

Levels II and III involve the actual performance of the task. Level I training typically involve a review of all reference materials applicable to the job tasks for which training has been identified. Level I training may be satisfied through classroom training or other delivery methods.

Level II Training (Task Observation) involves observation of the performance of specific job tasks. This training typically involves the trainee observing and/or assisting the OJT trainer in the performance of those specific job tasks for which the trainee will be held accountable. Level II training may be satisfied through appropriate training that provides the opportunity for the trainee to observe and/or assist the trainer performing the task.

Level III Training (Task Performance) involves the application of knowledge and skills to the performance of specific job tasks. Typically, the trainee performs the job task under the observation of a qualified OJT trainer. The trainer assesses the performance of the task and indicates on the trainee's OJT training plan when Level III performance is achieved.

- 4.3.3 Each division responsible for concerned area [e.g. PEL, AGA, AIG, ANS, OPS etc] will frame their own OJT Plan based on these guidelines. In order to ensure the responsibility of oversight of an individual Technical Staff/Inspector, concerned division shall maintain record of OJT of its inspector/ officer to indicate that the inspector/ officer has been successfully trained on a particular task. Before assigning an inspector/ officer to perform a job task, the appropriate officials within the Division should confirm that the inspector/ officer has completed sufficient training to perform the task.

5 RECURRENT TRAINING

- 5.1 [CAA Technical Staff/Inspectors] require continuous development of their competencies related to their respective responsibilities. This should be accomplished through periodic training such as recurrent training or continuation training. To ensure that [CAA Technical Staff/Inspectors] maintain proficiency and keep current on aircraft and equipment, techniques, procedures and new developments in their respective areas of expertise, it is essential that they receive periodic recurrent training.

- 5.2 The Recurrent Training course may share content with the Initial Training course, but varies in emphasis from one to other, as the Initial Training course provides a fuller treatment across all subject area. The Recurrent Training course focuses on changes from year to year in regulations, guidance material as well as significant events occurring in the industry and the local environment from time to time.

6 SPECIALISED TRAINING

- 6.1 For Technical Staff/Inspectors to upgrade their knowledge at par with international standards and for efficient functioning, [CAA] shall periodically develop programmes under special training programmes/schemes in association with international organisations, such as, ACI, EASA, IATA, US FAA and regional cooperative programmes, such as, Cooperative Development of Operational Safety and Continuous Airworthiness Programmes (COSCAPs), , Flight Procedure Programme (FPP) etc.
- 6.2 The purpose of specialized training is to upgrade the knowledge and competency of [CAA Technical Staff/Inspectors] at par with international standards and for efficient functioning. Duration of training is based on the course and the hosting organization.

7. PREPARATION OF ANNUAL TRAINING PLAN

Each Division /Section /Unit of the concerned area [e.g. PEL , AGA, AIG, ANS, OPS etc] shall establish and maintain Individual Training Plans that sets out the training to be provided to each of their Technical Staff/Inspectors annually and all the proposals may be consolidated at organization level. For prioritising the trainings, all concerned area [e.g. PEL , AGA, AIG, ANS, OPS etc] shall categorically list their priority requirements as ‘mandatory training’ in their training plan. The training plan of the CAA shall be finalised in consultation with all the concerned area [e.g. PEL , AGA, AIG, ANS, OPS etc] their Representatives. Final proposal may be submitted to [head of organization /CAA] for in-principle approval and accordingly administrative and logistic shall be made available /planned. Approved training Calendar for the year will be shared with each concerned unit / section/ division [e.g. PEL , AGA, AIG, ANS, OPS etc] and also uploaded on the website of [CAA].

8. TRAINING RESPONSIBILITIES

It is the responsibility of the CAA to arrange/provide trainings in accordance with training programme and plan.

9. PROCESS FOR CONDUCTING VARIOUS TRAININGS:

Each concerned Section /Unit/Division [e.g. PEL , AGA, AIG, ANS, OPS etc.] will submit the proposal for individual training as per approved calendar before 30 days of the planned commencement of the training.

10. REVIEW OF TRAINING PROGRAM

Each concerned Section /Unit/Division [e.g. PEL , AGA, AIG, ANS, OPS etc.] is expected to periodically review the Training Program and carry out revisions so that the training of Technical Staff/Inspectors is continuously updated to keep abreast of the latest developments taking place in the aviation field. One of the methods is to analyse the feedback received after training which may be considered for revision of policies, syllabus, and curriculum. The organization may develop the Training Evaluation Form if found necessary.

11. TRAINING FILES AND RECORDS

11.1 All training completed by Technical Staff/Inspectors will be documented in his or her training file. Technical Staff/Inspectors who complete a formal external or in-house training course will receive a Certificate of Completion to be added to their training file.

11.2 On completion of training each Technical Staff/Inspector will submit a feedback report. The data/feedback will be considered while formulating next training programme.

Appendix A

GENERAL INDUCTION TRAINING: CAA TECHNICAL STAFF/INSPECTORS

Sl. No.	Name of the course	Duration	Trainer
Module I			
	Phase I		
1.	Overview of [Civil Aviation Authority] ❖ Vision ❖ Functions ❖ History ❖ Organization structure ❖ Role ❖ [Directorates /Sections /Division/ units]	2 sessions	[CAA senior executive]
2.	Overview of International Civil Aviation Organisation ❖ Chicago Convention ❖ ICAO ❖ Contracting States ❖ ICAO SARPS & Annex management	2 sessions	[CAA senior executive]
3.	General Information on Legislations & Regulations ❖ National level Act & Rules (Hierarchy of regulations) ❖ Delegation of powers ❖ Advisory circulars ❖ Intro to Civil Aviation Regulations (CAR)	2 sessions	[CAA senior executive]
4.	Overview of CAA each division /unit /section/ directorate: ❖ Functions & Duties ❖ CAA regional setup ❖ Interaction with other Directorates. ❖ Procedure Policy. ❖ Certificates / Approvals granted by each Directorate	16 sessions	[CAA senior executive]
5.	State Safety Oversight system	4 sessions	[CAA senior executive]
6.	State Safety Programme and National Aviation Safety Plan	2 sessions	[CAA senior executive]

7.	Basic Aircraft Accident Investigation	2 sessions	[CAA senior executive]
8.	Auditing Techniques & Procedures	2 sessions	[CAA senior executive]
9.	Enforcement ❖ Types ❖ Enforcement policy & Procedure	2 sessions	[CAA senior executive]
10.	Personnel ethics, Inspector ethics, conduct and credentials	2 sessions	[CAA senior executive]
11.	Basic IT Module ❖ Introduction to MS Office - MS Word, Mail Merge, MS Power Point, MS Excel etc ❖ Working with internet and Cyber Security	6 sessions	IT expert from industry
Phase II			
12.	General Administration ❖ General government rules ❖ Conduct & Office procedures	1 week	Any other Specialised institute
Phase III			
13.	Management/ Personality Development Training.	1 week	Any Specialised Institute

INDUCTION TRAINING OF CAA TECHNICAL STAFF/INSPECTORS: MODULE II

1. The format and duration for the courses will be dictated by the scope of the content. However, for the Inspector's role, the initial course after basic induction should be a minimum of **8 weeks**. That should include OJT, participating at an increasing level of involvement, in **at least 3 inspections** plus an assessed inspection before being cleared to operate without supervision. All courses should include a pass/fail written and oral examination.
2. It is very important that stakeholders must have confidence in the Aerodrome Inspectors, therefore the assessment inspection must be performance oriented with a minimum performance expectation. If that expectation is not met then additional training should be undertaken until CAA is satisfied or termination/transfer procedures are to be considered.
3. During all of the training sessions employ best teaching/training practice using recognized ways of effective training such as:
 - a. using only suitably qualified and experienced trainers;
 - b. the use of suitable audio-visual material;
 - c. "guest" experts from specific disciplines to supplement CAA in house trainers;
 - d. workshops and case studies; existing material that has been tested and tried, for example the ICAO SMS/SSP course case studies/exercises.
4. Each training session is for **90 min**.

Sl No.	Name of the course	Duration	Trainer
Phase -1			
1	Overview of the State's Safety Oversight Obligations ❖ Critical elements of a safety oversight system ❖ ICAO Annexes & state obligations ❖ State Safety Programme ❖ Safety Management Systems (SMS)	02 session	CAA Senior executive/ instructor or Any other specialised institute
2	A) Annex 14 part I (Aerodrome Design and Operations) ❖ Aerodrome data ❖ Physical characteristics: Runways, taxiways, clearways, stop ways, holding bays ❖ Obstacle restriction and removal: Obstacle limitations surface and requirements ❖ Visual aids for navigation: Indicators and signaling devices, markings, signs and markers ❖ Aeronautical ground lights ❖ Aerodrome operational services, equipment and installations B) PANS-Aerodromes	12 session	CAA Senior executive/ instructor or Any other specialised institute
3	Annex 14 part II (Heliports) ❖ Heliport data ❖ Physical characteristics ❖ Obstacle: Obstacle limitation surfaces and sectors, Obstacle limitation requirements ❖ Visual aids: Indicators, Markings and Markers ❖ Aeronautical ground lights ❖ Heliport services: Rescue and fire fighting	06 session	CAA Senior executive/ instructor or Any other specialised institute
Phase -2			
4	ICAO Doc 9137 (Airport Services Manual) ❖ Rescue and fire-fighting ❖ Pavement surface conditions ❖ Bird control and reduction ❖ Removal of disabled aircraft ❖ Control of obstacles ❖ Airport emergency planning ❖ Airport operational services ❖ Airport maintenance practices	08 session	CAA Senior executive/ instructor or Any other specialised institute

5	ICAO Doc 9157 (Aerodrome Design Manual) ❖ Overview of runways, Taxiways, Aprons and holding bays ❖ Pavements: Procedures for Reporting Aerodrome Pavement Strength, Evaluation of Pavements, Methods for Improving Runway Surface Texture ❖ Visual aids: Markings and markers, Lightings, Signs ❖ Electrical systems: Introduction, Electricity Supplies, Electrical circuits for Aerodrome Lighting and Radio Navigation Aids, underground Electrical	12 session	CAA Senior executive/ instructor or Any other specialised institute
Phase -3			
6	ICAO Doc 9184(Airport Planning Manual) ❖ Master Planning- Introduction, Preplanning Considerations, Airport Site Evaluation and Selection , Runways and taxiways, apron, Airport Operations and Support Facilities ❖ Land Use and Environmental Control-General, Environmental impacts associated with aviation activities, Environmental consequences and control measures ❖ Guidelines for Consultant/ Construction Services-Introduction, Task Identification, selection, preparation, administration and construction	04 session	CAA Senior executive/ instructor or Any other specialised institute
7	Aerodrome Maintenance ❖ Pavements ❖ Runway pavements overlay ❖ Visual aids	04 session	CAA Senior executive/ instructor or Any other specialised institute
8	Technical analysis ❖ Friction testing and rubber removal on runway ❖ PCR analysis / strength assessment ❖ Aeronautical study / Risk assessment	06 session	CAA Senior executive/ instructor or Any other specialised institute
9	Auditing of Aerodromes ❖ Role and responsibilities of aerodrome inspector ❖ Auditing principles, techniques, Procedures ❖ Auditing of rescue and fire-fighting ❖ Auditing of an airport's SMS	06 session	CAA Senior executive/ instructor or Any other specialised institute

Phase -4			
10	Aerodrome Certification ❖ Procedure manual ❖ Aerodrome manual assessment ❖ Exemptions ❖ SMS manual assessment ❖ Issuance and renewal of operating certificate/ licence	10 session	CAA Senior executive/ instructor or Any other specialised institute
11	Surveillance inspection ❖ Inspection check list ❖ Inspection report ❖ Action Taken Report (ATR) review and disposal ❖ Observations and physical inspection ❖ Periodic review of pending observations in ATR	02 session	CAA Senior executive/ instructor or Any other specialised institute
12	Aerodrome Inspections ❖ Airfield: Pavement, markings, lightings and obstructions ❖ Rescue and fire-fighting ❖ Training programme: Review, records and documentation ❖ Training of airfield drivers ❖ Fuelling facilities ❖ Runway incursion prevention ❖ Debris	06 session	CAA Senior executive/ instructor or Any other specialised institute
13	Wildlife management ❖ Wildlife Strike Hazard ❖ Reporting wildlife strikes ❖ Hazard Assessment ❖ Database and records management ❖ Regulations, policies and compliances	06 session	CAA Senior executive/ instructor or Any other specialised institute

Module III- On- Job Training

SL NO.	SUBJECTS	DURATION	TRAINER
1.	2 Nos of inspection for initial issue of aerodrome license (01 for observation, 01 under supervision) Or 3 Nos of surveillance inspection (01 for observation, 02 under supervision)	As per surveillance inspection plan	CAA Aerodrome inspector

Specialised training

SL NO.	SUBJECTS	DURATION	TRAINER
1.	Advanced audit techniques	02 session	CAA Senior executive/ instructor or Any other specialised institute
2.	Safety Oversight Inspections	02 session	CAA Senior executive/ instructor or Any other specialised institute
3.	Aviation quality management system	02 session	CAA Senior executive/ instructor or Any other specialised institute
4.	Safety Management System	02 session	CAA Senior executive/ instructor or Any other specialised institute
5.	Aerodrome operations	02 session	CAA Senior executive/ instructor or Any other specialised institute
6.	RFF	02 session	CAA Senior executive/ instructor or Any other specialised institute
7.	Wildlife Management	02 session	CAA Senior executive/ instructor or Any other specialised institute
8.	Aeronautical studies / risk assessment	02 session	CAA Senior executive/ instructor or Any other specialised institute
9.	Electrical systems	02 session	CAA Senior executive/ instructor or Any other specialised institute
10.	Signs, Marking and Lighting	02 session	CAA Senior executive/ instructor or Any other specialised institute
11.	Obstacle Limitation Surfaces	02 session	CAA Senior executive/ instructor or Any other specialised institute

Recurrent training

SL NO.	SUBJECTS	DURATION	TRAINER
1.	State letters for amendments in Annex 14 part 1 and part 2	02 session	CAA Senior executive/ instructor or Any other specialised institute
2.	Airport Certification	02 session	CAA Senior executive/ instructor or Any other specialised institute
3	Safety Management System	02 session	CAA Senior executive/ instructor or Any other specialised institute
4	State Safety Program Implementation	02 session	CAA Senior executive/ instructor or Any other specialised institute
5	Safety Oversight Inspections	02 session	CAA Senior executive/ instructor or Any other specialised institute
6	ARFF Operation	02 session	CAA Senior executive/ instructor or Any other specialised institute

INTERNATIONAL CIVIL AVIATION ORGANIZATION



GENERIC SURVEILLANCE PROGRAMME BY AERODROME OPERATORS

VERSION 1.0 – MARCH 2021

Introductory Notes

This generic document was developed by the ICAO Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG) for reference by States in the APAC Regions. When referring to this generic document, States are expected to customize the content in accordance to the States' legislations, regulations and situations.

It would be approved by XXX (Video Teleconference, XXX) and published by ICAO Asia and Pacific Office, Bangkok.

ICAO Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services and Guidance Materials shall take prevalence in the event of any conflict between the aforementioned provisions and this generic document.

Enquiries and feedbacks regarding this generic document can be made to ICAO APAC Office at apac@icao.int.

RECORD OF AMENDMENTS

[illegible]

CIVIL AVIATION AUTHORITY

GENERIC SURVEILLANCE PROGRAMME AT AERODROMES

Foreword

This manual is a [CAA] safety programme document. It contains processes determined to be necessary in supporting operational safety at aerodromes in the [State]. This manual is being issued under the authority of the Director General of [CAA].

Copies are available at the office of:

[Post holder]

[Address]

This document may be amended from time to time as necessary, and the Director General of [CAA] will provide such amendment service.

The term "Head" as referred to in this manual describes the most senior [CAA] officer responsible for certification, registration and continuing safety oversight functions and surveillance of aerodromes, heliports and air navigation services. The incumbent official holding this position reports directly to the Director General, [Civil Aviation Authority (CAA)].

Comments from staff members of [CAA], stakeholders, (or members of the) concerned aviation industry users and public about the contents of this manual are welcome. Clarifications or inquiries can be directed to:

Head of Aerodrome Standards

[Office]

[Address]

[Telephone]:

[Email]:

Amendments

[illegible][illegible]

Revision History

Revisions to this Document shall be made by authorised personnel only. After inserting the revision, enter the required data in the revision sheet below. The '*Initials*' has to be signed off by the personnel responsible for the change.

[illegible]

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Chapter 1 – Introduction

1.1 Purpose

- 1.1.1 The purpose of this document is to ensure safety of the existing facilities and maintain systematic records and a process to notify the concerned departments/divisions/sections to rectify the deficiencies which do not conform to all the specifications contained in the [\[Directive/Manual etc\]](#).

1.2 Background

- 1.2.1 While some hazardous aerodrome conditions develop virtually instantaneously, others are gradual. It is important that the aerodrome operator have an airport safety surveillance self-inspection program that monitors specific airport conditions in order to identify unsatisfactory conditions for prompt corrective actions. The programs vary in scope and effectiveness from verbal instructions and unscheduled and unrecorded inspections to very comprehensive inspection programs with multiple daily schedules and widely distributed responsibilities.
- 1.2.2 The self-inspection program is a key component of an aerodrome operator's airport certification program.
- 1.2.3 The operator of certified aerodrome is required regularly to conduct scheduled, continuous surveillance, periodic and special inspections, and a daily safety self-inspection to ensure that prompt corrective action is taken to eliminate unsafe conditions on the aerodrome. The specific requirements of the inspection program at each certified aerodrome are addressed in the aerodrome certification manual. This guideline suggests components, responsibilities and items for regularly scheduled, continuous surveillance, periodic condition and special inspections, and checklists for use during any of these aerodrome safety inspections. This guidance can be modified as necessary to meet specific local situations.
- 1.2.4 Responsibilities
- a) **Safety Self-Inspection.** Self-inspection is a primary responsibility of the Aerodrome Operator. Primary attention should be given to such operational items as pavement areas, safety areas, markings, signs, lighting, aircraft rescue and firefighting, fuelling operations, navigational aids, ground vehicles, obstructions, public protection, wildlife hazard management and construction. Inspection of areas that have been assigned to individual air carriers, fixed base operators, or other tenants can be made the responsibility of the user. However, the certificate holder is ultimately responsible for operating the aerodrome safely.
 - b) **Recommended Inspection Frequency**
 - 1) **Regularly scheduled inspection.** The aerodrome should be inspected daily preferably during times when aircraft activity is minimal in order to minimise the impact on aerodrome operations. Part of this inspection should be done during the hours of darkness at those airports that is open after dark. In accordance with ICAO Annex 14, Volume I, Section 2.9.3, movement area shall be inspected at least once daily where the aerodrome reference code number is 1 or 2, and at least twice daily where the aerodrome reference code number is 3 or 4. With reference to PANS-Aerodromes (Doc 9981), Part II, Chapter 3, Section 3.3.1, the frequency and detail of inspections may be increased from the minimum specified in Annex

14 , depending on the traffic expected and the type of inspection being performed.

[Note: States are reminded to replace the references to ICAO provisions with national regulations.]

- 2) **Continuous surveillance inspection.** Those activities and facilities that have been identified to require continuous surveillance should be inspected any time personnel are in the movement area. Hazardous conditions can occur at any time and in a short period of time. [CAA] may approve a schedule of inspection as per the need of the situation at the particular aerodrome.
- 3) **Periodic condition inspection.** Periodic condition inspection of activities and facilities can be conducted on a regularly scheduled basis but less frequently than daily. The time interval could be weekly, monthly, or quarterly, depending on the activity or facility.
- 4) **Special inspection.** Special inspections of activities and facilities should be conducted after receipt of a complaint or when an unusual condition or unusual event occurs on the airport, such as a significant meteorological event or an accident or incident. Special inspections should also be conducted at the end of construction activity to ensure that there are no unsafe conditions present related to the construction activity. A special inspection should be conducted prior to construction personnel leaving the airport in the event that corrective actions are necessary. Special inspections should be documented on the appropriate portions of the regularly scheduled inspection checklist.
- 5) **Inspection Records.** An effective safety self-inspection program includes procedures for reporting and correcting deficiencies. This means that the aerodrome operator should have a work order system in place so that deficiencies can be corrected in an expeditious manner.
 - i) The operator should issue a Notice to Airmen (NOTAM), as appropriate, through AIS Division reporting deficient conditions that could have an immediate and critical impact on the safety of aircraft operations. When corrective actions have been taken, the NOTAM should be cancelled.
 - ii) For even the smallest aerodrome, it is desirable to use a safety self-inspection checklist that constitutes a written record of conditions noted, and acts as a check on follow-up actions taken. The scheduled use of a dated checklist will assure the regularity and thoroughness of safety inspections and follow-up. The checklist can be an important administrative tool for aerodrome management. It can provide a snapshot of the condition of the aerodrome, indicating trends, defining problem areas, indicating systems that are beginning to deteriorate and helping to define budgetary requirements. It is most desirable to use a format (see examples, Appendices 1–5) in which each inspected area of the airport complex is positively noted. Retain the checklist until indicated actions are completed. However, the regularly scheduled inspection checklist should be the basic log documenting that safety inspection responsibilities are being met.

- iii) The inspection records should be kept for a minimum of [....] years as agreed with the [CAA].
- c) **Follow-up.** The aerodrome operator should follow up on complaints or requests for corrective action and on all deficient items or problem areas noted during the daily inspection. Determine which problems require immediate attention and treat those with highest priority, including developing appropriate NOTAM notification.

Chapter 2 – Inspection Techniques

- 2.1 Inspectors should vary the pattern of the inspection. Fixed inspection patterns, while easy to learn, do not provide for an adequate inspection. The use of such fixed inspection patterns can lead to complacency and to the possibility of missing items that are in need of correction.
- 2.2 When conducting an inspection on a runway and when there is time to do only one pass on that runway, inspection personnel, whenever practical, should drive towards the direction of landing aircraft with high intensity flashing beacon and headlights in the day and at night. This practice will enable self-inspection personnel to see approaching aircraft and improve visibility of the vehicle to pilots. However, it is recommended that a runway inspection be done in both directions. Inspection personnel should also inspect the stub taxiways between the runway and parallel taxiway as these areas are commonly overlooked.

Chapter 3 – Knowledge and Equipment for Self-Inspection

Note: Please also refer to the APAC Regional Guidance on Aerodrome Operations Personnel Competency Requirement Framework.

- 3.1 Aerodrome personnel who conduct safety self-inspections (referred to as inspectors) should receive training in at least the following areas:
 - 1) Airport familiarization, including airport signs, marking, and lighting;
 - 2) ICAO Annex 14 Vol. 1 and national regulations;
 - 3) ICAO PANS-Aerodromes (Doc 9981);
 - 4) Safety Management System (SMS);
 - 5) Radio Telephony;
 - 6) Obstruction Limitation Surfaces;
 - 7) Pavement design, drainage system;
 - 8) Aerodrome Manual and Airport Emergency Plan;
 - 9) Notice to Airmen (NOTAM) notification procedures;
 - 10) Procedures for pedestrians and ground vehicles in movement areas and safety areas;
 - 11) Airport inspection procedures and techniques; and
 - 12) Discrepancy reporting procedures.
- 3.2 Inspectors should know the location and types of aerodrome facilities, rules and regulations and be familiar with the Aerodrome Certification Manual.
- 3.3 Inspectors should have a vehicle equipped with:
 - 1) A two-way ground control radio capable of communicating with the Aerodrome Control Tower on controlled airports;
 - 2) A beacon for night time (or inclement weather conditions) inspections; and
 - 3) A beacon and/or checkered flag for daytime inspections.
- 3.4 Inspectors should know and use correct radio communication phraseology, procedures and techniques, as specified in the Aeronautical Information Publication (AIP).
- 3.5 Inspectors should be supplied with checklists covering the various inspection areas (sample airport safety self-inspection checklists are contained in Appendices 1–5). While format of checklists varies, it is important to develop a checklist that is useful for the aerodrome and its operation. If certain inspectors will be responsible for only certain items, separate checklists pertinent to those areas may be developed. A sketch of the aerodrome should accompany the checklist so that the location of problems can be marked for easy identification.
- 3.6 Inspectors should review the most recently completed checklist from the previous inspection cycle prior to beginning the inspection, so as to identify any unsatisfactory item for enhanced awareness.
- 3.7 If construction is in progress, inspectors should be familiar with the safety plan for the project.
- 3.8 Inspectors should be familiar with the aerodrome certification manual requirements.

Chapter 4 – Components of A Safety Self-Inspection Program

4.1 A successful safety self-inspection program has four components:

- a) A regularly scheduled inspection of physical facilities (which must be conducted once or twice daily at airports certified under [\[State regulations\]](#) and with reference to [Section 1.2.4 of this document](#)). If the airport is open after dark, there should also be a night time inspection of lighting;
- b) Continuous surveillance inspection of certain airport activities, such as fuelling operations, construction, airfield maintenance, aircraft turn-around operation, etc.;
- c) A periodic condition inspection program for such things as surveying approach slopes, obstructions, etc.; and
- d) Special inspections during unusual conditions or situations, such as changing weather or days of unusually high number of aircraft operations.

Chapter 5 – Regularly Scheduled Inspection

5.1 The regularly scheduled inspection consists of specific observations of aerodrome physical facilities on at least once or twice daily, as specified in Section 1.2.4. This inspection should concentrate on the areas described in this section, which are also included in Appendix 1. If deficiencies exist, the inspector should indicate the deficient item and identify its location on an aerodrome sketch, providing dimensions and depths, as necessary. If appropriate, the inspector should take photographs to document the condition.

5.1.1 **Pavement Areas.** The condition of pavement surfaces is an important part of aerodrome safety. Pavement inspection should be conducted daily before flight operations commence to ensure pavement surfaces are clear. As a minimum, a daily inspection should be performed of all paved areas that are the responsibility of the aerodrome operator. During the pavement inspection, the inspector should:

- 1) Check the pavement lips—the area between full-strength pavement and shoulders or paved shoulders and safety areas—to assure that they are no greater than necessary to allow water to drain off the pavement. A lip height no greater than $1\frac{1}{2}$ inches is usually sufficient to allow proper drainage.
- 2) Determine if there are any cracks wide enough to cause directional control problems for an aircraft. Report and monitor these cracks.
- 3) Determine if there are any holes that could cause directional control problems for an aircraft. (any hole that cannot be covered by a 5-inch circle, and the side slope at any point in the hole that exceeds 3 inches in depth and is 45 degrees or greater, is a discrepancy. If the hole cannot be covered by a 5-inch circle but the side slope at any point in the hole that exceeds 3 inches in depth or is less than 45 degrees, it may be a discrepancy if it is determined to be a surface variation that could impair directional control of an air carrier aircraft.)
- 4) Check the condition of pavement areas for cracks, scaling, sapling, bumps, low spots, and for debris that could cause foreign object damage to aircraft.
- 5) Check for vegetation growth along runway and taxiway edges that may impede drainage from the pavement surface.
- 6) Check for vegetation growth in cracks.
- 7) Report and monitor any cracks, holes, variations and vegetation that can cause loss of aircraft directional control or may cause pavement damage, including damaged caused by damming or ponding water.

5.1.2 **Safety Areas.** The inspector should know the dimensions of the runway and taxiway safety areas at the airport. The dimensions of the safety areas should be documented in the aerodrome manual. During the safety area inspection, the inspector should:

- 1) Determine if there are any hazardous ruts, depressions, humps or variations from the normal smooth surface.
- 2) Check to ensure no object is located in a safety area, except objects that must be in the safety areas because of their functions (such as runway lights, signs, or navigational aids). These objects must be constructed on frangibly mounted

structures of the lowest practical height. The frangible point must be no higher than 3 inches above grade.

- 3) Determine if the base for any equipment in safety areas is at grade level and equipment and NAVAIDs mounted on frangible couplings.
- 4) Check to ensure that manhole and handhole covers are at grade level and can support vehicles and aircraft. Check to ensure that mounts for light fixtures are at grade level.
- 5) Check for surface variation and other damage caused by rodents or other animals.
- 6) Report any objects that are not frangible or not at grade level. Also report extraneous equipment and objects, such construction equipment, and surface variations that would cause damage to an aircraft or impede emergency response vehicles.

5.1.3 **Markings.** Airport markings provide important information to pilots during take-off, landing, and taxiing. To avoid confusion and disorientation, airport markings should be in compliance with [\[directive/manual etc.\]](#). The inspector should know the appropriate markings required at the airport. During the marking inspection, the inspector should:

- 1) Check markings for correct color-coding, peeling, blistering, chipping, fading, and obscurity due to rubber build up.
- 2) Check to see if all runway holding position markings are clearly visible.
- 3) During and after construction projects, check new markings for compliance with [\[directive/manual etc.\]](#) marking standards.
- 4) If the markings have glass beads, check markings during periods of darkness to determine if the reflectivity of glass beads is adequate at night.
- 5) Report and monitor any nonstandard marking or markings that are obscured, faded or deteriorating.

5.1.4 **Signage.** Signs provide important information to pilots while taxiing. To avoid pilot confusion and disorientation, airport signs should be in accordance with [\[directive/manual etc.\]](#). The inspector should know the appropriate signage standards and specifications at the airport and

- 1) Check signs to ensure they are easy to read, in accordance with colour standards, retro-reflective, and that all lighted signs are working and not obscured by vegetation, dirt, etc.
- 2) Check signs to ensure they are frangible mounted and concrete bases are properly maintained at grade level.
- 3) Check to see that sign panels are not missing or damaged, that they have the correct legend and arrow orientation, and that they are not cracked or broken.
- 4) During and after construction projects, check new signs for compliance to [\[directive/manual etc.\]](#).

- 5) During periods of darkness, check signs to ensure they are properly illuminated. Ensure mandatory instruction signs are illuminated with the associated runway lighting system. Check signs for correct operations; that they are on the correct circuits, they do not flicker and that they follow the intensity setting of the runway or taxiway lights.
- 6) Report and monitor any nonstandard sign or any sign that is not functioning, is faded or damaged.

5.1.5 **Lighting.** At night and during periods of low visibility, lighting is important for safe aerodrome operations. Inspection of lighting is best accomplished during periods of darkness in order to evaluate lighting systems when they provide the primary visual aid for pilots. The inspection should concentrate on the lighting owned by the aerodrome operator. However, the inspector should observe any lighting owned or operated by others and report any observed problems immediately to the appropriate responsible owner. During the lighting inspection, the inspector should:

- 1) Check to ensure that the following are operable, if installed, and that vegetation or deposits of foreign material do not obscure the light fixture.
 - Runway and taxiway edge lights;
 - Apron edge lights;
 - Runway centre line and touchdown zone lights;
 - Taxiway centre line lights or centre line reflectors;
 - Runway threshold/end lights; and
 - Runway guard lights (both elevated and in-pavement, if installed).
- 2) Check that the following are operable, if installed:
 - Ramp lights and floodlights used in construction to ensure they are properly shielded);
 - Obstruction lights; and
 - Lighting in fuel storage areas.
- 3) Report all fixtures missing and lights that are not working or appear dim.
- 4) Report any missing or broken light fixture lenses.
- 5) Ensure that runway and taxiway lights and runway threshold lights are the proper color and are oriented correctly.
- 6) Check that lights function properly through the manual or radio control features, and that photocell controls function properly.
- 7) Check the lights for proper alignment, aiming and correct changes in intensity, for correct height, erosion around the bases and the height of frangibility.

5.1.6 **Navigational Aids (NAVAIDs).** The inspection of NAVAIDs should concentrate on the visual navigational aids owned by the aerodrome operator. During the inspection of NAVAIDs, the inspector should:

- 1) Determine if the segmented circle is clear of vegetation and that it can be seen easily from the air.

- 2) Determine if the airport rotating beacon is visible and working properly.
- 3) Check the wind cone(s) to ensure that it swings freely, the cone fabric is not faded or frayed, and, if lighted, that all lights are operating.
- 4) Determine if the Runway End Lights (RENs) are flashing in proper sequence and mounted on frangible couplings.
- 5) Check Visual Glide Slope Indicators (VASIs, PLASIs, or PAPIs) to ensure that their lights are working and mounted on frangible couplings.
- 6) Determine if the Approach Lighting systems are functioning properly.
- 7) Report and monitor any NAVAID that is malfunctioning, inoperable or misaligned, damaged or missing.

5.1.7 **Obstructions.** The inspection of obstructions should concentrate on a visual check of construction underway on or near the airport that could affect aircraft operations. This also includes checking for any vegetation, especially, trees that may penetrate the obstruction limitation surfaces. During the inspection of obstructions, the inspector should:

- 1) Check to ensure that construction equipment, especially tall cranes being used at construction sites, are not an obstruction. If construction is found and thought to create an obstruction, the airport operator should determine if proper notification to [CAA](#) or Airport Layout Plan review, has been provided.
- 2) Determine if obstructions are properly marked and lighted.
- 3) Direct any person proposing construction near a public-use aerodrome infringing the obstruction limitation surfaces to [CAA](#) or airport Civil Aviation Office immediately.
- 4) Report and monitor any obstruction light that is missing, inoperative or damaged, and any object that appears to be an obstruction and is not properly marked or lit.

5.1.8 **Fuelling Operations.** The daily inspection on aircraft fuelling operations should concentrate on a quick inspection for the most common problems concerning compliance with local fire safety codes at fuel storage areas and with mobile fuelers. The inspection should also include security, fire protection, general housekeeping, and fuel dispensing facilities and procedures. A more detailed fuelling operation inspection should be scheduled quarterly (see Quarterly Fuelling Operations under Periodic Condition Inspection). During the daily inspection of aircraft fuelling operations, the inspector should:

- 1) Determine if the fuelling operator is permitting any unsafe fuelling practices or is in violation of local fire code, such as failure to bond aircraft with the mobile fuelers during fuelling operations or fuelling personnel smoking while fuelling aircraft.
- 2) Check to ensure that the appropriate signs for the fuel farm are installed and that all gates are locked except when the facility is occupied by an authorized user.
- 3) Report and monitor any unsafe fuelling practices and violation of local fire codes.

5.1.9 **Construction.** The inspector should be familiar with the aerodrome's construction safety procedures and guidance during aerodrome construction. During the construction inspection, the inspector should:

- 1) Determine if stockpiled material and construction materials are properly stored to keep them from being moved by wind, jet blast, or prop wash, and is not left in safety areas or movement area.
- 2) Check all construction adjacent to movement areas to ensure areas are identified with conspicuous marking and lighting.
- 3) Determine if construction equipment (such as bulldozers, cranes, etc.) are marked and lighted and parked clear of the safety areas.
- 4) Ensure construction barricades are properly positioned to define the limits of construction and hazardous areas and, if barricades are lighted, check to ensure lights are working properly and are positioned correctly.
- 5) Check to ensure that debris and foreign objects are continuously being picked up around construction areas.
- 6) Check for open trenches in the safety areas or adjacent to movement areas.
- 7) Check operation of lighting in areas adjacent to construction daily before the construction crews depart for the day. In particular, ensure that mandatory instruction signs remain lit with the associated runway lights, even on taxiways that have been closed for construction.
- 8) Check NOTAMs daily during construction projects to ensure they accurately reflect the conditions on the airport.
- 9) Verify that closed taxiways or runways are properly marked and lighted.
- 10) Report and monitor any dangerous condition created by construction activity, including damage to signs, lights, markings and NAVAIDS or equipment and supplies left in movement areas and safety areas.

5.1.10 **Aircraft Rescue and Fire Fighting.** During the inspection of rescue and fire fighting (RFF) capabilities, the inspector should:

- 1) Check the status of RFF response, including the availability of equipment, fire fighters and extinguishing agent. Ensure that such RFF capabilities comply with the approved Aerodrome Certification Manual and that the aerodrome's fire category is still appropriate for air carrier aircraft served.
- 2) Ensure alarm and emergency notification communication systems are operable.
- 3) Determine the adequacy of available fire extinguishing agents.
- 4) Check for construction or maintenance activity on the movement area that could affect RFF response routes. Ensure that the RFF Department has been notified if construction or maintenance activity could affect emergency response routes.
- 5) Report and monitor any RFF vehicle, equipment or extinguishing agent that is not available or inoperative; any RFF personnel that are not available; and any

changes to aircraft that may require a change to RFF capabilities. Notify airport authority and [\[CAA\]](#) if RFF vehicles is inoperative and cannot be replaced immediately, as specified under Aerodrome.

- 6) Manual and issue a NOTAM regarding non-availability of any rescue and firefighting capability, as specified under Aerodrome Manual.

5.1.11 **Public Protection.** During the public protection inspection, check gates, fencing, locks, and other safeguards are in place and functioning properly to prevent inadvertent entry to movement areas by unauthorized persons and vehicles and offer protection from jet blast. Report and monitor any safeguards that are damaged or missing. In accordance with the airport's security plan, report unauthorized persons or vehicles in the movement area.

5.1.12 **Wildlife Hazard Management.** During the wildlife hazard inspection, the inspector should check for evidence of birds or animals on the runways, taxiways, aprons, and ramps or other signs that wildlife problems may have developed - such as large flocks of birds on or adjacent to the aerodrome. Wildlife hazards found during the daily self-inspection should be properly documented. All dead wildlife found and all wildlife aircraft strikes should be reported to the [\[CAA\]](#) on form specified in table x.x of Aerodrome Manual. Additionally, the inspector should check fencing and gates for wildlife accessibility and should ensure that wildlife control equipment is available and operational.

Chapter 6 – Continuous Surveillance Inspection

6.1 Continuous surveillance inspection consists of general observation of activities for compliance with regulations, procedures, etc., as well as abnormalities with physical facilities that are readily apparent. This is performed any time inspection personnel are on the movement area. Continuous surveillance of airport physical facilities and activities should cover at least the areas described in this section, which are also included in Appendix 2.

6.1.1 **Ground Vehicles.** During the continuous surveillance inspection of ground vehicles, the inspector should:

- 1) Determine if vehicle drivers are following the airport's procedures and arrangements for the orderly operations of ground vehicles (including mowing machines or other maintenance vehicles in the safety areas). Extra attention should be paid to ground vehicle activity during construction and other special events.
- 2) Ensure that prior entering the airside, the permitted driver has a valid Airside Driving Permit (ADP) & Airside Vehicle Permit (AVP) are issued to vehicles that complied with the required standards and condition of the vehicle.
- 3) Report and monitor any vehicle operator that is not complying with the airport's vehicle procedures and arrangements.
- 4) Report any ground vehicle accident observed and any ground vehicle signs and markings that are damaged, missing or obscured.

6.1.2 **Fuelling Operations.** The inspector should:

- 1) Emphasize fire and explosion hazards inherent in aircraft refuelling.
- 2) Ensure proper bonding is being used, deadman controls are not blocked, and no smoking prohibitions are being observed, and aircraft are not being fuelled inside hangars.
- 3) Check for proper parking of mobile fuellers to ensure these vehicles are at least 3 m (10 feet) apart and 15 m (50 feet) from buildings.
- 4) Check for fuel leaks or spills in the fuel storage area and around mobile fuellers.
- 5) Determine if the fuel farm is free of flammable materials, including litter and vegetation.
- 6) Report and monitor any of unsafe fuelling conditions discussed above and other obvious violations of local fire code and airport fuel fire safety procedures.

6.1.3 **Construction.** The Inspector should check construction projects to ensure that the contractor is following the construction safety plan. During the continuous surveillance inspection of construction activity, the inspector should check for, and report, any of the following conditions:

- 1) Unauthorized use of runways, taxiways, and aprons by construction personnel and equipment.
- 2) Conditions that may result in runway incursions and other irregularities. This includes ensuring that construction areas are delineated appropriately with barricades, cones, markings, etc.
- 3) Construction equipment is not operated in NAVAID critical areas unless coordination with NAVAID department/division/section of the airport has been accomplished.
- 4) Perimeter gates are left open and unattended, unlocked or construction vehicles and personnel are not following access and escort procedures.
- 5) Construction vehicles not properly marked or missing appropriate flags and/or beacons.
- 6) Foreign object debris on haul roads adjacent to movement areas that can be tracked onto taxiways, aprons, and ramp areas.
- 7) Confusing or missing signs, markings or lighting that could potentially confuse or mislead pilots.
- 8) Barricades and lighting are in place and operational.

6.1.4 **Public Protection.** Pay special attention to public protection during construction and special events. During the continuous surveillance inspection of safeguards used to protect the public, the inspector should check for, and report, any of the following conditions:

- 1) Unauthorized personnel, vehicles, and animals, particularly in areas aircraft passengers and the general public are present on the air carrier ramp and other portions of the movement area, i.e, remote aircraft parking locations.
- 2) Inoperable or blocked gates, particularly those that would impede access by aircraft rescue and firefighting equipment.
- 3) Open or unlocked gates and missing or damaged signs posted to prevent unauthorized access to the airfield.
- 4) Damaged or missing jet blast fences.

6.1.5 **Wildlife Hazard Management.** During the continuous surveillance inspection of wildlife hazards, the inspector should check for, and report, any of the following conditions:

- 1) Birds or animals, such as dogs, deer, etc., on or adjacent to the runways, taxiways, aprons, and ramps to determine if there is a potential wildlife hazard problem.
- 2) Potential hazard created by birds on or adjacent to the airport.

- 3) Wildlife strikes and carcasses found on the runways. Report these to the [\[CAA\]](#) on form specified in Aerodrome Manual.

6.1.6 **Foreign Object Debris (FOD).** The inspector should continuously check for, and remove any FOD in movement areas, aircraft parking areas, loading ramps, and any adjacent areas.

Chapter 7 – Periodic Condition Inspection

- 7.1 Periodic condition inspections consist of specific checks of physical facilities on a regularly scheduled basis (but less frequently than daily). Checks may require use of equipment (e.g., Walker Bar to measure VASI glide slope angles or transit to survey approach slopes, or continuous friction measurement equipment) or checking specific features of physical facilities. Periodic inspection of aerodrome physical facilities and activities should cover at least the areas described in this section, which are also included in Appendix 3.
- 7.1.1 **Pavement Areas.** The inspector should check pavement surfaces for rubber build up, polishing, or other items affecting friction.
- 7.1.2 **Markings.** The inspector should:
- 1) Check pavement markings to ensure they are correct and clearly visible. Markings on concrete and faded asphalt should be outlined with a black border.
 - 2) Determine if markings are visible at night; especially examine for rubber build up in the touchdown zone areas.
- 7.1.3 **Signs.** The inspector should check sign faces for peeling and for fading or faded colors.
- 7.1.4 **Quarterly Fuelling Inspections.** [\[directive/manual etc.\]](#) are required to establish fire safety standards for safe fuelling operations and conduct quarterly inspections of the fuelling facilities. Sample quarterly inspection checklists for fuel storage areas and mobile fuellers are included in Appendix 5. Typical fire safety standards to inspect quarterly are listed below. Aerodromes certified under [\[State regulations\]](#) are required to maintain a record of this inspection for at least [\[.....\]](#) months.
- 1) **Fuel storage areas and loading/unloading stations.** The inspector should:
- Check fuel storage areas for adequate fencing and security to prevent unauthorized access or tampering.
 - Check for “No Smoking” signs that are clearly visible.
 - Check fuel storage areas for materials such as trash or vegetation that could contribute to the spread of fire. Also check for equipment, functions or activities that could be ignition sources.
 - Note if fuelling equipment appears to be in good operating condition and free of fuel leaks.
 - Check piping for reasonable protection from damage by vehicles if piping is above ground.
 - Check fuel storage areas for at least two accessible and serviceable fire extinguishers.
 - Check for explosion proof equipment, switches and wiring that is reasonably protected from heat, abrasion or impact, which could cause an ignition source.

- Check for piping, filters, tanks and pumps being electrically bonded together and interconnected to an adequate grounding/earthing rod.
 - Check loading stations for deadman control features.
 - Look for a boldly marked emergency cut off capable of stopping all fuel flow with one physical movement. The emergency cut off should be located outside the probable fuel spill area near the route that normally is used to leave the spill area or to reach the fire extinguishers.
- 2) **Mobile fuellers.** At least once every [.....] months, inspect all fuel trucks to ensure they meet fire safety standards. The inspector should:
- Note if mobile fuellers appear to be in good operating condition and free of fuel leaks.
 - Check mobile fuellers for parking at least 15 m (50 feet) from a building and at least 3 m (10 feet) from each other.
 - Check for flammability labels on all sides. Lettering should be at least 3 inches high. Also check for hazardous materials placards on all sides.
 - Check the cab for a “No Smoking” sign and the presence of smoking equipment. Ashtrays and cigarette lighters are not to be provided.
 - Check for two fire extinguishers, accessible from each side of the mobile fueller. Fire extinguishers should be charged, sealed and tagged from the last fire extinguisher inspection.
 - Check emergency fuel cut offs to ensure they are boldly marked and operable. There should be an emergency fuel cut off accessible from each side.
 - Check electrical equipment, switches, wiring and tail light lens covers for explosion proof construction and reasonable protection from heat, abrasion or impact which could be an ignition source.
 - Check for serviceable bonding wires and clamps.
 - Check nozzles for deadman control feature.
 - Check the vehicle exhaust system for exhaust leaks and for adequate shielding if it extends under the fuel tank portion of the vehicle.

7.1.5 **Navigational Aids.** Periodically check the aiming of REILs and Visual Glide Slope Indicators.

7.1.6 **Lighting.** The inspector should:

- 1) Determine that power generator and circuit resistance tests are being conducted.
- 2) Ensure lights with adjustable optical systems are checked for proper aiming.

7.1.7 **Obstructions.** The inspector should:

- 1) Check to ensure there are no overhead power lines in the aircraft parking areas.
- 2) Annually survey trees and other structures near the airport that could affect glide path angles, approach light lanes, or intruding Obstruction Limitation Surfaces.

7.1.8 **Aircraft Rescue and Fire Fighting.** The inspector should:

- 1) Periodically determine if the aircraft rescue and firefighting service is capable of meeting response times.
- 2) Ensure that recurrent training and hot-fire drills are being conducted.
- 3) Check to ensure the availability of adequate entry tools.

Chapter 8 – Special Inspections

8.1 Special inspections occur after receipt of a complaint or as triggered by an unusual condition or event. A special inspection should be conducted after an accident or incident. Depending upon circumstances, special inspections may include the inspection of any of the specific facilities or activities under the other three components. A special inspection of airport physical facilities and activities should cover at least the areas described in this section, which are also included in Appendix 4.

8.1.1 **Pavement Areas.** After a rain or thunderstorm, the inspector should check the pavement areas for ponding and edge damming.

8.1.2 **Markings and Signs.** The inspector should:

- 1) Determine if markings are visible at night especially when the pavement is wet following a rain.
- 2) After construction or maintenance operations, ensure that pavement markings are correct.

8.1.3 **Safety Areas.** The inspector should:

- 1) Ensure that the storm sewer system is checked to verify that inlets are not clogged and drainage channels are free of debris. Note any standing water.
- 2) Ensure all inlet covers are in place and sewer covers are at grade level.
- 3) Conduct a special inspection before reopening a runway or taxiway following any construction or maintenance that has been performed in or around that safety area.
- 4) Any time an aircraft has left the pavement and entered a safety area, check to ensure that no ruts or holes have been made by the aircraft tires or by personnel and equipment during the recovery operation.
- 5) Check for construction and maintenance activities to ensure that no hazardous conditions have been created.
- 6) Physically drive or walk the safety areas to check for any discrepancies.

8.1.4 **Construction.** The inspector should:

- 1) Ensure that construction areas are barricaded and lighted properly.
- 2) Check construction equipment to ensure that they are parked within the pre-arranged areas.
- 3) Conduct night inspections to ensure that barricades, warning lighting, and reflectors are adequate to keep aircraft away from the construction area.
- 4) Check the location of construction material and stockpiles to ensure that they are outside of safety areas and do not block any signs.

- 5) Check any movement areas adjacent to construction areas or movement areas traversed by construction vehicles to ensure there is no FOD present.
- 6) Check movement areas around construction sites for potentially confusing marking, lighting, and signs that could cause pilot confusion or result in a runway incursion.

8.1.5 Surface Movement Guidance and Control Systems (SMGCS).

- 1) For operations below 1,200 feet runway visual range, the inspector should conduct an initial inspection of stop bar lights, runway guard lights, taxiway centre line lights, and taxiway edge lights installed on the low visibility routes in accordance with the airport's SMGCS plan.
- 2) SMGCS lighting systems that are not electronically monitored should be periodically inspected every 2 to 4 hours for during operations below 1,200 feet to 600 feet. For operations below 600 feet, these inspections should take place every 2 hours. Such inspections should be detailed in the airport's SMGCS plan.

Chapter 9 – Condition Reporting

Alert users of the aerodrome to any unsafe conditions that exists and that could affect their operations. Ensure appropriate NOTAMs are issued for unsafe conditions that are identified during an inspection but cannot be corrected immediately. After reporting NOTAMs to the AIS, follow-up to ensure that the NOTAMs were processed and transmitted.

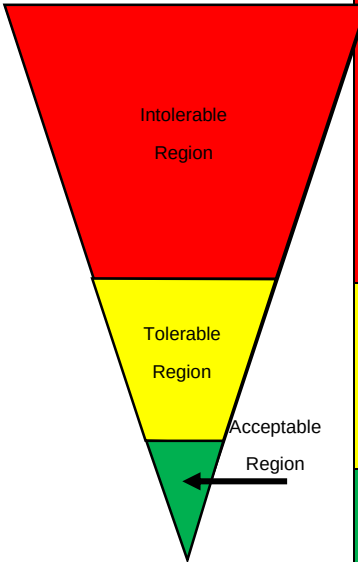
On receipt of an inspection report, the organization concerned is required to submit a Corrective Action Plan (CAP) within an agreed period. The CAP is a written confirmation by the concerns division/Department detailing the measures they intend to implement, to address all of the findings of non-compliance.

The CAP must incorporate actions that at least will remedy the deficiency in the short term and prevent a future re-occurrence.

Table 9-1 Safety Risk Assessment Matrix (Risk Index)

Risk probability	Risk Severity				
	Catastrophic (A)	Hazardous (B)	Major (C)	Minor (D)	Negligible (E)
Frequent (5)	5A	5B	5C	5D	5E
Occasional (4)	4A	4B	4C	4D	4E
Remote (3)	3A	3B	3C	3D	3E
Improbable (2)	2A	2B	2C	2D	2E
Extremely Improbable (1)	1A	1B	1C	1D	1E

Table 9-2 Safety Risk Tolerability Matrix

Suggested Criteria	Assessment Risk Index	Suggested Criteria [Acceptability/ Action Required]
	5A, 5B, 5C 4A, 4B, 3A	Unacceptable under the existing circumstances. [Do not permit any operation until sufficient control measures have been implemented to reduce risk to an acceptable level.]
	5D, 5E 4C, 4D, 4E 3B, 3C, 3D 2A, 2B, 2C	Acceptable based on risk mitigation. It may require management decision.
	3E, 2D, 2E 1A, 1B, 1C, 1D, 1E	Acceptable

Chapter 10 – Categorization of Deficiency and Deadline for Correction

As the ultimate purpose of inspection/surveillance is to identify the safety hazards; assess the safety risk and rectify the deficiencies as required, it is practical here to utilize the safety risk probability table and safety risk severity table of Safety Management System Manual of aerodrome to find the level of probability and severity of the risk associated with the deficiency. The risk arising out of the deficiency is then assessed using the safety risk assessment matrix (risk index) Table 9-1 above. After getting the risk index, it is checked against the safety risk tolerability matrix Table 9-2 above and the outcome will be referred to Safety Review Board. If it is in the Intolerable Region, then the issue is immediately put forward as a top priority to the [CAA] for immediate action. If it falls under the tolerable region and deficiency can be rectified within the expertise and budget of aerodrome, then it will be rectified within three to six months, depending on the nature of deficiency. However, if it is not within the capacity, then aerodrome will coordinate with the [CAA] to rectify the same within one or two fiscal year, as the case may be.

Appendices

Appendix 1 - 4 Suggested Airport Safety Self-Inspection Checklists

An airport safety self-inspection checklist should cover the condition of the facilities and equipment on the airport for it to be a part of a good safety inspection program. The checklist should be developed so that it is useful for the airport and its operation. A *sketch of the airport* is highly recommended to readily identify the location of problems found during the daily inspection.

The suggested checklists consist of a listing of facilities and equipment and a series of conditions that are inspected.

The blank squares indicate the conditions to be evaluated for each facility. A check (✓) in one of these squares would indicate that the condition of the facility and equipment was found to be satisfactory. On the other hand, an “x” in one of these squares would indicate that the condition of the facility and equipment was found to be unsatisfactory.

When an unsatisfactory condition is found:

1. An — “x” for each applicable square should be entered;
2. A note provided in the Remark/Action Taken section;
3. The location of the condition should be identified in the airport sketch; and
4. Appropriate follow-up action including NOTAMs should be initiated. Corrective action should be documented on either the self-inspection checklists or on a separate work order system.

Appendix 1**Airport Safety Self-Inspection Checklist**

DATE :
Satisfactory

DAY :

√

Day Inspector/Time :
Unsatisfactory

Night Inspector/Time :

X

FACILITIES	CONDITIONS	D	N	REMARKS	RESOLVED BY (Date/Initials)
Pavement Areas	Pavement lips over 3"				
	Hole – 5" diam. 3" deep				
	Cracks/heaves				
	FOD: gravel/debris/sand				
	Rubber deposits				
	Ponding/edge dams				
Safety Areas	Ruts/humps/erosion				
	Drainage/construction				
	Support equipment/aircraft				
	Frangible bases				
	Unauthorized objects				
Markings	Clearly visible/standard				
	Runway markings				
	Taxiway markings				
	Holding position markings				
	Glass beads				
Signs	Standard/meet Sign Plan				
	Obscured/operable				
	Damaged/retroreflective				
Lighting	Obscured/dirty/operable				
	Damaged/missing				
	Faulty aim/adjustment				
	Runway lighting				
	Taxiway lighting				
	Pilot control lighting				
Navigational Aids	Rotating beacon operable				
	Wind indicators				
	RENLS/VGSI systems				
Obstructions	Obstruction lights operable				
	Cranes/trees				
Fueling Operations	Fencing/gates/signs				
	Fuel marking/labelling				
	Fire extinguishers				
	Frayed wires				

FACILITIES	CONDITIONS	D	N	REMARKS	RESOLVED BY (Date/Initials)
	Fuel leaks/vegetation				
Construction	Barricades/lights				
	Equipment parking				
	Material stockpiles				
	Confusion signs/markings				
Aircraft Rescue and Fire Fighting	Equipment/crew availability				
	Communications/alarms				
	Response routes affected				
Public Protection	Fencing/gates/signs				
	Jet blast problems				
Wildlife Hazards	Wildlife present/location				
	Complying with WHMP				
	Dead birds				

Comments/Remarks : _____

Airfield Map on Reverse Side

Appendix 2

Continuous Surveillance Checklist

DATE : _____ DAY : _____ √ Satisfactory			
TIME : _____ INSPECTOR : _____ X Unsatisfactory			
FACILITIES	CONDITIONS	√	REMARKS/ACTION TAKEN
Ground Vehicles	Rules/Procedures Followed		
Fueling Operations	Fire/Explosion Hazards		
	Signing/No smoking		
Construction	Safety Plan		
	Runway Incursions		
	Runway & Taxiway Use		
	FOD		
Public Protection	Unauthorized Persons		
	Unauthorized Vehicles		
	Gates clear		
Wildlife Hazards	Birds/Animals		
Miscellaneous	Pedestrians in Movement Areas		
	Passenger Load/Unload		
	Debris in Movement Area		
Additional Remarks			

Airfield Map on Reverse Side

Appendix 3

Periodic Condition Inspection Checklist

DATE : _____ DAY : _____ √ Satisfactory			
TIME : _____ INSPECTOR : _____ X Unsatisfactory			
FACILITIES	CONDITIONS	√	REMARKS/ACTION TAKEN
Pavement Areas	Rubber Deposits		
	Polishing		
Markings and Signs	Visible		
	Standards		
Fueling Operations	Physical Facilities		
	Mobile Fuelers		
	Fire Extinguishers		
	Fuel Marking/Labelling		
	Frayed Wiring		
Navigational Aids	RENLS/VGSI Aiming		
Lighting	Power Generator Check		
	Circuit Resistance Test		
	Aim/Adjustment		
Obstructions	Surveyed Trees/Structures		
	Overhead Power Lines		
Aircraft Rescue and Fire Fighting	Response Times		
	Live Fire Drills		
	Training		
Additional Remarks			

Airfield Map on Reverse Side

Appendix 4

Special Inspection Checklist

DATE : _____ DAY : _____ √ Satisfactory			
TIME : _____ INSPECTOR : _____ X Unsatisfactory			
FACILITIES	CONDITIONS	√	REMARKS/ACTION TAKEN
Pavement Areas	Ponding/Edge Dams		
Markings and Signs	Visible after rain		
	Standards after Construction		
Safety Areas	Drainage		
	Reopening Runways		
	Reopening Taxiways		
Construction	Barricades		
	Construction Lights		
	Equipment Parking		
SMGCS	SMGCS Lighting		
Additional Remarks			

Airfield Map on Reverse Side

Quarterly Inspection – Mobile Fuelers

Inspector : _____ Fueling Agent : _____ Date : _____

S – Satisfactory U – Unsatisfactory R – Remarks Below	Jet A Fuelers			100LL Fuelers			Other Fueler		
	S	U	R	S	U	R	S	U	R
No smoking sign in cab									
Flammability Signs/Haz Mat Placards all sides									
Bonding Cables and Clips functional									
Deadman Control for all nozzles									
2 Fire Extinguishers – Proper type/Inspected									
Emergency Shutoffs operable and marked									
No Fuel Leaks – Hoses/Gaskets/Valves									
Vehicle Exhaust System – Shielded/Leak free									
No evidence of Smoking – No ashtray in cab									
Vehicle Parking – 10' apart/50' from buildings.									
Explosion proof electrical/Light lens intact									
Ignition Sources (Clothing, Shoes, Matches)									
							No of Mobile Fuelers		
Proper Fueling Procedures Observed							Jet A _____		
Fueling Personnel Meet Training Requirements							100 LL _____		
Fueling Personnel Training Records maintained							Other _____		
Remarks : _____									

Appendix 5B
Quarterly Inspection – Fuel Storage Areas

Inspector : _____ Fueling Agent : _____ Date : _____

S – Satisfactory U – Unsatisfactory R – Remarks Below	Jet A Section			100LL Section			Other		
	S	U	R	S	U	R	S	U	R
Fencing/Locks/Signs									
Piping protected from vehicles									
No Smoking signs posted									
Deadman Controls for loading stations									
2 Fire Extinguishers – Inspected/Accessible									
Boldly Marked Emergency Cutoffs – Location									
No Fuel Leaks									
Bonding wire/clips at loading stations/operable									
Piping/Pumps bonded and grounded									
No vegetation or materials to spread fire									
No evidence of Smoking									
Hoses in good condition									
Explosion Proof Electrical Equipment									
Remarks : _____									

INTERNATIONAL CIVIL AVIATION ORGANIZATION



GENERIC AERODROME MANUAL

VERSION 1.0 – MARCH 2021

Introductory Notes

This generic document was developed by the ICAO Asia/Pacific Aerodrome Assistance Working Group (AP-AA/WG) for reference by States in the APAC Region. When referring to this generic document, States are expected to customize the content in accordance to the States' legislations, regulations and situations.

It would be approved by XXX (Video Teleconference, XXX) and published by ICAO Asia and Pacific Office, Bangkok.

ICAO Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services and Guidance Material shall take prevalence in the event of any conflict between the aforementioned provisions and this generic document.

Enquiries and feedbacks regarding this draft generic document can be made to ICAO APAC Office at apac@icao.int.

GENERIC AERODROME MANUAL

Version 1.0, March 2021

In this document colour coded texts are used with following significance:

Black: Standard text with no changes usually needed

Blue: Guidelines related to the relevant section. Not to be included in the actual aerodrome manual.

Green: Text specific to an individual aerodrome, should be modified.

Figures: Only for illustration purpose, States may insert applicable figures.

(Insert Airport Name)

Aerodrome Manual

[Enter Date and Current Version no.]

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FOREWORD

This manual has been prepared in part to satisfy obligations imposed on an aerodrome operator under [Legislation and/or Regulation], and is to be regarded as the Aerodrome Manual for {Name} Airport.

It also contains details of essential operating procedures that may not be entirely safety related, but nevertheless are required to satisfy other legal, operational requirements, and common legal obligations.

The manual has been structured to allow other documents such as the Airside Vehicle Control Handbook and Airport Emergency Plan etc. to be directly incorporated. These will continue to be amended and published separately but should be regarded as annexes to, but components of, the Aerodrome Manual and should be read in conjunction with it.

The Civil Aviation Authority of (State) requires the Aerodrome Operator to operate and maintain (Name) Airport in accordance with the procedures set out in the Aerodrome Manual.

It is essential that the procedures documented in this manual are an accurate reflection of current practices. If staff becomes aware of a divergence from these procedures, or if compliance with these procedures is impossible or impracticable for any reason, they must advise their supervisor or the airport safety manager immediately. Additionally, staff is encouraged to query these procedures if the intended results can be achieved in a safer, more cost effective, efficient or reliable manner.

To avoid unnecessary duplication, most procedures make reference to other technical manuals and publications. Supervisors should ensure they have a copy of each relevant publication available for reference by staff that is responsible for implementing a procedure.

(Signature)

(Name) Airport Manager/CEO/Director

DD/MM/YY

SEAL

CHECKLIST OF CURRENT PAGES

[illegible][illegible]

NOTIFICATION OF AMENDMENT TO THE AERODROME MANUAL:

The (Responsible Person) of the aerodrome shall:

1. Alter or amend the aerodrome manual, whenever necessary, in order to maintain the accuracy of the information in the manual.
2. If no amendment, review the contents of Aerodrome manual at least once a year to ensure that it is up-to-date.
3. Ensure that each copy of the manual is numbered and a list of Manual holders is maintained by person responsible for the issue of amendments.
4. An amendment page is made available for recording the amendments numbers, date of incorporation, signature of persons amending and affecting the changes, in the front of each volume along with reason for changes.
5. Make amendments by additional or replacement pages on which the amended material is clearly identified.
6. Submit the proposed amendments in the Aerodrome Manual to CAA for its acceptance/ approval at least (xxx) days prior to the effective date.
7. After acceptance/ approval from CAA, distribute the final copies of Aerodrome Manuals per the distribution list.
8. The replaced or pages no more required should be destroyed.

RECORD OF REVISION

[illegible]

MASTER CONTACT LIST

This list must include at least all people involved with operational aspects of the aerodrome such as

CHIEF EXECUTIVE OFFICER

[Name] Work Hour: xxx xxx xxxx email
 After Hour: xxx xxx xxxx

AIRPORT MANAGER

[Name] Work Hour: xxx xxx xxxx email
 After Hour: xxx xxx xxxx

MANUAL CONTROLLER

[Name] Work Hour: xxx xxx xxxx email
 After Hour: xxx xxx xxxx

REPORTING OFFICER

[Name] Work Hour: xxx xxx xxxx email
 After Hour: xxx xxx xxxx

NOTAM OFFICE [NOF]

[Name] Work Hour: xxx xxx xxxx email
 After Hour: xxx xxx xxxx

ELECTRICAL CONTRACTOR

[Name] Work Hour: xxx xxx xxxx email
 After Hour: xxx xxx xxxx

SEARCH AND RESCUE (SAR)

Bangkok Search and Rescue Co-ordination Center

TEL: (+66) 2 285 5450 and (+66) 2 285 5451

FAX: (+66) 2 286 2925

Email:

AIRCRAFT ACCIDENT INVESTIGATION COMMITTEE OF (State)

AAIC TEL: (+66) 2 286 0594 and (+66) 2 285 5451

FAX: (+66) 2 287 3186 / EMAIL

DISTRIBUTION LIST

Control Number	Holder of Copy	Remarks

SUPPORTING OPERATIONAL DOCUMENTS

The Aerodrome Manual may consist of more than one document. If this applies, then list these documents in this section.

Example:

Supporting Documents

1. Airport Emergency Plan
2. Airport Safety Management Manual
3. Airport Security Programme
4. Airport Safety Self-Inspection
5. Airside Vehicle Handbook
6. Disabled Aircraft Removal Plan

ABBREVIATIONS AND SYMBOLS

Example: (Add as many as possible)

AAE	Above aerodrome elevation
AAS	Airport Advisory Service
ACN	Aircraft classification number
AIS	Aeronautical Information Services
ALR	Aircraft loading rating
APAPI	Abbreviated precision approach path indicator
Aprx.	Approximately
ARP	Aerodrome reference point
ASDA	Accelerate stop distance available
ATS	Air traffic services
C	Degrees Celsius
cd	Candela
DME	Distance measuring equipment
EWB	Eye to wheel height
FOD	Foreign object debris
ft	Foot
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GS	Glide slope
HAL	High intensity approach lighting
ICAO	International Civil Aviation Organization
IFR	Instrument flight rules
ILS	Instrument landing system
MOWP	Method of Work Plan
PERCOW	Permit to commence work

AERODROME CERTIFICATE COPY

Insert current Aerodrome Certificate

Example:

SAMPLE AERODROME CERTIFICATE*

CIVIL AVIATION AIRPORT CERTIFICATE
CERTIFICATE NO.
NAME OF AIRPORT
LATITUDE/LONGITUDE
This airport certificate is issued by the Minister pursuant to Part III of the <i>Canadian Aviation Regulations</i> under authority of the <i>Aeronautics Act</i> and authorizes the operator named in the approved Airport Operations Manual to operate this airport. The Minister may suspend or cancel this airport certificate at any time where the airport operator fails to comply with the provisions set forth in the Act, the Regulations or for other grounds as set out in the Act. This certificate is subject to any conditions established by the Minister pursuant to Section 302.03(3) of the Regulations and set out in the approved Airport Operations Manual. This airport certificate is not transferable and shall remain in effect until transferred, suspended or cancelled.
MINISTER OF TRANSPORT
CERTIFICATE DATE OF ISSUE

Aerodrome Manual Approval Letter

{File reference}

Date:

{Applicant's name}

{Aerodrome name}

{Aerodrome address}

Dear {Sir/ Madam},

Approval/ Acceptance of Aerodrome manual (Name of aerodrome)

This has reference to your letter {number} dated {dd/mm/yyyy} submitting application for aerodrome certificate to operate {name of aerodrome} along with Aerodrome Manual [Version / Edition number].

The submitted Aerodrome Manual is accepted / approved [use the word in local legislation / regulation] on the following conditions:

Body of the text along with conditions, if any.

Example of Conditions:

- All proposed amendments shall be submitted to CAA at least [XX] days prior to the intended effective date
- CAA may issue direction requiring an amendment to be made to the aerodrome manual as CAA sees fit. In such case, [Aerodrome] shall submit the amendment to CAA within [XX] days of the issue date of CAA's direction.

If you have any queries regarding this certificate or any other aerodrome-related matters please contact this Authority.

Yours faithfully,

{Signature}

{Name}

Director General

(The CAA Name)

Part 1 – General Information

1.1 Purpose and Scope

The purpose of the Aerodrome Manual is to provide

- 1.1.1 Confirmation of an aerodrome operator's ability to comply with the aviation legislation applicable to aerodrome operations. It contains detailed information regarding the aerodrome site, facilities, services, equipment, operating procedures, organization and management for (Name) Airport.
- 1.1.2 A reference document for:
 - a. Use by staff and contractors of an aerodrome operator in their activities to operate and manage the tasks and business of the airport.
 - b. Use by officers of CAA (State) in audit and inspection activities related to (Name) Airport.

1.2 Legal Requirement

- 1.2.1 As the operator of an aerodrome servicing air transport operations, (Name) Airport is required by (Regulation reference) to hold an Aerodrome License or Aerodrome Certificate.
- 1.2.2 The requirement for an Aerodrome Manual is prescribed in The Requirements of Civil Aviation Authority of (State) (Requirement reference). A copy of this manual shall be provided to the CAA (State).

1.3 Conditions of Use

(Name) Airport operates (Specify Operating Hours and conditions e.g. visibility) for take-off and landing of aircraft and when it is so available it shall be available under equal terms and conditions to all persons and operators (Requirement reference). The airport reference code is (Specify).

1.4 Aeronautical Information

All data relating to the aeronautical aspect of this aerodrome are published in the Aeronautical Information Publication (State Name). The (Position Holder) is responsible for complete and correct promulgation of data to Aeronautical Information Services Department (AIS) of the CAA in accordance with procedures described in this manual.

1.5 Recording Aircraft Movements

All data relating to the recording of aircraft movement is collected and recorded by (Name & Designation of Responsible Person). The (Airport Unit) is responsible for complete and correct collection recording and reporting to the (Airport Responsible Person) in accordance with procedures described in this Manual.

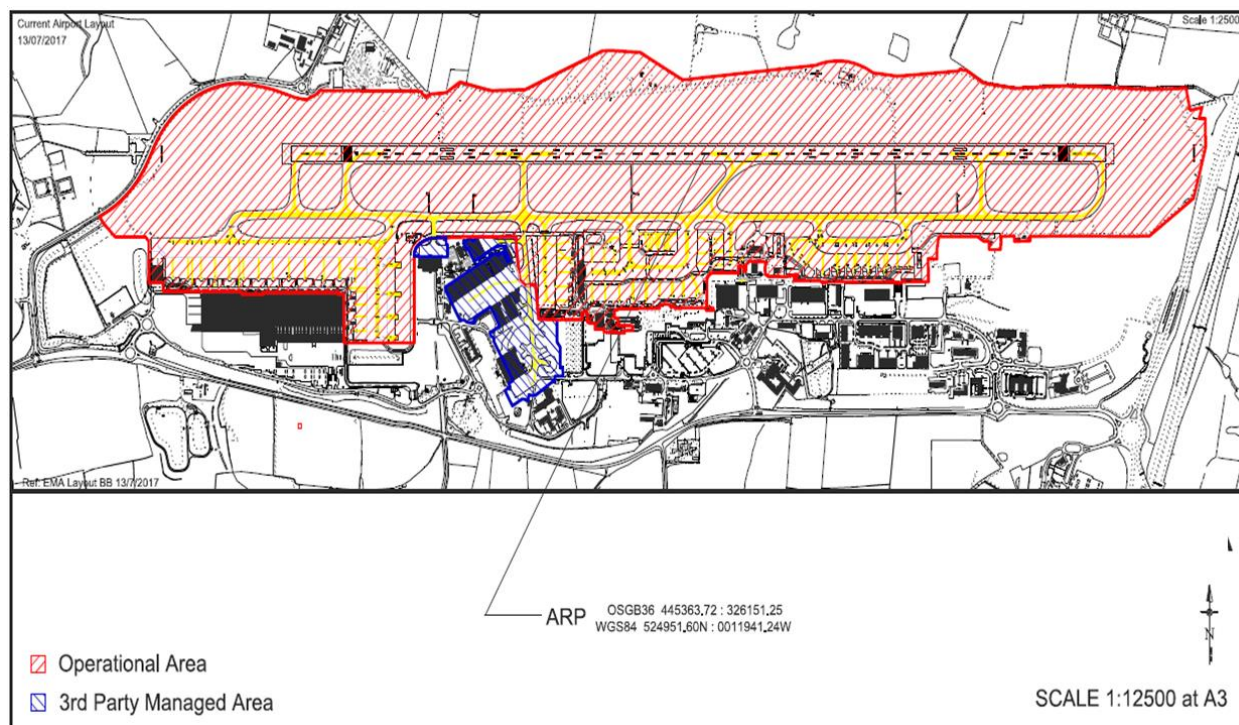
1.6 Obligation of the Aerodrome Operator

The operator of a certified/ licensed aerodrome is to comply with the Aerodrome Manual approved by the CAA (State). The area certified under the Public Aerodrome Operating Certificate is shown as (Figure X) below.

The owner or operator of an aerodrome shall ensure that all users of the aerodrome, including ground-handling agencies, fixed-base operators, and other organizations that perform activities independently at the aerodrome in relation to flight or aircraft handling, comply with the safety requirements of the aerodrome. The owner or operator of the aerodrome will monitor such compliance through the (Name) Airport Safety Management System.

Figure X: (Name) Airport Operational Area and 3rd Party Managed Area

Remarks: All figures may be organized together at the end of the Aerodrome Manual for easy reference and amendment



1.6.1 Compliance with standards and practices

The (xyz) aerodrome shall comply with the standards, and practices specified in regulation (Reference from state regulation) and with any conditions endorsed in the aerodrome certificate pursuant to regulations (Reference to applicable State requirement)

1.6.2 Competence of operational and maintenance personnel

The (xyz) aerodrome shall employ an adequate number of qualified, where required, certified and skilled personnel to perform all critical activities for aerodrome operation and maintenance. The competency of these personnel shall be kept relevant at all times and enhanced by implementing an appropriate programme

1.6.3 Aerodrome operation and maintenance

The (xyz) airport shall operate and maintain the aerodrome in accordance with the procedures set out in the accepted/ approved aerodrome manual. (XYZ) airport shall ensure proper and efficient maintenance of the aerodrome facilities and ensure the coordination to cover areas of aeronautical information service, air traffic services, designated meteorological authorities, and aviation security.

1.6.4 Aerodrome operator's safety management system

The (xyz) aerodrome shall establish a safety management system for the aerodrome describing the structure of the organization and the duties, powers and responsibilities of the officials in the organizational structure.

1.6.5 Aerodrome operator's internal safety audits and safety reporting

The (xyz) aerodrome shall arrange for internal as well as external audit of the safety management system, including an inspection of the aerodrome facilities and equipment and all its functions. These audits shall be carried out every [xx]months/ year or as agreed with the CAA and records/ reports shall be retained for a period of [xx] years.

1.6.6 Access to the aerodrome

In accordance with [regulation], some personnel may be authorized by the CAA to inspect and carry out tests on the aerodrome facilities, services and equipment, inspect the aerodrome operator's documents and records and verify the aerodrome operator's safety management system before the aerodrome certificate is granted or renewed and, subsequently, at any other time, for the purpose of ensuring safety at the aerodrome. (XYZ) aerodrome shall cooperate with the personnel so authorized by the CAA.

1.6.7 Notifying and reporting

(XYZ) aerodrome shall adhere to the requirement to notify and report to the CAA, air traffic control and pilots within the specified time limits required by the regulations.

- a) Notification of inaccuracies in aeronautical information service (AIS) publications.
- b) Notification of changes to the aerodrome facilities, equipment and level of service planned in advance.
- c) Issues requiring immediate notification on obstacles, obstructions and hazards, level of service, closure of any part of the movement area of the aerodrome.

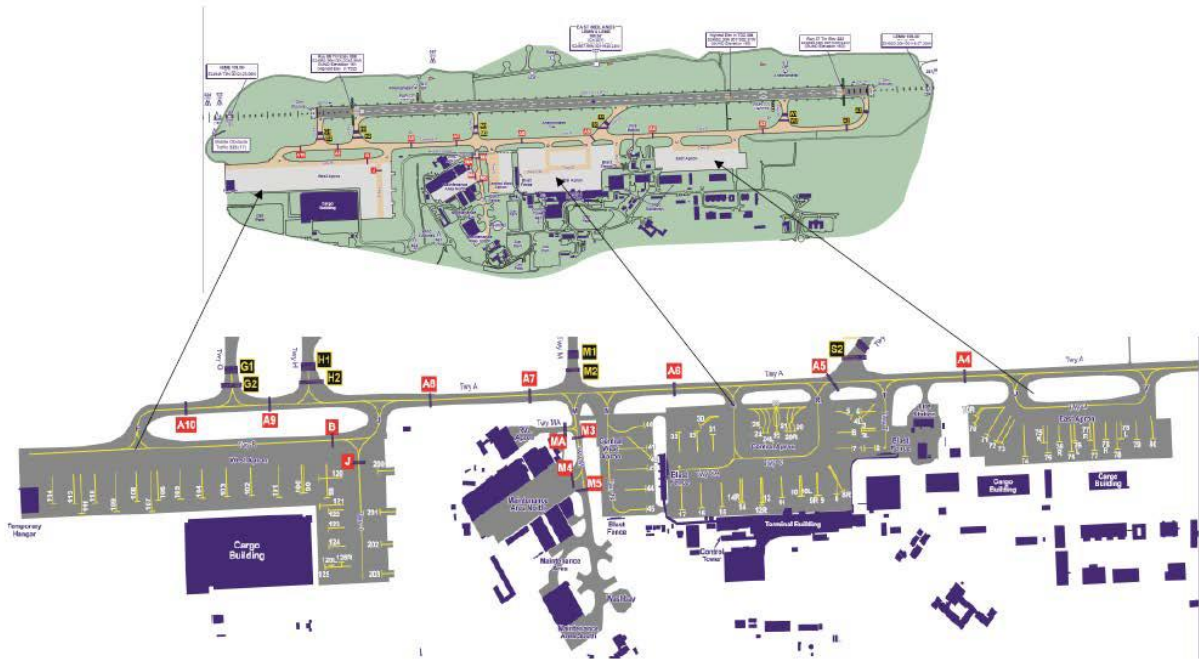
1.6.8 Removal of obstructions from the aerodrome surface

(XYZ) aerodrome operator shall remove from the aerodrome surface any vehicle or other obstruction that is likely to be hazardous.

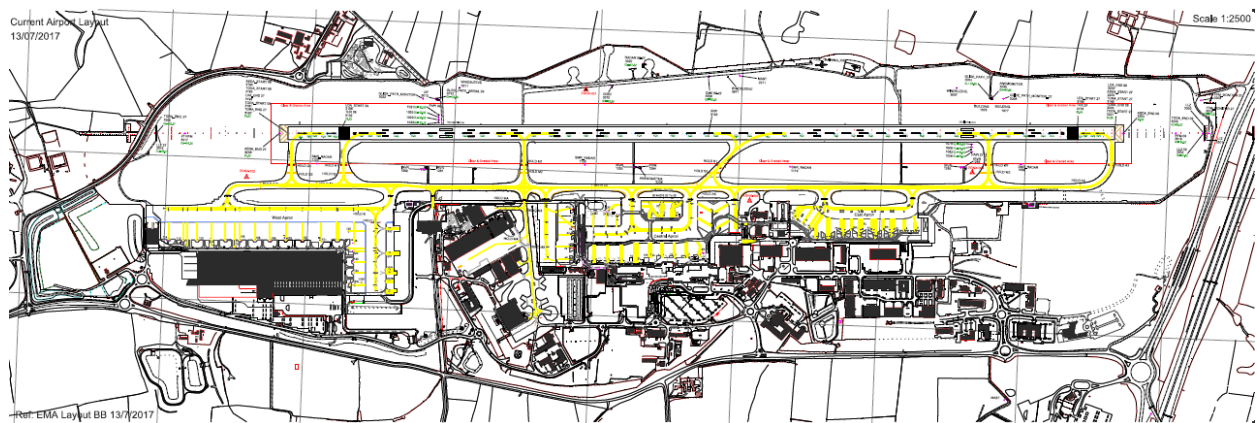
1.6.9 Warning notices

The (XYZ) aerodrome shall post hazard warning on any public area that is adjacent to the manoeuvring area for low flying aircraft, at or near an aerodrome, or taxiing aircraft are likely to be hazardous to such people or vehicular traffic.

Picture 2: Layout of Runways, Taxiways, and Aprons



Picture 3: Details of the Physical Characteristics of the Runway Environment

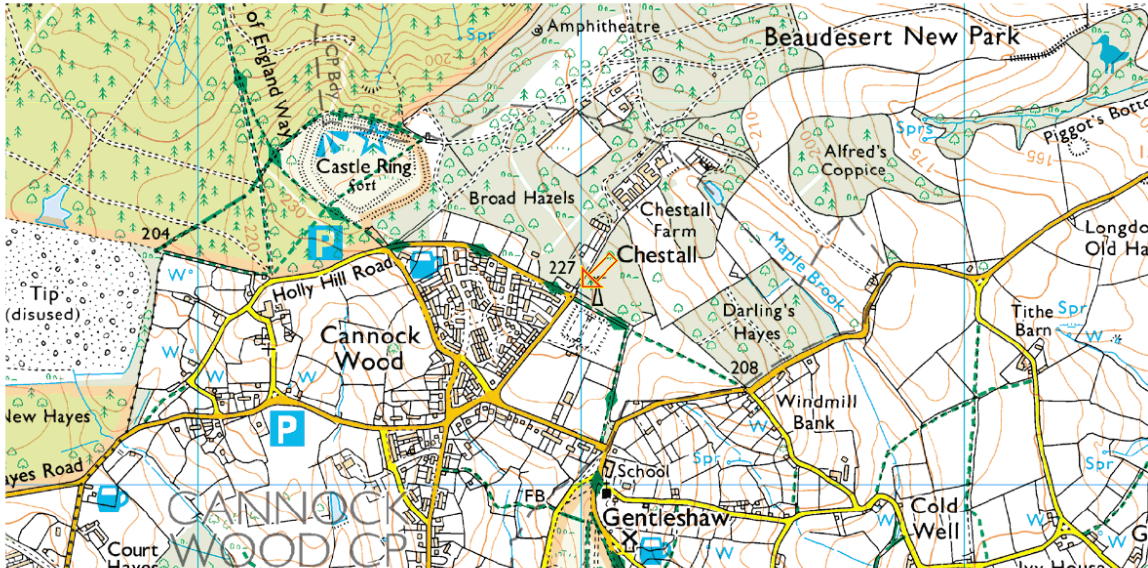


Picture 4: Plan Showing the Distance from Nearest Town/Populous Area

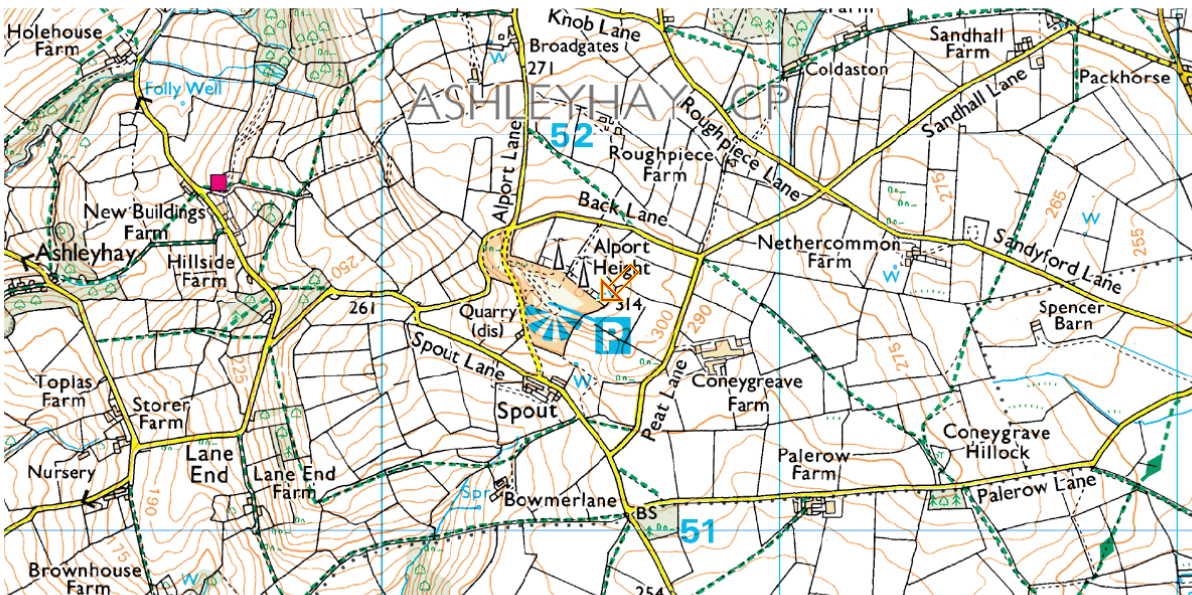


Picture 5: Plan Showing the Location of EMA Aerodrome Facilities and Equipment outside the Boundaries of the Aerodrome

Gentleshaw N52:42:36.9000 W1:55:38.8000



Alport N53:03:38.1000 W1:32:44.2000

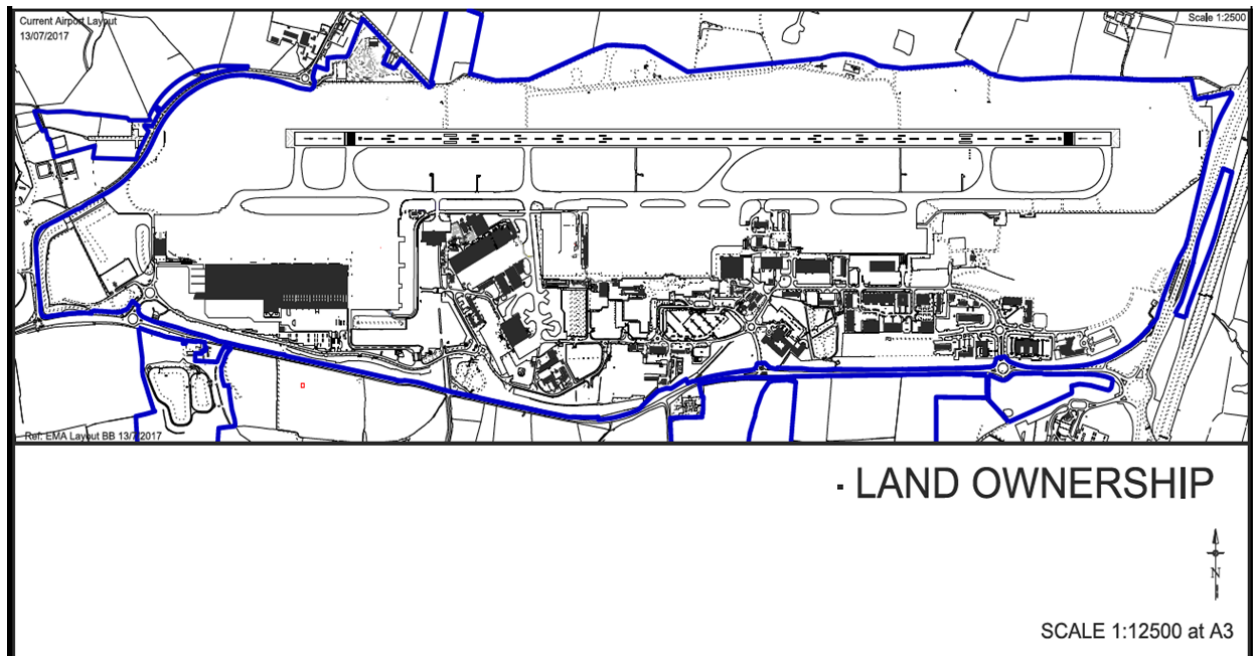


2.1.2 Aerodrome Land Titles

Title to properties associated with the aerodrome site are as shown in the table below.

[illegible][illegible]

Figure X: Boundary and Land Ownership



Part 3 – Aerodrome Dimensions & AIS Information

The accuracy of the information in this part is critical to aircraft safety. Therefore, the information published in this section requires engineering survey and assessment. The information should be gathered or verified by qualified technical persons.

3.1 General Information

1	Name of Aerodrome	(Insert Name: ICAO Code)
2	Aerodrome Location	
3	Geographical Coordinates of the Aerodrome Reference Point (WGS-84)	
4	Aerodrome Elevation and Geoid Undulation	
5	Elevation of Each Threshold and Geoid Undulation	
6	Elevation of the Runway End and Significant High and Low Points along the Runway	
7	Highest Elevation of the Touchdown Zone of a Precision Approach Runway	
8	Aerodrome Reference Temperature	
9	Details of the Aerodrome Beacon	
10	Name of Aerodrome Operator, the Address, and the Telephone Number of the Airport that may be Contacted at All Time	

3.2 Aerodrome Dimensions and Related Information

Runway							
Designation No.	True Bearing	Dimension (Length x Width)	Displaced Threshold Location	Slope	Surface Type	Type of RWY	OFZ

Runway				
	Designation	Length	Width	Strength (PCN)
Strip				
RESA				
Stopway				

Taxiway			
Designation	Dimension	Surface Type	Strength (PCN)

Apron					
Names	Width	Length	Surface Type	No. of Aircraft Stands	
				With Aerobridge	Without Aerobridge

Clearway			
RWY Designation	Length (m)	Width (m)	Ground Profile
Stopway			
RWY Designation	Length (m)	Width (m)	Ground Profile

Approach and Runway Lighting									
RWY Designation	APCH LGT Type LEN INTST	THR LGT Color WBAR	VASIS (MEHT) PAPI	TDZ LGT LEN	RWY Center Line LGT Length, Spacing, Color, INTST	RWY Edge LGT LEN, Spacing Color INTST	RWY End LGT Color WBAR	SWY LGT Length Colour	Remarks

Other Lighting, Secondary Power Supply		
1	Use of Aircraft Stand ID Signs, TWY Guide Lines and Visual Docking/Parking Guidance System of Aircraft Stand	
2	ABN/IBN Location, Characteristics, and Hours of Operation	ABN: (Aerodrome Beacon) IBN: (Identification Beacon)
3	LDI Location and LGT Anemometer Location and LGT	Wind Cone:
4	TWY Edge and Center Line Lighting	Edge: Center Line:
5	Secondary Power/Switch-Over Time	
6	Remarks	

VOR Aerodrome Checkpoints	
Location	Radio Frequency

Location and Designation of Standard Taxi Routes
Please depict the airport taxiway system, locations, and taxiway number. The airfield layout may be included in this part or other part of the manual. Example: The airfield layout, depicting the (Name) Airport Taxiway System (location and designation) is contained in (Please Specify location) of this manual.

Geographical Coordinates			
Runway Threshold	LAT.	LONG.	ELEV.
Taxiway Centerline Points	LAT.	LONG.	
Aircraft Stands	LAT.	LONG.	

Obstacles					
In Approach/Take-off Areas			In Circling Areas and at AD		Remarks
RWY/Area Affected	Obstacle Type Elevation Marking/LGT	Coordinates	Obstacle Type Elevation Marking/LGT	Coordinates	

Obstacles are best depicted by chart.

Pre-Flight Altimeter Check	
Locations	Elevation
Please specify apron and coordinates of the apron in WGS-84.	Please specify the elevation of Pre-Flight Altimeter Check in WGS-84.

At least one point in the airport.

Declared Distances				
RWY Designation No.	TORA	TODA	ASDA	LDA

Please make a note that NOTAM and ATIS will be promulgated in case of temporary reduction in available declared distances. The reduction in available declared distances should be assessed by a competent and qualified personnel such as an airport engineer or an airport operations personnel. The qualified personnel shall be trained or educated in the area related to declared distances such as airport design or other courses.

Example:

Any temporary reduction in available declared distances will be assessed by (Competent Qualified Personnel) and promulgated via NOTAM and ATIS.

Disabled Aircraft Removal Plan		
Name of Coordinator	Telephone/Telex/Facsimile Numbers and E-mail Address	Capability for Removal of Disabled Aircraft
		Specify types of aircraft

Procedures relating to disabled aircraft removal are contained within (Please Specify).

Rescue and Fire Fighting
Category of Rescue and Fire-Fighting Services
(Specify ARFF Category) The level of staffing requirement post TRA carried out on (date) is (Insert No.) Other details of Rescue and Fire-Fighting are contained within document (Please Specify).

Part 4 – Aerodrome Operating Procedures

4.1 Aerodrome Reporting

Particulars of the procedures for reporting any changes to the aerodrome information set out in AIP and procedures for requesting the issue of NOTAMs according to CAA (State) (Requirements) and reporting of accident or incidents to (Authority name) as per (Requirement).

4.1.1 Purpose

Explain the purpose of aerodrome data and reporting. The main purpose of this section is to ensure that the aerodrome data are reported in time and accurately.

Example:

The aim of these procedures is to ensure that CAA (State) and AIS are notified of any changes in the physical condition of the airport and of new obstacles that may affect the safety of aircraft operations. With the timely notification, the information can be disseminated to airmen in a timely manner.

4.1.2 Responsibility

Specify responsibility of personnel related to aerodrome reporting. These persons may be included but not limited to the airport manager and aerodrome reporting officer or any other post delegated with this responsibility.

Example:

- a. (Airport Manager) has overall responsibility for ensuring that procedures are established and resources provided to report changes to aerodrome physical characteristics, the OLS, or any other change that may affect the safety of aircraft operations are adequate.
- b. (Airside Operations Supervisor) is responsible for documenting reporting procedures and for advising AIS of permanent changes to airport information. He is also responsible for advising CAA of any significant changes to aerodrome information that may occur and for reporting the day-to-day serviceability of the airport and notifying temporary changes to published aeronautical information to ATC and the NOF.
- c. (Airside Operations Officer) is responsible for implementing the reporting procedures documented in this manual.

4.1.3 Reporting Procedures

Specify aerodrome reporting procedures. The procedures should start when a hazard is identified and include the consideration of the types of promulgation. The NOTAM issuance, AIP supplement and AIP amendment procedures shall follow the current CAA requirements. The established procedures must show that the airport can promulgate the information accurately in a timely manner.

Example:

- a. Any situation that may have an immediate effect on the safety of aircraft operations will be reported in the first instance to ATC by radio or telephone. The designated ATC responsible for verbal reports is:

(Insert the responsible contact person and details of communication methods)

Such situation then will be reported to (Designated Person) to consider whether it needs to be issued as NOTAM or AIP.

(Insert the designated person responsible for issuing NOTAM of the airport and his/her contact details e.g. radio or telephone number)

- b. The (Designated Person) considers the given information using the procedures specified in (Specify SOPs). If it is required to issue NOTAM or AIP Supplement, the designated person will do so.

4.1.4 NOTAM and SNOWTAM

Specify NOTAM procedures. The procedures shall clearly specify the responsible persons of the aerodrome and others. The aerodrome operator shall include the address and telephone numbers of people responsible for NOTAM. The name and contact list can either be referred to *Master Contact List* or specified in this section.

[Applicable with effect from 4 November 2021]

Specify SNOWTAM procedures for issuing runway condition report when the runway is wholly or partly contaminated by standing water, snow, slush, ice or frost, or is wet associated with the clearing or treatment of snow, slush, ice or frost.

Example:

- a. The information about matters of an urgent nature affecting the safety of aircraft operations according to (NOTAM Regulations reference) will be issued as a NOTAM.

- b. The criteria for issuing SNOWTAM to disseminate a runway condition report.
- c. The (Designated Person) will fill a NOTAM/SNOWTAM Requisition Form attached in Annex (N). The form is submitted to:

(Insert Responsible Person, Address, and Contact Details)
- d. The (Designated Person) checks the NOTAM/SNOWTAM once it is issued.
- e. If the information in the NOTAM/SNOWTAM is correct, make a record in NOTAM Logbook. If the information in the NOTAM/SNOWTAM is incorrect, contact (Responsible Person) to make a correction.

4.1.5 AIP

Specify AIP Supplement and procedures. The procedures shall clearly specify the responsible persons of the aerodrome and other. The aerodrome shall include the address and telephone number whose AIP Supplement and AIP Amendment are submitted to. The contact information can either be referred to *Master Contact List* or specified in this section.

Example:

AIP constitutes the basic information source for permanent information and long duration temporary changes. The (Designated Person) is responsible for AIP Supplement and Amendment. If there is a temporary change for duration of at least 90 days but not exceeding one year, the (Designated Person) requests for AIP Supplement. The AIP Supplement also can be used to promulgate the temporary change for duration less than 90 days but requires supplement texts or pictures. AIP Amendment Requisition and AIP Supplement Requisition are contained as Annex (N) and Annex (N) in this Aerodrome Manual. The requisition form will be submitted to:

(Insert Responsible Person, Address, and Contact Details)

4.1.6 Incident Reporting

Specify accident/incident reporting procedures to pilots and air traffic service providers as well as Search and Rescue Coordination Center and Accident/ Serious incidents investigating authority (XYZ) in case of accident/serious incident. The reporting procedures shall be inconsistent with the reporting procedures in the aerodrome safety management system.

Example:

- a. Any significant object found on the movement area will be immediately reported to:

(Insert Designated Person and Contact Information)

- b. (Designated Person or the Founder of the Object) will immediately advise (ATC), and then attempt to identify the object through various operators in airside. (ATC) may choose to alert the pilot of the aircraft or the station manager that may have involved.
- c. All incidents are to be recorded in the (Name of Record). Where necessary an addition written Incident Report will be raised. (Airport Responsible Person) gathers accident and incident information. The information shall be reported to the (Airport Manager).
- d. The (Airport Manager) will determine if an (Accident/Incident Report) needs to be submitted to (CAA and/or AAIC) in accordance with [legislation / regulations / mandatory occurrence reporting scheme]. The (Airport Manager) will initiate and coordinate internal investigations into aviation incidents relevant to the Airport.

4.1.7 Records of Aerodrome Reporting

Specify the method the aerodrome operator checks and records the changes to the aerodrome data.

Example:

All actions regarding the issuance of NOTAM and changes in AIP will be recorded in NOTAM and AIP Logbook. The log books are available with (Responsible person) in AIS section and is maintained by his staff.

4.2 Control of Airside Access

Particulars of the procedures that have been developed and are to be followed to prevent unauthorized entry into the airside.

4.2.1 Purpose

Explain the purpose of this section. The main purpose of this section is to prevent unauthorized entry into the airside.

Example:

The aim of these procedures is to assist the safety of aircraft operations by only permitting access onto the airside to authorized and certified person, vehicles, and equipment.

4.2.2 Responsibility

Explain responsibility of personnel related to the control of airside access including airport manager, aerodrome security entity, air traffic service provider, airport operations, airport tenants, aerodrome fixed-based operator, and government agencies.

Example:

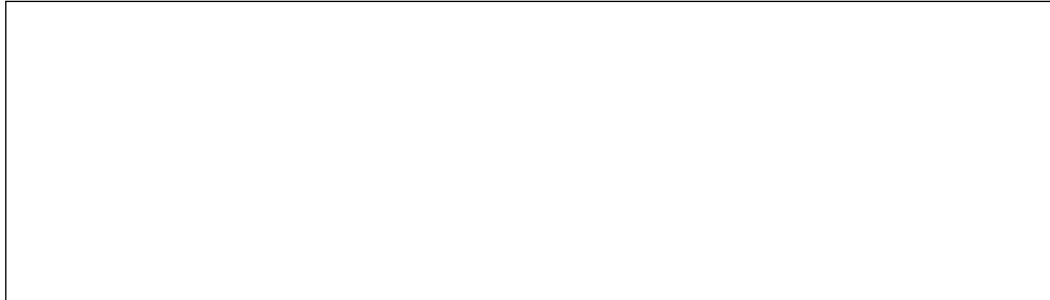
- a. (Airport Manager) has overall responsibility for ensuring that procedures are established and resources are provided for aviation security and for the control of airside access to the airport.
- b. (Airport Security Supervisor) is responsible for developing an Airport Security Program He is also responsible for obtaining approval prior to any physical change of the airside/landside barrier.
- c. (Airport Operations Officers) are responsible for carrying out day-to-day surveillance of airside areas.
- d. (Air Traffic Service Provider) has responsibility for control of vehicles on the manoeuvring area by giving clearances. No person or vehicle may enter this area without ATC approval.
- e. (Security Service) are contracted by (Name) Airport. They are responsible for guarding the airside access gate and patrol the airside perimeter. They are also responsible to satisfy security regulations required by the Aerodrome.
- f. (Aircraft Operators and Airport Tenants) are responsible for controlling access to restricted areas via any part of their building or leased areas. They are required to establish and enforce procedures to prevent unauthorized airside access via these areas

4.2.3 Security Restricted Area and Access Points

Describe the aerodrome security restricted area and access points. The security restricted area and access points shall be depicted in pictures. The access gates for pedestrians and vehicles, as well as any emergency access gates, shall be identified.

Example:

(Describe the aerodrome security restricted area and access points)



4.2.4 Preventing Unauthorized Entry of Persons, Vehicles, Equipment, Animals, and Other Things into the Movement Area

Describe methods used by the aerodrome to prevent unauthorized entry of persons, vehicles, equipment, animals, and other things into the movement area in normal and emergency situations. The methods used can be physical deterrents or measurement. Physical deterrents may include fence and padlock. Measurement may include security pass. Information in this section can be referred to the Airport Security Program.

Example:

- a. The aerodrome is fenced with (chain link security fencing/ security wall). The airport security will inspect for unauthorized entry into the movement area.
- b. All gates are to be manned, kept closed and locked at all times except for authorized entry. In case the security guard is not present, the gate shall be locked. The key to the gate will be kept with (Responsible person).
- c. Floodlighting and security cameras are installed on the fence to allow detection of unauthorized access during night time or low visibility condition.
- d. A joint force of airport personnel and local police will patrol aerodrome surroundings.

Note: Airport Security Programme (Name, Version, date) contains all the details regarding the Control of Airside Access.

4.2.5 Method of Monitoring and Recording Unauthorized Entry

Describe the method of monitoring and recording of unauthorized entry. The designated entity at aerodrome shall keep record of all unauthorized entry, root causes and recommended mitigation.

Example:

- a. The aerodrome will ensure that only trained, qualified and authorized persons, vehicles and equipment are allowed to acquire airport security pass. The procedures to acquire a security pass are specified in the (Specify document such as Airport Security Programme or SOPs for Airport Security Pass Issuance).
- b. (Name) Airport has a test programme to ensure that all security ID holders will aware of unauthorized persons in the security restricted area. In case unauthorized person, vehicle or equipment is detected, the security ID holder shall inform an airport security officer without delay.
- c. Security guards are assigned to every security access points. All accesses to the airport movement area are recorded. If an unauthorized person, vehicle or equipment remains in the movement area, an airport security guard will find and lead them out of the airport movement area. The incident will be reported to (Responsible Person / Police) for investigation.

4.2.6 Coordination with the Agency Responsible for Preventing Unlawful Interference in Civil Aviation at the Aerodrome

Please specify the coordination with the agency responsible for preventing unlawful interference in civil aviation at the aerodrome when an act of unlawful interference is detected.

Example:

- a. The aerodrome has established the Airport Security Committee. The members include:
(Specify Committee Members)
The responsibility of the committee is defined in the Airport Security Committee.
- b. In case an airport security guard detects an unlawful act, the security guard will inform a local police, an immigration officer or a custom officer via (Specify Communication Method) for law enforcement.

4.3 Aerodrome Emergency Plan

Specify particulars of Aerodrome Emergency Plan (AEP) both on and off airport to ensure that the airport is well prepared to response to an emergency involving aircraft, not involving aircraft, and compound emergency.

Remarks: The AEP could be a part of the Aerodrome Manual, or it could form a separate document. If designed to be a separate document, it is still subject to acceptance/approval by CAA and any other control as CAA would exercise on an Aerodrome Manual.

4.3.1 Purpose

Explain the objectives of aerodrome emergency plan. The main purpose of the emergency plan is to minimize the effects of an emergency, particularly in respect of saving lives and maintaining aircraft operations. The aerodrome emergency plan sets forth the procedures for coordinating the response of different aerodrome agencies (or services) and of those agencies in the surrounding community that could be of assistance in responding to the emergency.

Example:

The aim of an AEP is minimize the effects of an emergency, particularly in respect of saving lives and maintaining aircraft operations by providing a timely and coordinated response for rescue and operation recovery from an airport emergency. The primary purpose of this section is to document the responsibilities of all responding parties and background information in relation to the AEP.

4.3.2 Responsibility

Explain responsibility of personnel responsible to plan, maintain, revise, and implement the Aerodrome Emergency Plan.

Example:

- a. The Airport Manager has overall responsibility for establishing a plan to coordinate the response if an emergency occurs at the airport. He is responsible to chair AEP Committee.
- b. The AEP Committee is responsible for developing and maintaining the AEP.
- c. The Aerodrome Safety Manager is responsible for coordinating the activities in AEP.

4.3.3 Plans for Dealing with Emergencies Occurring at the Aerodrome

Define emergency plans for each emergency that may occur in the airport. The emergency plan shall consider physical characteristics and environment in vicinity of the airport. The plans shall include actions to be taken by all responding parties, e.g. airport, RFFS, off-airport fire services, civil defence agency, ATC, airlines, aircraft maintenance organizations, police, accident investigator, etc.

Example:

The (Name) Aerodrome Emergency Plan involves the emergencies that may occur at the airport. It includes accidents involving aircraft, accident not involving aircraft and other accidents/incidents. The plan contains these following scenarios:

- a. Aircraft Accident on the Airport
- b. Aircraft Accident off the Airport
- c. Incident - Aircraft in Flight
- d. Incident – Aircraft on Ground
- e. Structural Fires
- f. Sabotage
 - i) Aircraft
 - ii) Structure
- g. Unlawful Seizure of Aircraft
- h. Natural Disaster
- i. Dangerous Goods
- j. Medical Emergencies
- k. Other scenarios as required e.g. aircraft accident at difficult environment (water, swampy areas, etc.) in the immediate vicinity of the airport, land transport disruption, etc.

The details of each scenario are contained within the AEP.

4.3.4 Tests for Aerodrome Facilities and Equipment to be Used in Emergencies

Explain how the aerodrome conduct tests for facilities and equipment to be used in emergencies. This section also covers the handling centers established during an emergency and frequencies of the tests. The airport may use checklists for tests for facilities and equipment. The tests need to be done using proper techniques. The result of the tests shall be recorded. The checklists can either be a part of AEP or in a separate document. (In case it is already included in other section, delete this para)

Example:

- a. Procedures and checklists for testing of aerodrome facilities and equipment are contained within “(Name of a manual or procedures)”
- b. Frequencies of tests
- c. Testing of physical areas of the emergency plan are included within the Airport’s exercise regime, detailed within the AEP. (N0)

4.3.5 A List of Organizations, Agencies and Persons of Authority, both on- and off-airport, and Their Contact Information

Lists all organizations and authorities involved in an emergency response both on and off airport and details of contacts. The lists can be referred to the Airport Emergency Plan. The details of contacts must be up to date.

Example:

The AEP contains a list of organizations, agencies and persons of authority, both on- and off-airport, and their contact information. The contact information will be checked and updated once every (Frequency).

4.3.6 Aerodrome Emergency Committee

An airport shall establish an Aerodrome Emergency Committee. The committee should have both internal and external stakeholders. Each airport should consider the members of this committee based on a local management.

Example:

The Aerodrome Emergency Committee is the main forum to develop, distribute, review and amend the Airport Emergency Plan (AEP) for (Name) Airport. This committee will endorse any amendments to the AEP.

The Committee meets every [X] months and as soon as possible after the activation of AEP or a full scale / partial emergency exercise to carry out its functions and will be comprised of a group of core member such as;

- a. Aerodrome operator
- b. Airlines representatives
- c. ATC Senior Staff
- d. Chief of RFFS
- e. Department of Health Senior Officer
- f. Senior representatives from major hospitals

- g. State Emergency Service Representatives
- h. Ambulance Service senior representatives
- i. Chief of Metropolitan Fire Brigade or Services
- j. Police Service senior staff
- k. Representatives of other responding parties, as required

4.3.7 Appointment of an On-Scene Commander

The airport shall appoint an on-scene commander when an emergency occurs. Each type of emergency may have a different on-scene commander. For example, an airport rescue and firefighting commander may be appointed to be an on-scene commander in the event of fire. An airport security may be appointed to be an on-scene commander in the event of unlawful interference, or airport medical services may be appointed to be an on-scene commander in medical emergency.

Example:

Safety-Related Emergency

Once an accident has occurred, the initial direction and control of rescue and firefighting operations are the responsibility of the airport rescue and firefighting service officer in charge. Rescue and Fire Fighting personnel will be the first to arrive at the accident site; therefore, for a certain period of time this officer will be in command. Once the on-scene commander arrives, the on-scene commander will assume command as outlined in the airport emergency plan. The transition of authority and command responsibility needs to be established previously in the emergency plan and exercised accordingly.

Security-Related Emergency

In case the incident/accident is security-related, the initial direction and control of the situation is the responsible of the airport security service officer in charge. The airport security service officer will be the first to response and in command until the on-scene commander assume command as outlined in the airport emergency plan. The transition of authority and command responsibility needs to be established previously in the emergency plan and exercised accordingly.

4.3.8 Airport Emergency Exercises

Details types and frequencies of airport emergency exercises. The exercises may include but not limited to daily exercise, tabletop exercise, partial emergency exercise, and full-emergency exercise.

Example:

To ensure that the plan is functional and that all agencies are familiar with their roles and responsibilities, and exercise program will be developed by the Airport Emergency Planning Committee. The airport emergency exercise comprises of:

- a. Initial Training on the AEP for New Employees
- b. Recurrent Training on the AEP for Current Employees
- c. Full Scale Emergency Exercise – At least once every two years
- d. Partial Emergency Exercise – At least once every year that a full-scale exercise is not held
- e. Tabletop Exercise – At least every six months, except during that six-month period when a full-scale exercise is held

4.4 Rescue and Fire Fighting

4.4.1 Purpose

This section should cover particulars of aerodrome rescue and firefighting including facilities, personnel, and procedures of the airport operator. The facilities, personnel, and procedures should be prepared based on the aerodrome category specified in (State Regulation Reference). This aerodrome manual should define a responsible person for rescue and firefighting of the airport. The airport can also refer to the *Master Contact List*.

Example:

The rescue and firefighting services is provided with the objective to save lives in the event of accident or incident occurring at, or in the immediate vicinity of, the aerodrome. The facilities of the rescue and firefighting are to be directed at all times for attending at and dealing with an aircraft incident occurring on, or in the immediate vicinity of, the aerodrome.

4.4.2 Responsibility

Explain responsibility of persons who are responsible for ensuring all equipment is available and the appropriate level of protection is available, including the requisite amount of extinguishing agents, to achieve the rated category of the RFF.

Example:

- a. Airport Manager is responsible for providing resources for rescue and firefighting to meet the CAA standard.
- b. The Chief of RFFS is solely responsible for ensuring all equipment is available and the appropriate level of protection is available, including the requisite amount of extinguishing agents, to achieve the rated category of the RFF.

4.4.3 ICAO Aircraft Rescue and Fire Fighting Category

Explain the aircraft rescue and firefighting category of the aerodrome. The criteria for determining the ARFF Category is in (State Regulation Reference)

Example:

The Rescue and Fire Fighting Service assessed category for the aerodrome shall be Category (#) as determined from Requirements of Civil Aviation Authority of (Country) specification.

4.4.4 Reduction of Category

Explain the airport procedures for the reduction of category if the airport cannot maintain the level of protection.

Example:

In case that the facilities and inventory of the rescue and fire fighting fell below Category (#), the Aerodrome will take the following measures:

ARFF Vehicles: The Aerodrome has a mutual aid agreement with (Name). (Name) will lend an ARFF vehicle to (Name) Airport. The specification of the ARFF vehicle shall meet [national requirements on aerodrome certification / ICAO Annex 14].

Consumables: The Aerodrome has an agreement with (Name) to supply the fire extinguisher agent when the airport runs out of the required stock level. According to the agreement, the (Name) will supply the agent within (#) days.

In the event that category cannot be maintained, the matter is to be referred immediately to the Airport Manager and a NOTAM raised to indicate the varied level of coverage available.

4.4.5 Facilities and Inventory

Explain the facilities that the airport prepares for aircraft rescue and fire fighting. The airport should prepare these facilities based on the ARFF Category specified in (State Regulation Reference). The facilities include at least a fire fighting station, ARFF vehicles, tools, equipment, and fire extinguishing agents. These facilities can either be listed in this section or in an aerodrome emergency plan.

Example:

An inventory of all equipment and extinguishing agents held by the Rescue and Fire Fighting Service are included:

a. Response Time

The response time of RFFS is not exceeding [two / three] minutes to any point of each operational runway, and [three] minutes to any other part of the movement area, in optimum visibility and surface conditions. The response time meets the requirement specified in [CAA Requirements].

b. Fire Fighting Station

(Name) Airport has (No. of Stations) stations located at (Specify) to ensure the rescue and fire fighting vehicles meets the response time as specified in paragraph 4.4.5 a.

(Describe the Fire Station including the characteristic of fire station, number of parking space for RFF vehicles, storerooms for RFF equipment and stock amount of water and extinguishing agents)

c. Aircraft Rescue and Fire Fighting Vehicles

(Name) Airport has (No. of ARFF Vehicles) ARFF vehicles. The ARFF vehicles stationed in the airport is to Requirement of Civil Aviation Authority of (Country name & regulation). The specifications of each vehicle are in (Specify) which forms a part of this manual.

d. Tools and Equipment

(Name) Airport provides aircraft rescue and fire fighting tools and equipment for (ARFF category) as the following;

The table below shows ARFF tools and equipment for each ARFF category.

Remarks: Similar to plans, long tables may be organized in the Appendices for easy document control.

Equipment scope	Equipment item	Airport category			
		1-2	3-5	6-7	8-10
Forcible entry tools	Prying tool (hooligan, biel type)	1	1	1	2
	Crowbar 95 cm	1	1	1	2
	Crowbar 1.65 m	1	1	1	2
	Axe, rescue large non wedge type	1	1	1	2
	Axe, rescue small non wedge or aircraft type	1	2	2	4
	Cutter bolt 61 cm	1	1	2	2
	Hammer 1.8 kg – lump or club type	1	1	2	2
	Chisel cold 2.5 cm	1	1	2	2
A suitable range of rescue/cut-in equipment including powered rescue tools	Hydraulic/electrical (or combination) portable rescue equipment	1	1	1	2
	Powered rescue saw complete with minimum 406 mm diameter spare blades	1	1	1	2
	Reciprocating/oscillating saw	1	1	1	2
A range of equipment for the delivery of firefighting agent	Delivery hoses 30 m lengths x 50 and 64 mm diameters	6	10	16	22
	Foam branches (nozzles)	1	1	2	3
	Water branches (nozzles)	1	2	4	6
	Coupling adaptors	1	1	2	3
	Portable fire extinguishers				
	CO ²	1	1	2	3
	DCP	1	1	2	3
Self-contained breathing apparatus – sufficient to maintain prolonged internal operations <i>Note: Ideally one BA set per crew member.</i>	Breathing apparatus (BA) set complete with facemask and air cylinder				
	BA spare air cylinder				
	BA spare facemask				
Respirators	Full faced respirators complete with filters	One per responding firefighter			

Equipment scope	Equipment item	Airport category			
		1-2	3-5	6-7	8-10
A range of ladders	Extension ladder, rescue and suitable for critical aircraft	-	1	2	3
	Ladder general purpose – rescue capable	1	1	1	2
Protective clothing	Firefighting helmet, coats, over trousers (complete with braces), boots and gloves as a minimum	One set per operational firefighter plus a percentage of reserve stock			
Additional items for personal protection	Protective goggles	1	1	2	3
	Flash hoods	One per operational firefighter			
	Surgical gloves	1 box	1 box	1 box	1 box
	Blanket fire resisting	1	1	2	2
Rope lines	Rope line rescue 45 m	1	1	2	2
	Rope line general use 30 m	1	1	2	2
	Rope line pocket 6 m	One per operational firefighter			
Communication equipment	Portable transceivers (hand held and intrinsically safe)	1	2	2	3
	Mobile transceivers (vehicle)	One for each fire vehicle			
A range of hand-held/portable lighting equipment	Hand-held flashlight (intrinsically safe)	1	2	4	4
	Portable lighting – spot or flood (intrinsically safe)	1	1	2	3
A range of general hand tools	Shovel overhaul	1	1	2	2
Rescue tool box and contents		1	1	2	3
	Hammer, claw 0.6 kg				
	Cutters, cable 1.6 cm				
	Socket set				
	Hacksaw, heavy duty complete with spare blades				
	Wrecking bar 30 cm				
	Screwdriver set – slotted and Phillips heads				
	Pliers, insulated Combination 20 cm Side cutting 20 cm Slip joint – multi-grip 25 cm				
	Seat belt/harness cutting tool				
	Wrench, adjustable 30 cm				

Equipment scope	Equipment item	Airport category			
		1-2	3-5	6-7	8-10
	Spanners, combination 10 mm – 21 mm				
First aid equipment	Medical first-aid kit	1	1	2	3
	Automated External Defibrillator (AED)	1	1	2	3
	Oxygen Resuscitation Equipment (ORE)	1	1	2	3
Miscellaneous equipment	Chocks and wedges – various sizes				
	Tarpaulin – lightweight	1	1	2	3
	Thermal imaging camera	-	-	1	2

e. Fire Extinguishing Agent

(Name) Airport prepares the following fire extinguishing agent.

Fire Extinguishing Agent	Quantity

4.4.6 Personnel

Details about ARFF personnel including administration and minimum training requirements.

Example:

ARFF response is available for all scheduled air carrier operations only during (Specify Operating Hours). There are (No. of Shifts) shifts including (Specify Shifts) each shift has (No. of ARFF Personnel) people. ARFF personnel have completed training and keep currency in the topics required by Requirement of Civil Aviation Authority of (Country name & regulation).

4.4.7 Procedures for Meeting the Rescue and Fire-Fighting Requirements

Specify procedures related to rescue and fire fighting. The details of this section can be referred to the Airport Emergency Plan or related SOPs.

Example:

Procedures defining the RFF response to an emergency on the airport have been issued as Standard Operating Procedures (SOP). These are published separately to the Aerodrome Manual as Annex (N) and comprise a part of this Manual.

4.5 Inspection of Movement Area

Particulars for Inspection of Movement Area by an aerodrome operator or aerodrome owner.

4.5.1 Purpose

Define the objectives of aerodrome inspection of movement area. The objective should focus on ensuring the aerodrome standards are met. Therefore, the airport can operate safely.

Example:

The aim of these procedures is to ensure that the movement area, related facilities, and the obstacle limitation surfaces (OLS) are regularly inspected to ensure CAA safety standards are maintained.

4.5.2 Responsibility

Explain responsibility of persons who have roles and responsibilities in aerodrome inspection. These persons may include, but not limited to, an airport manager, an airport operations services, an airport maintenance services, and etc.

Example:

- a. (The Airport Manager) has overall responsibility for ensuring that procedures are established and resources provided for the airport inspections in order to ensure that CAA standards are met.
- b. (The Airport Operations Supervisor) has responsibility for ensuring that daily serviceability inspections are satisfactorily carried out and that appropriate actions/reporting takes place as a result of those inspections.
- c. (The Operations Officers) are responsible for carrying out daily serviceability inspections of the movement area and the OLS.
- d. (The Maintenance Supervisor) has the responsibility for ensuring that signs and lighting inspections are carried out in accordance with the inspection and maintenance schedules as well as supervise the maintenance works for corrections.
- e. (The Airport Maintenance Officer) is responsible for carrying out and recording the inspection and maintenance of all airport lighting systems.

4.5.3 Inspection of Movement Area

Specify types and period of movement area inspection. The inspections should include Regularly Scheduled Inspection, Periodic Condition Inspection, and Special Inspection.

Example:

(Name Airport) has three types of inspection including Regularly Scheduled Inspection, Periodic Condition Inspection, and Special Inspection.

a. Regularly Scheduled Inspection

The airport conducts daily visual inspection. The inspector observes the general conditions of facilities in movement area and their functionality.

b. Periodic Condition Inspection

Periodic condition inspection has similar topics as regularly scheduled inspection but in a more detail. The inspection may require tools or equipment. The inspection is conducted every [X] days/weeks.

c. Special Inspection

Special inspection will be conducted after receipt of the complaint or when unusual condition or unusual event occurs.

4.5.4 Inspection Procedures and Communicating with Air Traffic Control during Aerodrome Inspection

Define the communication procedures between an inspector and the air traffic controller to ensure the quick communication and safe operations. The airport should show the inspection procedures to ensure the safety of a movement area inspection as well.

Example:

For safety of the inspector and aircraft operations, (Name Airport) establishes communication and inspection procedures. The communication procedures between the inspector and air traffic control include:

- a. Before inspection, the inspector will contact ATC for clearance. The inspector will only conduct an inspection in compliance with ATC clearance and when it is safe to conduct the inspection.
- b. When driving a vehicle or on foot on the movement area all inspecting personnel shall keep a continuous lookout and radio listening watch for

aircraft. While operating on the manoeuvring area, all persons must maintain continuous two-way communication with ATC.

- c. Driving vehicle in the airside requires training. The driver must pass the test before the airside driving license is granted. Keep caution and give way to aircraft at all time.
- d. When the ATC informs the driver to clear the runway, the driver will leave the runway without delay and stay outside a runway strip.
- e. The inspector will immediately inform the ATC once the inspection is finished and the inspection left the runway.

For inspection of other area beside the runway, refer to procedures a to c above.

4.5.5 Particulars, Frequencies, and Time of Aerodrome Inspection

Specify details and criteria for inspection of movement area including Regularly Scheduled Inspection, Periodic Condition Inspection, and Special Inspection.

a. Regularly Scheduled Inspection

Regularly Scheduled Inspection should cover pavement, runway strip, RESA, marking, signs, airfield lights, navigational aids, obstacles, fueling station, construction, public protection, and wildlife hazards.

Example:

The Aerodrome Operations Service inspects the airport at least (Times) a day when aircraft activity is minimal in order to minimize the impact on airport operations. At least one inspection will be done during the hours of darkness.

(Please specify inspection schedule)

i) Pavement Areas

The pavement areas shall be smooth. There shall be no cracks, scaling, bumps, low spots, debris and any other abnormality. No holes or pavement lips/ level differences that exceed 3 inches in depth. No vegetation growth that may impede drainage.

ii) Runway Strip and Runway End Safety Areas

(Explain runway strip and RESA dimensions). Runway strip and RESA must be smooth, no ruts, no humps and no object except equipment or installation for air navigation or for aircraft safety purposes which must be at that location. The objects in runway strip and RESA must be frangible.

iii) Markings

Marking in airside shall be correct and clearly visible. The airport will check marking for peeling, blistering, chipping, fading, and obscured. Obsolete marking shall be properly removed although masking by black paint may be accepted as a temporary measure.

iv) Signs

Signs provide important information to pilots while taxiing. Signs shall not cause confusion to pilots. Signs should not be blocked by objects or vegetation.

v) Lighting

The airport conducts a visual inspection to ensure that the airfield lighting is operable and vegetation or deposits of foreign material do not obscure the light fixture. The lights shall be the proper color and are oriented correctly.

vi) Navigational Aids

(Name) Airport navigational aids include aerodrome beacon, wind direction indicator and PAPIs [include those aids in your airport]. The airport safety inspector will check the aerodrome beacon is visible and working properly, wind direction indicator swings freely, the cone is not faded, properly lighted at night and PAPIs are operable.

vii) Obstructions

(Name) Airport concentrates on a visual check of manmade and natural obstacles. The airport also determines if obstructions are properly marked and lighted. If the airport finds an obstacle, the airport shall inform CAA and AIS immediately.

viii) Fueling Operations

The daily inspection on aircraft fueling operations should concentrate on a quick inspection for the most common problems concerning compliance with local fire safety codes. In (Name) Airport, this responsibility lies with the aircraft fueling operator. The airport will randomly inspect the fueling operator from time to time.

ix) Construction

During a construction, the airport safety inspector will check the construction area that

- Stockpiled materials and construction materials are properly stored

- Construction areas are marked and lighted but without causing glare or confusion to pilots and air traffic controllers
 - Barricades are installed
 - No FODs
 - No dangerous condition created by construction activity
 - No attraction to wildlife is caused
- x) **Public Protection** (Remarks: It could be the responsibility of security officers instead depending on the aerodrome.)
During the public protection inspection, check gates, fencing, locks, and other safeguards are in place and functioning properly to prevent inadvertent entry to movement areas by unauthorized persons and vehicles.
- xi) **Wildlife Hazard Management**
(Name) Airport inspects the areas on airport and the areas in its vicinity to minimize and manage the attractions to wildlife. The airport will check for evidence of birds and animals that may have developed. All dead wildlife found and all wildlife aircraft strikes should be investigated and reported to CAA. The airport records the area that birds and animals present, routes, and other information specified in wildlife reporting form.

b. Continuous Condition Inspection

Continuous Condition Inspection should cover ground vehicles, fueling operations, construction, public protection, wildlife hazard management, and foreign object debris.

Example:

The airport users in the movement area can inspect the movement area any time. Hazardous conditions can be reported to (Position) for immediate actions. The continuous condition inspection includes;

i) Ground Vehicles

Vehicle drivers shall follow the airport's procedures and arrangements for the orderly operations of ground vehicles. Vehicles in movement area shall be properly painted. The drivers of vehicles shall be trained properly.

ii) Fueling Operations

Fueling operations shall be observed to ensure that the service provider follows the procedures approved by the airport.

iii) Construction

Unauthorized access to airside and FOD shall be inspected to ensure safety of aircraft.

iv) Public Protection

Gates and fences shall be inspected to prevent unauthorized entry.

v) Wildlife Hazard Management

People in the airside shall monitor wildlife activity. Wildlife activity shall be reported wildlife activity to the airport operations immediately.

vi) Foreign Object Debris

FOD shall be clear of the movement area as soon as it is found. A person who finds aircraft parts will immediately inform (Responsible Person).

c. Periodic Condition Inspection

Periodic Condition Inspection should cover pavement areas, markings, signs, quarterly fuel storage area and loading/unloading stations, mobile fuelers, navigation aids, lightings, and obstructions.

Example:

The Aerodrome Operations conducts a Periodic Condition Inspection of activities and facilities on a regularly scheduled basis but less than daily. The time interval can be weekly, monthly, or quarterly, depending on the activity or facility.

i) Pavement Areas

(Name) Airport measures runway friction by self-wetting continuous friction measuring equipment. The CAA's runway friction standard will be referenced.

(Airport Operations) will report (Airport Operations Supervisor) when rubber buildup at the touchdown zone makes the friction fall below the maintenance planning level. The (Airport Operations Supervisor) will initiate runway cleaning. In case the friction fall below the minimum friction level, (Airport Operations Supervisor) shall immediately report to (Airport Manager), who shall then report the issue to CAA and AIS without delay.

ii) Markings

(Airport Operations) Check pavement markings to ensure they are correct and clearly visible. Markings on concrete and faded asphalt

should be outlined with a black border. The marking shall remain visible at night.

iii) Signs

(Airport Operations) should check signs face for peeling and for fading or faded colors. Contacts and electrical circuit shall be inspected to ensure that the signs are still functional.

iv) Quarterly Fuel Storage Areas and Loading/Unloading Stations

(Airport Operations) will inspect fuel storage area and loading/unloading stations for fire safety. Tools and equipment shall be in good and safe conditions. Signs and placards shall be installed as required by hazardous material standards.

v) Mobile Fuelers

(Airport Operations) will inspect conditions of the fuelers, warning signs and placards and parking area as well as signs and placards on the vehicles.

vi) Navigational Aids

(Responsible Person) will arrange a flight check every [X] months for PAPI, NDB and DME to ensure their serviceability.

vii) Lighting

(Name) Airport conducts power generator and circuit resistance tests every [X] weeks / months. The airfield lights are checked for proper functions every [X] days / weeks.

viii) Obstructions

(Name) Airport will conduct an obstacle survey on airport and in vicinity of airport. The airport will take immediate actions when an obstacle is found.

ix) Aircraft Rescue and Fire Fighting

(Name) Airport determines every [X] weeks/months if the aircraft rescue and firefighting equipment is capable of meeting response times and live-fire drills are being conducted every [X] months. Fire fighting and rescue tools are available and in good conditions.

d. Special Inspection

An airport should conduct a special inspection after receiving a complaint or unusual event such as a heavy rain or an aircraft accident occurs.

Example:

The Aerodrome Operator will conduct a special inspection after receipt of a complaint or when an unusual condition or event occurs on the airport, such as a significant meteorological event, incident, or accident. Special inspections will also be conducted at the end of construction activity. Each special inspection will be documented in (Log). The checklists will be different based on each special inspection. (Airport Operations Supervisors) will determine the items in the checklist.

4.5.6 Inspection Checklist

(Develop inspection checklists as appropriate for your airport)

4.5.7 Reporting the Results of Inspections

Specify an airport procedure for reporting the results of inspections to related parties such as ATC, airport operations supervisor, airport manager, etc. The reporting procedures should consider the urgency of the results. The airport should track the corrective actions.

Example:

- a. In case there is a non-compliance that has a serious effect on safety of aircraft and it cannot be fixed, the (position) will immediately report to (ATC) and his/her supervisor. (Airport Operations) will request issuing NOTAM if needed. Some parts of the airport may be closed when necessary.
- b. If there is a hazard that does not have an effect on safety of aircraft, the (position) will report to (position) for corrections.
- c. Hazards and noncompliance items shall be recorded and marked on airport grid map. If the hazards or noncompliance items cannot be removed immediately, the (Airport Operations) shall properly mark the hazard for follow up actions by (Airport Maintenance).
- d. Inspection findings shall be reported to (Airport Operations Supervisors) for corrections.

- e. (Airport Operations Supervisor) shall record the results in Airport Inspection Results and Monitoring Form contained in Annex[X].
- f. (Airport Operations Supervisor) monitors and tracks correctives actions until the hazards or noncompliance items are removed.

4.5.8 Keeping an Inspection Logbook, and the Location of the Logbook

Details on how the airport keeps record of the inspection, duration of the record keeping, and storage place.

Example:

The results of the airport inspection will be maintained at (Specify Place) for [XX e.g.12] months from the date of inspection. (Responsible Person) is responsible for maintaining the record.

4.6 Movement Area Maintenance

Particulars about the maintenance of paved area, unpaved runway and taxiway, (if any), runway and taxiway strips, RESA, and drainage system.

4.6.1 Purpose

Explain the purpose of movement area maintenance. The main objective is to ensure that airport facilities are well maintained for safe operations of aircraft. If the airport is not well maintained, it may cause hazard to aircraft.

Example:

The aim of movement area maintenance is to maintain paved area, unpaved area and drainage system in a good condition to ensure safety of aircraft operations.

4.6.2 Responsibility

Define responsibility of each person related to movement area maintenance including airport manager, airport maintenance, and airport operations.

Example:

- a. The Airport Manager is responsible for overseeing movement area maintenance to ensure the safe conditions of airport facilities and the safety of aircraft operations. The Airport Manager also has a responsibility to provide an adequate number of personnel, tools and equipment.
- b. (Airport Maintenance) is responsible for supervising maintenance staffs to ensure that preventive maintenance and corrective maintenance are completed and in the conditions required by the [Requirement of Civil Aviation Authority of (Country name)].
- c. (Airport Operations) is responsible for movement area and OLS inspection and coordination with (Airport Maintenance).

4.6.3 Maintenance of Paved Area

Explain the characteristics of airport paved area, pavement standards, and maintenance procedures. The area can be depicted by pictures or lists.

Example:

(Name) Airport (Specify Paved Area) are paved by [asphalt /concrete]. Aprons are paved by [Portland Concrete]. The airport will maintain paved areas to meet the following conditions:

- Pavement lips/ level differences shall not exceed three inches
- No holes that cannot be covered by a 5-inch circle, and the side slope at any point in the hole that exceeds 3 inches in depth and is 45 degrees or greater
- No cracks wide enough to cause directional control problems for an aircraft
- No contaminations or FOD
- No vegetation growth in cracks or along the runway

Non-standard conditions and hazardous conditions shall be recorded and reported to ATS. NOTAM may be issued if needed. Pavement maintenance methods and procedures are contained in (Specify) which comprised a part of this manual.

4.6.4 Maintenance of Unpaved Runway or Taxiway

An airport with unpaved runway or unpaved taxiway is required to specify a method to maintain unpaved runway or unpaved taxiway. In case there is no unpaved runway or taxiway, the airport shall define “The airport does not have unpaved runway and taxiway”.

Example:

(Name) Airport does not have unpaved runway and taxiway.

4.6.5 Maintenance of Runway and Taxiway Strip

Specify the methods used to maintain the runway strip, taxiway strip, landscape area, and cut grass in the airport.

Example:

a. Runway and Taxiway Strips Maintenance

Grasses in runway and taxiway strips shall not exceed [10] centimeters in height. The airport will mow grasses in the strip according to landscape maintenance programme.

b. Unpaved Areas outside Runway and Taxiway Strips

Grasses outside runway and taxiway strips shall be maintained at [10-20] centimeters in height to make it less attractive to wildlife. Trees in the vicinity of the airport shall not become obstacles.

c. Cut Grass

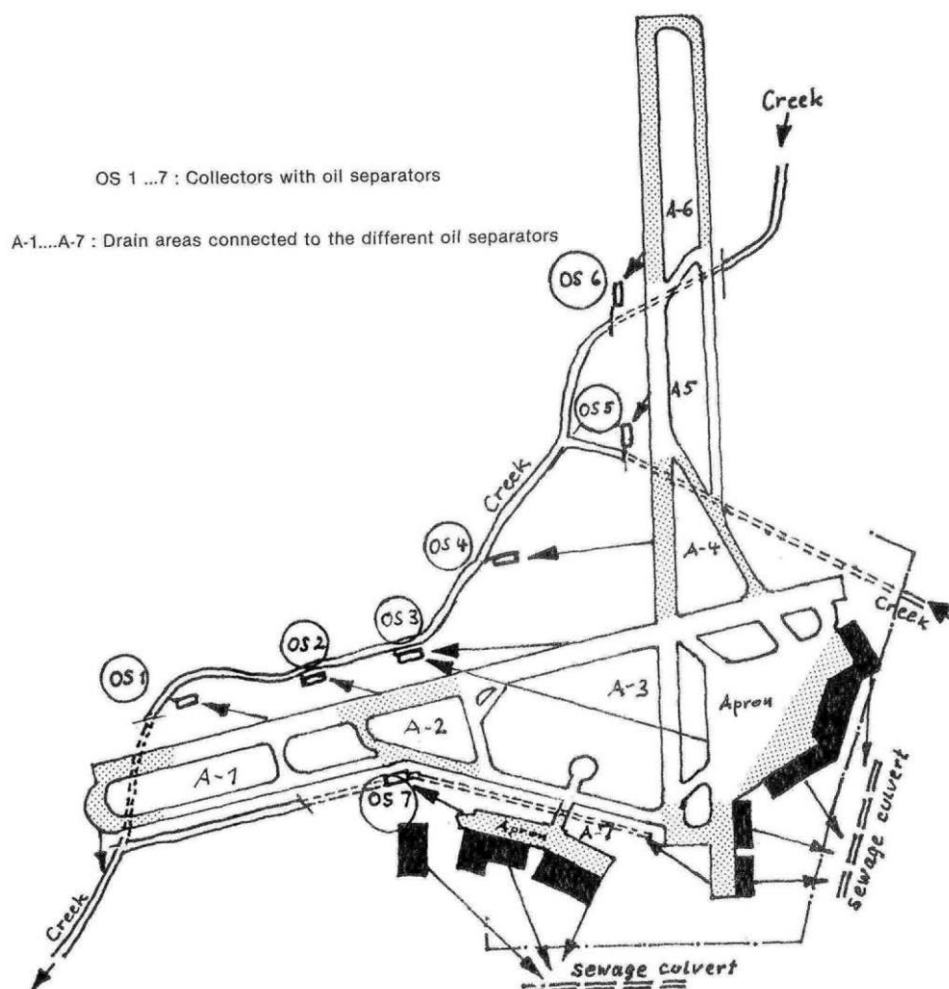
Cut grasses shall be collected and move away from runway strip and composted.

4.6.6 Maintenance of Aerodrome Drainage

Describe an aerodrome drainage system either in texts or by pictures. Explain procedures for maintenance of aerodrome drainage system. The maintenance procedures should cover cleaning, inspecting, and clearing of drainage, fuel separation, and tap water if applicable.

Example:

(Name) Airport has a drainage system and water flow as shown in the picture.



Drainage System Maintenance

- The airport regularly patrols drainage systems in the airport especially before rainy season and in rainy season. Vegetation and object impeding water flow will be clear immediately.

- b. The airport will mow grasses in the drainage system to facilitate flow of water.
- c. The airport dredges the drainage ever two years.
- d. The airport tests water pumps in the airport to ensure they are functional all the times.

4.7 Hazardous Meteorological Conditions

Airport operations can be disrupted by adverse weather. Therefore, an airport need to prepare to prevent and mitigate harmful consequences of adverse weather conditions. Adverse weather conditions are categorized into seven groups including ice, frost, freezing rain, strong winds, rain, snow, and fog or low visibility. An airport shall set up procedures in this part according to its local geography and atmosphere.

4.7.1 Purpose

Define the purpose the airport establishes procedures for hazardous meteorological conditions. The purpose of the procedures should focus on safeguarding an airport and aircraft operations.

Example:

The aim of these procedures is to ensure that the aircraft using the (Name) Airport can be operated safely during adverse weather conditions.

4.7.2 Responsibility

Define responsibility of each person related to adverse weather operations. Responsible persons may include but not limited to an airport manager, an airport operation, a meteorological service provider, an air traffic service provider, a fixed-base operator and a ground handling agent.

Example:

- a. The Airport Manager has overall responsibility to provides procedures related to hazardous meteorological conditions for the airport and ensures that the procedures are implemented.
- b. (Airport Operations) is responsible for inspecting other tenants in airside to ensure the compliance to the rules. The airport operations also conduct runway friction measurement, runway condition report, runway safety inspection and aircraft tie-down and GSE tie-down inspection.
- c. (Meteorological Service Provider) is responsible to report hazardous meteorological conditions including the start and the end of the conditions to ATS unit as stated in the agreement between the ATS unit and meteorological service provider.
- d. (Air Traffic Service Provider) is responsible to warn all operators in airside about hazardous meteorological conditions. The ATS unit also is responsible to initiate hazardous meteorological procedures.
- e. A Fixed-Base Operator and a Ground Handling Agent are responsible for carrying out hazardous meteorological procedures required by the airport and tying down aircraft and GSE in its responsibility.

4.7.3 Procedures and Criteria for Suspension of Operations on the Runway

a. Disseminating Hazardous Meteorological Warning

- i) Meteorological Service Provider informs ATS unit, both in verbal and writing, when forecasting or detecting hazardous meteorological conditions. The hazardous meteorological conditions are in an agreement between (Name) Airport and the meteorological service provider.
- ii) ATS unit informs pilots via (Communication Channel) and the operators in airside via (Communication Channel).
- iii) All operators received hazardous meteorological warning shall follow hazardous meteorological condition procedures.

b. Strong Winds

- i) When there is a strong wind warning, the airport maintenance and contractors will cover material stack and tie down GSE to ensure that there are no loose objects.
- ii) (Aircraft Owners) shall tie down their aircraft and position aircraft heading to a safe direction.
- iii) (GSE Owners) ties their GSE to ensure that GSEs are safe.
- iv) (Airport Responsible Person) is responsible for patrolling the airside especially the areas with high risk to have FODs. In case an FOD is found, a corrective action shall be done immediately. If a corrective action is not possible, the (Responsible Person) will inform ATS unit immediately. GSE accidents and incidents shall be reported to the owners of the GSEs and to an airport safety officer.

c. Thunder Storms

- i) When there is a thunder storm warning on or in vicinity of the airport, (Airport Responsible Person) assesses the risk to airport operations. If the result of risk assessment is high, ceases all airport operations and finds shelters.
- ii) ATS unit reports the latest runway condition report and friction to pilots. ATS unit may request (Airport Responsible Person) to measure the depth of standing water center. The results will be reported to the ATS unit.

4.7.4 Coordination with the Meteorological Service Provider in order to be Advised of Any Significant Meteorological Conditions

(Name Airport) has an agreement with (Meteorological Service Provider). The agreement comprises a part of this manual (Annex).

4.8 Visual Aids and Aerodrome Electrical System

Particulars for aerodrome visual aids and electrical system. The details in this section should include visual inspection as outlined in para 4.5.5 and maintenance of aviation lights, obstacle lights, signs, markings, and aerodrome electrical system.

4.8.1 Purpose

Define the purpose of this section. The main purpose of visual aids and aerodrome electrical system should be to ensure an availability of the system. The details in this section should show the capability of an airport to maintain visual aids and electrical system.

Example:

The aim of these procedures is to detail the arrangements for the inspection and maintenance of airport lighting, signs, markers and electrical systems.

4.8.2 Responsibility

Explain responsibility of persons who have roles and responsibilities in the maintenance of visual aids and aerodrome electrical system. These persons may include, but not limited to, an airport manager, an airport maintenance services, and etc.

Example:

- a. The Airport Manager has overall responsibility for the provision of airport lighting facilities and electrical equipment.
- b. (The Airport Lighting Team Leader) is responsible for ensuring that appropriate maintenance and technical inspections of airport lighting facilities are carried out and recorded in accordance with the standards and the requirements of this manual.
- c. (Airport Maintenance Officer) is responsible for preventive and corrective maintenance of visual aids and aerodrome electrical system.

4.8.3 Visual Aids and Aerodrome Inspections

Visual Aids Operating Manual contains information in this section. An aerodrome operator may refer to the manual.

Example:

Visual aids and aerodrome inspections in business hours and outside business hours are detailed in approved Visual Aids Operating Manual as specify in (Annex).

The checklists for visual aids and aerodrome inspections has been set up according to the manufacturer's manual and modified to suit with the airport circumstances. The checklists for visual aids and aerodrome inspections are contained in (Annex).

4.8.4 Standby Generation

Visual Aids Operating Manual contains information in this section. An aerodrome operator may refer to the manual.

Example:

Standby generation inspections and maintenance methods are contained in Visual Aids Operating Manual as specify in (Annex).

The checklists for standby generation inspections and maintenance methods have been set up according to the manufacturer's manual and modified to suit with the airport circumstances. The checklists for visual aids and aerodrome inspections are contained in (Annex).

4.8.5 Maintenance Procedures

Visual Aids Operating Manual contains information in this section. An aerodrome operator may refer to the manual.

Example:

The maintenance of visual aids and electrical system procedures comprises of preventive and corrective maintenance. The details of the maintenance procedures are in compliance with approved Visual Aids Operating Manualas contained in (Annex).

4.8.6 Fault Reporting System and Record Keeping

Visual Aids Operating Manual contains information in this section. An aerodrome operator may refer to the manual.

Example:

Fault Reporting System and Record Keeping are detailed in approved Visual Aids Operating Manual as contained in (Annex).

4.9 Aerodrome Works Safety

Particulars for aerodrome work safety including working plan, method of working plan, conduct of aerodrome work, and commence of work. This should also cover an urgent work on maneuvering area and area in adjacent.

4.9.1 Purpose

The purpose of Aerodrome Work Safety is to demonstrate that an aerodrome can safely manage work in progress in airside. Works in the airside should have a minimum impact on aircraft operations and functions of navigation aids.

Example:

The aim of these procedures is to describe the arrangements for the planning and safe conduct of works that affect the movement area or OLS.

4.9.2 Responsibility

Explain responsibility of persons who have roles and responsibilities in aerodrome work safety. These persons may include, but not limited to, an airport manager, an airport maintenance services, and etc.

- a. (The Airport Manager) has overall responsibility to ensure operational safety aspects of aerodrome works meet the Requirement of Civil Aviation Authority of (Country name & regulation).
- b. (Airport Maintenance) has a responsibility to ensure that Method of Working Plan (MOWP) is provided and executed.
- c. (Airport Operations) has responsibility to supervise safety of airside especially during construction. The (Airport Operations) also checks Method of Working Plan and ensure the safety of aircraft operations.
- d. (The Project Manager) is responsible for detailed works planning and coordination and ensuring that works are carried out in accordance with the MOWP.

4.9.3 Works Planning

Aerodrome Works can be divided into works that requires a working plan and works that do not require a working plan. A working plan should include movement area closure, markings, issuance of airport circular (to advise the airport community) and issuance of NOTAM (if needed).

Example:

(Name) Airport divides works into two categories.

- a. Airport works that do not require a Method of work plan (MOWP)
 - i) Works that can be completed within 10 minutes and will not disrupt normal aircraft operations are permitted without a NOTAM. Time limited works in this category include grass mowing outside runway / taxiway strip, pavement rolling and sweeping, minor repairs to pavements, maintenance of markings, markers and lights, surveys and inspections.

With ATC agreement, only personnel with hand tools are allowed to work inside the runway strip during aircraft operations under any of the following conditions:

- 1) At all times except during air transport jet operations.
 - 2) At all times for maintenance including grass mowing (operations must be within 2 meters of the markers when inside the runway strip).
 - 3) Ground surveys associated with Navaid flight calibration flights (Navaid calibration).
 - ii) Time limited works requiring more than 10 minutes but no more than 30 minutes, are advised by NOTAM which states the nature of the unserviceability, and the length of time required to terminate work and restore the works area to normal safety standards. The NOTAM is issued at least 24 hours prior to the proposed work to minimize disruption to aircraft flight planning. Unserviceability markings/ markers will be displayed if required.
 - iii) Works that require more than 30 minutes to restore to normal safety standards will be subject of a MOWP except for emergency repairs.

- b. Airport works that require a MOWP.

All scheduled airport works, other than time limited or emergency works, will require a MOWP, and an appropriate NOTAM. In general, these are works that require partial or complete runway or taxiway closures, or will cause significant disruption to aircraft parking arrangements on aprons.

4.9.4 Method of Working Plan

Explain method of working plan, NOTAM issuance, coordination meeting, and distribution of working plan.

Explain construction management including ground vehicles, access route, and stock piles to avoid hazardous condition.

Explain site security and security control of a contractor.

Example:

- a. The MOWP document provides formal advice to the aviation industry and other involved parties of the planned arrangements for the conduct of airport works. In particular, it advises of restrictions placed on aircraft operations and the works organizer as a consequence of the works.

A MOWP will be prepared for works that will have a major operational impact, or cause disturbance to operations over an extended period.

In planning the works, the Project Officer/Manager must consult with organizations that may be affected. The extent and formality of the consultation process will depend on factors such as the complexity and physical scope of the work and likely extent of disruption to normal aircraft operations.

The Project Officer/Manager will consult with CAA when necessary to identify operational impacts and the measures necessary to ensure an acceptable level of aviation safety.

After consultation the Project Officer/Manager will determine the restrictions to works and to aircraft operations. The draft MOWP is referred to the Operations Section for final comment.

Each MOWP is to be signed as approved by the Airport Manager (or in his absence by the Airside Safety Manager).

The MOWP format will be as specified in the CAA Directions Relating to Aerodrome Works. The topics in MOWP are included:

1. Works Information
2. Restrictions to Aircraft Operations
3. Restrictions to Works Organization

4. Administration
5. Drawing
6. Distribution Lists
7. Signature of Approval Person

The MOWP is to be issued at least two weeks prior to the scheduled commencement of work, using the standard distribution list included at the end of this Section.

b. Conduct of Aerodrome Work

i) Airport works that do not require a MOWP.

- 1) Maintenance staffs or contractors accessing to the movement area shall be granted a permit to work in a movement area. The work permit will show times of works, precise areas in which work may be done, the routes to be followed, the R/T procedures, and the reporting procedure to be followed on completion of work.
- 2) Personnel and vehicles associated with the works in the airside shall have a permit from the airport. The airport rules shall be followed while working and driving in the airside.
- 3) Personnel and vehicles shall receive a clearance from ATC before accessing into the movement area.
- 4) The airport does not allow construction or maintenance during low visibility operations. During low visibility operations, maintenance staffs and contractors shall stop works and exit from the airside.

ii) Airport works that require a MOWP.

The airport will ensure that people associated with works requiring a MOWP follow the 4.9.4 (b) i) and also implement these followings;

- 1) Contractors shall submit MOWP and execute the approved MOWP.
- 2) Personnel and vehicles in the airside shall have permits from the airport.
- 3) (Airport Responsible Person) has a responsibility to supervise aerodrome work safety. (Airport Responsible Person) shall:
 - Ensure the safety of aircraft operations and the day-to-day safe conduct of works in accordance with provisions of the MOWP.

- Ensure that the Works are notified by NOTAM and that the text of each NOTAM is exactly as set out in the MOWP.
 - Supply ATC, on a daily basis, with all information necessary to ensure the safe conduct of Works.
 - Discuss with the Works Organizer, Project Manager on a daily basis (and if required with the Airport Operations Supervisor/ Airside Safety Manager also), any matters necessary to ensure the safe conduct of Works in relation to operational safety.
 - Ensure that unserviceable portions of the movement area, temporary obstructions, and the limits of the Works area are correctly marked and lit in accordance with the MOWP.
 - Ensure that vehicles and plant engaged on aerodrome works comply with the obstacle marking and lighting standards or alternatively are directly under escort.
 - Ensure that vehicles, plant equipment and materials not directly in use on the Works, are parked or stored outside the movement area, and do not obstruct the approach, takeoff or transition OLS, or interfere with radio navigational and landing aids.
 - Ensure that access routes are in accordance with the MOWP.
 - Direct the immediate removal of vehicles, plant and personnel from the movement area where necessary to ensure the safety of aircraft operations.
 - Ensure that the movement area is safe for normal aircraft operations following removal of markers, vehicles, plant equipment and personnel from the Works area.
 - Ensure that floodlighting or any other lighting required for works is shielded so as not to cause glare or confusion to pilots and air traffic controllers.
 - Immediately on completion of the works, the Works Safety Officer is to ensure that the Reporting Centre is advised formally of the date of completion and time of cancellation of any associated NOTAM.
- 4) The contractor shall nominate a work safety officer for each project to coordinate with the airport and ensure that MOWP is executed.
 - 5) The work safety officer shall report any hot work and abnormality to the (Airport Responsible Person).
 - 6) The (Airport Responsible Person) will record a daily log of the construction work.

4.9.5 Permit to Commence Work

Specify an airport permission to commence works that may have significant effects on airport serviceability such as airport electrical system or navigation aids.

Example:

In addition to a MOWP, some airport works may also cause disruption (or potential disruption) to the supply of essential engineering services. The Project Officer/Manager shall issue a PERCOW (Permit to commence work) that specifies conditions that must be observed to ensure the maintenance of essential services.

4.9.6 Communication with Air Traffic Service Unit

Workers in an airside shall be equipped with two-way radio communication. They shall be able to communicate with an ATC or airport operations at all time.

Example:

- a. The contractors shall have two-way radio communication ready to communicate with ATC at all time.
- b. The contractors shall establish a communication network to ensure that safety information from the ATC can be transmitted to all concerned contractor staff in a timely manner.
- c. The contractors shall strictly follow ATC instructions at all times.

4.9.7 Working Plan Distribution

Aerodrome owner or aerodrome operator shall distribute a working plan to stakeholders in the airside. The stakeholders may include air carriers, ground handlers, air traffic service provider, airport rescue and firefighting, CAA, airport operations, or other related parties.

Example:

Organization	Telephone Number		Fax
	Operating Hours	Outside Operating Hours	

4.10 Apron Management

4.10.1 Purpose

Define the purpose of apron management focusing on efficiency of apron operations and safety of aircraft. Parked aircraft should have an adequate space as specified in [CAA regulation].

Example:

The aim of these procedures is to provide for the orderly and safe allocation of aircraft parking bays at (Name) Airport. Parking bays have been designed and marked to ensure that appropriate separation distances are maintained and that aircraft refueling and servicing activities can be undertaken without interference to adjacent parked aircraft.

4.10.2 Responsibility

Explain responsibility of persons who have roles and responsibilities in apron management. These persons may include, but not limited to, an airport manager, airport operations, and etc.

Example:

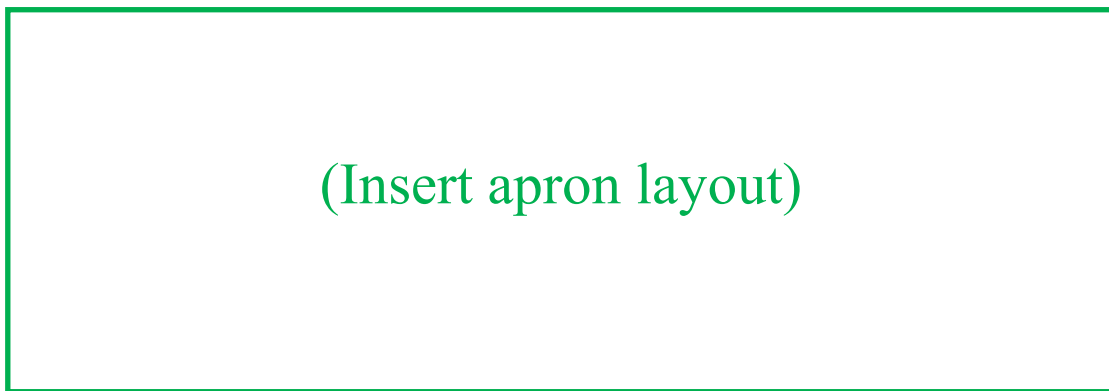
- a. The Airport Manager has overall responsibility for implementing procedures for aircraft parking control and ensure that the airport standard meets the Requirement of Civil Aviation Authority of (Country name & regulation)
- b. (Airport Operations Supervisor) is responsible for creating a manual and SOPs associated with apron management.
- c. (Airport Operations) is responsible for the day-to-day allocation of aircraft parking bays, slot allocation, record aircraft parking information, coordination with other agencies, and supervision of parking procedures.
- d. (Ground Handling Agent or Fixed-Base Operator) is responsible for apron services.
- e. (Air Traffic Service Unit) is responsible for giving instruction to pilots and coordinating between pilots and airport staffs when airport services are requested.

4.10.3 Aircraft Parking Areas

Describe aircraft parking areas by texts or pictures. Define capability of each parking areas according to the largest aircraft that the parking areas can accommodate. Characteristics of each stand should be determined whether it is remote or contact parking.

Example:

(Name) Airport has parking areas with aerobridge and without aerobridge. The layout of apron has shown below.



Each stand can accommodate:

Apron No.	Size/Type of Aircraft	(Contact/Remote)	International/ Domestic	MARS Stand	Remarks

4.10.4 Communication between Air Traffic Control and the Apron Management Unit

Explain communication procedures between air traffic service provider and apron control.

Explain:

- When an aircraft operator request to land or take off at (Name) Airport, the airport will check apron availability and inform the aircraft operator via (ATS Unit).

- b. When an aircraft arrives, (Airport Responsible Person) assigns parking position via (Communication Method) and record in (Specify).
- c. (ATS Unit) gives parking instruction to the pilot via (Specify). The Airport – Air Traffic Services Provider Agreement is contained in (Specify) which comprise a part of this manual.

4.10.5 Allocating Aircraft Parking Positions

Describe aircraft stand allocation and aerobridge services (if applicable). Describe procedures when there is a change in stand allocation.

Explain:

- a. (Airport Responsible Person) prepares a daily allocation plan according to the Standard Times of Arrival and Departure, Flight No., and the intended aircraft type.
- b. (Airport Responsible Person) requests the following real-time information from airline and/or ATC to fine tune the daily allocation plan:
 - i) Estimated Time of Arrival and Estimated Time of Departure
 - ii) Flight No.
 - iii) Aircraft Type
- c. (Airport Responsible Person) considers;
 - i) If the parking bay can accommodate the aircraft, the aircraft can be parked in the stand.
 - ii) If the parking bay cannot accommodate the aircraft, the airport operator will (Specify the Airport Procedures).
- d. If there is an aerobridge, the airport will ensure that:
 - i) A driver of an aerobridge shall be trained. The training program will be in accordance with the manufacturer manual.
 - ii) The driver will be on position [15] minutes prior to ETA/Estimated In-bound Time (EIBT).
 - iii) The marshaller gives signal to the aircraft for docking.
 - iv) When the aircraft parked in position, aircraft technician will ensure the aircraft is properly chocked, then the aerobridge / passenger steps will be contacted to the aircraft.

4.10.6 Initiating Engine Start and Aircraft Push-back

Explain procedures for initiating engine start and aircraft push-back. It may include aircraft self-maneuvering in an aircraft stand.

Example:

- a. When ground services are finished and aircraft is ready for pushback, the pilot shall contact a ATC ground control for a clearance to initiate engine start and pushback. Before engine start or pushback, the pilot shall turn on anti-collision lights.
- b. If the aircraft need to be towed to another stand or other area, the mechanics will be responsible for coordinating with ATC ground control for the clearance. The anti-collision lights shall be turned on from start of push-back / towing until chock in.

4.10.7 Marshalling Procedures

Define a marshalling method such as VDGS or marshaller. The procedures employed by an airport shall comply with (State Regulation Reference).

Example:

- a. (Name) Airport has marshaling services. The airport (has/ does not have) VDGS.
- b. A marshaller shall be trained, checked and qualified to ensure that the signal given to pilots is correct. A qualified marshaller shall have a valid license for operating an aerobridge ready to be inspected at all time.
- c. A marshaller shall equipped with:
 - i) Proper personal protective equipment (PPE) including ear protection, reflective vest and safety shoes.
 - ii) Marshalling wands or marshalling paddles
- d. A marshaller shall inspect the safety of the aircraft stand before aircraft parking.
- e. A marshaller shall maintain eye contact with the pilot-in-command during docking.

4.10.8 Follow-me Procedures

Explain criteria and procedures of follow-me to ensure that the follow-me can operate safely.

Example:

- a. (Name) Airport provides follow me services for low visibility operations, lost communication, pilots who are not familiar with the airport or other safety related matters.

- b. The drivers shall be suitably trained and have a valid airside driving license. The vehicle used for follow me service shall be equipped with a two-way radio.
- c. Procedures;
 - i) When a follow-me vehicle is requested, the driver will drive the car to the aircraft.
 - ii) The [pilot or mechanic / follow-me driver] requests a clearance to ATC.
 - iii) After ATC provides the clearance, the follow-me vehicle will lead the aircraft to its stand. [Pilot or mechanic / follow-me driver] report ATC when the follow-me service is completed.

4.11 Apron Safety

Particulars for apron safety including protection from jet blasts, aircraft refueling operations, apron sweeping, apron cleaning, incident and accident reports, and safety compliance monitoring.

4.11.1 Purpose

The aim of apron safety is to ensure the safety of ground handling operations and minimize risks and hazards of ground operations accident and incident.

Explain:

(Name) Airport manages apron safety to minimize ground operations risks, injuries, loss of life and property and disruption to airport operations.

4.11.2 Responsibility

Define responsibility of persons involving in apron safety such as an airport manager, airport operations, ground handling operators, fixed-base operators, and etc.

Example:

- a. The Airport Manager has overall responsibility to ensure safety in apron as required by CAA.
- b. (Airport Operations) has responsibility to set up procedures relating to apron safety and supervise operations in apron to ensure the compliance of ground operations.
- c. (Ground Handling Agents and Fixed-Base Operators) is responsible for establishment of company's operating manuals in compliance with the minimum standards specified by the airport.

4.11.3 Protection from Jet Blasts

Specify airport's procedures for protection from jet blasts.

Example:

To prevent jet blasts and propeller wash during take-off and landing of the aircraft, the airport set up (Procedures) as contained in (Specify).

Ground handling or fixed-base operator personnel shall be trained in apron safety and attain recurrent training every year.

4.11.4 Aircraft Refueling Operations

Specify airport's procedures aircraft refueling operations.

Example:

Air carriers, ground handling operators, fixed-base operator, and fuel handling agent have responsibility to comply with the airport refueling standards set forth by the airport, contained in [airport document / circular / notice].

4.11.5 Apron Sweeping

Specify airport's procedures for apron sweeping.

Example:

Prior to take-off and landing of aircraft, (Airport Responsible Person) will inspect FOD. (Ground Handling or Fixed-Base Operator Responsible Person) shall inspect apron area prior to aircraft parking. In case there are FOD in large quantities, upon receiving the report, (Airport Responsible Person) will sweep the apron area. (Airport Responsible Person) and (Air Carrier Responsible Person) will joint inspect apron area once sweeping is finished.

4.11.6 Apron Cleaning

Specify airport's procedures for apron cleaning.

Example:

(Name) Airport will clean the apron when requested by users in airside or when a daily airport inspection results in the need of cleaning. The airport will use a proper cleaning agent suitable for types of contaminations.

An aircraft fueling agent is responsible for prevention of spillage and cleaning of such spillage. Spillage shall be contained in a limited area and not contaminate water drainage or water body. Cleaning shall be done immediately. If the fueling agent cannot clean the spillage, the airport will take over the action. The expenses caused by such spillage shall be charged to the fueling agent.

Ground handling agents, fixed-base operator, and air carriers using the airport shall make sure that the apron is clean from FODs or contaminations after the aircraft leave the apron.

4.11.7 Incident and Accident Reports

Specify airport's procedures for incident and accident reports.

Example:

Any accident and incident shall be reported through the airport safety management system. The person causing the incident and accident or the witness shall also report their supervisors immediately.

The Accident and Incident Reporting Form in Annex (#) shall be used. The person causing the incident and accident or the witness shall give detailed information to (Airport Responsible Person) without hesitation.

For immediate hazards or accident / incident requiring immediate follow-up actions, airport staff shall call [airport operation centre] at [phone number] without delay.

4.11.8 Safety Compliance Monitoring

Specify airport's procedures for safety compliance monitoring to ensure ground operations' safety and compliance to standard. An airport shall establish safety compliance monitoring period based on air traffic volume.

Example:

For safety operations in the apron, the airport will set up a minimum standard for ground handling operations. The airport randomly inspects the ground handling procedures to ensure the compliance to the safety standards.

Non-compliances shall be reported to (Airport Operations Officer) and via the airport safety report system. The airport may cease a non-compliance operation that may be harmful.

4.12 Airside Vehicle Control

Particulars for airside vehicle control including applicable traffic rules, driving permits, and enforcement.

4.12.1 Purpose

The aim of airside vehicle control is to prevent accident/incident involving vehicles / equipment, to ensure the safety of ground handling operations and minimize risks and hazards of ground operations.

Example:

The purpose of the Airside Vehicle Control Handbook (the Handbook) is to ensure the safe airside operation of vehicles on (Name) Airport. The Handbook is compiled as Annex (#) to this Manual and forms part of it. However, it is issued as a separate document to this manual.

4.12.2 Responsibility

Define responsibility for persons involving in airside vehicle control. This may include an airport manager, airside operations, airport security, airport safety and other related people.

Example:

- a. The Airport Manager has overall responsibility for the development and implementation of procedures and provision of resources for the control of persons and vehicles entering and operating on the airside of (Name) Airport.
- b. The Airport Operations Supervisor is responsible for ensuring that the provisions of the Handbook are implemented, for conducting audits of Approved Issuing Authorities, and authorizing in writing the appointment of Approved Issuing Officers. The Airport Operations Supervisor also is responsible for carrying out instruction, testing and maintaining records of persons approved for an Authority to Drive in Airside (ADA).
- c. The Airport Security Officer is responsible for screening personnel entering and exiting airside.
- d. Companies wishing to operate a vehicle airside on (Name) Airport are responsible for complying with the Handbook while driving in the airside.

4.12.3 Applicable Traffic Rules

Explain how an airport enforce driving rules. The enforcement may also include privilege to drive in airside, airside driving traffic rules, types of airside driving permits, and training topics.

Example:

Companies and persons requiring access to airside for aviation business purposes must obtain sufficient copies of the Airside Vehicle Control Handbook to provide one for each airside driver. This is the regulatory document for drivers and provides the basis for testing applicants for an Authority to Drive Airside.

The airside operation of each vehicle must be approved by the issue of an Authority for Use in Airside (AUA), which must be displayed on the vehicle. For this purpose, the term vehicle includes any motorized equipment used in aircraft servicing or maintenance.

Each driver must be approved to operate a vehicle airside on (Name) Airport by the issue of an Authority to Drive in Airside (ADA). The ADA will specify the areas where a driver is authorized to operate:

(Specify Categories of Permits)

Approved Issuing Authorities are required to nominate Approved Training Officers for endorsement by the Airport Operations Supervisor. Applicants for an Authority to Drive Airside are to be trained and tested by Approved Training Officers for their

knowledge of:

(Specify topics included in Airside Driving Training)

The Airport Operations Supervisor will audit each Approved Issuing Authority in relation to the above items to ensure that an adequate training course is provided and that records are maintained to demonstrate a uniform standard of training and testing is being provided.

In addition to the above, Approved Issuing Authorities are expected to provide company and equipment/plant specific training and other items such as aircraft towing and pushback procedures to the concerned drivers.

4.12.4 Enforcement

Explain how an airport inspect and enforce its traffic rules. Penalties for violations should be identified in this section.

Example:

- a. (Airport Responsible Person) will randomly inspect vehicles and driving activities for noncompliance.
- b. Operations Officers will log any breaches of the airside driving rules, and report them to the owner of vehicles so that appropriate action may be initiated against offending drivers. The (Airport Responsible Person) will report the breaches of the airside driving rules to the Airport Manager.
- c. Breaches that constitute an incident require submission of an Incident Report form provided in the Airport Safety Management Manual.
- d. A demerit point system is in place for breaches of the Airside Vehicle Control Handbook driver rules. Demerit points are held for a period of [two] years. An Authority to Drive in Airside will be withdrawn for a period of [one] month if a driver accumulates more than [12] demerit points. Subsequent accumulation of an additional [12] demerit points may result in permanent withdrawal of an Authority to Drive in Airside.
- e. Demerit points scale

Violations	Points
Exceeding Speed Limit	
4 - 9 Km/h	2
10 - 14 Km/h	3
15 - 19 Km/h	4
More than 20 Km/h	6
Failing to give way to an aircraft	4
Driving contrary to any other rules in the Airside Vehicle Control Handbook	3
Minor Accident ¹	3
Major Accident ¹	Immediate Suspension

¹ Regardless of driving history, the airport will consider the severity of an accident.

4.13 Wildlife Hazard Management

Particulars for wildlife hazard management including wildlife hazard mitigation, reporting wildlife hazard, wildlife hazard assessment, and wildlife control measurement.

4.13.1 Purpose

Define a purpose of wildlife hazard management. The purpose normally focuses on prevention and mitigation of wildlife hazards. However, the environment should be in mind when manage wildlife hazards.

Example:

The aim of this procedure is to minimize the hazard to aircraft operations created by the presence of birds and/or animals on or in the vicinity of the airport with the environment in mind.

4.13.2 Responsibility

Define responsibility for persons involving in wildlife hazard management. This may include an airport manager, airside operations, airport maintenance, and etc.

Example:

- a. The Airport Manager has overall responsibility for the bird and animal hazard management program for (Name) Airport to minimize accident and incident rates.
- b. (Airport Operations) is responsible for the implementation of the bird and animal hazard management program.
- c. (Airport Maintenance) is responsible for wildlife habitat modification.

4.13.3 Reporting Wildlife Hazard

Define events requiring wildlife hazard report using CAA's wildlife hazard reporting form.

Example:

The airport will report wildlife hazard to the Civil Aviation Authority when these events occur.

- a. A strike between wildlife and aircraft has been witnessed.
- b. Evidence or damage from a strike has been identified on an aircraft.
- c. Bird or other wildlife remains, whether in whole or in part, are found:

- i) Within 75 meters of a runway centerline or within 150 meters of a runway end unless another reason for the animal's death is identified or suspected.
 - ii) On a taxiway or anywhere else on or off the airport that there is reason to believe that it was the result of a strike with an aircraft.
- d. The presence of birds or other wildlife on or off the airport had a significant negative effect on a flight

4.13.4 Wildlife Hazard Assessment

Explain wildlife hazard assessment methods. In case an airport has EIA or EIA Monitoring, an airport may use wildlife hazard management in the study. In addition, an airport shall collect statistics of wildlife control measurements for improvements. The expert advice from an ornithologist will be useful.

Example:

- a. The airport collects wildlife data and wildlife attractants in vicinity of the airport. The data includes types, number, food sources, wildlife habitats, bodies of open water and reproduction sites.
- b. A daily survey of wildlife is conducted during daily movement area inspection. The airport surveys the area in airport and its vicinity three times a year. The daily survey and seasonal survey results will be recorded and reported.
- c. A yearly wildlife hazard assessment will be contained in EIA Monitoring. The details in the report will cover the followings:
 - i) Analysis of the event or circumstances that prompted the study.
 - ii) Identification of the wildlife species observed and their numbers, locations, local movements, and daily and seasonal occurrences.
 - iii) Identification and location of features on and near the airport that attract wildlife.
 - iv) Description of the wildlife hazards to air carrier operations.
 - v) Recommended actions for reducing identified wildlife hazards to air carrier operations.
- d. The results of the assessment will be passed to the airport ornithologist for analysis and presented in term of Risk Matrix.
- e. The airport assesses the effectiveness of wildlife hazard management plan to improve the techniques used in wildlife hazard management plan.

4.13.5 Wildlife Hazard Management Program (WHMP)

An airport should establish Wildlife Hazard Management Program based on wildlife hazard management assessment. Wildlife Hazard Management Plan should include habitat modification, harassment, lethal method, and other measurements as necessary. The Plan shall take into account the expert advice from an ornithologist.

Example:

The airport establishes a wildlife hazard management plan based on wildlife hazard assessment derived from EIA Monitoring Report.

The airport has four wildlife hazard mitigation measurements which are habitat modification, harassment techniques, wildlife removal and aircraft flight schedule modification. The details of these techniques are contained in (Name) Airport Wildlife Hazard Management Plan.

4.14 Obstacles Control

Particulars for aerodrome obstacles control, obstacle monitoring, and obstacle reporting. Obstacles are both natural and manmade.

4.14.1 Purpose

Specify the purpose of obstacle control on airport and in vicinity. The control of obstacles protects an aircraft using an aerodrome.

Example:

The aim of these procedures is to ensure that suitable provision is made to monitor and control the erection of temporary and permanent structures that may adversely impact aircraft operations.

4.14.2 Responsibility

Define responsibilities of persons involving in obstacles control such as an airport manager and airport operations.

Example:

- a. The Airport Manager has overall responsibility for establishing procedures to monitor and notify the presence of obstacles to CAA, and to control the erection of temporary and permanent structures in the vicinity of the airport.
- b. (Airport Responsible Person) are responsible for day-to-day monitoring of the OLS and PANS-OPS to detect unapproved obstacles, report to the Airport Manager and to take measures to have them removed or lowered to a safe operational height.

4.14.3 Administration of Obstacle Control

Explain how an airport monitor and control obstacles on and in vicinity of airport, control of construction works, and report to CAA.

Example:

- a. Visual inspections of obstacles will be conducted during daily airport inspection by (Responsible Person)
- b. If a temporary obstacle is found, (Responsible Person) will:
 - i) Immediately inform an air traffic service unit.
 - ii) If the obstacle is in airport perimeter, the airport will immediately remove it. If not, (Responsible Person) will negotiate with the owner of the obstacle to lower or remove the obstacle.

- iii) If the negotiation fail, the airport will:
 - 1) Report to a local authority to help with negotiation
 - 2) Inform and consult with air traffic service unit to find a mitigation method if the obstacle is in Take Off or Approach Surface, or the Obstacle Free Zone (for airports with precision CAT II or III approaches). The airport may reduce a declare distance if necessary.
 - 3) If the obstacle is outside of Take Off or Approach Surface, or the Obstacle Free Zone (for airports with precision CAT II or III approaches), (Airport Responsible Person) issues NOTAM and liaise with ATC to limit certain types of operations.
 - iv) The airport will cancel the NOTAM and inform ATS when the obstacle is removed.
- c. (Airport Responsible Person) will assess and inspect an object in OLS as soon as it is reported. If the object is an obstacle, the (Responsible Person) will issue NOTAM and report CAA immediately.

4.15 Removal of Disabled Aircraft

Details removal of disabled aircraft. Normally, an aircraft owner or air carrier has a responsibility to remove disabled aircraft. However, an airport may intervene when the aircraft owner cannot remove the disabled aircraft in a timely manner. Therefore, an airport should prepare tools, equipment, and materials necessary for removal of disabled aircraft. An airport may own or make a contract with another airport or suppliers in order to have a quick support. A disabled aircraft removal plan can be incorporated in an Aerodrome Emergency Plan.

An airport may also have the removal plan in this manual. The contents of the plan shall comprise of:

- Purpose
- Responsibility
- The roles of the aerodrome operator and the holder of the aircraft certificate or registration
- Arrangements for notifying the holder of the certificate of registration
- Arrangements for liaising with the air traffic control unit
- Arrangements for obtaining equipment and personnel to remove the disabled aircraft
- The names, role and telephone numbers of persons responsible for the removal of disabled aircraft

4.15.1 Purpose

Example:

The aim of the Disabled Aircraft Removal Plan is to provide for an efficient, coordinated response to quickly and safely remove a disabled aircraft that has caused temporary closure of a runway, taxiway, or affected the OLS.

The details of disabled aircraft removal are contained in the (Name) Airport Aircraft Disabled Removal Plan which comprise a part of the (Name) Airport Emergency Plan. The plan covers:

- The roles of the aerodrome operator and the holder of the aircraft certificate or registration
- Arrangements for notifying the holder of the certificate of registration
- Arrangements for liaising with the air traffic control unit
- Arrangements for obtaining equipment and personnel to remove the disabled aircraft
- The names, role and telephone numbers of persons responsible for the removal of disabled aircraft

4.16 Handling of Hazardous Materials

4.16.1 Purpose

Define the purpose of the procedures related to handling of hazardous materials to ensure safe delivering, handling, storing, and disposing of hazardous materials.

Example:

The aim of these procedures is to ensure the safe handling of hazardous materials or dangerous goods on airport, including:

- Explosives
- Gases
- Flammable Liquids
- Flammable Solids
- Oxidizing Substances and Organic Peroxides
- Toxic Substances and Infectious Substances
- Radioactive Materials
- Corrosive Substances
- Miscellaneous Dangerous Substances and Articles

The procedures are intended to ensure both public safety and the continued safety of aircraft operations.

4.16.2 Responsibility

Define responsibilities of persons involving in Handling of Hazardous Materials such as an airport manager, airport operations, air carriers, fueling operators, etc.

Example:

- a. The Airport Manager has overall responsibility for establishing procedures to ensure the safe handling of hazardous materials at the Airport by providing appropriate storage area, qualified personnel, and resources for handling of hazardous materials.
- b. The Chief of RFFS has the responsibility to provide immediate response to handle accidents and incidents involving hazardous materials that take place in the movement area.
- c. The Senior Operations Officer is responsible for supervising overall procedures including storing, transporting, and disposing of hazardous materials.
- d. Ground handling operators and fixed-base operators involving in fueling operations are responsible for safety inspection of their fueling facilities and equipment and establishment of their safety procedures for storing and dispensing of fuel.

4.16.3 Hazardous Materials Storage Area

An airport should designate a specific area to store flammable liquids, aviation fuel, and other hazardous materials. [Department of Industrial Works] has set up requirements for hazardous materials storage.

Example:

a. Flammable Liquids

Flammable Liquids shall be stored only in designated and approved storage units. No one shall store flammable liquids with in the airport property without a permission from the airport.

b. Any Other Hazardous Materials

Other hazardous materials shall be stored in the area approved by the airport. The storage area shall meet the requirements of the [Department of Industrial Works].

4.16.4 Methods to be Followed for the Delivery, Storage, Dispensing and Handling of Hazardous Materials

Explain methods to be followed for the delivery, storage, dispensing and handling of hazardous materials according to the requirements of the Department of Industrial Works. The methods should also include emergency procedures when there is a leakage.

Example:

a. Delivery of Hazardous Materials

- i) Drivers shall ensure that hazardous materials are properly secured and covers or tarps are securely lashed before moving off. Hazardous materials shall be delivered by a vehicle designed to safely deliver the specific types of hazardous materials.
- ii) Packages with orientation markings (i.e. arrows) must be secured in a manner that will keep the package in the correct position (arrows up) throughout the transportation process.
- iii) Sources of ignition, such as smoking and open flames, are prohibited where hazardous material is delivered.
- iv) The vehicle's parking brake must be engaged during the loading/unloading process.

b. Storage

- i) Hazardous materials shall be stored in the area approved by the airport.
- ii) Hazardous materials shall be segregated as required by the [Department of Industrial Works].

c. Handling of Hazardous Materials

i) Hazardous Material Incident

- 1) Contact (Airport Rescue and Fire Fighting)
- 2) Do not come in contact with the substance
- 3) Identify the chemical/s and hazards involved – check Material Safety Data Sheet (MSDS). Use the information on the physical and chemical properties of the material to derive response and/or evacuation procedures.
- 4) Raise the alarm – evacuate non-contaminated persons from the area. Isolate contaminated individuals and treat as per MSDS. Isolate affected persons and keep on site.
- 5) Assist the emergency response personnel and provide the MSDS if the chemical is known.
- 6) Ensure that hazardous materials will not spill into water or drainage.
- 7) Clean up the area and refill the emergency kit.

ii) Disposal of Hazardous Materials

- 1) Hazardous chemical waste, absorbent materials, waste water, expired chemicals, contaminated containers, contaminated pallets, and other contaminated objects shall be disposed of properly. The disposal methods are specified in MSDS. The airport may contract a certified company for disposal of hazardous materials.
- 2) Contaminated containers can be disposed or reused if treated properly.

4.17 Low Visibility Operations

Particulars for low visibility operations, runway visual range measurement, runway visual range report, and low visibility procedures. Low visibility procedures only applicable for an airport with Cat II and III Approach and/or Low Visibility Take-off. An airport may state that this is not applicable in case an airport does not have Cat II and Cat III Approach and/or Low Visibility Take-off.

4.17.1 Purpose

Specify a purpose of low visibility operation procedures at an airport. The purpose should mainly focus on safeguarding of aircraft operations and people in the airside.

Example:

The aim of these procedures is to provide pilots with information relevant to aircraft departures / arrivals in conditions of low visibility at the Airport.

4.17.2 Responsibility

Define responsibilities of persons involving in low visibility operations such as an airport manager, airport operations, airport security, and etc.

Example:

- a. The Airport Manager has overall responsibility for ensuring that low visibility procedures are developed and sufficient resources are available.
- b. (Airport Operations) is responsible for carrying out Runway Visibility Range measurement when requested by ATS.
- c. (Airport Security) is responsible for controlling the access to airside when low visibility procedure is activated. Unauthorized person shall not allow to access the airside under low visibility operations.

4.17.3 Measurement and Reporting of Runway Visual Range

Explain runway visual range measurement and reporting procedures.

Example:

- a. Runway Visual Range Measurement
 - i) (Airport Responsible Person) measures Runway Visual Range by counting the runway edge lights. (Airport Responsible Person) will park a truck at a designated point and stand on the truck.
 - ii) (Airport Responsible Person) counts the runway edge lights and convert the number of runway edge lights to the Runway Visual Range.

- iii) The airport will have two (Airport Responsible Persons) counting the runway edge light. The number used for conversion shall be the arithmetic mean of the results from the (Airport Responsible Persons).
- iv) The airport may use a pilot report for the runway visual range conversion. The following table will be used to converse visibility to the runway visual range.

Lighting Elements in Operations	RVR/CMV = Reported Meteorological Visibility multiplied by:	
	Day	Night
High intensity approach and runway lighting	1.5	2.0
Any type of lighting installation other than above	1.0	1.5
Nolighting	1.0	N/A

A conversed runway visual range shall not be used if it is below 800 meters or if there is a more precise measurement method available at the airport at that time.

- v) (Name) Airport will multiply meteorological visibility by 1.0 during the day and 1.5 during the night.

b. Runway Visual Range Report

- i) The (Airport Responsible Person) will report runway visual range below (Specify) meters to ATS via telephone or radio.
- ii) (Airport Responsible Person) will report the following conditions to ATS:
 - 1) Low Visibility Condition Warning is a warning visibility before activating low visibility operations. RVR for Low Visibility Condition Warning is (Specify) meters but not below (Specify) meters.
 - 2) Low Visibility Condition Phase A is a visibility that Low Visibility Procedure is activated. RVR for Low Visibility Condition Phase A is (Specify) meters but not below (Specify) meters.
 - 3) Low Visibility Condition Phase B is a visibility below (Specify) meters.

- iii) ATS will inform all operators in the airside the low visibility conditions via (Specify). The report includes the measured runway visual range.
- iv) All operators in the airside shall activate their low visibility procedures when informed by the ATS.

4.17.4 Low Visibility Procedures

Explain low visibility procedures including low visibility warning, information distribution, Low Visibility Phase A, Low Visibility Phase B, and cancellation of low visibility procedures.

Example:

a. Low Visibility Warning

- i) ATS informs all operators in the airside.
- ii) (Airport Security) limits airside access to authorized person only.
- iii) (Airport Operations) coordinates with contractors or airport maintenance staffs in maneuvering area for evacuation to safe area and secure the area.
- iv) (Airport Rescue and Fire Fighting) prepares for emergency response.
- v) (Airport Operations) inspects runway and runway lights. Any unserviceable lights or hazards shall be reported to (Airport Maintenance) or (Responsible Person) for corrective maintenance. The hazards shall be reported to ATS.
- vi) (Airport Maintenance) shall fix the hazard conditions as soon as possible.
- vii) Air carriers, ground operators and personnel associated with airside operations inform their subordinates about low visibility condition warning. They may continue their duties. Vehicles with siren lights may stay in the airside, but vehicles without siren lights shall not be in the airside. The drivers shall drive carefully, turn on low beam and siren at all times.

b. Low Visibility Phase A

- i) ATS activates low visibility procedures and informs all operators in the manoeuvring area to cease operations and evacuate from the maneuvering area until the low visibility operation ends. Runway lights shall be turned on. Runway and taxiway crossing shall be limited.
- ii) (Airport Security) limits the number of personnel accessing to the airside. Only personnel who has a duty in the airside during the low visibility operation is allowed to access.

- iii) **(Airport Operations)** informs passengers in the terminal about low visibility operations and possibility of a delay. Follow-me vehicles shall be ready to operate when requested. **(Airport Operations)** shall inspect ground vehicles to ensure that the drivers turn on low beam and siren.
 - iv) **(Airport Rescue and Fire Fighting)** prepares for emergency response.
 - v) Air carriers, ground operators and personnel associated with airside operations inform their subordinates about low visibility condition warning. They may continue their duties. Vehicles with siren lights may stay in the airside, but vehicles without siren lights shall not be in the airside. The drivers shall drive carefully, turn on low beam and siren at all times. Runway and taxiway crossing shall be kept to a minimum, done with cautions and only when receive ATC clearance. Workers shall not remain in maneuvering area.
- c. **Low Visibility Phase B**
 - i) ATS activates Low Visibility Procedures Phase B and informs all operators to evacuate from the maneuvering area. ATS may use the same procedures as Low Visibility Phase B.
 - ii) **(Airport Security)** limits the number of personnel accessing to the airside. The **(Airport Security)** will not allow anyone except people associated with aircraft operations to access the airside.
 - iii) **(Airport Operations)** informs passengers in the terminal about low visibility operations and possibility of a delay. Follow-me vehicles shall be ready to operate when requested. **(Airport Operations)** shall inspect ground vehicles to ensure that the drivers turn on low beam and siren. The **(Airport Operations)** will coordinate evacuation of all vehicles with no siren.
 - iv) **(Airport Rescue and Fire Fighting)** prepares for emergency response.
 - v) Air carriers, ground operators and personnel associated with airside operations inform their subordinates to **ceases all operations**. Only allow vehicles with siren in the airside. Airside drivers shall turn on low beam and siren at all times. All operators shall limit their operations to minimum. All people in the maneuvering area shall be evacuate. Do not tow an aircraft except ATC clearance is granted and a follow me vehicle is available.
- d. **Cancellation of Low Visibility Operations**
 - i) When meteorological service provider or (Airport Responsible Person) observe that RVR become normal or improve from Phase B to Phase A, inform the ATS.
 - ii) ATS announce cancellation or changes the level of Low Visibility Procedures to all operators.

4.18 Protection of Site for Navigation Aids

Particulars of the procedures should be provided for the protection of sites for radar and radio navigational aids located on aerodrome to ensure that their performance will not be degraded. The procedures should also include control of activities in the vicinity of radar and navigation aids installations, ground maintenance in the vicinity of these installations, and supply and installation of signs warning of hazardous microwave radiation.

4.18.1 Purpose

Define objectives of the procedures for the protection of sites for radar and radio navigational aids. The purpose should focus on controlling works in vicinity of navigation aids and protecting people and equipment from radiation.

Example:

The aim of these procedures is to ensure there will be no interference to the operation of navigation aids at the Airport caused by the erection of structures, or work activities within the vicinity of a navigation aid or associated cabling.

4.18.2 Responsibility

Define responsibilities of persons involving in protection of sites for navigation aids including an airport manager, airport maintenance, airport operations, and etc.

Example:

- a. The Airport Manager has overall responsibility for establishing procedures to ensure that activities under his direct or indirect control do not have an adverse impact on the safe operation of radar and Nav aids.
- b. The Works Project Manager, or any other staff member controlling any work activity on the airport, is responsible for informing airport operations about effects on cables associated with the facilities.
- c. Airport Operations is responsible for advising ATC of any works proposals that may affect the operation of radar or Nav aids on the airport.

4.18.3 Arrangements for the Control of Activities in the Vicinity of Radar and Nav aids Installations

Explain arrangements for the control of activities in vicinity of radar and navigation aids including communicating with ATC and work safety in the area to ensure safety and performance of navigation aids.

Example:

- a. The Airport Manager's nominees with responsibility for airport works are required to give prior notification to ATC of:
 - i) Work activities in the vicinity of radar and Nav aids on the Airport which might affect the signals to and from those facilities; and
 - ii) Proposed excavation work within 3m of cables associated with the facilities.
- b. This advice may be either verbal or provided formally during the planning stage of a MOWP or PERCOW.
- c. The Airport Manager will prepare a Permit to Commence Work (PERCOW) or a Method of Works Plan MOWP) for any activity that may affect aircraft operations by causing interference with a radar or Nav aid, or its signal to aircraft. Planning for such work will include input from ATC.
- d. ATC is to establish any restrictions necessary. A copy of any MOWP or PERCOW issued for such works is to be forwarded to ATC for comment.
- e. The Works Project Manager and WSO will ensure that all persons involved in works on the airport understand and comply with the restrictions imposed to protect the radar, Nav aids, and their associated cables. This applies to staff, sub-contractors, and any other organization required to carry out work at the airport.
- f. (Name) Airport installed fence and lock at VOR/DME and NDB stations to prevent unauthorized pedestrians interfering radio signal.

4.18.4 Arrangement for Ground Maintenance in the Vicinity of these Installations

Explain arrangement for ground maintenance in vicinity of radar and radio navigation aids to prevent hazards and degraded performance of navigation aids.

Example:

- a. (Name) Airport maintains the area around navigational aids to ensure there is no obstacles to radio signal. The airport conducts the area inspection at the same time with daily inspection and periodic maintenance program.
- b. (Airport Staffs) accessing the maintenance area shall follow airside access procedures.
- c. (Airport Maintenance) is responsible for preventive and corrective maintenance of navigational aids and the surrounding areas.

4.18.5 Arrangements for Supply and Installation of Signs Warning of Hazardous Microwave Radiation

(Name) Airport inspects warning signs on the fences surrounding the navigational aids. The signs shall be visible and shall not be blocked by vegetation. (Name) Airport also installs markers for ILS critical area. The markers are made of a material that do not interfere with radio navigational aids.

SECTION 4.19 REPORTING OF RUNWAY SURFACE CONDITION

Refer to Part 5 Section 1 of this Manual for the contact details of those persons identified as having responsibility for implementing the procedures detailed in this Section

4.19.1 Purpose

The aim of these procedures is to ensure that the aerodrome staff is equipped enough to meet the requirement of new global reporting system and format for assessing and reporting runway surface conditions applicable as of 05 November 2021.

4.19.2 Responsibilities

- a) The (Airport Manager) has the overall responsibility for ensuring that procedures are established and trainings & resources are provided for assessment and reporting of percentage of coverage and depth of contaminant for each third of runways in order to ensure that CAA standards are met.
- b) The (Airport Shift Supervisor) has the responsibility for ensuring that, when required, runway surface assessment are satisfactorily carried out and that appropriate actions/ reporting takes place as a result of those assessments and as per reporting protocol. He is also responsible for collection of data, production of RCR, dissemination of information to ATS/AIS, and timely updating of RCR. He is also responsible for coordination with other stakeholders such as ATS, Meteorology, airlines and aircraft operators.
- c) The (AIS Officer) is responsible for publication and updating of RCR report in SNOWTAM format as given in Appendix A to this section.

4.19.3 Legislation, Standards and Technical References

Regulation (XYZ) requires the aerodrome operator to assess aerodrome surface conditions and disseminate such information through the relevant SNOWTAM/ATS/AIS.

As per Regulation (XYZ.1) the aerodrome operator is expected to Develop procedures for the collection of data, production of RCR, dissemination of information to ATS/AIS, and updating of RCR.

Regulation (XYZ.2) requires aerodrome operator has to identify personnel who would be responsible for GFR related tasks and these personnel are adequately trained.

This section is based on the CAA guidance material (Aerodrome Advisory Circular xx/yy dated --/--/2021)

4.19.4 Runway Surface Condition Reporting

4.19.4.1 (RCR assessor) evaluates the runway surface conditions whenever water, snow, slush, ice or frost are present on an operational runway and assigns a runway condition code (RWYCC) along with a description of the runway surface for use by the flight crew for aeroplane performance calculations.

(RCR assessor) shall report RWYCC for each third of the runway assessed and shall ensure that the assessed information is provided to the AIS/ATS in the correct format and subsequently must report significant changes without any delay to AIS/ATS.

The information so reported shall be compliant with the RCR which consists of aeroplane performance calculation section and situational awareness section as outlined in CAA (Aerodrome Advisory Circular xx/yy dated --/--/2021)

(RCR assessor) shall initiate updating RCR when a change in the runway surface condition used in the runway condition report is considered significant. The significant change shall be considered whenever there is any change in the RWYCC, any change in contaminant type, any change in reportable contaminant coverage, any change in contaminant depth and any other information, for example a pilot report of runway braking action, which according to assessment techniques used, are known to be significant. Refer to CAA (Aerodrome Advisory Circular xx/yy dated --/--/2021) for coverage of contaminant and its depth.

Part 5 – Aerodrome Administration and Safety Management System

5.1 Organization Structure

Please Insert Aerodrome Organizational Chart here

5.2 Roles and Responsibility

Please specify roles and responsibility of each key positions in the aerodrome organizational chart. The positions may include an airport director, airport operations manager, building manager, aircraft rescue and fire fighting manager, etc.

Example:

5.2.1 Airport Director

- a. Supervise and coordinates with airlines, general aviation, and military tenants use of airport facilities
- b. Review airport tenant activities for compliance with terms of leases or other agreements
- c. Supervises enforcement of aircraft air and ground traffic and other applicable regulations
- d. Confer with airlines, tenants, the Myanmar DCA, and others regarding airport regulations, facilities, and related matters
- e. Participates in planning for increased aircraft and passenger volume and facilities expansion
- f. Determines and recommends airport staffing requirements
- g. Coordinates airport activities with construction, maintenance, and other work done by departmental staff, tenants, public utilities and contractors
- h. Manage safety and security of the airport to ensure the compliance with CAA standards
- i. Promotes acceptance of airport oriented activities in surrounding communities
- j. Promotes air traffic and other businesses to the airport

5.2.2 Airport Operations Manager

- a. Enforcing operating and security rules, regulations, and procedures concerning aircraft operations and landside operations
- b. Inspecting conditions of airfield lighting, runway, taxiway, and ramp area
- c. Inspecting the airport for daily operations readiness
- d. Correcting hazardous conditions
- e. Coordinating airside and landside activities with maintenance and security personnel

- f. Assisting in all emergency calls and disasters
- g. Investigating and reporting on complaints and disputed airport operations

5.3 Airport Committees

Please describe all airport committees in this section. The committee(s) should be responsible for safety, security, emergency, facilitation or other committees as necessary. There may be one or more committees depending on the complexity of airport operations.

Example:

Airport committees include;

1. Airport Safety Committee
2. Airport Security Committee
3. Airport Emergency Committee
4. Airport Facilitation Committee
5. Runway Safety Team

The details of each committee are contained in (Specify) and comprise a part of this manual.

5.4 Aerodrome Personnel Qualifications & Procedures

5.4.1 Training Program

Please specify Airport Training Program or Training Methods for all positions involving in airport operations and key management such as airport manager, airport safety personnel, airport operations personnel, airport maintenance personnel, etc. The aerodrome operator may refer to the airport training program as a separate document.

Training program shall indicate that the airport personnel are qualified and be able to safely perform their duties.

5.4.2 Training and Checking Procedures

Please specify the airport training regime, procedures, and assessment processes. The methods used to ensure that continuous assessments and proficiency checks are to take place in roles that applicable.

The roles may include, but not limited to;

- Airport Manager
- Airport Operations
- Airport Maintenance

- Airport Safety
- Airport Security
- Airport Rescue and Fire Fighting

5.5 Exemptions and Deviations

5.5.1 Exemptions

The aerodrome operator shall summarize the current exemptions for the airport that have been issued by the CAA. The table below is an example:

Reference	Period	Description
####	4-May-2003 or until withdrawn	Embraer 120 operations on Taxiway Romeo – Exemption against non-standard width
####	Valid until varied or withdrawn	Dash-8 operations on Taxiway Romeo – Exemption against non-standard width

To have CAA issued exemptions, the aerodrome operator shall conduct an Aeronautical Study and it must be approved by the Director General of the Civil Aviation Authority.

5.5.2 Deviations

In emergency conditions requiring immediate action for the protection of life or property, the aerodrome may deviate from any requirement of CAA, or the Aerodrome Manual, to the extent required to meet that emergency. The aerodrome operator who deviates from a requirement under this section must, within 1 day after the emergency, notify the Civil Aviation Authority of the nature, extent, and duration of the deviation. When requested by the Civil Aviation Authority, the Aerodrome Operator must provide the details of such deviation in writing.

5.6 Safety Management System

Please specify airport safety management system in accordance with CAA's aerodrome manual standard. The particulars of safety management system in this section should be referred to the Airport Safety Management Manual which comprises a part of this manual. Example:

(Name) Airport has a separated manual for airport safety management system. The details in (Name) Airport Safety Management Manual will be in accordance with the requirements of CAA.

ABBREVIATIONS

ATC	-	Air Traffic Control
.....	-	

ANNEX

1. Aerodrome Emergency Plan

EXHIBIT

1. Aerodrome Layout Plan

AP-AA/WG TASK LIST (amended in AP-AA/WG/3)

	ACTION ITEM/PLANNED ACTIVITIES	RESPONSIBLE PARTY	TIME FRAME	STATUS	REMARKS
1/1	Develop a survey on States which have not completed the implementation of aerodrome certification for all international aerodromes, with an AGA EI below 75% and/or AOP air navigation deficiencies to establish the requirements for assistance	India to lead Bangladesh, Nepal and Thailand to assist	December 2019	~~Open~~ Closed	From TOR Conclusion AOP/SG/4-8 agreed to circulate the survey to APAC States / Administrations Circulated through SL AN 3/3 – AP258/20 (AGA) dated 18 December 2020 Interim results presented in AP-AA/WG/3 WP/12 [Continued in Task 3/1]
1/2	Review the status of air navigation deficiencies in the field of AOP (as listed in the APANPIRG air navigation deficiencies database) and assist the concerned State(s) to develop corrective action plans	States COSCAPs to support	Continuous	Open	From TOR
1/3	To assist States which have not completed the implementation of aerodrome certification for all international aerodromes and/or with an AGA EI below 75% in establishing an aerodrome certification process, develop a set of generic documents, such as: (a) specific operating regulations;	Thailand to lead (c & d) Philippines – item (c) Bangladesh – item (d) India – item (e) & (f) Nepal – item (g) Malaysia (lead), India and Nepal – item (a), (b) & (h) Secretariat to support Request support from	January 2020	~~Open~~ Closed – Item (a), (b), (c), (e), (f), (g) & (h) Open - Item (d) and (h)	From TOR Tasks 1/3 (c) and (g) completed and documents are posted on APAC Website https://www.icao.int/APAC/Pages/eDocs.aspx Agreed by Decision AOP/SG/4-7 SL AN 3/3 – AP257/20 (AGA) dated 18 December 2020 Task 1/3 (a), (b), (e), & (f) completed.

	ACTION ITEM/PLANNED ACTIVITIES	RESPONSIBLE PARTY	TIME FRAME	STATUS	REMARKS
	(b) organization structure of the aerodrome regulatory unit; (c) aerodrome certification procedure manual; (d) generic aerodrome inspector handbook with checklists; (e) generic template of the aerodrome manual; (f) training programme and training plan; (g) procedures for accepting non compliances; and (h) surveillance programme.	TCB/IPAV Thailand – item (d) Malaysia (lead), India and Nepal - item (h)	May 2021 December 2021		Task 1/3 (h) – A Generic Procedural Manual for Surveillance of Certified Aerodromes by CAA incorporating a sample of surveillance programme and plan yet to be developed
3/1	For the aerodrome assistance survey questionnaire: (a) Recirculate to States / Administration which have yet to respond (b) Conduct analysis and recommend way forward	Secretariat India and Nepal	May 2021 December 2021	Open	

Asia/Pacific Aerodrome Assistance Working Group (AP-AA WG)

TERMS OF REFERENCE
(Amendment Proposed by AP-AA/WG/3 in highlight)

Objective:

The main objective of the establishment of AP-AA WG is to realize the commitment of the “Beijing Declaration” - to certify all aerodromes used for international operations by 2020, fulfil the objectives of the AOP/SG to address identified AOP deficiencies listed in APANPIRG database for their resolution and to improve the AGA EI resulting from USOAP CMA activities.

Scope of works:

To meet the above objective the AP-AA WG shall carry out the following tasks:

- (1) Conduct a survey on States which have not completed the implementation of aerodrome certification for all international aerodromes, with an AGA EI below 75%, and/or AOP air navigation deficiencies to establish the requirements for assistance;
- (2) Review the air navigation deficiencies in the field of AOP (as listed in the APANPIRG air navigation deficiencies database) and assist the concerned State(s) to develop corrective action plans;
- (3) Assist States which have not implemented aerodrome certification, with non-satisfactory aerodrome certification related PQs, and/or aerodrome certification related air navigation deficiencies to establish an aerodrome certification process including developing specific operating regulations, training programme and training plan, guidance material for all technical areas, aerodrome inspector handbook with checklists, procedures for accepting non compliances, and surveillance programme; and
- (4) Assist in conducting seminars/workshops/trainings for the aerodrome regulatory and aerodrome operator staff in APAC region; provide experts to deliver presentations at the seminars/workshops in aerodrome certification, implementation of SMS and other technical areas such as aerodrome emergency planning, runway safety, etc.

Composition: The AP-AA WG would be composed of subject matter experts nominated by APAC States/Administrations and International Organizations, familiar with Annex 14 and its guidance materials and in particular on aerodrome certification procedures and ICAO USOAP CMA.

Working Methods: As far as practicable, the work should be carried out through electronic correspondences and web-conferences. Minimum face-to-face meetings would be planned. The AP-AA WG may be assembled on need basis to assist States. Onsite assistance may be provided to States, if required, on cost-recovery basis. The ICAO APAC Office would do necessary coordination. The ICAO COSCAPs will support the implementation of Tasks.

Time frame: The AP-AA WG would ~~be established initially for three years (until 30 September 2024)~~ last until September 2023.
