# REPORT OF THE FIFTH MEETING OF THE RASG-MID STEERING COMMITTEE

**(RSC/5)**

***(Amman, Jordan, 23 – 25 January 2017)***

The views expressed in this Report should be taken as those of the RASG Steering Committee and not of the Organization. This Report will, however, be submitted to the RASG-MID and any formal action taken will be published in due course as a Supplement to the Report.

Approved by the Meeting
and published by authority of the Secretary General

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## PART I – HISTORY OF THE MEETING

### 1. PLACE AND DURATION

1.1 The Fifth meeting of the RASG-MID Steering Committee (RSC/5) was held at the IATA Africa/Middle East Regional Office, Amman, Jordan, 23 – 25 January 2017.

### 2. OPENING

2.1 The meeting was opened by Mr. Mohamed Khalifa Rahma, Regional Director, ICAO Middle East (MID) Regional Office, who welcomed all the participants and thanked IATA-MENA for hosting the meeting.

2.2 Mr. Rahma highlighted that in light of the NCLB initiative, which seeks to improve implementation support delivery to States, the first Draft of the MID Region NCLB Strategy will be presented to the meeting for review. The MID Region NCLB Strategy incorporates the previously agreed commitments of the Doha Declaration, and aims at fostering the achievement of regional targets. The implementation and monitoring of the Strategy might need the establishment of a MID Region NCLB Multi-Disciplinary Technical Assistance Team to provide necessary assistance, identify the main challenges and agree on necessary mitigation measures.

2.3 Mr. Chamsou Deen Andjorin, Co-Chairperson of RSC, Director Aviation Safety ME & Africa, Boeing welcomed the participants to the RSC/5 meeting and thanked the Secretariat for the continuous support.

### 3. ATTENDANCE

3.1 The meeting was attended by a total of twenty one (21) participants from eight (8) States (Egypt, Iran, Jordan, Kuwait, Oman, Saudi Arabia, UAE and United States) and three (3) Organizations/Industries (Boeing, CANSO and IATA). The list of participants is at **Attachment A**.

### 4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Chamsou Deen Andjorin, Director Aviation Safety ME & Africa, Boeing.

4.2 Mr. Mashhor Alblowi, Regional Officer, Flight Safety (FLS) was the Secretary of the meeting, assisted by Mr. Mr. Elie El Khoury, Regional Officer, Air Traffic Management/Search and Rescue (ATM/SAR).

4.3 Mr. Mohamed Smaoui, Deputy Regional Director supported the meeting.

### 5. LANGUAGE

5.1 The discussions were conducted in the English language and documentation was issued in English.

## 6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda

Agenda Item 2: Global Developments related to Aviation Safety

Agenda Item 3: Regional Performance Framework for Safety

Agenda Item 4: Coordination between RASG-MID and MIDANPIRG

Agenda Item 5: Working Arrangements

Agenda Item 6: Future Work Programme

Agenda Item 7: Any Other Business

## 7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 The RSC/5 records its actions in the form of Conclusions and Decisions with the following significance:

a) **Conclusions** deal with matters that, according to the Group's terms of reference, merit directly the attention of States and its stakeholders/partners, or on which further action will be initiated by the Secretary in accordance with established procedures; and

b) **Decisions** relate solely to matters dealing with the internal working arrangements of the Group and its subsidiary bodies.

## 8. LIST OF CONCLUSIONS AND DECISIONS

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|---|---|
| *RSC DECISION 5/1:* | *FIFTH MID ANNUAL SAFETY REPORT* |
| *RSC DECISION 5/2:* | *RASG-MID SAFETY ADVISORY- SAFEGUARDING OF AERODROMES* |
| *RSC CONCLUSION 5/3:* | *IMPLEMENTATION OF PANS-AERODROMES* |
| *RSC DECISION 5/4:* | *MID-SST REVISED SAFETY ENHANCEMENT INITIATIVES* |
| *DRAFT CONCLUSION 5/1:* | *SHARING OF SAFETY RECOMMENDATIONS* |

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|---|---|
| *DRAFT CONCLUSION 5/2:* | *ADOPTION OF ISAGO AND IGOM FOR GROUND HANDLING OPERATIONS* |
| *DRAFT CONCLUSION 5/3:* | *DEVELOPMENT OF ADDITIONAL GROUND HANDLING OPERATIONS PROVISIONS* |
| *DRAFT CONCLUSION 5/4:* | *EXPANSION OF THE RSP SCOPE* |

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## PART II: REPORT ON AGENDA ITEMS

### REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

1.1 The meeting reviewed and adopted the Provisional Agenda as at paragraph 6 of the History of the Meeting.

1.2 Considering the important number of vacancies in the chair positions, the meeting agreed to an additional Agenda Item 5 “Working Arrangements” and to move the “Election of Chairpersons” under this Agenda Item.

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**REPORT ON AGENDA ITEM 2: GLOBAL DEVELOPMENTS RELATED TO AVIATION SAFETY**

***ICAO 39th Assembly***

2.1 The subject was addressed in WP/2 presented by the Secretariat. The meeting was apprised of the main safety-related outcomes of the 39th Session of the ICAO Assembly, including:

- Presentation of first group of the Council President Certificates for Safety Audit performance improvement to 14 objectively selected States, including the United Arab Emirates from the MID Region.
- Endorsement of the continuation of the No Country Left Behind (NLCB) initiative.
- ICAO continues its work on the development and implementation of technical assistance under the respective Strategic Objectives, in partnership with States, international and regional organizations and industry.
- Appreciation of ICAO's progress on items resolved at the last ICAO High Level Safety Conference (2015).
- Urging States to continue PBN implementation.
- Endorsement of an ICAO strategy on emergency preparedness and response.
- Urging States to provide sufficient support, including technical expertise, participation and contributions to the PIRG, RASG and RSOO work programmes and implementation activities.
- Supporting the proposal from the Global Ministerial Aviation Summit held in Riyadh, Saudi Arabia, in August 2016, for the establishment of the Middle East (MID) Implementation Plan (MIDIP) in air navigation and safety.
- Endorsement of Next Generation of Aviation Professionals (NGAP) Programme.
- Endorsement of the action plan for further customization of long term traffic forecasts, in order to meet the needs of States and for the updating of global and regional forecasts for aviation personnel (Doc 9956) to meet the requirements of the ICAO NGAP Programme.

***2017-2019 GASP***

2.2 The subject was addressed in WP/2 presented by the Secretariat. The meeting noted that the 39th ICAO Assembly endorsed the 2017-2019 Global Aviation Safety Plan (GASP) which maintains continuity with the version endorsed by the Assembly in 2013 while introducing a new global aviation safety roadmap to ensure that safety initiatives deliver the intended benefits of the GASP objectives through enhanced coordination, thus reducing inconsistencies and duplication of efforts.

2.3 It was highlighted, in particular, that the global aviation safety roadmap is an action plan developed to assist the aviation community in achieving the objectives presented in the GASP. It provides a structured, common frame of reference for all relevant stakeholders.

2.4 The roadmap outlines specific safety initiatives supported by a set of actions associated with each of the four safety performance enablers (standardization, resources, collaboration and safety information exchange) which, when implemented by stakeholders, will address the GASP objectives and global safety priorities. These specific safety initiatives targeted to the different streams of stakeholders (States, regions and industry) at different levels of maturity.

2.5 The roadmap includes specific initiatives. The roadmap contains three distinct phases, in line with the GASP objectives:

a) Phase I: Effective Safety Oversight;
b) Phase II: State Safety Programme (SSP) implementation; and
c) Phase III: Predictive Risk Management.

2.6 Four steps should be followed for each of the three phases, as follows:

Step 1 — Conduct self-analysis
Step 2 — Identify safety initiatives and actions
Step 3 — Develop the safety plan
Step 4 — Monitor implementation

2.7 The safety initiatives facilitate the planning process and should not be viewed as stand-alone activities. In many cases, the safety initiatives are interrelated and capable of integrating with and supporting each other. All the safety initiatives of the roadmap are presented in a standardized template format, which covers the following points:

- ***GASP objective***. The relevant objective, as described in the GASP, to which the safety initiative is associated;

- ***Safety Performance Enabler***. The relevant safety performance enabler, as described in the GASP, to which the safety initiative is associated;

- ***Safety Initiative***. A description of the specific safety initiative;

- ***Phase***. The specific phase or sub-phase within the roadmap to which a safety initiative is associated;

- ***Stakeholder***. The entity to which the initiative is addressed. There are three overarching categories:

  1) States;

  2) Regions, which include States within a Region, as well as regional organizations, the Regional Aviation Safety Groups (RASGs), Regional Safety Oversight Organizations (RSOOs), Regional Accident and Incident Investigation Organizations (RAIOs) and other regional entities, as appropriate; and

  3) industry;

- ***Actions***. A description of the tasks required for the implementation of a safety initiative. In Phase I, CEs in parenthesis refer to the CE(s) which are addressed by a specific action (see Figure A-1); and

- ***References***. Documents and tools that may assist stakeholders in implementing the safety initiatives and associated actions.

2.8 It was highlighted that States, Regions (supported primarily by the RASGs) and industry are expected to use the roadmap individually and collectively as the basis to develop action plans that define the specific activities which should take place in order to improve safety at the regional or sub-regional and national levels. The national, regional and industry safety plans will help stakeholders prioritize actions to achieve the objectives set out in the GASP and address the global safety priorities.

2.9 The meeting noted that ICAO supports the implementation of the roadmap by providing resources, implementation tools and assistance via different programmes and initiatives, such as the No Country Left Behind campaign.

2.10 A copy of GASP 2017-2019 (ICAO Doc 10004) can be downloaded at **http://www.icao.int/safety/Pages/GASP.aspx**.

2.11 Based on the forgoing, the meeting agreed that the RASG-MID safety initiatives/activities should be aligned with the GASP 2017-2019, and tasked all Safety Teams to use the GASP Roadmap as the basis to develop action plans that define specific activities.

2.12 The meeting agreed that in order to support States in developing safety plans to meet the GASP objectives, a half-day (3 Hours) Workshop on the subject is to be organised by ICAO as part of the RASG-MID/6 meeting (Bahrain,19-21 September 2017).

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**REPORT ON AGENDA ITEM 3: REGIONAL PERFORMANCE FRAMEWORK FOR SAFETY**

***Follow-up on the RASG-MID Conclusions and Decisions***

3.1 The subject was addressed in WP/3 presented by the Secretariat. The meeting reviewed and updated the progress made related to the implementation of the RASG-MID/5 Conclusions and Decisions as at **Appendix 3A**.

3.2 With respect to Conclusion 5/2 related to the IATA IOSA Programme, it was highlighted that the IOSA reports are not systemically sent to or made available to the States regulators. In this regard, IATA advised the meeting that States may f request may formally request an IOSA report via the online "request form" (http://www.iata.org/whatwedo/safety/audit/iosa/Pages/index.aspx) and send to the IOSA team.

***Review and Endorsement of the Fifth MID Annual Safety Report (MID-ASR)***

3.3 The subject was addressed in WP/4 presented by the Secretariat and PPT/1 presented by IATA on behalf of the MID-ASRT Rapporteur. The meeting commended the MID-ASRT for the development of the 5th MID-ASR.

3.4 The following are the main highlights of the MID-ASR:

- MID Region had an accident rate of **2.5** accidents per million departures in 2015, which is below the global rate (**2.8)**.
- The 5-year average accident rate (2011-2015) is **3.5**, which is slightly above the global rate (**3.2)**.
- No Controlled Flight Into Terrain (CFIT) related accident occurred in the MID Region for the period 2011-2015.
- One LOC-I accident occurred in the MID Region in 2011 for the period 2011-2015.
- The average overall Effective Implementation (EI) in the MID Region is **66.17%**, which is above the world average (**63.54 %)**.

3.5 The following are the main challenges:

- Reporting of incidents by States is very low.
- Identification of contributing factors due to lack of sufficient information for in-depth analysis.
- Unavailability of predictive safety information to be analysed in order to allow the identification and mitigation of safety concerns before accidents or incidents would even take place.
- Differences in the safety information provided by the participating organizations due to the use of different criteria and classifications of accidents.

3.6 The meeting noted that the "iSTARS ADREP Occurrence Data Form" which is being developed by ICAO in coordination with the Accidents and Incidents Analysis Working Group (AIA WG) should foster and facilitate the reporting of incidents. It was highlighted that the AIA WG will also work on the identification of the main root causes and contributing factors of accidents and incidents.

3.7 In the same vein, the meeting recalled that the RASG-MID/5 meeting recognized that the review of the safety recommendations related to past investigation activities could be very beneficial to address the Focus Areas and Emerging Risks in the MID Region. In this regard, the meeting urged States to share their safety recommendations after the completion of investigation. Accordingly, the meeting agreed to the following Draft Conclusion:

***DRAFT CONCLUSION 5/1: SHARING OF SAFETY RECOMMENDATIONS***

*That,*

*a) States be urged to share their Safety Recommendations after investigation of accidents and incidents; and*

*b) MID-SST to coordinate with AIA WG, ICAO and stakeholders the development of a RASG-MID Safety Advisory to consolidate a set of safety recommendations addressing the Focus Areas and Emerging Risks in the MID Region.*

3.8 Based on the analysis of the ICAO reactive safety information for the period 2011-2015, and in accordance with the agreed matrix used for the assessment of the different accident categories (frequency x severity), the three (3) main Focus Areas in the MID Region are as follows:

1- Runway Safety (RS);
2- System Component Failure (SCF); and
3- Loss of Control In Flight (LOC-I).

3.9 Boeing, Airbus and Embraer reported that based on their data SCF is not a concern for their type of aircraft.

3.10 With respect to differences in the safety information, the meeting noted that according to ICAO Safety Report (2016) and Global Safety Information Exchange (GSIE) Harmonized Accident Categories, different categories from IATA and ICAO can be aligned.

3.11 With respect to the Emerging Risks, the meeting agreed that birdstrike is one of the emerging risks in the Region, which is addressed by the RGS Working Group. Based on the results of the MID-ASR and the outcome of the RASG-MID/5 meeting, it was agreed that the following Emerging Risks should be considered in the work programme of the Regional Aviation Safety Team (RAST):

1- Controlled Flight Into Terrain (CFIT);
2- Near Midair Collision (NMAC);
3- Laser attacks,
4- RPAS/Drones;
5- Wildlife and FOD; and
6- Birdstrike.

3.12 Based on the foregoing, the meeting agreed that the Report should be finalized taking into consideration the outcomes of the meeting, particularly for the Conclusion Section of the Report, which should reflect the achievements, challenges, risks and mitigation measures. Accordingly the meeting endorsed the MID-ASR and agreed to the following RSC Decision:

***RSC DECISION 5/1: FIFTH MID ANNUAL SAFETY REPORT***

*That, the Final version of the Fifth Edition of the MID Annual Safety Report (ASR) be published on the ICAO MID website.*

***Accidents and Incidents Analysis Working Group (AIA WG)***

3.13 The subject was addressed in WP/5 presented by the AIA WG Chairperson. The meeting was provided with a progress report on the AIA WG Core Team activities, including the development of a guideline booklet which will be used during the initial implementation phase to review, validate and analyse the available occurrence data.

3.14 The meeting noted that the AIA WG/2 meeting will be held in Cairo, Egypt (14-16 March 2017). Accordingly, the meeting urged States and stakeholders to actively support the AIA WG activities and participate in AIA WG/2 meeting, as well as designate focal points to facilitate the work of the Group.

***Air Safety Reports (ASRs)***

3.15 The subject was addressed in WP/15 presented by IATA. The meeting noted the issue related to the provision of feedback in a timely manner by the ANSPs regarding the ASRs reported by pilots. Accordingly, the meeting urged States to:

a) publish in their AIPs (GEN 1.1) the contact details of the entity responsible for ASRs investigation, including the email addresses; and

b) expedite the investigation process and the provision of feedback to IATA in a timely manner.

***Regional Aviation Safety Team (RAST)***

3.16 The subject was addressed in WP/6 presented by the RAST Rapporteur. The meeting was updated on the RAST activities including the status of the progress achieved on DIPs related to LOC-I and CFIT as at **Appendices 3B** and **3C**, respectively.

3.17 The meeting recalled that based on the recommendation of RASG-MID/5 meeting, Boeing as a champion was requested to develop new SEI and DIP to address SCF. It was highlighted that Boeing, after coordination with EMBRAER, could not support the development of SEI and DIP due to lack of data from their sides.

3.18 In this regard, the meeting confirmed that according to the analysis of the ASR, SCF is one of the Focus Areas in the MID Region. The meeting noted that IATA will clarify the data related to In-flight Damage (IFD), which is considered as SCF according to the GSIE Harmonized Accident Categories, in order to support harmonization of safety information and analysis and facilitate the development of appropriate SEI and DIPs.

3.19 The meeting initiated brainstorming regarding the activities of the RAST (way of doing business), taking into consideration the global priorities, as well as the changing regional Focus Areas, (i.e. One accident may change the Focus Areas in the Region).

3.20 In this regard, the meeting underlined that the global priorities (RS, LOC-I and CFIT) should always be addressed within the RASG-MID framework. However, with regard to LOC-I and CFIT, global developments and measures should be followed by the RAST instead of developing new DIPs.

3.21 Based on the above, the meeting agreed that more efforts should be directed to address the Emerging Risks in the Region. In this respect, the meeting noted that the identified Emerging Risks are addressed, as follows:

- Laser Attacks, Wildlife , FOD and Birdstrike under the RGS WG;

- NMAC under AIA WG in order to conduct some analysis and provide feedback on the contributing factors to be considered for the development of mitigation measures; and
- Bahrain (champion), Qatar and UAE, will support the development and implementation of SEI to address the risks associated with RPAS/Drones.

3.22 The meeting agreed that further discussion on the subject is required and requested the RAST Rapporteur to organize a telephone conference with the RASG-MID Core Team. Accordingly, it was agreed that a side meeting be held during the MIDANPIRG/16 meeting (Kuwait, 13 – 16 February 2017) in order to agree on the way forward.

***Runway and Ground Safety Working Group (RGS WG)***

3.23 The subject was addressed in WP/7 presented by the RGS WG Chairperson. The meeting noted with appreciation the progress achieved in the implementation of the different SEIs/DIPs related to RGS as at **Appendices 3D, 3E, 3F, 3G** and **3H**.

3.24 With respect to Aerodrome Safeguarding, the meeting reviewed and endorsed the Safety Advisory related to Safeguarding of Aerodromes at **Appendix 3I** and agreed to the following RSC Decision:

***RSC DECISION 5/2: RASG-MID SAFETY ADVISORY-SAFEGUARDING OF AERODROMES***

*That, the RASG-MID Safety Advisory at **Appendix 3I** is endorsed and be published by the ICAO MID Office.*

3.25 In the same vein, the meeting noted that Egypt will host the Aerodrome Safeguarding Workshop in Cairo, Egypt, (4-6 December 2017). Accordingly, the meeting encouraged States and stakeholders to participate in this Workshop.

3.26 With respect to Wildlife Management and Controls, the meeting noted that Sudan offered to host a Workshop on the Wildlife Management Control in September 2018.

3.27 Based on the RGS WG/3 Draft Conclusion 3/5, the meeting agreed to the development of a new DIP (MID-RAST/RGS/7) focusing on Ground Handing Operations and Safety, and that IATA will be the Champion in coordination with ICAO and MID States.

3.28 The meeting agreed that a RASG-MID Advisory Circular should be published by the ICAO MID Office to provide the status of the previously published SEIs/DIPs.

***Aerodrome Certification and Runway Safety Issues***

3.29 The subject was addressed in WP/17 presented by the RGS WG Chairperson.

3.30 The meeting noted with appreciation that Sudan certified El Obied International Airport (HSOB) on 31 July 2016, and Jordan certified Queen Alia International Airport on 11 December 2016. The meeting noted that Iran has certified Yazd International Airport (OIYY), and Saudi Arabia completed the certification of Taief Airport. However, it was highlighted that the monitoring of aerodrome certification concerns only those international airports which are included in the MID ANP Table AOP I-1.

3.31 The meeting recalled that the Table AOP I-1 of the MID ANP does not include some of the aerodromes which are required/used for international operations. This was reconfirmed by IATA and the concerned States were invited to review the list of their International Aerodromes and send a revised list to the ICAO MID Regional Office, taking into consideration the users' needs.

3.32 The meeting reviewed the status of implementation of Aerodrome Certification as at **Appendix 3J**. The meeting agreed that more efforts are needed to meet the target of 75% for year 2017.

3.33 Regarding the establishment of Runway Safety Team (RST) at MID international aerodromes, the meeting noted that twenty five (25) RSTs have been established, representing 42%.of the required RSTs in the MID Region International Aerodromes. The status of RSTs in the MID Region is at **Appendix 3J**.

3.34 The meeting noted with appreciation that, upon request from the Civil Aviation Regulatory Commission (CARC) of Jordan, the third RS Go-Tem was successfully conducted to Queen Alia Airport in Amman from 5 to 7 September 2016. The Go-Team also provided training to CARC on aerodrome certification. The RS Go-Team visit was followed by a mission conducted by ICAO from 28 November to 1 December 2016, supported by the SAFE fund. As a result, and with the efforts of CARC-Jordan, Queen Alia International Airport was certified on 11 December 2016.

3.35 The meeting commended the efforts carried out by the RS Go-Team and reiterated that States should take necessary actions to ensure establishment of RST at international aerodromes and request RS Go-Team visit, as required. It was highlighted that the RS Go-Team does not conduct audits or comprehensive aerodrome inspections. It was noted that the RS Go-Team is planning to conduct two aerodrome visits in 2017.

3.36 With respect to Procedures for the Air Navigation Services – Aerodromes (PANS-Aerodromes – Doc 9981), the meeting urged States and aerodromes operators to implement the provisions of the PANS-Aerodromes and to publish up-to-day lists of significant differences from this document in their AIP. Accordingly the meeting agreed to the following RSC Conclusion emanating from the RGS WG/3 meeting:

***RSC CONCLUSION 5/3: IMPLEMENTATION OF PANS-AERODROMES***

*That, States that have not yet done so, be urged to:*

*a. update their national regulations for implementation of the provisions of the PANS-Aerodromes;*

*b. publish up to date lists of significant differences from this document in their AIP; and*

*c. send feedback to the ICAO MID Office by **31 December 2017**.*

3.37 The meeting urged States to participate actively in the Seminar/Workshop on the implementation of PANS-Aerodromes, which would be held in Cairo, Egypt, 8-9 November 2017, back-to-back with the RGS WG/4 meeting.

3.38 The meeting noted that IATA, in collaboration with the ground handling industry and other stakeholders, has taken the initiative to develop industry standards and systems that enhance the safety and increase the efficiency of ground handling operations. The initiative is also designed to achieve effective cost benefits through the sharing of information that eliminates the need to duplicate the audit of ground handling operations by airlines.

3.39 The meeting was apprised of IATA's Integrated Solution for Ground Operations which includes IATA Safety Audit for Ground Operations (ISAGO) and IATA Ground Operations Manual (IGOM). It was highlighted that the IATA integrated solution establishes a system for the development and continuous improvement of industry provisions and oversight complementary to global regulations.

3.40 The meeting recognizes that the Ground handling operations are a source of significant personnel safety and aircraft/equipment damage concerns. The complexity of ground handling operations has increased with widespread airport development and traffic growth, corresponding to larger numbers and size of aircraft.

3.41 Based on the above the meeting agreed to the following Draft Conclusions emanating from the RGS WG/3 meeting:

***DRAFT CONCLUSION 5/2: ADOPTION OF ISAGO AND IGOM FOR GROUND HANDLING OPERATIONS***

*That, MID States be invited to:*

*a) encourage airlines and aerodrome operators to implement the procedures contained in the IATA Ground Operations Manual (IGOM) for harmonization purpose and to improve safety of Ground Handling Operations; and*

*b) use the IATA Safety Audit for Ground Operations (ISAGO) as a source of safety data which provide complementary information for the safety oversight activities of ground handling operations services.*

***DRAFT CONCLUSION 5/3: DEVELOPMENT OF ADDITIONAL GROUND HANDLING OPERATIONS PROVISIONS***

*That, ICAO be invited to consider the development of additional Ground Handling Operations provisions.*

***DRAFT CONCLUSION 5/4: EXPANSION OF THE RSP SCOPE***

*That, ICAO be invited to consider the expansion of the ICAO Runway Safety Programme (RSP) scope from the runway strip to the movement area (including aprons).*

3.42 The meeting was apprised of the progress achieved for the implementation of the Advanced Surface Movement Guidance and Control Systems (A-SMGCS) and Airport Collaborative Decision Making (A-CDM), which are monitored by MIDANPIRG.

3.43 With respect to heliports, the meeting urged States to establish and maintain a database for Heliports with information about location and type of use, as a minimum and provide feedback to the ICAO MID Regional Office on the actions undertaken.

3.44 The meeting recalled that the Aerodrome Emergency Plan (AEP) should include public health emergencies and that ICAO initiative which addresses public health is the Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA). The meeting encouraged States and stakeholders to participate in the CAPSCA-MID/6 meeting, which will be graciously hosted by Sudan in Khartoum from 20 to 22 February 2017.

***Implementation of the RASG-MID Safety Advisories (RSAs)***

3.45 Based on the recommendations from the RGS WG, the meeting highlighted the need to promote and measure the RSAs implementation in the MID Region. The meeting noted that the RGS WG will explore means such as questionnaire on States' feedback related to the RSAs implementation, promotional presentation to be delivered at Regional aviation event and promotional brochures.

***MID Safety Support Team (MID-SST)***

3.46 The subject was addressed in WP/8 presented by the MID-SST Rapporteur. The meeting noted the progress made by MID-SST for the implementation of the agreed SEIs.

3.47 With respect to the first SEI "improve status of implementation of SSP in MID Region", the meeting noted that the SEI was revised to include SMS implementation in the MID Region. It was highlighted that common challenges/difficulties related to SSP implementation include identification of a designated entity, establishment of an initial Acceptable Level of Safety Performance (ALoSP), allocation of resources to enable SSP implementation and lack of qualified and competent technical personnel. Accordingly, the meeting agreed to following actions to support the SSP implementation:

- participate in the new ICAO Safety Management Training Programme (SMTP). the first ICAO Safety Management for Practitioners (SMxP) Course will be held in Cairo, Egypt, 5 – 9 March 2017;

- work with the ICAO Regional Office to make use of available means (e.g. Technical Co-operation Bureau) to provide assistance needed for SSP implementation;

- consider the establishment of a mechanism similar to the RS Go Team in order to conduct assistance missions to States to address specific needs;

- identify safety management best practices in coordination with States (champion State to promote best practices among other States) including sharing of technical guidance and tools related to SSP (e.g. advisory circulars, staff instructions);

- continuous update of the SSP Gap Analysis and completion of detailed SSP Self-Assessment; and

- establishment of voluntary and mandatory safety reporting systems.

3.48 With regard to SMS implementation at MID International Aerodromes, the meeting agreed that Saudi Arabia and Egypt work on a proposal for an action plan to be discussed in the RGS WG in order to be further processed by the MID-SST.

3.49 The meeting noted that CANSO, as the Champion of the initiative to improve SMS implementation in ATM, will develop a detailed survey to be sent to all ANSPs in 2017 to identify needs to improve SMS implementation for ATM in the MID Region. It was highlighted that an action plan would be developed based on the results of the survey to address specific needs.

3.50 The meeting recognized the need to monitor the status of SMS implementation by air operators, maintenance organizations and training organizations involved in flight training; in order to take necessary actions to overcome the challenges faced and improve safety. In this regard, the meeting noted that IATA with the support of the ICAO MID Office will provide feedback and a plan of actions to address SMS implementation by air operators.

3.51 The meeting agreed that the second SEI related to the strengthening of States' Safety Oversight capabilities should not be limited to the establishment of Regional/Sub-regional Safety Oversight Organizations(s) (RSOO).

3.52 With respect to the third SEI “improve Regional cooperation for the provision of Accident & Incident Investigation”, the meeting noted that the ACAC/ICAO AIG Workshop will be hosted by Saudi Arabia in Jeddah, 25-27 April 2017, in order to address issues related to Accident and Incident Investigation, with a special focus on Regional Cooperation in order to finalize the Strategy for the establishment of a Middle East RAIO, for final endorsement by the RASG-MID and the ACAC Executive Council. The agenda of the Workshop will include other issues related to AIG such as training and the development of a RASG-MID Safety Advisory to consolidate a set of safety recommendations addressing the Focus Areas and Emerging Risks in the MID Region. Accordingly, the meeting urged all stakeholders to participate in the Workshop.

3.53 The meeting noted that a new SEI was developed aiming at improving the implementation of ELP requirements in the MID Region.

3.54 Based on all of the foregoing, the meeting agreed to the following RSC Decision related to revised set of SEIs:

***RSC DECISION 5/4: MID-SST REVISED SAFETY ENHANCEMENT INITIATIVES***

*That, the MID-SST include in its work programme actions to support the implementation of the following SEIs:*

*a) improve the status of implementation of State Safety Programme (SSP) and Safety Management System (SMS) in the MID Region;*

*b) strengthening of States' Safety Oversight capabilities;*

*c) improve Regional cooperation for the provision of Accident & Incident Investigation; and*

*d) improve implementation of ELP requirements in the MID Region.*

3.55 In connection with the above, the meeting supported the actions at **Appendix 3K**, and urged States and stakeholders to support the MID-SST activities

***United States-FAA SSP Workshop***

3.56 The subject was addressed in WP/21 presented by the US-FAA. The meeting noted with appreciation the US-FAA invitation to the MID States to participate in a two-day Workshop in Washington, USA, in March 2017. The objective is to share FAA experience, practices and perspectives related to SSP implementation.

3.57 The meeting proposed that the date be changed to end of April or first week of May in order to allow sufficient time for administrative arrangements. In this regard, the meeting requested FAA to send the invitation letter to the MID States, as soon as possible, and to request support from ICAO for the promotion of the Workshop.

***NCMCs Meeting***

3.58 The subject was addressed in WP/9 presented by the Secretariat. The meeting noted that the first NCMCs meeting was held on 11 October 2016 as part of the MID-SST/3 meeting.

3.59 The meeting noted that Iraq, Jordan, Kuwait, Qatar and UAE provided presentations highlighting the status of their safety oversight system, challenges faced and best practices. The following common challenges/difficulties were identified:

1) lack of sufficient human resources (qualified technical personnel) to meet the State’s obligations and carry out oversight functions and mandate;

2) the ability to attract, recruit and retain sufficiently qualified/experienced technical personnel;

3) training;

4) separation of oversight functions and service providers/operators; and

5) political/security situation/stability in some States.

3.60 The meeting noted with appreciation as the following identified best practices for the preparation and conduct of the USOAP-CMA activities:

1) high level commitment and engagement (regular briefings and meetings);

2) preparation well in advance (giving sufficient time);

3) assignment of focal point(s) for each audit area;

4) training of personnel (USOAP-CMA CBT, Workshop, participation in ICVMs and Audits), including the conduct of a USOAP-CMA Workshop (cost-recovery basis) at National level;

5) using the self-assessment to conduct internal audits, prepare for ICAO USOAP CMA activities; and monitor the civil aviation safety oversight system;

6) take advantage of other States experiences;

7) update all CAPs to fully address the PQ findings and report the progress made on the CAPs implementation, which is a vital factor for the planning and conduct of the USOAP-CMA validation activities; and

8) regular update of the required information such as the State Aviation Activities Questionnaire (SAAQ) and Compliance Checklist/Electronic Filing of Differences (CC/EFOD).

3.61 The meeting urged States to participate in the MID Regional USOAP-CMA Workshop to be held at the ICAO MID Regional Office, Cairo, Egypt (6-8 February 2017).

3.62 The meeting noted that the missions conducted by the ICAO MID Regional Office to the States provided valuable assistance and guidance related to the USOAP-CMA, including the preparation for Audits and ICVMs, which was appreciated by the NCMCs meeting. The meeting thanked ICAO for conducting the NCMCs meeting as part of the SST agenda; and agreed that this practice should be continued in the future.

***MID Region Safety Targets and Revised MID Region Safety Strategy***

3.63 The subject was addressed in WP/10 and PPT/2 presented by the Secretariat.

3.64 The meeting reviewed the revised version of MID Region Safety Strategy.

3.65 With respect to the new Safety Indicators related to Average Fleet Age, Percentage of fleet above 20 years of age, the meeting recalled, that in accordance with the outcome of the HLSC 2015, States are required to monitor their fleet age; and there is no requirement to define a regional target for these indicators. However, it was agreed that defining regional safety targets might be further discussed in the future based on the Sates feedback.

3.66 The meeting supported the Safety Targets defined by the MID-SST/3 meeting related to the Safety Indicator “Percentage of MID States that use ECCAIRS for the reporting of accidents and serious incidents”, as follows: 60% by 2018; and 80% by 2020.

3.67 The meeting agreed that the Strategy should be revised to reflect the GASP 2017-2019 including its Roadmaps, as well as the agreed Safety Targets. Accordingly, the meeting agreed to a revised version of MID Region Safety Strategy at **Appendix 3L**. The final revision of the Strategy will be presented to the RASG-MID/6 meeting for endorsement.

3.68 The meeting reviewed the current status of the different Safety Indicators included in the MID Region Safety Strategy as at **Appendix 3M**.

***MID Region NCLB Strategy***

3.69 The subject was addressed in WP/11 presented by the Secretariat. The meeting recalled that the High-Level Briefing to DGCAs and CEOs held in Doha, Qatar on 26 May 2016, was apprised of the ICAO NCLB Initiative and the means to achieve its objectives. In this regard, the meeting was briefed about the development of the MID Region NCLB Strategy/Plan, which aims at a new leadership approach to transform the way business is done through agreement with concerned States on specific and measureable outcomes, and clear definition of accountability for the achievement of the set goals. The meeting supported the development of the MID Region NCLB Strategy/Plan and agreed that it should be presented to the DGCA-MID/4 meeting, for endorsement.

3.70 The meeting was presented with the first Draft of the MID Region NCLB Strategy prepared by the Secretariat as at **Appendix 3N**. It was highlighted that the MID Region NCLB Strategy incorporates the previously agreed commitments of the Doha Declaration, and aims to foster the achievement of the regional targets, including:

- regional average EI to be above 70% by 2020; and
- 11 States to have at least 60% EI by 2020.

3.71 With regard to the prioritization criteria, the meeting noted that, based on the outcome of the SST/3 meeting, MID States would be classified in four (4) groups, as follows:

1- States with SSC;
2- States not audited or with EI below 60% (EI < 60);
3- States with EI between 60 and 70% (60 ≤ EI < 70); and
4- States with EI over 70% (EI ≥ 70).

3.72 Other criteria/factors should be considered for the provision of required NCLB assistance, during the development and implementation of the plans of actions, including but not limited to:

a) State willingness/commitment to receive assistance;
b) Security and political stability;
c) EI per Area and per Critical Element (CE);
d) Level of aviation activities in the State;
e) Air navigation deficiencies (including the deficiencies related to aerodrome certification);
f) Level of progress made by State in the development and implementation of Corrective Action Plans (CAPs);
g) Gross Domestic Product (GDP) per capita; and
h) Ongoing or planned assistance projects.

3.73 The MID Region NCLB Strategy is composed of three (3) phases as follows:

**Phase I – Selection**: Selection of the best candidates States for deploying assistance that will produce a sustainable improvement of the EI.

**Phase II – Plan of Actions**: Development of State's NCLB Plan of Actions, in coordination with concerned States and other stakeholders, as required.

**Phase III – Implementation and Monitoring**: Implementation of the agreed plan of actions in coordination with concerned stakeholders; and continuous monitoring of the implementation process to ensure the achievement of the agreed objectives and targets.

3.74 The meeting agreed that the implementation and monitoring of the MID Region NCLB Strategy would need the establishment of a MID Region NCLB Multi-disciplinary Technical Assistance Team to verify/validate the evidences related to the resolution of previously identified findings, provide necessary assistance, identify the main challenges and agree on necessary mitigation measures.

3.75 The meeting noted that the MID Region NCLB Implementation Plan is a companion document to the MID Region NCLB Strategy. It is a living document used for recording the NCLB activities in the MID Region (general and State by State), including the monitoring of the States' NCLB Plan of Actions and States/Stakeholders' contributions to support the NCLB initiative.

3.76 The meeting invited States and stakeholders to review the MID Region NCLB Strategy and provide comments and feedback to the ICAO MID Office, for the consolidation of the final version which will be presented to the DGCA-MID/4 meeting (Muscat, Oman, 17-19 October 2017), for endorsement.

***Establishment of MENA-RSOO***

3.77 The subject was addressed in WP/12 presented by the Secretariat. The meeting noted that the ACAC Executive Council (Muscat, Oman, 21-22 December 2016) agreed that the MENA-RSOO Steering Committee meeting or at least a preparatory meeting should be held in 2017.

3.78 The meeting noted that the MENA-RSOO Steering Committee is tentatively planned to be held during the second quarter of 2017.

***RASG-MID Engagement Strategy***

3.79 The subject was addressed in WP/16 presented by the Secretariat. The meeting noted with concern the limited replies to the RASG-MID Feedback Questionnaire at **Appendix 3O**. The meeting agreed that the Questionnaire be re-sent through a Reminder State Letter, and urged States to complete the Questionnaire and send the replies to the ICAO MID Regional Office.

***RASG-MID Work Programme for 2017***

3.80 The subject was addressed in WP/13 presented by the RSC Co-Chair. The meeting reviewed and updated the Schedule of 2017 safety events as at **Appendix 3P**.

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## REPORT ON AGENDA ITEM 4: COORDINATION BETWEEN RASG-MID AND MIDANPIRG

4.1 The subject was addressed in WP/18 presented by the Secretariat. The meeting was apprised of the latest air navigation activities related to safety.

4.2 The meeting recalled that the Second MIDANPIRG/RASG-MID Coordination (MRC/2) meeting (Doha, Qatar, 25 May 2016), reviewed and updated the Table listing the subjects in which both MIDANPIRG and RASG-MID have interest with an assignment of the leading Group as at **Appendix 4A**. The meeting noted that the MRC/3 is planned to be held in Kuwait on 14 February 2017 as a side meeting to MIDANPIRG/16. Accordingly, the meeting encouraged the RASG-MID Chairpersons to attend the MRC/3 meeting.

***Call Sign Confusion (CSC)***

4.3 The meeting noted with appreciation the progress achieved with the implementation of the CSC initiative, and that the MID Region experience has been considered by the adjacent ICAO Regions. The meeting commended the work and efforts of the CSC Initiative Team.

4.4 The meeting urged Sates to follow-up with their operators to implement the procedures for the de-conflicting of call sign similarities in coordination with the CSC Initiative Team.

4.5 The meeting noted that additional airlines joined Etihad Airways in the testing of the flight plans starting from this year winter schedule. Accordingly, States were invited to cooperate and report feedback in order to ensure successful implementation.

4.6 The meeting noted that the ICAO MID Regional Office issued State Letter Ref.: AN 6/34-16/173 dated 26 June 2016, as a follow-up action for the implementation of MIDANPIRG Conclusion 15/2. Accordingly, the meeting urged States to report call sign similarity/confusion cases using the template at **Appendix 4B** to the following email addresses: MIDCSC@icao.int and MENACSSU@iata.org, which will allow the CSC Initiative Team to follow-up with the concerned airline(s) to resolve the issue in a timely manner.

4.7 The meeting noted that a progress report with recommended actions would be presented to MIDANPIRG/16.

***Reduced Vertical Separation Minima (RVSM)***

4.8 The meeting was apprised of the Middle East Regional Monitoring Agency (MIDRMA) framework, activities and tools.

4.9 The meeting urged States to use the MIDRMA Online Minimum Monitoring Requirements (MMR) Tool, available on the MIDRMA website (www.midrma.com); to ensure that all their operators/airframes are complying with Annex 6 requirements related to Height-Keeping Performance.

4.10 The meeting emphasized that, in RVSM airspace, the operation of an aircraft which does not comply with stringent altimetry system performance requirements, constitutes a significant risk to mid-air collision. The same risk exists for an approved aircraft which is configured differently to the configuration for which the approval was granted.

4.11 The meeting noted that the Airworthiness Authorities in UAE and Qatar managed to certify all their C17s aircraft and Oman certified some other types which are used by their military, while the Airworthiness Authority in Kuwait is still reviewing the certification process of their C17s aircraft. It

was highlighted that the MIDRMA is continuously monitoring the activities of the non-approved military cargo aircraft operating in the Middle East airspace and expects an increase in the number of violations to the RVSM airspace. Accordingly, the meeting encouraged States to implement a process for the RVSM approval of their military aircraft, if not yet done so.

4.12 The meeting reviewed and updated the MIDRMA Airworthiness/Flight Operations focal points as at **Appendix 4C**.

4.13 The meeting noted with appreciation that the MIDRMA managed to conduct GMU monitoring for **124** aircraft registered in the Middle East Region since MIDANPIRG/15, achieving a percentage of **94 %** of aircraft with known height monitoring results, which is the highest percentage of monitored aircraft worldwide.

4.14 The meeting noted with appreciation that the three (3) safety objectives set out by MIDANPIRG continue to be met, as reflected in the Draft MID RVSM Safety Monitoring Report (SMR) 2015, which was reviewed by the Second Meeting of the Air Navigation Systems Implementation Group (ANSIG/2). The MID RVSM SMR 2015 will be presented to MIDANPIRG/16 (Kuwait, 13-16 February 2017) for endorsement.

***Performance Based Navigation (PBN)***

4.15 The meeting was apprised of the latest developments related to PBN. The meeting recognized that the main identified challenge impeding the advancement of PBN implementation in addition to the low number of qualified PBN Experts (PANS-OPS, Airspace planner, OPS Approval and Instructors) is the lack of necessary regulations enabling service providers to implement and the air operators to use PBN procedures. Accordingly, the meeting urged States that have not yet done so, to take necessary measures to develop/update their civil aviation regulations to cover the PBN requirements.

4.16 The meeting noted that the MID Flight Procedure Programme is planned to start operations in September 2017, and will be hosted by Lebanon. The MID FPP main objective in Phase 1 is building the MID States' capabilities related to PBN, which eventually will foster the PBN Implementation.

***Civil/Military Coordination***

4.17 The meeting recalled that the MIDANPIRG/15 meeting established the MID Civil/Military Support Team, with a view to expedite the implementation of the FUA Concept in the MID Region. Accordingly, the meeting encouraged States to request the ICAO MID Regional Office to coordinate the conduct of a Support Team visit, which includes in its work programme a Civil/Military Cooperation Workshop.

4.18 The meeting encouraged States to participate in the Civil/Military Workshop that will be held in Tunis from 25 to 27 September 2017. The main objective of the Workshop is to raise awareness related to the Civil/Military cooperation and agree on recommendations that would foster the implementation of the Flexible Use of Airspace Concept.

***Conflict Zones***

4.19 The meeting noted that some airspace users continue to circumnavigate Baghdad, Damascus and Tripoli FIRs as well as Yemen Airspace due to the conflict zones. It was also noted that some air operators resumed operations through Sana'a FIR using the ATS routes over the high seas.

4.20 It was highlighted that several Contingency Coordination Teams (CCTs) have been established in accordance with the MID Region ATM Contingency Plan, which succeeded in the provision of a forum for sharing information, identifying the challenges and implementation of contingency measures/routes ensuring the safety of air traffic during contingency situations. The meeting noted with appreciation that the MID Region is contributing to the inter-regional contingency planning, such as Afghanistan and Somalia.

4.21 The meeting urged States to ensure that their ATS authorities develop contingency plan in accordance with ICAO provisions, in close coordination with the air traffic services authorities responsible for the provision of services in adjacent portions of airspace and with airspace users concerned.

***Search and Rescue***

4.22 The meeting urged States to take necessary measures to address the SAR USOAP-CMA findings, related mainly to lack of:

- english language proficiency for RCC radio operators;
- appropriate training programmes/plans of SAR experts;
- signature of SAR agreements;
- plans of operations for the conduct of SAR operations and SAR exercises;
- provision of required SAR services; and
- non-compliance with the carriage of Emergency Locator Transmitter (ELT) requirements.

4.23 The meeting was apprised of the outcome of the ICAO AFI/APAC/MID Regional and Inter-regional SAR Workshop (Mahe, Seychelles from 19 to 22 July 2016). The meeting encouraged States to implement the relevant recommendations emanating from the Workshop.

4.24 The meeting noted that the MID SAR Action Group established by MSG/5 meeting based on the outcome of the ATM SG/2 meeting is working on the development of a MID Region SAR Plan including an action plan for the conduct of a SAR regional/sub-regional exercise. The first draft will be presented to the ATM SG/3 meeting (Cairo, Egypt, 22-25 May 2017).

4.25 The meeting recalled that the amendment to Annex 6 Part 1 in relation to Normal Tracking and Flight Data Recovery and Distress Tracking will be applicable in 2018 and 2021, respectively. Accordingly, the meeting encouraged States to consider the latest developments related to Global Tracking in their planning process.

***SIDs and STARs Phraseology***

4.26 The meeting noted that the amendment to the phraseologies on SIDs and STARs was circulated as State Letter AN 13/2.1-16/54, which formed part of the Amendment 7 to PANS-ATM with applicability date 10 November 2016. This amendment will enhance the comprehensibility as well as the consistency of procedures, which will enable air traffic controllers and flight crew to have a common understanding of the terms and expectations.

4.27 With a view to support the implementation of the amendment to the SIDs and STARs phraseologies, ICAO has developed a set of supporting materials designed to explain and elaborate on those amendments. It was highlighted that CANSO, EUROCONTROL, IATA, ICCAIA, IFALPA and IFATCA are also partnering ICAO in the sharing of these materials with their respective stakeholders. The guidance materials are available on the ICAO website: http://www.icao.int/airnavigation/sidstar/pages/changes-to-sid_star-phra-seologies.aspx.

4.28 The meeting urged States to take necessary measures for the implementation of the SIDs and STARs new phraseologies.

***MID Air Navigation Deficiency Database (MANDD)***

4.29 The meeting urged States to implement the provisions of the MIDANPIRG Conclusion 15/35 and provide their feedback on the actions undertaken to the ICAO MID Regional Office:

*CONCLUSION 15/35: AIR NAVIGATION DEFICIENCIES*

*That, States be urged to:*

*a) use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies, including the submission of a specific Corrective Action Plan (CAP) for each deficiency; and*

*b) submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.*

***Remotely Piloted Aircraft System (RPAS)***

4.30 The subject was addressed in WP/19 presented by the Secretariat. The meeting was apprised of the latest developments related to RPAS. The guidance material related to RPAS provided in the ICAO Doc 10019 and the information are available on the RPAS webpage: https://www4.icao.int/uastoolkit/home/about.

4.31 The meeting noted that the personnel licensing provisions related to RPAS will be adopted in 2018.

4.32 The meeting encouraged States to consider the developments related to RPAS, and take necessary measures for the amendment of the relevant civil aviation regulations and procedures in a timely manner, in order to ensure safe integration of the RPAs into the non-segregated airspace.

4.33 The meeting reiterated RASG-MID Conclusion 5/18, and urged States to report any safety occurrence related to RPA operations to the ICAO MID Regional Office on regular basis.

4.34 The meeting noted that ICAO, with a view to support RPAS developments, has been conducting global and regional symposiums/workshops across the ICAO Regions. Accordingly, the meeting encouraged States to participate in the ICAO RPAS Workshop planned to be organized in the MID Region from 11 to 13 December 2017.

***GNSS Interference***

4.35 The subject was addressed in WP/14 presented by IATA. The meeting recalled that the Global Positioning System (GPS) provides operators with positioning, navigation and timing (PNT) services. Aviation relies heavily on GPS for area navigation and precision approach. Aircraft avionics such as the Flight Management Systems (FMS) require GPS timing for a large number of onboard functions including Terrain Avoidance Warning System (TAWS) or Enhanced Ground Proximity Warning Systems (EGPWS). Onboard avionics are highly integrated on commercial aircraft and are very dependent on GPS timing data.

4.36 The Seventh meeting of the CNS Sub-Group (CNS SG/7) held in Cairo, Egypt in June 2016, highlighted that GNSS signal disruption cannot be ruled out completely and States/ANSPs must be prepared to deal with loss of GNSS signals, and that States conduct risk assessment and implement mitigation strategies using the ICAO guidance. The CNS SG/7 requested States as well as IATA to collect data using the GNSS Interference Report Form, which should be analyzed in order to agree on appropriate mitigation measures. The meeting reviewed the reported incidents in MID Region presented by IATA.

4.37 The meeting agreed that the subject should be presented to the Third MIDANPIRG/RASG-MID Coordination meeting (MRC/3).

4.38 The meeting encouraged States to participate in the ACAC/ICAO Workshop on GNSS Vulnerabilities, which is planned to be held in end of November 2017.

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**REPORT ON AGENDA ITEM 5: WORKING ARRANGEMENTS**

***Election of new RSC Co-Chairs***

5.1 The meeting recalled that **Mr. Haithem J. Gauwas**, Aviation Safety Manager, General Authority of Civil Aviation (GACA), Saudi Arabia, has been acting as the Co-Chair of the RSC (from the States side), since the RSC/2 meeting (Amman, Jordan, 28 – 30 October 2013). The meeting noted that Mr. Gauwas informed the ICAO MID Office that, due to internal organizational changes in GACA, he could not continue as the Co-Chair of the RSC. The meeting thanked Mr. Gauwas for his contributions and support to the RASG-MID.

5.2 Mrs. **Suha Daher**, Director of Quality Assurance and Internal Audit/NCMC, Civil Aviation Regulatory Commission-Jordan was unanimously elected as the new Co-Chair of the RSC.

5.3 The meeting recalled that **Mr. Chamsou D. Andjorin**, Director Aviation Safety Middle East and Africa, Boeing, has been acting as Co-Chair of the RSC (from the industry side), since its establishment by the RASG-MID/1 meeting (Cairo, Egypt, 18 – 19 September 2011). The meeting noted that Mr. Andjorin will move to Nairobi, Keniya, and accordingly, will no longer be able to continue as the RSC Co-Chair. The meeting thanked Mr. Andjorin for his outstanding contributions and support to the RASG-MID.

5.4 **Mr. Ken Sewell**, Regional Director, Safety & Flight Operations, IATA-MENA was unanimously elected as the new Co-Chair of the RSC.

5.5 The meeting noted that **Mr. Saleh Al. Amoush**, from Jordan who has been the Alternate Co-Chair of the RSC since its establishment by the RASG-MID/1 meeting, left CARC Jordan. Accordingly, **Mrs. Angie Ahmed Abdalla Mostafa**, Head of Aerodromes Safety and Standards Administration, Egyptian Civil Aviation Authority (ECAA), was unanimously elected as the new Alternate Co-Chair of the RSC.

***Election of a new Rapporteur for the ASRT***

5.6 The meeting noted that **Capt. Adnan Takrouri** left the Royal Jordanian Airlines and is no longer able to continue as the Rapporteur of the ASRT. The meeting thanked Capt. Takrouri for his contributions and support to the ASRT and elected **Mrs. Rose Al-Osta**, Manager Safety & Flight Operations, IATA-MENA, as new Rapporteur of the ASRT.

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**REPORT ON AGENDA ITEM 6: FUTURE WORK PROGRAMME**

6. 1 The subject was addressed in WP/20 presented by the Secretariat.

6. 2 The meeting noted that the RASG-MID/6 is planned to be held in Bahrain, 19-21 September 2017. The RASG-MID/7 is tentatively planned to be held during the first quarter of 2019. Accordingly, the meeting agreed that the RSC/6 meeting be tentatively scheduled for June 2018. The exact dates and venue will be coordinated between the ICAO MID Office and the Chairpersons.

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## REPORT ON AGENDA ITEM 7: ANY OTHER BUSINESS

7.1 Nothing has been discussed under this Agenda Item.

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# *APPENDICES*

## APPENDIX 3A

## FOLLOW-UP ON RASG-MID/5 CONCLUSIONS AND DECISIONS

| CONCLUSIONS AND DECISIONS | CONCERNS/ CHALLENGES (RATIONALE) | DELIVERABLE/ TO BE INITIATED BY | | TARGET DATE | STATUS/REMARKS |
|---|---|---|---|---|---|
| ***CONCLUSION 5/1: ICAO USOAP-CMA IMPLEMENTATION***<br><br>*That, States:*<br><br>*a) be urged to prioritise and take action as needed to improve their safety oversight system, with particular attention to:*<br><br>*i. the implementation of Corrective Action Plans (CAP) and reporting the progress on the On-line Framework (OLF); and*<br><br>*ii. the completion of the self-assessments and uploading of the relevant evidences on the OLF;*<br><br>*b) are encouraged to request assistance from ICAO, as required.* | - Average EI rate for the MID Region had not improved over the last year.<br>- Development/update of CAPs not up-to expectation<br>- Implementation of most Corrective Action Plans (CAPs) had not started.<br>- Possibility of a State's EI rate reducing following an ICAO audit if a State did not maintain or improve its safety oversight system. | State Letter | ICAO | Aug. 16 | **Actioned**<br><br>SL ME 4–16/217 dated 16 August 2016.<br>- ICAO MID Regional Office mission to States (Egypt, Jordan Kuwait and Oman).<br>- USOAP CMA Workshop in Iran (Cost-Recovery). |
| ***CONCLUSION 5/2: IATA-IOSA PROGRAMME***<br><br>*That, States be encouraged to use all sources of safety data for the conduct of their safety oversight activities, including the IATA IOSA results, which provide complementary information for the safety oversight activities; and send their feedback to the ICAO MID Office by **15 October 2016**.* | The ANC raised concerns with respect to RASG-MID Conclusion 4/14 regarding the IATA IOSA Programme. It was felt that the use of the term "acceptable means of compliance" was not appropriate and that the wording of the Conclusion may be misleading. The IOSA compliance does not | State Letter<br><br>Feedback | ICAO<br><br>States | Jul. 16<br><br>Oct.16 | **Actioned**<br><br>SL ME 4–16/198 dated 01 August 2016.<br>- Conclusion 5/2 replaced and superseded Conclusion 4/14 for clarity. |

| CONCLUSIONS AND DECISIONS | CONCERNS/ CHALLENGES (RATIONALE) | DELIVERABLE/ TO BE INITIATED BY | | TARGET DATE | STATUS/REMARKS |
|---|---|---|---|---|---|
| | replace a State's oversight activities but rather provided complementary information. | | | | |
| ***CONCLUSION 5/3: USE OF ECCAIRS***<br><br>*That, States that have not yet done so, be urged to use ECCAIRS for the reporting of accidents and serious incidents; and send their feedback to the ICAO MID Office by **15 October 2016**.* | With respect to reporting of accidents and serious incidents, the RASG-MID/5 meeting underlined that ECCAIRS should be used for the reporting of accidents and serious incidents to ICAO. | State Letter<br><br>Feedback | ICAO<br><br>States | Jul.16<br><br>Oct.16 | **Actioned**<br><br>SL ME 4–16/199 dated 01 August 2016<br>- Kuwait, Iran, Saudi Arabia, Sudan and UAE are already using ECCAIRS.<br>- Jordan and Qatar are planning to start the use of ECCAIRS soon (end of 2016 - beginning of 2017).<br>- ICAO MID Regional Office assists States in implementing ECCAIRS and delivers ECCAIRS trainings. |
| ***DECISION 5/4: FOURTH MID ANNUAL SAFETY REPORT***<br><br>*That, the Fourth Edition of the MID Annual Safety Report (ASR) is endorsed and be published on the ICAO MID website.* | The Reactive and Proactive Sections of the ASR are mature and providing excellent data and analysis. However, data collection for Predictive Section is still a challenge. | Fourth Edition of MID-ASR | RASG-MID | May 16 | **Completed**<br><br>Endorsed by the RASG-MID/5 meeting and posted on the ICAO MID website. |

| CONCLUSIONS AND DECISIONS | CONCERNS/ CHALLENGES (RATIONALE) | DELIVERABLE/ TO BE INITIATED BY | | TARGET DATE | STATUS/REMARKS |
|---|---|---|---|---|---|
| ***DECISION 5/5: ESTABLISHMENT OF AIA WG CORE TEAM*** | | | | | **Completed** |
| *That, the AIA WG Core Team composed of the following experts, is established to advance the work of the AIA WG between the face-to-face meetings:*<br><br>– *Mr. Adnan Mohamed Malak from Saudi Arabia (Chairman);*<br>– *Ms. Leena Ahmed Al Koohej from Bahrain;*<br>– *Mr. Amr Mokhtar from Egypt;*<br>– *Mr. Hassan Rezaeifar from Iran;*<br>– *Dr. Abdallah Falah Suleiman Al-Samarat from Jordan;*<br>– *Mr. Kamil Ahmed Mohamed from Sudan;*<br>– *Ms. Rose Al Osta from IATA;*<br>– *Capt. Fadi Khalil from IFALPA;and*<br>– *Mr. Mashhor Alblowi from ICAO.* | To fulfil the mandate assigned to the AIA WG | AIA WG Core Team | RASG-MID | May 16 | In order to fulfil the mandate assigned to the AIA WG (collection/reporting, validation and analysis of data), the RASG-MID/5 meeting agreed that a Core Team led by the Chairman of the AIA WG be established to advance the work of the AIA WG between the face-to-face meetings. |

| CONCLUSIONS AND DECISIONS | CONCERNS/ CHALLENGES (RATIONALE) | DELIVERABLE/ TO BE INITIATED BY | | TARGET DATE | STATUS/REMARKS |
|---|---|---|---|---|---|
| ***DECISION 5/6: iSTARS ADREP OCCURRENCE DATA FORM*** | | | | | **Actioned** |
| *That, the AIA WG Core Team:*<br>*a. further review and finalize the iSTARS ADREP Occurrence Data Form;*<br>*b. develop guidelines for the use of the Form;*<br>*c. establish a validation process of data provided; and*<br>*d. develop standard and limited lists of main root causes and contributing factors to be included in the Form.* | To support the creation of a platform for the sharing and analysis of safety information. | iSTARS ADREP Occurrence Data Form | AIA WG & ICAO | a) Jun. 16<br>b) Jun. 16<br>c) Sep. 16<br>d) Sep. 16 | |
| ***CONCLUSION 5/7: PROVISION OF SAFETY DATA USING iSTARS APPLICATION*** | | | | | **Actioned** |
| *That, States be urged to allow their regulators and service providers (ANSPs, Aerodrome Operators, Airlines, etc.) to provide/share available data related to safety occurrences using the dedicated iSTARS application.* | Difficulties facing some States and Stakeholders to share data related to accidents/incidents through iSTARS ADREP application, due to national policy. | State Letter | ICAO | Aug. 16 | SL ME 4 – 16/216 dated 16 August 2016 |

| CONCLUSIONS AND DECISIONS | CONCERNS/ CHALLENGES (RATIONALE) | DELIVERABLE/ TO BE INITIATED BY | | TARGET DATE | STATUS/REMARKS |
|---|---|---|---|---|---|
| ***DECISION 5/8: RASG-MID SAFETY ADVISORY-PERIODIC SURVEILLANCE AUDIT OF AERODROME INFRASTRUCTURE AND MAINTENANCE*** | | | | | **Completed** |
| *That, the RASG-MID Safety Advisory at **Appendix 3E** is endorsed and be published by the ICAO MID Office.* | To support Aerodrome Infrastructure and Maintenance Management. | RSA | RASG-MID | Jun. 16 | SL ME 4-16/232 dated 22 August 2016<br>- RASG-MID Safety Advisory-10 (RSA-10) has been posted on the ICAO MID website. |
| ***DECISION 5/9: AIRPLANE STATE AWARENESS (ASA)-LOW AIRSPEED ALERTING*** | | | | | **Completed** |
| *That, the RASG-MID Safety Advisory related to Airplane State Awareness (ASA)-Low Airspeed Alerting at **Appendix 3K** is endorsed and be published by the ICAO MID Office.* | To mitigate the risk of LOC-I. | RSA | RASG-MID | Jun. 16 | SL ME 4-16/202 dated 01 August 2016<br>- RASG-MID Safety Advisory-09 (RSA-09) has been posted on the ICAO MID website. |
| ***DECISION 5/10: STANDARD OPERATING PROCEDURES EFFECTIVENESS AND ADHERENCE*** | | | | | **Completed** |
| *That, the RASG-MID Safety Advisory related to Standard Operating Procedures effectiveness and adherence at **Appendix 3L** is endorsed and be published by the ICAO MID Office.* | To mitigate the risk of LOC-I. | RSA | RASG-MID | Jun. 16 | SL ME 4-16/200 dated 01 August 2016<br>- RASG-MID Safety Advisory-07 (RSA-07) has been posted on the ICAO MID website. |

| CONCLUSIONS AND DECISIONS | CONCERNS/ CHALLENGES (RATIONALE) | DELIVERABLE/ TO BE INITIATED BY | | TARGET DATE | STATUS/REMARKS |
|---|---|---|---|---|---|
| ***DECISION 5/11: AIRPLANE STATES AWARENESS (ASA) -TRAINING FLIGHT CREW TRAINING (APPROACH TO STALL & UPSET RECOVERY) VERIFICATION AND VALIDATION*** | | | | | **Completed** |
| *That, the RASG-MID Safety Advisory related to the Airplane States Awareness (ASA) -Training –Flight Crew Training (Approach to Stall & Up set recovery) Verification and Validation at **Appendix 3M** is endorsed and be published by the ICAO MID Office.* | To mitigate the risk of LOC-I. | RSA | RASG-MID | Jun. 16 | SL ME 4-16/201 dated 01 August 2016<br>- RASG-MID Safety Advisory-08 (RSA-08) has been posted on the ICAO MID website. |
| ***DECISION 5/12: SST REVISED TERMS OF REFERENCE (TORS)*** | | | | | **Completed** |
| *That, the Terms of Reference of the SST be revised as at **Appendix 3O**.* | To reflect the new way of doing business, with a focus on targeted assistance, sharing of expertise, experience and best practices in order to agree on recommended actions and provide assistance related to the implementation of the SEIs. | Revised TORS | RASG-MID | May 16 | |

| CONCLUSIONS AND DECISIONS | CONCERNS/ CHALLENGES (RATIONALE) | DELIVERABLE/ TO BE INITIATED BY | | TARGET DATE | STATUS/REMARKS |
|---|---|---|---|---|---|
| ***CONCLUSION 5/13: ACAC/ICAO AIG WORKSHOP***<br><br>*That,*<br><br>*a) a joint ACAC/ICAO AIG Workshop be organized in 2017;*<br><br>*b) the Strategy for the establishment of a Middle East RAIO be finalized by the Workshop, for final endorsement by RASG-MID and the ACAC Executive Council; and*<br><br>*c) States are encouraged to attend and support the Workshop.* | To finalize the strategy for the establishment of a Middle East RAIO. | - Workshop<br><br>- Revised Strategy for the establishment of a Middle East RAIO | ACAC/ ICAO | Apr. 17 | **Ongoing**<br><br>Since the Strategy was initially developed during the joint ACAC/ICAO Seminar held in Rabat in 2012, and in order to further fine-tune it, taking into account States' needs and plans, the RASG-MID meeting agreed that an ACAC/ICAO joint Workshop be organized in 2017. |
| ***DECISION 5/14: REVISED MID REGION SAFETY STRATEGY***<br><br>*That, the revised version of the MID Region Safety Strategy (Revision 4, May 2016) at **Appendix 3R** is endorsed.* | To include/remove Safety indicators based on the outcome of the HLSC 2015 and specific regional needs. | Revised version of the MID Region Safety Strategy | RASG-MID | May 16 | Completed |

| CONCLUSIONS AND DECISIONS | CONCERNS/ CHALLENGES (RATIONALE) | DELIVERABLE/ TO BE INITIATED BY | | TARGET DATE | STATUS/REMARKS |
|---|---|---|---|---|---|
| ***DECISION 5/15: ENDORSEMENT OF RASG-MID PROCEDURAL HANDBOOK-THIRD EDITION*** | | | | | **Completed** |
| *That, the RASG-MID Procedural Handbook-Third Edition at **Appendix 4A** is endorsed.* | - To ensure better continuity and support to RASG-MID.<br>- Reference to the MID Region Safety Strategy and to the RASG-MID Engagement Strategy.<br>- The agreed mechanism for coordination between MIDANPIRG and RASG-MID. | Handbook | ICAO | Jun. 16 | Handbook-Third Edition available on the ICAO MID website. |
| ***DECISION 5/16: RSC TERMS OF REFERENCE (TORS)*** | | | | | **Completed** |
| *That,*<br>*a) the RSC is delegated the authority to approve on behalf of the RASG-MID:*<br>*1) the MID Annual Safety Reports;*<br>*2) the RASG-MID Safety Advisories; and*<br>*3) those Draft Conclusions/Decisions emanating from the subsidiary bodies, which necessitate urgent follow-up action(s).*<br>*b) the RSC TORs should be updated to reflect the above.* | To improve the efficiency of the RASG-MID and give enough authority to the RASG-MID Steering Committee (RSC) to advance the work. | Updated RSC TORs | RASG-MID | May 16 | The RSC could approve on behalf of the RASG-MID:<br>- as deemed necessary:<br>1) the MID Annual Safety Reports; and<br>2) RASG-MID Safety Advisories.<br>- those Draft Conclusions/ Decisions emanating from the subsidiary bodies, which necessitate urgent follow-up action(s). |

| CONCLUSIONS AND DECISIONS | CONCERNS/ CHALLENGES (RATIONALE) | DELIVERABLE/ TO BE INITIATED BY | | TARGET DATE | STATUS/REMARKS |
|---|---|---|---|---|---|
| ***CONCLUSION 5/17: REVISION OF THE RASGS TERMS OF REFERENCE*** | | | | | **Actioned** |
| *That, ICAO consider the revision of the RASGs Terms of Reference (TORs) taking into consideration the latest developments including the outcomes of the HLSC 2015 and ICAO NCLB Initiative.* | The need to update the RASGs TORs to keep pace with latest developments, including the recommendation of the HLSC-2015 and ICAO NCLB Initiative. | Revised RASGs TORs | ICAO HQ | TBD | ICAO HQ to follow-up. |
| ***CONCLUSION 5/18: REMOTELY PILOTED AIRCRAFT SYSTEM (RPAS) OCCURRENCES*** | | | | | **Actioned** |
| *That, States be urged to report any safety occurrence related to RPA operations to the ICAO MID Regional Office on regular basis, for review and analysis by the Accident and Incident Analysis Working Group (AIA WG).* | RPAS is one of the Emerging Risks in the MID Region. | State Letter<br><br>Feedback | ICAO<br><br>States | Aug. 16<br><br>Nov. 16 | SL ME 4–16/215 dated 16 August 2016<br>- RPAS is one of the subjects being addressed by both MIDANPIRG and RASG-MID (with MIDANPIRG as the lead Group)<br>- RPAS Workshop is planned to be held in December 2017. |

- END -

**APPENDIX 3B**

# LOC-I DIPs Status

| DIP | Description | Output | Deadline | Status | Comments |
|---|---|---|---|---|---|
| **LOC-I/1** | Airplane State Awareness (ASA)-Low Airspeed Alerting | 1. Consulted with airframe manufacturers on status of mod on aircraft<br>2. Track implementation | 29 Sept.2016 | 1 & 2 Completed<br>On going | 1.Safety Advisory RSA 09 issued |
| **LOC-I/2** | Standard Operating Procedures Effectiveness and Adherence | 1. Ensure Air Carriers SOPs updated<br>2. Assessments by Air Carriers to determine level of adherence current SOP | 31 Jan. 2016<br>31 March 2017 | Completed<br>On going | Safety Advisory RSA 07 issued |
| **LOC-I/3** | ASA-Training-Flight Crew Training Verification and Validation | 1. IATA to organize a Seminar to promote and roll-out LOC-I Programme<br>2. Air Carrier Standard Operating procedures (SOP) reviewed, and updated as needed.<br>3. Track implementation. | 30 June 2016<br><br>31 July 2018 | Completed<br>Completed<br>On going | 1. LOC-I Seminar organized 3 March 2016 in Dubai<br>2. Safety Advisory RSA 08 issued<br>3. Provided advanced maneuvers manual to MENA air operators |

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**APPENDIX 3C**

# CIFT DIP Status

| DIP | Description | Output | Deadline | Status | Comments |
|---|---|---|---|---|---|
| **CIFIT/1** | The implementation of BPN Approach Procedures to all runways not currently served by precision Approach Procedures | 1. Identify and prioritize the airports/runways which require specific PBN approaches.<br>2. Concerned States, CANSO, IATA and ICAO to establish a Work Force to develop an appropriate detailed action plan for the implementation of PBN approaches at the identified airports/runways.<br>3. Implementation of PBN approach procedures at the identified airports/ runways in accordance with their associated action plans. | Long Term | 1.Completed<br><br>2.on going<br><br><br><br><br>3. on going | **Runway priorities**<br>1 OMRK 16/34 (Completed)<br>2.OIMM 13<br>3.OISS 11 /29<br>4.HEBA 14<br>5.ORMM 14/32 (in progress)<br>6.ORNI 10 (Completed) |

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**APPENDIX 3D**

**DIP Tracking for MID-RAST/RGS/2**

**Development guidance material and training programmes to support the creation of action plans by local aerodrome Runway Safety Teams (RST)**

| RGS/2 DIP Deliverable | Target Date | Status | Comments |
|---|---|---|---|
| ✓ Develop and issue Stop Bar guidance documentation for consideration of LRSTs | End April 2014 | Completed | RASG-MID Safety Advisory (RSA-01) circulated to States on 2 November 2014 (Ref: ME 4-14/253). |
| ✓ Organise a Workshop for Regional RST Go-Teams | End June 2014 | Completed | 3 June 2014 – see *RASG-MID/4 WP/7 - Outcome of MID-RRSS/2* for details. |
| ✓ Develop and issue regulatory framework supporting establishment of LRSTs | End September 2014 | Completed | RASG-MID Safety Advisory (RSA-02) circulated to States on 20 January 2015 (Ref: ME 4-15/014). |
| ✓ Develop and issue a model checklist for LRSTs | End December 2014 | Completed | RASG-MID Safety Advisory (RSA-03) circulated to States on 16 March 2015 (Ref: ME 4-15/078). |

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**APPENDIX 3E**

**DIP Tracking for MID-RAST/RGS/3**

**Development guidance material and training programmes to support Aerodrome Infrastructure and Maintenance Management**

| RGS/3 DIP Deliverable | Target Date | Status | Comments |
|---|---|---|---|
| ✓ Conduct a MID-Regional Runway Safety Seminar | End June 2014 | Completed | 4 June 2014 – see *RASG-MID/4 WP/7 - Outcome of MID-RRSS/2* for details. |
| ✓ Organise a Regional Aerodrome Certification Workshop | End June 2014 | Completed | 4 June 2014 - see *RASG-MID/4 WP/7 - Outcome of MID-RRSS/2* and *RASG-MID/4 WP/8 - Runway Safety Related Issues.* |
| ✓ Develop a MID-Region Aerodrome Certification toolkit for States. | End March 2015 | Completed | RASG-MID Safety Advisory (RSA-05) circulated to States on 10 September 2015 (Ref: ME 4-15/261). |
| ✓ Develop and issue guidance material on periodic surveillance audits of Aerodrome Infrastructure and Maintenance | End March 2016 | Completed | RASG-MID Safety Advisory (RSA-10) circulated to States on 22 August 2016 (Ref: ME 4-16/232). |
| Develop and issue guidance material on proactive oversight of Aerodrome Infrastructure Development | End April 2017 | In Progress | |

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**APPENDIX 3F**

**DIP Tracking for MID-RAST/RGS/4**

**Aerodrome Safeguarding**

| RGS/4 DIP Deliverable | Target Date | Status | Comments |
|---|---|---|---|
| Safeguarding Guidance Toolkit | April 2016 | Completed | Draft RASG-MID Safety Advisory (RSA-xx), **Attachment G,** was reviewed by RGS WG/3 (Cairo, Egypt, 19 - 22 September 2016) and will be published further to endorsement of the RSC. |
| Regional Workshop | June 2017 | In-Progress | The Workshop will be hosted by Egypt in Sharm El Sheikh from 4-6 December 2017 with speakers provided by Egypt and UAE. The Workshop has been added to the ICAO MID Regional Office - Tentative Schedule of Meetings, Seminars and Workshops – January-December 2017. |

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**APPENDIX 3G**

**DIP Tracking for MID-RAST/RGS/5**

**Wildlife Management Control**

| RGS/5 DIP Deliverable | Target Date | Status | Comments |
|---|---|---|---|
| RSA for Regulatory Framework & Guidance Materials | August 2016 | Completed | Draft RASG-MID Safety Advisory (RSA-xx) was reviewed by RGS WG/3 and will be circulated to States before being presented to the RSC for endorsement. |
| Templates on WHMP | September 2016 | In Progress | The templates have been drafted and will be presented to RGS WG/4 (Cairo, Egypt, 5-7 November 2017). |
| Wildlife Management Control Workshop | September 2018 | In Progress | Sudan has offered to host the Workshop during 2018 as noted in Final Report of RGS WG/3. |

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**APPENDIX 3H**

**DIP Tracking for MID-RAST/RGS/6**

**Laser Attacks**

| RGS/6 DIP Deliverable | Target Date | Status | Comments |
|---|---|---|---|
| RSA for Guidance Material | September 2016 | Completed | Draft RASG-MID Safety Advisory (RSA-xx) was reviewed by RGS WG/3 and will be circulated to States before being presented to the RSC for endorsement. |
| ✓ ICAO to issue State Letter to promulgate regulations on Laser Attacks | June 2015 | Completed | Letter issued by ICAO MID on 3 September 2015. |
| RSA with Case Studies | May 2017 | In Progress | Draft is being prepared to be delivered for circulation by May 2017. |

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**APPENDIX 3I**

# RASG-MID SAFETY ADVISORY – 11

# (RSA-11)

# January 2017

# MID-Region

# Safeguarding of Aerodromes

| | |
|---|---|
| Date of Issue: | January 2017 |
| Revision No: | First Edition |
| Document Ref. No.: | RASG-MID/MIDRAST/RGS/SEI/04-1 |

| | |
|---|---|
| Owner: | RASG-MID |

These guidelines are developed by the Runway and Ground Safety Working Group (RGS WG), as part of MID-RAST/RGS/4 DIP deliverables, based on the work of the Egyptian Civil Aviation Authority in collaboration with the ICAO MID Regional Office within the framework of RASG-MID the Regional Aviation Safety Group - Middle East (RASG-MID).

# Disclaimer

This document is intended to provide guidance for civil aviation regulators, aerodrome operators and other stakeholders involved in aerodromes safeguarding.

The document has been compiled by members of the aviation industry to enhance aviation safety. It is not intended to supersede or replace existing materials produced by the State or in ICAO SARPs. The distribution or publication of this document does not prejudice the State's ability to enforce existing National regulations. To the extent of any inconsistency between this document and the National/International regulations, standards, recommendations or advisory publications, the content of the National/International regulations, standards, recommendations and advisory publications shall prevail.

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***Regional Safety Advisory***

**TABLE OF CONTENTS**

# INTRODUCTION

## Safeguarding - An Overview

### 1. The Purpose of this Advice Note

The purpose of this Safety Advisory is to provide guidance on the Safeguarding of aerodromes by controlling proposed developments in areas surrounding aerodromes.

This publication explains the process; duties and responsibilities that will be adopted by the civil aviation regulators, service providers and concerned stakeholders.

### 2. Background

In the early days of aviation, the rights of property owners were considered to extend from the surface downward to the centre of the earth and upward to infinity. Accordingly, the owner was free to erect structures on his land to unlimited heights and any encroachment in the airspace by others constituted a trespass. This meant that aircraft could not fly over private property at any altitude without permission of each property owner. Obviously, that policy could have prevented the development of civil aviation and scheduled air transportation. So, legislatures modified the ownership doctrine to specify that a property owner has exclusive rights to the airspace over his land only to the greatest height which he might reasonably be expected to use, with a right of free public transit through the air above such height.

When buildings encroach on the airspace needed for aircraft operations, restrictions limiting the aircraft operations should be established in the interest of safety. Such restrictions could seriously affect orderly and efficient air transportation to an airport and adversely affect the economy of the communities served by the airport.

Control of obstacles in the vicinity of airports is, therefore, a matter of interest and concern to national governments, local communities, property owners, and airport operators as well as civil aviation authorities (CAA). There are severe legal, economic, social and political limitations to what can be achieved by any of these interests with respect to an existing airport where obstacles already exist.

### 3. What is Safeguarding?

The word “Safeguard” means, according to the Concise Oxford Dictionary, “a proviso, stipulation, quality or circumstance, that tends to prevent something undesirable”, while “Aerodrome” is a defined area where aircraft can land, take-off, taxi or park, and includes airfields, airports, heliports, etc.

### 4. Purpose of Safeguarding

Thus, the purpose of Aerodrome Safeguarding is to take the measures necessary to ensure the safety of aircraft, and thereby the passengers and crews aboard them, while taking-off or landing, or while flying in the vicinity of an aerodrome.

Safeguarding is achieved by a process of checking proposed developments so as to:

- protect the blocks of air through which aircraft fly, by preventing penetration of surfaces created to identify their lower limits (the minimum obstacle clearance altitude (MOCA);
- protect the integrity of radar and other electronic aids to air navigation, by Preventing reflections and diffractions of the radio signals involved;
- protect visual aids, such as Approach and Runway lighting, by preventing them from being obscured, or preventing the installation of other lights which could be confused for them; and
- avoid any increase in the risk to aircraft of a bird strike by preventing any land use that may cause increase in hazardous bird species in the vicinity of the aerodrome and, whenever the opportunity arises, to reduce the level of risk.

Safeguarding of Aerodromes is implemented by establishing a series of protection imaginary surfaces around each aerodrome as follows:

## 5. Safeguarding Protection Types

### 5.1 Obstacle Limitation Surfaces (OLS):

a. Obstacle Limitation Surfaces (OLS) represent the lower limit of the blocks of protected airspace around an aerodrome. They take the form of a complex set of 3-Dimensional surfaces, which extend upwards and outwards from the runway(s).

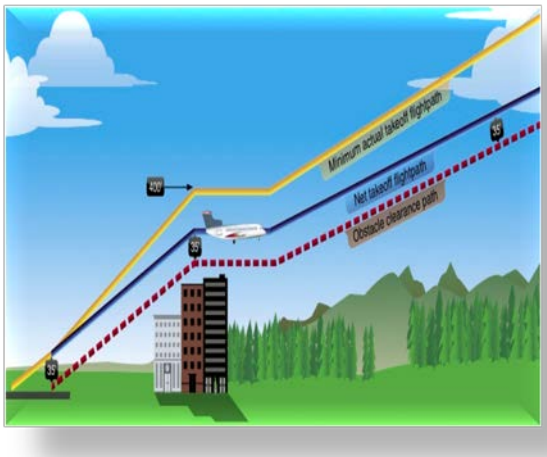
b. The OLS completely surround the aerodrome, but those surfaces aligned with the runway(s) used to protect aircraft landing or taking-off can be more limiting than those surrounding the rest of the aerodrome, particularly as you get closer to the aerodrome. Details of the OLS found in **Appendix A**.

### 5.2 PANS-OPS :

a. Surfaces established by designers of Procedures for Air Navigation Services and Aircraft Operations (PANS-OPS) are intended to safeguard an aeroplane from collision with obstacles when flying on instruments.

b. PANS-OPS specify the size and dimensions of the obstacle-free airspace needed for the approach, for the missed approach initiated at or above the OCA/H and for the visual maneuvering (circling) procedure.

c. Visual maneuvering (circling procedures) described in PANS-OPS, is a visual extension of an instrument approach procedure. The size of the area for a visual maneuvering (circling) varies with the flight speed.




d. It is permissible to eliminate from consideration a particular sector where a prominent non-removable obstacle exists by- establishing appropriate operational procedures.

e. In many cases, the size of the area will be considerably larger than that covered by the Annex 14 inner horizontal surface (as shown in figure below). Therefore circling altitudes/height calculated according to PANS-OPS for actual operations may be higher than those based only on obstacles penetrating the inner horizontal surface area (**Appendix B**).

(more information in Annex 6).

5.3 **Basic ILS surfaces:**

"The basic ILS surfaces" defined in PANS-OPS represent the simplest form of protection for ILS operations. These surfaces are extensions of certain Annex 14 surfaces, referenced to runway threshold level throughout and modified after threshold to protect the instrument missed approach.

The airspace bounded by the basic ILS surfaces is however usually too conservative and therefore another set of surfaces, "obstacle assessment surfaces", is specified in PANS-OPS. (**Appendix C**).

5.4 **Obstacle Assessment Surfaces (OAS):**

Obstacle Assessment Surfaces (OAS) establish a volume of airspace, inside which it is assumed the flight paths of aeroplanes making ILS approaches and subsequent missed approaches will be contained with sufficiently high probability.

5.5 **Radar and other Electronic Aide to Air Navigation:**

In low visibility conditions pilots are entirely dependent on the accuracy of the information displayed on the instruments in the cockpit to navigate and land their aircraft. Similarly, air traffic controllers rely on the accuracy of the information displayed on the radar screens in front of them to maintain safe separation between aircraft. It is essential, therefore, that this information has not been distorted by interference to the radio signals involved used in the operation of the navigation aids.

All effort has to be done to safeguard Navigation aid's protection area needed for each of (radar / ILS / VOR / Microwave line…..), by:

a. Contacting the Manufacturer company to provide all information about dimensions and slops of protection area for each electronic aids and any restriction needed.
b. Minimizing the effect of sources of non-visible radiation, or the presence of moving, or fixed objects that may interfere with, or adversely affect, the performance of aeronautical communications, navigation and surveillance systems.

5.6 **Visual Aids:**

Visual aids, consisting primarily of aeronautical ground lighting, assist pilots to line up the aircraft with the runway when approaching to land. These have to be protected by:

- preventing them from being obscured;
- preventing the installation and display of other lights, particularly street lighting, in a pattern or color which could be mistaken for visual aids;
- preventing a high level of background lighting which could diminish their effectiveness; and
- preventing other lights which could dazzle pilots.

5.7 **Control Tower:**

Aerodrome operator should do all effort needed to provide protection needed to keep control tower line of sight clear form any obstacles.

## 6. Duties and Responsibilities:

A regulatory frame should be in place supported by law and includes clear duties and responsibilities for each of CAA, aerodrome operators and any other entity related to the implementation of aerodrome safeguarding management system. Full description of all types of protection surfaces including OLS should be included therein.
Provisions depicting the roles of enforcement against any violation; and relation between aviation authority and other authorities should be incorporated in the national law. Such provisions should include, but not limited to the following:

### 6.1 State/Regulator should:

a. Develop the Aviation law and regulations of safeguarding foundation and enforcement according to ICAO annex 14 and related documentations without any conflict to state's other laws and regulations.
b. Assign Safeguarding team/division furnished with proper equipment and training to carry out their duties of safeguarding and auditing of the aerodromes.
c. Support technical and audit operator's safeguarding team/departments
d. Review and approve aerodromes' OLS maps according to national regulations
e. Have Obstacles assessment system and procedures in place.
f. Arrange with Operators and Local Planning Authority (LPA), concerned ministries and all other parties involved in aerodrome safeguarding protection area as follows:
   - Provide formal notifications of safeguarding protection area attached to maps of protection surfaces for each aerodrome in the state to LPA
   - Review all urban future development within State level to assure that none may affect aerodrome future development.
   - Review and approve different land use locations (industrial, commercial in addition to any wind-farms, electricity poles, communication antennas and advertising high masts
   - Review all new roads and bridges with its light poles in area adjacent to aerodromes.
   - Other information as may be necessary, for example, landscaping details to enable the birdstrike potential to be assessed, or the types of cladding materials proposed so that the potential for radar reflection can be modeled.
g. As part of the Aerodrome Certificate, CAA has to review/ accept all Obstacles' data and its aeronautical studies and make sure that all are published in AIP.
h. Audit and support operator's safeguarding Monitoring system to take necessary actions when needed.
i. Taking all measures to insure that obstacles are removed, lowered; marked or lit.
j. Apply law enforcement in case of violation.

### 6.2 Aerodrome Operator

***Each aerodrome operator shall:***

6.2.1. Observe the National Laws, Regulations and Advice Notes related to Aerodromes including all guidance materials issued by the competent authority on Safeguarding.
6.2.2. Establish and implement aerodrome safeguarding protection applicable to the aerodrome on a map to be reviewed and certified by CAA to be updated from time to time by the Aerodrome in a way that will reflect the real situation/status in regard to obstacles deployment in the vicinity of the Aerodrome.
6.2.3. Designate members of the Aerodrome staff as an official team / department to be responsible for aerodrome safeguarding and furnish them with proper equipment and training to carry out their duties efficiently.

6.2.4. Establish procedures to:

a. Monitor all human activities and developments within areas underlying the OLS.
b. Identify the critical obstacles associated with the Non Precision Approach (NPA) procedures and have them recorded in the Aerodrome Manual.
c. Report to the procedure designer any changes of the status of the existing critical obstacles and any proposed development that is likely to be higher than the critical obstacles within the area depicted by the procedure designer.
d. Monitor changes in the obstacle environment, marking and lighting.
e. Monitor land use activities on the aerodrome and the areas surrounding the aerodrome, as specified in the relevant regulations, in coordination with the competent authorities.
f. Immediate report to CAA any violations, potential obstacles or new buildings, changes of navigation aid equipment or changes of use of any building within the aerodrome fence.
g. Conduct an obstacle survey by competent surveyor to establish the initial coordinates and details of obstacles and conduct periodic surveys thereafter.
h. Ensure that the runway and taxiway strip areas are free from obstacles or objects which are considered hazardous to aircraft operations unless required to be there for air navigation purposes.
i. Mitigate the risks associated with changes on aerodrome and its surroundings identified by the monitoring procedures.

6.2.5. Define the scope, limits, tasks and responsibilities for the monitoring process, in coordination with the local authorities and air traffic services providers, and other relevant authorities.

6.2.6. Assess the risks caused by human activities and land use, determine the tolerability thereof and define the mitigation measures required. Risks to be assess should include but not limited to:

a. Obstacles and the possibility of induced turbulence.
b. Use of hazardous, confusing, and misleading lights.
c. Dazzling caused by large and highly reflective surfaces.
d. Sources of non-visible radiation, or the presence of moving, or fixed objects which may interfere with, or adversely affect, the performance of aeronautical communications, navigation and surveillance systems.
e. Non-aeronautical ground light near an aerodrome which may endanger the safety of aircraft and which must be extinguished, screened, or otherwise modified so as to eliminate the source of danger.
f. Protect area around aerodrome visual aid located outside aerodrome boundaries by all means of land acquisition (leasing, purchasing etc) or by preventing new developments or extensions to existing structures from infringing the aerodrome safeguarding protection surfaces.
g. Notify CAA of any infringement or potential infringement of the aerodrome safeguarding protection surfaces providing the nature and location of obstacles, and report any subsequent addition, or removal of obstacles for action as necessary , including amendment of the AIS publications.
h. Take necessary measures to assess the risks resulting from an infringement of OLS to identify whether or not the object creates an unacceptable risk or not, and carry out the necessary actions to remove the obstacle or mitigate the risk as appropriate to protect aircraft using the aerodrome.
i. Publish and mark, when needed and where necessary, and make visible by means of lights any remaining obstacles.

j. Provide electronic obstacle data for all obstacles in Area 2 ( the part within the aerodrome boundary) that are assessed as hazardous to air navigation.

**Note:** Aerodrome operators need to liaise with appropriate planning authorities and companies that erect tall structures, to determine potential infringements. Every effort should be made to implement the OLS standards and limit the introduction of new obstacles.
When a new obstacle is detected, the aerodrome operator must ensure that the information is passed on to pilots, through NOTAM or through the Aerodrome's AIP if permanent, in accordance with the standards for aerodrome reporting procedures set out in the relevant Regulations.

## 7. Obstacle's Mechanism

### 7.1 Planning Phase:

a. Safeguarding Process should be included in the LPAs legislation as an integral part of the planning procedure.
b. LPAs are advised by law to contact CAA before issuance of any building certificate, or define any land use.
c. The LPAs then refer to CAA/defined party of any new urban Planning within OLS area, to insure it meets certain criteria relating the height; location and type of use or any other restriction.
d. In addition, any proposed developments with bird attractant properties or any wind farms within 30km of an aerodrome will also be referred for consultation.

**Who should apply:**

- Any property owner / investors
- Local national Planning authority (LNPA)
- Aerodrome operator

### 7.2 Documents Assessment Phase:

To enable accurate assessment of a proposed development, CAA should require certain information to be provided by LPA / Owner as followed:

a. Position: an accurate map reference from a 1:50,000 scale ordnance survey map so that the exact position may be plotted. OR
b. Grid Reference (to at least 6 figures for each of easting and northings).
c. The ground elevation of the proposed location referred to mean sea level (MSL) [to an accuracy of ± 0.25m].
d. Application showing the following information:
    - Responsibility: Owner's name and address(for legal action in case the need to apply enforcement).
    - Height: required height referenced to MSL measured from the highest point of the building - or above ground level (where exact figures are not available, to the nearest 5 feet).
    - Type of use (industrial, commercial, poles, electricity towers …..ect……any additional clarification could help the processing of the application).
    - Other information may be necessary, as for example: landscaping details to enable the birdstrike potential to be assessed, or the types of cladding materials proposed so that the potential for radar reflection can be modelled.

7.3 **Processing Phase:**

It is recommended to have a committee of relevant specialists to review and process application regarding to its impact on:

a. Aerodrome OLS.
b. Obstacle Assessment Surfaces which protect Visual and Instrument Flight Paths.
c. Visual and Electronic Aids, including Radar, to Air Navigation.
d. Type of land use.

7.4 **Following Assessment:**

The reply from the aerodrome(s)/CAA to the LPA will be any of the following:

- Aviation permit (no objection).
- Aviation conditioned permit [no objection subject to certain stated condition(s)].
- Aviation Objection letter (with reasons given).

7.5 **Duration and Renewal of Permit:**

a. CAA should define validation date to Aviation permits issued thereby taking into account normal time line of construction according to related law; and
b. CAA should set rules for renewal of the permit, unless permit is surrendered by the permit is holder or revoked by the CAA in accordance with national regulation.

7.6 **Amendment of Permit:**

Provided that the requirements of OLS been met, CAA may amend a permit upon:

a. Formal request of the owner providing reasons.
b. Changes in the basic information due to inaccurate data/type of use formerly provided.
c. Changes related to regulation.
d. Change in the boundaries or component of the aerodrome (new runway or closure/extension of runway); or change of location or height of an aerodrome Navigation Aids.

7.7 **Interim Permit:**

CAA may issue an interim height permit only for:

a. new urban areas to provide guidance on permitted type of use and permitted heights.
b. guidance for design / land evaluation purposes only.

7.8 **Data Needed:**

a. Coordinates of highest point (or shown in a map);
b. Proposed type of use; and
c. Proposed height. (Above ground level).

7.9 **Compliance with Height Permits:**

a. Each aerodrome operator / property owner or local authority in areas cotangent to aerodromes should undertake the necessary arrangements to apply at CAA for compliance letter after completion of all construction work.
b. If survey process shows violation to the permitted height/use a letter should be issued to the owner to rectify the violation, and If no action is taken by the owner during the grace period specified therein, CAA/aerodrome operator should undertake all the necessary enforcement actions against such violation as prescribed by the relevant law and regulations.

7.10 **Exemption:**

a. An applicant or a permit holder may submit to the CAA petition to be exempted from compliance with a condition stipulated in the permit issued to him or from a requirement of the relevant Regulation as the case may be. The petition must be accompanied with a statement depicting the reasons of such petition and all the details and particulars that may be of support thereto. CAA should conduct an aeronautical study of the case to identify the associated hazards and analyze the consequent risks. Based on the study and analysis results, CAA may grant an exemption after identifying the appropriate practical measures that must be undertaken and whereby an equivalent level of safety can be attained, with bearing in mind the safety objective of regulations and the applicable standards so that the intent of the regulations is not circumvented.
b. Exemption may be, only, given in cases defined as for public interests or if the object which constitutes the subject matter of the exemption petition is shielded by non-removable obstacle.
c. If exemption is granted for an object located within the areas underlying the safeguarding surfaces, especially the approach area of OFZ, the AIS should be notified of the exempted object location and all other details needed for publication as per the relevant Aviation Regulations.
d. Finally exempted objects should be lighted and marked when needed according to chapter 5 annex 14.

7.11 **Cancellation / Provoke of a Permit:**

A permit should be cancelled or provoked in case of:

a. non-compliance with requirements/restrictions cited therein;
b. safety reasons;
c. new development of aerodrome; and/or
d. new navigation aid.

A permit cancellation notification should be served upon the concerned parties (LPA, permit holder…) indicating the reasons for such cancellation.

7.12 **Shielding Principle:**

CAA should set rules for applying the shielding principle to an obstacle shielded by and existing obstacle that does not adversely affect safety of civil aviation; depending on the location of such obstacle:

a. approach / take-off surface;
b. runway sides; and
c. near navigation Aid protection area.

7.13 **Follow-up Phase:**

CAA should establish rules for following up implementation of and compliance with the issued aviation permit through aerodrome operator.

## 8. Objects outside the obstacle limitation surfaces:

8.1 Arrangements should be made to enable the CAA to be consulted concerning proposed construction beyond the limits of the obstacle limitation surfaces that:

a. extend to a defined height (for example 45m or more) above local ground level / or higher than the general tree height in the area;
b. any communication antenna/ electricity poles/advertisement boards or poles……..etc; and
c. wind farms, chimneys or any object that has outcome that could affect airspace safety.

8.2 In areas beyond the limits of the OLS, at least those objects which extend to a (defined height or) 120m or more above ground elevation should be regarded as obstacles, unless a special aeronautical study indicates that they do not constitute a hazard to aero planes.
Note: This study may have regard to the nature of operations concerned and may distinguish between day and night operations, and may be preferable to be lighted and marked.

**9. Other Objects:**

9.1 Objects which do not project through the approach surface but which would nevertheless adversely affect the optimum siting or performance of visual or non-visual aids should, as far as practicable:
a. be removed.
b. Marked and/or lit.

9.2 Anything which may, in the opinion of the CAA after aeronautical study, endanger aeroplanes on the movement area or in the air within the limits of the inner horizontal and conical surfaces should be regarded as an obstacle and should be removed in so far as practicable.

**Note:** In certain circumstances, objects that do not project above any of the surfaces enumerated in national regulation may constitute a hazard to aeroplanes as, for example, where there are one or more isolated objects in the vicinity of an aerodrome.

9.3 Temporary and transient obstacles. Temporary obstacles as cranes and transient (mobile) obstacles, such as road / vehicles / rail carriages or ships, in close proximity to the aerodrome and which penetrate the OLS for a short duration, must be referred to CAA CASA to determine whether they will be a hazard to aircraft operations.

9.4 Fences or levee banks. A fence or levee bank that penetrates the OLS must be treated as an obstacle.

**10. Reporting:**

Several countries have enacted Legislation or adopted regulations designed to assign responsibility for reporting new construction projects. The obligation to report such construction may rest with local agencies such as planning bodies or construction licensing authorities or with the developer himself. In some cases, height limits have been specified; these are generally consistent with the criteria of Annex 14, Chapter 4, below which local authorities may authorize a project without higher review.

If any part of a proposed development appears to penetrate an obstacle Limitation surface, then the project should be referred to CAA for review. This review would examine the effect of the envisaged construction on air navigating in general and on operation procedures in use in particular if the conclusion of the above study is that the proposed construction can be permitted under some conditions, these should also be identified, e.g. display of obstacle marking and lighting, Compliance with other appropriate measures for continued safety of air navigation, etc.

Finally, all concerned should be notified oh of the new construction through charts (in accordance with Annex 4 - Aeronautical Charts) and through Notices to Airmen (NOTAM) or Aeronautical Information Publications; (AIP) pursuant to Annex 15.

**11. Other Requirement should be included in Regulation:**

11.1 **Protection form Light or Laser emission**
Each person proposing to operate a light or laser should notify the CAA in accordance to Law;

a. Because of its glare or effect on a pilot's vision, the light or laser is liable to endanger aircraft; or
b. for a laser, it would produce exposures in navigable air space exceeding the maximum permissible exposure defined for that laser; or it is likely to endanger aircraft by being mistaken for:
    I. a light or part of a system of lights established or approved for display at or near an aerodrome; or
    II. a light marking a hazard in navigable airspace.

11.2 **Notice of use of weapons**

Each person or each person representing an organization, proposing to use weapons that will fire or launch a projectile that will have a trajectory higher than 60 m should notify the CAA in accordance with related national regulation.

11.3 **Notice of use of pyrotechnics**

Each person proposing to stage a pyrotechnics display that will involve the firing or launching of a projectile that will have a trajectory higher than 60m shall notify the CAA in accordance with law.

11.4 **Notice requirements.**

a. Each person required by national regulation to provide notice to the CAA should complete related CAA form and submit it to the Director CAA at least 90 days prior to the proposed date of commencement of construction, alteration, or use.
b. In the case of an emergency involving essential public services, public health, or public safety, that requires immediate construction or alteration of a structure, or use of a structure, lights, lasers, weapons, or pyrotechnics—
    - the notice requirements in previous paragraph should not apply.
    - the person responsible for the construction, alteration, or use should complete related CAA form and submit it to the Director within 5 days after the use, construction, or alteration.
c. A person proposing to use lights, lasers, weapons, or pyrotechnics, in a control zone prescribed in national regulation during times when the appropriate ATS is on watch—
    I. is not required to provide notice under paragraph (a); and
    II. should complete related CAA form and submit it to the CAA at least 14 working days prior to the commencement of the use.

## 12. Land Use Hazard

12.1 **Wildlife:**

a. Birdstrikes collisions between birds and aircraft cost the aviation industry millions per year in damage and delays to aircraft and are a major hazard. Over 80% of birdstrikes occur on or close to aerodromes and their operators are required to take necessary steps to ensure that the birdstrike risk is reduced to the lowest practicable level.
b. The risk to aircraft arises from birds that move into the path of aircraft, either because they are on the aerodrome itself, or because they are crossing the airfield or its approaches as they move between sites which may be many kilometers outside the aerodrome. Aircraft are particularly vulnerable to collisions with large birds such as swans and flocks of small, medium and large birds such as Starlings, gulls and geese.

c. Birds are attracted to the vicinity of an aerodrome by various types of development, including water features, landfill sites, nature reserves, gravel extraction and landscaping.

d. The objective of the safeguarding process is to prevent any increase in, and where possible reduce, the birdstrike risk at an aerodrome. This may be possible by altering planning proposals to remove bird attractive features or, failing this, to object outright to those that cannot be adequately redesigned.

e. When determining whether a planning application will increase the birdstrike risk at an aerodrome the following factors will be taken into account:

1. what types of development are attractive to which species of bird;
2. whether birds will move from existing sites to the proposed one and, in the process, cross aircraft flight paths near to the aerodrome, or indeed move onto the aerodrome itself; and
3. where an LPA is consulted by a developer regarding the exercise of a permitted development right under these regulations, the LPA should refer the developer direct to the aerodrome operator for safeguarding advice.

12.2 **Radiation Interference:**

The safeguarding process is used to protect Radar and other Electronic Navigational Aids from radio frequency interference from other sources of radio emissions; radio signal reflections or diffractions caused by physical objects.

- A recent and less obvious source of radio frequency interference is the wind-driven generator.
- Therefore, proposed wind farms within 30km of aerodromes need to be considered in the safeguarding process.

12.3 **Construction Concerns (activities / ….):**

12.3.1 Safeguarding aspects of a proposed development do not end with the grant of Aviation Permit.

12.3.2 The methods and equipment to be employed during construction may also need to be agreed, particularly if cranes or other tall construction equipment will be involved as these tend to be taller than the proposed structure.

12.3.3 For a project close to the aerodrome or under the approaches, the Developers must apply for a permit before operating carnage within a 6km circle of the airfield. The application for the permit must indicate the herein below listed information:

- Exact location of the crane marked on a map showing OS Grid.
- Maximum operating height of crane Above Ground Level (AGL) plus ground in AOD.
- Type of crane/equipment (e.g. Tower, Crane, Mobile Crane etc.)
- Radius of the jib/boom of a fixed crane/the area of operation of a mobile crane.
- Intended dates and times of operation.
- Applicant’s name and address.
- Once these details have been studied by ECAA it will be determined whether the operation can proceed and whether restrictions will apply and a relevant Permit should be issued by CAA setting out any restrictions as required to ensure aircraft operation safety.

12.4 **Roads and Railways near Safeguarded Aerodromes:**

12.4.1 Roads and rail vehicles are potential obstructions to aircraft. The internationally agreed safety criteria recognize this by considering a road to be a mobile obstruction of 4.8 meters and a railway to be a mobile obstruction of 5.4 meters.

12.4.2 The CAA should adopt these provisions as part of its safeguarding practice. If a road or a railway forms part of a planning application, the LPA should regard it as development of a height of 4.8 or 5.4 meters, as the case may be, and consult in accordance with the color coding on the safeguarding map provided by CAA thereto.

12.4.3 Lighting columns and other street furniture, and signal gantries and power lines, should also be the subject of consultation appropriate to their height, in accordance with the color coding on the safeguarding maps.

12.5 **Non-aeronautical Ground Lights:**

A non-aeronautical ground light which, by reason of its intensity, configuration or color, might prevent, or cause confusion in, the clear interpretation of aeronautical ground light should be extinguished, screened or otherwise modified so as to eliminate such a possibility. A detailed assessment should be conducted.

## 13. Recommendations

13.1 Prior to a formal Planning Application being made, the aerodrome concerned may be prepared to offer informal advice on how to comply with the safeguarding requirement. The aerodrome advice will depend on the level of detail provided, but it is likely to be limited to lighting, landscaping and height limits. If it believes a detailed study is required in relation to specialist aspects such as the Bird Hazard or Navigational Aid installations, it may just advise that a suitable consultant be engaged so that their report(s) can be included with any subsequent Planning Application.

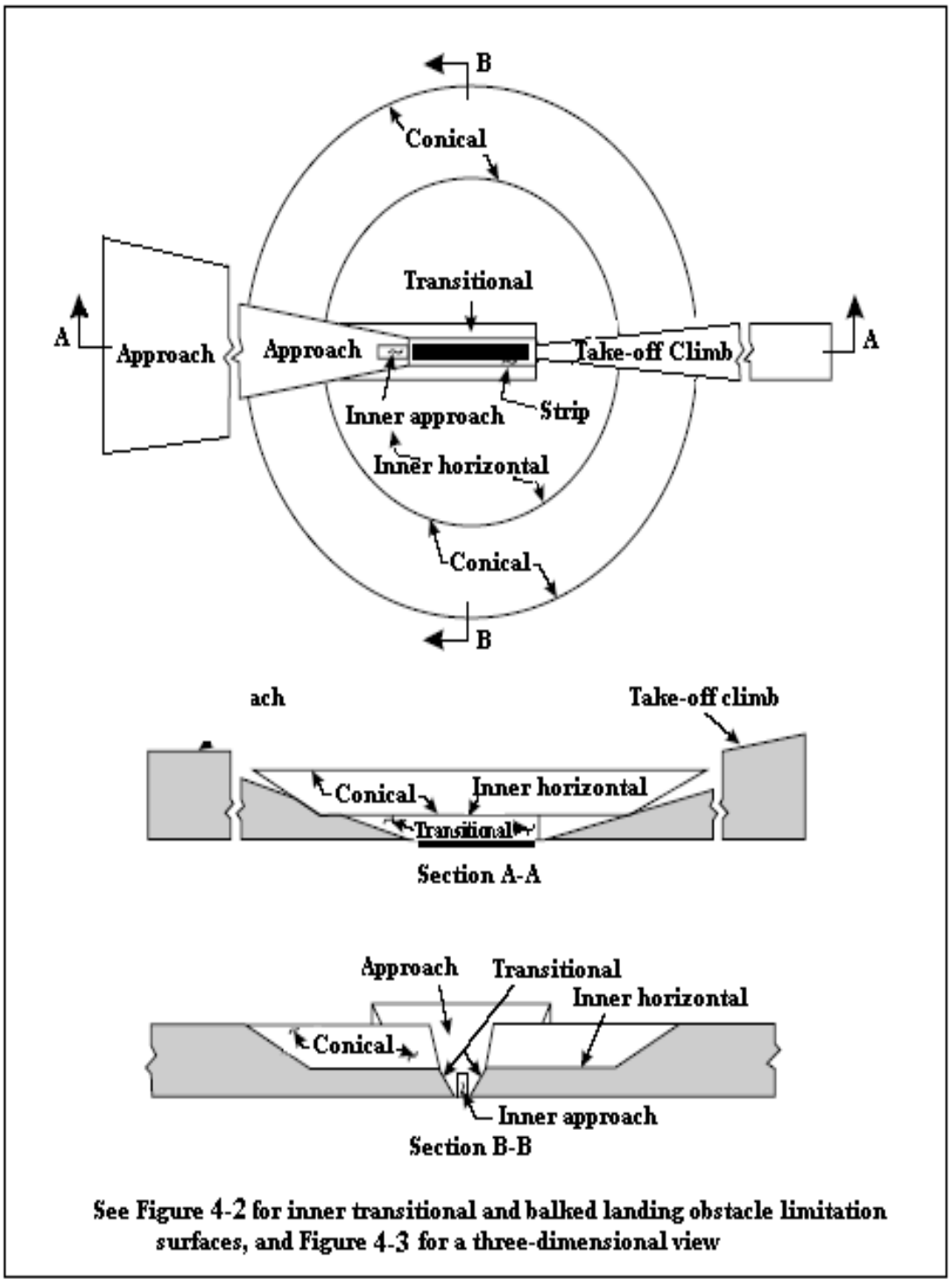
13.2 Any advice would be informal and without prejudice to detailed consideration of any future Planning Application(s).

13.3 The absence of any safeguarding concerns should not be construed as support for any proposed development(s).

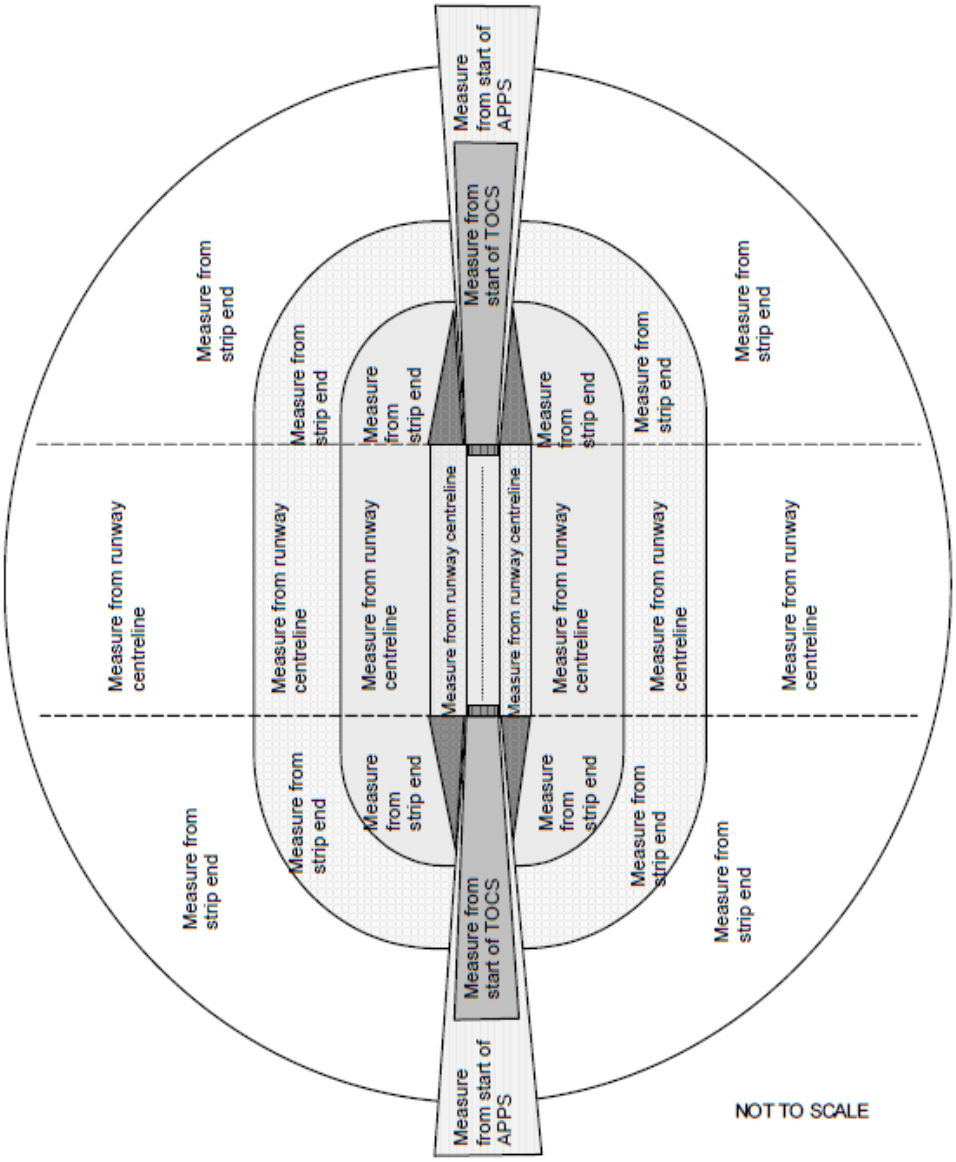
13.4 It must be stressed that a runway protected only by the obstacle limitation surfaces of Annex 14 will not necessarily allow the achievement of the lowest possible operational minima if it does not, at the same time, satisfy the provisions of the PANS-OPS Consequently, consideration needs to be given to objects which penetrate the PANS-OPS surfaces, regardless of whether or not they penetrating Annex 14 obstacles limitation surface, and such obstacles may result in an operational penalty.

**In conclusion the foregoing should be taken into account, together with all the other responses, when the LPA determines the outcome of the Planning Application.**

**APPENDIX A**




**Obstacle's Limitation Surfaces (Type 1)**




**NOTE:** May not apply in all cases.

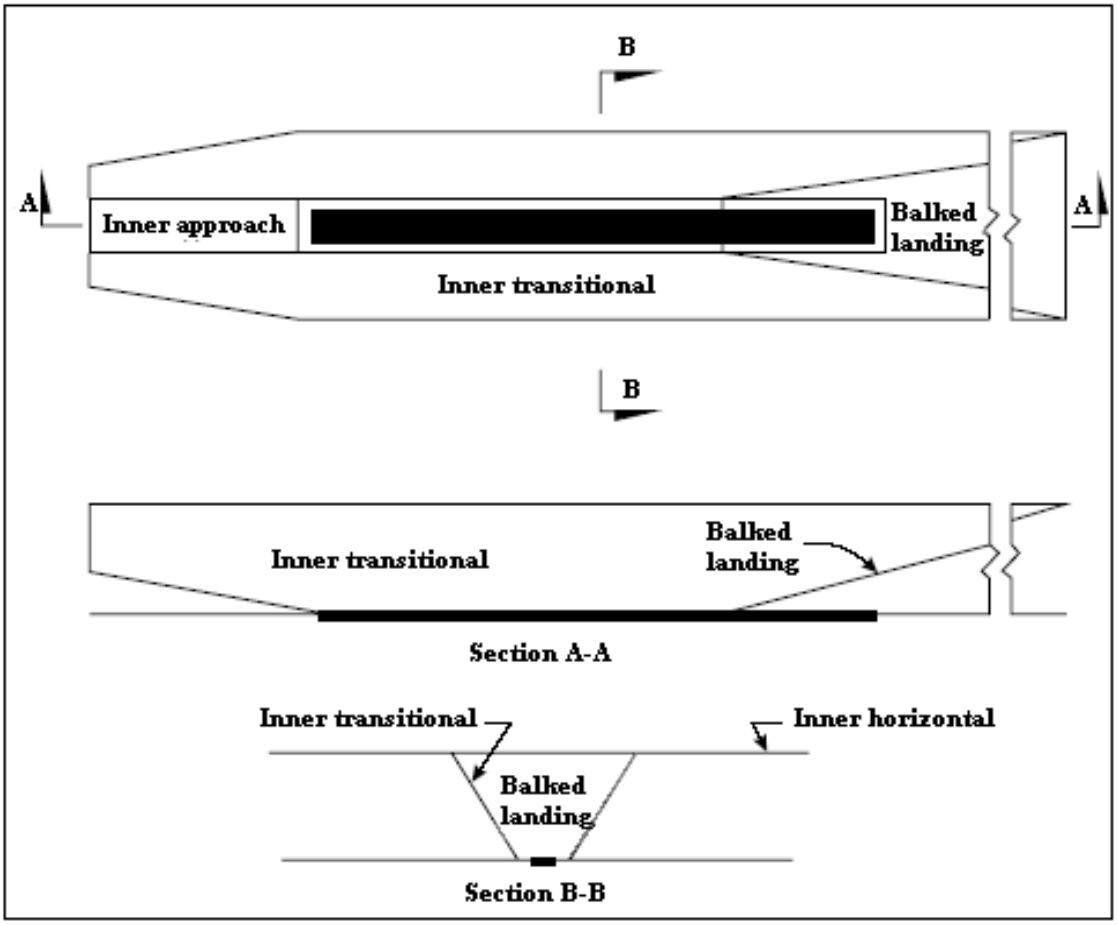
KEY

- Inner Horizontal Surface (IHS)
- Conical Surface
- Outer Horizontal Surface (OHS)
- Take-off Climb Surface (TOCS)
- Approach Surface (APPS)
- Transitional Surface

See CAP 168 (Chapter 4, paragraph 4.4)

**Figure 3** Guidance on the Measurement of the Location of a Proposed Development in Relation to the Aerodrome and its Obstacle Limitation Surfaces, Where the Longest Runway is Greater Than 1800 m in Length

**Obstacle's Limitation Surfaces (Type 2)**




**Obstacle's Free Zones**

**APPENDIX B**

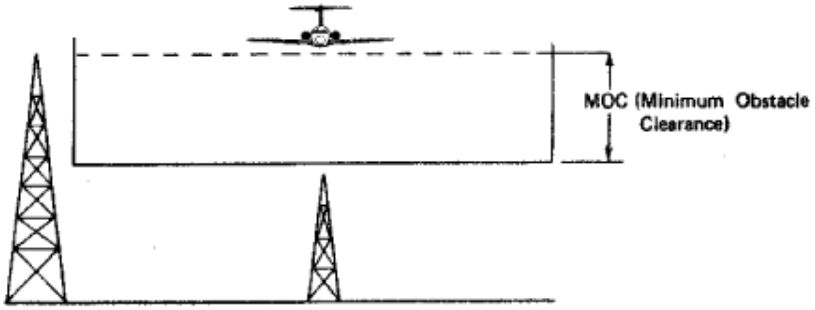



Figure 1-4.

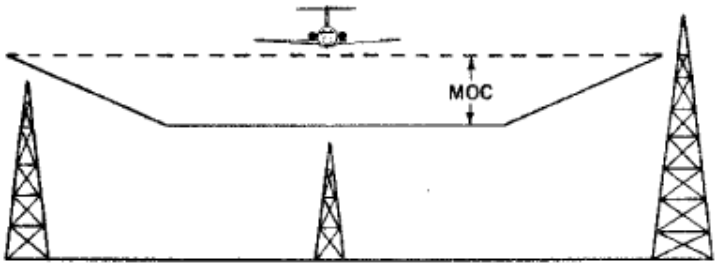
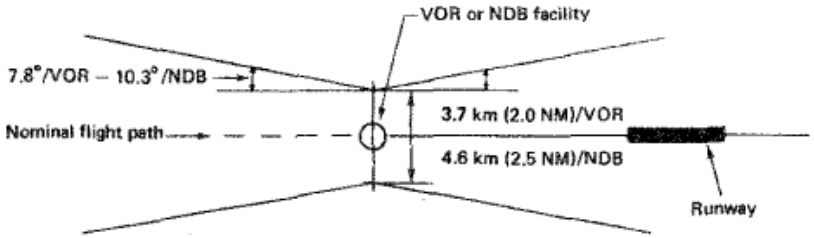
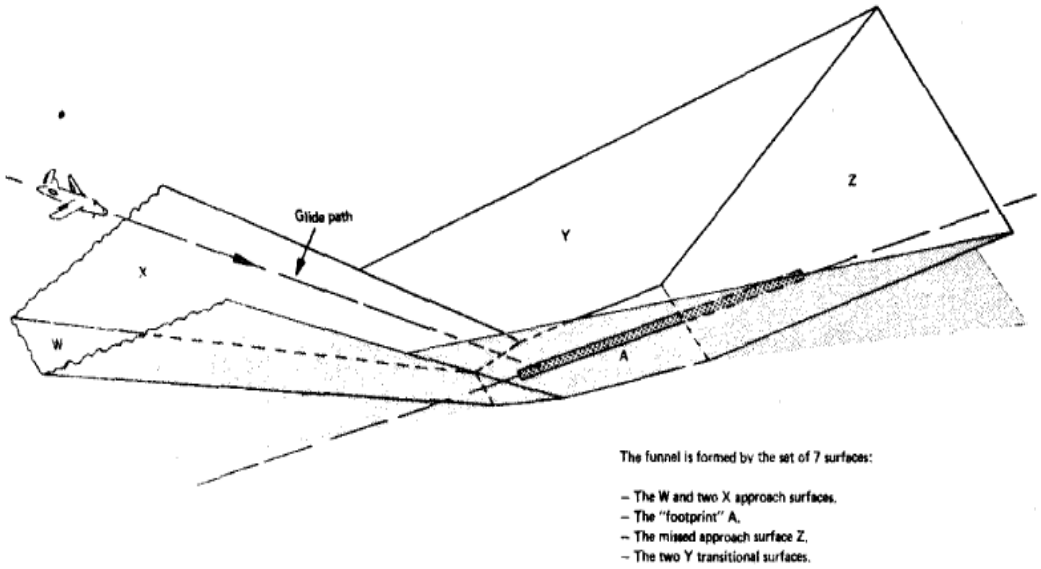



Figure 1-5.

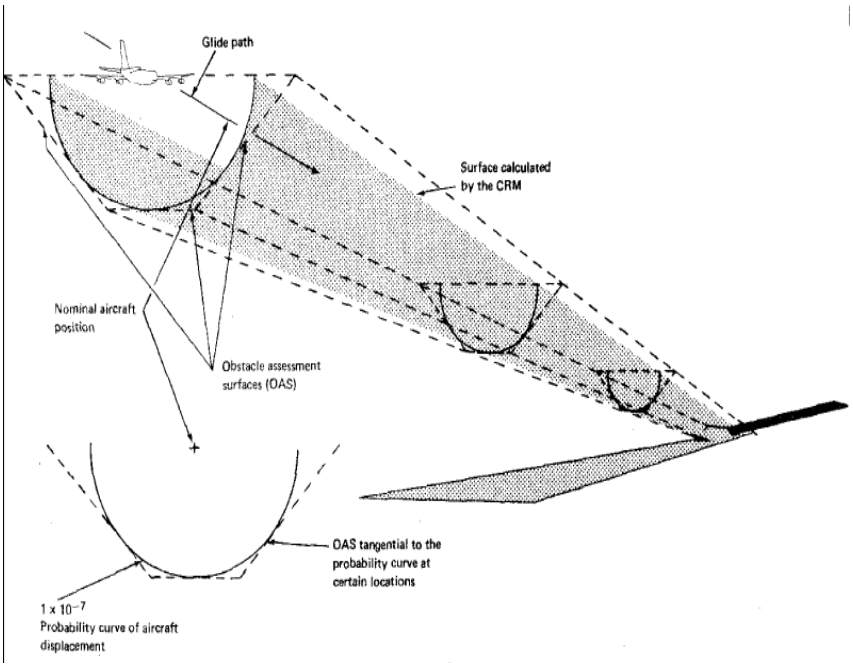



**PANS-OPS**

**APPENDIX C**




**The approach Funnel (OAS)**




**The approaches funnel (CRM)**

## APPENDIX D

## Safeguarding Checklists

### INTRODUCTION

- The following checklists are developed to give guidance for the purpose of:
  - Starting Safeguarding System; or
  - As guidance for implementation and Obstacle Monitoring.

- These checklists are result of Egypt's best Practice in Safeguarding with support of UAE, and England experience.

- It's up to each State to adjust the checklists to suit their national regulation and their view of implementation as long as keeping main line.

- **List of references:**
  1. Annex 14 V.I
  2. Annex 15 (e.TOD )
  3. Annex 10
  4. Annex 4 (Aeronautical Charts)
  5. Doc. 9137 Part 6
  6. Doc. 9774
  7. WGS-84 Manual 9674
  8. Doc. 9981 ICAO PANS Aerodromes

**APPENDIX E**

## A. Establish new Safeguarding System

**Model 1.1**

**Questions for Building up Safeguarding System:**

**insert CAA Name and Logo)**
**CHECKLIST ON ……**
**(Insert Checklist Number)**

| | Yes | No | Comment |
|---|---|---|---|
| **Are you aware by Annex14? docs 9137 "part 6"? and Related documentation** | | | |
| **Do you have an updated data about your civil airports:**<br>• **Number.**<br>• **Type of each Aerodrome**<br>• **Operation (Hours, Season...).**<br>• **No. and code of Runways.**<br>• **Type and number of Navigation Aids** | | | |
| **Does state/airport operator has a development plan for the next 20 to 30 years with respect to :**<br>• **New aerodromes.**<br>• **New Runways.**<br>• **Changing Aerodrome Reference Code.**<br>• **Installing / uninstalling or upgrading Nav. Aid equipment.** | | | |
| **Clear definition of "Obstacles Limitation Surfaces" and guidance material for each aerodrome :**<br>• **Type of definition and guidance material (law, decree, national regulation, maps, electronic data…..…)**<br>• **Type of map used (contour, tourism, Cadastral…)**<br>• **Scale of used map (if applicable)**<br>• **Surfaces according to Annex 14 or different? list of differences?** | | | |
| **Is there in place "Obstacle Assessment System" reflecting Annex 14 requirements and related documentation?**<br>• **In which type? (Digital, CAD, Paper...)?**<br>• **Last update?**<br>• **Degree of Accuracy?**<br>**Metadata?** | | | |
| **Do you have division/department in-charge of Safeguarding?** | | | |
| **Do you have restrictions to control / monitor type of construction materials in the area around the aerodromes?** | | | |
| **Do you have defined land use control?**<br>**Do you have procedures for bird-strike control within a circle of (13km) diameter?** | | | |
| **Do you have a field survey (Footprint\Elevation) for the near-by buildings & high objects around the civil aerodromes?**<br>• **Area**<br>• **Description.**<br>• **Type of object/buildings?**<br>• **Accuracy of Footprint?**<br>• **Accuracy of Elevation?** | | | |
| **Do you have procedures for implementing eTOD requirement?**<br>• **Areas of implementation**<br>• **Degree of implementation**<br>• **Degree of accuracy** | | | |

| | | | |
|---|---|---|---|
| **Can you determine the amount of penetration for buildings/objects within the OLS & OAS?**<br>• **Do you have technical tool for checking amount of penetration? (required for high density urban area)**<br>• **Way of performing analysis? (required for low density urban)** | | | |
| **REMARK:** | | | |
| **Aerodrome personnel** | **Position** | **Signature / date** | |
| | | | |

## Model 1.2 (System's input-output)

**Expected inputs, output expected and coordination needed for building Safeguarding system.**

**insert CAA Name and Logo)**
**CHECKLIST ON ……**
**(Insert Checklist Number)**

| | Yes | No | Comment |
|---|---|---|---|
| **Expected "Urban Expansion" around each civil aerodrome?** | | | |
| **Arrangements with other authorities / parties regarding urban extension** | | | |
| **Establishment of monitoring system (new/change in land use that might result of the expected urban extension)** | | | |
| **Database system for land-use in place which may develop bird attractant/hazard to pilots (close coordination with planning authorities to prevent landscaping / water features / land-fill sites). This may also involve the listing of trees, bushes, berries as know bird attractants** | | | |
| **Policy and assessment for areas used for wind farms and solar panels including, with roles for performing aeronautical study about its impact on nav. Aids.** | | | |
| **Regulations includes how to deal with any type of violations (height/type of material/land use….)?** | | | |
| **Is the current civil aviation law implemented?<br>Is your aviation regulation reflected in the aviation law?** | | | |
| **Responsibility for issuance/define max allowable height permissions / monitoring new buildings / objects in the area around the civil aerodromes?**<br>• **The Aerodrome Operator? or**<br>• **The Civil Aviation Authority? or**<br>• **The Urban Planning Authority?** | | | |
| **Coordination between the authorities in charge of issuance the max allowable height for buildings / objects & the Civil Aviation Authority or vice versa?**<br>• **What is the mechanism of data exchange?**<br>• **Does the other entities'' Law/regulation reflect the civil aviation authority regulations?**<br>• **Are you informed regularly with each new building\object allowable height? Can you review its license?** | | | |

| **Remarks** | |
|---|---|

| **Assigned personnel name:** | **Position** | **Signature / date** |
|---|---|---|
| | | |

## A. Existing Safeguarding System
## Model 2.1

**This checklist is used for checking system compliance level with legislation's requirements.**

| **insert CAA Name and Logo)**<br>**CHECKLIST ON ……**<br>**(Insert Checklist Number)** | | | | |
|---|---|---|---|---|
| | | **Yes** | **No** | **Comment** |
| **Procedures for issuance aviation permits/permission to building/object within OLS area? And special cases outside it?** | | | | |
| **Is there any permission fees?** | | | | |
| **Work plan (work cycle) to monitor buildings\objects' compliance with their max allowable heights within safeguarded area around the civil airports?** | | | | |
| **Is there a clear steps\Phases to accurate measurement of height violation?**<br>• **Steps for a building / object that already has a permitted height? (legal Case)**<br>• **Steps for buildings / objects that has no max height permit? (illegal Case)** | | | | |
| **Defined range for accepted level of violation providing that it doesn't affect safety?** | | | | |
| **Are there clear responsibilities and procedures for assessing the violation impact on safety and issue required permission?** | | | | |
| **For urban areas around the civil aerodromes:** | | | | |
| **Manual inspection** | • **Procedures for field visits to inspect / monitor objects / buildings around the aerodrome?**<br>• **Do you have arrangements in place with other department regarding Field Survey procedures for objects / buildings? Or**<br>• **Do you have your field surveyor's team?**<br>• **Do you have the tools for previous task? –**<br>o **Ordinary tools (levelling-total station) Or**<br>o **High technology tools (GPS) for fast and accurate results?**<br>• **Do you have manual DEM? Area?** | | | |
| **Digital inspection** | • **Do you have an access to recent Satellite images for OLS area?**<br>• **What is the horizontal / vertical accuracy of the satellite images?**<br>• **Can the objects / features in these images be extracted & converted to digital form by any way?**<br>• **Do you have another tool to verify the Satellite images digital output (extracted features)?** | | | |
| **What is the operator's role in the monitoring process? Is it approved by the concerned department in the CAA?**<br>**Description of data flow?**<br>**Does the result of that process been forwarded to CAA ?** | | | | |
| **REMARK:** | | | | |
| **Assigned personnel name:** | **Position** | | **Signature / date** | |
| | | | | |

## Model 2.2

**This checklist is used for checking the aerodrome manual compliance with safeguarding requirement.**

| | | | |
|---|---|---|---|
| **insert CAA Name and Logo)**<br>**CHECKLIST ON ……**<br>**(Insert Checklist Number)** | | | |
| | **Name of Aerodrome/Aerodrome:** | | |
| | **Address:** | | |
| | **Name of Operator:** | | |
| | **Name of Aerodrome Manager:** | | |
| | **Head of Safeguarding Department:** | | |
| | **Operational Hours:** | | |
| | **E-mail Address:** | | |
| | **Telephone Numbers:** | | |
| | **Reference:**<br>**Regulation……**<br>**MOS.....**<br>**Advisory Circular.....** | | |
| | | | |
| **Activity and objective** | **Regulatory /standards reference** | **Status C/NC/O/ N/A** | **Comments** |
| **Aerodrome Manual** | | | |
| **Does the manual contain synopsis of system to control and removal of obstacles at the aerodrome and its environs (off the aerodrome) including :** | | | |
| • **Establishing OLS for the aerodrome in accordance with ICAO requirement and methodology for obstacle assessment?** | | | |
| • **Reasonable measures to monitor the OLS including restriction to different areas? And** | | | |
| • **Establishment of system to Obstacle removal system** | | | |
| • **Establishing bird-strike monitor system to control a surface of (13km) in diameter?** | | | |
| • **Continuous monitoring system for area in the vicinity of the aerodrome to control new obstacles** | | | |
| • **Procedures for quick ddetection of new obstacles? Including objects, buildings, and structures**<br>• **Procedure for CAA notification about new obstacles or additional removed obstacles?** | | | |
| • **Procedures for dealing with Wind farms / solar panels and electricity pols assessment?** | | | |

| | | | |
|---|---|---|---|
| • **Monitoring the Type A chart take-off surfaces for obstacles?** | | | |
| • **System to obtain and report data of obstacles in each surface with full details? With a process for amending the AIS publications regarding obstacles?** | | | |
| • **Monitoring building developments (to ensure compliance with allowed height, nonstructural material and shape) within the horizontal limit of the obstacle limitation surfaces?** | | | |
| • **if the aerodrome has instrument approach procedures, is there procedures for monitoring new objects or building developments in any other areas nominated by the instrument procedure designers?** | | | |
| • **Arrangements between CAA and local planning authorities and other relevant organizations in relation to the approval of building developments that may infringe the obstacle limitation surfaces?** | | | |
| • **Arrangements and procedures for controlling and monitoring non-aeronautical lights / laser beams and fireworks** | | | |
| • **Arrangements between aerodromes' operators and any crane operator works within safeguarding area or outside it for heights more than 30m above ground level or more than 150m above runway threshold** | | | |
| • **Arrangement with CAA to assess proposed obstacles? (If applicable to the aerodrome)** | | | |
| • **Reporting obstacles by NOTAM including amended declared distances?** | | | |
| • **Procedures for conducting OLS survey requirement? How frequent? Degree of accuracy?** | | | |
| • **Names, telephone numbers and roles of the persons responsible for planning and implementing obstacle control?** | | | |
| **Protection of Radar and Navigation Sites :** | | | |
| **Procedures for protection, operations and maintenance of radar and radio navigation aids** | | | |
| • **Number and Description of aerodrome's navigation aids** | | | |
| • **Definition and description of protection surfaces needed for each equipment supported by Document** | | | |
| • **Maps reflecting protection area for each equipment.** | | | |
| • **Name and Details of persons responsible** | | | |
| **Record Keeping** | | | |
| **List of documents checked.** | | | |

| | | | |
|---|---|---|---|
| **List of Obstacles inside and outside aerodrome with all details** | | | |
| **Forms used to assess or report obstacles** | | | |
| **Is the operator maintaining records in accordance with the aerodrome manual? (Check OLS survey data, Inspection logbooks, Obstacle control reporting** | | | |
| **Facilities** | | | |
| **Are adequate and suitable staff and resources** | | | |
| **Are adequate and suitable equipment, training and resources available?** | | | |
| **Are OLS surveys conducted by an appropriately trained or qualified person?** | | | |
| **Activity and objective** | **Regulatory** | **Status** | **Comments** |
| | **/standards reference** | **C/NC/O/ N/A** | |
| **Procedures** | | | |
| **Is the OLS monitored in accordance with the manual?** | | | |
| **Is type A surfaces monitored in accordance with the manual?** | | | |
| **Are NPA areas monitored in accordance with the manual?** | | | |
| **Does monitoring conducted includes temporary and permanent structures?** | | | |
| **And for gaseous refluxes?** | | | |
| **Are the procedures for liaising with other authorities being followed?** | | | |
| **Is the staff aware of safety requirements related to obstacles?** | | | |
| **Are any conditions or exemptions complied with?** | | | |
| **Product Check** | | | |
| **Is OLS plan prepared in accordance with national regulation according to ICAO requirement?** | | | |
| **Do survey records agree with published information?** | | | |
| **Does field condition appear to reflect survey data and published information?** | | | |
| **Does obstacle related NOTAMs reflect field condition?** | | | |
| **Feedback** | | | |
| **Are obstacle control incidents noted, reported and followed up?** | | | |
| **INSPECTOR'S REMARK:** | | | |
| **Inspectors Name** | **Position** | **Signature / date** | |
| | | | |

## B. Obstacle's Assessment Checklist
## Model 3.1

**This checklist is used obstacle assessment to be to measure its impact on safety.**

| | | | |
|---|---|---|---|
| **insert CAA Name and Logo)**<br>**CHECKLIST ON ……**<br>**(Insert Checklist Number)** | | | |
| | **Name of Aerodrome/Aerodrome** | | |
| | **Name of Operator:** | | |
| | **Name of Aerodrome Manager:** | | |
| | **Head of Safeguarding Department:** | | |
| | **Reference:**<br>**Regulation……**<br>**MOS.....**<br>**Advisory Circular_____** | | |
| | | | |
| **Obstacle Assessment** | | | |
| **The nature of the obstacle and its location relative to the surface origin, to the extended centre line of the runway or normal approach and departure paths and to existing obstructions** | | | |
| **The location of the obstacle relative to Air Navigation surfaces** | | | |
| **The amount by which the surface is infringed** | | | |
| **The gradient presented by the obstacle to the surface origin** | | | |
| **The type of air traffic at the aerodrome; and** | | | |
| **Type of building materials** | | | |
| **Shape of Obstacle** | | | |
| **Nature and height of surroundings** | | | |
| **Is it shielded by another reported fixed obstacle** | | | |
| **The instrument approach procedures published for the aerodrome** | | | |
| **Safety Measures could be as follows:** | | | |
| **Promulgation in the AIP appropriate information** | | | |
| **Marking and /or lighting of the obstacle** | | | |
| **Variation of the runway distances declared as available** | | | |
| **Limitation of the use of the runway to visual approaches only** | | | |
| **Possibility of inducing turbulence, or defragment/reflection of navigation aid radiation** | | | |
| **Restriction on the type of traffic** | | | |
| **Database of land-use sites that may be in place or planned which may develop into a bird attractant/hazard to pilots (close coordination with planning authorities to prevent landscaping / water features / land-fill sites). This may also involve the listing of trees, bushes, berries as know bird attractants** | | | |

| | | |
|---|---|---|
| **In addition to the requirements above it may be necessary to call for the other restrictions to development on and in the vicinity of the aerodrome in order to protect the performance of visual and electronic aids to navigation and to ensure that such development does not adversely affect instrument approach procedures and the associated obstacle clearance limits.** | | |
| **INSPECTOR'S REMARK:** | | |
| **Inspectors Name** | **Position** | **Signature / date** |
| | | |

## C. Safeguarding Monitoring System Checklist

### I. Pre-visit Checklists:

**This checklist is used by CAA for pre-inspection visit, when the airport's operator has a system and procedures in place for obstacle's monitoring and control:**

**Model 4.1**
**Personal Personnel & equipment**

| | | | | | |
|---|---|---|---|---|---|
| **insert CAA Name and Logo)**<br>**CHECKLIST ON ……**<br>**(Insert Checklist Number)** | | | | | |
| **Monitoring Implementation** | | | | | |
| | **Name of Aerodrome/Aerodrome:** | | | | |
| | **Address:** | | | | |
| | **Name of Operator:** | | | | |
| | **Name of Aerodrome Manager:** | | | | |
| | **Head of Safeguarding Department:** | | | | |
| | **Operational Hours:** | | | | |
| | **E-mail Address:** | | | | |
| | **Telephone Numbers:** | | | | |
| | **Reference: Regulation……**<br>**MOS.....**<br>**Advisory Circular.....** | | | | |
| **In Office :** | **Date of Inspection:** | | | | |
| | **Name** | | **Response** | **Cooperation** | **Remark** |
| **Aerodrome Operator** | | | | | |
| **Obstacle Manager** | | | | | |
| **Obstacle Staff** | | | | | |
| **Obstacles Map"** | | **Date of last Issuance:** | **Scale:** | **Comments** | |
| • **Cadastral map** | ☐ | | | | |
| • **Subdivisions map** | ☐ | | | | |
| • **Aerodrome Layout** | ☐ | | | | |
| **Obstacle's Data Base Table** | ☐ | **Comments:** | | | |
| **Notifications** | ☐ | | | | |
| **Correspondence** | ☐ | | | | |
| **Aviation Permits Follow-Up** | ☐ | | | | |
| **List of Airport's Buildings** | ☐ | | | | |
| **Safeguarding Cadastral Map** | **Has all surfaces** | **Show all Obstacles** | | **Comment** | |
| | | | | | |
| **Rules Listed** | **ICAO Standards** | | | | |
| **Any for Archiving** | | | | | |
| **INSPECTOR'S REMARK:** | | | | | |
| **Inspectors Name** | **Position** | **Signature / date** | | | |
| | | | | | |

**Model 4.2**

| | | | | | | |
|---|---|---|---|---|---|---|
| **insert CAA Name and Logo)**<br>**CHECKLIST ON ……**<br>**(Insert Checklist Number)** | | | | | | |
| **Equipment and guidance material** | | | | | | |
| | **Name of Aerodrome/Aerodrome:** | | | | | |
| | **Address:** | | | | | |
| | **Name of Operator:** | | | | | |
| | **Name of Aerodrome Manager:** | | | | | |
| | **Head of Safeguarding Department:** | | | | | |
| | **Operational Hours:** | | | | | |
| | **E-mail Address:** | | | | | |
| | **Telephone Numbers:** | | | | | |
| | **Reference: Regulation……**<br>**MOS.....**<br>**Advisory Circular .....** | | | | | |
| | | | | | | |
| **In Office :** | **Date of Inspection:** | | | | | |
| | **Name** | | | **Response** | **Cooperation** | **Remark** |
| **Aerodrome Operator** | | | | | | |
| **Obstacle Manager** | | | | | | |
| **Obstacle Staff** | | | | | | |
| **Maps** | | | **Yes** | **No** | **N/A** | |
| **Aerodrome-Map** | **Aerodrome buildings Layout** | | | | | |
| | **Obstacles Layout** | | | | | |
| **Safeguarding Map** | **Safeguarding Limits surfaces** | | | | | |
| | **Out Aerodrome Obstacle (Survey map)** | | | | | |
| **Forms:** | | | | | | |
| | | | **Yes** | **No** | **Remarks** | |
| **Periodic Work Plan** | | **Buildings** | | | | |
| | | **Permits** | | | | |
| **Follow Up** | **Inside aerodrome** | **Buildings** | | | | |
| | | **Others** | | | | |
| | **Outside aerodrome** | **Notifications** | | | | |
| | | **buildings** | | | | |
| **Office Inspection** | | **Subsidiarity** | | | | |
| | | **location** | | | | |
| | | **Supporting equipment** | | | | |
| **Technical Equipment** | | **G P S** | | | | |
| | | **Printer** | | | | |
| | | **Tel./ Fax.** | | | | |
| | | **Scanner** | | | | |
| **Training** | | **Car** | | | | |
| | | **Equipment Technical:** | | | | |

| | | | | |
|---|---|---|---|---|
| | • **Basic Safeguarding**<br>• **Obstacle's Assessment and Management**<br>• **Obstacle's monitoring system**<br>• **Other required training** | | | |
| **Personnel** | **Habitat** | | | |
| | **2 Week** | | | |
| | **Number** | | | |
| | **Coalification** | | | |
| **INSPECTOR'S REMARK:** | | | | |
| **Inspectors Name** | **Position** | | **Signature / date** | |
| | | | | |

***This checklist is used before visit to review all available and tool needed:***

## II. Sit visit Checklists:

### Office visit
### Model 4.3.1

**This checklist is used in the site visit to inspect the implementation level of procedures listed in the aerodrome's manual**

| | |
|---|---|
| | **insert CAA Name and Logo)**<br>**CHECKLIST ON ……**<br>**(Insert Checklist Number)** |
| | **Name of Aerodrome/Aerodrome:** |
| | **Address:** |
| | **Name of Operator:** |
| | **Name of Aerodrome Manager:** |
| | **Head of Safeguarding Department:** |
| | **Operational Hours:** |
| | **E-mail Address:** |
| | **Telephone Numbers:** |
| | **Reference:**<br>**Regulation……**<br>**MOS.....**<br>**Advisory Circular .....** |

| | Yes | No | Comment |
|---|---|---|---|
| **Is there work plan (work cycle) to monitor construction work (buildings\objects) in area around the civil airport?** | | | |
| **Procedures for (work cycle) observing any aviation violated in areas around civil airport?** | | | |
| **Steps\Phase for monitoring level of compliance with max allowed height?**<br>• **Steps for monitoring a buildings\objects that already has Aviation permit? (if applicable)**<br>• **Steps for a monitoring buildings\objects that has no Aviation permit? (illegal Case)** | | | |
| **Process for Defining the exact amount of penetration.** | | | |
| **Field survey:**<br>• **Through operators surveyors department**<br>• **Through Coordination with other department**<br>• **Have needed tools for this task**<br>o **Leveling/total station or**<br>o **(GPS) for the required accuracy** | | | |
| **Procedures of periodic survey of OLS surfaces? And Repetition?** | | | |

| | | | |
|---|---|---|---|
| **Type of data available for urban area around the civil aerodromes:**<br>• **DEM :**<br>o **Manual**<br>o **Digital**<br>• **Satellite imagery :**<br>o **Up to date**<br>o **Archival**<br>o **Accuracy**<br>o **Ways to extract data** | | | |
| **Procedures to notify CAA about monitored Obstacles for AIS or Notam issuance** | | | |
| **Procedures to remove obstacles,** | | | |

| | |
|---|---|
| **INSPECTOR'S REMARK:** | |

| **Inspectors Name** | **Position** | **Signature / date** |
|---|---|---|
| | | |

# Model 4.3.2

**This checklist is used to assess the office and equipment and its compliance with what is listed in aerodrome's manual:**

| | | | | |
|---|---|---|---|---|
| **insert CAA Name and Logo)**<br>**CHECKLIST ON ……**<br>**(Insert Checklist Number)** | | | | |
| **GENERAL INFORMATION:** | | | | |
| | **Name of Aerodrome/Aerodrome:** | | | |
| | **Address:** | | | |
| | **Name of Operator:** | | | |
| | **Name of Aerodrome Manager:** | | | |
| | **Head of Safeguarding Department:** | | | |
| | **Operational Hours:** | | | |
| | **E-mail Address:** | | | |
| | **Telephone Numbers:** | | | |
| | **Reference:**<br>**Regulation……**<br>**MOS.....**<br>**Advisory Circular .....** | | | |
| **S/N** | **I T** | **YES** | **NO** | **N/A** |
| **1** | **Does the inspector possess basic qualifications to carry out assigned responsibilities?** | | | |
| **2** | **Does the inspector have the required knowledge and experience on the job (OJT) to perform the responsibility at the expected level of competence?** | | | |
| **3** | **Does the inspector have the required tools and equipment to carry out the operation in line with** | | | |
| **4** | **Does the inspector has clear job description that aware of?** | | | |
| **5** | **Is there a personnel roster that indicates satisfactory workload for each inspector?** | | | |
| **6** | **Are the inspector's adequately and regularly trained to discharge the responsibility** | | | |
| **7** | **In demonstrating operations and maintenance competence, is the knowledge, skills and experience required to inspect aerodrome's obstacle limitation surface, obstacle's marking and lights, for conducting or supervising aerodrome works, and completing the NOTAM forms displayed?.** | | | |
| **8** | **Are the inspector refresher trainings at such duration/interval to guarantee currency on the job?** | | | |
| **9** | **Does the inspector have adequate knowledge of the working documents available for the performance** | | | |
| **INSPECTOR'S REMARK:** | | | | |
| | | | | |

## Model 4.4.1

**This checklist is used on site to monitor the aerodrome implementation of Safeguarding roles:**

| | |
|---|---|
| **insert CAA Name and Logo)**<br>**CHECKLIST ON ……**<br>**(Insert Checklist Number)** | |
| **Site Inspection** | |
| | **Name of Aerodrome/Aerodrome:** |
| | **Address:** |
| | **Name of Operator:** |
| | **Name of Aerodrome Manager:** |
| | **Head of Safeguarding Department:** |
| | **Operational Hours:** |
| | **E-mail Address:** |
| | **Telephone Numbers:** |
| | **Reference: Regulation……**<br>**MOS.....**<br>**Advisory Circular.....** |

| **Inspection Date:** | | | **Inspector's Name:** | | | | **Remarks** |
|---|---|---|---|---|---|---|---|
| **Day Inspection** | **Inside Aerodrome** | **Area 1** | **Surface Affected** | | **Building** | | |
| | | | | | **Antennas/masts/pols** | | |
| | | **(strip/inner transitional/transitional)** | | | **Obstacles (marking.)** | | |
| | | | | | **Others (land use…)** | | |
| | | **Area 2** | **Surface Affected** | | **Building** | | |
| | | | | | **Antennas/masts/pols** | | |
| | | **(Inner Approach/Approach/Take-Off)** | | | **Obstacles (description / lighting / marking)** | | |
| | | | | | **Others (land use…)** | | |
| | | **Area 3** | **Surface Affected** | | **Building** | | |
| | | | | | **Antennas/masts/pols** | | |
| | | **(Inner Horizontal / Conical/ Outer Horizontal)** | | | **Obstacles (description / lighting / marking)** | | |
| | | | | | **Others (land use…)** | | |
| | | **Area 4** | **Affected Nav. Aid** | | **Markers** | | |
| | | | | | **Singe** | | |
| | | **Nav. Aids protection area** | | | **Material of surrounded buildings** | | |
| | **Outside Aerodrome** | **Area 1** | **Surface Affected** | | **Building** | | |
| | | | | | **Antennas/masts/pols** | | |
| | | **(strip/inner transitional/transitional)** | | | **Obstacles (description / lighting / marking)** | | |
| | | | | | **Others (land use…)** | | |
| | | **Area 2** | **Surface Affected** | | **Building** | | |
| | | | | | **Antennas/masts/pols** | | |
| | | **(Inner Approach/Approach/Take-Off)** | | | **Obstacles (description / lighting / marking)** | | |
| | | | | | **Others (land use…)** | | |
| | | **Area 3)** | **Surface Affected** | | **Building** | | |
| | | | | | **Antennas/masts/pols** | | |
| | | **(Inner Horizontal / Conical/ Outer** | | | **Obstacles (description / lighting / marking)** | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Horizontal) | | | Others (land use…) | | |
| | | Area 4 (f Applicable) | Affected Nav. Aid | | Markers | | |
| | | | | | Singe | | |
| | | Nav. Aids protection area | | | Material of surrounded buildings | | |
| | General | Surface Affected | | | Is there any Cranes detected | | |
| Night Inspection | Inside Aerodrome | Area 1 | Surface Affected | | Building | | |
| | | | | | Antennas/masts/pols | | |
| | | (strip/inner transitional/transitional) | | | Obstacles (description / lighting / marking) | | |
| | | | | | Others (land use…) | | |
| | | Area 2 | Surface Affected | | Building | | |
| | | | | | Antennas/masts/pols | | |
| | | (Inner Approach/Approach/Take-Off) | | | Obstacles (description / lighting / marking) | | |
| | | | | | Others (land use…) | | |
| | | Area 3) | Surface Affected | | Building | | |
| | | | | | Antennas/masts/pols | | |
| | | (Inner Horizontal / Conical/ Outer Horizontal) | | | Obstacles | | |
| | | | | | Others (land use…) | | |
| | | Area 4 | Affected Nav. Aid | | Lighting | | |
| | | | | | Singe | | |
| | | Nav. Aids protection area | | | Material of surrounded buildings | | |
| | Outside Aerodrome | Area 1 | Surface Affected | | Building | | |
| | | | | | Antennas/masts/pols | | |
| | | (strip/inner transitional/transitional) | | | Obstacles (description/ lighting / marking) | | |
| | | | | | Others (land use…) | | |
| | | Area 2 | Surface Affected | | Building | | |
| | | | | | Antennas/masts/pols | | |
| | | (Inner Approach/Approach/Take-Off) | | | Obstacles (description/ lighting / marking) | | |
| | | | | | Others (land use…) | | |
| | | Area 3) | Surface Affected | | Building | | |
| | | | | | Antennas/masts/pols | | |
| | | (Inner Horizontal / Conical/ Outer Horizontal) | | | Obstacles (description/ lighting / marking) | | |
| | | | | | Others (land use…) | | |
| | | Area 4(f Applicable) | Affected Nav. Aid | | Lighting | | |
| | | | | | Singe | | |
| | | Nav. Aids protection area | | | Material of surrounded buildings | | |
| **INSPECTOR'S REMARK:** | | | | | | | |

| Inspectors Name | Position | Signature / date |
|---|---|---|
| | | |

**APPENDIX F**

**STUDY CASE**

**An Example of**

***Note*** **-** This material is prepared as an example "case scenario" only not intended to serve as standard for how study should be conducted. Procedure used by safeguarding personnel is dependent on the needs, capabilities, and complexities of the participating organizations

**a. Discovery of the case**

1. Authority listed in aviation law reviews all aviation permits issued with all details of location and allowed height showed in a map or in geographical coordinate's format.

2. Aerodrome operator shall monitor OLS area and report it to the authority any building/object that was done without approval or violating the allowed limits /restriction

3. When an obstacle is monitored then,

**b. Dealing with identified case in-house:**

1. The airport's Safeguarding team reports the case to the concerned authority with all details collected on site.

2. Concerned authority shall study the case according to the details and in relation to OLS and ensure the penetrates or the surfaces,

3. If the study shows the violation of the case a higher level group/committee (includes member of operation / Navigation Aids/Radar…..…..) to carry on the study

**c. Committee:**

1. Each member of the committee will review all details in relation to their specialist.

2. If the violation might has an impact on the safety of any Nav. Aid, a recommendation of a site visit to do engineering survey and collect accurate data about surroundings (buildings' heights , type and material in certain area around the violated object).

**d. Site visit:**

1. A technical committee form airport Safeguarding personnel and survey engineers will make a site visit with needed equipment.

2. A technical report showing details of all buildings within the specified area supported with photos (distance form each runway/navigation aids….) actual height related to mean see level (MSL), height of the highest objects around related to MSL.

**e. <u>Decision:</u>**

1. The technical committee will review the report and find if the object is shielded by any other object/s and actual height in this area

2. If the study shows:

    a. The object is standing alone, then a review of the design procedures done to find if the object's height affect the height minima or not:
        i. if not, no action will be taken against that object and data collected to be saved in the obstacle's data base,
        ii. But if it affects the safety, then action has to be done to reduce height or removal of that object according to aviation law.

    b. The object is shielded by other existing permanent object/s, then a revision of the design procedures to find the relation between the obstacle and the shielded building, then if:
        i. the object is shielded by a higher object.
        ii. no action will be done against that object and data collected to be saved in the obstacle's data base,

    c. If the object's height is higher than the shielding object a study should be done to study the effect of the difference of height on the defined minima , then,
        i. if it doesn't has effect on safety, no action will be taken against that object and data collected to be saved in the obstacle's data base,
        ii. But if it affects the safety, then action has to be done to reduce height /removal of that object. Or increase the minima.

3. In the case of obstacle's removal an agreement should be done with the owner to reduce height or an legal action should be done if no response found, and a demolish note will be issued with name of the owner and any other parties listed in related Law.

4. Legal department should be involved to follow up with the note and take all action needed.

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# APPENDIX 3J

| STATUS OF AERODROME CERTIFICATION IMPLEMENTATION IN MID REGION | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sr** | **State** | **Listed Aerodromes** | | | | | **Certified Aerodromes** | | | | | **Percentage Certified** | **Remarks** |
| | | **RS** | **RNS** | **AS** | **ANS** | **Total** | **RS** | **RNS** | **AS** | **ANS** | **Total** | | |
| **1** | Bahrain | 1 | | | | 1 | 1 | | | | 1 | 100% | OBBI (1RST) |
| **2** | Egypt | 6 | 1 | | | 7 | 4 | | | | 4 | 57% | HECA, HEGN , HEMA, HESH (4 RSTs) |
| **3** | Iran | 8 | 1 | | | 9 | 4 | | | | 4 | 44% | OIFM, OIKB, OISS, OIZH (3 RSTs) |
| **4** | Iraq | 5 | 1 | | | 6 | 2 | | | | 2 | 33% | |
| **5** | Jordan | 2 | | 1 | | 3 | 2 | | | | 2 | 67% | OJAQ |
| **6** | Kuwait | 1 | | | | 1 | 1 | | | | 1 | 100% | OKBK ( 1 RST) |
| **7** | Lebanon | 1 | | | | 1 | 0 | | | | 0 | 0% | |
| **8** | Libya | 3 | | | | 3 | 0 | | | | 0 | 0% | |
| **9** | Oman | 1 | | 1 | | 2 | 1 | | 1 | | 2 | 100% | OOMS, OOSA |
| **10** | Qatar | 2 | | | | 2 | 2 | | | | 2 | 100% | |
| **11** | Saudi Arabia | 4 | | | | 4 | 4 | | | | 4 | 100% | All international airports (4 RSTs) |
| **12** | Sudan | 2 | | 2 | 0 | 4 | 2 | | 1 | | 3 | 75% | HSSS, HSPN, HSOB (4 RSTs) |
| **13** | Syria | 3 | | | | 3 | 0 | | | | 0 | 0% | |
| **14** | UAE | 7 | 1 | | | 8 | 7 | 1 | | | 8 | 100% | All international airports (8 RSTs) |
| **15** | Yemen | 5 | | | | 5 | 0 | | | | 0 | 0% | |
| | **Total** | **51** | **4** | **4** | **0** | **59** | **30** | **1** | **2** | **0** | **33** | **56%** | **25 RSTs** |
| | **% Certified** | | | | | | **59%** | **25%** | **50%** | | **56%** | | |

---

**APPENDIX 3K**

# List of Actions to support the SEIs

| ***SEI: Improve the status of implementation of State Safety Programme (SSP) and Safety Management System (SMS) in the MID Region*** | |
|---|---|
| **Actions** | **Champion** |
| Conduct of Safety Management Training Courses, Symposia and Workshops. | ICAO |
| Establish the MENA RSOO to support States in the expeditious implementation of SSP. | ACAC/ICAO |
| Improve the status of implementation of SMS at international aerodromes. | Egypt and Saudi Arabia |
| Improve the status of implementation of SMS by ANSPs (ATM). | CANSO |
| Improve the status of implementation of SMS by air operators. | IATA |
| Improve the status of implementation of SMS by maintenance organizations. | IATA and Boeing |
| Improve the status of implementation of SMS by training organizations (involved in flight training). | ACAC |

| ***SEI: Strengthening of States' Safety Oversight capabilities*** | |
|---|---|
| **Actions** | **Champion** |
| Conduct USOAP CMA Workshops including cost-recovery. | ICAO |
| Establish the MENA RSOO to assist States to resolve safety oversight deficiencies and carry out tasks and functions in the area of PEL, OPS, AIR, AGA and ANS. | ACAC/ICAO |
| Organize Government Safety Inspector (GSI) Courses (OPS, AIR, ANS, AGA). | ICAO |
| Conduct ICAO missions to States to provide assistance related to the preparation of USOAP-CMA activities. | ICAO |
| Develop and implement a specific NCLB plan of actions for prioritized States according to established criteria. | ICAO/States/Stakeholders |

| ***SEI: Improve Regional Cooperation for the provision of Accident & Incident Investigation*** | |
|---|---|
| **Actions** | **Champion** |
| Improve the draft version of the Strategy for the establishment of a Middle East RAIO, in order to be presented and reviewed during the Workshop. | UAE in coordination with Bahrain, Saudi Arabia, Sudan and the ICAO MID Office |
| Organize the ACAC/ICAO AIG Workshop. | Saudi Arabia |
| Finalize the Strategy for the establishment of a Middle East RAIO by the ACAC/ICAO AIG Workshop. | States/ACAC/ICAO/Stakeholders |
| Final endorsement by RASG-MID and the ACAC Executive Council. | ICAO and ACAC |
| Organize MENASASI 2017 Seminar in Saudi Arabia. | Saudi Arabia |
| Organize Training related to AIG. | UAE/Saudi Arabia |

| ***SEI: Improve implementation of ELP requirements in the MID Region*** | |
|---|---|
| **Actions** | **Champion** |
| Develop a questionnaire to be used as the basis of a survey to assess the implementation of ELP requirements. | UAE in coordination with the ICAO MID Office |
| Disseminate the questionnaire to the MID States. | ICAO |
| Analyse the survey results and agree on next course of actions. | MID-SST in coordination with the ATM SG |

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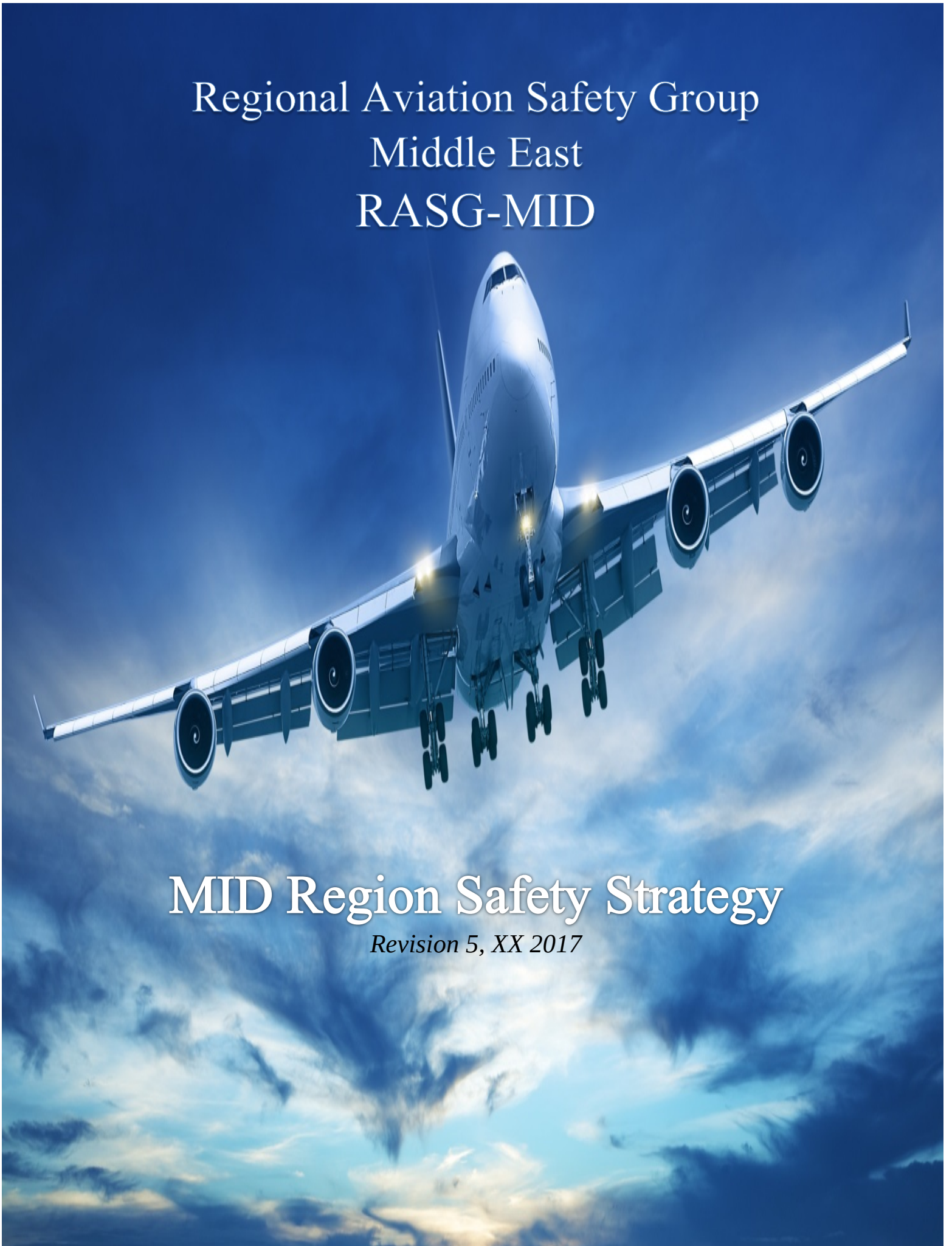
**APPENDIX 3L**


Regional Aviation Safety Group
Middle East
RASG-MID
MID Region Safety Strategy
*Revision 5, XX 2017*

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# MID Region Safety Strategy

## 1. Strategic Safety Objective

1.1 Continuous improvement of aviation safety through a progressive reduction of the number of accidents and related fatalities in the MID Region to be in line with the global average, based on reactive, proactive and predictive safety management practices.

## 2. Safety Objectives

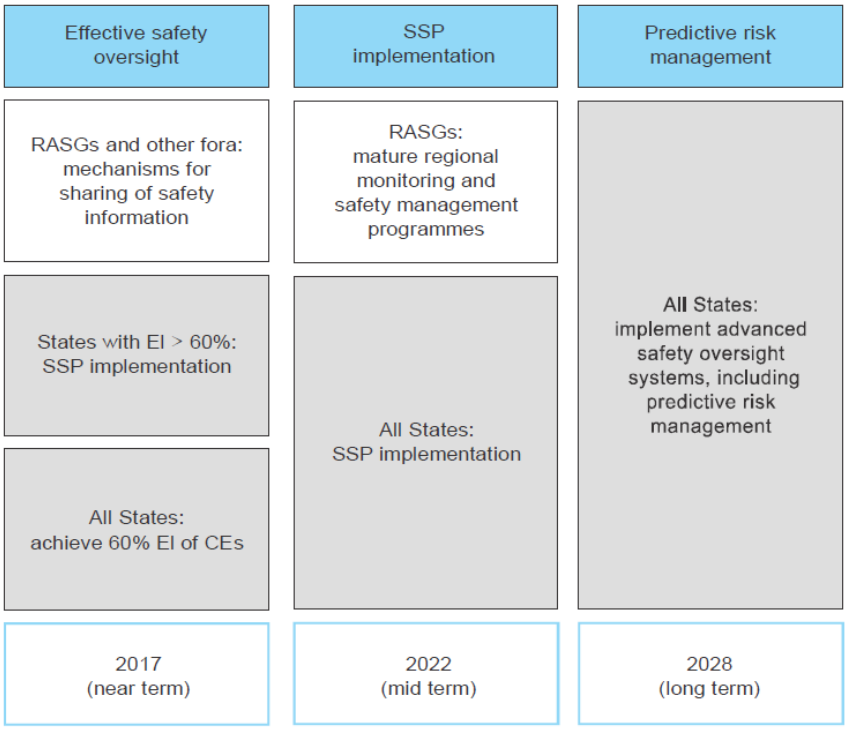
2.1 States and Regions must focus on their safety priorities as they continue to foster expansion of their air transport sectors.

2.2 The ICAO Global Aviation Safety Plan (GASP) establishes targeted safety objectives and initiatives while ensuring the efficient and effective coordination of complementary safety activities between all stakeholders.

2.3 The GASP includes a framework comprised of measurable objectives, supported by Safety Performance Areas and associated safety initiatives.

2.4 One of the strengths of the GASP is that while setting global objectives and priorities, it allows States and Regions to plan and establish their own specific approaches towards meeting these objectives and priorities according to each Member State's safety oversight capabilities, SSPs and safety processes necessary to support the air navigation systems of the future.

2.5 The MID Region safety objectives are in line with the GASP objectives and address specific safety risks identified within the framework of the Regional Aviation Safety Group-Middle East (RASG-MID), based on the analysis of available safety data.




**GASP Objectives**

2.6 The enhancement of communication and information exchange between aviation Stakeholders and their active collaboration under the framework of RASG-MID would help achieving the MID Region safety objectives in an expeditious manner.

# 3. Measuring and monitoring Safety Performance:

3.1 The first version of the MID Region Safety Strategy was developed by the First MID Region Safety Summit (Bahrain, 28-29 April 2013) and endorsed by the DGCA-MID/2 meeting (Jeddah, Saudi Arabia, 20 -22 May 2013).

3.2 The monitoring of safety performance and its enhancement is achieved through identification of relevant Safety Themes and Indicators as well as the adoption and attainment of Safety Targets.

3.3 The MID Region Safety Indicators and Targets are detailed in the Table below:

| | Safety Indicator | Safety Target |
|---|---|---|
| **Reactive Part** | Number of accidents per million departures. | Reduce/Maintain the regional average rate of accidents to be in line with the global average rate by 2016. |
| | Number of fatal accidents per million departures. | Reduce/Maintain the regional average rate of fatal accidents to be in line with the global average rate by 2016. |
| | Number of Runway Safety related accidents per million departures. | Reduce/Maintain the regional average rate of Runway Safety related accidents to be below the global average rate by 2016. |
| | | Reduce/Maintain the Runway Safety related accidents to be less than 1 accident per million departures by 2016. |
| | Number of LOC-I related accidents per million departures. | Reduce/Maintain the regional average rate of LOC-I related accidents to be below the global rate by 2016. |
| | Number of CFIT related accidents per million departures. | Reduce/Maintain the regional average rate of CFIT related accidents to be below the global rate by 2016. |

| | Safety Indicator | Safety Target |
|---|---|---|
| **Proactive Part** | USOAP-CMA Effective<br>Implementation (EI) results:<br>a. Regional average EI.<br>b. Number of MIDStates with an overall EI over 60%.<br>c. Number of MIDStates with an EI score less than 60% for more than 2 areas (LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA). | Progressively increase the USOAP-CMA EI scores/results:<br>a. Increase the regional average EI to be above 70% by 2020.<br>b. 11 MID States to have at least 60% EI by 2020.<br>c. Max 3 MIDStates with an EI score less than 60% for more than 2 areas by 2017. |
| | Number of Significant Safety Concerns | a. MID States resolve identified Significant Safety Concerns as a matter of urgency and in any case within 12 months from their identification.<br>b. No significant Safety Concern by 2016. |
| | Use of the IATA Operational Safety Audit (IOSA), to complement safety oversight activities. | a. Maintain at least 60% of eligible MID airlines to be certified IATA-IOSA at all times.<br>b. All MID States with an EI of at least 60% use the IATA Operational Safety Audit (IOSA) to complement their safety oversight activities, by 2018. |
| | Number of certified International Aerodrome as a percentage of all International Aerodromes in the MID Region. | a. 50% of the International Aerodromes certified by 2015.<br>b. 75% of the International Aerodromes certified by 2017. |
| | Number of established Runway Safety Team (RST) at MID International Aerodromes. | 50% of the International Aerodromes by 2020. |
| | Percentage of MID States that use ECCAIRS for the reporting of accidents and serious incidents. | a. 60% by 2018<br>b. 80% by 2020 |

| | Safety Indicator | Safety Target |
|---|---|---|
| **Predictive Part** | Number of MID States, having completed the SSP gap analysis on iSTARS. | 10 MID States by 2015. |
| | Number of MID States, that have developed an SSP implementation plan. | 10 MID States by 2015. |
| | Number of MID States with EI>60%, having completed implementation of SSP Phase 1. | All MID States with EI>60% to complete phase 1 by 2016. |
| | Number of MID States with EI>60%, having completed implementation of SSP Phase 2. | All MID States with EI>60% to complete phase 2 by 2017. |
| | Number of MID States with EI>60%, having completed implementation of SSP Phase 3. | All MID States with EI>60% to complete phase 3 by 2018. |
| | Number of MID States with EI>60%, having completed implementation of SSP. | All MID States with EI>60% to complete SSP implementation by 2020. |
| | Number of MID States with EI>60% that have established a process for acceptance of individual service providers' SMS. | a. 30% of MID Stateswith EI>60% by 2015.<br>b. 70% of MID Stateswith EI>60% by 2016.<br>c. 100% of MID Stateswith EI>60% by 2017. |
| | *Average Fleet Age. | States are required to monitor their fleet age.<br>No regional Safety Targets are defined. |
| | *Percentage of fleet above 20 years of age. | |

# 4. Governance

4.1 The MID Region Safety Strategy will guide the work of RASG-MID and all its member States and partners.

4.2 The RASG-MID will be the governing body responsible for the review and update of the Strategy, as deemed necessary.

4.3 Progress on the implementation of the MID Region Safety Strategy and the achievement of the agreed Safety Targets will be reported to the ICAO Air Navigation Commission (ANC), through the review of the RASG-MID reports; and to the stakeholders in the Region during the MID Region Safety Summits.

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**APPENDIX 3M**

## STATUS OF THE MID REGION SAFETY INDICATORS TARGETS

| | Safety Indicator | Safety Targets | Global Average Rate 2011-2015 | MID Average Rate 2011-2015 | MID 2015 Rate |
|---|---|---|---|---|---|
| **Reactive Part** | Number of accidents per million departures. | Reduce/Maintain the regional average rate of accidents to be in line with the global average rate by 2016. | **3.2** | **3.5** | **2.5** |
| | Number of fatal accidents per million departures. | Reduce/Maintain the regional average rate of fatal accidents to be in line with the global average rate by 2016. | **0.33** | **0.53** | **0.82** |
| | Number of Runway Safety related accidents per million departures. | Reduce/Maintain the regional average rate of Runway Safety related accidents to be below the global average rate by 2016. | **1.6** | **1.4** | **1.6** |
| | | Reduce/Maintain the Runway Safety related accidents to be less than 1 accident per million departures by 2016. | **1.6** | | |
| | Number of LOC-I related accidents per million departures. | Reduce/Maintain the regional average rate of LOC-I related accidents to be below the global rate by 2016. | **0.09** | **0.19** | **0** |
| | Number of CFIT related accidents per million departures. | Reduce/Maintain the regional average rate of CFIT related accidents to be below the global rate by 2016. | **0.08** | **0** | **0** |

| | Safety Indicator | Safety Target | MID |
|---|---|---|---|
| **Proactive Part** | USOAP-CMA Effective Implementation (EI) results:<br>a. Regional average EI.<br>b. Number of MID States with an overall EI over 60%.<br>c. Number of MID States with an EI score less than 60% for more than 2 areas (LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA). | Progressively increase the USOAP-CMA EI scores/results:<br>a. Increase the regional average EI to be above 70% by 2020.<br>b. 11 MID States to have at least 60% EI by 2020.<br>c. Max 3 MID States with an EI score less than 60% for more than 2 areas by 2017. | a. 66.17%<br>b. 8 States<br>c. 6 States |
| | Number of Significant Safety Concerns. | a. MID States resolve identified Significant Safety Concerns as a matter of urgency and in any case within 12 months from their identification.<br>b. No significant Safety Concern by end of 2016. | None |
| | Use of the IATA Operational Safety Audit (IOSA), to complement safety oversight activities. | a. Maintain at least 60% of eligible MID airlines to be certified IATA-IOSA by 2015 at all times.<br>b. All MID States with an EI of at least 60% use the IATA Operational Safety Audit (IOSA) to complement their safety oversight activities, by 2018. | a. 60%<br>b. 4 States |
| | Number of certified international aerodrome as a percentage of all International Aerodromes in the MID Region. | a. 50% of the International Aerodromes certified by 2015.<br>b. 75% of the International Aerodromes certified by 2017. | 56% |
| | Number of established Runway Safety Team (RST) at MID International Aerodromes. | 50% of the International Aerodromes by 2020. | 42% |
| | Percentage of MID States that use ECCAIRS for the reporting of accidents and serious incidents. | a. 60% by 2018<br>b. 80% by 2020 | 27% already using ECCAIRS<br>13% Planning to use ECCAIRS in 2017 |

| | Safety Indicator | Safety Target | MID |
|---|---|---|---|
| **Predictive Part** | Number of MID States, having completed the SSP Gap Analysis on iSTARS. | 10 MID States by 2015. | 10 States |
| | Number of MID States that have developed an SSP implementation plan. | 10 MID States by 2015. | 8 States |
| | Number of MID States with EI>60%, having completed implementation of SSP Phase 1. | All MID States with EI>60% to complete phase 1 by 2016. | 3 States completed implementation of SSP Phase 1.<br>4 States partially completed implementation of SSP Phase 1. |
| | Number of MID States with EI>60%, having completed implementation of SSP Phase 2. | All MID States with EI>60% to complete phase 2 by 2017. | 1 State completed implementation of SSP Phase 2.<br>6 States partially completed implementation of SSP Phase 2. |
| | Number of MID States with EI>60%, having completed implementation of SSP Phase 3. | All MID States with EI>60% to complete phase 3 by 2018. | 7 States partially completed implementation of SSP Phase 3. |
| | Number of MID States with EI>60%, having completed implementation of SSP. | All MID States with EI>60% to complete SSP implementation by 2020. | None |
| | Number of MID States with EI>60% that have established a process for acceptance of individual service providers' SMS. | a. 30% of MID States with EI>60% by 2015.<br>b. 70% of MID States with EI>60% by 2016.<br>c. 100% of MID States with EI>60% by 2017. | 6 States established a process for acceptance of individual service providers' SMS. |
| | *Average Fleet Age. | States are required to monitor their fleet age.<br>No regional Safety Targets are defined. | N/A |
| | *Percentage of fleet above 20 years of age. | | |

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**APPENDIX 3N**

ICAO CAIRO UNITING AVIATION

# MID Region NCLB Strategy


First Edition
January 2017

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# MID Region NCLB Strategy

## 1. Background

1.1. The ICAO Council identified there is still a large discrepancy among States in the implementation of ICAO Standards and Recommended Practices (SARPs). As a result, the ICAO "No Country Left Behind" (NCLB) Campaign was established by the Council to help ensure that SARPs implementation is better harmonized globally so that all States have access to the significant socio-economic benefits of safe and reliable air transport. To avoid this gap, ICAO should focus its activities on States lacking fundamental oversight capabilities for effective implementation of ICAO SARPs, particularly in the priority areas of safety, air navigation and efficiency, and security. Therefore, particular attention should be given to the assistance of those States with a higher safety and security risk.

1.2. ICAO should find the best way to reduce this gap and increase the regional Effective Implementation (EI), by providing more assistance to developing States, playing a more active coordination role between States and generating the political will to pool resources, participate in regional efforts, earmark voluntary funds and build capacities.

1.3. In accordance with Assembly Resolution A39-23 "No Country Left Behind" (NCLB) Initiative, States should effectively implement ICAO's Standards and Recommended Practices (SARPs) and policies so that all States have safe, secure, efficient, economically viable and environmentally sound air transport systems which support sustainable development and socio-economic prosperity, and which ultimately help to create and preserve friendship and understanding among the nations and peoples of the world. In addition, further progress in improving civil aviation, including the efficient human and financial resources for the implementation of assistance activities that are tailored to the needs of individual States, is best achieved through a cooperative, collaborative and coordinated approach in partnership with all stakeholders.

1.4. The ICAO No Country Left Behind (NCLB) initiative, which was launched in December 2014, aims at providing support to all States and in support of the five ICAO strategic objectives, for the resolution of significant safety concerns (SSCs) and significant security concerns (SSeCs) and for an effective implementation of ICAO's SARPs, policies, plans and programmes, in a globally-harmonized manner; promoting and implementing all ICAO's assistance activities.

1.5. Through the NCLB initiative, ICAO resolves to be more effective in directly supporting all willing States that need assistance to develop and improve the aviation system by implementing ICAO's global Standards and policies. In its role as an advocate for aviation, ICAO will work with States to ensure aviation be given greater importance in the context of development at the Country level.

1.6. The NCLB initiative seeks to improve implementation support delivery to States. Support, collaboration and assistance from States, international organizations, industry and other stakeholders is essential to the success of these ICAO efforts to ensure that no Country is left behind.

1.7. The ICAO MID Regional Office promotes and monitors the implementation of Standards and Recommended Practices (SARPs) in 15 Member States of ICAO to which it is accredited.

1.8. The MID Region is faced with a wide variety of geopolitical diversity, airspace features, operational challenges and civil aviation capacity building issues.

1.9. To ensure the success of the assistance/cooperation actions, first ICAO needs to have a deep understanding on the root causes for a State not been able to improve its level of implementation of SARPs. Once this is achieved it is necessary to select the best candidates States for deploying technical assistance/cooperation projects that will produce a sustainable improvement of the USOAP Effective Implementation (EI).

1.10. The design of an effective NCLB Strategy could only be possible by gathering enough information on the organization, structure, formal and informal hierarchy, cultural aspects, etc. This information could be considered as State Profile or as business intelligence, which might be needed for the development of necessary project document and to seek support from donors that might be interested in subsidizing the NCLB initiative.

## 2. Challenges for States

2.1 States continue to face various challenges regarding the implementation of ICAO's Standards and Recommended Practices (SARPs), which impact a safe, secure, efficient, economically viable and environmentally sound air transport system.

2.2 In order to achieve the objectives of the NCLB Initiative, it is also important to identify and address the challenges facing States to implement ICAO policies, plans and SARPs. The followings are some of the main challenges common to many States in the MID Region:

- rapid and continuing growth of traffic in the MID Region, which places increased demand on airspace capacity and imposes an optimum utilization of the available airspace and airports;
- insufficient financial and human resources capacity;
- retention and training/re-training of personnel;
- changing environment with the development of new technologies and SARPs;
- existing deficiencies;
- political, governance, institutional and legal issues;
- States have other higher priorities than aviation; and
- emergencies – natural disasters, public health, civil unrest, etc.

## 3. Objectives

3.1 The success of the NCLB initiative will hinge on support and collaboration of resources of partners and donors and requires firm commitment from the States, involving both aviation and non-aviation sectors. One of the priorities of the NCLB is to garner the political will necessary to support aviation improvements. ICAO plays a leadership role in the aviation community to facilitate communication and coordination amongst key stakeholders regarding assistance activities. This will allow the continued growth of a safe, secure, efficient, economically viable and environmentally sound aviation system and well established development frameworks, at both the international and national levels, to engage in providing resources for the effective implementation of aviation global standards and policies.

3.2 The primary objectives of the NCLB initiative include:

a) providing enhanced support for States in the effective implementation of ICAO's SARPs, plans and policies in a more coordinated, comprehensive and globally harmonized manner; and
b) promoting the resolution of significant safety concerns (SSCs) and significant security concerns (SSeCs), if any.

***Means to achieve NCLB Objectives:***

- advocate the benefits of aviation for States at the highest level;
- prioritize assistance needs and assessing risks for each State;
- facilitate and support implementing capacity-building initiatives;
- establishing and enhancing partnerships;
- mobilizing resources for aviation-related projects
- develop implementation support tools and services; and
- monitoring and recognizing progress by States.

***Doha Declaration***

3.3 The Doha Declaration, the MID Region Safety and Air Navigation Strategies defined regional performance targets for the monitoring of performance at the national and regional levels, aiming at enhancing safety and improving air navigation capacity and efficiency, through a cooperative, collaborative and coordinated approach in partnership with all stakeholders under the leadership of ICAO. Albeit, there was no specific requirements (what needs to be achieved) for each State to contribute to the achievement of the regional targets.

3.4 The MID Region NCLB Strategy incorporates the previously agreed commitments of the Doha Declaration, and aims to foster the achievement of the regional targets, including:

- regional average EI to be above 70% by 2020; and
- 11 States to have at least 60% EI by 2020.

3.5 This will be achieved through:

- identification of States lacking fundamental oversight capabilities for effective implementation of ICAO SARPs;
- prioritization of States in term of provision of required assistance;
- selection of the best candidates States for deploying technical assistance/cooperation projects that will produce a sustainable improvement of the Effective Implementation (EI);
- proactive approach to foster political will and senior level commitment;
- agreement with concerned States, as part of specific Plan of Actions, on measureable outcomes and clear definition of accountability for the achievement of the set goals; and
- identification of Champions (State, ICAO or stakeholder) to provide required assistance.

## 4. Prioritization of States in Safety

4.1 MID States are classified in four (4) groups, as follows:

1- States with SSC;
2- States not audited or with EI below 60% (EI < 60);
3- States with EI between 60 and 70% (60 ≤ EI < 70); and
4- States with EI over 70% (EI ≥ 70).

4.2 Other criteria/factors should be considered for the provision of required NCLB assistance, during the development and implementation of the plans of actions, including but not limited to:

a) State willingness/commitment to receive assistance;
b) Security and political stability;
c) EI per Area and per Critical Element (CE);
d) Level of aviation activities in the State;
e) Air navigation deficiencies (including the deficiencies related to aerodrome certification);
f) Level of progress made by State in the development and implementation of Corrective Action Plans (CAPs);
g) Gross Domestic Product (GDP) per capita; and
h) Ongoing or planned assistance projects.

## 5. MID Region NCLB Strategy – Phases

5.1 The MID Region NCLB Strategy is composed of three (3) phases as follows:

**Phase I – Selection**: Selection of the best candidates States for deploying assistance that will produce a sustainable improvement of the EI, in accordance with agreed prioritization criteria; and communication with States (Executive Level) for the development and implementation of an NCLB Plan of Actions.

During this phase, the ICAO MID Office plays the main role in the selection of the best candidate States and ensuring necessary leadership, commitment, political will and accountability for the development and implementation of State's NCLB Plan of Actions.

**Phase II – Plan of Actions**: Development of State's NCLB Plan of Actions, in coordination with concerned States and other stakeholders, as required. This phase includes also the communication of the Plan of Action to the State Executive Level. The Plan of Actions should include measurable outcomes with specific timelines.

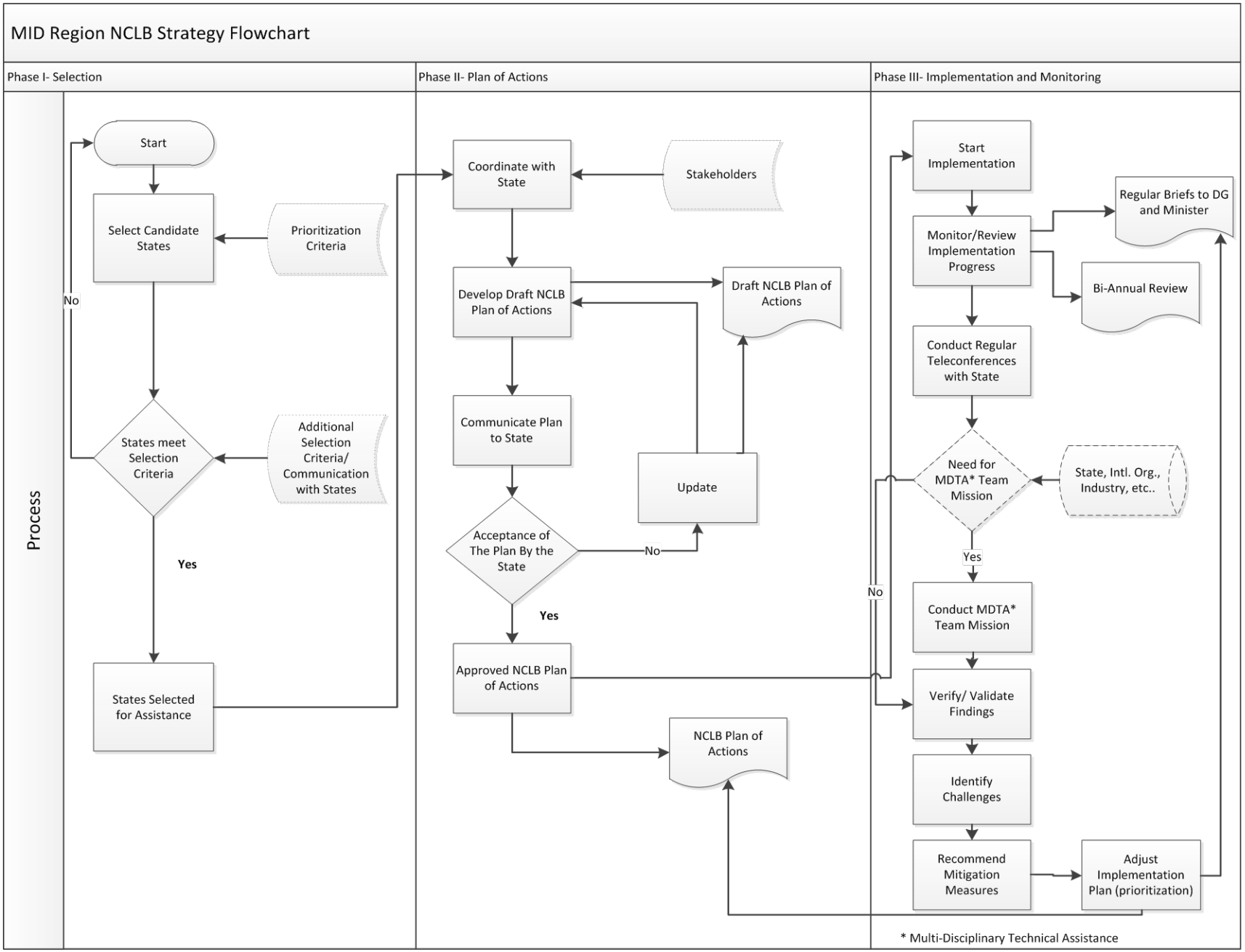
**Phase III – Implementation and Monitoring**: Implementation of the agreed plan of actions in coordination with concerned stakeholders; and continuous monitoring of the implementation process to ensure the achievement of the agreed objectives and targets.

The implementation of the different activities included in the Plan of Actions could be supported by different stakeholders. During the implementation process, visit(s) by a multi-disciplinary Technical Assistance Team composed of Experts from ICAO and other stakeholders (States, International Organizations, Industry, etc.) might be needed to advance and expedite the implementation of the agreed actions in a prioritized manner, verify/validate the evidences related to the resolution of previously identified findings, provide necessary assistance, identify the main challenges and agree on necessary mitigation measures.

During this phase, regular teleconferences and a bi-annual implementation review should be carried out; and regular briefs will be provided to the DG/Minister.

***MID Region NCLB Strategy – Flowchart***

5.2 The following Flowchart helps understand the process and activities related to each phase of the MID Region NCLB Strategy:


MID Region NCLB Strategy Flowchart
Phase I- Selection
Phase II- Plan of Actions
Phase III- Implementation and Monitoring
Process
Start
Select Candidate States
Prioritization Criteria
No
States meet Selection Criteria
Additional Selection Criteria/ Communication with States
Yes
States Selected for Assistance
Coordinate with State
Stakeholders
Develop Draft NCLB Plan of Actions
Draft NCLB Plan of Actions
Communicate Plan to State
Update
Acceptance of The Plan By the State
No
Yes
Approved NCLB Plan of Actions
NCLB Plan of Actions
Start Implementation
Regular Briefs to DG and Minister
Monitor/Review Implementation Progress
Bi-Annual Review
Conduct Regular Teleconferences with State
Need for MDTA* Team Mission
State, Intl. Org., Industry, etc..
Yes
No
Conduct MDTA* Team Mission
Verify/ Validate Findings
Identify Challenges
Recommend Mitigation Measures
Adjust Implementation Plan (prioritization)
* Multi-Disciplinary Technical Assistance

***MID Region NCLB Implementation Plan***

5.3 The MID Region NCLB Strategy supports the implementation of the Global Aviation Safety Plan (GASP) and its Roadmap as the basis to develop action plans that define the specific activities which should take place in order to improve safety at the regional and national levels.

5.4 The MID Region NCLB Implementation Plan is a companion document to the MID Region NCLB Strategy. It is a living document used for recording the NCLB activities in the MID Region (general and State by State), including the monitoring of the States' NCLB Plan of Actions and States/Stakeholders' contributions to support the NCLB initiative. Specific goals, outcomes, deliverables and timelines are specified in the States' NCLB Plan of Actions/Recommended Actions.

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ICAO CAIRO UNITING AVIATION

# MID Region NCLB Implementation Plan


First Edition
January 2017


# INTERNATIONAL CIVIL AVIATION ORGANIZATION

## MID Region NCLB Implementation Plan

**January 2017**

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## MID Region NCLB Implementation Plan

### 1. Introduction

1.1. The MID Region NCLB Implementation Plan is a living document used for recording the NCLB activities in the MID Region (general and State by State), including the monitoring of the States' NCLB Plan of Actions and States/Stakeholders' contributions to support the NCLB initiative. Specific goals, outcomes, deliverables and timelines are specified in the State's NCLB Plan of Actions.

1.2. An overview of various safety indicators and results for each Member State are available on the ICAO integrated Safety Trend Analysis and Reporting System (iSTARS), which could be accessed through the following link: https://portal.icao.int/space/Pages/State-Safety-Briefings.aspx

1.3. The Table below containing some MID States' high level indicators provides a good overview (Dashboard) of the MID Region:

| State | SSC | EI | SSP Level | Aerodrome Certification % | PBN Vertical Approach % | GDP/Capita US$ | Level of activities or movements |
|---|---|---|---|---|---|---|---|
| **Bahrain** | NO | 66.19 | 3 | 100 | 0 | 23 040 | High |
| **Egypt** | NO | 54.96 | 3 | 57 | 20 | 3 256 | High |
| **Iran** | NO | 90.49 | 1 | 44 | 3 | 6 578 | High |
| **Iraq** | NO | NA | 0 | 33 | 0 | 6 625 | Low |
| **Jordan** | NO | 58.65 | 0 | 66 | 100 | 4 909 | Low |
| **Kuwait** | NO | 53.93 | 3 | 100 | 100 | 56 367 | Medium |
| **Lebanon** | NO | 60.54 | 3 | 0 | 0 | 9 764 | Low |
| **Libya** | NO | 28.91 | 0 | 0 | 0 | 13 303 | Low |
| **Oman** | NO | 67.83 | 3 | 100 | 100 | 23 624 | High |
| **Qatar** | NO | 62.86 | 3 | 100 | 100 | 92 633 | High |
| **Saudi Arabia** | NO | 89.12 | 3 | 100 | 0 | 25946 | High |
| **Sudan** | NO | 74.19 | 3 | 75 | 100 | 1 695 | Low |
| **Syria** | NO | 53.66 | 2 | 0 | 13 | 2 126 | Low |
| **UAE** | NO | 98.85 | 3 | 100 | 85 | 41 692 | High |
| **Yemen** | NO | NA | 0 | 0 | 25 | 1 341 | Low |
| **Regional Status** | | **66.17** | | **65** | **29** | | |

**Table 1.**

### 2. Contributions

2.1 The following Table reflects the contributions received from States and Stakeholders in support of the MID NCLB activities:

| States and Stakeholders | Contribution Cash or in-Kind | Description/Amount | Remark |
|---|---|---|---|
| Saudi Arabia | Cash | US$200,000 | MID NCLB activities for 2017 |
| Saudi Arabia | Cash | US$200,000 | Other MID NCLB activities |

| | | | |
|---|---|---|---|
| UAE | Cash | US$50,000 | To be used for the establishment of the MID FPP |
| | | | |
| | | | |
| | | | |

**Table 2.**

## 3. NCLB Activities

### 3.1. General Activities

3.1.1. The following regional NCLB activities are planned/conducted in support of the MID NCLB initiative:

| Activity | Funded by/from | Venue | Date | Targeted States | Remarks |
|---|---|---|---|---|---|
| GSI AIR Course | MID NCLB budget | Cairo | 7-18 May | | |
| GSI ANS Course | MID NCLB budget | Cairo | 6-17 Aug. | | |
| GSI AGA Course | MID NCLB budget | Cairo | 24 Sep -5 Oct | | |

**Table 3.**

### 3.2. NCLB Activities by State

3.2.1. This Section provides State-by-State a high-level briefing on the status of USOAP-CMA results. It contains also the recommended actions that would enhance the oversight capabilities of the States, eventually increase the EI, and improve safety and efficiency of air navigation in the MID Region. This could be in the form of a formal Plan of Actions or just a list of Recommended Actions, agreed with the concerned State. In both cases, the following is defined for each action:

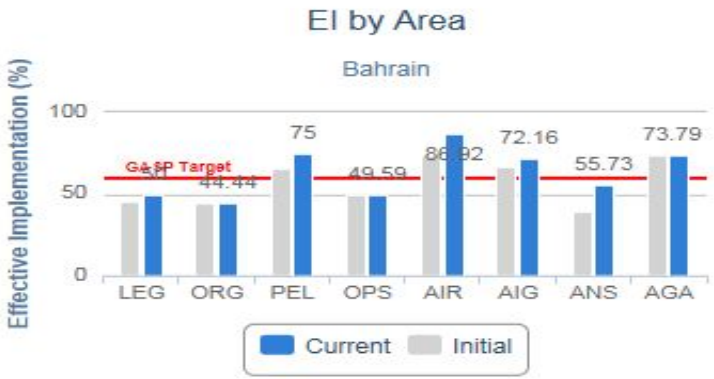
- the link to a USOAP-CMA PQ or air navigation deficiency;
- a State Point of Contact (POC);
- the Accountable person;
- list of States and stakeholders supporting the implementation of the activity/actions;
- the expected deliverables;
- the timelines for the completion of the action;
- the source of funding and assigned amount, as appropriate; and
- the status which provides the information on the progress achieved for the implementation of the action.

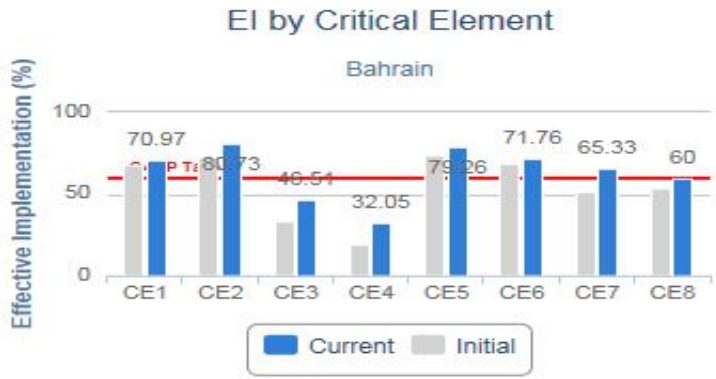
**Bahrain**
**Group: 3**

Bahrain EI is **66.19%**.

## USOAP Results by Area and Critical Element

4 areas and 6 critical elements are above the target of 60% EI.




Bahrain currently has 262 open USOAP protocol findings. The highest number of protocol findings (37) concern Technical Personnel Qualification and Training (CE-4) in the area of Air Navigation Services (ANS).

| | LEG | ORG | PEL | OPS | AIR | AIG | ANS | AGA |
|---|---|---|---|---|---|---|---|---|
| CE-1 | 6 | 1 | | | | 1 | 1 | |
| CE-2 | 4 | | 1 | 3 | 3 | 3 | 3 | 4 |
| CE-3 | | 4 | 2 | 2 | 1 | 7 | 26 | 4 |
| CE-4 | | | 1 | 5 | 2 | 5 | 37 | 3 |
| CE-5 | 1 | | 3 | 4 | 1 | 7 | 4 | 8 |
| CE-6 | | | 9 | 34 | 1 | | 5 | 12 |
| CE-7 | | | 2 | 10 | 4 | | 4 | 6 |
| CE-8 | | | 2 | 4 | 2 | 4 | 5 | 1 |

*Protocol findings by Area and Critical Element intersection*

*Note: Due to ongoing work on our data management platform, the above results may slightly differ from the ones published on the CMA online framework.*

***NCLB Plan of Actions/Recommended Actions***

Since Bahrain is among the Group 3 States, there's no NCLB Plan of Actions developed for Bahrain. However, the followings are the agreed actions that would improve safety and efficiency of air navigation within Bahrain FIR:

| Ref | Key Activity | Actions | Link to USOAP PQ, or AN Deficiency | State POC | Accountable | Supported by | Deliverables | Timeline | Source of Funds/ amount | Remarks/Status |
|---|---|---|---|---|---|---|---|---|---|---|
| BAH-1 | Improve the level of qualified ANS experts | BA1.1 Develop Training Programme for ANS Inspectors | | XXX YYY | DG BCAA | ICAO State X ORG Y | Training Programme for ANS Inspectors | Jun. 2017 | BCAA | |
| | | BA1.2 Develop Training Plans for ANS Inspectors | | XXX YYY | DG BCAA | | Training Plans for ANS Inspectors | Aug. 2017 | BCAA | |
| | | BA1.3 Organize a GSI course for ANS Inspectors | | XXX YYY | ICAO RD | | | Oct. 2017 | ICAO (MID NCLB) | Bahrain attendance is strongly encouraged |
| BAH-2 | | | | | | | | | | |

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**APPENDIX 3O**

# RASG-MID Feedback Questionnaire

***Excellent (1)  Very Good (2)  Good (3)  Fair (4)  Poor (5)***

| States | Bahrain | | | | | Egypt | | | | | Iran | | | | | Iraq | | | | | Jordan | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| Level of Participation in RASG-MID activities | | | x | | | | | | x | | x | | | | | | x | | | | | x | | | |
| Effective implementation of Safety Action Plans and Mitigation Measures | | x | | | | | x | | | | | x | | | | | | x | | | | x | | | |
| Achievement of Safety Targets within set timelines | x | | | | | | | x | | | | x | | | | | | x | | | x | | | | |
| Streamlining of Efforts and Avoidance of Duplication of Efforts | x | | | | | x | | | | | | x | | | | | | x | | | | x | | | |
| Level of Communication with Stakeholders as per set plans | x | | | | | x | | | | | | x | | | | x | | | | | x | | | | |
| Effectiveness of RASG-MID Publications such as MID Annual Safety Report (MID-ASR) and Safety Advisories (RSAs) | x | | | | | x | | | | | x | | | | | | x | | | | | x | | | |
| Overall Satisfaction of RASG-MID | x | | | | | x | | | | | x | | | | | | x | | | | x | | | | |
| ***Comments/Suggestions*** | No comment. | | | | | -We recommend in RASG-MID meeting's Invitation Letters to focus on necessity and importance of RASG-MID members and alternates to attend on a regular basis to ensure continuity & follow-up & tracking for all issues raised.<br><br>- Request from States to assign focal person to be responsible for giving ICAO feedback for all correspondences and coordinate issue within CAA. | | | - The decisions should have timeline and after finishing timeline, the next meeting will be held. | | | | | Iraq CAA thanks ICAO MID and Qatar CAA to held RASG-MID/5 and would like to have ICAO MID assistance under ICAO MID NCLB to develop an initial action plan to establish USOAP CMA (CE1-CE5) . | | | | | No comment. | | | | |

***Excellent (1)  Very Good (2)  Good (3)  Fair (4)  Poor (5)***

| States | Kuwait | | | | | Qatar | | | | | UAE | | | | | CANSO | | | | | IATA | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| Level of Participation in RASG-MID activities | | | x | | | x | | | | | x | | | | | | x | | | | | | x | | |
| Effective implementation of Safety Action Plans and Mitigation Measures | | | x | | | | | x | | | | x | | | | | x | | | | | x | | | |
| Achievement of Safety Targets within set timelines | | | x | | | | | x | | | x | | | | | | | x | | | | | x | | |
| Streamlining of Efforts and Avoidance of Duplication of Efforts | | | x | | | | | x | | | x | | | | | x | | | | | | | | x | |
| Level of Communication with Stakeholders as per set plans | | x | | | | | | x | | | x | | | | | x | | | | | | | x | | |
| Effectiveness of RASG-MID Publications such as MID Annual Safety Report (MID-ASR) and Safety Advisories (RSAs) | | | x | | | | x | | | | x | | | | | | x | | | | | | x | | |
| Overall Satisfaction of RASG-MID | | | x | | | x | | | | | x | | | | | | | x | | | | | x | | |
| ***Comments/Suggestions*** | No comment. | | | | | States should be more involved in the RASG-MID acitivities. | | | | | No comment. | | | | | Yes, it is very important to achieve the safety targets with a set timelines , but we should make sure of maintaining the results as well<br>RASG-MID Publications are very important, but what after publishing them, how we can make sure that people are making use of them, and if they did, are they satisfied!<br>Still ATM SMS needs to be seriously addressed by RASG-MID the same way Airlines and airports SMS are tackled.<br>Maybe ATM SMS should be tackled by MIDANPIRG since it the body dealing with ATM and ANSPs issues. This is only a thought hope to be considered. | | | | | Need more contribution and support from States . | | | | |

# APPENDIX 3P

## 2017 RASG-MID Safety Related Events in Middle East Calendar

### PART A

### RASG-MID EVENTS

| Dates | Organizers | Activity | Location | Target Attendance |
|---|---|---|---|---|
| ***January 2017*** | | | | |
| 23-25 | ICAO | Fifth Meeting of the Regional Steering Committee (RSC/5) | IATA Amman - Jordan | |
| | | | | |
| ***February 2017*** | | | | |
| 6-8 | ICAO | USOAP-CMA Regional Workshop | Cairo | |
| | | | | |
| ***March 2017*** | | | | |
| 5-9 | ICAO | Safety Management Course for Practitioners | Cairo | |
| 12-14 | ICAO | iSTARS Workshop | Cairo | |
| 14-16 | ICAO | First Meeting of the Accidents and Incidents Analysis Working Group (AIA WG/2) | Cairo | |
| ***April 2017*** | | | | |
| 25-27 | ACAC/ICAO | ACAC/ICAO AIG Workshop | Jeddah | |
| | | | | |
| ***May 2017*** | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| ***June 2017*** | | | | |
| | | | | |
| | | | | |
| ***July 2017*** | | | | |
| 3-5 | ICAO | Workshop on Protection of Accident and Incident Investigation Records | Cairo | |
| | | | | |
| | | | | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| ***August 2017*** | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| ***September 2017*** | | | | |
| 19-21 | ICAO | RASG-MID/6 | Bahrain | |
| | | | | |
| | | | | |
| ***October 2017*** | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| ***November 2017*** | | | | |
| 5-7 | ICAO | Fourth Meeting of the Runway and Ground Safety Working Group (RGS WG/4) | Cairo | |
| | | | | |
| | | | | |
| | | | | |
| ***December 2017*** | | | | |
| 4-6 | ICAO | Aerodrome Safeguarding Workshop | Cairo | |
| | | | | |
| | | | | |
| | | | | |

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**PART B**
**OTHER EVENTS IN THE REGION**

| Dates | Organizers | Activity | Location | Target Attendance |
|---|---|---|---|---|
| ***January 2017*** | | | | |
| | | | | |
| | | | | |
| ***February 2017*** | | | | |
| | | | | |
| | | | | |
| ***March 2017*** | | | | |
| 22-24 | EASA/ICAO | Forum on Regional Safety Oversight Organizations (RSOOs) for Global Aviation Safety | Swaziland | |
| | | | | |
| ***April 2017*** | | | | |
| 5 | IATA | ISAGO Workshop | Abu Dhabi | |
| 11-12 | | World Aviation Safety Summit | Dubai | |
| ***May 2017*** | | | | |
| | | | | |
| | | | | |
| ***June 2017*** | | | | |
| | | | | |
| | | | | |
| ***July 2017*** | | | | |
| 18-19 | IATA/ACAC | IOSA Seminar jointly organized with ACAC | Tunisia | |
| | | | | |
| ***August 2017*** | | | | |
| | | | | |
| | | | | |
| ***September 2017*** | | | | |
| | | | | |
| | | | | |
| ***October 2017*** | | | | |
| 23-25 | ICAO | NGAP Symposium | Doha | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| ***November 2017*** | | | | |
| 12-14 | CANSO | ANSP SMS Workshop | TBD | |
| | | | | |
| ***December 2017*** | | | | |
| 11-13 | | RPAS Workshop | TBD | |
| | | | | |

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**APPENDIX 4A**

**Coordination between MIDANPIRG and RASG-MID**

| Subjects of interest for MIDANPIRG and RASG-MID | Responsible/Leading Group | |
|---|---|---|
| | RASG-MID | MIDANPIRG |
| Aerodrome Operational Planning (AOP) | | X |
| Runway and Ground Safety | X | |
| AIM, CNS and MET safety issues | | X |
| CFIT | X | |
| SSP Implementation | X | |
| SMS implementation for ANS and Aerodromes | X | |
| Accidents and Incidents Analysis and Investigation | X | |
| English Language Proficiency | X | |
| RVSM safety monitoring | | X |
| SAR and Flight Tracking | | X |
| PBN | | X |
| Civil/Military Coordination | | X |
| Airspace management | | X |
| Call Sign Similarity and Confusion | | X |
| Conflict Zones | | X |
| Contingency Planning | | X |
| USOAP-CMA | X | |
| COSCAP, RSOO and RAIO | X | |
| Air Navigation Deficiencies | | X |
| Training for ANS personnel | | X |
| Training other civil aviation personnel | X | |
| Laser attack | X | |
| Fatigue Risk Management | X | |
| RPAS | | X |
| GPS Jamming | | X |
| Aeromedical | X | |

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**APPENDIX 4B**

**Call Sign Similarity/Confusion Reporting Template**

| Case | **Reporting ANSP or AO** | **Place of occurrence** (Airport, sector, etc) | **Date of occurrence** (26/04/2013) | **Time** (UTC) | **Call signs** (one line for each) | **Departure airport** (ICAO 4-letter code) | **Arrival airport** (ICAO 4-letter code) | **Type of aircraft** (ICAO type desig) | **Aircraft Operator** (ICAO 3-letter code) | **Type of Occurrence** (CSS or CSC) | **AO using CSST** (YES or NO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |

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# APPENDIX 4C

## LIST OF MIDRMA BOARD MEMBERS/ALTERNATES AND FOCAL PONTS

| STATE | MIDRMA BOARD MEMBER | ALTERNATE | ATC FOCAL POINT | AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT |
|---|---|---|---|---|
| **BAHRAIN** | Mr. Saleem Mohammed Hassan<br>A/Director Air Navigation<br>Civil Aviation Affairs<br>P.O. Box 586 - BAHRAIN<br>Fax: (973) 17 32 9977<br>Tel: (973) 17321116<br>Mobile: (973) 39608860<br>E-mail: saleemmh@caa.gov.bh | Mr. Abdullatif Ahmed Bucheeri<br>Civil Aviation Affairs<br>P.O. Box 586 – BAHRAIN Fax:<br>(973) 17 32 9966<br>Tel: (973) 17 321118<br>Mobile: (973) 39456519<br>E-mail: aabdulrahman@caa.gov.bh | Mr. Ahmed Mohammed Bucheeri<br>Head of Air Traffic Operation<br>Civil Aviation Affairs<br>P.O. Box 586 BAHRAIN<br>Fax: (973) 17 329966<br>Tel: (973) 17 321158<br>Mobile: (973) 39522696<br>E-mail: a.ali@caa.gov.bh | Capt. Abdulla Al Saeedi<br>Aircraft Operations Inspector<br>Civil Aviation Affairs<br>P.O. Box 586 BAHRAIN<br>Tel: (973) 17 32 9940<br>E-mail: a.alsaeedi@caa.gov.bh<br><br>Eng. Abdulrazzqaq Abdulwahid<br>Aircraft Registration Specialist<br>Civil Aviation Affairs<br>P.O. Box 586 BAHRAIN<br>Tel: (973) 17 32 9031<br>E-mail: a.mohammed@caa.gov.bh |
| **EGYPT** | Mr. Hesham Abdel Fattah Ibrahim<br>Head of Air Navigation<br>Central Administration<br>Egyptian Civil Aviation Authority<br>Cairo Airport Road<br>Cairo - EGYPT<br>Mobile: (20100) 606 8185<br>Email:<br>hesham.abdel-fatah@civilaviation.gov.eg | Mr. Ashraf Fathy Ghoneim<br>Airworthiness (Avionics)<br>Engineering Inspector<br>Egyptian Civil Aviation Authority<br>Cairo Airport Road<br>Cairo - EGYPT<br>Mobile: (20100) 6756 717<br>Email:<br>ashraf.ghoneim@civilaviation.gov.eg<br>ashraf.ghoneim@gmail.com | Mr. Amr Mohamed Amin<br>Safety Manager<br>National Air Navigation Services<br>Company (NANSC)<br>Cairo Airport Road<br>Cairo - EGYPT<br>Mobile: (20106)156 9762<br>Email: amro_1962@yahoo.com | Mr. Essam Salah Labib<br>ATC Supervisor<br>National Air Navigation Services<br>Company (NANSC)<br>Cairo Airport Road<br>Cairo - EGYPT<br>Mobile: (20122)338 477<br>Email: essamsalah@aol.com |

| STATE | MIDRMA BOARD MEMBER | ALTERNATE | ATC FOCAL POINT | AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT |
|---|---|---|---|---|
| **IRAN** | Mr. Mohammad Shahbazi<br>Director General of Airworthiness Department<br>I.R. Iran Civil Aviation Organization<br>Tehran Mehrabad International Airport<br>P.O. Box 13445-1798<br>Tehran - IRAN<br>Fax: (9821) 66018659<br>Tel: (9821) 66073526<br>Mobile:: (98 912) 4369921<br>E-mail: m-shahbazi@cao.ir | Mr. Mohammad Javad Taghvaey<br>Flight Standard Deputy<br>I.R. Iran Civil Aviation Organization<br>Tehran Mehrabad International Airport<br>P.O. Box 13445-1798<br>Tehran - IRAN<br>Fax: (9821)<br>Tel: (9821)<br>Mobile: (98912)<br>Email: taghvaey@cao.ir | Mr. Ebrahim Moradi<br>General Director of ATS<br>Iran Airports Company (IAC)<br>Tehran – IRAN<br>Fax: (98 21)<br>Tel: (98 21)<br>Mobile: (98912)<br>Email: ebistar_moradi@yahoo.com | Mr. Majid Khademhosseini<br>Airworthiness In charge (Avionic)<br>Flight Standard Department<br>(CAO)<br>Tehran – IRAN<br>Fax: (98 21) 660 25066<br>Tel: (98 21) 661 02123<br>Mobile: (98) 9122140530<br>E-mail: majid.khadem@gmail.com<br>m-khademhossini@cao.ir |
| **IRAQ** | Mr. Ali Mohsin Hashim<br>Director ATS<br>Iraq Civil Aviation Authority<br>Baghdad – Iraq<br>Mobile: (964) 781 576 2525<br>Email: atc_iraqcaa@yahoo.com | Mr. Nabeel Sadek<br>Safety and Quality Manager<br>Iraq Civil Aviation Authority<br>Baghdad – Iraq<br>Mobile: (964) 770 421 2129<br>Email: nabeeldats@yahoo.com | Mr. Mohanad Ali Mohammed<br>Air Traffic Controller<br>Iraq Civil Aviation Authority<br>Baghdad – Iraq<br>Mobile: (964) 790 154 0690<br>Email:<br>Mohanad.ali1986@yahoo.com | Mr. Nashat Nadhir Al-Ani<br>Airworthiness Inspectror<br>Flight Safety Department<br>Iraqi civil Aviation Authority<br>IRAQ<br>Mobile: (964) 780 859 0778<br>Email: nashaatnadhir@iraqcaa.com |
| **JORDAN** | Mr. Ahmad Awad Al-Natour<br>Air Traffic Controller<br>Civil Aviation Regulatory Commission<br>Queen Alia Airport<br>Amman - JORDAN<br>Fax: (962-6) 4451 619<br>Tel: (962-6) 489 2282 Ext 3420<br>Mobile: (962) 799 970 098<br>E-mail: ahmad.natour@carc.gov.jo | Mr. Marwan Hani Ibrahim Al-Masri<br>Air Traffic Control Officer/ATCO<br>Civil Aviation Regulatory Commission<br>Queen Alia Airport<br>Mobile: (962) 795 990 890<br>Tel: ( 962-6) 445 1607<br>Fax: (962-6) 445 1667<br>Email: marwan.al-masri@carc.gov.jo | Mr. Ahmed Hisham Amireh<br>Air Traffic Controller<br>Civil Aviation Regulatory Commission<br>P.O. Box 7547/11110<br>Amman-Jordan<br>Fax: (962-6) 489 1266<br>Tel: (962- 6) 489 2282 Ext 3420<br>Mobile: (962) 79 5079 688<br>E-mail: ahmad.amireh@carc.gov.jo | Eng. Majed Saltan Dmour<br>Airworthiness Inspector<br>Civil Aviation Regulatory Commission<br>P.O. Box 7547/11110<br>Amman - JORDAN<br>Fax: (962-6) 487 4710<br>Tel: (962-6) 489 2282 Ext 3733<br>Mobile: (962) 77 7413 263<br>E-mail: majeddmour@carc.gov.jo |

| STATE | MIDRMA BOARD MEMBER | ALTERNATE | ATC FOCAL POINT | AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT |
|---|---|---|---|---|
| **KUWAIT** | Mr. Mansour F. Al Harbi<br>Head of ACC & APP Division<br>Air Navigation Department,<br>Directorate General of Civil Aviation,<br>P.O. Box 17 – Safat,<br>13001 – Safat – Kuwait<br>Kuwait<br><br>Tel: (965) 24760463/24342476<br>Fax: (965) 24346221<br>Mobile: (965) 99739088<br>E-Mail: mf.alharbi@dgca.gov.kw | Mr. Fawzi M. Al Marshood<br>ATC Radar Supervisor<br>Air Navigation Department,<br>Directorate General of Civil Aviation,<br>P.O. Box 17 – Safat,<br>13001 – Safat – Kuwait<br>Kuwait<br><br>Tel: (965) 24710268<br>Fax: (965) 24346221<br>Mobile: (965) 99700663<br>E-Mail: fm.almarshod@dgca.gov.kw | Mr. Faisal Adel A. Al Assousi<br>First Radar Air Traffic Controller<br>Air Navigation Department,<br>Directorate General of Civil Aviation,<br>P.O. Box 17 – Safat,<br>13001 – Safat – Kuwait<br>Kuwait<br><br>Tel: (965) 24762994<br>Fax: (965) 24346221<br>Mobile: (965) 66464614<br>E-Mail: fa7a@hotmail.com | Hassan AL Shatti<br>Airworthiness Inspector<br>Aviation Safety Department,<br>Directorate General of Civil Aviation,<br>P.O. Box 17 – Safat,<br>13001 – Safat – Kuwait<br>Kuwait<br><br>Tel: (965) 161 / 2360<br>Fax: (965) 24346055<br>Mobile: (965) 99723243<br>E-Mail: ha.alshatti@dgca.gov.kw |
| **LEBANON** | Mr. Kamal Nassereddine<br>Chief Air Navigation Department<br>Directorate General of Civil Aviation<br>Beirut Airport<br>Beirut – LEBANON<br>Fax: (961-1) 629 023<br>Tel: (961-1) 628 178<br>Mobile:<br>E-mail: atm@beirutairport.gov.lb | | | |
| **LIBYA** | | | | |

| STATE | MIDRMA BOARD MEMBER | ALTERNATE | ATC FOCAL POINT | AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT |
|---|---|---|---|---|
| **OMAN** | Eng. Hamad Ali Mohammed Al-Abri<br>Director General of Air Navigation.<br>Public Authority for Civil Aviation<br>P.O. Box 1. P.C 111 SEEB<br>Fax: (968) 24354506<br>Tel: (968) 24354866<br>Mobile: (968) 99350101<br>Email: h.alabri@paca.gov.om | Mr. Nasser Salim Al-Mazroui<br>Chief of Muscat ACC<br>Public Authority for Civil Aviation<br>P.O. Box 1. P.C 111 SEEB<br>Fax: (968) 24354506<br>Tel: (968) 24354939<br>Mobile: (968) 99340405<br>E-mail: n.almazroui@paca.gov.om | Mr. Nasser Salim Al'Tuweya.<br>ATC Supervisor<br>Public Authority for Civil Aviation<br>P.O. Box 1. P.C 111 SEEB<br>Fax: (968) 24354506<br>Tel: (968) 24519305<br>Mobile: (968) 95180233<br>E-mail: nass2008@paca.gov.om | Mr. Mohammed Ali Al-Shanfari<br>Chief of Airworthiness.<br>Public Authority for Civil Aviation<br>E-mail: m.alshanfari@paca.gov.om<br><br>**ALTERNATE**<br>Capt. Mohammed Al-Bimani<br>Flight Operations Inspector<br>E-mail: m.albimani@paca.gov.om |
| **QATAR** | Mr. Ahmed Al Eshaq<br>Director Air Navigation<br>Civil Aviation Authority<br>P.O. Box 73<br>Doha, QATAR<br>Fax: (974-4) 4465 6554<br>Tel: (974-4) 4462 2300<br>Mobile: (974-55) 550 440<br>E-mail: ahmed@caa.gov.qa | Mr. Sameer Al Khalaf<br>Head of Air Traffic Control<br>Civil Aviation Authority<br>P.O. Box 73<br>Doha, QATAR<br>Fax: (974-4) 4465 6554<br>Tel: (974-4) 4465 6700<br>E-mail: sameer.alkhalaf@caa.gov.qa | | Capt. Michael John Farrell<br>Head of Flight OPS Section<br>Civil Aviation Authority<br>P.O. Box 73<br>Doha, QATAR<br>Fax: (974-4)<br>Tel: (974-4)<br>Mobile: (974-70)<br>E-mail: michael.farrell@caa.gov.qa |
| **SAUDI ARABIA** | Mr. Khalid Al Barakati<br>Airspace Manager<br>General Authority of Civil Aviation (GACA)<br>P.O. Box 15441<br>Jeddah 21444 - SAUDI ARABIA<br>Fax: (966-12) 6717717 Ext. 1807<br>Tel: (966-12) 6717717 Ext. 1808<br>Mobile: (966-50) 337 3395<br>E-mail: khaled1111alsharif@yahoo.com | Mr. Ibrahim Mohammed Basheikh<br>Software Engineer<br>Automation Engineering Branch<br>General Authority of Civil Aviation<br>P.O. Box 15441 Jeddah 21444<br>KINGDOM OF SAUDI ARABIA<br>Fax: (966-12) 2671 9041<br>Tel: (966-12) 2671 7717, Ext. 1119<br>Mobile: (966) 50567 1231<br>Email: i_basheikh@hotmail.com | | Mr. Ahmad Z. Garoot<br>Aviation Safety Inspector<br>Safety & Economic Regulation<br>General Authority of Civil Aviation (GACA)<br>P.O Box 887 Jeddah 21165<br>SAUDI ARABIA<br>Fax: (966-12) 685 5745<br>Tel: (966-12) 685 5842<br>Mobile: (966-50) 554 4372<br>E-mail: agarout@gaca.gov.sa |

| STATE | MIDRMA BOARD MEMBER | ALTERNATE | ATC FOCAL POINT | AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT |
|---|---|---|---|---|
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| STATE | MIDRMA BOARD MEMBER | ALTERNATE | ATC FOCAL POINT | AIRWORTHINESS/FLIGHT OPERATIONS FOCAL POINT |
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