



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**FIRST MEETING OF THE AFRICA-INDIAN OCEAN REGIONAL
AVIATION SAFETY GROUP (RASG-AFI/1)**

(Kampala, Uganda, 26-27 March 2012)

Agenda Item 6 : Other Safety Initiatives and Regional Organizations in the AFI Region

**ACI AIRPORT EXCELLENCE (APEX) IN SAFETY
PROGRAMME**

(Presented by Airports Council International)

SUMMARY

This paper presents ACI's **Airport Excellence (APEX) in Safety** Programme. It discusses the benefits APEX provides as a dynamic and systematic approach for safety from the industry, while fostering regional cooperation in the aerodrome field, with the goal of decreasing the number of runway excursions and incursions and especially reducing the number of accidents and fatalities.

This paper relates to:

ICAO Strategic Objectives:

- A. Safety
- C. Sustainability

Global Aviation Safety Plan (GASP)

1. INTRODUCTION

1.1 The mission of the Airports Council International (ACI) is to promote the collective interest of the world's airports and the communities they serve and to promote professional excellence in airport operations and management. Safety is the top priority.

1.2 To achieve these goals, ACI works closely with the International Civil Aviation Organization (ICAO). Safety is paramount for both ACI and ICAO, and it will remain the top issue on the ACI-ICAO agenda. ACI expects to sign a global agreement on Safety with ICAO in the very near future.

1.3 According to ICAO's Universal Safety Oversight Audit Program (USOAP, 2009 results), of the total number of states audited, 70% did not establish or implement a runway safety program to prevent runway incursions, 44% failed to implement the ICAO standards regarding the certification of

aerodromes, and 38% do not ensure that aerodrome operators comply with the requirements related to operational services and physical facilities.

1.4 As air traffic and passenger numbers continue to rise at a steady rate, the aviation community must do more to improve the level of safety at airports worldwide. Recent ACI forecasts indicate that there will be over 10 billion passengers and 130 million aircraft movements per annum by 2029, meaning that aside from other operational measures, the existing world airport capacity would need to double over the next 15 years to be able to accommodate this added capacity demand. The price tag is in excess of 1 trillion dollars for capital expenditure projects alone.

1.5 ACI, pursuing its mission of promoting safer airport operations while contributing to international cooperation between the International Civil Aviation Organization (ICAO), aviation stakeholders and airports worldwide, has developed the **Airport Excellence (APEX) in Safety** initiative.

1.6 The **APEX in Safety** Programme is based on ICAO standards as well as ACI Best Practices. **APEX in Safety** combines the mandate for regulatory compliance with the actual day to day operational needs of airports to maximize operational efficiency while enhancing the safety standards.

1.7 Moreover, **APEX in Safety** provides several elements tailored to the individual needs of airports and proposes effective solutions which will lead to improving the safety standing of the airports who participate in the Programme by decreasing the safety hazards and risks.

2. DISCUSSION

2.1 **APEX in Safety** is based on ICAO Annex 14 Standards and Recommended Practices (SARPS) and ACI Best Practices. It takes the form of a Safety Review, including a self-assessment of the safety level, gap analysis, recommended solutions and design of an action plan following an on-site visit at an airport which has requested assistance to enhance their level of safety.

2.2 The host airport will directly benefit from dedicated ACI support to achieve the goals set in the action plan. Various means of assistance are available, such as access to pools of experts, training, workshops, seminars, working groups, at local, regional and international level.

2.3 The enhanced level of safety will directly benefit the State, especially in regard to the design and implementation of the State Safety Programme (SSP). The State oversight capabilities will receive a boost, as the aerodrome participating to the **APEX in Safety** Programme will display a greater level of compliance with SARPS and the national regulations applicable. The Programme will benefit ICAO by providing a valuable insight regarding the current safety standing and the future capabilities of the visited aerodromes to close the safety gaps identified. The data collected will be used by ICAO as part of the integrated global aviation safety net, with the ultimate goal of improving aviation safety worldwide.

2.4 The process of carrying out an on-site safety assessment at an airport, making proposals for an Action Plan, and recommending solutions to optimize the safety standing of the requesting airport, is referred to as a **Safety Review**.

2.5 The airport requesting the Safety Review is described as the **Host Airport**. The Safety Review reflects industry best practices, while maximizing the operational benefits that the Host Airport needs.

2.6 For the Host Airport, **APEX in Safety** will provide the ability to:

- Effectively ensure an enhanced level of safety, by gaining appropriate knowledge of regulatory standards, best operational practices, and training needs / options;
- Self-evaluate its safety performance;
- Access a pool of expertise which will enable the Host Airport to mitigate any gaps in safety as required by their specific operating environment.

2.7 **APEX in Safety** will also provide the means to:

- Offer assurance to ICAO that adequate safety measures are in place contributing to the regulator/oversight authority fulfilling its obligation to implement, and ensure compliance with, ICAO SARPS;
- Acknowledge that the Host Airport is proactively taking measures towards improving its safety standing and becoming fully compliant with the applicable safety regulations;
- Understand that the Host Airport would be able to provide the necessary elements to integrate into the State Safety Programme (SSP).

2.8 Under **APEX in Safety**, ACI will organize and dispatch a team of experts to the Host Airport to improve its level of safety in specific areas of interest. The Host Airport will receive an on-site visit of a specially set up team of experts – the ACI Safety Review Team.

2.9 The Host Airport may request areas in which the ACI Safety Review Team may provide specific assistance. The following areas are presented as an example: runway safety, SMS, aerodrome certification, wildlife hazard management, emergency response, FOD management, improvement of AIP documentation, etc.

2.10 The Safety Review should last up to one week and the ACI Safety Review Team is comprised of a variable number of safety experts, depending on the complexity of the assessment requested. The team should normally include an ACI Regional Office safety expert, an ICAO-designated safety officer, and one or more Safety Partners (*see below*), under the supervision of a team leader (which could be one of the above mentioned team members). Other experts may be included in the team if the extent of the Safety Review so demands.

2.11 The **Safety Partner** is an airport, World Business Partner or other strategic ACI associate which has the required know-how and volunteers to provide to the Host Airport one or more experts for the purposes of performing the Safety Review. ACI proudly acknowledges our Safety Partners' contribution to fostering safety and international cooperation through a variety of communication channels and at ACI events world-wide.

2.12 The **ACI Safety Review Team** will conduct a gap analysis and assessment of the safety standing at the Host Airport, and will provide a preliminary (draft) report at the end of the visit. A Final Report with recommendations will be forwarded to the Host Airport Senior Management within a month of the end of the visit, containing the observations made by the ACI Safety Review Team. The Final Report will emphasize the short, medium and long term solutions that could be put in place by the Host Airport to enhance the level of safety, given its individual operational environment.

2.13 Based on the conclusions from the Final Report, the Host Airport will draw up an **Action Plan** which will contain its short, medium, and long term safety improvement goals, as well as the means and actions that are deemed most appropriate to achieve these results.

2.14 The overarching **APEX in Safety** goal of improving safety is reached when the Host Airport acts upon the proposed mitigating measures, as safety enhancement is an essential, yet on-going activity.

2.15 An ACI support team will be ready to guide the Host Airport throughout the process of implementing the most appropriate safety measures as part of their strategy to phase in the mitigating measures.

2.16 An important part of the **APEX in Safety** Programme is to ensure that effective assistance is provided to the Host Airport for the implementation of a Safety Management System capable of capturing and addressing safety-related hazards and risks.

2.17 As the Host Airport implements mitigating measures, a periodic evaluation of the airport's safety performance is needed and highly recommended. The Safety Review results should be updated accordingly, to reflect the progress made.

2.18 **APEX in Safety** will provide valuable insight to ICAO regarding the current safety standing and future capabilities of the visited aerodromes to close the safety gaps identified. The data collected will be used by ICAO as part of the integrated global aviation safety net, with the ultimate goal of improving aviation safety worldwide.

2.19 The results from the Safety Review will be confidential. ACI and ICAO will cooperate to ensure the protection of the data related to the Safety Review. The data will be used for the purposes of the Safety Review, for designing mitigating measures and ensuring safety oversight under the ICAO-ACI cooperation framework.

2.20 ACI is presently conducting a pilot phase of the programme, and in Africa this has included Lomé, Togo and Maputo, Mozambique. A further pilot will be carried out in Lusaka, Zambia. After the pilot phase, the programme will enter into full operation later in 2012.

2.21 For additional information about **APEX in Safety**, please visit www.aci.aero/apex or contact Mr. Ali TOUNSI Regional Secretary – ACI Africa, at tounsi.aciaf@yahoo.fr or Mr. Adrian CIORANU, Project Manager APEX – ACI World, at ACioranu@aci.aero.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the information provided about the APEX in Safety initiative.



APEX™ AIRPORT
EXCELLENCE
IN SAFETY

Airport Excellence in Safety

APEX Reference Document

- » The ACI program designed for airports to achieve excellence in safety

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1. Executive Summary

The mission of Airports Council International (ACI) is to promote the collective interest of the world's airports and the communities they serve and to promote professional excellence in airport operations and management. Safety is the top priority.

To achieve these goals, ACI works closely with the International Civil Aviation Organization (ICAO). Safety is paramount for both ACI and ICAO, and it will remain the top issue on the ACI-ICAO agenda. As air traffic and passenger numbers continue to rise at a steady rate, the aviation community must do more to improve the level of safety at airports worldwide.

Recent ACI forecasts indicate that there will be over 10 billion passengers and 130 million aircraft movements per annum by 2029, meaning that aside from other operational measures, the existing world airport capacity would need to double over the next 15 years to be able to accommodate this added capacity demand. And the price tag is in excess of 1 trillion dollars for capital expenditure projects alone.

The significant growth in the number of passengers, freight volume, and aircraft movements is expected to create additional burdens to a system under constant pressure to maintain safety levels. According to ICAO's Universal Safety Oversight Audit Program (USOAP, 2009 results), of the total number of states audited:

- 70% did not establish or implement a runway safety program to prevent runway incursions;
- 44% failed to implement the ICAO standards regarding the certification of aerodromes;
- 50% do not require periodic testing and review of aerodrome emergency plans or the measurement of friction characteristics;
- 38% do not ensure that aerodrome operators comply with the requirements related to operational services and physical facilities.

ACI, pursuing its mission of promoting safer airport operations while contributing to international cooperation between the International Civil Aviation Organization (ICAO), aviation stakeholders and airports worldwide, has developed the Airport Excellence (APEX) in Safety initiative.

The program is based on ICAO standards as well as ACI Best Practices. APEX in Safety combines the mandate for regulatory compliance with the actual day to day operational needs of airports to maximize operational efficiency while enhancing the safety standards.

Moreover, APEX in Safety provides several elements tailored to the individual needs of airports and proposes effective solutions which we expect will lead to improving the safety standing of the airports who participate in the program.

2. Airport Excellence (APEX) in Safety – Mission & Vision

The Mission of APEX in Safety is:

- *To be the leading enabler of airport safety by increasing the level of compliance with aerodrome regulations through cooperation between ICAO, Safety Partners and airports around the world.*

The Vision of APEX in Safety is:

- *To assist airports in their efforts to improve their safety performance, to implement safety management systems, establish indicators and tools for the reduction of safety incidents; and*
- *To increase the level of compliance with applicable standards and foster the sharing of best safety practices amongst the airport community.*

3. Audience and Stakeholders

APEX in Safety is based on ICAO Annex 14 Standards and Recommended Practices (SARPS) and ACI Best Practices. It takes the form of a Safety Review, including a self-assessment of the safety level, gap analysis, recommended solutions and design of an action plan following an on-site visit at an airport which has requested assistance to enhance their level of safety.

Safety Review

The process of carrying out an on-site safety assessment at an airport based on the results of a self-assessment safety questionnaire, making proposals for an Action Plan, and recommending solutions to optimize the safety standing of the requesting airport, is referred to as a **Safety Review**.

Host Airport & Benefits

The airport requesting the Safety Review is referred to as the Host Airport.

The Safety Review reflects industry best practices, while maximizing the operational benefits that the Host Airport needs.

For the Host Airport, APEX in Safety will provide the ability to:

- Effectively ensure an enhanced level of safety, by gaining appropriate knowledge of regulatory standards, best operational practices, and training needs / options;
- Self-evaluate its safety performance;
- Access a pool of expertise which will enable the Host Airport to mitigate any gaps in safety as required by their specific operating environment.

APEX in Safety Benefits

- ✓ Tailored approach
- ✓ Measures that can be immediately implemented
- ✓ Access to global network of safety experts
- ✓ Practical application
- ✓ Action Plan
- ✓ Effective results within reach
- ✓ Appropriate solutions based on specific operational environment
- ✓ ICAO regulatory aspects covered
- ✓ Access to knowledge data base
- ✓ Access to documentation
- ✓ Guidance material
- ✓ Training, workshops, and further assistance available

APEX in Safety will also provide the means to:

- Offer assurance to ICAO that adequate safety measures are in place contributing to the regulator/oversight authority fulfilling its obligation to implement, and ensure compliance with, ICAO SARPS;
- Acknowledge that the Host Airport is proactively taking measures towards improving its safety standing and becoming fully compliant with the applicable safety regulations;
- Understand that the Host Airport would be able to provide the necessary elements to integrate into the State Safety Program (SSP).

Advance Questionnaire

Prior to the Safety Review, the Host Airport will fill out and send ACI a self-evaluation questionnaire, called Advance Questionnaire, which is aimed at identifying the key areas where additional time should be spent by the ACI Safety Review Team while conducting the on-site assessment. When submitting the Advance Questionnaire, the Host Airports needs to provide also the electronic version of the relevant procedures and documentation. This step is an important one in the evaluation of the operational needs and the selection of the appropriate Safety Partners.

Safety Partner & Benefits

The Safety Partner is an airport, World Business Partner or other strategic ACI associate which has the required know-how and volunteers to provide to the Host Airport one or more experts for the purposes of performing the Safety Review. The services of the Safety Partner are provided without charge for the entire duration of the Safety Review with the objective of assisting the Host Airport to improve their safety standards.

For the Safety Partners, participating in APEX provides the opportunity to assist airport colleagues to improve their safety standing and to learn from the Safety Review process, and also to increase the cooperation and the sense of community between airports worldwide. It recognizes that the air transportation system is interconnected and operates globally each day, so improving the safety level at all airports is in everyone's best interests.

ACI proudly acknowledges our Safety Partners' contribution to fostering safety and international cooperation through a variety of communication channels and at ACI events world-wide.

Stakeholders

APEX in Safety touches upon a significant number of stakeholders, including airlines, air navigation service providers and regulators/oversight authorities. The safety goals of these stakeholders are harmonized to the greatest extent possible during the Safety Review and will be given due consideration during the on-site visit at the Host Airport.

4. Safety Review – The Mechanism

Under APEX in Safety, ACI will organize and dispatch a team of experts to **Host Airport** to improve its level of safety in specific areas of interest. The Host Airport will receive an on-site visit of a specially set up team of experts – the **ACI Safety Review Team**.

APEX in Safety can cover all safety areas, on request by the Host Airport. The Host Airport may request in which areas the ACI Safety Review Team may provide specific assistance.

The following areas are presented as an example:

- Runway Safety;
- Safety Management Systems (SMS);
- Aerodrome Certification;
- Wildlife Hazard Management;
- Markings, Signs and Lighting;
- Rescue and Firefighting;
- Emergency Response;
- Airside Driver and Vehicle Management;
- Management of Ground Handlers, Contractual and Legal Issues;
- Improvement of AIP Documentation;
- Low Visibility Procedure;
- Obstacle Management;
- Winter Operations;
- FOD Management;
- Movement Area Maintenance;
- Movement Area Access;
- Aerodrome Works Safety;
- Apron Safety Management;
- Removal of Disabled Aircraft;
- Hazardous Material Handling.

The **Safety Review** should last up to one week and the ACI Safety Review Team is comprised of a variable number of safety experts, depending on the complexity of the assessment requested. The team should normally include an ACI Regional Office safety expert, an ICAO-designated safety officer, and one or more Safety Partners, under the supervision of a team leader (which could be one of the above mentioned team members). Other experts may be included in the team if the extent of the Safety Review so demands.

The **Safety Partner** does not pursue any commercial interests and acts in the sole interest of the Host Airport during the Safety Review.

The **ACI Safety Review Team** will conduct a gap analysis and assessment of the safety standing at the Host Airport, and will provide a **preliminary (draft) report** at the end of the visit. A **Final Report** with recommendations will be forwarded to the Host Airport Senior Management within a month of the end of the visit, containing the observations made by the ACI Safety Review Team. The Final Report will emphasize the short, medium and long term solutions that could be put in place by the Host Airport to enhance the level of safety, given its individual operational environment.

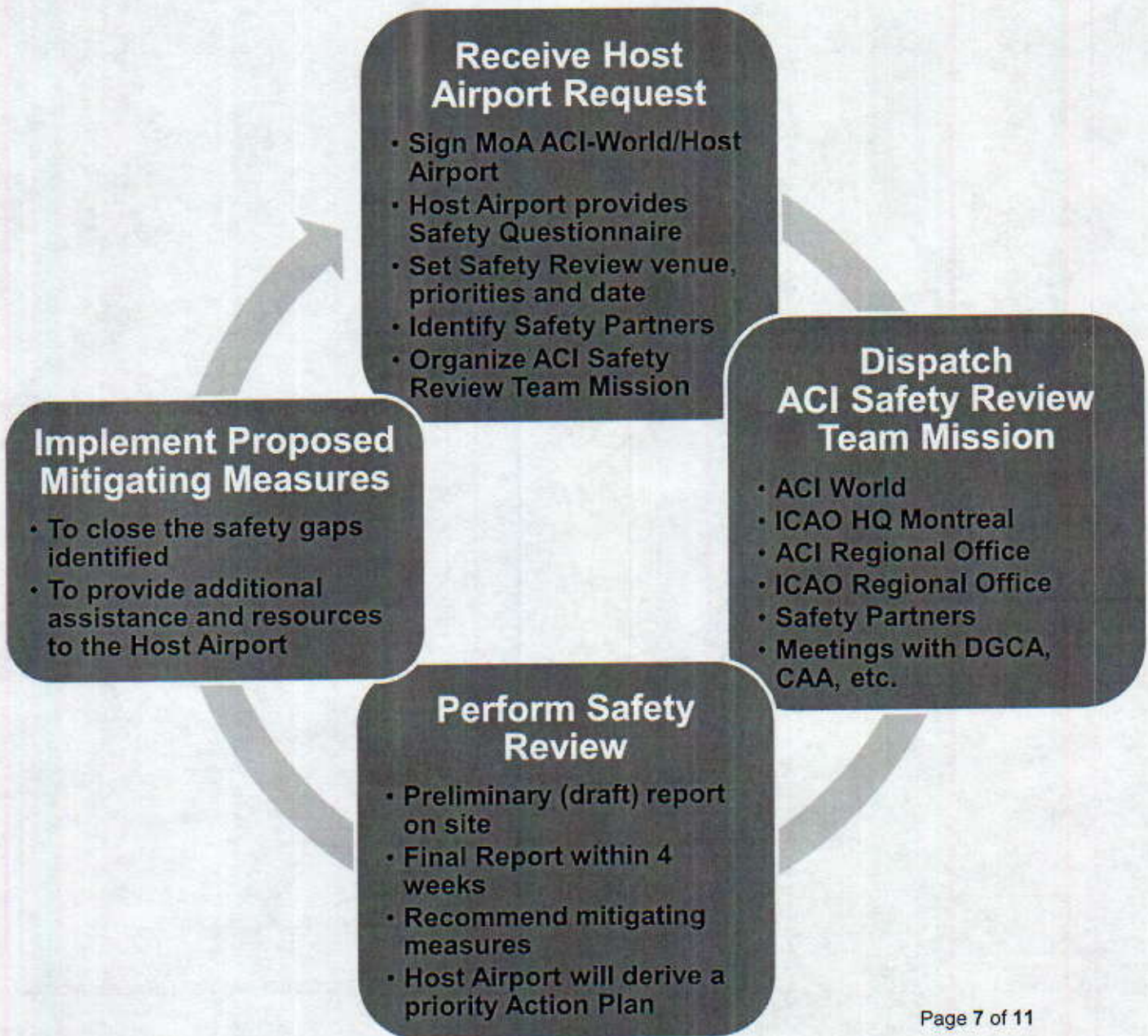
Based on the conclusions from the Final Report, the Host Airport will draw up an **Action Plan** which will contain its short, medium, and long term safety improvement goals, as well as the means and actions that are deemed most appropriate to achieve these results.

The overarching APEX in Safety goal of improving safety is reached when the Host Airport acts upon the **proposed mitigating measures**, as safety enhancement is an essential, yet on-going activity.

An **ACI support team** will be ready to guide the Host Airport throughout the process of implementing the most appropriate safety measures as part of their strategy to phase in the mitigating measures.

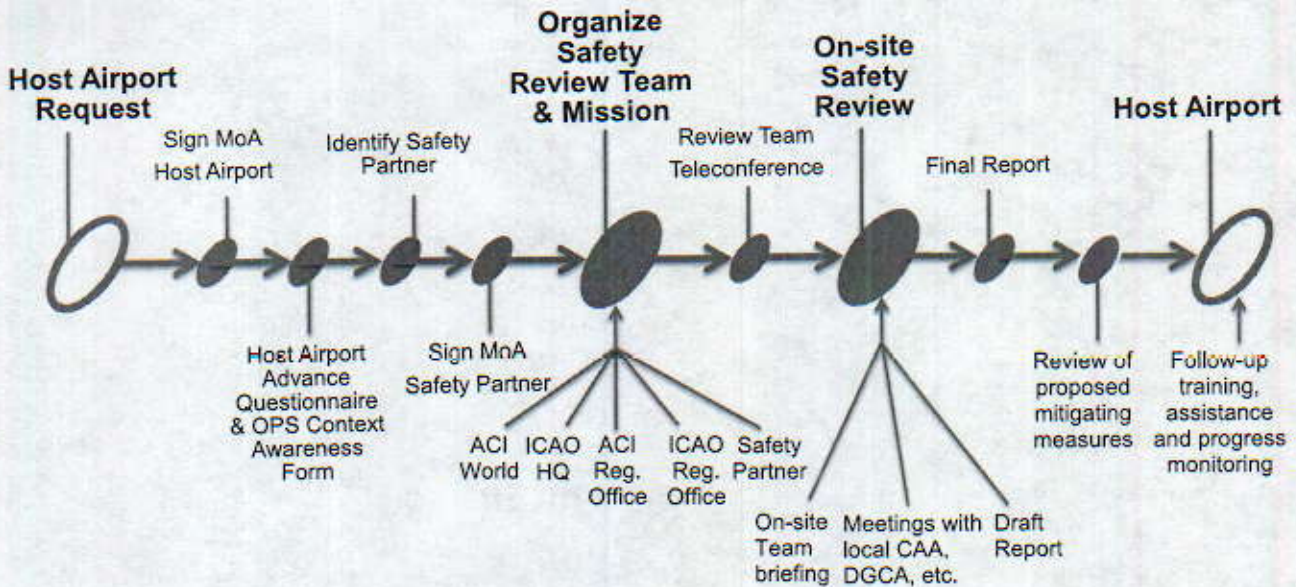
5. APEX in Safety: Plan – Do – Check – Review

APEX in Safety reflects the cyclical path of safety management programs, while bringing the best value to the Host Airport.



6. Timeline

The estimated time necessary to complete the entire process – from the time the MOA is signed with the Host Airport until the final report is issued – could be no more than 16 weeks. ACI World reserves the right to prioritize the Safety Reviews according to the criteria available at www.aci.aero/APEX.



The on-site Safety Review should last up to one week, depending on the extent of the assessment detail and the complexity of the airport operations at the Host Airport.

The Final Report will be sent to the Host Airport one month after the on-site visit.

Under the APEX in Safety Program, the Host Airport will directly benefit from dedicated ACI support to achieve the goals set in the Action Plan. Various means of assistance are available, such as access to pools of experts, training, workshops, seminars, working groups, at local, regional and international level.

The enhanced level of safety will directly benefit the State. The State oversight capabilities will receive a boost, as the airport participating in the APEX in Safety Program will display a greater level of compliance with the national regulations applicable and the ICAO SARPS, under the umbrella of the State Safety Program (SSP).

APEX in Safety Program will also benefit ICAO by providing a valuable insight regarding the current safety standing and the future capabilities of the visited airports to close the safety gaps identified. The data collected will be used by ICAO as part of the integrated global aviation safety net, with the ultimate goal of improving aviation safety worldwide.

7. Cost of the Safety Review

The Host Airport is responsible for covering the following direct costs for the ACI Safety Review Team for the duration of the Safety Review: Air travel and per diem (adhering to ACI World/ICAO travel policy, as applicable); transfer to/from the hotel and the airport; accommodation; and meals.

No charges or consultancy fees will be charged. Also, the project management cost is provided free of charge to the Host Airport by ACI World.

The Safety Review is performed on a non-remunerative basis. No profits are made or sought by ACI or its associates while conducting the Safety Review. When scheduling the Safety Review and setting up the ACI Safety Review Team, ACI makes every effort to keep costs to the minimum.

An internet connection should be provided to the ACI Safety Review Team for the purposes of conducting the Safety Review. Communications (phone and fax), a printer and a briefing room equipped with a projector should be made available on-site for the duration of the Safety Review.

8. Evaluation, Tracking and Follow-up

An important part of the APEX in Safety Program is to ensure that effective assistance is provided to the Host Airport for the implementation of a Safety Management System capable of capturing and addressing safety-related hazards and risks.

ICAO USOAP established that more than 50% of the audited states were not ensuring that aerodrome operators monitor and analyse accident and incident trends to take appropriate action.

As the Host Airport implements mitigating measures, a periodic evaluation of the airport's safety performance is needed and highly recommended. The Safety Review results should be updated accordingly, to reflect the progress made.

9. How to Request a Safety Review

ACI delivers the APEX in Safety program to every member airport interested in achieving excellence in safety, under the same conditions, providing equal quality services, and applying the same cost guidelines.

To request a Safety Review, a letter signed by the Senior Management of the Host Airport should be sent to the ACI Regional Office, with a copy forwarded to ACI World.

The process is simple, straightforward and transparent, and ACI uses a series of objective criteria, including ICAO Universal Safety Oversight Audit Program (USOAP) results, to prioritize requests for Safety Reviews.

The following aspects need to be included in the letter by the Host Airport:

1. The commitment by the Host Airport senior management to engage in the APEX in Safety process with the aim to improve the safety standing at the airport concerned;
2. The name of the airport for which the Safety Review is requested;
3. The tentative dates requested for the ACI Safety Review Team visit.

You will find enclosed a template for such a letter for your peruse.

10. Confidentiality

The results from the Safety Review will be confidential. ACI and ICAO will cooperate to ensure the protection of the data related to the Safety Review. The data will be used for the purposes of the Safety Review, for designing mitigating measures and ensuring safety oversight under the ICAO-ACI cooperation framework.

How to contact ACI

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