



International Civil Aviation Organization

RASG-MID Steering Committee

Fifth Meeting (RSC/5)

(Amman, Jordan, 23-25 January 2017)

Agenda Item 3: Regional Performance Framework for Safety

THE ACCIDENT AND INCIDENT ANALYSIS WORKING GROUP (AIA WG)

(Presented by the AIA WG Chairman)

SUMMARY
This paper presents the outcome of the AIA WG. Action by the meeting is at paragraph 3.
REFERENCES
- AIA WG/1 Report - RASG-MID/5 Report

1. INTRODUCTION

1.1 The RASG-MID/4 meeting (Jeddah, Saudi Arabia, 30 March - 1 April 2015), through Decision 4/5, established the AIA WG to review, analyze and categorize on annual basis the accidents and incidents at the regional level and provide an agreed and harmonized regional dataset of accidents and incidents. The AIA WG would also, to the extent possible, identify the main root causes and contributing factors of the reviewed accidents and incidents.

1.2 The First meeting of the Accident and Incident Analysis Working Group (AIA WG/1) was held at the ICAO Middle East Regional Office in Cairo, Egypt (29 – 31 March 2016).

1.3 In order to fulfil the mandate assigned to the AIA WG (collection/reporting, validation and analysis of data), the RASG-MID/5 meeting, through Decision 5/5, established 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.

2. DISCUSSION

2.1 The meeting may wish to note that ICAO iSTARS (ADREP et al.) application contains an aggregation of different accident and incident data sources including ADREP, Aviation Safety Network and Aviation Herald. This application is used for the development of the ICAO Safety Reports. It's a web-based platform for the reporting and analysis of safety information and provides quasi real-time information on occurrences as reported by various official and media sources. The data is updated automatically every 24 hours. The data fields provided by those sources cover information about the flight history, the aircraft, the operator and the location of occurrence. More data fields would be needed to allow for useful safety analysis.

2.2 The AIA WG/1 highlighted that there are currently no features allowing users to create or modify occurrences in iSTARS ADREP application/database.

2.3 The application is being enhanced by ICAO-HQ to include the following features:

- 1) an occurrence data form containing a limited number of fields, for the collection and analysis purposes;
- 2) auto-population mechanism of fields based on the aircraft registration number;
- 3) create and upload function to allow authorized users to add data;
- 4) editing and reviewing function to allow authorized users (creators and selected reviewers) to modify existing data, correct or add missing information; and
- 5) validation function to allow the regional office (on behalf of the RASG) in coordination with concerned States to validate the information.

2.4 A draft Form “*iSTARS ADREP Occurrence Data Form*” was reviewed by RASG-MID/5 meeting. It was highlighted that in order to foster and facilitate the reporting, the form contains a very limited number of mandatory fields; the rest of the information would be generated automatically by the application (based on the aircraft registration) or entered at a later stage.

2.5 With respect to the processes to be implemented for the creation of an occurrence, addition and amendment of data to existing occurrences as well as for the validation process, it was noted that for each action/function, there’s a need to clearly define the WHO, WHAT and HOW. For the validation process, there will be different layers of validation (initial validation and final validation), which will involve ICAO, the AIA WG Core Team, the concerned State and the RASG-MID. It was highlighted that the validation process related to voluntary safety information might also be different from the process related to mandatory information.

2.6 For the purpose of analysis, it was agreed that the *iSTARS ADREP Occurrence Data Form* should include fields related to the main root cause and contributing factors. The meeting noted that Standard and limited lists of main root causes and contributing factors are being developed by the AIA WG Core Team. A step-by-step approach will be followed for the development of the analysis function.

2.7 The AIA WG core team have developed a guideline booklet which will be used during the initial implementation phase to review, validate and analyse the available occurrence data. Please refer to **Appendix A** for more details of the booklet.

2.8 The meeting may wish to note that AIA WG/2 meeting will be held at Cairo, Egypt (14-16 March 2017). The AIA WG core team is planning to:

- 1) Review available data to ensure fulfillment.
- 2) Contact the State focal person/ organization or department to clarify any issue regarding the available data, the same applies if additional information is required.
- 3) Upon completion, the AIA WG validate Data to ensure accuracy.
- 4) Analyse Data to define the main occurrence root cause and contributing factor.

- 5) Update iSTARS with main occurrence root cause and contributing factor.
- 6) Record all activities in a technical summary report to ICAO MID regional office.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the progress made by the AIA WG;
- b) note that the success of AIA WG mission depends upon availability of occurrence data;
- c) States to provide/ share available data related to safety occurrences through ECCAIRS/ ARDEP platform;
- d) encourage States and stakeholders to support the AIA WG activities and participate in the upcoming AIA WG/2 meeting;
- e) to maintain constancy, States and stakeholders to have the AIA WG core team members devoted for this project when needed; and
- f) States to appoint a focal person/organization for the WG to clarify issues related to occurrences data.

APPENDIX A



International Civil Aviation Organization
Middle East Regional Office – Cairo



ACCIDENT AND INCIDENT ANALYSIS WORKING GROUP
(AIA - WG) DOCUMENT

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1. INTRODUCTION:

The RASG-MID/4 meeting (Jeddah, Saudi Arabia, 30 March - 1 April 2015), through Decision 4/5, established the AIA WG to review, analyse and categorize on annual basis the accidents and incidents at the regional level and provide an agreed and harmonized regional dataset of accidents and incidents. The AIA WG would also, to the extent possible, identify the main root causes and contributing factors of the reviewed accidents and incidents.

The First meeting of the Accident and Incident Analysis Working Group (AIA WG/1) was held at the ICAO Middle East Regional Office in Cairo, Egypt (29 – 31 March 2016).

2. ESTABLISHMENT OF AIA WG CORE TEAM:

The AIA WG Core Team is established to advance the work of the AIA WG between the face-to-face meetings and composed of the following Aviation experts:

- Mr. Adnan Mohamed Malak
- Mr. Amr Mokhtar
- Ms. Rose Al Osta
- Mr. Hassan Rezaeifar
- Dr. Abdallah Falah Suleiman Al-Samarat
- Ms. Leena Ahmed Al-kooheji
- Mr. Kamil Ahmed Mohamed
- Capt. Fadi Khalil
- Mr. Mashhor Alblowi

3. AIA WG Core Team contact:

<u>Names</u>	<u>Representation</u>	<u>e-mail Contact</u>
<i>Mr. Adnan Mohamed Malak</i>	<i>Saudi Arabia (Chairman)</i>	<i>amalak@aib.gov.sa</i>
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<i>Ms. Rose Al Osta</i>	<i>IATA</i>	<i>alostar@iata.org</i>
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<i>Capt. Fadi Khalil</i>	<i>IFALPA</i>	<i>fadimkhalil@hotmail.com</i>
<i>Mr. Mashhor Alblowi</i>	<i>ICAO</i>	<i>malblowi@icao.int</i>

4. Methodology and work programme:

- a. ICAO MID regional office to encourage MID- States the usage of ECCAIR, “Reference letter **ME4-16/199 dated 1st Aug 2016** was issued to all MID Member States” see Page 17 of 17.
- b. AIA WG to establish a contact point with every MID State in order to clarify issues related to Data validation. Contact point could be a person, organization or department.
- c. There are 12 items posted in the “iSTARS ADREP OCCURRENCE DATA FORM” in which every MID Member State should provide, - as minimum - the following information to ICAO ECCAIRS platform is required:
 - ✓ Occurrence Reporting State,
 - ✓ Occurrence date and time,
 - ✓ Occurrence location,
 - ✓ Occurrence Narrative (Description),
 - ✓ Aircraft identification,
 - ✓ History of flight.“Refer to “**iSTARS ADREP OCCURRENCE DATA FORM**” see Page 11 of 17.
- d. The ICAO MID regional office should assist AIA WG to download MID States Aviation Accidents and Serious Incidents Data from iSTARS in accordance with “iSTARS ADREP OCCURRENCE DATA FORM” fields.
- e. AIA WG:
 - ✓ Review the provided data and validate it’s content,
 - ✓ Categorize collected Data In accordance with ADREP/ ECCAIRS Taxonomy,
 - ✓ Analyze collected Data to identify the root causes and contributing factors to support MID- Regional Aviation Safety Team (RAST) to develop Mitigation Measures,
 - ✓ Develop an agreed and harmonized data set of Accidents/ Incidents and provide a feedback to ICAO Safety Indicator Study Group (SISG),
 - ✓ Provide necessary information on Accidents and Incidents to MID- Annual Safety Report Team (ASRT) to develop the MID- Annual Safety Report,
 - ✓ Sharing the meetings outcome with concerned MID- Air Navigation Planning and Implementation Regional Group (ANPIRG) subsidiary bodies as appropriate.

5. General guidelines for the AIA- WG:

- a. *Every MID State is responsible for providing and uploading Aviation Accident and Serious Incident Data through iSTARS (ADREP)/ ECCAIRS platform, this means that the AIA WG will not work as a data entry clerk on behalf of the MID States.*
- b. *Every MID State is responsible to ensure that the Mandatory items posted in “iSTARS ADREP OCCURRENCE DATA FORM” (indicated by an asterisk) are provided for every Aviation Accident and Serious Incident. AIA WG should coordinate with State focal person/ organization or department to provide the missing Data.*
- c. *All communication with any MID State should be through a focal person/ organization or department appointed by the State itself.*
- d. *The “iSTARS ADREP OCCURRENCE DATA FORM” is used by every State to define those Data required by AIA WG. This means that the State does not have to send a filled form to the AIA WG.*
- e. *AIA WG understand that iSTARS (ADREP) platform receives Aviation Accident and Incident information from various officials and media sources, validation of such information should be coordinated with the State focal person/ organization or department.*
- f. *AIA WG understands that currently no features allowing users to create or modify occurrences in iSTARS (ADREP) application database. This means manual recording of validation should be considered.*

6. Data Validation Process:

- a. *With ICAO MID regional office support, AIA WG access iSTARS to download the MID States Aviation Accident and Serious Incident data.*
- b. *Data should include as a minimum the 12 elements posted in the “iSTARS ADREP OCCURRENCE DATA FORM”*
- c. *AIA WG review data to ensure fulfillment.*
- d. *AIA WG contact the State focal person/ organization or department to clarify any issue regarding the available data, the same applies if additional information is required.*
- e. *Upon completion, the AIA WG validate Data to ensure accuracy.*
- f. *AIA WG analyse Data to define the main occurrence root cause and contributing factor.*
- g. *AIA WG update iSTARS with main occurrence root cause and contributing factor.*
- h. *AIA WG record all activities in a technical summary report to ICAO MID regional office.*

7. Contributing Factors:

a- Environmental Factors

- ✓ *Physical Environment:*
Examples: Meteorological conditions, Workplace conditions, Thermal stress, Maneuvering, forces – in flight, Noise interference
- ✓ *Technological Environment:*
Examples: Visibility restrictions, Control and switches, Seating and restrains, Automation

b - Conditions of Individuals:

- ✓ *Cognitive Factors:*
Examples: Inattention, Channelized attention, Task oversaturation, Confusion, Distraction, Checklist interference.
- ✓ *Psycho - Behavioral Factors:*
Examples: Pre – existing personality disorder, Emotional State, Personality style, Over Confidence, Complacency.
- ✓ *Adverse Physiological States:*
Examples: Physical fatigue, Hypoxia, Motion sickness, mental fatigue, prescribed illness
- ✓ *Physical Mental Limitations:*
Examples: Learning ability rate, Memory ability lapses, Technical/ procedural knowledge.
- ✓ *Perceptual Factors:*
Examples: Illusions, Misperception of operational conditions, Misinterpreted, Misread instruments, Expectancy.

c - Personal Factors:

- ✓ *Coordination / communication planning factors:*
Examples: Crew / team leadership, Task delegation, Communicating critical information, Standard / proper terminology, Cross – monitoring performance.
- ✓ *Self-imposed stress:*
Examples: Physical fitness, Drugs / self-medication, Inadequate rest, Nutrition.

d - Supervision:

- ✓ *Inadequate Supervision.*
- ✓ *Planned inappropriate operations.*
- ✓ *Failed to correct known problem.*
- ✓ *Supervisory violations.*

8. Root Cause Types:

a- Latent Conditions (deficiencies in):

- ✓ *Design:*
Examples: Design short comings, manufacturing defects.
- ✓ *Regulatory oversight.*
- ✓ *Management Decisions:*
Examples: Cost cutting, Stringent Fuel Policy, Outsourcing and other decisions which Impact operational safety.
- ✓ *Safety Management:*
Examples: Absent/ deficient of: Safety policy and objectives, Safety risk management including hazard identification process, Safety assurance including Quality Management, Safety promotion.
- ✓ *Change Management:*
Examples: Deficiencies in monitoring change in addressing operational needs created by expansion or downsizing, Deficiencies in the evaluation to integrate and/or monitor changes to establish organizational practices or procedures, Consequences of mergers or Acquisitions.
- ✓ *Operations planning and scheduling:*
Examples: Deficiencies in crew rostering and staffing practices, Issues with flight and duty time Limitations, Health and welfare issues.
- ✓ *Technology and Equipment:*
Examples: Available safety equipment not installed; E-GPWS, predictive wind-shear, TCAS/ACAS, etc.)
- ✓ *Standard Operating Procedures & checking:*
Examples: Deficient or absent of: Standard Operating Procedures (SOPs), Operational instructions and/or policies, Company regulations, Controls to assess compliance with regulations and SOPs.
- ✓ *Training Systems:*
Examples: Omitted training, language skills deficiencies, qualifications and experience of flight crews, operational needs leading to training reductions, deficiencies in assessment of training or training resources such as manuals or CBT devices”
- ✓ *Other:*
Example: Not clearly falling within the other latent conditions.

b- Threats:

- ✓ *Environmental threats:*
 1. *Metrology:*
Examples: Thunderstorms, Poor visibility/IMC, Wind/ windshear/ gusty wind, icing conditions.
 2. *Lack of visual reference:*

Examples: Darkness/ black hole effect, Environmental situation which can lead to spatial orientation.

3. Air Traffic services:

Examples: Tough to meet clearances/restrictions, reroutes, Language difficulties, controller errors, failure to provide separation (air or ground).

4. Wildlife/ Birds, Objects.

5. Airport facilities:

Examples: Poor signage, faint markings, Runway/taxiway closures, Contaminated runways/ taxiways, Poor braking actions, Trenches/ ditches, Inadequate overrun area, Structures in close proximity to runway/taxiway, Inadequate airport perimeter control/ fencing, Inadequate wildlife control”

6. Navigational aids:

Examples: Ground navigation aid malfunction, Lack or unavailability (e.g., ILS), NAV aids not calibrated – unknown to flight crew

7. Terrain/ Obstacles.

8. Traffic.

✓ *Airline threats:*

1. Aircraft Malfunction.

2. Operational Pressure:

Examples: Operational time pressure, Missed approach/diversion, other non-normal operations.

3. Cabin events:

Examples: Cabin events (e.g., unruly passenger), Cabin crew errors, Distractions/ interruptions.

4. Ground events:

Examples: Aircraft loading events, fueling errors, Agent interruptions, improper ground support, improper deicing/anti-icing.

5. Dispatch/ paperwork:

Examples: Load sheet errors, Crew scheduling events, late paperwork changes or errors.

6. Maintenance events:

Examples: Aircraft repairs on ground, Maintenance log problems, Maintenance errors.

7. Dangerous Goods:

Examples: carriage of articles or substances capable of posing a significant risk to health, safety or property when transported by air.

8. Manuals/ Charts/ checklists:

Examples: Incorrect/ unclear chart pages or operating manuals, Checklist layout/design issues.

c- *Errors:*

✓ *Aircraft handling errors:*

1. Manual handling/flight controls:

Examples: Hand flying vertical/ lateral/ or speed deviations, Approach deviations by choice (e.g., flying below the glide slope, Missed runway/ taxiway, failure to

hold short, taxi above speed limit, Incorrect flaps, speed brake, auto brake, thrust reverser or power settings.

2. Ground navigation:

Examples: Attempting to turn down wrong taxiway/ runway, missed taxiway/ runway/ gate

3. Automation:

Examples: Incorrect altitude, speed, heading, auto throttle settings, mode executed, or entries.

4. Systems/radios/instruments:

Examples: Incorrect packs, altimeter, fuel switch settings, or radio frequency dialed.

✓ *Procedural errors:*

1. SOP Adherence, SOP cross verification:

Examples: Intentional or unintentional failure to cross-verify (automation) inputs, Intentional or unintentional failure to follow SOPs, PF makes own automation changes, Sterile cockpit violations.

2. Checklist errors:

Examples: Checklist performed from memory or omitted, wrong challenge and response, Checklist performed late or at wrong time, Checklist items missed.

3. Callouts:

Examples: Omitted takeoff, descent, or approach callouts.

4. Briefings:

Examples: Omitted departure, takeoff, approach, or handover briefing; items missed, Briefing does not address expected situation

5. Documentation:

Examples: Wrong weight and balance information, wrong fuel information, Wrong ATIS, or clearance recorded, Misinterpreted items on paperwork, Incorrect or missing log book entries.

6. Failure to go around after a destabilized approach:

Example: Flight crew does not execute a go-around after stabilization requirements are not met.

✓ *Communication errors:*

1. With Air Traffic Control:

Examples: Flight crew to ATC – missed calls, misinterpretation of instructions, or incorrect read-backs, Wrong clearance, taxiway, gate or runway communicated.

2. With Cabin Crew:

Examples: Errors in communication, Lack of communication.

3. With Ground Crew:

Examples: Errors in communication, Lack of communication.

4. With Dispatch:

Examples: Errors in communication, Lack of communication.

5. With Maintenance:

Examples: Errors in communication, Lack of communication.

6. *Pilot to Pilot communication:*

Examples: within flight crew miscommunication, Misinterpretation, Lack of communication.

9. Definitions:

a- Latent Conditions:

Conditions present in the system before the accident and triggered by various possible actor.

b- Threats:

An event or error that occurs outside the influence of the flight crew, but which requires crew attention and management if safety margins are to be maintained.

a- Errors:

An observed flight crew deviation from organizational expectations or crew intentions.

Section	Name	Data type	Source
* Filing Information	Reporting State/Organization	text	Name of state/organization
*When	Occurrence Date	Date	dd/mm/yyyy
	Occurrence Time (UTC)	Time	
*Where	State of occurrence	Text	Name of state
	Location of occurrence	Text	Nearest reporting point or Aerodrome or enroute segment.
	FIR	Value list	FIR Codes/ICAO
Classification	Occurrence class	Value list	Occurrence Class Taxonomy
	Occurrence category	Value list	Occurrence Category Taxonomy
Severity	Damage aircraft	Value list	Damage Aircraft Taxonomy
	Injury level	Value list	Injury Level Taxonomy
	Fatalities	Number	
*Narrative	Narrative	Text	Detailed description as much as possible ,a sequence of events Should be considered. and what conditions where present prior the Occurrence.
*Aircraft Identification	Aircraft registration	Text	
	Aircraft Category	Value List	Super/ heavy/ medium/ light
	Type	Text	
	State of registry	Text	Name of state
Operator	State of the Operator Operator Name/Code	Text	Name of state
Operation Type	Operation type	Value list	Operation Type Taxonomy
Mass Group	Mass group	Value list	MG3:5700 - 27000 kg MG4: 27001 - 272000 kg MG5: >272000 kg UNK: Unknown
*History of Flight: Itinerary	Last departure point	Value list	4L Airport Codes
	Planned destination	Value list	4L Airport Codes
	Flight phase	Value list	<i>ADREP</i> flight phase taxonomy

Analysis	Main root cause(must be latent) According to available info.	Value list	Organizational/human/equipment /procedures/environment.
	Contributing factors	Value list	

10. ADREP Taxonomy's:

a. Damage Aircraft Taxonomy:

The ADREP damage aircraft taxonomy is a set of terms used by ICAO to categorize an occurrence by the highest level of damage sustained by any aircraft involved in that occurrence.

✓ *Destroyed:*

The damage sustained makes it inadvisable to restore the aircraft to an airworthy condition. This differs from the definition of a hull loss which reads: The aircraft is damaged beyond economical repair. A determination of "Hull loss" is thus not the result of a technical evaluation but may result from economic considerations.

✓ *Substantial:*

The aircraft sustained damage or structural failure which: - adversely affected the structural strength, performance or flight characteristics of the aircraft and - would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tyres, brakes, fairings, small dents or puncture holes in the aircraft skin. In this context, a major repair is a repair.

- 1. That, if improperly done, might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or*
- 2. That is not done according to accepted practices or cannot be done by elementary operations.*

✓ *Minor:*

The aircraft can be rendered airworthy by simple repairs or replacement and an extensive inspection is not necessary.

✓ *None:*

The aircraft sustained no damage.

✓ *Unknown:*

The damage level is unknown.

b. Flight Phase Taxonomy:

The ADREP Flight Phase taxonomy is a set of terms used by ICAO to categorize the operational phase during which an aircraft accident and incident happened.

For the purposes of this taxonomy, phase of flight refers to a period within a flight. A flight begins when any person boards the aircraft with the intention of flight and continues until such time as all such persons have disembarked. The terms of this taxonomy are grouped into primary and secondary terms. Every occurrence should have associated:

- ✓ *Primary flight phase:*
Standing, Taxi, Takeoff, Initial climb, En route, Maneuvering, Approach and Landing.
- ✓ *Secondary flight phase:*
Emergency descent, uncontrolled descent, Post-impact, Pushback/towing and Unknown.

c. Injury Level Taxonomy:

The ADREP injury level taxonomy is a set of terms used by ICAO to categorize an occurrence by the highest level of injury sustained by any person in that occurrence.

- ✓ *Fatal:*
For statistical purposes "Fatal" is death from an injury received in the occurrence which occurs within 30 days of the accident.

- ✓ *Serious:*

A serious injury is an injury sustained by a person in an accident and which:

- 1. Requires hospitalization for more than 48 hours, commencing within 48 hours from the date when the injury was received; or*
- 2. Results in a fracture of any bone (except simple fractures of fingers, toes, or nose or;*
- 3. Involves lacerations which cause severe hemorrhage, nerve, muscle or tendon damage; or*
- 4. Involves injury to any internal organ; or*
- 5. Involves second or third degree burns, or any burns affecting more than 5 percent of the body surface; or*
- 6. Involves verified exposure to infectious substances or injurious radiation.*

- ✓ *Minor:*
Any other injuries other than fatal or serious are minor.

- ✓ *None:*
Nobody was injured during the occurrence.

- ✓ *Unknown:*
The injury level unknown.

d. Occurrence class taxonomy:

The ADREP Occurrence class taxonomy is a set of terms used by ICAO to categorize occurrences by severity.

- ✓ *Accident:*

"An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which:

- 1. A person is fatally or seriously injured as a result of:*
 - Being in the aircraft, or*
 - Direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or*
 - Direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or :* when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew;*

2. *The aircraft sustains damage or structural failure which:*
 - *Adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or*
 - *For damage limited to propellers, wing tips, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin;*
 3. *The aircraft is missing or is completely inaccessible.*
- ✓ *Serious incident:*
An incident involving circumstances indicating that an accident nearly occurred. Examples of serious incidents can be found in Attachment D of ICAO Annex 13 and in the ICAO Accident/Incident Reporting Manual (ICAO Doc 9156).
- ✓ *Incident:*
An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation. The type of incidents which are of main interest to the International Civil Aviation Organization for accident prevention studies are listed in the ICAO Accident/Incident Reporting Manual (ICAO Doc 9156) and ICAO Annex 13."
- ✓ *Occurrence without safety effect:*
An incident which has no safety significance.
- ✓ *Not determined:*
The class of the occurrence has not been determined.

e. *Occurrence Category Taxonomy:*

The ADREP Occurrence category taxonomy is a set of terms used by ICAO to categorize aircraft accidents and incidents. The terms of this taxonomy are grouped into:

✓ *Primary:*

<i>Abnormal runway contact</i>	<i>ARC</i>
<i>Birdstrike</i>	<i>BIRD</i>
<i>Controlled flight into or toward terrain</i>	<i>CFIT</i>
<i>Collision with obstacle(s) during take-off and landing</i>	<i>CTOL</i>
<i>Fire/smoke (non-impact)</i>	<i>F-NI</i>
<i>Ground Collision</i>	<i>GCOL</i>
<i>Loss of control - inflight</i>	<i>LOC-I</i>
<i>Airprox/ ACAS alert/ loss of separation/ (near) midair collisions</i>	<i>MAC</i>
<i>Ground Handling</i>	<i>RAMP</i>
<i>Runway excursion</i>	<i>RE</i>
<i>Runway - wildlife presence</i>	<i>RI-A</i>
<i>Runway incursion - vehicle, aircraft or person</i>	<i>RI-VAP</i>
<i>System/component failure or malfunction [non-powerplant]</i>	<i>SCF-NP</i>

<i>Powerplant failure or malfunction</i>	<i>SCF-PP</i>
<i>Undershoot/overshoot</i>	<i>USOS</i>

✓ *Secondary:*

<i>ATM/CNS</i>	<i>ATM</i>
<i>Loss of control - ground</i>	<i>LOC-G</i>
<i>Turbulence encounter</i>	<i>TURB</i>
<i>Fuel related</i>	<i>FUEL</i>
<i>Aerodrome</i>	<i>ADRM</i>
<i>Low altitude operations</i>	<i>LALT</i>
<i>Fire/smoke (post-impact)</i>	<i>F-POST</i>
<i>Windshear or thunderstorm</i>	<i>WSTR W</i>
<i>Icing</i>	<i>ICE</i>
<i>Evacuation</i>	<i>EVAC</i>
<i>Security related</i>	<i>SEC</i>
<i>Cabin safety events</i>	<i>CABIN</i>
<i>Abrupt manoeuvre</i>	<i>AMAN</i>
<i>Loss of lifting conditions en-route</i>	<i>LOLI</i>
<i>Unintended flight in IMC</i>	<i>UIMC</i>
<i>Glider towing related events</i>	<i>GTOW</i>
<i>External load related occurrences</i>	<i>EXTL</i>
<i>Unknown or undetermined</i>	<i>UNK</i>

f. Operation type taxonomy:

The ADREP operation type taxonomy is a set of terms used by ICAO to categorize an occurrence by the type of flight.

- ✓ *Commercial Air Transport (CAT)*
- ✓ *Scheduled Commercial Air Transport (SCAT)*
 - 1. Involving the transport of passengers, cargo or mail for remuneration or hire, and*
 - 2. Open to use by the general public, and*
 - 3. Operated according to a published timetable or with such a regular frequency that it constitutes an easily recognizable systematic series of flights which are open to direct booking by members of the public.*
- ✓ *Non-Scheduled Commercial Air Transport (SCAT)*

Charter flights and special flights performed for remuneration other than scheduled commercial flights.

- ✓ *Other Commercial Air Transport (CAT-O)*
Any other commercial air transport flights like air taxi, emergency medical services, ferry/ positioning flights etc.
- ✓ *General aviation (GA)*
All civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire or aerial work.
- ✓ *Aerial work (AW)*
An aircraft operation in which an aircraft is used commercially or none commercially for specialized services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial advertisement, etc.
- ✓ *State flight (SF)*
An aircraft operation in which an aircraft is used for military, customs, police or other state internal services.

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File Ref.: ME 4 – 16/199

1 August 2016

Subject: Follow-up to RASG-MID/5 Conclusion 5/3 related to the Use of ECCAIRS

Action required: Reply not later than 15 October 2016

Sir,

I have the honour to refer to the outcome of the RASG-MID/5 meeting held in Doha, Qatar, 22-24 May 2016, in particular to the following Conclusion:

CONCLUSION 5/3: USE OF ECCAIRS

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.

Therefore, you are kindly requested to take necessary measures to ensure the implementation of the provisions of the above Conclusion and send your feedback to the ICAO MID Regional Office, not later than 15 October 2016.

Accept, Sir, the assurances of my highest consideration.



Mohamed Khalifa Rahma
Regional Director
Middle East Office