

Air Accident Investigation Department

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Status of AIG Implementation (Bahamas)

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Overview



- The Civil Aviation Act (2016) of the Bahamas, promulgated on 19th July 2016 provided for the separation of the functions within the overall Civil Aviation structure of the State.
- The former Civil Aviation Department separated into three primary entities according to their function:
 - 1) The Bahamas Civil Aviation Authority (BCAA) – Regulator
 - 2) Bahamas Air Navigation Services Division (BANSD) – Air Navigation Service Provider
 - 3) Air Accident Investigation Department (AAID) – Accident Investigation Authority.
- This separation officially took effect on the 3rd October, 2016.

Legislation & Regulations



- Presently the legislative and regulatory framework is derived from The Civil Aviation Act (2016) and the Civil Aviation (Investigation of Air Accidents & Incidents) Regulations 2017 and Schedule 1 to the Civil Aviation (Investigation of Air Accidents & Incidents) Amendment Regulations 2017.
- However, in order to be more compliant with the latest amendments (15) and (16) to ICAO Annex 13, stand alone legislation in the form of the Aircraft Accident Investigation Authority Bill (2018) was developed using the ICAO Model Accident Investigation Act as guidance. Simultaneously, new regulations in the form of the Aircraft Accident Investigation Authority Regulations (2018) were developed as well.
- The proposed Legislations and Regulations gives way to a new body to be known as the Aircraft Accident Investigation Authority of The Bahamas (AAIA) and provides for the independence from civil aviation and judicial functions, the protection of safety information and non-compelling of investigators in legal proceedings.
- The new Bill and Regulations are expected to be completed with the Parliamentary approval process by years end. The AAID has been asked by the Cabinet of The Bahamas to make a presentation on the matter on 20th November 2018.

AIG Docs & Manuals



The AAID in preparation for its transition into the AAIA is presently revamping its suite of Manuals (3):

1. AAIA Accident & Incident Investigation Administration Manual – contains technical guidance for the conduct of accident and incident investigation.

2. AAIA Training Manual – serves as the primary reference manual outlining the training and qualification for investigative staff of the AAIA.

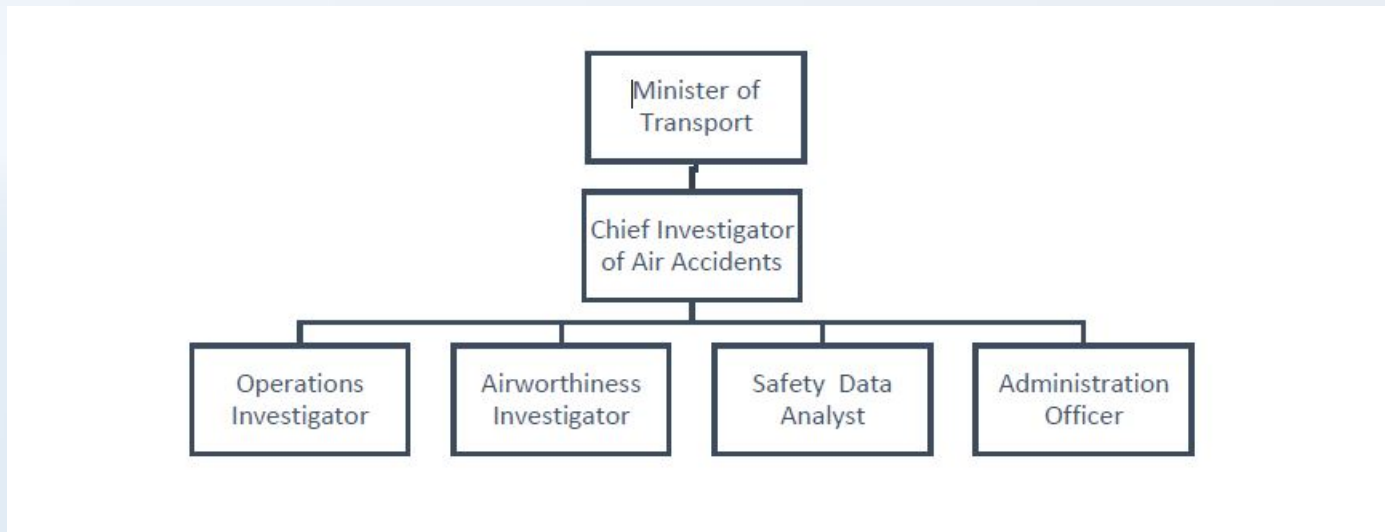
3. AAIA Policy Manual – the procedural manual of the AAIA relative to issues related to Human Resources and Employer/employee expectations and commitments.

Resources



Human Resource

Organizational Structure of the AAID



Resources



Human Resource

Training – each individual investigative staff member of the AAID has his/her own individual development plan according to area of speciality that allows progression from a “Trainee” to Accident Investigator in their respective posts.

First three years are outlined for each investigative staff post as follows:

- Year 1 – Must complete theoretical courses in the following subject areas, Basic Accident Investigation, Human Factors in Accident Investigation and Safety Management Systems.
In-house training in the following areas, State AIG LEG and REGS, Professional Ethics for investigators, AAID Manual familiarization, ICAO concepts. Formal OJT is also initiated.
- Year 2 – Continuation and completion of OJT supplemented by Advanced Accident Investigation Course as well as specialist courses according to job description.
- Year 3 – Refresher training in accident investigation techniques in conjunction with other training that ensures investigators remain equipped with the necessary skills to remain efficient and effective in the carrying out of their duties.

* Training providers utilized are NTSB Academy, USC, SCSi, Singapore Aviation Academy

Resources



Material

- Office & Location – AAID has identified a new office space for relocation as we are presently housed in an area with other government departments.
- Communication & Transportation – the AAID is equipped with a vehicle for use in the carrying out of its investigative functions and investigative staff are provided with mobile phones whereby they can be reached 24hrs on a rotational basis.
- Equipment – tools and other necessary equipment for investigation is stored in a secure area (measuring wheels, cameras, drone, PPE, etc).

Resources



Support

The AAID has developed and maintained a very good relationship with a myriad of aviation organizations both on the State Regulator/Accident Authority side as well as the industry (engine/airframe manufacture) side.

This photo was taken at a third party facility in Ft. Pierce, Florida during an engine analysis that involved both the Airframe (Cirrus) and engine (Continental) manufacturer, under oversight of the AAID.

The FAA, NTSB and TSB (Canada) has and continue to provide support for FDR/CVR readouts. NTSB advised that it is not the policy to enter into MOU's but they have assured their continued support as needed, when needed.



Occurrence Reporting & Notification



Legislation mandates reporting of accidents to the AAID.

Mandatory reporting is the responsibility of the Bahamas Civil Aviation Authority (BCAA)

And Voluntary Reporting is under the purview of the AAID.

The ECCAIRS database is used for ADREPS, however, improvement in this area is being sought with the possibility of utilizing another database system that can interface with ECCAIRS and produce ADREPS.

Investigation Workload



A third party vendor software application (CASORT) is used for case management and generates a case ID number for each occurrence. CASORT also allows for the attachment of safety recommendations to the associated occurrence as needed.

Since 3rd October 2016, the AAID has had on average around 30 accidents/incidents annually.

03/10/16 – 03/10/17 (28 occurrences) 03/10/17 – 03/10/18 (30 occurrences)

At this time 8 cases are still open.

The AAID has undergone a total revamping of its safety recommendation program including issuing, monitoring and tracking. Some 54 recommendations (BCAA, BANSD, Operators, Airport Authority) have been issued, or re-issued in some instances, during this process. Just over 35% of these have been addressed with the remainder being at various stages.

Major Accident Readiness



Launch kits are always prepped and ready to go for use by investigators including individual go bags. The AAID enjoys a good working relationship with various agencies that are involved in performing their respective duties in wake of an aircraft accident/incident.

MOU's have been developed with the assistance of the Attorney General's office between the AAID, the Royal Bahamas Police Force (RBPF), Bahamas Customs, BCAA.

On the right is a manual that was developed and given to the Police, ARFF and other first responders to give guidance on the do's and don'ts of responding to such occurrences.

EMERGENCY

PROCEDURES



Aircraft Accident Investigation Procedures for Police Officers and Emergency Services Personnel



Aircraft Accident Investigation Department

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AAIA Draft Bill and Regulations – Cabinet Presentation

Overview of Presentation



- Purpose of the presentation is to provide an introduction and overview of the proposed 2018 Bill and Regulations
- What is the need for the proposed Aircraft Accident Investigation Authority?
- What does Amendments 15 & 16 of Annex 13 to the Chicago Convention recommend for Member States?
- How will enacting the proposed legislation improve aircraft accident investigations in The Bahamas?

Background



- The current legislation governing the administration of Air Accident Investigations is the Civil Aviation Act 2016 (*S.I. No 22 of 2016*) Part VIII and the Civil Aviation (Investigation of Air Accidents and Incidents) Regulations, 2017 as amended (*S.I No's 4 of 2017 and 72 of 2017*).
- Therefore, for the proposed legislation to be incorporated into Bahamian law effectively, it is recommended that Part VIII of the Civil Aviation Act 2016 (*S.I. No 22 of 2016*) be repealed and replaced with the proposed Aircraft Accident Investigation Authority Bill 2018. Secondly, a repeal and replacement of the Civil Aviation (Investigation of Air Accidents and Incidents) Regulations, 2017 as amended (*S.I No's 4 of 2017 and 72 of 2017*) with the Aircraft Accident Investigation Authority Regulations, 2018.

Why do we need these changes?



- In “The Bahamas National Aviation Policy White Paper” of November 2011 at page 23 under the heading Accident Investigation and Technical Regulation, the author states:
 - “It is common practice for modern institutional frameworks to assure complete independence of the accident investigation body, by placing it on an independent board reporting to either the president or the parliament, and bypassing any other ministry or public body. This is the only effective way to guarantee the impartial opinion of the investigators, independent from any decision that could affect another body within the government apparatus”

Why do we need these changes? (Cont.)



- The author continues:
 - “The lack of separation of the investigator (the CAD) and the technical regulator (again the CAD) creates a conflict of interest when the proper execution of the regulation could have played a role in the accident. An accident could be the result of different forms of negligence from the technical side, such as lack of appropriate monitoring, slack controls, failure to implement international standards or aircraft manufacturer’s recommendations, improper certification of crews, aircraft maintenance facilities, approving faulty procedures, among others. If the CAD regulates and investigates, it becomes “judge and jury” at the same time”

International Standards



- The Bahamas is a signatory to The **International Civil Aviation Organization (ICAO)**, which is a UN specialized agency, established by its Member States in 1944 to manage the administration and governance of the Convention on International Civil Aviation (Chicago Convention).
- ICAO works with the Convention's 192 Member States and industry groups to reach consensus on international civil aviation **Standards and Recommended Practices (SARPs)** and policies in support of a safe, efficient, secure, economically sustainable and environmentally responsible civil aviation sector. These SARPs and policies are used by ICAO Member States to ensure that their local civil aviation operations and regulations conform to global norms, which in turn permits flights in aviation's global network to operate safely and reliably in every region of the world.

International Standards (Cont.)



- ICAO SARPS for each area of ICAO responsibility are contained in 19 Annexes. Each Annex deals with a particular subject area. All are subject to regular amendment and the detail in respect of many of them is contained in publications in the numbered [ICAO Document Series](#).
- ICAO's **No Country Left Behind** (NCLB) initiative ensures that SARP implementation is harmonized globally, through its oversight audits.
- In the Safety domain these are carried out under the Universal Safety Oversight Audit Program (USOAP), while in the security domain a similar Universal Security Audit Program (USAP) is used. These audits are restricted to the legislation, resources and other capacities which Member State governments establish in order to effectively implement ICAO's SARPs in each area.

International Standards (Cont.)



- During the period 23rd October to 3rd November, 2017 the Bahamas was the subject of an ICAO USOAP Audit which found the accident investigation department largely non-compliant with the standards and recommended practices of Annex 13 to the Chicago Convention. The Civil Aviation Act and Regulations in force did not address the latest amendments to Annex 13.
- Due to the lack of compliance with Annex 13 in the Country's legislation and regulations ICAO's effective implementation score for the Accident Investigation Group (AIG) decreased from 79% to 19%.
- In the time since the results of the audit were made known, the Air Accident Investigation Department has completed a corrective action plan which comprehensively addressed the SARP's of Annex 13, resulting in the proposed Draft Bill and Regulations before you today.

Annex 13 - Aircraft Accident and Incident Investigation



- The Applicable Annex for today's purposes is “Annex 13 - Aircraft Accident and Incident Investigation”
- In the forward of Annex 13 at page (xi) Under the heading “Action by Contracting States” and subheading “*Use of the text of the Annex in national regulations*” it states:
 - “*The Council, on 13 April 1948, adopted a resolution inviting the attention of Contracting States to the desirability of using in their own national regulations, as far as practicable, the precise language of those ICAO Standards that are of regulatory character and also of indicating departures from the Standards, including any additional national regulations that were important for the safety or regularity of air navigation. However, the SARP’s of Annex 13 while of general applicability will, in many cases, require amplification in order to enable a complete national code to be formulated.*”

Amendments 15 & 16



- Amendments 15 & 16 to Annex 13 became applicable to all 192 Member States on the 10th November 2016 and 8th November 2018 respectively.
- The main focus of Amendment 15 is:
 - establishing an independent aircraft accident investigation authority;
 - adding new provisions on cooperation between investigation authorities and other relevant authorities involved in the investigation process;
 - enhancing the protection of investigation records; and
 - the designation of a competent authority whose responsibility is to determine whether records gathered during the process of accident or incident investigation can be released for any purposes other than safety investigation.
- The main focus of amendment 16 is intended to ensure that:
 - investigation authorities have unrestricted and timely access to evidential material during the conduct of investigations; and
 - ensure the implementation of monitoring procedures to track actions in response to safety recommendations resulting in a positive impact on safety and on the collection, analysis and sharing of safety risks.

Benchmarking and points of reference



- In review of the existing legislation, we have considered and based the proposed legislation on a number reference documents including but limited to the following:
 - The Convention on International Civil Aviation 1944
 - Annex 13 to the Convention on International Civil Aviation
 - Amendments 15 & 16 to Annex 13
 - ICAO's Model Accident Investigation Authority Act
 - ICAO's Model Accident Investigation Authority Regulations; and
 - ICAO's Manual on Protection of Safety Information (Document 10053)
- Consideration was given to:
 - The Comments of Local, Regional and Global Industry Stakeholders; and
 - Accident Investigation Legislation of:
 - ❖ Barbados
 - ❖ Jamaica
 - ❖ Dominican Republic
 - ❖ Mexico
 - ❖ United Kingdom

AAIA Draft Bill 2019



- The proposed Accident Investigation Authority Legislation incorporates all of the desired policy and legislative changes envisaged in Amendment 15 mainly by:
 - Establishing the Air Accident Investigation Authority and its functional independence (Sections 5 & 6);
 - establishing how the Authority and the relevant departments of the Government are to interact during investigations (Section 12);
 - the designation of the Competent Authorities (Regulation 1.165(b)) and their role in protecting records and administering a balancing test to determine if the records should be released for reasons other than safety (Sections 20 & 21);
 - providing protection against investigators being called to testify in court for the purposes of apportioning blame or liability or giving an expert opinion in civil or criminal proceedings (Section 22); and
 - describing the procedures for the protection and dissemination of Reports (Sections 24, 25, & 26).

AAIA Draft Bill 2019 (Cont.)



- The proposed Accident Investigation Authority Legislation incorporates all of the desired policy and legislative changes envisaged in Amendment 16 mainly by:
 - The official adoption of modified legislation and regulations as it relates to access to evidential material during the investigation.
 - This has been achieved by the designation of the Competent Authorities (Regulation 1.165(b)) and their role in protecting records and administering a balancing test to determine if the records should be released for reasons other than safety (Sections 20 & 21);
 - The official adoption of legislation and regulations as it relates to monitoring the progress of actions taken in response to safety recommendations.
 - This has been achieved by the provisions of section 27 of the Draft Aircraft Accident Investigation Authority Bill “Safety recommendations” and Subdivision III “Safety Recommendations” Regulation 1.400, 1.405 and 1.410 of the Draft Aircraft Accident Investigation Authority Regulations.

Sections of the Bill explained



- See Objects and Reasons Section of the Draft Bill on pages 24 & 25 therein.



AAIA Draft Regulations 2019



- The most current provisions on the protection of accident and incident investigation records were adopted by ICAO's Council on the 22nd February 2016 and were integrated into the Manual on Protection of Safety Information (Document 10053) which, in conjunction with the ICAO's Model Regulations on Accidents and Incidents, formed the basis of the Draft Regulations.
- The proposed Regulations are intended to expound clearly and informatively on the provisions of the proposed Act by including the recommendations and guidance given by ICAO's Safety Information Protection Task Force (SIP TF) and Group of Experts on Protection of Accident and Incident Records (GEPAIR) on:
 - how to execute the functions of the Authority,
 - the cooperation between the Authority and relevant Governmental and Judicial Bodies,
 - the delineation between the roles of the Competent Authorities; and
 - the powers and procedures for both local and international investigators and observers.

AAIA Draft Regulations 2019 (Cont.)



- The subject areas covered by the Regulations are:
 - Subpart A: General Applicability
 - Subpart B: Personal Responsibility: Accident Reporting
 - Subpart C: Accident & Incident Investigation
 - Subpart D: Responsibility Of Investigating State
 - Subpart E: Right Of Participation In Investigation
 - Subpart F: Entitlement Of Accredited Representatives
 - Subpart G: Foreign Investigations
 - Subpart H: Preservation Of Wreckage & Records
 - Subpart I: Accident Reports
 - Subdivision II: Accident or Incident Data Report
 - Subdivision I: Preliminary Report
 - Subdivision III: Safety Recommendations
 - Subdivision IV: Final Report
 - Subpart J: Voluntary Occurrence Reporting

AAIA Draft Regulations 2019 (Cont.)



- The Regulations also contain Appendixes give guidance on areas such as:
 - Appendix 1 - Guidance For The Determination Of Aircraft Damage
 - Appendix 2 - List Of Examples Of Serious Incidents
 - Appendix 3 - Objective Of Protecting Certain Accidents
 - Appendix 4 - Records Subject To Protection
 - Appendix 5 - Designation Of A Competent Authority
 - Appendix 6 - Administration Of The Balancing Test
 - Appendix 7 - Rights And Obligations Of The State Of The Operator In Respect Of Accidents And Incidents Involving Leased, Chartered Or Interchanged Aircraft
 - Appendix 8 - Guidelines For Flight Recorder Read-out And Analysis
 - Appendix 9 - Interactions Between The Media And The Accident Investigation Authority
 - Appendix 10 - Types Of Records Generated Or Obtained During An Investigation

ICAO OVERVIEW OF THE NEWLY PROPOSED LEGISLATION AND REGULATIONS



- During the ICAO No Country Left Behind (NCLB) Programme Mission Visit conducted from the 18th-20th February, 2019 by Marc St-Laurent, AIG Consultant for ICAO's North American, Central American and Caribbean Regional Office, he noted that once the AAIA proposed Draft Legislation and Regulations submitted for review are promulgated and gazetted, the Bahamas' Aircraft Accident Investigations Legislative regime would have effectively satisfied 99 of the 103 USOAP Audit Protocol Questions.
- The Bahamas is scheduled for an ICAO Coordinated Validation Mission (ICVM) in November 2019 and it is anticipated that the protocol questions reviewed in the February NCLB Mission Visit and reported satisfactory will be officially validated by ICAO, thus improving the Bahamas' overall Effective Implementation Score for Accident Investigation Group (AIG) to over 90%.

It is therefore recommended that Cabinet approve the proposed Draft AAIA Bill and Regulations 2019.



Thank You For Your Time And
Attention!



Questions

