






Aviation Investigation Bureau

Kingdom Of Saudi Arabia



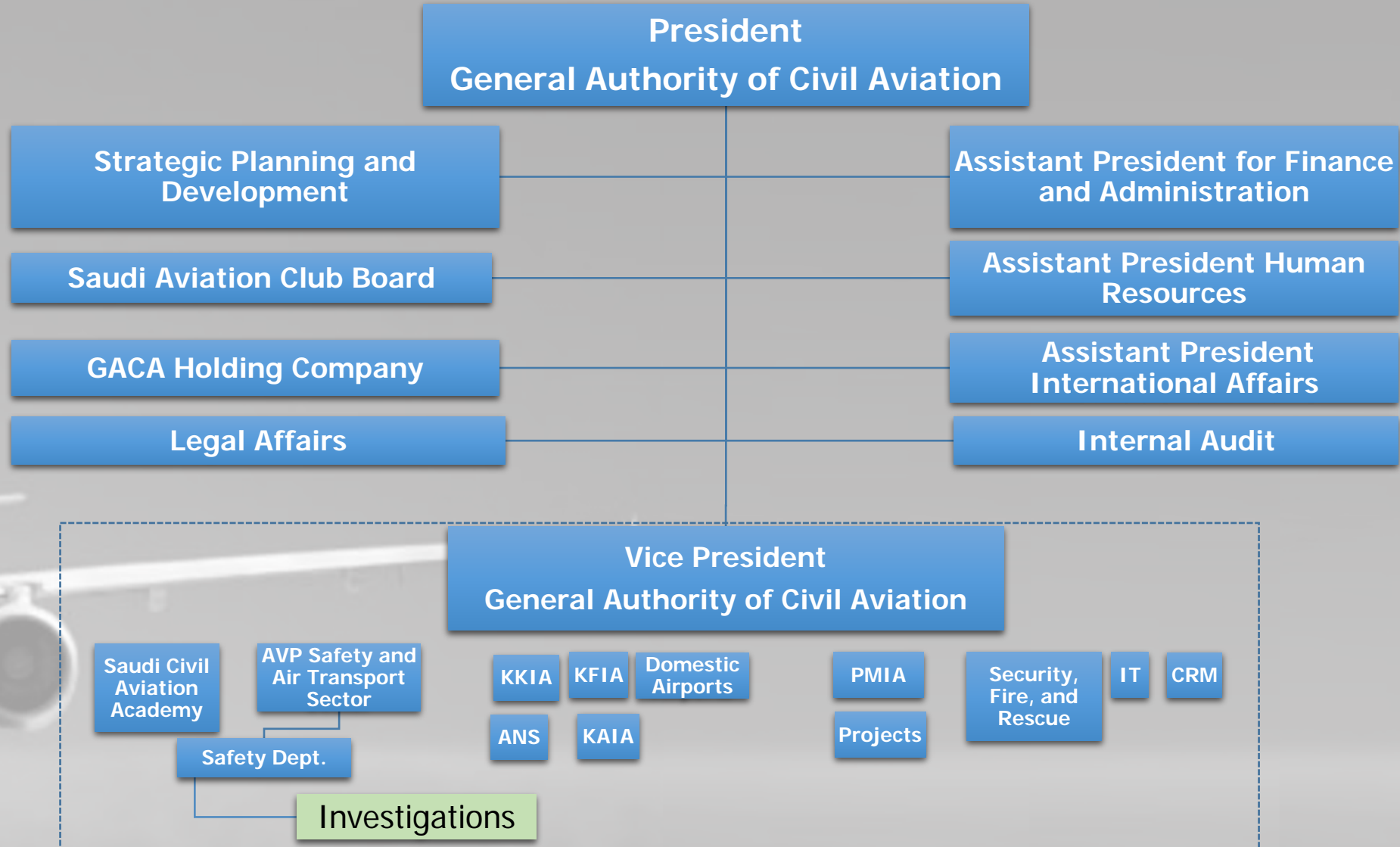
Abdulelah Felemban
Director General

History

-  Investigation function conducted at low level;
-  Low impact of investigation reports;
-  Limited resources (Experience, Expertise, Equipment);
-  Lack of independence from the Regulator;
-  Non conformance to ICAO standards



General Authority of Civil Aviation – Saudi Arabia



- ✈️ Royal Decree No. M/44 – 2005
- ✈️ Articles 107 through 119 of the Civil Aviation Act approved by the Council of Ministers Resolution – 2005
- ✈️ GACA Resolution 76-7 – 2009
- ✈️ GACA Board Resolution T-160 – 2012
- ✈️ AIB Regulation – January 2013 Finalized/ Effective November 2013

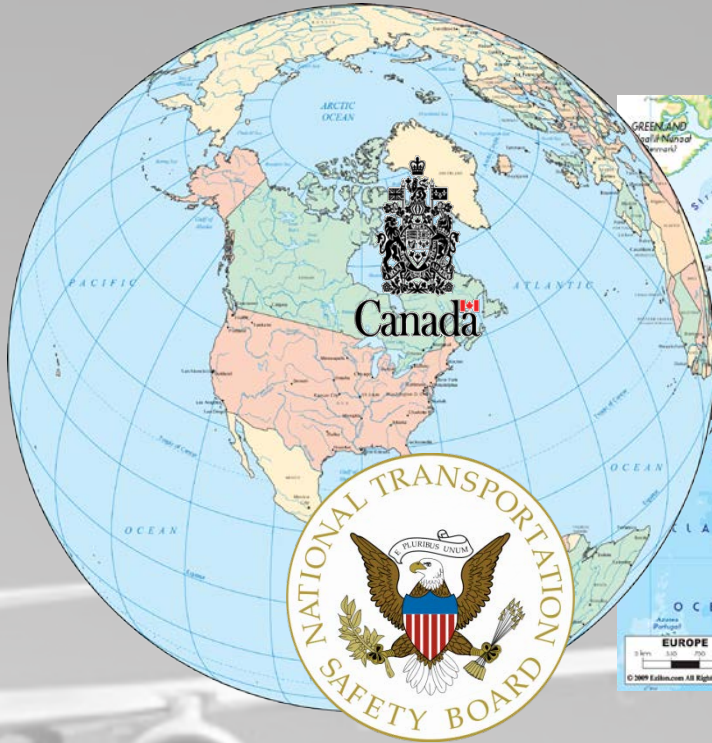


- ✈ Long term strategy
- ✈ Organizational structure
- ✈ Gap Analysis
- ✈ Operational priorities
- ✈ Staffing
- ✈ Required capabilities
- ✈ Awareness/Recognition - Who is the AIB?





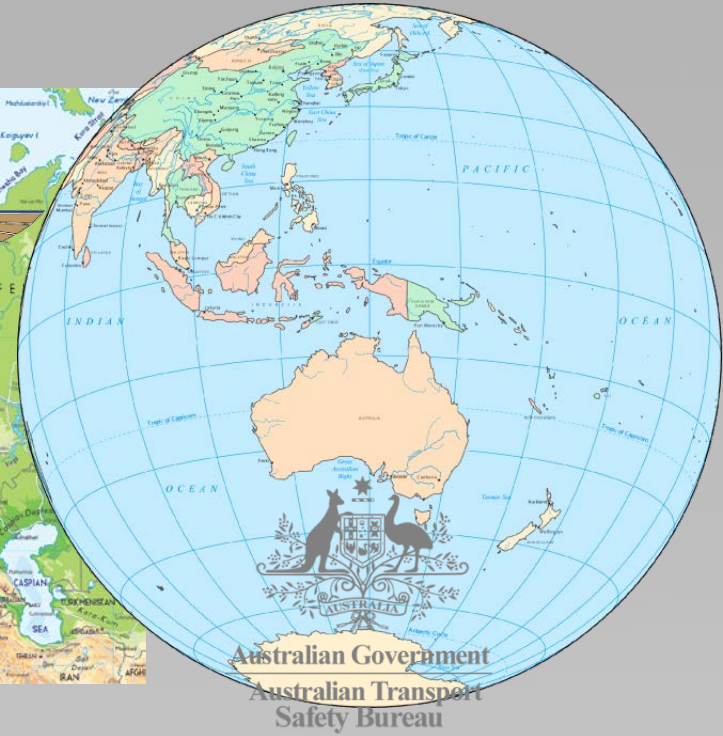
Working Together



2013



2014



2015

✈ Working Together



- ✈ Notifications
- ✈ Media Releases
- ✈ Database Sharing
- ✈ **MoUs**

Director General Aviation Investigation Bureau

Director of Investigations

- Operations
- Technical
- ATC
- Cabin & Survivability

Director of Safety Analysis

- Safety Analysis
- Prevention
- Notifications & Communications
- Confidential Reporting

Director of Finance and Administrative Services

- Accounting
- Human Resources
- Information Technology
- Public Relations
- Government Relations
- Communications

Director of Engineering Laboratory

- Flight Recorders
- Avionics
- Systems
- Structure
- Performance
- Multimedia





Technical Advisors Program



- ✈️ Approved by H.E. Minister of Transport
- ✈️ Supported by participating Airlines CEOs
- ✈️ Certified by Cranfield University

Wave I, covered wide range of expertise in:
Operations, Technical, Cabin & survivability, ATC, and Medical

✈ Investigations

- ✈ Operations
- ✈ Technical
- ✈ ATC
- ✈ Cabin & Survivability





Investigation Equipment



3D FARO Scanner



Personal Backpack & Survival Gear



Quadcopter drone



Cordon/ Barrier & Site Protection



Personal Kit Contents



Personal Kit with Backpack

- ✈️ ISTI- 350 Surface Acoustic Receiver
- ✈️ PRS-275 Diver Pinger Receiver



✈ Safety Analysis

✈ Notifications Operation Center 24/7

✈ Receive

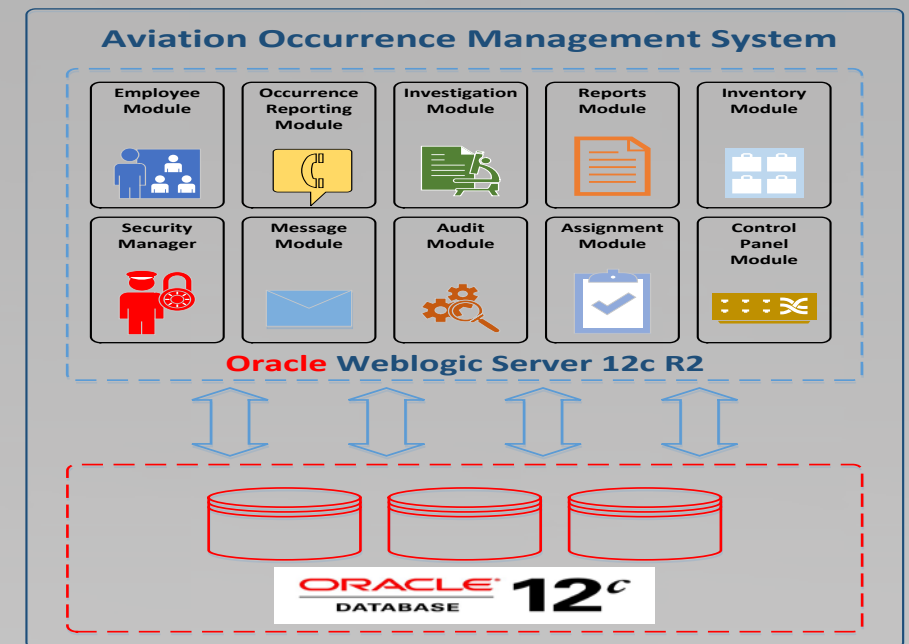
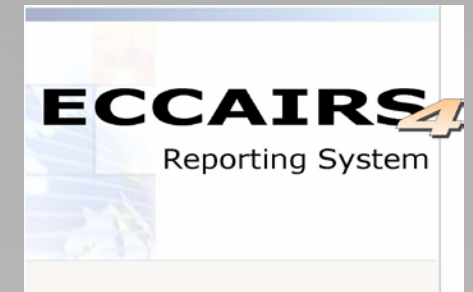
✈ Disseminate

✈ Occurrence Database

✈ ADREP

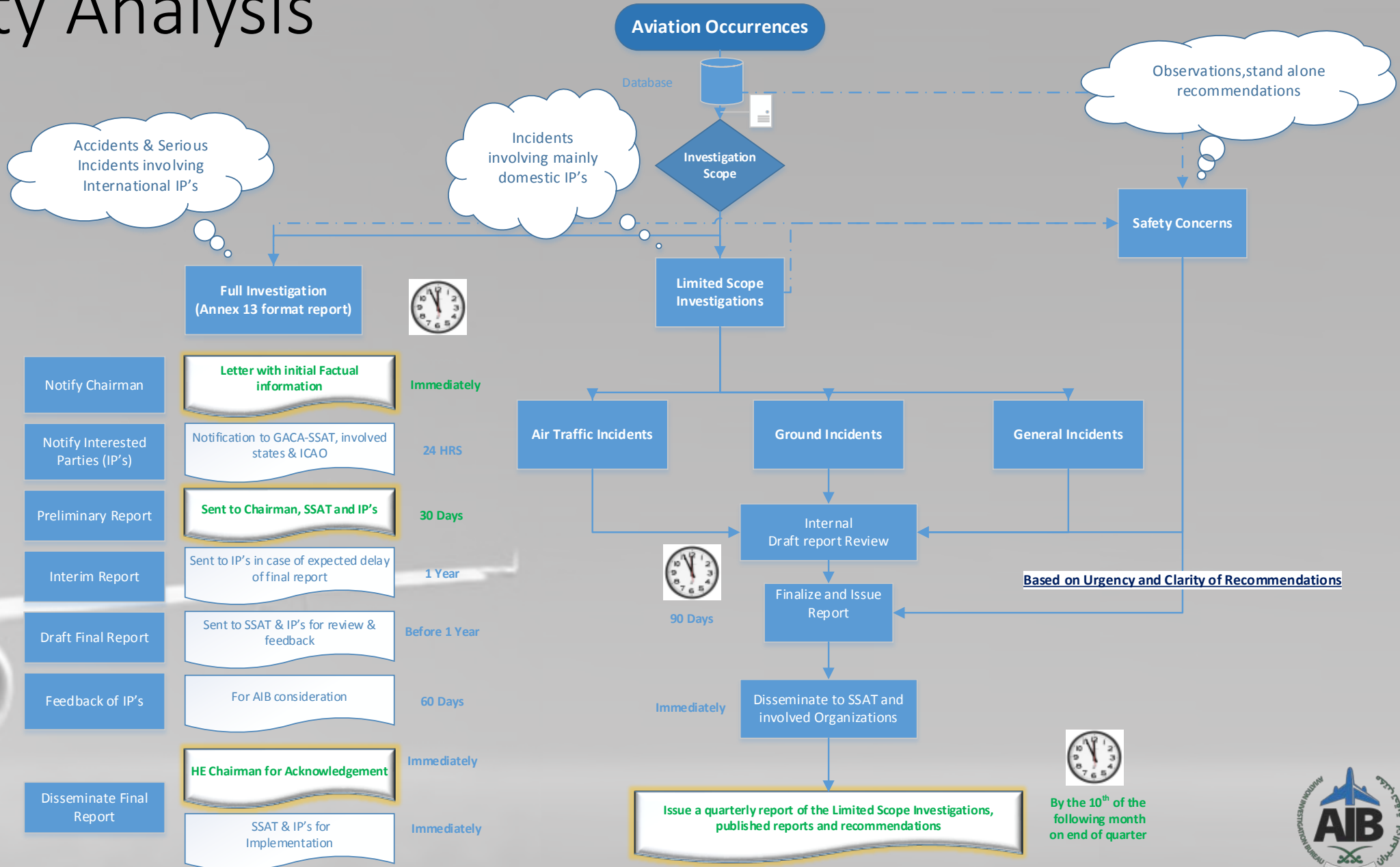
✈ Trend Analysis and Safety Studies

✈ Safety recommendations follow up





Safety Analysis

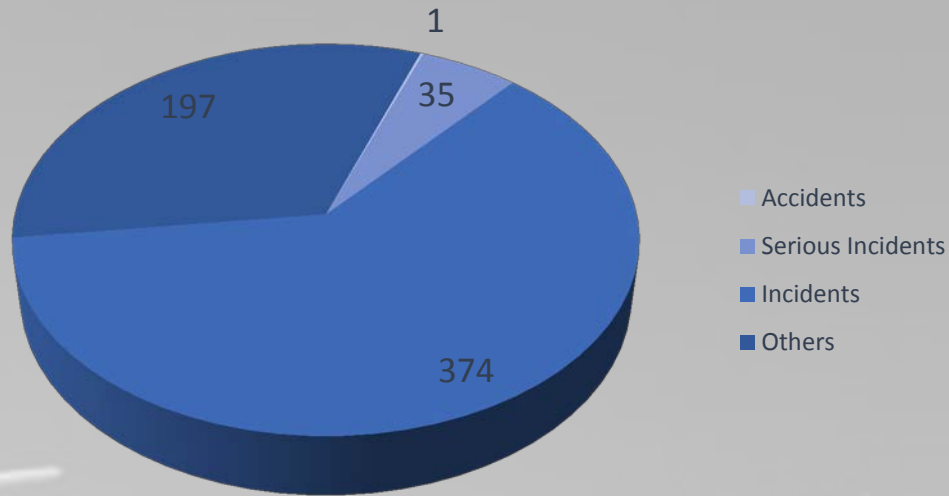


Notify Chairman	Letter with initial Factual information	Immediately
Notify Interested Parties (IP's)	Notification to GACA-SSAT, involved states & ICAO	24 HRS
Preliminary Report	Sent to Chairman, SSAT and IP's	30 Days
Interim Report	Sent to IP's in case of expected delay of final report	1 Year
Draft Final Report	Sent to SSAT & IP's for review & feedback	Before 1 Year
Feedback of IP's	For AIB consideration	60 Days
Disseminate Final Report	HE Chairman for Acknowledgement	Immediately
	SSAT & IP's for Implementation	Immediately

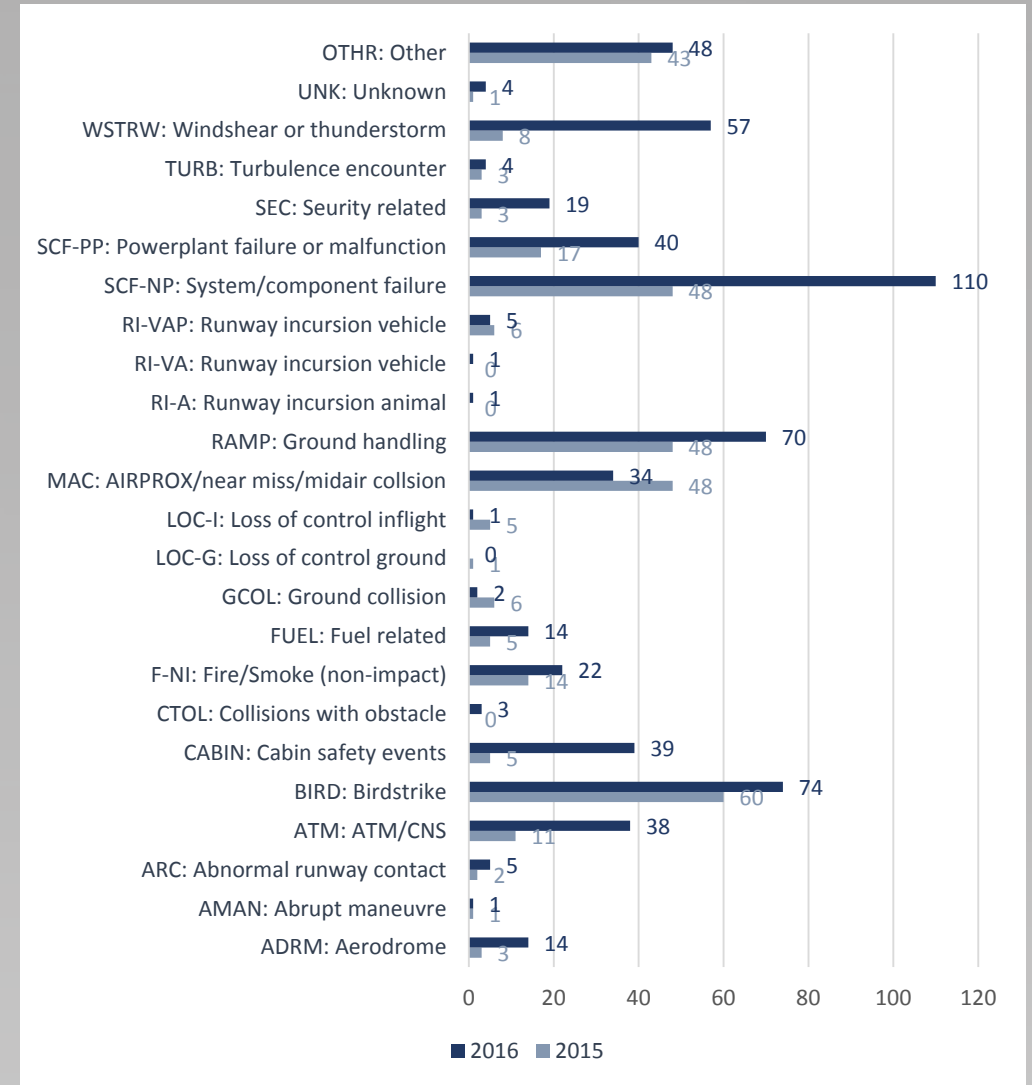


✈️ Safety Analysis

✈️ Quarterly and Annual reports



✈️ Dissemination of investigations, safety reports



✈️ Engineering Lab

- ✈️ Flight Recorders
- ✈️ System
- ✈️ Structure
- ✈️ Performance Engineer



✈ Engineering Lab



The Flight Recorder Laboratory

- ✈ Download FDR and CVR for commonly used recorders (Honeywell , L3);
- ✈ INSIGHT analysis and animation software;
- ✈ Flight Analysis System FAS with extended analysis and animation capabilities.
- ✈ A number of bench units to download crash damaged recorders.

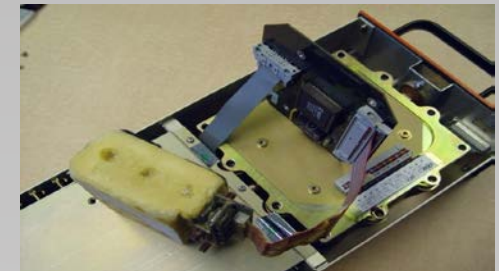
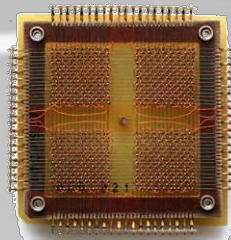


✈️ Engineering Lab



Avionics & System laboratory

- ✈️ Printed Circuit Board (PCB) level recovery of severely crash damaged recorders.
- ✈️ In progress: Memory Access Retrieval System, an innovative design to recover data from memory level in crash-damaged recorders without the need of recorders OEM bench unit. The project is supported technical by Canadian (TSB) Transport Safety Board and Canadian (NRC) National Research Center.



Retrieval of non-volatile memory. Building the capability to download and read personal electronic devices (PED) and GPS system.

✈ Finance & Admin

✈ Admin staff are trained to provide logistical assistance to investigation teams





Thank you

