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#### **REGIONAL FOCUS**

# Accident and Incident Investigation for the Latin America and Caribbean Region

Wednesday 4 August 2021

08:00 - 09:30 EDT





**Mr. Shayne Campbell** 

Safety Programme Manager CANSO





**Mr. Matthew Cabak** 

Team Lead & Accident Investigator FAA



# FAA Office of Accident Investigation & Prevention

International Investigations – ICAO Annex 13



#### **Federal Aviation Administration**

# Office of Accident investigation and Prevention – AVP-100 Investigative Authority granted by Title 49 United States Code §40113

- Credentialed Air Safety Investigators
- 10 employees who monitor investigations and collect data on an average of 1,200 accidents and 2,000 incidents per year.
- Processes 200-300 NTSB requests for information or services each year.
- Deploys investigators to lead the FAA investigation to accidents & air carrier incidents.
- Assists NTSB in their investigations / Conducts parallel FAA investigations





### **Federal Aviation Administration**

#### Office of Accident investigation and Prevention – AVP-100 Primary Focus – 9 Areas of Responsibility

- 1. Performance of FAA facilities or functions (including oversight responsibilities).
- 2. Performance of non-FAA owned and operated air traffic control (ATC) facilities or navigational aids.
- 3. Airworthiness of FAA-certificated aircraft.
- 4. Competency of FAA-certificated airmen, air agencies, commercial operators, or air carriers.
- 5. Adequacy of Federal Aviation Regulations.
- 6. Airport certification safety standards or operations.
- 7. Security standards or operations and/or hazardous materials.
- 8. Airman medical qualifications.
- 9. Violation of Federal Aviation Regulations





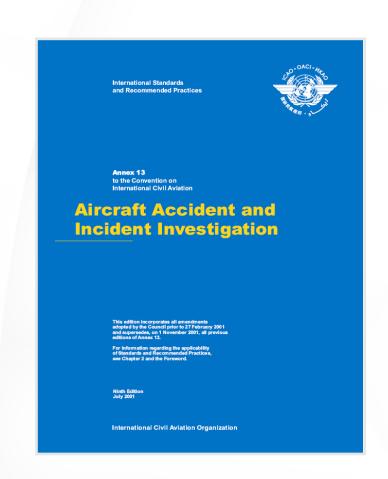
#### The International Framework: ICAO Annex 13

Annex 13 to the Convention on International Civil Aviation (ICAO) grants the relevant foreign States the right to participate in aircraft accident and incident investigations.

- The "State of Occurrence" leads the investigation (unless it delegates the investigation to another State).
- Any State who has responsibility for the aircraft (Registry, Operator, Design, or Manufacture) is entitled to participate.

#### **Important Terms:**

- "Accredited Representative": from the State's Independent Investigation Authority (in the US: the NTSB)
- "Technical Adviser": from the industry and the State's Civil Aviation Authority (in the US: the FAA)



# **ICAO Annex 13 - Definitions**



# Investigator-in-charge (IIC)

A person charged, on the basis of his or her qualifications, with the responsibility for the organization, conduct and control of an investigation.

**Note**: The IIC is from the State leading the investigation.

# **ICAO Annex 13 - Definitions**



# Accredited representative

A person designated by a State, on the basis of his or her qualifications, for the purpose of participating in an investigation conducted by another State. The accredited representative would normally be from the State's accident investigation authority.

**Note:** Accredited representatives are from participating States (including the State of Registry, the State of the Operator, the State of Design and the State of Manufacture).

# **ICAO Annex 13 - Definitions**



# Adviser

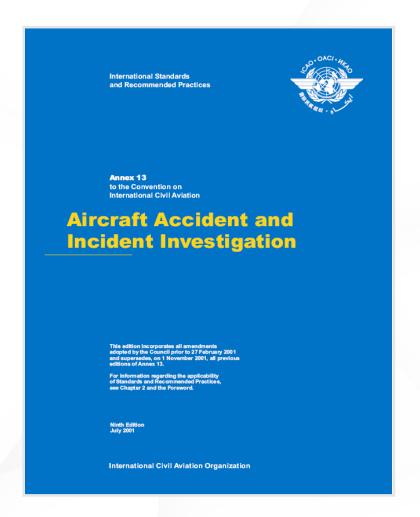
A person appointed by a State, on the basis of his or her qualifications, for the purpose of assisting its accredited representative in an investigation.

**Note:** Advisers are from participating States. They can be from the industry (e.g. aircraft design organization or air operator) but also from the relevant regulatory authority (e.g. FAA or EASA). They are always advisers to the participating State's accredited representative.

### ICAO Annex 13



 Annex 13 provides various standards and recommended practices for foreign elements to assist and contribute to an accident investigation.



# FAA's role in investigations led by the NTSB or foreign States

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- FAA has responsibility to ensure the safety and efficiency of the U.S. national airspace system and to manage the type design and operational oversite requirements for US manufactured products and operators.
- In investigations led by the NTSB: Participates as a party (by statute) for the continuous operational safety (COS) mission, not in the determination of probable cause. Primarily to ensure fleet safety.
- In investigations led by other States: Participates as the adviser to the accredited representative (from the NTSB).
- Determines if any of FAA's "nine areas of responsibility" were involved.
- If appropriate, initiates corrective action.



# NTSB/FAA Partnership



#### **National Transportation Safety Board**

Conduct the Investigation, Publish Investigative Report, Recommendations Probable Cause

Determine the cause and contributing factors of an accident. Issue Recommendations to FAA, Operators, Manufactures, etc. to address the issues discovered.



#### **Federal Aviation Administration**

Continuous Operational Safety
9 Areas of Responsibility

Regulations/Oversight

Find risk in systems or operations and mitigate the risk to prevent future accidents.



# NTSB/FAA Partnership



#### **National Transportation Safety Board**

480 Employees over all Modes
Aviation, Marine, Rail, Highway, Pipeline
100 Total Aviation employees
53 Regional Aviation Investigators



#### **Federal Aviation Administration**

45,000 Employees

3,800 Aviation Safety Inspectors 15,000 Air Traffic Controllers 26,200 Other job functions







# Turkey plane: Three dead, 180 hurt as jet skids off runway in Istanbul

© 6 February 2020





A passenger plane landing at an airport in Istanbul has skidded off the runway and broken into three parts, killing three people and injuring 180 others, officials say.

The Pegasus Airlines jet was carrying 177 passengers and six crew members from Izmir province in the west when it crashed at Sabiha Gokcen airport.

The Boeing 737 was trying to land in heavy tailwinds and rain.

The airport was closed and flights diverted after the accident.





# Start with the END in Mind

What is the ultimate goal?



To find out what happened, and prevent it from happening again.

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# **Major Elements to Success**

Trust Respect Collaboration Professionalism Adaptability Goals Influence Relationships **Open Communication** 



# What could go wrong?

- Delays in initiating the investigation
- Lack of clear organization and leadership of the investigation team
- Lack of preparedness
- Delays in access to accident site and/or loss of important perishable evidence
- Delays and/or inefficiencies in the recovery and read-out of flight recorders
- Reluctance to share relevant information
- Lack of progress after the initial phase of the investigation
- Lack of information and/or coordination during the analysis and report drafting phase
- Other challenges due to poor communication and/or collaboration





# Timeline – First 24 Hours

- Initiating the investigation, nominating IIC and constituting the investigation team (with appropriate number of investigation groups)
- Facilitating travel of all participants (as per ICAO Annex 9)
- Information Gathering
- Securing all accident site, wreckage and all perishable evidence, including flight recorders (local authorities, Operator, etc.)
- Coordinating with all involved authorities
- · Initial examination of the accident site and wreckage
- First organizational meeting (upon arrival)
- Dealing with the media
- Dealing with families of victims and accident survivors





# Timeline – First Week

- Gathering and review of all relevant information and evidence
- Flight recorder recovery and read-out
- Wreckage Examination and on-scene fact finding
  - Perishable evidence
- Documentation
- Coordination/Collaboration
- Meetings, including full team and investigation group meetings
- · Dealing with the media
- Dealing with families of victims and accident survivors

"The demand for information is inversely proportional to its availability"





# **Timeline - First Month**

- Documenting all relevant information and evidence
- ICAO 30-Day Preliminary Report Requirement
- Documentation review and initial analysis
- Coordination/Collaboration
- Follow-up Questions and Answers









# Timeline – Beyond

- Progress on the analysis of information and evidence (Note: Safety Recommendations can be issued any time during the investigation)
- Continuous coordination/collaboration with all stakeholders
- Following up questions
- Preparing the draft Final Report (including draft safety recommendations, if any) and sharing with involved States
- Finalizing and issuing the Final Report of the investigation
- Dealing with the media + families of victims and accident survivors
- Recording responses to safety recommendations issued, and monitoring the progress of the action taken in response to safety recommendations



## Collaboration



Good Collaboration and Communication with other members of the investigative team is critical to the success of the investigation

- Collaborate on facts and evidence
- Help other investigators understand details
- Share knowledge of components openly
- Provide feedback on Draft reports





# Reach Out For Help

- "A good investigator doesn't know all the answers."
   A good investigator knows where to go to find the answers."
- Build a strong network. Know who can help you on any particular element.
- ICAO channels FAA International Offices



# Critical Incident Stress Management

- Learn and understand warning signs in self and others
  - Emotional
    - Anxiety, Irritability, Fear, Grief
  - Physical
    - Fatigue, Headaches, Dizziness, Chills
  - Behavioral
    - Anger, Withdrawal, Outbursts, Inability to Rest, Change in Appetite
  - Cognitive
    - Confusion, Disorientation, Poor Concentration, Poor Memory
- Talk about feelings/experiences how it affected you
- Each investigation is different so is how you are affected





# **Case Study**

Pegasus Airlines Boeing 737







**Mr. Eric West** 

Senior Air Safety Investigator FAA



# **Case Study**

Pegasus Airlines Boeing 737









# **QUESTIONS AND ANSWERS**

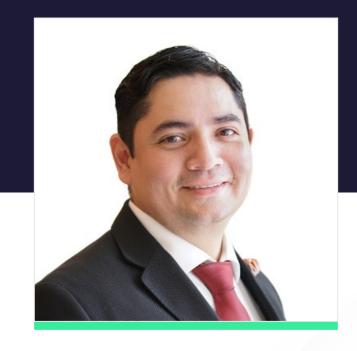




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Safety Programme Manager CANSO





**Mr. Javier Vanegas** 

Director Latin America and Caribbean Affairs

CANSO

# THANK YOU

