

## **1. How the Iran Air Crash will be Probed?**

**Prelims Level: International Relations**

**Mains Level: GS-II Important International Institutions, Agencies and fora- their Structure, Mandate.**

### **Why in News?**

- Recently a Ukrainian passenger aircraft was shot down by an Iranian missile killing all the passengers and the crew.
- Later, Iran has admitted that the missiles fired due to human error caused the crash.
- So, this article will be Analysing:
  - ❖ The protocol to be followed for investigations of air accidents.
  - ❖ What is black box?
  - ❖ What happens if a country admits there has been a mistake?

### **Investigation Protocol in case of Aircraft Accidents:**

- **Convention on International Civil Aviation (Chicago Convention)** provides for investigation protocol to be followed during aircraft accidents.
- Besides, the purpose of an investigation is not to proportion liability of anyone but to find out the cause that led to the crash and prevent it from happening in the Future.

### **Standards to be Followed:**

- According to the Chicago Convention the investigation **is led by the state where the accident has taken place.**
- The convention also requires that the state, which is leading the investigation, should use the black box for the purpose of investigation.
- Besides, the country in whose jurisdiction the crash has occurred (in this case Iran) should
  1. Institute an Inquiry into the cause.
  2. Convey the news of the accident to state of operator (Ukraine), state of manufacturer/design (U.S.A), and International Civil Aviation Organisation, a UN organisation.
- However the investigating state has the right to disallow any state from taking part in the investigation and carry out Investigation Independently.
- If the investigating country lacks the technological infrastructure required to decode Blackbox it should take the assistance of states that are equipped to deal with it. (only U.S., the United Kingdom and France possess the proper technology to decode black boxes)

### Role of ICAO:

- ICAO is not directly involved in any aircraft accident investigation.
- It simply lays down the recommended practices, which states are expected to adhere to.
- Besides, ICAO conducts annual audits of states and publishes its report. Thus, if a state has not adhered to ICAO's recommended practices it gets bad publicity.

### Attack on Civilian Aircraft:

- Chicago convention provides that states should refrain from exercising the use of weapons against civilian aircraft. (However, many countries including India have not ratified this provision).
- However, the Chicago convention does not make it illegal to shoot down an airliner if:
  - ✓ An aircraft is being used for terror
  - ✓ The aircraft is not responding to any other means of interception
  - ✓ The aircraft is headed towards a strategically important or a populated place.
- If the Airliner was shot down by mistake the country that shot it down makes ex-gratia compensation to families.
- However in cases where it is found that the airliner was shot down by a state even when it knew that there was no reasonable apprehension of any terror act, the culprit state can be taken to the International Court of Justice.

### Legislative Framework in India:

- In India, the air accident investigation is governed by **the Aircraft (Investigation of Accidents and Incidents) Rules, 2012.**
- The Central government is under an obligation to investigate any accident that happens within the territory of India, and in cases of aircraft registered in India even if the accident occurs outside India.
- While the DGCA is responsible to investigate into the incidents, in cases of serious events, the Aircraft Accident Investigation Bureau steps in.

### What is a Blackbox?

- Black boxes are solid-state devices that records data from the Flight Data Recorder and Cockpit Voice Recorder.
- The flight data recorder records data on aircraft performance (speed, height, rate of climb or descent, flight path, location, fuel levels, engine temperature and exhaust as well as flap positions).

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- The voice recorder logs almost every sound in the flight deck which includes air traffic control transmissions, crew conversations and even the sounds of switches and engine noise.
  - These data together help in reconstruction of the event and thus helps to understand the 'what', 'how' and 'why' of the event.

