

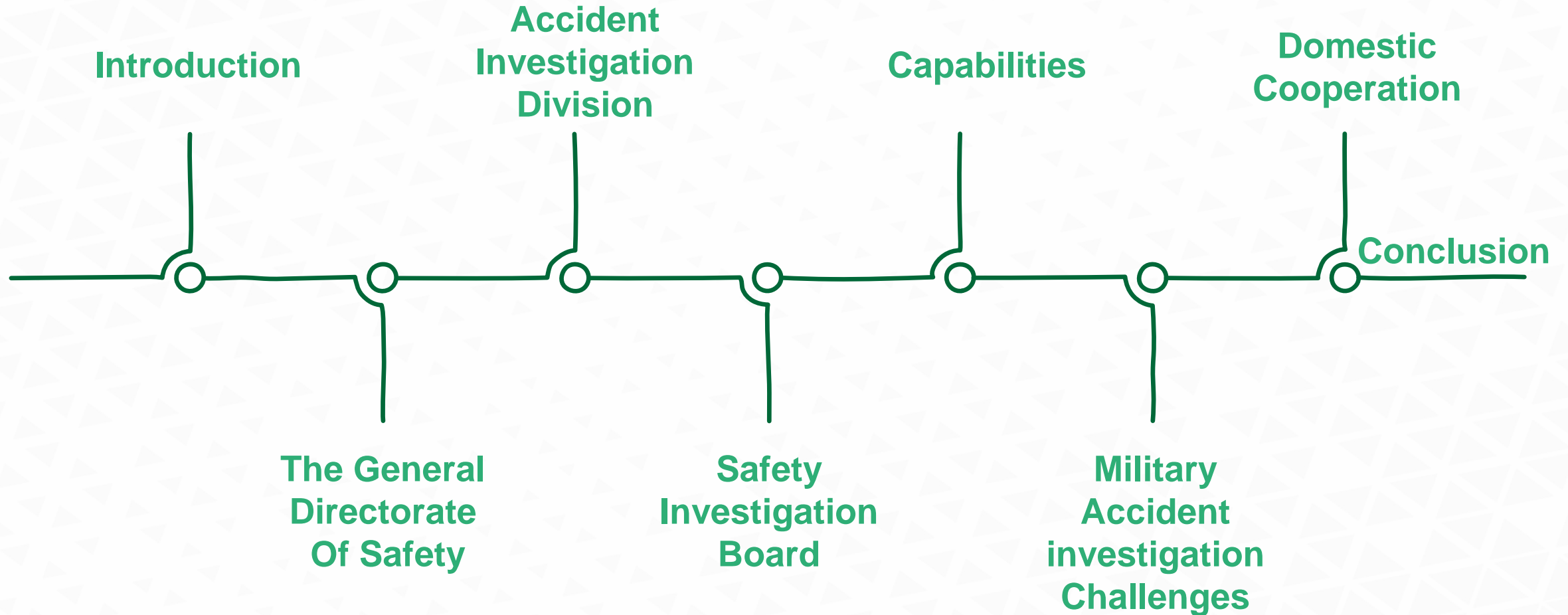


THE GENERAL DIRECTORATE OF SAFETY FOR THE SAUDI ARMED FORCES



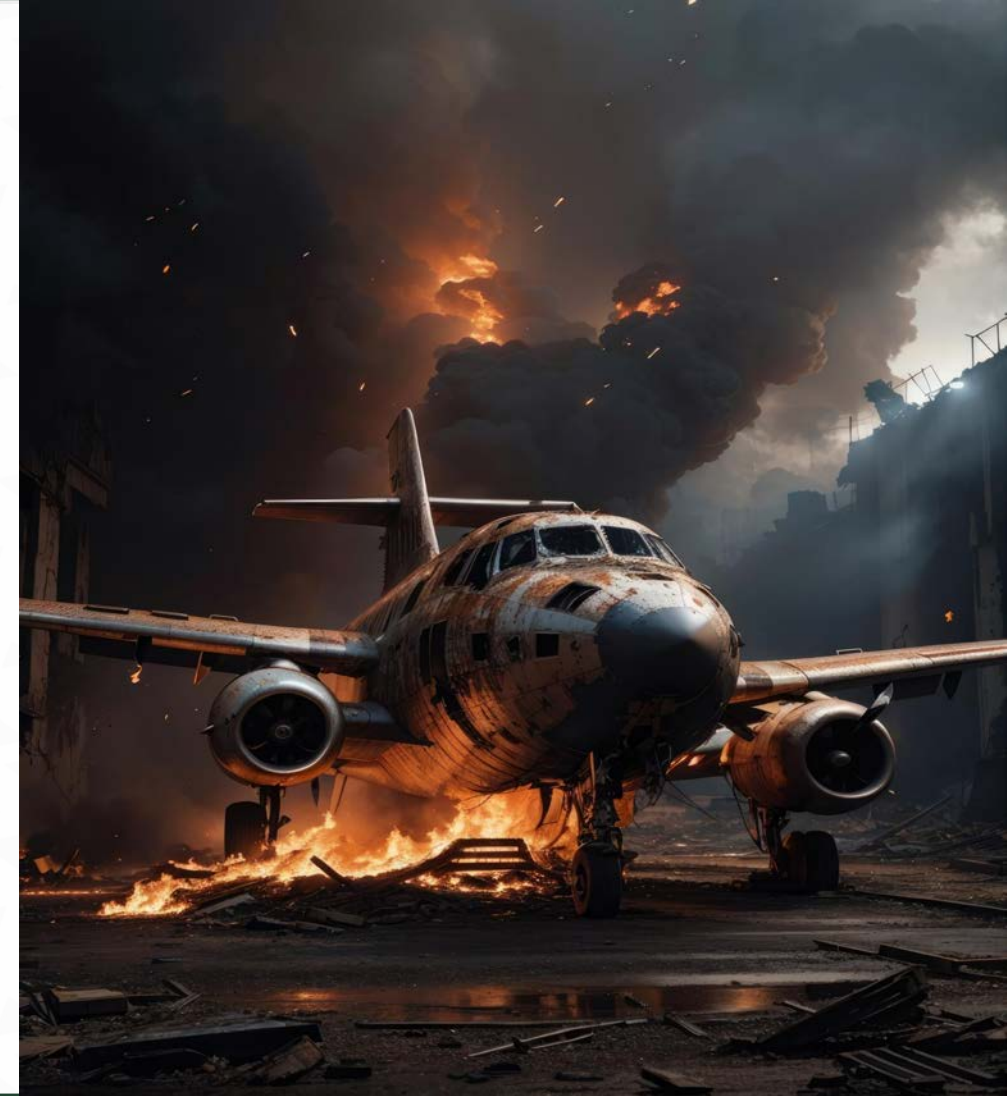
MILITARY ACCIDENT INVESTIGATIONS CHALLENGES

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INTRODUCTION

Aircraft accidents can be prevented when their causes are known. Causes can be determined only by investigation. An aircraft accident generally indicates a weakness in the accident prevention effort. Only thorough investigation will provide the necessary information on which to base corrective action for improving the accident prevention efforts.





THE GENERAL DIRECTORATE FOR SAFETY



الإدارة العامة للسلامة
للقوات المسلحة
GENERAL DIRECTORY OF
SAFETY FOR ARMED FORCES

vision



Protecting lives, equipment, properties, capabilities and enhancing readiness of the Armed Forces, by effectively and independently oversighting the arrangements, compliance, assurance, and accidents investigation.

message



Aiming to spread preventative safety culture and make it top priority between Mod personnel.

Objective



Achieving “zero accidents, zero injuries” or limit it to the lowest applicable by taking **proactive and reactive safety measures**

THE GD OF SAFETY

**WEAPONS
AND SYSTEM
SAFETY**

**COMPLIANCE
INTEGRATION
& OVERSIGHT**

**JOINT
SAFETY
PLANNING**

**ACCIDENT
INVESTIGATION**

**RISK
MANAGE
MENT**

THE GD ROLES & RESPONSIBILITIES

ROLES & RESPONSIBILITIES

- Enhances readiness.
- Provides an independent voice, establishes, ensures, and promotes a safety culture .
- Convenes and Chairs military accident investigation panels .
- Reports results of military accident investigation.
- Provides military safety policy and oversees the Joint Safety System.
- Provides aviation, ground, weapons and system mishap prevention.

THE GD ROLES & RESPONSIBILITIES

ROLES & RESPONSIBILITIES

- Conducts Risk assessment for the Mod.
- Cooperates with relevant government s to publish information to the public through the media.
- Develops fire safety plans.
- Represents the Mod.
- Conducts annual military safety program auditing and safety inspection throughout the Mod.



ACCIDENT INVESTIGATION DIVISION



ROLES & RESPONSIBILITIES

- Leads the planning, preparation, and execution of the Accident Investigation Panel process.
- Prepares the Director of Safety to brief results of accident investigation panels.
- Oversees policy, research, standards and analysis support.
- Maintains the Safety Information System to support safety investigations.
- provide aviation mishap investigation support to other agencies inside Mod.
- Analyzes human factors in the course of all accident investigations.
- Coordinates closely with the MoD agencies in the conduct of fires investigations .



MILITARY SAFETY INVESTIGATION BOARD

What is a **Mishap**?

An unplanned event that results in:

- any damage to equipment or property.
- results in injury to persons.

Mishap are investigated and reported across Mod in accordance with:

- RSLFAC REG 2-14-2088 (Army Accident investigation, Reporting and Records Regulation).
- Army Accident Reporting & Convening Safety Investigation Board manual.
- RSAFM 78-7 (Aircraft Accident Investigation Manual).
- RSAF MANUAL 78-1(Flight Safety Manual).
- Naval Accident investigation, Reporting and Records Regulation.





A board of inquiry into an aircraft occurrence is to be ordered in the following instances:

- When fatalities occur.
- When the aircraft sustains substantial amount of damage.
- When widely known or very important civilian or military personnel (VIPs) are involved.
- When collision occurs with another aircraft in flight.
- Whenever deemed appropriate.



The President. The president is to be : Under the command of a different unit

- Ranked no less (colonel) for Major Accidents or fatalities. (Army) (Ranked Major General for Navy) .
- For fatal accidents, at least of the rank of Major provided the services of an officer of such rank can be made available without delay, (Air force) .
- Senior to any officer whose conduct, character or professional reputation is likely to be called into question, (Air force)



Safety investigation Board Members for Aircraft accidents:

- Investigating Officer-Qualified Investigator.
- Pilot member-qualified in aircraft involved.
- Maintenance member-Maintenance officer/Engineer.
- Intelligence member.
- Member from the Directorate of Safety.
- Member from Chief Air Force Operations.
- Flight Surgeon.

Attendant Member as Specialist Knowledge. When an investigation by a board of inquiry requires the assistance of professional knowledge or skill (e.g. air traffic associated equipment etc) a specialist officer having the appropriate qualifications is to be detailed as a member of the board by the convening authority.

Authority for Ordering. Commander of the force is the ordering authority for all Boards of Inquiry.



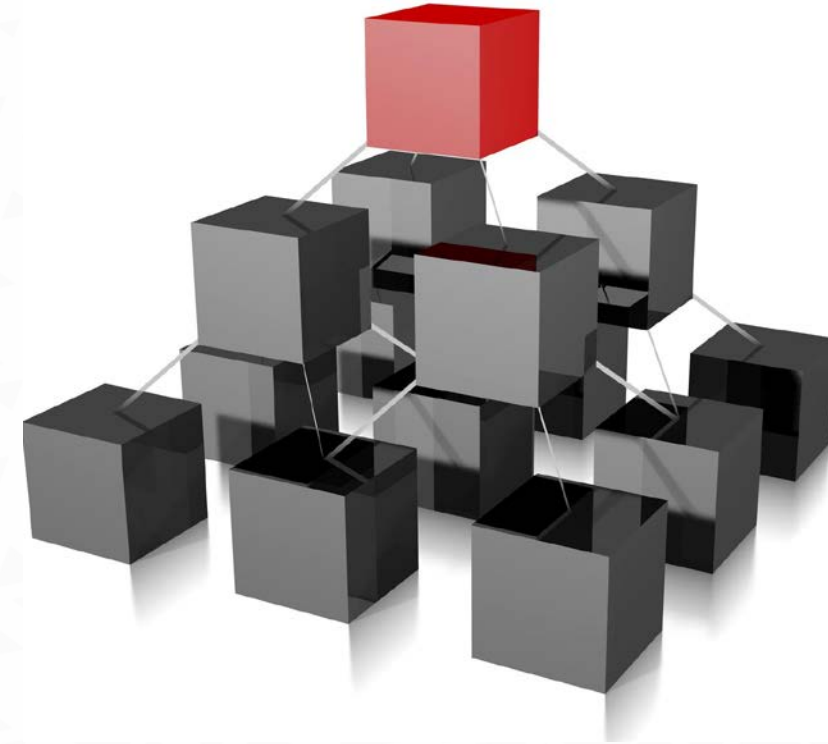
THE MOD USUALLY PUTS IT'S CAPABILITY UNDER SIB DISPOSAL

- ☐ SAR : (search and rescue Aircrafts)
- ☐ Ships
- ☐ Divers
- ☐ UAVs : scanning wide range of area to lo
 - accident location
 - Survivors
 - locate other evidences
 - identifying Threats
- ☐ Drones: scanning medium to small range of area.
- ☐ Military Medical evacuation
 - Vehicles .
 - Helicopters .
 - fixed wings .



MILITARY ACCIDENT INVESTIGATION CHALLENGES

- Military rank system forms the Backbone of the armed forces structure and it defines a soldier or officer's role and degree of responsibilities.
- Currently the owner of AIB is the Force Commander.
- Report will be presented to COS and Mod Minister.
- Personal Interest.
- Future plan to centralize the AIB to The GD for Safety.



● Transparency :No blame .

The GD is trying its best to reach the highest level of transparency and working to effectively implement no blame culture.

still the beneficiary is the one who suffered the loss.



- **Civilian Tampering With Evidence.**
- **Secrecy (Photographing Highly Classified Equipment).**
- **Dangerous Equipment's As Souvenir.**
- **Complicated Armament And Ordinance To Be Dealt With By Domestic Agencies**
- **Requires Intense Coordination To Protect Nearby Areas.**



MOD AIRCRAFT'S ACCIDENTS OCCURRING OUTSIDE THE KINGDOME BORDERS

- International agreements .
- if no international agreements .
- Secrecy .
- Evidence recovery .
- Time .



ACCIDENTS OCCURRING IN A **HOSTILE** AREA (**ENEMY**).

A DANGEROUS SITUATION REQUIRES A LOT OF PLANING, but investigation must occur to the best possible extent .

- S.E.A.D The Area .
- Deploy a team to ensure SIB protection .
- perishable evidence most likely will perish .
- usually most important items recovery (**ONLY**) .
- Use enemy media for evidence .
- coordination with applicable agencies inside Mod to retrieve lost evidence (**very long time**) .



VARIETY OF PLATFORMS & COMPLEXITY OF EQUIPMENT

TYPHOON



F15-S



TORNADO










F15-C



HAZARDS

Ordinance Hazards:

-  Bombs .
-  Rockets .
-  Missiles .
-  Bullets .
-  explosive bolts .
-  pressure vessels .
-  radioactive materials .



(Each force has a specialized team to deal with every hazard to make sure safety investigation board members are safe).



Site Hazards:

Every crash site is a dangerous place .

hazardous materials .

Hazardous Situations .

- Flare .
- Oxygen .
- Fuel
- hydraulic
- Stability .
- Cargo .
- Critters .
- Ground hazards .
- Environment .



Burned Composite Materials:

Military Aircraft Manufacturing involving High amount of composite material, Fires involving composite materials can release toxic fumes and micro particles into the air, causing health risks.



Miscellaneous Hazards

- Beryllium .
- Magnesium .
- lithium thionyl chloride .
- Thorium .



National Risk Council



National Council for
Occupational Safety and Health



Aviation Investigation Bureau

CONCLUSION

Investigating military accidents can be challenging because of complex logistics, limited resources, and the need for detailed analysis. It also involves handling intricate equipment, classified information, and coordinating with multiple agencies.

