

1. Preparation & Principles

- Apply Just Culture principles – focus on lessons learned, not blame.
- Maintain unbiased approach – avoid trying to prove assumptions.
- Review relevant local procedures and legal requirements.
- Establish safety and security at the site before starting.
- Assign clear roles to investigation team members.

Evidence Gathering

- Secure and protect the accident site from disturbance.
- Collect all available evidence before beginning detailed examination.
- Categorize evidence (physical, documentary, digital, witness) for easier reference.
- Photograph all details extensively, including:
 - Positions of switches, gauges, levers.
 - Wreckage orientation.
 - Surrounding environment.
- Prepare site sketches for early reference.
- Avoid altering or “tailoring” evidence to fit theories.
- Ensure contradictory evidence is preserved and examined.

Witness Interviews

- Conduct interviews as soon as possible after the event.
- Prefer individual interviews to prevent influence by others.
- Obtain oral statements and, where possible, audio/video record (with consent).
- Avoid interrupting; let the witness tell the full story.
- Create a comfortable environment to encourage full disclosure.
- Treat all statements as potentially valuable, regardless of witness background.

Use of Special Equipment

Flight Simulators

- Use simulators to:
 - Recreate aircraft behavior within normal flight envelope.
 - Simulate documented equipment malfunctions.
 - Assess visual factors (visibility, runway incursion, fog).
- Recognize limitations:
 - Not suitable for high G-force scenarios.
 - Cannot fully simulate human physiological/psychological responses.
 - Limited accuracy outside the certified flight envelope.

Drones (UAVs)

- Deploy drones for:
 - Rapid scene imaging and mapping.
 - High-quality close-up imagery without disturbing evidence.
 - Geo-tagged imagery for photogrammetry and 3D modelling.
 - Access to obstructed or hazardous areas.
- Operate in compliance with local UAV regulations.
- Store and secure all drone data as investigation evidence.

Evidence Examination

- Conduct systematic comparison of all evidence categories.
- Cross-check physical evidence with witness statements and technical data.
- Maintain a chain of custody for all evidence.
- Document discrepancies and explore alternative explanations.

Conclusions

- Identify factors and contributors directly related to the event.
- Document any unrelated hazards separately for follow-up via other channels.
- Avoid speculative conclusions; base findings on verified evidence.

Recommendations

- Link each recommendation to a specific causal or contributing factor.
- Ensure recommendations:
 - Aim to prevent recurrence.
 - Avoid punitive measures.
 - Offer short, medium, and long-term solutions.
 - Are specific, actionable, and measurable.
- Avoid vague or generic recommendations.

Documentation & Reporting

- Keep a detailed investigation log of actions, decisions, and observations.
- Archive all photographs, sketches, recordings, and digital files.
- Prepare a final investigation report in line with regulatory requirements.
- Share safety lessons learned with relevant stakeholders.