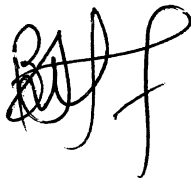


**SOUTH AFRICAN CIVIL AVIATION AUTHORITY**

**CIVIL AVIATION ACT, 2009 (ACT NO. 13 OF 2009)**

**AMENDMENT OF SA-CATS 2 of 2026**

The Commissioner of Civil Aviation has, in terms of section 163 (1) of the Civil Aviation Act, 2009 (Act No. 13 of 2009) amended South African Civil Aviation Technical Standards as reflected in the Schedule hereto. The Amendments as contained in the Schedule shall come into operation on the date of coming into operation of the Thirty-First Amendment Regulations, 2025.



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**Poppy Khoza**

**Commissioner of Civil Aviation**

**Date: 30 APR 2026**

## **GENERAL EXPLANATORY NOTE:**

[       ] Words in bold type in square brackets indicate omissions from existing technical standards.

\_\_\_\_\_ Words underlined with a solid line indicate insertions in existing technical standards.

## **SCHEDULE**

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1. Amendment of Document SA-CATS 11
  - (a) Insertion of Technical Standard 11.07.1
  - (b) Insertion of Technical Standard 11.07.2
  - (c) Insertion of Technical Standard 11.07.3
2. Amendment of Document SA-CATS 12
  - (a) Substitution of Document SA-CATS 12
3. Amendment of Document SA-CATS 61
  - (a) Insertion in Technical Standard 61.01.10 of subsection 12A
  - (b) Insertion in Technical Standard 61.01.10 of subsection 14A
4. Amendment of Document SA-CATS 92

## AMENDMENT OF SA-CATS 11

1. Document SA-CATS 11 is hereby amended by the insertion after Technical Standard 11.05.6 of the following technical standards:

### **“11.07.1 Institution of Fees Committee**

1. The Fees Committee shall determine the format of proposals for submission to the Fees Committee. A template for a proposal to the Fees Committee shall be published on the website of the Authority for potential proposers.
2. Proposals for submission to the Fees Committee shall be lodged with the Secretariat in the form of the template, at least 20 business days before the scheduled Fees Committee meeting in which the proposal will be tabled.
3. The Secretariat may accept a proposal lodged less than 20 business days before a Fees Committee meeting but not less than the date on which the Fees Committee meeting pack is to be circulated to members.
4. The Secretariat shall invite the proposer to attend and table the proposal at a scheduled Fees Committee meeting for scrutiny.
5. Any proposal for the amendment of regulations in relation to fees, levies and charges which requires an amendment or introduction of regulations, shall be accompanied by the proposed amendment or introduction of such regulations.
6. During a Fees Committee meeting in which a proposal is tabled for scrutiny, the Fees Committee may,–
  - (a) reject such a proposal and refer it back to the proposer if the proposal does not have any merit; or
  - (b) , refer such proposal to the Chairperson of the Fees Subcommittee for tabling in consideration of the nature and ambit of such proposal.

- (c) the Fees Committee may publish such proposal for public comments.
7. The Fees Subcommittee shall, after discussion, submit a final proposal to the Fees Committee Secretariat, as well as any minority or dissenting view on such proposal for discussion at the subsequent Fees Committee meeting.
  8. A Fees Subcommittee may recommend that a proposal referred to it by the Fees Committee be published for comments.
  9. The Chairperson of the Fees Subcommittee shall present a proposal or report and a summary of the discussions of the Subcommittee to the Fees Committee.
  10. A Fees Subcommittee may resolve to refer the proposal for publication for public comments.
  11. Once a proposal has been approved by the Fees Committee or the Fees Subcommittee for publication for comments, the Fees Committee Secretariat shall publish the proposal for public comments in the government gazette, national newspaper and on the SACAA website, as the case may be.
  12. A period of not less than 30 days from the date of publication of a proposal shall be allowed for interested parties to submit written comment regarding the proposal to the Secretariat.
  13. The Secretariat shall, as soon as possible after the closing date for comments, submit the proposal together with any comment received to the Fees Committee or Fees Subcommittee.
  14. The Fees Subcommittee shall, after discussion, submit to the Fees Committee Secretariat the final proposal, as well as any minority view for discussion at a subsequent Fees Committee meeting. The Chairperson of the Fees Subcommittee shall present to the Fees Committee a summary of the discussions in the Fees Subcommittee in writing, including the minority or dissenting views.

15. An oral submission on a proposal shall not be permissible unless such oral submission clarifies a written comment submitted.
16. In the event that a proposal affects a specific group, an expert in the field may, with the consent of the Chairperson of the Fees Committee, be called upon to present a specific proposal. The participation in the Fees Subcommittee by such group or expert shall be allowed on an ad hoc basis and may not entitle such group or expert to membership or voting rights in the Fees Committee.
17. After the scrutiny process is completed, as referred to in section 5, the Fees Committee shall deliberate on the proposals and may decide to do the following:
- (a) approve and recommend a proposal to the Minister for promulgation;
  - (b) refer the proposal back to the Fees Subcommittee for further deliberations; or
  - (c) reject the proposal.
18. Once a proposal is recommended by the Fees Committee to the Minister, the Chairperson of the Fees Committee and the Commissioner shall sign off on the submission of the recommended proposals for promulgation.

#### **11.07.2 Meetings of Fees Committee**

1. Members of the Fees Committee shall be notified at least 30 days in advance of any Fees Committee meeting, unless there are exceptional circumstances which require a Special Fees Committee meeting to be convened.
2. A member who cannot attend a specific meeting shall give the Fees Committee Secretariat notice of this, prior to the meeting and, where possible, give details of the duly authorised representative who will attend the meeting.

3. Resolutions of the Fees Committee covering a decision on a proposal, or any other matter discussed, shall be passed by a simple majority of voting members present in any Fees Committee meeting. In the event of an equal vote by members, the Chairperson of the Fees Committee shall have a casting vote above his or her normal vote.
4. A quorum for Fees Committee meeting shall be established when at least half plus one of the members are present at a scheduled meeting.
5. In the event of a quorum not being established at a scheduled meeting, the meeting shall continue, provided that any decision taken by the members present shall not have any legal or binding effect until ratified by a properly constituted meeting thereafter.
6. The agenda and minutes of all Fees Committee meetings shall be restricted to members and their affiliates.
7. The Fees Committee may allow an observer to attend a Fees Committee meeting. Such observer may participate in the meeting but shall not have a right to vote in the decisions of the Fees Committee meeting.
8. Other than the Secretariat, no member or any person attending a Fees Committee meeting is, in terms of Section 2 Interception of Communications Act, 2002 (Act No. 70 of 2002), permitted to record the proceedings of the meetings of the Fees Committee.
9. The Fees Committee meetings may be conducted virtually on a virtual platform agreed to by Fees Committee members, and the recordings of these meetings shall be taken by the Fees Committee Secretariat.
10. All the representatives of a member may attend and participate in the Fees Committee meetings, but only the principal representative, or in his or her absence, the duly authorised representative, shall have voting rights.

11. The Commissioner may, at the request of the Chairperson of the Fees Committee, suspend or cancel the membership of a Fees Committee member whose representative-
  - (a) fails to attend without good cause, four consecutive meetings of the Fees Committee; or
  - (b) is in breach of the Code of Conduct so determined by the Fees Committee.

### **11.07.3 Administration**

1. The Authority shall provide the Fees Committee and its Subcommittee with a Secretariat to fulfil the administrative functions.
2. The Fees Committee Secretariat shall prepare the minutes of all Fees Committee meetings and such minutes shall be signed by the Chairperson of the Fees Committee after having been approved by the Fees Committee meeting.
3. The minutes shall be made available on request, for inspection by the Fees Committee members during normal business hours and the Authority shall provide access to the applicable recording, at the offices of the Authority.
4. The Fees Committee Secretariat shall prepare the documentation of the proceedings of the Fees Subcommittee, which may include but not limited to reports and minutes.
5. The documentation referred to in section 4 shall form part of the Fees Committee meeting pack that is prepared for the Fees Committee meetings.
6. The Fees Committee Secretariat shall, at least 10 days prior to a Fees Committee meeting, excluding any public holiday, prepare a meeting pack consisting of an agenda, minutes of the previous meeting, proposals for scrutiny, proposals for discussion and any associated comments and recommendations, and shall distribute such meeting pack to the Fees Committee members.

7. A schedule of all proposals, indicating the action matrix or historical progress achieved on a proposal, in the form of a progress report, shall be submitted by the Secretariat to the Fees Committee for each meeting.
8. The Fees Committee Secretariat shall keep an accurate list of all members and their confirmed representatives' contact details, inclusive of email addresses and this shall be updated and checked for accuracy every six months".

### **Amendment of Document SA-CATS 12**

1. Document SA-CATS 12 is hereby amended by the substitution for Document SA-CATS 12 of the following Document SA CATS 12:

#### **"SUBPART 2: DESIGNATIONS**

##### **12.02.1 Designation of body or institution**

##### **1. Designation**

- (1) The ASIB may designate a body or institution which is already in civil aviation, having a proven track record in aviation, and must have the necessary knowledge, skill and experience in the activities within a specific sector of civil aviation.
- (2) The designated body or institution must be registered in terms of the Companies Act, 2008 (Act No. 71 of 2008) and the ASIB may remunerate the designated body or institution after consultation with National Treasury.
- (3) The designation shall be for a period of not less than five (5) years and shall be made in line with regulation 12.02.1.

(4) A body or institution designated in terms of this Subpart shall report to the ASIB on matters as specified in the designation, which may include the following:

(a) promote aviation safety or to reduce the risk of aviation accidents or incidents;

(b) advise the ASIB on any matter connected with the promotion of aviation safety or the reduction of the risk of aviation accidents or incidents; or

(c) investigation of accidents or incidents which the ASIB does not investigate, and a designated body or institution has expertise, skills and knowledge to carry out such an investigation and report to the ASIB on the outcome of their investigation.

(5) The ASIB may withdraw a designation if –

(a) it becomes evident that a designated body or institution does not comply with the provisions of this technical standard; or

(b) the withdrawal of the designation is necessary in the interests of aviation safety.

(6) A designated body or institution must, upon the withdrawal of the designation by the ASIB, forthwith surrender the document referred to in regulation 12.02.1 to the ASIB.

## **2. Conflict of Interest of Designated Body or Institution**

(1) A designated body or institution shall avoid a situation or engagement in any activity that may give rise to an actual, potential, or perceived conflict of interest in the performance of its functions.

(2) A conflict of interest may include, but is not limited to, a situation where the designated body or institution or member of such institution or body —

- (a) has a direct or indirect financial or commercial interest in the outcome of an investigation, assessment, or recommendation;
  - (b) has a relationship with a person for which, the proximity and nature of such a relationship may improperly influence the objectivity of the designated body or institution or member of such institution or body;  
or
  - (c) performs a function outside of its designation that may compromise its independence, impartiality, or integrity.
- (3) A designated body or institution or member of such institution or body shall—
  - (a) disclose, in writing upon appointment, to the ASIB any actual or potential conflict of interest as soon as it becomes aware of such conflict; and
  - (b) take immediate steps to eliminate or mitigate the conflict to the satisfaction of the ASIB, and
  - (c) report such steps taken, in terms of paragraph (b), in writing to the ASIB
- (4) The ASIB may, where a conflict of interest or the potential thereof has been brought to the ASIB's attention—
  - (a) impose conditions to deal with the conflict of interest; or
  - (b) suspend or withdraw the designation if the conflict of interest cannot be adequately eliminated or mitigated.

## **12.02.2 Designation of investigator-in-charge**

### **1. Conditions, requirements, rules, procedures and standards for a designation**

The conditions and requirements for and the rules, procedures and standards connected with the designation of an investigator are the following:

### **2. Requirements**

- (1) A candidate must –
  - (a) be an employee of the ASIB, and duly a designated investigator;
  - (b) have at least five (5) years as an investigator;
  - (c) have successfully completed an approved advanced investigation training course in accident investigation; or
  - (d) have proven experience in investigating complex accidents and incident investigations, which includes SMS, Human Factors, Weather, Burnt Wreckages, off-site or desk top investigations.
- (2) A candidate must have sufficient ability to manage projects and deliver them on time and within specified targets , and must be able to manage teams of investigators, including Accredited Representatives and their Advisors, Experts, Observers, Police, and Emergency Services Personnel.
- (3) A candidate must be a fit and proper person to duly exercise the powers of a designated investigator-in-charge.
- (4) A candidate must be able to consolidate reports from different investigators during an investigation and produce an accident report which can be easily understood by non-aviators.

- (5) A candidate must be able to share his or her knowledge, skills and competencies with other investigators by mentoring, coaching and training.

### **3. Duties of designated investigator-in-charge**

- (1) Conduct all accident and incident investigation allocated by the ASIB to such an investigator-in-charge in accordance with the Technical Standard 12.04.2.
- (2) Report back to the ASIB on an accident and incident investigation allocated to the investigator-in-charge within specified targets.
- (3) Maintain competency by reading and attending mentorship, coaching and training.
- (4) Independently stay abreast of new developments regarding accident and incident investigation, both locally and internationally, by reading investigation reports from other foreign authorities and by researching new developments in aircraft systems.

### **4. Procedures**

- (1) The ASIB may designate a candidate as an investigator-in-charge after having been satisfied that such candidate complies with the conditions, requirements and standards contained in this Technical Standard.
- (2) The ASIB may designate a candidate as an investigator-in-charge for a period determined by the ASIB, which period may not exceed 36 months calculated from the date of designation.
- (3) The ASIB may withdraw a designation if –
- (a) it becomes evident to the ASIB that a designated investigator-in-charge does not comply with the provisions of this Technical Standard; or
  - (b) the withdrawal of designation is necessary in the interests of investigation or aviation safety.

- (4) A designated investigator-in-charge must, upon the withdrawal of the designation by the ASIB, forthwith surrender the document referred to in regulation 12.02.2 to the ASIB.

### **12.02.3 Designation of an investigator**

#### **1. Requirements for designation**

(1) A candidate must be:

- (a) a holder of at least a Commercial Pilot Licence;
- (b) a licenced AME;
- (c) a senior Air Traffic Controller;
- (d) a flight inspector,
- (e) an airworthiness Inspector;
- (f) a duly designated authorised officer;
- (g) a certified mechanical engineer; or
- (h) a metallurgical engineer.

(2) A candidate must –

- (a) have successfully completed an approved initial training course in accident and incident investigation; or
- (b) have proven experience in accident and incident investigation.

(3) A candidate must have sufficient ability in reading, speaking and understanding the English language to enable such candidate to duly exercise the powers of a designated investigator.

- (4) A candidate must be a fit and proper person to duly exercise the powers of a designated investigator.

## **2. Duties of designated investigator**

- (1) conduct all accident and incident investigations tasks allocated by the investigator-in-charge to such investigator in accordance with the Technical Standard 12.04.2.
- (2) report back to the investigator-in-charge on every accident and incident investigation task allocated to them within specified targets.
- (3) maintain competency by reading and attending mentoring, coaching and training.
- (4) independently stay abreast of new developments regarding accident and incident investigation, both locally and internationally, by reading investigation reports from other foreign investigation authorities and by researching new developments in aircraft systems.

## **3. Procedures**

- (1) A person who desires to be designated as an investigator must apply in writing to the ASIB.
- (2) An application for a designation as an investigator must be accompanied by proof that the applicant complies with the conditions, requirements and standards contained in this Technical Standard.
- (3) The ASIB may, after due consideration of the application, designate an applicant as an investigator.
- (4) The ASIB may designate the applicant as an investigator for the period determined by the ASIB, which period may not exceed 36 months calculated from the date of designation.

- (5) The ASIB may withdraw a designation if –
- (a) it becomes evident to the ASIB that the designated investigator does not comply with the provisions of this Technical Standard; or
  - (b) the withdrawal is necessary in the interests of aviation safety.
- (6) A designated investigator must, upon the withdrawal of the designation by the ASIB, forthwith surrender the designation referred to in regulation 12.02.3 to the ASIB.

#### **12.02.4 DESIGNATION OF PRO- TEM INVESTIGATOR**

##### **1. Requirements for designation as PRO-TEM INVESTIGATOR**

- (1) A candidate must –
- (a) hold a licence issued in terms of the Act;
  - (b) have been employed by the South African Air Force and obtained an equivalent qualification referred to in paragraph (a);
  - (c) be an aviation security or safety officer of an aviation company; or
  - (d) be a designated investigator.
- (2) A candidate must have sufficient ability in reading, speaking and understanding the English language to enable such candidate to duly exercise the powers of a designated pro- tem investigator.
- (3) A candidate must be a fit and proper person to duly exercise the powers of a designated pro -tem investigator.

##### **2. Rules**

- (1) Once designated, the pro -tem investigator must –

- (a) Conduct all accident and incident investigations tasks allocated by the investigator-in-charge to such pro-tem investigator in accordance with Technical Standard 12.04.2;
- (b) report back to the investigator-in-charge on every accident and incident investigation task; and
- (c) stay abreast of new developments regarding accident and incident investigation, both locally and internationally.

### **3. Procedures**

- (1) A person who desires to be designated as a *pro -tem* investigator must apply in writing to the ASIB. An application for the designation as a pro-tem investigator must be accompanied by proof that an applicant complies requirements contained in this Technical Standard.
- (2) The ASIB may, after due consideration of the application, designate an applicant as a pro-tem investigator.
- (3) The ASIB may designate the applicant as a pro-tem investigator for the period determined by the ASIB, which period may not exceed one year, calculated from the date of designation.
- (4) The ASIB may withdraw a designation if -
  - (a) it becomes evident to the ASIB that the designated pro-tem investigator does not comply with these Technical Standards; or
  - (b) withdrawal of the designation is necessary in the interests of the investigation or aviation safety.
- (5) The designated *pro-tem* investigator must, upon the withdrawal of the designation by the ASIB, forthwith surrender the designation referred to in regulation 12.02.4 to the ASIB.

## **12.02.5 Designation of accredited representative**

### **1. Requirements for designation**

- (1) A candidate must –
  - (a) be an employee of the ASIB;
  - (b) have at least five (5) years as a designated accredited representative;
  - (c) have successfully completed an approved diplomacy training given by an approved institution or the Department for International Relations and Cooperation; and
  - (d) acknowledge that he or she represents the Republic in any investigation of an accident or incident undertaken by another State.
- (2) A candidate must have sufficient ability to manage projects and deliver them to the investigator-in-charge on time and within the targets specified.
- (3) A candidate must be a fit and proper person to duly exercise the powers of a designated Accredited Representative.
- (4) A candidate must be able to consolidate reports from different advisors during an investigation and produce a report which an investigator-in-charge can easily understand.
- (5) A candidate must be able to share his or her knowledge, skills and competencies with other investigators by mentoring, coaching and training.

### **2. Duties of designated accredited representative**

- (1) To represent the Republic in a manner that an accredited representative's conduct will not cause undue embarrassment or bring the Republic into disrepute.

- (2) Report back to the investigator-in-charge and the ASIB on every accident and incident investigation task allocated to him or her within the specified targets.
- (3) Maintain competency by reading and attending mentorship, coaching and training.
- (4) Stay independently abreast of new developments regarding accident and incident investigation, both locally and internationally, by reading investigation reports from other foreign authorities and researching new developments in aircraft systems.
- (5) Acknowledge that he or she represents the Republic in any investigation of an accident or incident undertaken by another State.

### **3. Procedures**

- (1) The ASIB may designate an accredited representative, and if the ASIB is satisfied that a candidate complies with the conditions, requirements and standards contained in this Technical Standard.
- (2) The ASIB may, after due consideration of a candidate, designate the candidate as an accredited representative.
- (3) The ASIB may designate a candidate as an Accredited Representative for the period determined by the ASIB, which period may not exceed 36 months calculated from the date of designation.
- (4) The ASIB may withdraw a designation for a designated accredited representative if –
  - (a) it becomes evident to the ASIB that a designated accredited representative does not comply with this technical standard; or

- (b) the withdrawal of a designation is necessary in the interests of investigation or aviation safety.
- (5) A designated accredited representative must, upon the withdrawal of the designation by the ASIB, forthwith surrender the designation referred to in regulation 12.02.5 to the ASIB.

#### **12.02.6 Designation of an advisor**

##### **1. Requirements for a designation of an advisor**

- (1) A candidate must –
  - (a) be employed by an air service operator, an aircraft maintenance organisation, a manufacturer, or a design organisation, and must serve in the capacity of a designated advisor.
  - (b) be qualified in the aircraft, or engine, or aircraft systems which is being investigated;
  - (c) have a detailed curriculum vitae with training record and appropriate knowledge and skill; or
- (2) A designated advisor must acknowledge that he or she represents the Republic in any investigation of an accident or incident undertaken by another State. A candidate must have sufficient ability to manage projects and deliver them to the accredited representative on time and within the targets specified.
- (3) A candidate must be a fit and proper person to duly exercise the powers of a designated advisor.
- (4) A candidate must be able to produce reports which can be easily understood by the Accredited Representative.

## **2. Duties of designated advisor**

- (1) Represent the Republic in a manner that an advisor's conduct will not cause undue embarrassment or bring the Republic into disrepute.
- (2) Report back to the accredited representative on every accident and incident investigation task allocated to him or her within specified targets.
- (3) Stay independently abreast of new developments regarding accident and incident investigation, both locally and internationally by reading investigation reports from other foreign investigation authorities and by researching new developments in aircraft systems.

## **3. Procedures**

- (1) The ASIB may designate an advisor if the ASIB is satisfied that such an advisor complies with this Technical Standard.
- (2) The ASIB may, after due consideration of the candidate, designate a candidate as an advisor.
- (3) The ASIB may designate a candidate as an advisor for a period not exceeding a period of a particular investigation.
- (4) The ASIB may withdraw a designation if –
  - (a) it becomes evident to the ASIB that a designated advisor does not comply with the provisions of this technical standard; or
  - (b) the withdrawal of designation is necessary in the interests of investigation or aviation safety.
- (5) A designated advisor must, upon the withdrawal of the designation by the ASIB, forthwith surrender the designation referred to in regulation 12.02.6 to the ASIB.

## **12.02.7      Designation of expert**

### **1. Requirements for designation of expert**

- (1) A candidate must –
  - (a) be an employee of forensic pathology or an expert in an appropriate field of aviation in a government department or private sector who is preferably qualified in accident investigation; and
  - (b) have a detailed curriculum vitae with training record and with proven knowledge and skill; or
  - (c) have an understanding that he or she is assisting the accredited representative who represents the Republic in an accident which is conducted by another State.
- (2) A candidate must have sufficient ability to manage projects and deliver them to the accredited representative in accordance with specified targets.
- (3) A candidate must be a fit and proper person to duly exercise the powers of a designated advisor.
- (4) A candidate must be able to produce reports which can be easily understood by the accredited representative.

### **2. Duties of designated expert**

- (1) Represent the Republic in a manner that an advisor's conduct will not cause undue embarrassment or bring the Republic into disrepute.
- (2) Report back to the accredited representative on every accident and incident investigation task allocated to him or her within specified targets.
- (3) Stay independently abreast of new developments regarding accident and incident investigation, both locally and internationally, by reading

investigation reports from foreign investigation authorities and by researching new developments in aircraft systems.

### **3. Procedures**

- (1) The ASIB may designate an expert after having been satisfied that a candidate complies with this Technical Standard.
- (2) The ASIB may, after due consideration of a candidate, designate such a candidate as an expert.
- (3) The ASIB may designate the candidate as an expert for a period not exceeding the period of a particular investigation.
- (4) The ASIB may withdraw a designation if –
  - (a) it becomes evident to the ASIB that the designated expert does not comply with the provisions of this technical standard; or
  - (b) the withdrawal of the designation is necessary, considering the interests of an investigation or aviation safety.
- (5) The designated expert must, upon the withdrawal of the designation by the ASIB, forthwith surrender the designation referred to in regulation 12.02.7 to the ASIB.

## **SUBPART 3: SERIOUS INCIDENTS AND DETERMINATION OF AIRCRAFT DAMAGE**

### **12.03.5 NOTIFICATION OF SERIOUS INCIDENTS**

#### **1. Determination of a Serious Incident**

- (1) There may be a high probability of an accident if there are few or no safety defences remaining to prevent the serious incident from progressing to an accident. To determine this, an event risk-based analysis that takes into account the most credible scenario had the serious incident escalated and

the effectiveness of the remaining defences between the serious incident and the potential accident, can be performed, as follows:

- (a) consider whether there is a credible scenario by which this serious incident could have escalated into an accident; and
- (b) assess the remaining defences between the serious incident and the potential accident as –
  - (i) effective, if several defences remained and needed to coincidentally fail; or
  - (ii) limited, if few or no defences remained, or when the accident was scarcely avoided.
- (c) consider both the number and robustness of the remaining defences between the serious incident and the potential accident.
- (d) ignore defences that already failed, and consider only those which worked and any subsequent defences that remain in place.

**Note 1** – The most credible scenario refers to the realistic assessment of injury or damage resulting from the potential accident.

**Note 2** – Defences include crew, their training and procedures, ATC, alerts, within and outside the aircraft, aircraft systems and redundancies, structural design of the aircraft and aerodrome infrastructure.

- (2) The combination of these two assessments helps in determining which incidents are serious incidents:

|                                                                                                     |                    |                                                                               |                         |
|-----------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------|-------------------------|
|                                                                                                     |                    | <u>(b) Remaining defences between the incident and the potential accident</u> |                         |
| <u>(a) Most credible scenario</u>                                                                   | <u>Accident</u>    | <u>Incident</u>                                                               | <u>Serious Incident</u> |
| <u>Such as: Mid-air collision should the pilot not take evasive maneuvers to avoid a collision.</u> | <u>No Accident</u> | <u>Incident</u>                                                               |                         |
|                                                                                                     |                    | <u>Such as: TCAS, Experienced crew, continuers training, etc.</u>             |                         |

- (3) For unmanned aircraft operations, an assessment shall be conducted to establish whether the most credible outcome of the serious incident, had it escalated into an accident, could reasonably have resulted in fatal or serious injury to any person.
- (4) Fatal and serious injuries are more likely to justify an investigation than those occurrences where the most credible outcome was merely damage or loss of the unmanned aircraft, and risk of fatal or serious injury may influence the extent of the investigation to be conducted.

## **2. ATS Incident Reporting and Investigation**

### **2.1 Interpretation of terms**

- (1) An ATS incident relates to a serious occurrence involving air traffic, such as a near collision or a serious difficulty caused by faulty procedures, or lack of compliance with applicable procedures or the failure of ground facilities resulting in a hazard to aircraft. Air traffic incidents are identified and designated in reports as –
- (a) Air traffic incident - INCIDENT;
  - (b) Aircraft proximity - AIRPROX;
  - (c) serious difficulty resulting in a hazard to aircraft caused by faulty procedures or non-compliance with procedures - PROCEDURE, or

- (d) serious difficulty resulting in a hazard to aircraft caused by failure of ground facilities - FACILITY.
- (2) Other ATS incidents include obstructions on runways, runway incursions and activations of aircraft ground proximity warning systems.
- (3) An air service Operator and pilot are required to report incidents involving activations of aircraft ground proximity warning systems so that the location of the incident may be identified and the altitude, routing or aircraft operating procedure may be altered to prevent recurrences.

## **2.2 Aircraft proximity**

- (1) Aircraft proximity is a situation in which, in the opinion of a pilot or ATS personnel, the distance between aircraft, as well as their relative positions and speeds, has been such that the safety of an aircraft involved may have been compromised.
- (2) Aircraft proximity is classified as follows:
  - (a) Risk of collision: A serious risk of collision has existed.
  - (b) Safety not assured: The safety of the aircraft may have been compromised.
  - (c) No risk of collision: No risk of collision has existed.
  - (d) Risk not determined: Insufficient information was available to determine the risk involved, or inconclusive or conflicting evidence precluded such determination.

## **2.3 AIRPROX**

- (1) AIRPROX is the abbreviation used in an air traffic incident report to designate aircraft proximity.

### **2.3 Reporting procedure**

- (1) Air traffic incidents are often reported through ATS air-ground-air communication channels, and such reports and associated information shall be recorded by the ATSU concerned in the logbook and immediately brought to the notice of the Air Traffic Manager in-charge.
- (2) An air traffic incident known to have occurred shall be treated like those reported by a pilot.
- (3) The Air Traffic Manager In-Charge shall provide relief to the ATC who was involved in the ATS incident as promptly as operational and staffing conditions permit, where required to efficiently prepare statements for the investigation.
- (4) All ATS incidents shall be reported to the ASIB by the most expeditious means of communication available using the prescribed format.
- (5) The air traffic incident report form shall be used when submitting or receiving air traffic incidents to provide the ASIB with as much information as possible on an air traffic incident.
- (6) An ATS incident report form is intended for use by –
  - (a) a pilot for filing a report on an air traffic incident after arrival or to confirm a report made by radio;
  - (b) an ATSU for recording an air traffic incident report received by radio or telephone.

### **2.4 Reporting by pilot**

- (1) A pilot involved in an incident shall proceed as follows:

- (a) during flight, use the appropriate air or ground frequency for reporting a serious incident, particularly if it involves other aircraft, to permit the facts to be ascertained as promptly as reasonably possible ;
- (b) as promptly as reasonably possible after landing, submit a completed air traffic incident report form –
  - (i) to confirm a report of an incident made using air or ground frequency, or to make an initial report on such an incident if it had not been possible to report it by radio; and
  - (ii) to report an incident which did not require immediate notification at the time of occurrence.

(2) An initial report made by radio shall contain the following information:

- (a) type of incident such as a near collision;
- (b) radio call sign of aircraft making report;
- (c) position, heading or route and true airspeed;
- (d) flight level, altitude or height and aircraft attitude;
- (e) flying conditions such as IMC or VMC;
- (f) time of incident in UTC;
- (g) description of other aircraft, if relevant; and
- (h) brief details of the incident, including sighting distance and miss distance, where appropriate.

(3) An air traffic incident initially reported by radio shall be submitted by a pilot to the ATS reporting office at the aerodrome of first landing and such pilot shall complete all sections of the appropriate form and supplement the details of the radio report, as necessary.

- (4) Where there is no ATS reporting office, the report may be submitted to any other ATSU or to the ASIB through the most expeditious means.

## **2.5 Reporting by ATSU**

- (1) Following an air traffic incident, an ATSU involved shall proceed as follows:

- (a) designate the incident in accordance with the procedure detailed in section 3;
- (b) if an aircraft is bound for a destination located within the area of responsibility of an ATSU in whose area the incident occurred, an ATSU shall make arrangements with an air service operator to obtain the pilot's report on landing;
- (c) if an aircraft is bound for a destination within the Republic, an ATSU at such destination shall be requested to obtain the pilot's report on landing;
- (d) if an aircraft is bound for an international destination—
  - (i) an Aeronautical Fixed Telecommunication Network, (ANSP) at a destination aerodrome shall be notified and given full details by Aeronautical Fixed Telecommunication Network (AFTN) of the incident and
  - (ii) an AFTN shall, upon request, provide the pilot's report to the ANSP.
- (e) if the incident involves another aircraft, the procedure referred to in paragraph (d), shall be followed by the ATSU or Air Navigation Service Office (ANSO), as applicable;
- (f) complete the air traffic incident form; and

(g) ensure that the ASIB is notified of all reportable incidents.

**Note** – Notification of other interested parties including appropriate authorities, an air service operator and the State of Registry shall be made by the Authority.

(2) ATS shall ensure that all incident reports are filed as promptly as possible after the occurrence and that a preliminary investigation is conducted efficiently and effectively within the available information.

### **3. Initial action by the ATSU involved**

(1) Immediately following an air traffic incident, all relevant documents shall be impounded and clearly marked for investigation purposes, including the following:

(a) log books,

(b) flight progress strips,

(c) meteorological reports or forecasts and recordings such as VHF or radio transmissions,

(d) intercom, and

(e) telephone communications relating to the incident.

(2) An Air Traffic Manager-in-Charge shall compile and submit a preliminary report of the incident to the ASIB through appropriate channels under confidential cover within ten days following the occurrence of the incident.

(3) The preliminary report referred to in subsection (2) shall include the following:

(a) details of aircraft involved, including call sign, type, registration marking, operator, place of departure and destination;

(b) names and operating positions of ATS personnel involved;

(c) full details of the sequence of events in narrative form;

- (d) statements by personnel involved;
  - (e) transcript of relevant voice recordings and telephone communication;
  - (f) copies of flight progress strips and other flight data, including graphical presentation of radar data;
  - (g) copies of meteorological reports and forecasts applicable to the time of the incident; and
  - (h) technical statements concerning the operating status of equipment, if applicable.
- (4) The ASIB shall ensure that an independent investigation of ATS incidents are conducted where necessary.
- (5) An ANSP shall conduct an investigation and submit a report containing the ANSP's findings and recommendations to the ASIB.

#### **4. Investigation and documentation**

- (1) It is essential to determine the cause of an air traffic incident, with the minimum delay, so that action can be taken to prevent recurrence.
- (2) To give effect to the air traffic incident investigation process, an investigating team shall be established by the ASIB.
- (3) The Investigation team referred to in subsection (2) shall include ATS experts and other specialist officers from flight operations, telecommunications engineering or other applicable fields, where required.
- (4) ATC involved in the incident may nominate an experienced team member of a grade equivalent to ATC as a representative during the investigation
- (5) The ASIB may—

- (a) direct a pilot, an air service operator or ANSP to provide available information for the proper investigation of an ATS incident, or
  - (b) refer the matter to either the Authority or the South African Police Service.
- (6) The proceedings of an air traffic incident investigating team, as well as papers and records used by it shall be treated as confidential, and specific facts required by the team shall be prepared by the ATSU and, where appropriate, shall include:—
  - (a) ATM – in-Charge Preliminary Report;
  - (b) names and operating positions of involved ATS personnel;
  - (c) full details of the sequence of events in narrative form;
  - (d) names of pilots and air service operator and details of aircraft involved;
  - (e) reports from ATC were prepared before leaving the ATSU on the day of the occurrence;
  - (f) reports from pilots involved, if possible as prepared at the next point of touch-down, preferably in pen script. An AFTN signal shall be acceptable as well as a pilot report, which was submitted by an ATS; and
  - (g) the marking and impounding of relevant voice recording tapes, flight progress strips and other flight data, including recorded radar data, if available.
- (7) The report of an ATS incident investigation team shall include—
  - (a) a summary of the incident and the cause;
  - (b) all relevant information in chronological sequence where appropriate;
  - (c) a list of findings and conclusions, and

- (8) Proposed corrective actions and recommendations for the purpose of accident or incident prevention.
- (9) Notwithstanding subsection (6), the ATS incident investigation team shall not make recommendations on personnel disciplinary action in the event of controller error because the fundamental objective of the investigation is the prevention of accidents.
- (10) The following information should be submitted as appendices to the report submitted to the ASIB—
- (a) statements by personnel involved;
  - (b) tape transcripts of relevant air-ground and telephone communications;
  - (c) copies of meteorological reports or forecasts relevant to the incident;
  - (d) copies of flight progress strips and other data relevant to the incident, including recorded radar data, if available; and
  - (e) any technical statements concerning the operating status of equipment, if applicable
- (11) On completion of the investigation, a Draft Final Report shall be submitted through appropriate channels to the ATC, pilot, and the operator and the State of an Operator or a State of Registry, if different and such parties shall be given a period of no less than thirty (30) days to submit their comments relating to the report. If no response is received after the 30-day period, the ASIB shall prepare the Final Report for publication on the website of the Authority.

## **5. Analysis of ATS incidents**

- (1) The analysis of an ATS incident shall be considered in relation to system operation in relation to the following factors:

- (a) **Procedures:** Consider whether the procedures and separation standards were correctly applied to the situation.
  - (b) **Data and display:** Consider whether the displayed data was correctly completed in terms of local ATSU instructions and whether the displayed information was properly interpreted and utilised.
  - (c) **Co-ordination:** Consider whether the prescribed co-ordination procedures were adequate and correctly applied.
  - (d) **Communication** – Consider whether the phraseology was consistently and correctly used.
  - (e) **Equipment: Consider** whether the performance of relevant technical equipment was adequate.
  - (f) **Personnel performance:** Consider whether any factors were present which may have affected an individual's performance, such as fatigue, illness or personal problems.
  - (g) **Task environment:** Consider whether the working environment such as background noise, heating, ventilation, ambient light levels which may have affected the performance of personnel.
  - (h) **General operations:** Consider whether all personnel were familiar with the air traffic situation, pertinent data and roles before assuming responsibility for an operating position.
- (2) Once the analysis of an ATS incident has been completed, information on the results, including conclusions and recommendations reached, shall be made available for corrective action shall be made available.

## **6. Release of information**

- (1) The ASIB shall, in the interest of accident and incident prevention, without undue delay, publish the ATS investigation report on the Authority's website, excluding records which may be protected by relevant legislation and adversely affect the investigation or any future investigation.
- (2) The records referred to in subsection (1) shall include the following:

  - (a) statements from persons responsible for the safe operation of the aircraft;
  - (b) communications between persons having responsibility for the safe operation of the aircraft;
  - (c) medical or private information regarding persons involved;
  - (d) cockpit voice recordings and transcripts from such recordings;
  - (e) opinions expressed in the analysis of information, including flight recorder information.
- (3) The ASIB shall authorise a member of ASIB to provide information to the press and general public upon receipt of inquiries into occurrences.

## **7. ATS incident reporting systems**

- (1) The ASIB shall establish—

  - (a) a mandatory incident reporting system to facilitate the collection of information on actual or potential ATS safety; and
  - (b) deficiencies and a voluntary incident reporting system to facilitate the collection of information on actual or potential safety deficiencies that may not be captured by the mandatory incident reporting system.

- (2) Other safety data collection, such as incidents, hazards and processing systems, shall also be established to collect ATS safety information that may not be captured by the mandatory and voluntary reporting systems.
- (3) A voluntary ATS incident reporting system shall be non-punitive and shall afford protection to the sources of the information. The non-punitive culture is fundamental to voluntary reporting. ANSPs are encouraged to facilitate and promote the voluntary reporting of events that could affect aviation safety.

## **8. Classification of the Severity of Runway Incursions**

### **8.1 Severity Classification**

- (1) The objective of runway incursion severity classification is to produce and record an assessment of each runway incursion, which is a critical component of risk measurement, where risk is a function of the severity of the outcome and the probability of recurrence.
- (2) A runway incursion shall be investigated to determine the causal and contributory factors and to ensure risk mitigation measures are implemented to prevent a recurrence of the runway incursion.
- (3) Severity classification of runway incursions shall be assessed as soon as possible after the incident notification, with due regard for the information required, and a reassessment of the outcome may be applied at the end of the investigation process.
- (4) For the purpose of system harmonisation and effective data sharing, when classifying the severity of runway incursions, the severity classification scheme in Table 1 shall be applied.

Table 1. Severity classification scheme

| Category | Description                                                                                                                                                                                                                                                        |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b> | Report to the Executive Responsible For Accident & Incident Investigations                                                                                                                                                                                         |
| <b>B</b> | A serious incident in which a collision is narrowly avoided.                                                                                                                                                                                                       |
| <b>C</b> | An incident in which separation decreases and there is significant potential for collision, which may result in a time-critical corrective/evasive response to avoid collision.                                                                                    |
| <b>D</b> | An incident characterized by ample time and/or distance to avoid a collision.                                                                                                                                                                                      |
| <b>E</b> | An incident that meets the definition of runway incursion such as the incorrect presence of a single vehicle, person or aircraft on the protected area of a surface designated for the landing and take-off of aircraft but with no immediate safety consequences. |
| <b>F</b> | Insufficient information or inconclusive or conflicting evidence precludes a severity assessment.                                                                                                                                                                  |

## **8.2 Factors that influence severity**

(1) To properly classify the severity of a runway incursion, the following information is required –

(a) Proximity of the aircraft or vehicle: —

- (i) the distance is usually approximated by the ATC or from the aerodrome diagram;
- (ii) when an aircraft flies directly over another aircraft or vehicle, then the closest vertical proximity shall be used;
- (iii) when two aircraft are on the ground, the proximity that is used to classify the severity of the runway incursion is the closest horizontal proximity;
- (iv) when aircraft are separated in both horizontal and vertical planes, the proximity that best represents the probability of collision shall be used; and
- (v) in incidents in which the aircraft are on intersecting runways, the distance from each aircraft to the intersection is used.

- (b) **Geometry of the encounter.** Certain encounters are inherently more severe than others, such as, encounters with two aircraft on the same runway are more severe than incidents with one aircraft on the runway and one aircraft approaching the runway. Similarly, head-on encounters are more severe than aircraft moving in the same direction.
- (c) **Evasive or corrective action:** When a pilot of an aircraft takes evasive action to avoid a collision, the magnitude of the manoeuvre is an important consideration in classifying the severity. This includes, but is not limited to, hard braking action, swerving, rejected take-off, early rotation on take-off, and go-around. The more severe the manoeuvre, the higher its contribution to the severity rating. For example, encounters involving a rejected take-off in which the distance rolled is 300m are more severe than those in which the distance rolled is less than 30m.
- (d) **Available reaction time:** Encounters that allow a pilot little time to react to avoid a collision are more severe than encounters in which the pilot has ample time to respond. For example, in incidents involving a go-around, the approach speed of an aircraft and the distance to the runway at which the go-around was initiated needs to be considered in the severity classification. This means that an incident involving a heavy aircraft aborting the landing and initiating a go-around at the runway threshold is more severe than one that involves a light aircraft initiating a go-around on a one-mile final.
- (e) **Environmental conditions:** Weather visibility and surface conditions that degrade the quality of the visual information available to a pilot and ATC, may increase the variability of the pilot and controller response and, increase the severity of the incursion. Similarly, conditions that degrade the stopping performance of the aircraft or vehicle, such as wet or icy runways, shall also be considered.

- (f) **Factors that affect system performance:** Factors that contribute to the severity of the incident include—
- (i) communication failures for instance, an “open mic” situation; and
  - (ii) communication errors, such as an ATC’s failure to correct an error in a pilot’s readback.

## **9. Runway incursion severity classification calculator**

A runway incursion severity classification (RISC) calculator shall be used to assess the severity of runway incursion events. Alternatively, the severity of runway incursions can be classified manually using the guidance contained in sections 8.1 and 8.2.

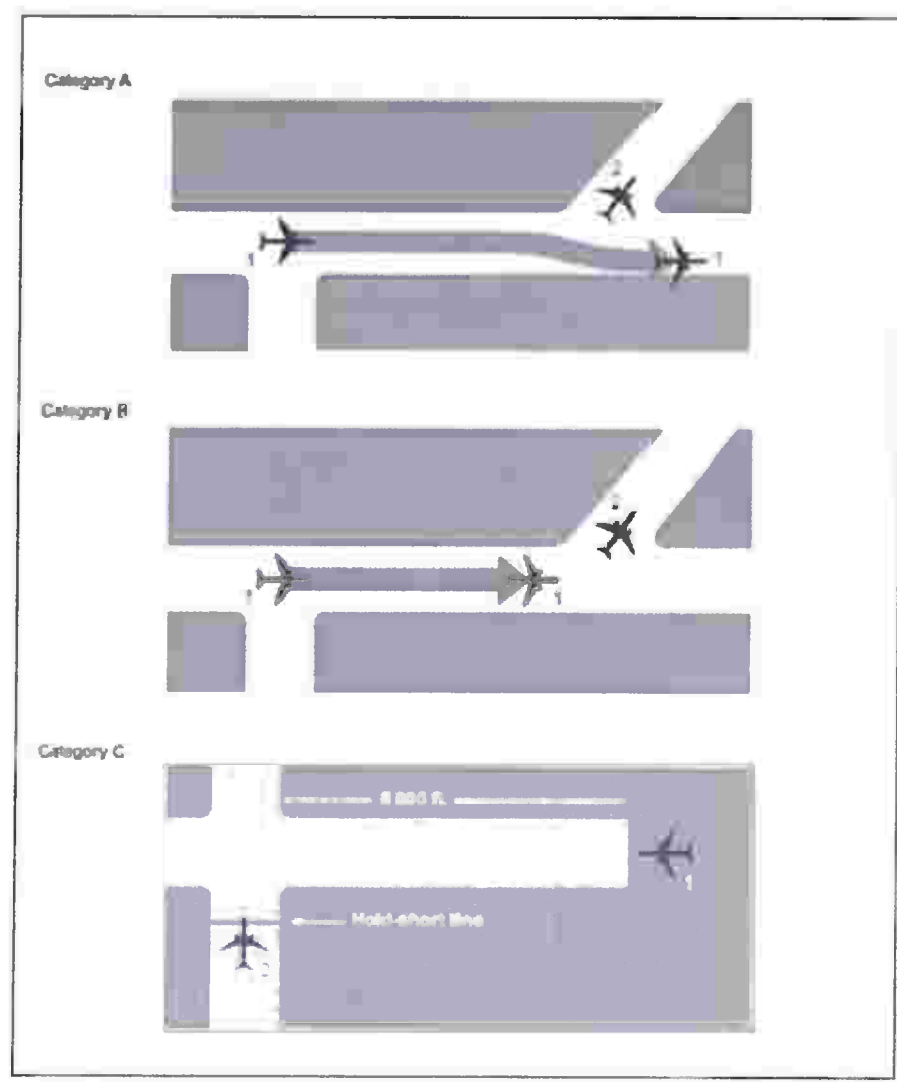


**Figure 1. Severity classification examples**

## **SUBPART 4: INVESTIGATION OF ACCIDENTS OR INCIDENTS**

### **12.04.2 ACCIDENT OR INCIDENT INVESTIGATION PROCEDURES**

#### **1. Procedures to be followed**

In an accident or incident investigation, the investigator-in-charge and investigator must follow the procedure contained as published by the ASIB, in addition to the provisions of the Act, Regulations and other instructions

which may be issued by the or, in the case of an investigator or pro-tem investigator, issued by the investigator-in-charge.

#### **12.04.9 FLIGHT RECORDER READ-OUT AND ANALYSIS PROCEDURES**

##### **1. Initial response after a major accident**

- (1) The period immediately following a major accident is highly demanding for any ASIB. One of the earliest decisions to be taken concerns the location at which the flight recorders will be downloaded and analysed. It is imperative that the read-out of the flight recorders takes place as soon as possible after the accident. Early identification of potential problem areas can significantly influence investigative activities at the accident site, where critical evidence may be transient. Furthermore, timely insights from the flight recorders may necessitate the issuance of urgent safety recommendations to prevent a similar occurrence.
- (2) The ASIB does not have their own facilities for the playback and analysis of flight recorder information (both voice and data) and consequently will request assistance from other States' Investigating Authorities. It is essential, therefore, that the ASIB make timely arrangements to read out the flight recorders at a suitable read-out facility.
- (3) The ASIB may request assistance from any State that, in its opinion, can best serve the investigation. The manufacturer's standard replay equipment and playback software, which are typically used by airlines and maintenance facilities, are not considered adequate for investigation purposes. Special recovery and analysis techniques are usually required if the recorders have been damaged.

## **2. Choice of facility**

(1) Facilities for the read-out of flight recorders shall have the ability to—

- (a) disassemble and read out recorders that have sustained substantial damage;
- (b) play back the original recording or memory module without the need for the use of a manufacturer's copy device or the recorder housing that was involved in the accident or incident;
- (c) manually analyse the raw binary waveform from digital tape flight data recorders;
- (d) enhance and filter voice recordings digitally by means of suitable software; and
- (e) graphically analyse data, derive additional parameters not explicitly recorded, validate the data by cross-checking and use other analytical methods to determine data accuracy and limitations.

## **3. Participation by the State of Manufacture (or Design) and the State of the Operator**

- (1) A State of Manufacture or Design shall have a representative present when the flight recorder read-out and analysis are being conducted in a State other than a State of Manufacture or Design.
- (2) A State of an Operator has regulatory responsibilities regarding the flight operation and can provide insights into operational issues which may be specific to an operator. Since flight recorder information can reveal operational problems, the State of an Operator shall also have a representative present when the flight recorder read-out and analysis are being conducted.

#### **4. Recommended procedures**

- (1) The flight data recorder and the cockpit voice recorder shall be read out by the same facility, because they contain complementary data which can help validate each recording and aid in determining timing and synchronisation.
- (2) Flight recorders should not be opened or powered up, and original recordings should not be copied (particularly not by high-speed copy devices) prior to the read-out because of the risk of damage to the recordings.
- (3) The facility at which the flight recorders are read out for another State should be given an opportunity to comment on the final report in order to ensure that the characteristics of the flight recorder analysis have been taken into account.
- (4) The facility at which the flight recorders are read out may require the expertise of the aircraft manufacturer and the operator in order to verify the calibration data and validate the recorded information.
- (5) The ASIB may leave the original recordings, or a copy of them, with the read-out facility until the investigation is completed, in order to facilitate the timely resolution of additional requests or clarifications, providing that the facility has adequate security procedures to safeguard the recordings.

### **SUBPART 6: REPORTING**

#### **12.06.1 REPORTING**

##### **1. Submission of preliminary and final accident report**

An investigator-in-charge must submit the preliminary, draft final report and final report or interim statement regarding an accident investigation to the ASIB in the format contained in this Technical Standard.

##### **2. Format**

The format of a preliminary and final report shall consist of title, synopsis, contents and appendices.

### **3. Title**

(1) The title of a preliminary and final report must comprise the following—

- (a) name of an operator or owner;
- (b) manufacturer;
- (c) model;
- (d) nationality and registration marks of an aircraft; and
- (e) place and date of the accident.

### **4. Synopsis**

(1) A synopsis must briefly describe all relevant information regarding the following:

- (a) notification of accident to national and foreign authorities;
- (b) identification of an investigator-in-charge;
- (c) identification of investigators, accredited representatives and advisers;
- (d) organisation of the investigation;
- (e) authority releasing the report; and
- (f) date of publication.

(2) A synopsis must contain a brief summary of the circumstances leading to the accident.

### **5. Contents**

(1) The contents of the preliminary and final report must comprise the following headings:

- (a) factual information;
- (b) analysis;
- (c) conclusions; and
- (d) safety recommendations.

## **6. Appendices**

The appendices must consist of all the relevant statements, documents, photographs, sketches, transcripts, drawings and information pertaining to the accident investigation concerned.

## **7. Factual information**

(1) The following factual information must be contained in the preliminary and final report:

- (a) history of the flight;
- (b) a brief narrative is required, giving the following information:
  - (i) flight number, type of operation, last point of departure, time of departure, such as local time or UTC and point of intended landing;
  - (ii) flight preparation, description of the flight and events leading to the accident, including reconstruction of the significant portion of the flight path, if appropriate;
  - (iii) location such as latitude, longitude, elevation or time of an accident such as local time or UTC, whether day or night; and
  - (iv) Injuries to persons

Completion of the following (in numbers):

| <u>Injuries</u> | <u>Crew</u> | <u>Passengers</u> | <u>Total on board</u> | <u>Others</u> |
|-----------------|-------------|-------------------|-----------------------|---------------|
| <u>Fatal</u>    | -           | -                 | -                     | -             |
| <u>Serious</u>  | -           | -                 | -                     | -             |
| <u>Minor</u>    | -           | -                 | -                     | -             |
| <u>None</u>     | -           | -                 | -                     | -             |
| <u>Total</u>    | -           | -                 | -                     | -             |

Note: Other means people on ground.

(2) Damage to aircraft

A brief statement of the damage sustained by an aircraft in the accident whether destroyed, substantially damaged, slightly damaged or no damage.

(3) Other damage

A brief description of damage sustained by objects other than the aircraft.

(4) Personnel information

- (a) Pertinent information concerning each of the flight deck crew members, including: age, validity of licences, ratings, mandatory checks, total and type of flying experience and relevant information on duty time.
- (b) Pertinent information regarding other relevant personnel, such as ATS and maintenance.

(5) Aircraft information

- (a) A brief statement on airworthiness and maintenance of an aircraft, which includes an indication of deficiencies known prior to and during the flight, if they have any bearing on the accident.
- (b) A brief statement on performance, if relevant, and whether the mass and centre of gravity were within the prescribed limits, during the phase

of operation related to the accident. If not relevant and if of any bearing on an accident, to provide details.

(c) Type of fuel used.

(6) Meteorological information

(a) A brief statement on the meteorological conditions appropriate to the circumstances, including forecast and actual conditions, and the availability of meteorological information to the flight crew.

(b) Natural light conditions at the time of the accident such as sunlight, moonlight and twilight.

(7) Aids to navigation

Pertinent information on navigation aids available, including landing aids such as Instrument Landing System (ILS), Microwave Landing System (MLS), Non-Directional Beacon (NDB), Precision Approach Radar (PAR), VHF Omnidirectional Range (VOR) and visual ground aids and their effectiveness at the time.

(8) Communications

Pertinent information on aeronautical mobile and fixed service communications and their effectiveness.

(9) Aerodrome information

Pertinent information associated with an aerodrome's facilities and conditions, or with the take-off or landing area if other than an aerodrome, if relevant.

(10) Flight recorders

The location of a flight recorder installation in an aircraft, condition on recovery and pertinent data available.

(11) Wreckage and impact information

- (a) General information on the site of an accident and the distribution pattern of the wreckage; detected material failures or component malfunctions.
- (b) Details concerning and location and state of the different pieces of the wreckage to indicate a break-up of the aircraft prior to impact.
- (c) Diagrams, charts and photographs may be included in this section or attached in the Appendices.

(12) Medical and pathological information

Brief description of the results of the investigation undertaken and pertinent data available therefrom, if relevant.

(13) Fire

If fire occurred, information in the nature of the occurrence, and of the fire fighting equipment used and its effectiveness, if relevant.

(14) Survival aspects

A brief description of search, evacuation and rescue, including response time, location of crew and passengers in relation to injuries sustained, failure of structures such as seats and seat-belt attachments, if relevant.

(15) Tests and research

Brief statements regarding the results of tests and research, if relevant.

(16) Organisational and management information

The following information is required:

Pertinent information concerning the organisations and their management involved in influencing the operation of an aircraft. The organisations include, for example, an operator or owner; the ATS, airspace, aerodrome and weather service agencies; and the applicable authority. The information may include organisational structure and functions, resources, economic status, management policies and practices and regulatory framework.

(17) Useful or effective investigation techniques

When useful or effective investigation techniques have been used during the investigation, briefly indicate the reason for using these techniques and refer here to the main features as well as describing the results under the appropriate headings in subsections (1) to (17).

**8. Analysis**

Analyse, only the information documented in Technical Standard 12.01.2 which is relevant to the determination of conclusions of causes, where appropriate.

**9. Conclusions**

List the findings and causes established in the investigation including the immediate and the deeper systemic causes.

**10. Safety recommendations**

Briefly state any recommendations made for the purpose of accident prevention and any resultant corrective action, where appropriate.

**11. Appendices**

Other pertinent information considered necessary for the understanding of the report must be Included as appropriate .

## **SUBPART 7: ACCIDENT PREVENTION MEASURES**

### **12.07.1 ESTABLISHMENT OF CONFIDENTIAL AVIATION HAZARD REPORTING SYSTEM**

#### **1. Hazards and incidents**

- (1) Hazards are negative indications of a safety trend or a possibility for an incident or accident.
- (2) Hazards include, , human factor errors, inadequate fire and rescue services, bird sighting at aerodromes or in migration, issues such as runway markings which are difficult to see, lack of diligence given to aeronautical information circulars, poor communications, ignorance about dangerous goods, incorrect perceptions of ATC or pilots, ergonomics, confusion about which frequency to use, visual illusions, medical problems, lack of or misunderstanding of legislation, prevalence of near collisions, passenger behaviour and poor ramp standards.
- (3) incidents must be reported to the ASIB in terms of Part 12 of the Regulations. These incidents must not be sent as a confidential aviation hazard reporting system (CAHRS) report. In such cases, if this is reported to the designated body or institution, the reporter must be advised of the correct method for such reporting. The designated body or institution will still maintain the confidentiality of such a reporter and will not forward the report to the ASIB. However, the nature of the hazard may be used for awareness purposes.
- (4) Confidential aviation hazard reporting is a tool for accident prevention in that hazards are identified before there is loss of life, injury or damage.

#### **2. Procedures**

- (1) The confidential aviation hazard reporting system must be is operated as follows:

- (a) Report and receive reports;
- (b) Allocate reference;
- (c) Place records in safekeeping;
- (d) Make contact with reporter, for further information, where necessary;
- (e) Destruction of name and other details of reporter;
- (f) De-identify report;
- (g) Referral to others, where necessary;
- (h) Publication of some parts of reports, where appropriate ;
- (i) Summary of reports;
- (j) Place on file; and
- (k) Data exchange.

### **3. Receipt of reports**

- (1) A dedicated email address must be monitored by a designated person who undertakes to forward the emails to the analyst.
- (2) A report must be submitted on the confidential aviation hazard reporting system (CAHRS) email or by any other medium.
- (3) A report received which are hand delivered or by fax will not be guaranteed confidential.
- (4) Receipts shall be accepted on electronic media and will be guaranteed confidential.
- (5) Reports may be submitted by anyone in the aviation industry or who is concerned about safety in aviation.

(6) It is preferable that the reporters provide names and phone numbers so that analysts can contact them for further information, where necessary.

(7) Anonymous reports will be accepted.

#### **4. Allocation of reference**

A reference shall be allocated for the report and must be used for any correspondence or publication of the report.

#### **5. Safekeeping**

All reports with identifying information retained are kept in safekeeping. Only the analysts have access to the documentation until reports have been de-identified.

#### **6. Liaise with reporter**

(1) An analyst may contact the report with extreme sensitivity bearing in mind that if such a reporter's identity is revealed the repercussions may be detrimental to the reporter and the future of the reporting system.

(2) An analyst must ensure that identifying information of the reporter is removed and destructed after the analyst has obtained any necessary further information from the reporter.

#### **7. Destruction of name and contact details of reporter**

The method in which this is done, is determined by the designated body or institution, such as by phone or by return of the section of the report which contains the name.

## **8. De-identify report**

- (1) All reports must be de-identified through the removal of identifying information from a report in a method that alters the information so that the reporter cannot be identified.
- (2) A report shall be treated on its own merit.
- (3) Generic terms must be used to replace information, such as types of aircraft, aerodromes, routes.
- (4) It is acknowledged that, in certain reports, the inevitable consequences of de-identification may result in non-specific and seemingly ineffective information. However, relaxing the de-identification requirements may jeopardise the credibility and confidentiality of the system.
- (5) De-identification must always be conducted even if the reporter indicates otherwise.

## **9. Referral to others if necessary**

- (1) Unless a report indicates imminent catastrophe, a referral must not be immediate and must consider the requirement of keeping the identification of the reporter confidential.
- (2) An analyst must provide a report to identified relevant organisations, authorities, and companies which may benefit from knowledge of a hazard.
- (3) A referral must, in respect of information that has not been verified, include a clause advising that the information contained in such referral has not been verified.

## **10. Publication of some reports**

- (1) De-identified reports may be published by the ASIB or a designated body or institution in a feedback publication and reports may be used by any other media for the purposes of aviation safety.
- (2) Any method of publication may be used if it is deemed to be suitable for the widest relevant group.
- (3) An analyst may withhold some de-identified reports from publication, if—
  - (a) such a report is not related to aviation safety; or
  - (b) the reporter's information may still be recognised even after de-identification.

## **11. Summary of reports**

- (1) An ASIB, Designated body or institution must—
  - (a) ensure that a summary report is maintained,
  - (b) A copy of a summary report must be sent to the ASIB, quarterly.
- (2) The summary report referred to in subsection (1) shall be made available on request.

## **12. Filing and data retrieval**

- (1) All de-identified reports must be filed by in the manner as directed by the ASIB designated body or institution.
- (2) All de-identified reports must be preserved.
- (3) The filing system must be accessible.

### **13. Data exchange**

- (1) A request for a copy of de-identified reports shall be made available.
- (2) The ASIB designated body or institution may refuse a request if there appears a risk of a reporter being identified.
- (3) International guidelines and protocols on data exchange must be complied with.

### **3. Operation of the system**

#### **3.1 Administration**

- (1) An analyst must be designated to analyse confidential reports, and is entrusted with the identifying information.
- (2) An assistant analyst must assist an analyst but who is not provided with identifiable information.
- (3) The ASIB or the designated body or institution must determine the number of analysts, such analysts may be employees of the ASIB or designated body or institution, or be retained for remuneration or on a voluntary basis. However, an analyst may not be in the employ of any aviation operator, aerodrome operator or ATSU.
- (4) The ASIB or the designated body or institution may select analyst for their expertise, and such analyst may be in the employ of an aviation operator, aerodrome operator or ATSU.

### **4. Advisory committee**

- (1) The designated body or institution must establish an advisory committee and the terms of reference must include the following—:

- (a) detect significant aviation safety trends arising from hazard reports;
  - (b) identify those safety trends that may be appropriate for investigation by other committees or working groups;
  - (c) communicate pertinent findings concerning safety to the ASIB or appropriate sectors within the industry;
  - (d) provide expert opinion, information and assistance as and when required for hazard analysis;
  - (e) disseminate information and alert bulletins to the disciplines that make up the aviation industry;
  - (f) monitor the methodology, analysis and feedback of the confidential aviation hazard reporting system (CAHRS); and
  - (g) assist the analysts in the editing of publication material.
- (2) The advisory committee must comprise expert technical representatives from a wide variety of sectors, including employer and employee groups, aircraft owners and manufacturers, airlines and general aviation, engineering and maintenance, recreational flying, and ATS.
- (3) The advisory committee must meet regularly, at least twice per year.”.

## **AMENDMENT OF SA-CATS 61**

2. Document SA-CATS 61 is hereby amended by:

- (a) the addition in Technical Standard 61.01.10 after subsection (12) of the following subsection:

“(12A) Deferment of examination cut-off period

- (a) Notwithstanding subsections (11) and (12), the Commissioner may, on application, grant an applicant an additional period up to a period of 18 months within which an applicant may be allowed to attempt an examination.
- (b) The Commissioner may grant an additional period in accordance with the following conditions:
  - (i) the reasons for the application shall be specified clearly in the application;
  - (ii) the additional period requested may only be granted to an applicant in the following circumstances:
    - (aa) personal emergency;
    - (bb) serious illness or injury;
    - (cc) psychological trauma of an applicant or an applicant's immediate family;
    - (dd) the death of an applicant's immediate family member; or
    - (ee) where an applicant was required to remain outside of the borders of the Republic for extended periods of time for work purposes.
  - (iii) the circumstances listed in paragraph (b) shall have occurred within the existing 18-month period;
  - (iv) documentary proof of the circumstances referred to in subparagraphs (ii) and (iii) shall be included with the application and shall, in the case of an application on medical grounds, include a satisfactory medical certificate issued by a medical practitioner registered with the Health Professional Council of South Africa;
  - (v) an application shall be made at least seven (7) days prior to the expiry of the 18-month period;
  - (vi) an applicant may be granted a maximum of one (1) additional period in each 18-month cycle;
  - (vii) the maximum additional period that may be granted to an applicant and shall not be more than sixty (60) calendar days;
  - (viii) if an applicant has been granted an additional period in terms of paragraph (b) such an applicant shall only be allowed five attempts for an examination subject within such an additional period

- (ix) where the 18-months cut-off is deferred by more than 30 days, an applicant shall forfeit an examination credit older than 18 months and the applicable subject must be rewritten; ”.”
- (b) the addition in Technical Standard 61.01.10 after subsection (14) of the following subsection:  
“(14A) Deferment of skills test cut-off period by granting of additional time
  - (a) Notwithstanding subsections (13) and (14), the Commissioner may, on application, grant an applicant an additional period up to a period of 36 months within which to undergo the required skills test.
  - (b) an application for an additional period for a skills test shall be restricted to a candidate in the process of obtaining a PPL, CPL, or Grade III Flight Instructor Rating;
  - (c) The Commissioner may grant an additional period in accordance with the following conditions:
    - (i) the reasons for the application shall be specified clearly in the application;
    - (ii) the additional period requested shall only be granted in accordance with following conditions:
      - (aa) personal emergency;
      - (bb) serious illness or injury;
      - (cc) psychological trauma of an applicant;
      - (dd) where an applicant was required to remain outside of the borders of the Republic for extended periods of time for work purposes;
      - (ee) where unforeseeable and ruinous circumstances had a direct impact on the applicant’s ability to obtain the required flight time;
    - (iii) the circumstances listed in paragraph (b) shall have occurred within the existing 36-month period;
    - (iv) documentary proof of the circumstances referred to in subparagraphs (ii) and (iii) shall be included with an application and shall, in the case of an application on medical grounds, include a satisfactory medical certificate

issued by a medical practitioner registered with the Health Professional Council of South Africa;

- (v) an application shall be made at least seven (7) days prior to the expiry of the 36-month period;
- (vi) an applicant shall be granted a maximum of one (1) additional period in each 36-month period;
- (vii) the maximum additional period that may be granted shall be not more six (6) months;
- (viii) where the 36-months cut-off is deferred by more than 30 days, an applicant shall forfeit an examination credit older than 54 months and the applicable subject must be rewritten
- (d) an additional period may be approved by the Commissioner after having regard to the reason or reasons provided and the documentary proof submitted; and
- (e) an application shall be made on the prescribed form”.”

## **AMENDMENT OF SA-CATS 92**

3. Document SA-CATS 92 is hereby amended by:

- (a) the substitution in Technical Standard 92.01.1 for the definition of “Exception” of following definition:

### **Definitions**

“ ‘**Exception**’ means a provision in **[the Technical Instructions]** Part 92 of the Regulations which excludes a specific item of dangerous goods from the requirements which are generally **[normally]** applicable to that item”.”

- (b) the substitution for Technical Standard 92.01.2 of the following Technical Standard:

## **“92.01.2 PROHIBITION OF CONVEYANCE OF DANGEROUS GOODS**

### **1. Dangerous goods forbidden for transport by air under any circumstances**

Articles and substances that when conveyed by air transport are likely to explode, dangerously react, produce a flame or dangerous evolution of heat or dangerous emission of toxic, corrosive or flammable gases or vapours under conditions normally encountered in transport shall not be carried in aircraft under any circumstance that are specifically identified by name or by generic description in Table 3-1 of the Technical Instructions [Part 1, Chapter 2, Part 3] or by the classification process of the Technical Instructions as being forbidden for conveyance by air under any circumstances. [shall not be carried on an aircraft.]

### **2. Dangerous goods forbidden for transport by air under normal circumstances**

Articles and substances that are specifically identified by name or by generic description in Table 3-1 of the Technical Instructions or by the classification process of the Technical Instructions as being forbidden for conveyance by air under normal circumstances but can be transported on aircraft based on a specific approval or authorisation granted through the Commissioner’s discretionary powers provided overall safety in transport is equivalent to the level of safety provided for in these standards and the Technical Instructions”.