

	<p style="text-align: center;"><b>TANZANIA CIVIL AVIATION AUTHORITY</b>  DIRECTORATE OF SAFETY REGULATIONS  AIR NAVIGATION INSPECTORATE</p>	<p>Revision: 2</p> <p style="text-align: center;"><b>Advisory Circular</b></p>
<p>Document No.: TCAA/QSP/SR/AC/ANI - 18</p>	<p>Title: <b>Runway Safety Programme and Runway Safety Teams</b></p>	<p>Page 1 of 5</p>

## 1.0 PURPOSE

- 1.1 This Advisory Circular (AC) provides guidance to the Aerodrome Operator and Air Navigation Service Provider (Air Traffic Services Unit) on the establishment of a runway safety programme and runway safety teams.
- 1.2 The establishment of a safety programme and a safety team(s) shall ensure the safety of the runway(s) against foreign objects debris and animals straying onto the runway and other logistical deficiencies. Among the factors that should be considered while developing a runway safety programme are the safe operation of aircraft, air traffic management, vehicle movement in the manoeuvring area and aerodrome management.

## 2.0 REFERENCES

- 2.1 The Civil Aviation (Air Traffic Services) Regulations, 2017 as amended
- 2.2 ICAO Doc 4444- PANS Air Traffic Management
- 2.3 ICAO Doc 9981- PANS Aerodrome
- 2.4 ICAO Doc 9870- Manual on the prevention of Runway Incursion
- 2.5 ICAO Runway Safety Programme – Global Runway Safety Action Plan
- 2.6 ICAO Doc 9859 Safety Management Manual

## 3.0 BACKGROUND

- 3.1 The pilots of aircraft, arriving to and departing from aerodromes, have an expectation that the aerodrome operator has sufficient controls in place to ensure safe operations on the movement area. The movement area consists of a network of runways, taxiways and aprons and is likely to be unique to each aerodrome.
- 3.2 Runway safety is vital to protect aircraft operations at an aerodrome. The effective control of people, vehicles and animals that may enter a runway is a responsibility of the aerodrome operator and aerodrome control tower. Runway safety events have been known to result in catastrophic consequences, therefore there is a global focus on improving runway safety.
- 3.3 Regulation 52(5) mandates the Air Traffic Services provider to establish runway safety programmes to enhance runway safety using collaborative approach that involves: regulators, aircraft operators, aerodrome operators and air navigation service providers.
- 3.4 In addition, ICAO through the Global Aviation Safety Plan (GASP) and Global Runway Safety Action Plan (GRSAP) strongly recommends establishing Local Runway Safety teams (LRSTs) at

aerodromes. This is recognized as a key controlling factor to manage risks associated with runway related occurrences.

- 3.5 Furthermore, Section 8.2 of ICAO's PANS-Aerodromes (Doc 9981) requires aerodrome operators to establish a runway safety team comprised of relevant organisations operating or providing services on the aerodrome.

#### **4.0 LOCAL RUNWAY SAFETY TEAM (LRST)**

##### **4.1 LRST Purpose**

- 4.1.1 The LRST is a team of appropriate local representatives and stakeholders who work together to improve runway safety at the aerodrome.
- 4.1.2 The LRST should be established at each aerodrome and involve representatives from stakeholders whose operations relate to runway(s) at the aerodrome. The LRST should include representatives from the aerodrome operator, air traffic service provider (where applicable), airlines and aircraft operators, pilot associations, ground handling representatives and any other group with direct involvement in runway operations at the specific aerodrome.
- 4.1.3 The primary role of the LRST should be to develop a robust runway safety action plan, advise the aerodrome operator of potential runway safety issues and recommend strategies for hazard removal and effective mitigation of identified risks. While also providing advice and context regarding local conditions on the runway, taxiways and adjacent areas, the LRST should provide advice to the aerodrome operator on other issues of concern and provide support in developing mitigating measures and solutions to identified issues.
- 4.1.4 LRSTs also provide an avenue for hazard identification and risk management, along with safety assurance and safety promotion in support of an organisation's Safety Management System (SMS) or Risk Management Plan (RMP).

##### **4.2 Runway safety action plan**

- 4.2.1 The runway safety action plan should facilitate:

- i) identification of runway safety hazards
- ii) conduct of runway safety risk assessments
- iii) recommendation of measures for hazard removal and mitigation of residual risk.

- 4.2.2 Initiatives to be undertaken at the aerodrome for effective runway safety management should be listed in the runway safety action plan. Furthermore, the plan should enable LRST members to identify responsibilities and lead specific initiatives, usually with a timeline attached for actions or implementation.

- 4.2.3 The LRST should review the runway safety action plan when one or more of the following circumstances arise:

- i) the volume and density of aircraft and vehicle traffic increases significantly
- ii) operations in lower visibility conditions have changed
- iii) the aerodrome layout has changed, i.e., new runways, taxiways, or aprons are brought into operation. Also changes to airside facilities due to Work In Progress (WIP) at aerodromes
- iv) occurrences such as unintended entry of aircraft, persons and vehicles into runways and taxiways
- v) reports received from pilots, Air Traffic Control (ATC), or operations personnel about unclear indication of, inter alia, lights, markers, markings, and signs etc., which can potentially lead to confusion.

#### **4.3 LRST composition and terms of reference**

4.3.1 Ideally, the LRST should include members from the following stakeholders:

- i) Aerodrome operators
- ii) Air Traffic Services (where available)
- iii) Commercial air operators
- iv) Representatives of flight crew operating at the aerodrome
- v) Members from general aviation community (where operating)
- vi) Ground handling agents (where appropriate)
- vii) Refueling organisations (where appropriate)
- viii) Any organisation or person that has access to the movement area.

4.3.2 The aerodrome operator/ATS Unit may also consider including representatives from other organisations or associations, as relevant to local aerodrome conditions, including:

- i) Technical experts of air traffic controller associations.
- ii) Technical experts of pilot associations.
- iii) Military operators (where joint use of aerodrome for civil and military operations take place).
- iv) Support services (that may operate on or close to a runway for offering ground services like follow-me operations, etc.).
- v) Emergency response service providers (e.g., ARFF, within the aerodrome).
- vi) Subject matter experts (where appropriate e.g. wildlife hazard experts) upon invitation.

4.3.3 The LRST should provide the aerodrome operator with strategies to mitigate risks associated with runway related occurrences. The LRST functions vital to achieving these objectives may include:

- i) analysis of safety data relating to the number, type, and, if available, severity of runway related occurrences
- ii) consideration of the outcomes of any investigation reports in order to identify local hot spots or problem areas at the aerodrome
- iii) working as a cohesive team to better understand the operating difficulties of personnel working in other areas and recommending areas for improvement
- iv) promoting recommendations for the prevention of runway related occurrences for implementation
- v) identification of any local problem areas and suggested improvements
- vi) supporting the conduct of runway safety awareness campaigns that focus on local issues, for example, producing and distributing local hot spot maps or other guidance material as considered necessary
- vii) regularly reviewing the aerodrome and runway operations to proactively identify any situation that may contribute to runway safety risks
- viii) open sharing of information and safety lessons learned across stakeholders to improve overall safety performance around and at aerodromes.

4.3.4 To ensure the success of an LRST attendees should be encouraged to participate regularly and actively. Changing representatives frequently may reduce the effectiveness of the team's performance.

4.3.5 The LRST should meet regularly, the frequency of meetings shall be determined by individual teams. The agenda for meetings should be adapted to suit local conditions and emerging trends.

#### **4.4 Runway safety events**

4.4.1 The LRST should endeavour to identify hazards associated with runway operations at the aerodrome and provide recommendations to the aerodrome operator on proposed safety measures to remove such hazards and mitigate residual risk. The LRST should cover a wide range of issues and hazards related to runway safety, including but not limited to, the following ICAO occurrence categories:

- i) abnormal runway contact
- ii) ground collision
- iii) ground handling incidents

- iv) runway confusion
- v) runway excursion
- vi) runway incursion
- vii) loss of control on ground
- viii) collision with obstacle(s)
- ix) undershoot / overshoot at an aerodrome
- x) high speed rejected take-off
- xi) wildlife events, including bird strike
- xii) damage from foreign object debris (FOD)

4.4.2 The range of runway safety issues an LRST may experience can vary between aerodromes. The objectives of the LRST should be adapted based on local conditions, the nature of aircraft operations at the aerodrome, the configuration of the movement area and prevailing causal factors.



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**Tanzania Civil Aviation Authority**