



APPENDIX A GUIDELINES FOR LOCAL RUNWAY SAFETY TEAMS

Introduction

Recommendation 3.1.1 At individual aerodromes, as designated by the Regulator, a Runway Safety Team should be established to lead action on local runway safety issues.

A Local Runway Safety Team should form a key element in the aerodrome runway safety programme and should ensure that a strong focus is maintained on runway safety across all parties creating, de facto, an aerodrome level safety management function. At some aerodromes cross-disciplinary teams may already exist that could carry out the functions of the Runway Safety Team, using a discrete runway safety agenda. If such teams are employed it is essential that their work is not duplicated; instead the work should be integrated as part of the aerodrome's runway safety action plan.

Role

The establishment of a Local Runway Safety Team is intended to facilitate effective local implementation of the recommendations contained in the European Action Plan for the Prevention of Runway Excursions and to stimulate proactive management of runway safety.

Specific objectives of a Local Runway Safety Team may be to:

- Identify potential runway safety issues by reviewing aerodrome practices regularly, and when relevant information is available, from incident investigation findings.
- Develop appropriate runway excursion risk prevention measures and creation of awareness of potential solutions;
- Advise management on runway safety issues and recommend mitigation measures;
- Create a plan containing action items for mitigating runway safety deficiencies. Action items should be aerodrome specific and linked to a runway safety concern, issue or problem at that aerodrome.

Local Runway Safety Team Composition

The team should consist of, as a minimum, representatives from the main groups associated with takeoff and landing operations, namely the Aerodrome Operator (which could include navigation aids engineers, infrastructure maintenance etc.) Meteorological Offices and Aeronautical Information Service Providers, representatives from the Air Navigation Service Provider, local Air Traffic Controller associations and pilots from Aircraft Operators, local pilot associations that operate at the aerodrome and other relevant organisations that operate on the manoeuvring area.

Terms of Reference

The terms of reference for a Local Runway Safety Team may be based around the framework of composition, role and tasks contained in this Appendix A. Several recommendations address specific tasks of Local Runway Safety Teams and are used in this guidance to highlight the importance of those activities.

Preparing a Runway Safety Programme for your aerodrome

A Local Runway Safety Team may contribute to the creation of a runway safety programme for their aerodrome. The programme should demonstrate consideration of runway and taxiway layout, traffic intensity and mix, and both visual and non-visual aids such as markings, lights, signs, radar, taxiway designations, ATS procedures, AIP information etc.

When preparing a runway safety programme for your aerodrome each action item should designate a responsible person or organisation for completing the relevant tasks. There may be more than one person or organisation affected by an action item; however, one person or organisation should take the lead and be responsible for the completion of all the tasks associated with the action item. A realistic time frame to accomplish the work should also be associated with each action item.

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The Local Runway Safety Team can also consider the local operating procedures employed by different companies at the aerodrome. One objective for a runway safety programme will be to create or enhance procedures that are integrated where necessary so as to minimise the risk of runway excursions. Extra care should be taken when examining existing or proposed runway capacity enhancing procedures or noise abatement schemes involving preferential runway systems.

Lessons learned from Local Runway Safety Team experience include writing a runway safety programme with the understanding that it may be unrealistic to expect flight crews to be familiar with local procedures. In addition, local difficulties may be encountered at aerodromes where ICAO provisions have not been respected.

The runway programme may contain the following items:

Compliant with ICAO Provisions

Recommendation 3.1.3 Confirm that all infrastructure, practices and procedures relating to runway operations are in compliance with ICAO provisions.

ICAO Standards and Recommended Practices (SARPS) are available to give the same consistent and predictable operations at any aerodrome in the world. However, some aerodromes do not comply with ICAO provisions and this increases the risk that pilots may not be familiar with local, unique procedures and practices.

Raise awareness of runway safety matters

Recommendation 3.1.2 A local runway safety awareness campaign should be initiated at each aerodrome for Air Traffic Controllers, Pilots and other personnel who operate on or near the runway. The awareness campaign should be periodically refreshed to maintain interest and operational awareness.

The Local Runway Safety Team should assist in keeping a spotlight on the subject of runway excursion prevention and to develop and run **local awareness campaigns**.

This can be achieved by ensuring that practices to prevent runway excursions are locally understood and applied, e.g. awareness of the behaviour of local weather including wind and gusts.

The Local Runway Safety Team can set up a user friendly email address to ease communication e.g. lrst@xyzairport.aa

The timing of awareness campaigns is important, making a runway safety briefing at the start of a busy season, or just before a period of weather that may increase the risk of a runway excursion can be helpful to all operational staff.

Local Runway Safety Teams can play a role in preparing the briefing pack for new users of an aerodrome, or for a new season.

Education and awareness of Local Runway Safety Team' achievements, can be communicated via training syllabi, newsletters, posters, stickers and the use of forums, on-line and in workshops.

Raise awareness of runway safety matters

Recommendation 3.1.4 Where practicable, ensure that specific joint training and familiarisation in the prevention of runway excursions, is provided to Pilots, Air Traffic Controllers and Aerodrome Operator staff. This may include visits to the manoeuvring area to increase awareness of markings, signage, and position of anemometers etc. where this is considered necessary.

Recommendation 3.1.5 Runway safety should be part of initial and recurrent training for operational staff e.g. Air Traffic Controllers, Pilots, Meteorology officers, NOTAM officers and all other personnel involved in manoeuvring area operations.

Training on runway safety matters may traditionally have been a supplement to core content training or European training syllabi for licensing and certification and included in the continuation training for air traffic controllers. Today there is an opportunity to include runway safety as part of the initial and recurrent training for all operational staff working on and around the manoeuvring area.

Technology

Technology is available to help to prevent runway excursions and may be considered to supplement good working practices by enhancing situational awareness and providing appropriate decision support information and alerts.

Information Sharing

Recommendation 3.1.6 All users of the aviation system should participate in safety information sharing networks and exchange relevant information on actual and potential safety deficiencies to ensure that runway safety risks are correctly identified and appropriately mitigated at each aerodrome.

ICAO says that all available safety recommendations of global interest to the civil aviation community, resulting from runway related accidents and incidents and their successful risk mitigations should be reported to ICAO using the normal reporting mechanism for the relevant organisations. ICAO Annex 13 emphasizes the need for lesson sharing:

“Exchange of safety information. 8.9 Recommendation.- States should promote the establishment of safety information sharing networks among all users of the aviation system and should facilitate the free exchange of information on actual and potential safety deficiencies.”

Runway Excursion definition

To enable the sharing of runway safety lessons a common understanding of runway excursion causal and contributory factors has been made using the following commonly agreed definition:

A runway excursion is the event in which an aircraft veers off or overruns the runway surface during either takeoff or landing (taken from ECCAIRS taxonomy and ICAO).

Understanding runway excursion risk allows individual aerodromes to manage it from their own unique perspective and as a collective contributor to the Air Traffic Management network.

Dissemination of Safety recommendations

A Local Runway Safety Team should ensure wide dissemination of the safety recommendations derived from accident and incident investigation findings as well as other relevant lessons learned, for example from operational experience, and best risk mitigation practices.

Communication Practices

Recommendation 3.2.5 Ensure robust procedures are in place for calculating temporary reduced declared distances e.g. due to work in progress on the runway. When reduced declared distances are in operation, ensure that the temporary markings, lighting and signs accurately portray the reduced distances and that they are well communicated, and transferred to States aeronautical information services for publication.

Recommendation 3.3.4 Review processes covering the provision of safety significant ‘essential’ information such as weather, wind and runway surface conditions (e.g. when ‘wet’ or contaminated):

- 4a. To ensure a consistent, timely and accurate broadcast of aerodrome information.
- 4b. To ensure the integrity of the safety significant information supply chain from the provider (e.g. Met Office/Aerodrome Operator) to ATC/AISP and on to the flight crew.
- 4c. Consider equipping for digital transmission of ATIS, as appropriate.
- 4d. Ensure that training on the use of ATIS/ D-ATIS is provided to relevant operational staff (ANSP/AISP).

Recommendation 3.3.5 Ensure that pilots in command/ flight crews are informed of the Takeoff Run Available (TORA) or the Landing Distance Available (LDA) if these differ from the published data using appropriate means.

Misunderstanding following a communication breakdown due to the use of non standard ICAO phraseology is found in many accident and incident reports. Communication at an aerodrome includes the written information found in the AIP, NOTAMS, SNOWTAMS and their electronic

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equivalents and ATIS / D-ATIS. Navigation aids, signs, marking and lighting are also an important provider of information to flight crew.

Tasks could also include, assisting in verifying that coordination between the support offices of the aircraft operator, aerodrome operator and air navigation service provider are satisfactory, or if any improvements could be suggested, an example would be to demonstrate the consistent accuracy of maps and charts in use by all organisations. More is said about this subject in Appendix D.

The inherent difficulties of communicating using R/T mean that local airspace design and associated procedures, aerodrome design, visual and navigation aids and infrastructure play an important part in reinforcing the intended instructions passed by the air traffic controller. More is said about this subject in Appendix C.

Change Management

Recommendation 3.1.7 Changes to manoeuvring area infrastructure, practices and procedures, including planned works must take account of runway safety and may require consultation with the local runway safety team. An adequate risk assessment should be the basis for procedural and/or infrastructural changes on the manoeuvring area.

Review proposed changes. Changes proposed to the navigational aids supporting landing on a specific runway and other relevant infrastructure in the light of runway excursion sensitivity must be reviewed and the aerodrome operators or building contractors advised to ensure e.g. that reduced runway lengths are correctly calculated.

Measure the effectiveness of operational solutions periodically. This can be accomplished by comparing the results of the initial analysis with current performance parameters e.g. the number of approaches flown compliant with the stabilised approach criteria.

It may be of interest to look at the regional and global picture for runway excursion numbers as it is rare that one aerodrome will have several to discuss in a short time frame. It is proposed that some members of a Local Runway Safety Team participate in safety case work, regarding changes to existing, procedures or infrastructure involving runways.

A summary list of possible tasks for a Local Runway Safety Team

- Monitor the number, type and the severity of runway excursions or their precursors;
- Identify any local problem areas and suggest improvements e.g. by sharing the outcome of investigation reports to establish local problem areas on the approach and / or at the aerodrome and workable mitigations with and for operational staff;
- Ensure that suitable data is available to provide evidence for making decisions;
- Analyse and understand the findings from incident and accident investigations in the local context;
- Take account of lessons learned from incidents and accidents related to runway safety issues from other aerodromes, as well as one's own aerodrome/organisation;
- Assess all landing and visual aids to check that they are correctly located, working to the appropriate standard and clearly visible where appropriate, to flight crews, in different weather and light conditions;
- Work as a cohesive team to better understand the operating difficulties of personnel who work in other areas and recommend areas for improvement;
- Ensure that the recommendations contained in the European Action Plan for the Prevention of Runway Excursions are implemented;
- Conduct a runway safety awareness campaign that focuses on local issues, and produce and distribute local awareness and guidance materials as considered necessary; and
- Review the airfield to ensure it is in accordance with ICAO Standards and Recommended Practices regularly e.g. navigation aids (e.g. ILS, AGL, PAPIs) and surface markings are provided to promote the appropriate use of the touchdown zone, especially where runway length is limited. All markings and signs should be adequate for and understandable by all parties, with no possible ambiguity of their meaning;
- Review the design of local airspace, associated procedures and approach and landing aids, are checked to be fit for purpose for all aircraft types;
- Ensure that processes and procedures are in place to communicate weather and runway condition reports in a meaningful and relevant timeframe for the flight crew.