Civil Aviation Authority

Local Runway Safety Team Self-Audit Questions based on the Recommendations in the European Action Plan for the Prevention of Runway Incursions (Edition 2)

INTRODUCTION:

The European Action Plan for the Prevention of Runway Incursions, Edition 2, has recently been published and is available online at http://www.eurocontrol.int/documents/european-action-plan-prevention-runway-incursions.

Edition 2 of the Action Plan has been revised to include further recommendations and new guidance in the various appendices.

The Action Plan contains a number of recommendations and best practice guidance for the prevention of runway incursions. One key recommendation is to establish a Local Runway Safety Team (LRST) or equivalent. The role of the LRST should be to advise the appropriate management on potential runway safety issues and to recommend mitigating measures. Appendix B of the Action Plan contains detailed guidance on LRSTs.

The recommendations in the Action Plan are intended for all stakeholders involved in runway safety and cover aerodrome operators, aircraft operators, air navigation service providers and regulators. Although this document is specifically targeted on the recommendations relevant to aerodrome operators, LRSTs should be fully aware of all the recommendations made in the Action Plan.

ACTION REQUIRED:

Through their LRSTs, aerodrome operators should review the recommendations and the expanded self-audit questions below and carry out a gap analysis to ensure that their aerodrome has implemented ***as many of the recommendations as possible*** to the fullest extent.

If you have any comments or suggestions or would like further information, please contact your Aerodrome Inspector or James Eales, Aerodrome Standards Specialist, Aerodrome and Air Traffic Standards Division, via james.eales@caa.co.uk.

Recommendation from the 1.1 General Principles section of the EAPPRI2

Recommendation 1.1.1

At individual aerodromes, as designated by the Regulator, a Runway Safety Team should be established and maintained to lead action on local runway safety issues. (NOTE: In the UK all licensed aerodromes must have a LRST or equivalent.)

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Has a Local Runway Safety Team (LRST) or equivalent been established at your aerodrome?		[Show as ONGOING/ COMPLETED/ Target Date]	
Are there Terms of Reference for the LRST similar to those found in EAPPRI2 (page B2)?			
As a minimum does the LRST comprise representatives from aerodrome operations, aerodrome fire service, aerodrome engineering, ground handling, the air navigation service provider or local air traffic control and aircraft operators or local pilot associations?			
Does the LRST regularly liaise with third party operators at the aerodrome, including baggage handling, catering, fuelling or any other third party that has access to the manoeuvring area?			
Does the LRST meet regularly and are the minutes and actions from the meetings recorded?			
Do all operational staff know about the LRST and how to contact it?			
Does the LRST have any contact with airlines using the aerodrome so that appropriate safety information can be shared?			
Would the LRST consider allowing the CAA to publish the minutes or other runway safety promotional material on the CAA Runway Safety Website to allow others to see how the team operates and share safety information?			

Recommendation 1.1.2

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

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Has your LRST run a local runway safety awareness campaign recently?			
Does your LRST publish runway safety data or runway safety information for all aerodrome stakeholders on a regular basis as part of a local runway safety awareness campaign?			
Does your LRST use de-identified incidents involving runway incursions either from your own aerodrome or others to highlight the issues surrounding runway incursions?			

Recommendation 1.1.3

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

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does your aerodrome have any variations or features that could increase the likelihood of a runway incursion?			
Has your LRST identified any hot spot areas that should be promulgated through the AIP? See CAP 168, Appendix 2D for detailed guidance on hot spots. http://www.caa.co.uk/cap168			
Has the LRST reviewed the aerodrome AIP entry for accuracy?			
Do aerodrome charts accurately reflect AIP information and does hot spot information appear on aerodrome charts used by pilots?			

Recommendation 1.1.4

Where practical, ensure that specific joint training and familiarisation in the prevention of runway incursions is provided to Pilots, Air Traffic Controllers and Manoeuvring Area Vehicle Drivers. This may include visits to the manoeuvring area to increase awareness of signage and layout where necessary.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does your LRST carry out any specific joint training and familiarisation in the prevention of runway incursions?			
Does your LRST carry out van runs, involving Pilots, Air Traffic Controllers, Vehicle Drivers and Aerodrome Operations personnel, at your aerodrome on a regular basis to identify areas or issues that could lead to a runway incursion?			
Has your LRST reviewed Appendix K of EAPPRI2 to identify any infrastructure design issues at the aerodrome?			

Recommendation 1.1.5

Runway Safety should be part of initial and recurrent training for operational staff e.g. Air Traffic Controllers. Pilots, Manoeuvring Area Vehicle Drivers and all other personnel involved in manoeuvring area operations.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does your LRST or aerodrome carry out any initial runway safety training specifically regarding the prevention of runway incursions for new operational staff?			
Does your LRST or aerodrome carry out any recurrent runway safety training specifically regarding the prevention of runway incursions for all operational staff?			

Recommendation 1.1.6

Ensure that adequate information is collected on all runway incursion incidents so that causal and contributory factors can be identified, lessons can be learned and disseminated for Units, Organisations, National and European regional benefit e.g. in case studies created for training purposes.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Do all operational staff using the aerodrome know how to report safety issues related to runway incursions?			
Is data routinely collected regarding all runway incursion incidents?			
Is that data reviewed so that causal and contributory factors can be identified?			
Is that data reviewed specifically by the LRST?			
Is that data shared with operational staff so that lessons can be learned?			

Recommendation 1.1.7

Changes to manoeuvring area 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.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Is your LRST consulted when changes to manoeuvring area practices and procedures, including planned works are made?			
Does your LRST participate in or review risk assessments regarding procedural and/or infrastructural changes on the manoeuvring area?			
When changes have been made does the LRST carry out a van run to try to identify areas or issues related to the changes that could lead to a runway incursion?			
Does the LRST help ensure that the changes are clearly promulgated to operational staff and aerodrome stakeholders and encourage the reporting of any subsequent issues related to the changes?			

Recommendations from the 1.2 Aerodrome Operator Issues section of the EAPPRI2

Recommendation 1.2.1

Verify the implementation of ICAO Annex 14 provisions and implement maintenance programmes relating to runway operations e.g. markings, lighting, and signage. Ensure that signs and markings are clearly visible, adequate and unambiguous in all relevant conditions.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Do all taxiway markings related to runway operations comply with CAP 168, Chapter 7, paragraph 4?			
Are all taxiway designations logical to pilots unfamiliar with the aerodrome?			
Are all taxiway markings unambiguous in all conditions?			
Are runway-taxi holding position markings clearly visible in all conditions at every taxiway/runway intersection?			
Does your aerodrome use the mandatory instruction markings as part of runway incursion prevention? (CAP 168, Chapter 7, paragraph 4.7.)			
Does your aerodrome use the enhanced taxiway centreline markings as part of runway incursion prevention? (CAP 168, Chapter 7, paragraph 4.6.7.)			
Does your aerodrome use the runway ahead markings as part of runway incursion prevention? (CAP 168, Chapter 2, Appendix 2D.)			
Is there a maintenance programme to ensure that all markings remain clearly visible at all times?			

Recommendation 1.2.1 ctd/...	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does all Aeronautical Ground Lighting (AGL) related to runway operations comply with CAP 168, Chapter 6?			
Is all AGL unambiguous in all conditions?			
Are runway guard lights used as per CAP 168, Chapter 6, paragraph 6.5?			
Are runway guard lights in operation 24 hours a day in all lighting conditions where appropriate?			
In order to use runway guard lights in all lighting conditions, have LED light fittings been considered?			
On wide taxiways have inset unidirectional lights been considered as per CAP 168, Chapter 6, paragraph 6.5.4?			
Are stop-bar lights used as per CAP 168, Chapter 6, paragraph 6.3?			
Are stop-bar lights used 24 hours a day in all lighting conditions where appropriate?			
In order to use stop-bar lights in all lighting conditions, have LED light fittings been considered?			
Are the stop bars lights installed at reduced spacing to enhance visual conspicuity?			
Is there a maintenance programme to ensure that all AGL remain clearly visible at all times?			

Recommendation 1.2.1 ctd/...	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does all signage related to runway operations comply with CAP 168, Chapter 7, paragraph 3?			
Are all signs unambiguous in all conditions?			
Does the aerodrome use Runway Vacated signs?			

Recommendation 1.2.2

Works in progress - Ensure that information about temporary work areas is adequately disseminated and that temporary signs and markings are clearly visible, adequate and unambiguous in all relevant conditions.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Is your LRST consulted prior to works starting to review runway incursion implications?			
Is your LRST consulted following works being completed to confirm no additional runway incursion risks have been inadvertently created?			
When temporary changes have been made does your LRST carry out a van run to try to identify areas or issues related to the changes that could lead to a runway incursion?			

Recommendation 1.2.3

Implement safety management systems in accordance with ICAO provisions.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Has your LRST participated in any risk assessments related to runway incursions?			
Does your aerodrome measure any Safety Performance Indicators related to runway incursions?			

Recommendation 1.2.4

Ensure a continued focus on runway safety in internal audits.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Has your LRST participated in any internal audits related to runway incursions?			

Recommendation 1.2.5

Introduce a formal driver training and assessment programme, or where already in place review against driver training guidelines.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does your aerodrome have a formal driver training and assessment programme in place similar to the EAPPRI2, Appendix C?			

Recommendation 1.2.6

Introduce formal communications training and assessment for drivers and other personnel who operate on or near the runway.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does your aerodrome have a formal communications training and assessment programme in place for vehicle drivers?			
Are copies of Supplement to CAP 413 'A Reference Guide to UK Phraseology' available to drivers? This guide is available at http://www.caa.co.uk/cap413supplement.			

Recommendation 1.2.7

Implement the ICAO standard naming convention for the manoeuvring area to eliminate ground navigation error and communication confusion.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Do all taxiway designations comply with CAP 168, Chapter 7, paragraph 3.2.1? Further guidance is contained in the EAPPRI2, Appendix K.			

Recommendation 1.2.8

Ensure all vehicles on the manoeuvring area are in radio contact with the appropriate Air Traffic Control service, i.e. ground and/or the tower either directly or through an escort, including emergency services.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Are all vehicles on the manoeuvring area in radio contact with the appropriate Air Traffic Control service, i.e. ground and/or the tower either directly or through an escort, including emergency services?			

Recommendation 1.2.9

Ensure all manoeuvring area vehicle drivers are briefed at the start of a shift and that situational awareness is maintained throughout the shift.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Are all manoeuvring area vehicle drivers briefed at the start of a shift regarding any relevant changes on the aerodrome, updated regarding any work in progress and made aware of any other pertinent information to raise situational awareness regarding runway incursions?			

Recommendation 1.2.10

Enable the tracking of vehicle movements on the manoeuvring area when possible.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Are all of vehicle movements on the manoeuvring area tracked where possible?			

Recommendation 1.2.11

Ensure that a policy and robust procedure for runway inspections are in place. Example – Identify any potential safety benefits of carrying out runway inspections in the opposite direction to runway movements and if appropriate adopt the procedure.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does your aerodrome have a policy and robust procedures in place for runway inspections?			

Recommendation 1.2.12

New aerodrome infrastructure and changes to existing infrastructure should be designed to prevent runway incursions.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
When new aerodrome infrastructure is added or changes are made to existing infrastructure, are design implications to reduce runway incursions considered?			
Has your LRST reviewed the design guidance in the EAPPRI2, Appendix K, to assess whether any feasible changes can be made to the aerodrome infrastructure to reduce the likelihood of a runway incursion in the short term?			

Recommendation 1.2.13

The aerodrome operator should ensure that a procedure exists and manoeuvring area drivers are trained for those occasions where they become uncertain of their position on the manoeuvring area.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does your aerodrome have a robust procedure for vehicle drivers to adopt if they become lost or temporarily unaware of their position on the manoeuvring area?			
Is the ‘lost or temporarily unaware of position’ procedure included in any new or recurrent driver training?			

Recommendation 1.2.14

Avoid infringing lines of sight from the air traffic control tower. Assess visibility restrictions from the tower, which have a potential impact on the ability to see the manoeuvring area. Recommend improvement to restricted lines of sight and develop appropriate mitigation measures. Disseminate this information as appropriate.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Has your aerodrome been assessed for any infringing lines of sight from the air traffic control tower?			

Recommendation 1.2.15

Regularly review the operational use of aeronautical ground lighting e.g. stop bars, to ensure a robust policy to protect the runway.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does your aerodrome use stop bar lights 24 hours a day in all lighting conditions where appropriate?			
Has your aerodrome's policy on the use of red stop bars been promulgated to all aerodrome stakeholders?			
Has your aerodrome considered any other form of runway incursion prevention warning system?			

Recommendation 1.2.16

Manoeuvring area vehicle drivers shall not cross illuminated red lights, e.g. stop bars, when entering or crossing a runway, unless contingency procedures are in force, i.e. to cover cases where the stop bars or controls are unserviceable. The period that a stop bar is out of service must be time limited.

	ACTIONS CARRIED OUT/ACTION REQUIRED	STATUS/TARGET DATE	RESPONSIBLE
Does your aerodrome have a robust procedure for pilots and vehicle drivers regarding NOT crossing illuminated red stop bars?			
Does your aerodrome have robust procedures in the event of a stop bar failure?			
Does your aerodrome have a limit on the time a stop bar may be out of service?			