Evolution of EAPPRI and the new safety recommendations

EAPPRI implementation seminar
Lisbon, 18 October 2018

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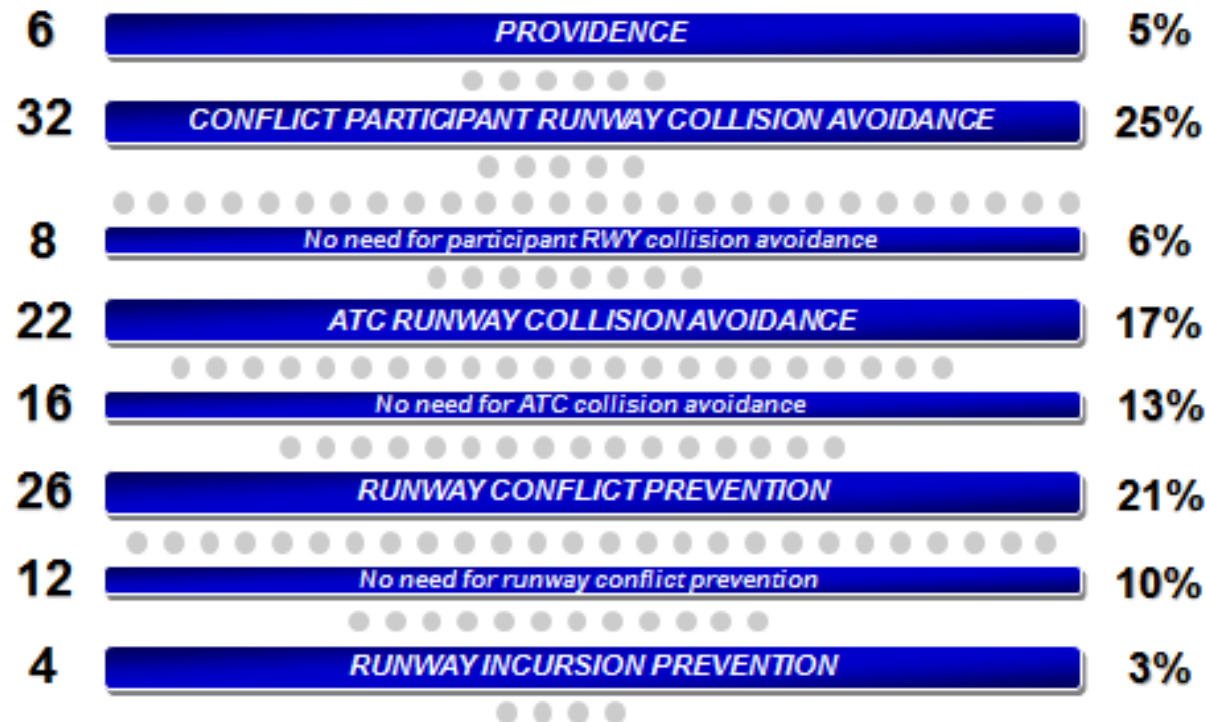
Scope

➢ EAPPRI v3.0

    ➢ Why an Action plan?

    ➢ Action plan evolution

    ➢ Action plan scope

    ➢ New recommendations

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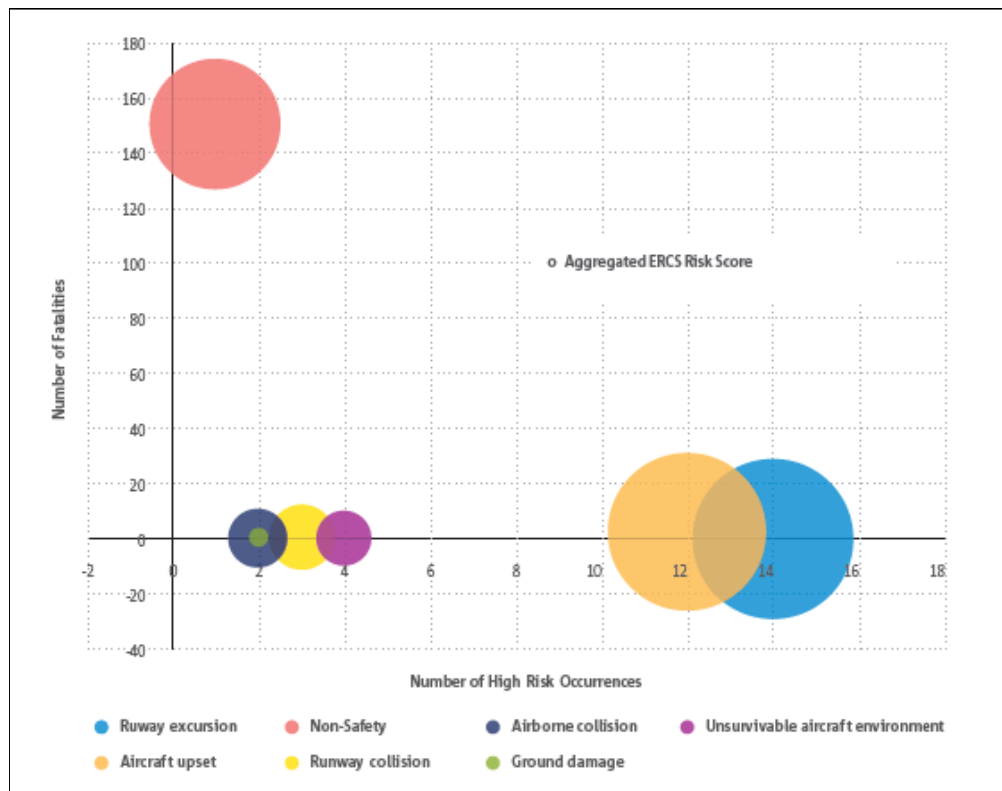# EUROCONTROL - RI part of NM TOP 5 risks

6	PROVIDENCE	5%
32	CONFLICT PARTICIPANT RUNWAY COLLISION AVOIDANCE	25%
8	No need for participant RWY collision avoidance	6%
22	ATC RUNWAY COLLISION AVOIDANCE	17%
16	No need for ATC collision avoidance	13%
26	RUNWAY CONFLICT PREVENTION	21%
12	No need for runway conflict prevention	10%
4	RUNWAY INCURSION PREVENTION	3%

126 European RI incidents in 2013-2015

EASA Annual Safety Review 2017

- ➤ Runway collision identified as one of the 6 priority key risk areas for CAT operations

- ➤ Runway collision identified as one of the 7 priority key risk areas for aerodrome and ground handling

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European Plan for Aviation Safety (EPAS)

➤ Runway excursions and collisions - one of the Top 2 risk areas for CAT operations

➤ EPAS RWY safety goal: Continuously assess and improve risk controls to mitigate the risk of REs and RIs.

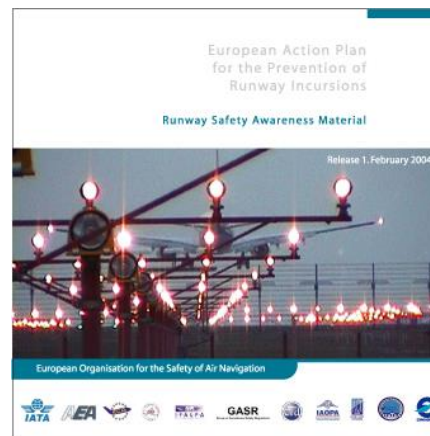➤ MST.014: Include runway incursions in national SSPs
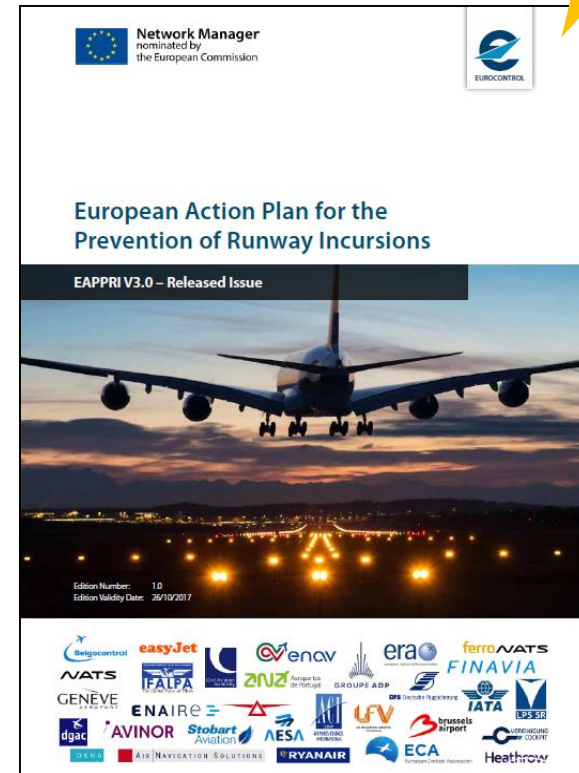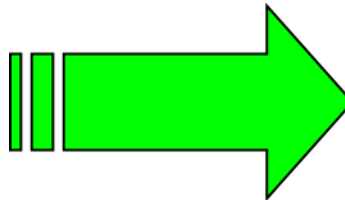
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EAPPRI – A brief history

Linate 2001

2003

2004

2011

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BUT, EAPPRI LIVES!

EAPPRI drivers of change

Political	SES II, EU performance management (Risk Assessment Tool (RAT) for runway incursions)
Economic	Aerodrome capacity constraints, runway throughput/ pressure, fuel efficiency
Social	Increasing mobility, demand, public expectations (safety levels)
Technological	Aerodrome Safety Nets: A-SMGCS, Runway Status Lights ATC Safety Nets (SESAR), datalink. Aircraft Operator Safety Nets: RAAS Future: Remote Tower, drones/RPAS
Legal	New ICAO SARPS (Annex 14) and EU regulations and requirements (e.g. aerodrome certification, SMS)
Environmental	Noise abatement – sub optimal runway configurations

EAPPRI 3.0
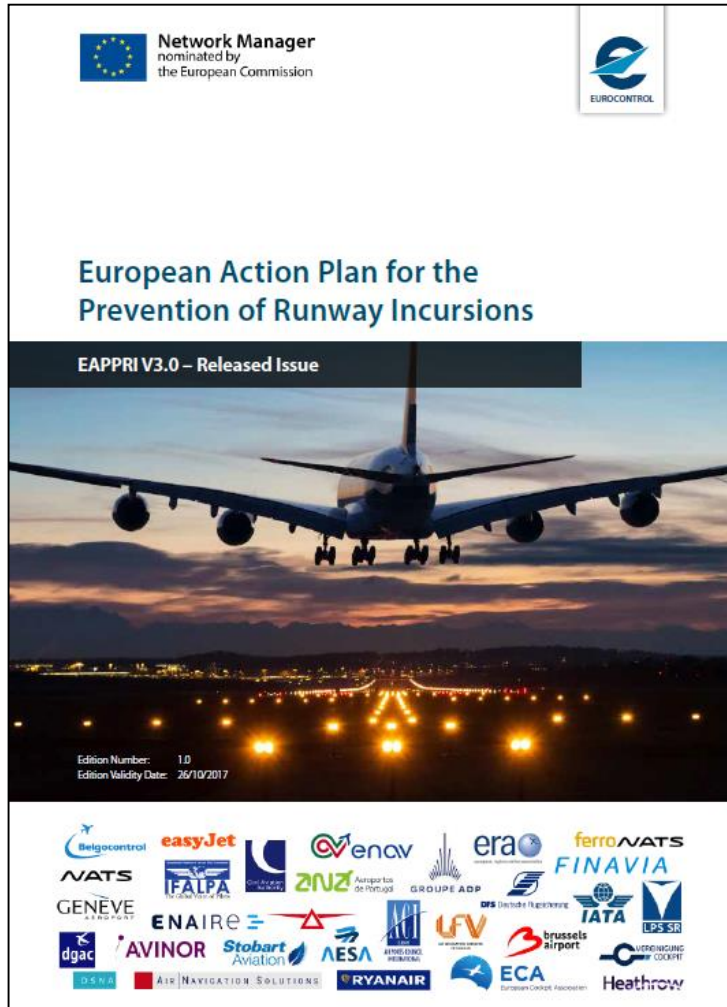
EAPPRI 3.0 launched at ICAO GRSS

- ➢ Published in November 2017

- ➢ "From industry for industry"

- ➢ Reviewed and substantially updated

- ➢ 104 safety recommendations in total

- ➢ More than 25 new recommendations

- ➢ New implementation guidance material

EAPPRI 3.0 – New Recommendations

European Action Plan for the Prevention of Runway Incursions v3.0 (EAPPRI v3.0) new Recommendations

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SECTION

General Principles

(applies to Air Navigation Service Provider, Aircraft Operator, Aerodrome Operator)

GP1
Assess effectiveness of SMS (with regard to runway safety/ runway incursion prevention)

Rationale:
SMS should have been implemented law ICAO and EU provisions; however, in spirit of continuous improvement, re-assess all aspects of SMS related to runway safety (in particular runway incursion prevention) and ensure optimisation

GP2
Continue to develop components of SMS and move towards a data driven, performance based safety-system approach with an emphasis on safety assurance and identifying best practice and signs of excellence

Rationale:
Ensure a proactive approach; learn from "what goes right" as well as "what goes wrong" in line with Safety-II philosophy

GP3a
Assess effectiveness of aerodrome local Runway Safety Team (RST), how it works and consider how it can be improved

Rationale:
Aerodrome local RST should have been established law with ICAO guidance and EU regulation; however, in the spirit of continuous improvement, confirm that working arrangements are optimal. Check role, terms of reference, composition, frequency, tasks and outputs

GP3b
Assess effectiveness of runway safety awareness campaigns

Rationale:
In conjunction with GP3a above, specifically re-assess safety awareness campaigns established at each aerodrome. Consider format, method of delivery, frequency and feedback

GP4
European stakeholders should work together to study the interpretation of the ICAO runway incursion definition with the aim of improving the consistency and credibility of runway incursion reporting via appropriate regulatory channels

Rationale:
Still widespread disparity in interpretation of ICAO runway incursion definition. Improve consistency and credibility of runway incursion reporting

Note:
All runway safety related events should be reported and investigated as necessary

- ➢ Development of SMS (data driven, performance based)

- ➢ Effectiveness of SMS

- ➢ Effectiveness of runway safety team

- ➢ Effectiveness runway safety campaigns

- ➢ Runway incursion definition interpretation

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EAPPRI 3.0 – New Recommendations

European Action Plan for the Prevention of Runway Incursions v3.0 (EAPPRI v3.0) new Recommendations

SECTION
Aerodrome Operator (Ad Op)

Ad Op 1
Ensure briefing and supervision of external aerodrome construction contractors' drivers and other personnel working on the airfield

Rationale:
External contractors may not be runway safety 'aware'; important to ensure that they are properly briefed and supervised

Ad Op 2
Carry out regular audits of airside driving permits (e.g. check 'recency' of use) in particular those allowing access to the runways, which should be as few as possible

Rationale:
Best practice to ensure access to runways is kept as low as possible

Ad Op 3
Promote the adoption of 'sterile cab' procedures when on the manoeuvring area

Rationale:
Aerodrome local RST should have been established iaw with ICAO guidance and EU regulation; however, in the spirit of continuous improvement, confirm that working arrangements are optimal. Check role, terms of reference, composition, frequency, tasks and outputs

Ad Op 4
Identify aerodrome Protected Areas and produce a map for drivers

Rationale:
Improve drivers' situational awareness. Assist in interpretation of runway incursion definition

Ad Op 5
Assess the numbering/naming policy for aerodrome vehicles and consider assignment of unique numbers/ names for each airside vehicle

Rationale:
Best practice measure to clarify the role of airside vehicles (e.g. Fire One (or similar) is always the Chief Fire Officer) and reduce risk of vehicle related call sign confusion

Ad Op 6
Recommendation AD Op 6 : Closely spaced multiple parallel runway holding positions on the same taxiway should be avoided.

Rationale:
Wide (nonstandard) taxiway entrances reduce the effectiveness of signs and markings as aids to prevent ground routing error and the infringement of the runway protections

- ➢ Aerodrome contractors
- ➢ Runway driver audit checks
- ➢ "Sterile" cab
- ➢ "Ops Normal" calls (with ATC)
- ➢ RWY protected Area Map
- ➢ Vehicle naming/numbering policy
- ➢ Closely spaced parallel holding positions
- ➢ H24 Stop Bars or equivalent means (with ATC)
  - ➢ Elevated lights

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SECTION
Aircraft Operator

AO1
If received significantly early, flight crew should confirm with ATC the line-up/take-off or crossing clearance when approaching the runway holding position.

Rationale:
Aims to reduce RIs caused by pilots not remembering if they have clearance (or not) to enter the runway. Complementary Recommendation for ANSPs not to give clearance too early.

AO 2
Flight crew should consider to confirm Landing clearance on short final, if ATC issued it more than 5 nautical miles from touch down.

Rationale:
Aims to reduce RIs caused by pilots not remembering if they have clearance (or not) to land. Complementary Recommendation for ANSPs not to give clearance too early.

AO 3
Ensure that crews are aware of the significance of red lights (e.g. stop bars and other red lights) used in line with alerting systems to prevent incorrect entry onto a runway and to enhance situational awareness.

Rationale:
Takes account of introduction of runway status lights in Europe.

AO 4
Pilots shall only apply EOT procedure after careful consideration of local and operational circumstances so as to avoid a conflict with the sterile cockpit procedures.

Rationale:
EOT could potentially be a distraction; aim is to maintain a sterile cockpit as far as practicable.

➢ Early take-off/landing clearance

➢ Aerodrome red lights (e.g. RWSL)

➢ Engine Out Taxi

EAPPRI 3.0 – New Recommendations

European Action Plan for the Prevention of Runway Incursions v3.0 (EAPPRI v3.0) new Recommendations

SECTION
ANSPs
(also applies to Aerodrome Operator for ANSP 1, 2 and 3)

- ➤ H24 Stop Bars or equivalent means
  - ➤ Review contingency
- ➤ "HOLD POSITION" phraseology
- ➤ Runway occupancy status
- ➤ Ops Normal" calls (with ATC)
- ➤ Conditional clearances
- ➤ Early take-off and landing clearances
- ➤ HMI and Controller Working Positions
  - ➤ Facilitate improved scanning & ''Heads up"
  - ➤ Vacating aircraft

EAPPRI 3.0 – New Recommendations

European Action Plan for the Prevention of Runway Incursions v3.0 (EAPPRI v3.0) new Recommendations

SECTION

AIM

(Applies to AIM Providers, ANSPs, Aircraft Operators, Aerodrome Operators)

AIM 1
Provide information on aerodrome conditions that is simple to understand and focused on what is operationally usable, expressed in a standardised manner on format and content

AIM 2
Provide information on temporary changes to operating conditions at the aerodrome that is optimized/focussed to increase the situational awareness of the most critical changes. When needed, AIP Supplement with graphics and charts should be published. For planned temporary changes, issuance of NOTAM with short notice ahead of the effective date or non-AIRAC publications should be avoided

Rationale:
Ever expanding volume of aerodrome AIM data created. Need to simplify and better target safety-critical information for flight crews

➤ Simplify NOTAM information/data

    ➤ Enhance readability/usability

➤ Move to digitise data for graphical display of NOTAM

EAPPRI 3.0 – New Recommendations

European Action Plan for the Prevention of Runway Incursions v3.0 (EAPPRI v3.0) new Recommendations

SECTION
Regulator
(also applies to Aerodrome Operator for ANSP 1, 2 and 3)

➢ Assess operators' SMS

    ➢ Performance and risk based

➢ RI prevention in State Safety Plans

➢ National runway safety teams

➢ Promotion of EAPPRI v3.0

➢ Aerodrome local runway safety team

EAPPRI 3.0 – New Recommendations

- ➤ Emerging technologies

  - ➤ Authorised RPAS/drone use on airports

  - ➤ Remote Tower technologies

SKYclips for runway safety promotion

SKYclips - short animation videos available on SKYbrary:
http://www.skybrary.aero/index.php/Solutions:SKYclips
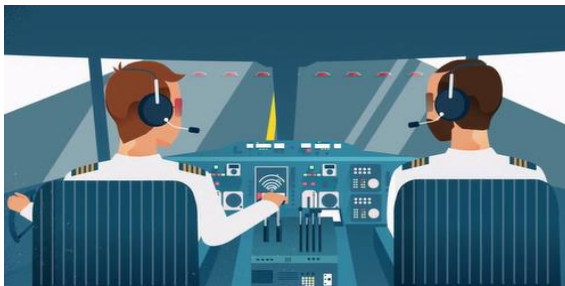
Stop Bars

Conditional
Clearance

Landing Without Clearance

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EAPPRI Implementation support
SKYclips

Under development
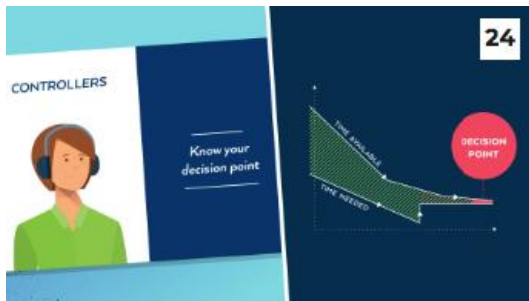
Low Level Go Around

Low Visibility Take-Off
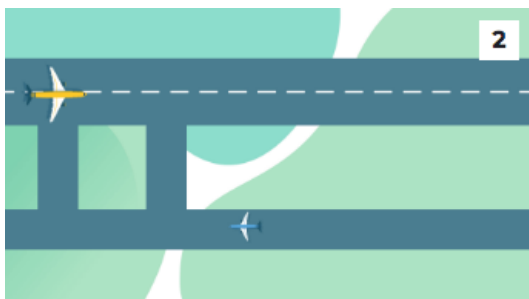
Immediate Departure

Airside Driving

Training Opportunities - EUROCONTROL Institute of Air Navigation Services (IANS)

Course dates 2018

12-16 November

http://www.eurocontrol.int/sites/default/files/publication/files/2018-training-brochure.pdf

More safety knowledge?

Questions?