



**The International Civil Aviation Organization Eastern and Southern African Office
in Conjunction with the Kenya Civil Aviation Authority**

Loss of Control-in Flight (LOC-I) Symposium, Nairobi, Kenya, 22-24 June 2015

THE WAY FORWARD

1. UPSET PREVENTION AND RECOVERY TRAINING (UPRT)

UPRT Outcome No.	Topic	Proposed Deadline*	Deliverable(s)	Responsibility
1.	Transpose in specific operating regulations new SARPs on UPRT.	31 Dec 2015	Amendments to PEL and OPS regulations.	CAAs
2.	Establish UPRT training programmes including training tasks.	1 July 2016	UPRT training programmes including training tasks.	ATOs, AOs, IATA
3.	Training of UPRT instructors and CAAs inspectors should be enhanced.	31Dec 2016	Training of UPRT instructors and CAAs inspectors.	ATOs, AOs, CAAs
4.	Provide on-airplane UPRT for a selected core group of instructors.	31 Dec 2016	On-airplane UPRT for a selected core group of instructors.	ATOs, AOs, CAAs, RSOOs
5.	Standardize training and avoid negative training.	31 Oct 2016	Standardized training.	ATOs, AOs, CAAs, AATO, CASSOA
6.	Train for proficiency and avoid checking for UPRT.	31 Dec 2015	<ul style="list-style-type: none"> Amendments to PEL and OPS regulations (for CAAs). 	ATOs, AOs, CAAs

UPRT Outcome No.	Topic	Proposed Deadline*	Deliverable(s)	Responsibility
		31Dec 2016	<ul style="list-style-type: none"> • Training of UPRT instructors and CAAs inspectors. 	
7.	Consider that startle can only be rendered on on-airplane training.	31 July 2017	Inclusion of startle factor by providing minimum on-airplane training.	ATOs, AOs, CAAs
8.	Upgrade current FSTDs to incorporate proper modelling of full flight envelope and instructor tools to provide feedback for pilot performance.	Refer to UPRT Outcome N° 24	Refer to UPRT Outcome N° 24.	ATOs, AOs
9.	Take into account smaller turboprop (non-swept wing) airplanes in UPRT.	31Dec 2016	To apply best practices (while waiting for ICAO to develop additional guidance material).	ATOs, AOs, CAAs, ICAO
10.	Establish adequate operational control for relevant training organizations.	31 Dec 2015	<ul style="list-style-type: none"> • Operational control organization, means, processes and procedures for ATOs. • Inspectors' procedures for CAAs. 	ATOs, CAAs
11.	Address all type of stalls including tail stall.	1 July 2016	UPRT training programmes including training tasks.	ATOs, AOs
12.	Training for high speed stall as a priority.	1 July 2016	UPRT training programmes including training tasks.	ATOs, AOs
13.	Strike a balance between use of automation and stick and rudder.	1 July 2016	UPRT training programmes including training tasks.	ATOs, AOs

UPRT Outcome No.	Topic	Proposed Deadline*	Deliverable(s)	Responsibility
14.	Improve pilots aptitude testing and hiring processes and procedures.	31Jan 2016	Enhancement of pilots aptitude testing and hiring processes and procedures.	AOs
15.	Properly address UPRT in CRM training.	31Jan 2016	Inclusion of UPRT in CRM training.	AOs
16.	Harness assistance from airlines which have implemented UPRT, like Kenya Airways and South African Airways.	28 Feb 2016	<ul style="list-style-type: none"> • Best practices • MoUs, MoCs. 	ICAO, ATOs, AOs, CAAs, RSOOs
17.	Foster cooperation through regional organizations and regional economic communities.	31 July 2016	<ul style="list-style-type: none"> • Regional arrangements. • MoUs. 	Champion
18.	Gain support from the industry and other stakeholders including insurance underwriters.	31Oct 2015	<ul style="list-style-type: none"> • Letters to Industry and other stakeholders for support. • Letters to Insurance underwriters for support. 	AFRAA, IATA, AOs
19.	Promote champions for industry best practices.	31 Jan 2016	Designation of Champions.	Champion, AOs, CAAs
20.	Share information on LOC-I and UPRT.	31 Jan 2016	Processes and procedures for sharing of information established.	Champion, All stakeholders
21.	Build African capacity and expertise.	Refer to UPRT Outcomes N ^o 3 and 4	Refer to UPRT Outcomes N ^o 3 and 4.	ATOs, AOs, CAAs, AFRAA, Champion
22.	Establish a Regional UPRT training organization fitted, in particular, with adequate FSTDs.	1 Jan 2016 1 March 2017	<ul style="list-style-type: none"> • Letters to stakeholders. • Inception. 	ATOs, AOs, CAAs, AFRAA, IATA, AATO

UPRT Outcome No.	Topic	Proposed Deadline*	Deliverable(s)	Responsibility
23.	Establish a five years implementation plan for regulatory oversight of UPRT is essential.	30 Nov 2015	Five years implementation plan for regulatory oversight of UPRT.	ICAO, CAAs
24.	Establish a five years implementation plan for the establishment of training means and provision of training in UPRT is essential.	31 Jan 2016	Five years implementation plan for the establishment of training means and provision of training in UPRT.	ATOs, AOs, IATA, CAAs
25.	Evaluate the training gaps given the current curriculum for pilots and define priorities and sequencing for the training.	31 May 2016	Training gaps and training priorities	ATOs, AOs, CAAs, IATA
26.	Improve CAAs' approval systems for training organizations including simulators' approvals, training and procedures manual, quality systems and safety management systems.	31 Jan 2016	Approval processes and procedures.	CAAs
27.	Improve approval of air operator training programmes including ensuring consistency of the applied one with air operator flight safety documents system.	31 Jan 2016	Approval processes and procedures.	CAAs
28.	Evaluate the impact of training on special operations related to the AOC and make necessary enhancements to take into account UPRT.	31 May 2016	Approval processes and procedures.	CAAs
29.	Assess aircraft capabilities and limitations for on-airplane training.	31 Dec 2016	Procedures.	ATOs, AOs, CAAs

UPRT Outcome No.	Topic	Proposed Deadline*	Deliverable(s)	Responsibility
30.	Avoid using multi-engine airplane for on-airplane training.	31 Dec 2016	Procedures.	ATOs, AOs, CAAs
31.	Take into account safety risks derived from flight data analysis and safety management systems for recurrent training.	1 July 2016	UPRT training programmes including training tasks.	AOs, CAAs, IATA

2. OTHER MITIGATION MEASURES FOR LOC-I

Mitigation Outcome No.	Topic	Proposed Deadline*	Deliverable(s)	Responsibility
1.	Promotion of countermeasures for other safety issues and contributory factors to LOC-I accidents.	28 Feb 2016	<ul style="list-style-type: none"> • Correspondences. • Information on best practices. 	Champion, ATOs, AOs, CAAs
2.	Define beside the Abuja high level safety target of reducing LOC-I related accidents, subsidiary parameters in order to assess progress made in LOC-I implementation plan.	30 Nov 2015	Subsidiary target parameters for LOC-I	ICAO ESAF
3.	Oversee proper implementation of flight crew duty limitation and fatigue risk management systems.	31 March 2016	<ul style="list-style-type: none"> • Procedures for CAAs inspectors. • Processes and procedures of the AOs. 	AOs, CAAs
4.	Sensitize flight crew on effects of medications.	31 March 2016	<ul style="list-style-type: none"> • Procedures for CAAs inspectors. 	AOs, CAAs

Mitigation Outcome No.	Topic	Proposed Deadline*	Deliverable(s)	Responsibility
			<ul style="list-style-type: none"> Processes and procedures of the AOs. 	
5.	Analyze in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk	31 March 2016	<ul style="list-style-type: none"> Procedures for designated medical examiners. Procedures for CAAs medical assessors. Processes and procedures of the AOs. 	AOs, CAAs
6.	Establish adequate operational control and flight planning for the air operators.	31 March 2016	<ul style="list-style-type: none"> Procedures for air operators certification and surveillance by CAAs. Adequate air operators organization for operational control and flight planning. 	AOs, CAAs
7.	Properly train flight operational officers/flight dispatchers.	30 June 2016	<ul style="list-style-type: none"> Training programmes for FOOs. Procedures for approval of training. Programmes for FOOs, instructors and examiners. 	AOs, CAAs
8.	Establish and implement procedures for the carriage of dangerous goods.	30 June 2016	Procedures for dangerous goods.	AOs, CAAs

Mitigation Outcome No.	Topic	Proposed Deadline*	Deliverable(s)	Responsibility
9.	Address LOC-I issues in managing cases of unlawful interference.	31 July 2016	<ul style="list-style-type: none"> • Coordination. • Procedures. 	AOs, CAAs, ICAO
10.	Address LOC-I issues in regard to air traffic management.	31 July 2016	<ul style="list-style-type: none"> • Coordination. • Procedures. 	AOs, CAAs, ICAO
11.	Properly address and in a timely manner airworthiness/maintenance issues relating to critical parts/components/systems of the airplanes.	30 June 2016	<ul style="list-style-type: none"> • Identification of critical parts/components/systems of the airplanes. • Inclusion in the SMS. 	ATOs, AOs, CAAs
12.	Establish and implement routine and non-routine weather reporting procedures.	31 March 2016	Procedures for the approval of the operations manual.	AOs, CAAs
13.	Improve ground-based communications for weather reporting by meteorological stations.	31 July 2016	Improvement of ground-based communications for weather reporting by meteorological stations.	CAAs, ANSPs
14.	Systematically report serious incidents and accidents.	31 March 2016	Reporting processes and procedures.	AOs, CAAs, AAIAs
15.	Establish and implement a data collection system in the framework of an SMS.	31 July 2016	Data collection system in the framework of an SMS.	AOs, CAAs

Note: * The proposed timelines are tentative. Deadlines to be coordinated with relevant stakeholders.

LIST OF ABBREVIATIONS AND ACCRONYMS

CAAS:	Civil Aviation Authorities
AAIAs:	Aviation Accident Investigation Authorities
AATO:	Association of Aviation Training Organizations
ATOs:	Aviation Training Organizations
AOs:	Air Operators
ANSPs:	Air Navigation Service Providers
FSTDs:	Flight Simulation training Devices
FOOs:	Flight Operations Officers
CRM:	Crew Resource Management
MoU:	Memorandum of Understanding
MoC:	Memorandum of Cooperation
AOC:	Air Operator Certificate
SMS:	Safety Management System