



“INTEGRATING THE FDM PROGRAMME INTO THE SMS”

Some examples

PRESENTED BY LUXAIR/PAN AIR

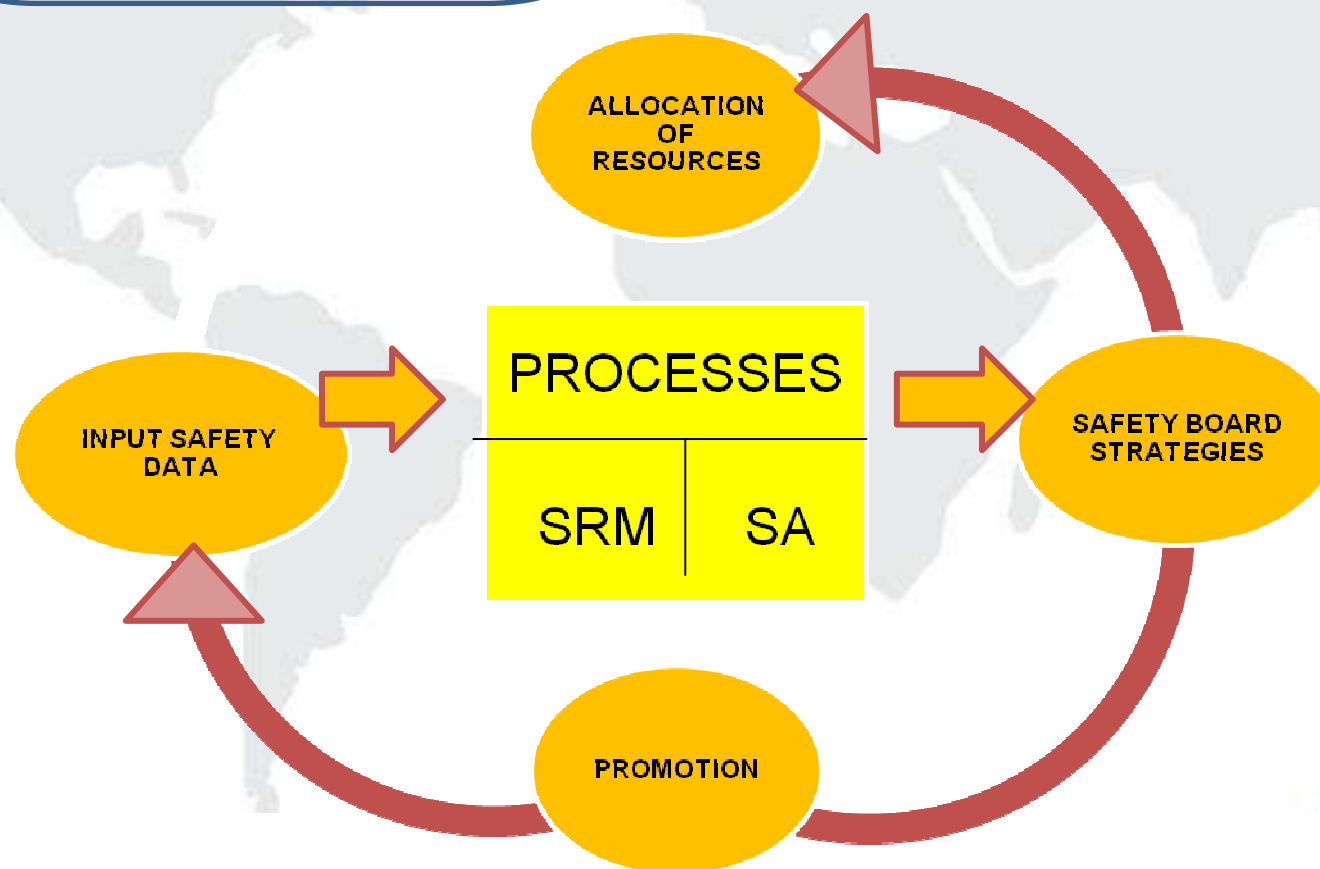


INDEX

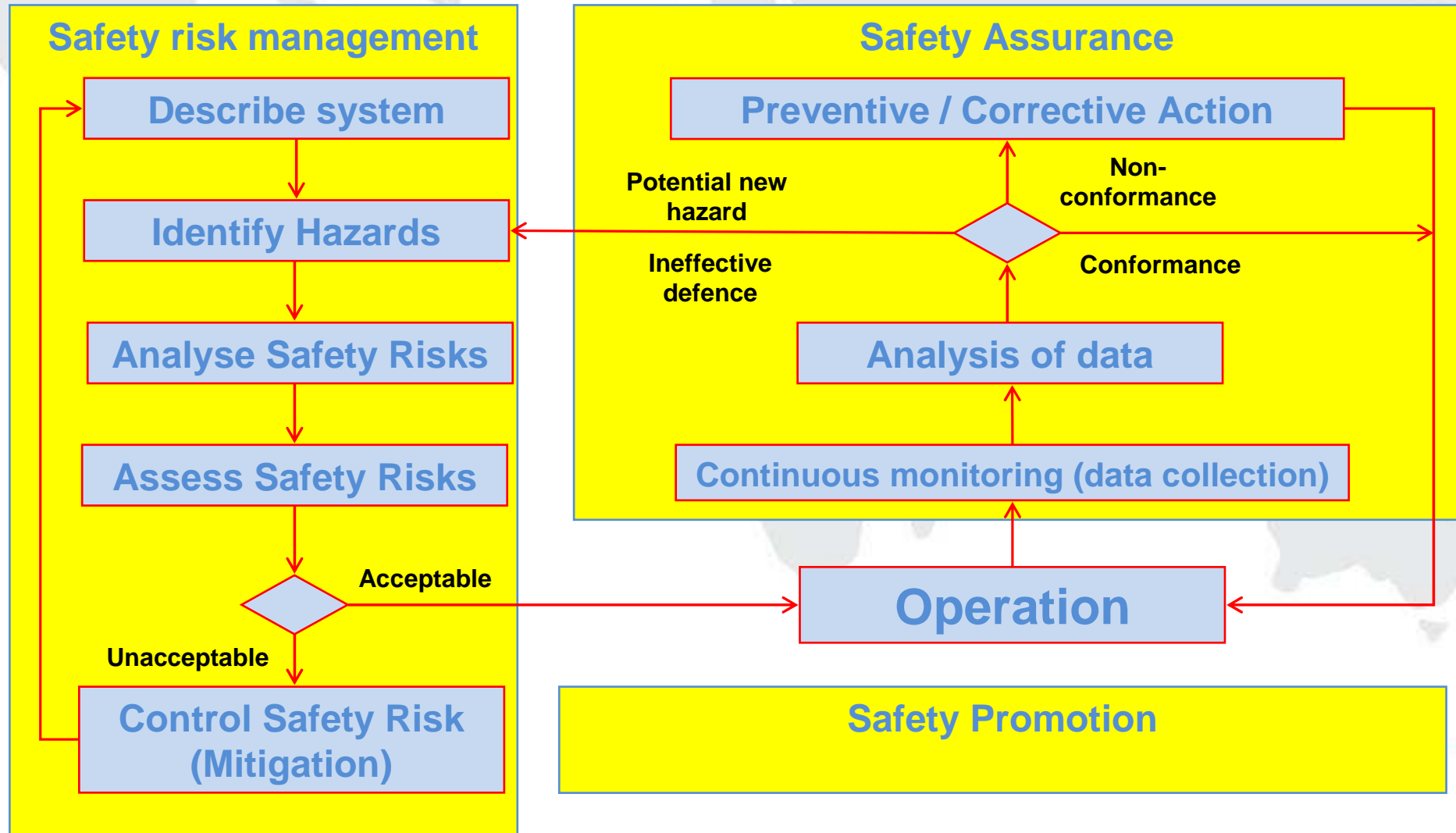
- SMS BASIC PRINCIPLES
- SMS PROCESSES
- FDM INTEGRATION IN THE SMS
- FDM OPERATIONAL RISK MANAGEMENT
- SAFETY CULTURE: FDM data and Safety Promotion

SMS BASIC PRINCIPLES

SMS GENERAL OVERVIEW

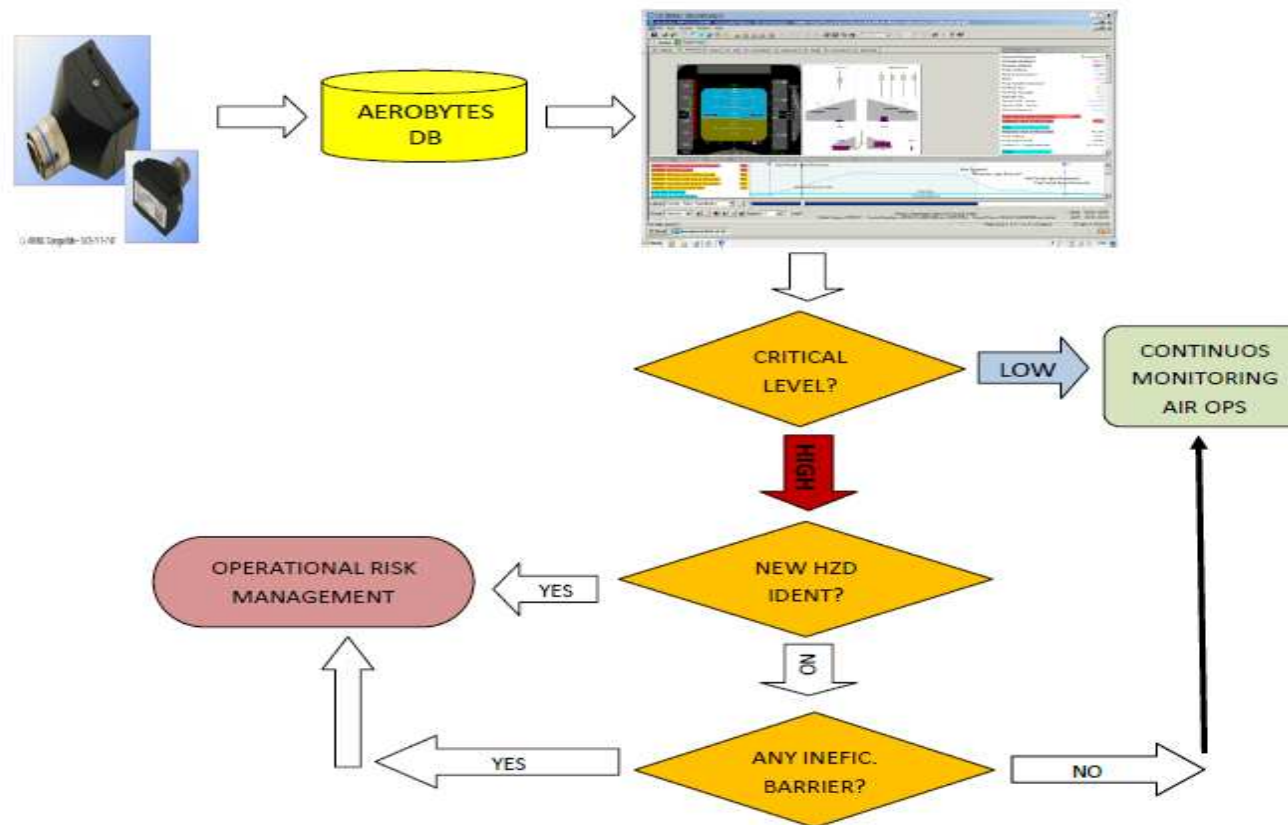


SMS PROCESSES

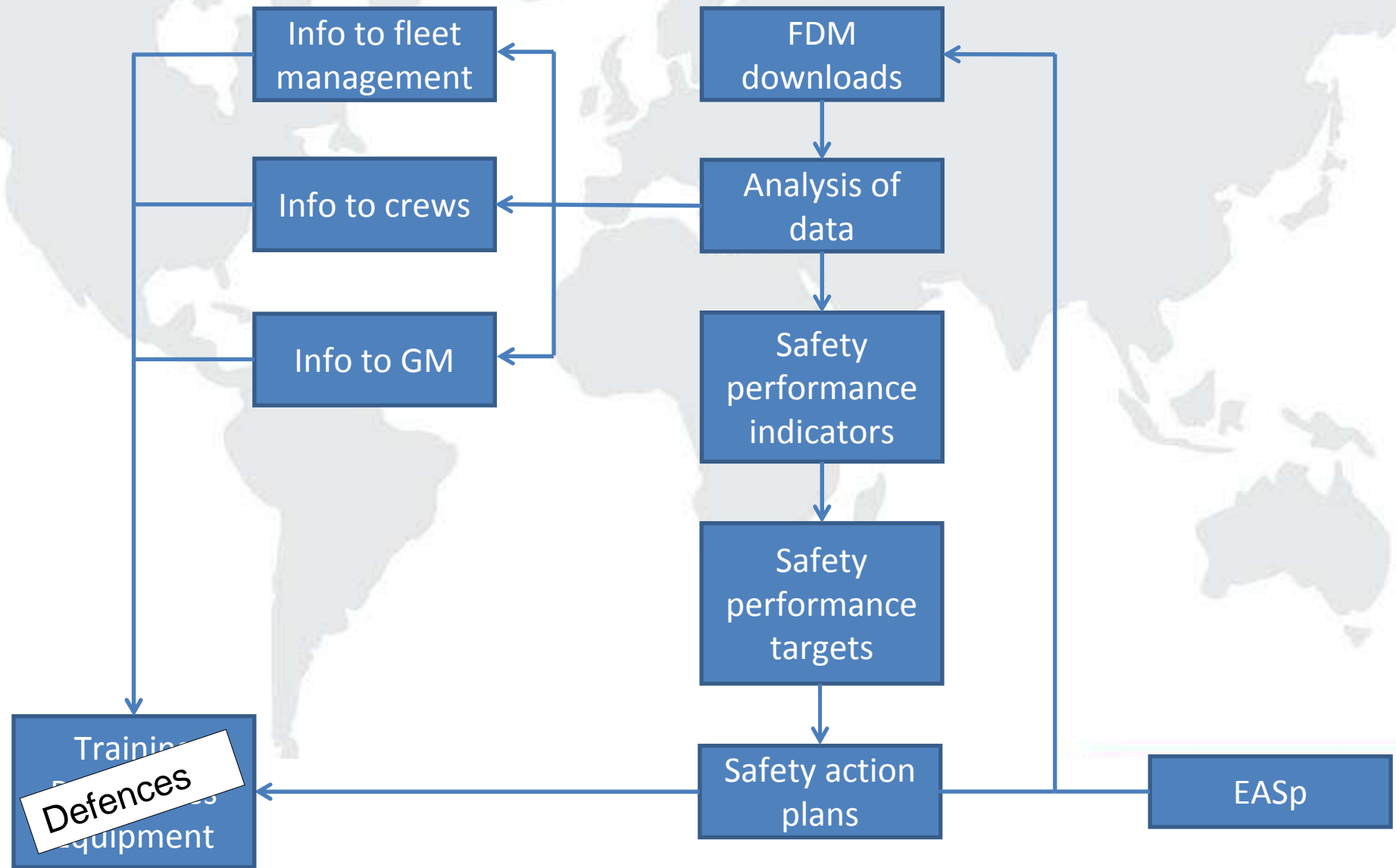


FDM INTEGRATION IN THE SMS

SAFETY ASSURANCE PROCESS



FDM INTEGRATION IN THE SMS



FDM INTEGRATION IN THE SMS

Event List

Edit

Post

Cancel

Delete

Export

All Flts

Filter: 145

Search

Cancel

Code	Description
47A	EARLY CONFIGURATION CHANGE AFTER TAKE-OFF (FLAPS)
48A	LATE LAND FLAP (NOT IN POSITION BY 800 FT)
48B	REDUCED FLAP LANDING
49A	TCAS RESOLUTION ADVISORY
50A	DEEP LANDING
50C	SHORT LANDING
51A	GEAR NOT LOCKED-DOWN AT 1000FT AAL
56A	DEVIATION UNDER GLIDESLOPE
56B	DEVIATION ABOVE GLIDESLOPE
56C	LOCALISER DEVIATION (LEFT)

Code

Short Description (Trend)

Core Event

50A

DEEP LANDING

☐

Event Descriptor

[L1] FEET PAST GLIDESLOPE AERIAL

FDE Category

Severity

K Constant

L Constant

Equation

0.0154

0.05*value1-90

Please ignore [L1],[L2],[L3]

Value1, Value2 and Value3 refer to the values as they appear in the descriptor.

Severity

Safety Plan

☐ CFIT

☐ LOSS OF CONTROL

☐ MID-AIR COLLISION

☒ RUNWAY EXCURSION

☐ RUNWAY INCURSION

☐ FIRE, SMOKE AND FUMES

FDM EVENT OPERATIONAL RISK MANAGEMENT

PAN AIR OPERATIONAL RISK MANAGEMENT

FLIGHT PHASE	TAKE-OFF
FDM EXCEDANCES	FLAP OVERSPEED

SECTOR	LGG-BLQ
DATE	12-12-2013

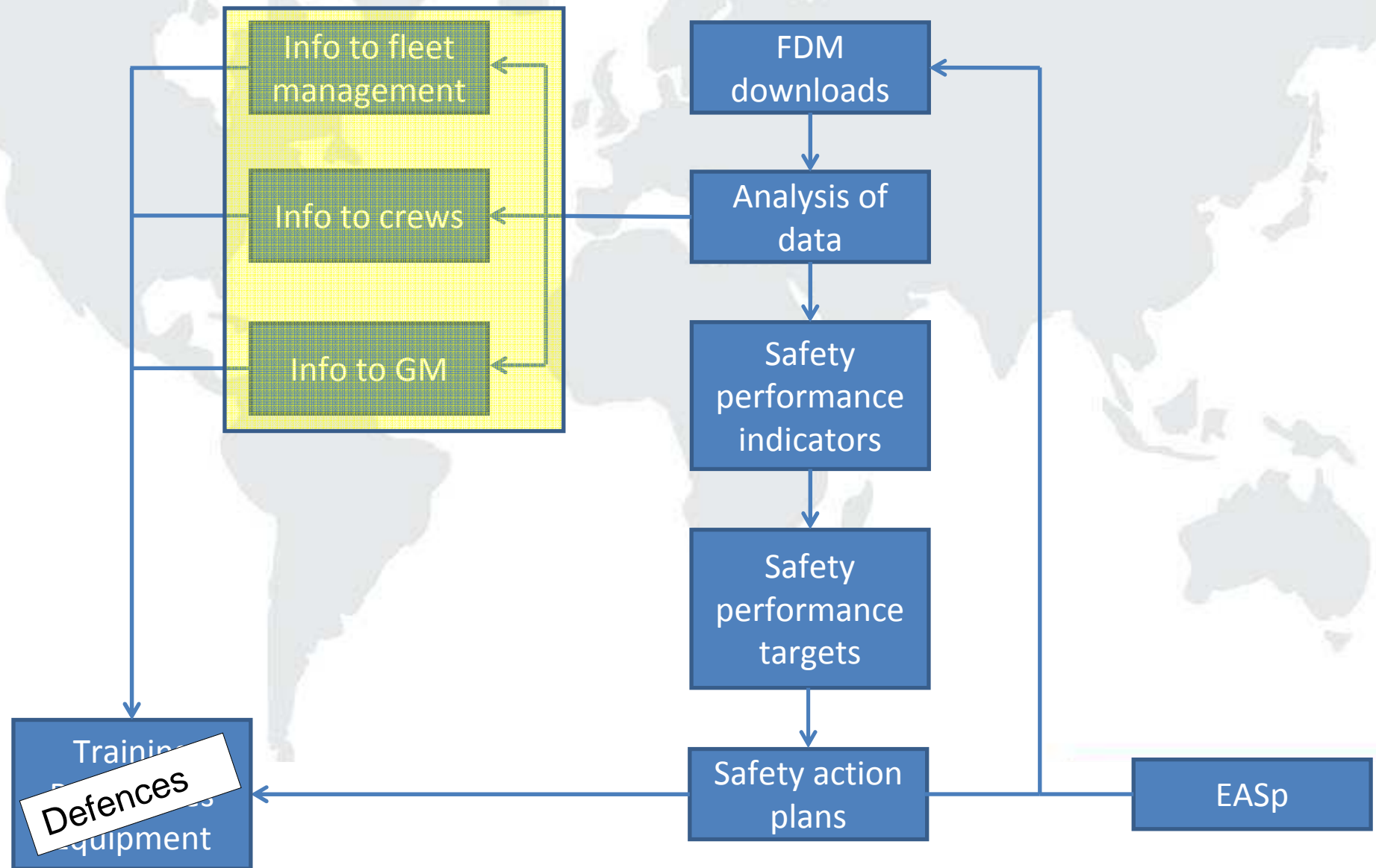
HAZARD IDENTIFICATION	HAZARD COMPONENT	FACTORS AND CONSEQUENCES	DEFENSES/BARRIERS	RISK LEVEL	MITIGATION/ CONTROL	ACCOUNT DPT.
HUMAN FACTORS: Performance, Techn. Skills, Non-Technical Skills	<ul style="list-style-type: none"> -Slips and lapsus -Handling errors -Leadership -Situational Awareness -Decision Making 	CONFIG.ERROR OUT OF TRIM STRUCTURAL DAMAGE, IFTB, AOG....	TECHNOLOGICALS	Unacceptable	TECHNOLOGICALS	OPS
			TRAINING	Tolerable	TRAINING	MTO
			RULES	Acceptable	RULES /PROCEDURES	ATO
TECHNICAL	Design, Systems Failures, component failures					
ENVIRONMENTAL	Sign. WX, Orography Rwy Condition FOD, Bird Impact					
ORGANIZATIONAL	Policy, Safety Culture, Rostering,					

FDM SAFETY PROMOTION

PAN AIR SAFETY PROMOTION



FDM Safety Promotion





Info to fleet management

- Receives de-identified data from safety department once per month
- Able to replay data in their office
- Yearly Safety Action Group to analyse, discuss and to set targets for the next year

Info to fleet management

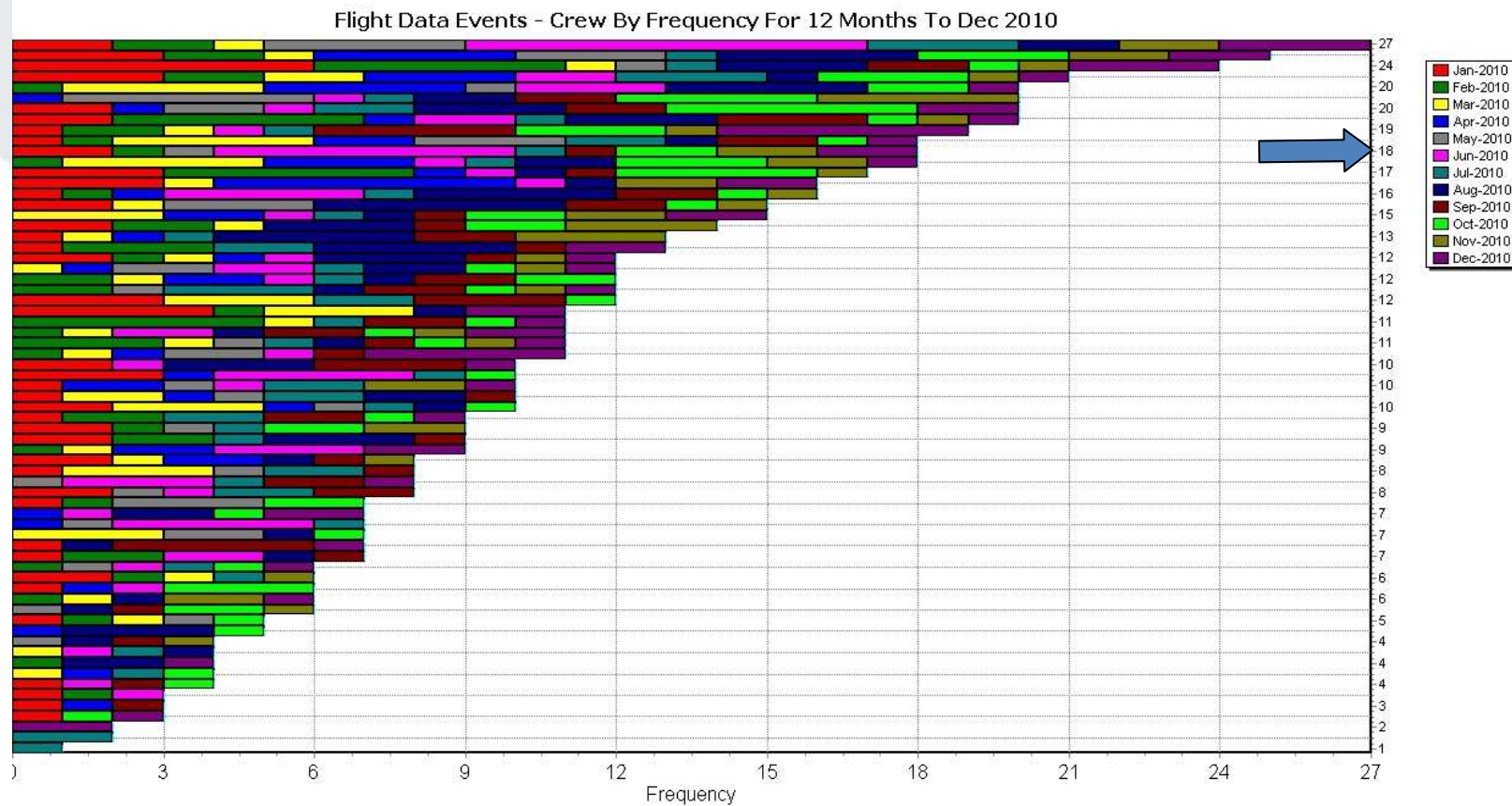
Service provider	Flight ops
Safety performance indicators	1 Late landing flaps 2 High energy at 8 NM 3 Too high on approach 4 Deviation above glide slope 5 Deep landing
Action plan	1 2 3 4 5
Safety target value	1 Late landing flaps 2 High energy at 8 NM 3 Too high on approach 4 Deviation above glide slope 5 Deep landing



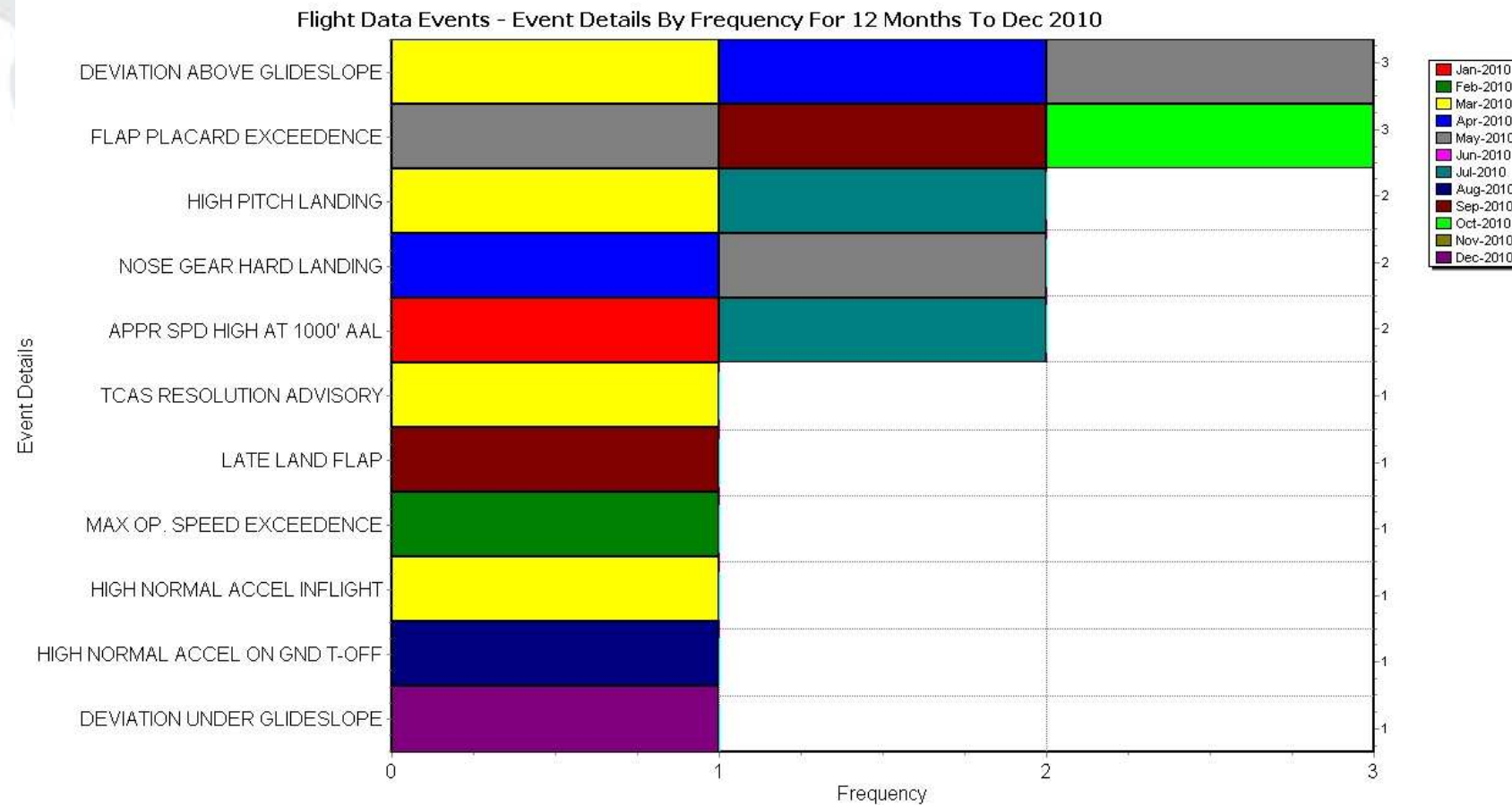
Info to crews

- Fleet crew plus own events distributed during the annual safety refresher training
- Annual or semi annual review done during the safety refresher course
- Safety manager will call crews on specific issues
- De-briefings in safety department (open door policy)

Info to crews



Info to crews



Info to crews



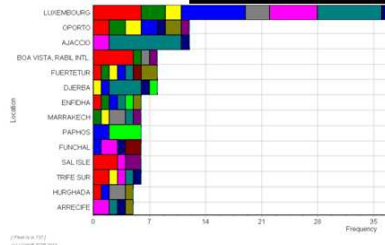
OFF
January

TEND:

TAXI WITHOUT FLAP SET
CLIMB SPEED LOW 400/1500
DEEP LANDING
THRUST REV NOT DEPLOYED AT TO
HIGH ENERGY AT 8 NM
HIGH RICH LANDING
MNO EXCEEDENCE
EARLY ROTATION
FLAP PLACARD SPEED EXCEEDED
HIGH ENERGY AT 1000' AAL
HIGH NORMAL ACCEL ON GROUND
GO AROUND
LATE LAND FLAP
UNSTICK SPEED HIGH

The good trend on the
However follo
The "Climb Speed L
The "Deep Landing" ev
pilot recorded 35% of t
The "Thrust Rev n

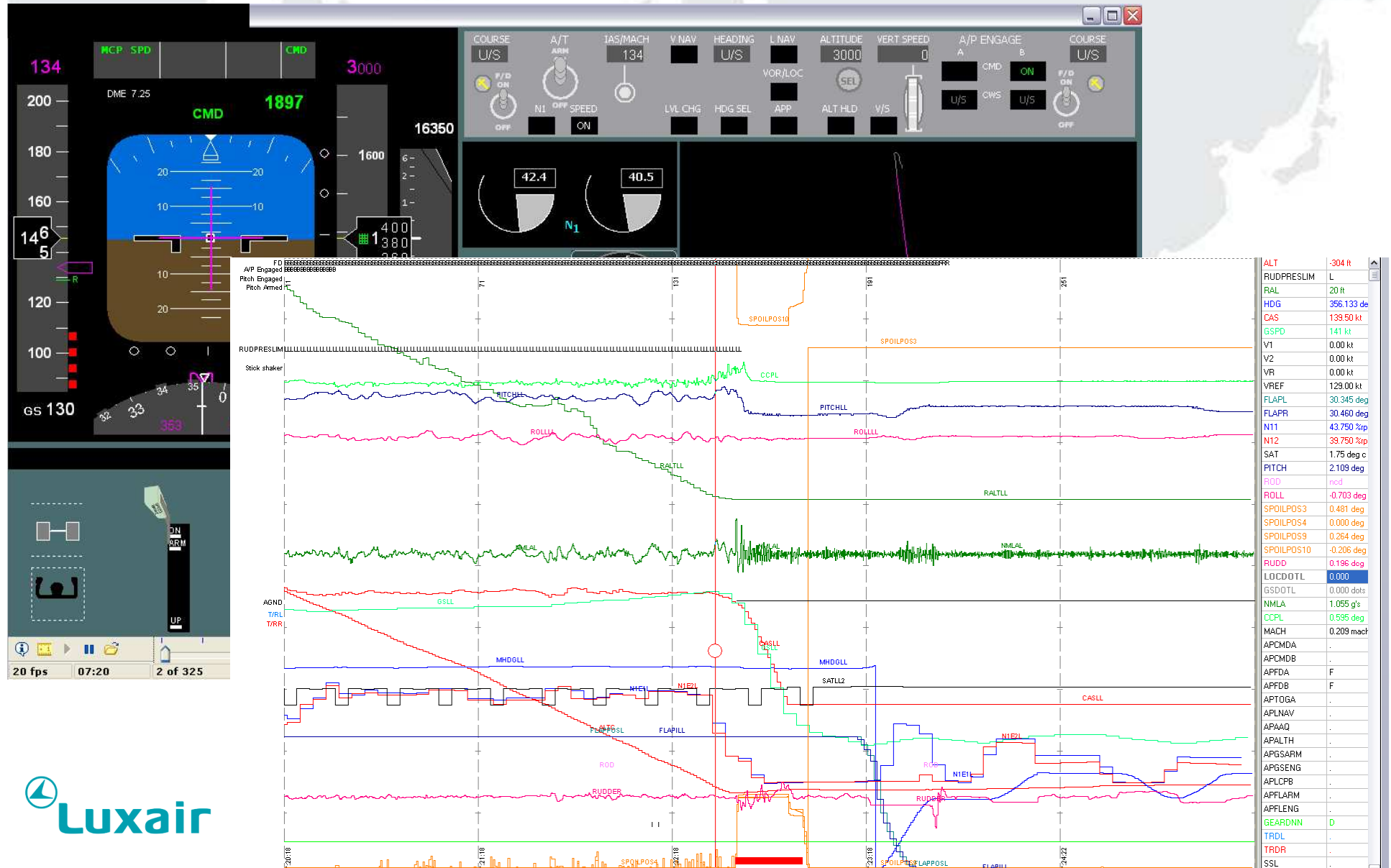
LOCATIONS



Most of the events are naturally recorded in LUX
landing is made at our
Then comes , OPO, A

Service provider	Flight ops B737 fleet
Safety performance indicators	<ol style="list-style-type: none"> 1 Late landing flaps 2 High energy at 8 NM 3 Too high on approach 4 Deviation above glide slope 5 Deep landing
Action plan	<ol style="list-style-type: none"> 1 2 3 4 5
Safety target value	<ol style="list-style-type: none"> 1 Late landing flaps 2 High energy at 8 NM 3 Too high on approach 4 Deviation above glide slope 5 Deep landing

Info to crews





Info to general management

- Information is presented during the Safety and Quality Review Board
- FDM group is meeting once per year or as required
- FDM yearly analysis documented



QUESTIONS??
THANKS FOR ATTENTION