

implementation Amendment 1 to the 15th edition of the Doc 4444

Actions taken by Morocco

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structural approach

In order to ensure the provisions implementation contained in Amendment 1 to the 15th Edition of PANS-ATM relating to comprehensive changes to the ICAO Flight Plan and associated ATS Messages formats, a Task Force (*ATCOs, ATSEPs Flight data & flight planning*) was implemented to:

- Communicate with concerned actors (*regular meetings*);
- Identify affected ATM system components;
- Identify ATM system component changes;
- Identify operational impacts;
- Formulate a transition Plan;
- Harmonize with adjacent ANSPs.

Communication

The TF launched in national scale an awareness campaign to (July-December 2010):

- Familiarize the concerned actors with the new amendment procedures (ATCOs, ATSEP, AEAs & Users);
- Provide education on changes & impacts
 - Provisions of Amendment 1

Identification of Affected Systems

Current situation analysis:

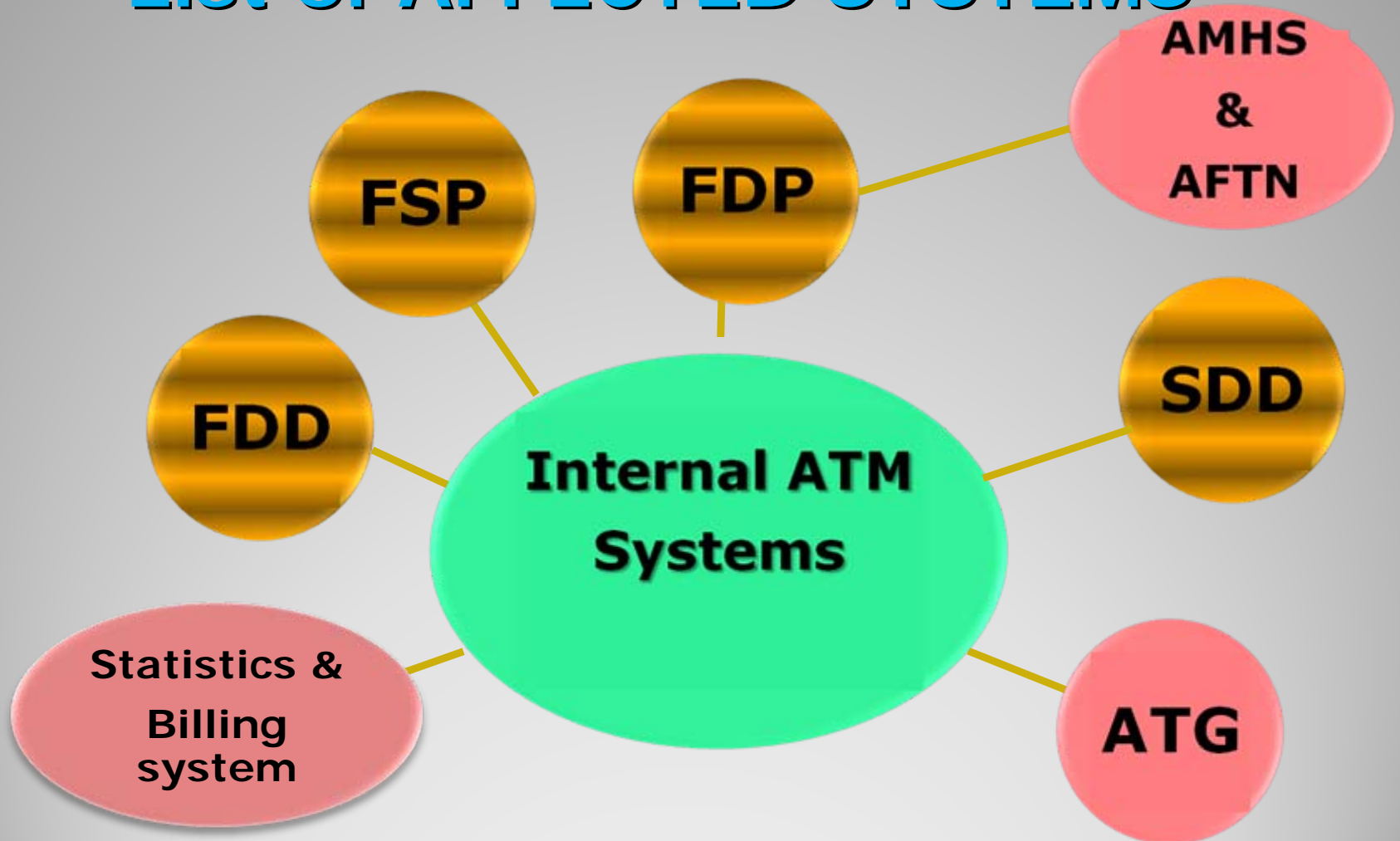
The TF conducted an impact assessment of automated ATM Systems and their simulators in the following units: **Casablanca ACC**; **Casablanca APP**; **Agadir APP (INDRA)** & **Marrakech APP (SELEX-CI)**:

- FDPs;
- FSP (strip configuration);
- ATCC working station HMI (SDD) ;
- Flight man entry/correction working station (FDD) ;
- AMHS/AFTN connection to the other ANSPs;
- Civil & military AROs in airports;
- Billing Systems;
- FPL data archive system;
- "Flight planning operators system".

Identification of Affected Systems

Current situation analysis: TF conclude that Automated ATM Systems and their simulators (INDRA) in **Fès**, **Tanger** and **Oujda** APPs units, which the installation is in progress will contain the upgraded software and necessary equipments to comply with ICAO and Eurocontrol requirements relating to comprehensive changes to the ICAO Flight Plan and associated ATS Messages formats.

List of **AFFECTED SYSTEMS**



Affected Systems & Analysis of System Changes

SYSTEM	RISKS	IMPACT (WITHOUT UPGRADE)	ACTION	TECHNICAL ASPECT	MESURES TO BE TAKEN AFTER THE UPGRADE
FDP	<ul style="list-style-type: none"> ➤ Rejection of FPL and associated messages; ➤ Suspension of the OLDI. 	<ul style="list-style-type: none"> ➤ Degraded air Traffic Control services will be provided. ➤ workload increase for ATCO. 	<p>Will be upgraded by INDRA /SELEX</p> <p><i>Excepted in May/June 2011</i></p>	<ul style="list-style-type: none"> ➤ FPL Data base augmentation Capacity; ➤ Improvement of processing computer; ➤ performance related to <ul style="list-style-type: none"> - processor -Disk Capacity -Storage Capacity 	<ul style="list-style-type: none"> ➤ Training for: <ul style="list-style-type: none"> - AEA - ATCO - ATSEP ➤ Tests IFPS/TI ➤ Transition phases preparation <p><i>January 2012</i></p>
FDD	<p>Unavailable information related to FPL and aeronautical messages for traffic management.</p>	<ul style="list-style-type: none"> ➤ Saturation of the system; ➤ Risks of total FDP system down. 	<p>Upgrade by INDRA/SELEX</p> <p><i>Excepted in May/June 2011</i></p>		
SDD	<ul style="list-style-type: none"> ➤ Unavailable FPL information for ATCO management; ➤ Uncorrelated radar data. 	<p>Air Traffic services provided in degraded situation.</p>	<p>Upgrade by INDRA/SELEX</p> <p><i>Excepted in May/June 2011</i></p>		

Affected Systems & Analysis of System Changes

SYSTEM	RISKS	IMPACT (WITHOUT UPGRADE)	ACTION	TECHNICAL ASPECT	MESURES TO BE TAKEN AFTER THE UPGRADE
STRIP Printer	Unavailable FPL information	No strip provided	Upgrade of the FDP <i>Excepted in May/June 2011</i>		Needs of operational & technical coordination during the upgrade process
Billing & statistics	No files will be transferred for billing	No billing	Upgrade by INDRA/SELEX <i>Excepted in May/June 2011</i>		
Simulators Contingency Room (FDP, ATG, EPP, SM)	<ul style="list-style-type: none"> ➢ Rejection of FPL in operational mode; ➢ Unavailability of new FPL format in SIM mode 	<ul style="list-style-type: none"> ➢ Unavailability of contingency room; ➢ Suspension training related amendment 1. 	Upgrade by INDRA/SELEX <i>Excepted in May/June 2011</i>	<ul style="list-style-type: none"> ➢ FPL data base Augmentation capacity; ➢ Improvement of processing computer performance related to : <ul style="list-style-type: none"> - Processor -Disk Capacity -Storage memory 	Technical Test & assessment of the upgrade <i>Before the Site Acceptance Test</i>
Morocco Presentation at ICAO Workshop & FT meeting Nairobi, Kenya, February 14 th -18 th 2011					

Affected Systems & Analysis of System Changes

SYSTEM	RISKS	IMPACT (WITHOUT UPGRADE)	ACTION	TECHNICAL ASPECT	MESURES TO BE TAKEN AFTER THE UPGRADE
AMHS/AIDA	Saturation of the disk space used by the system	sufficient Disk Space → No impact	Checked with COMSOFT → No impact		<ul style="list-style-type: none"> - Tests - Transition phases preparation - Training & awareness for <ul style="list-style-type: none"> AEA ATCO ATSEP <p><i>Before the Site Acceptance Test</i></p>
AMHS/CADAS	Non operational FPL at the airports (AROs) Errors during manual input	Rejection of the messages by the automatic processing system	Update by COMSOFT in progress <i>excpeted in summer 2011</i>	software update	

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Identification of Operational Impacts

Assessment of impacts to procedures:

The TF is studying the changes should be incorporated into:

- Internal ATCO coordination documents;
- Controller/pilot phraseology;
- Human Machine Interface new data input;
- Publications (AIP, Regulations, etc.);
- Training for ATCOs, ATSEP; flight data units & other concerned staff.

Transition Plan

The transition plan will take in account the :

- Close coordination with adjacent ANSP related to ;
 - ATM system harmonization;
 - Implementation dates;
 - OLDI test phases (Determine detailed test procedures).
- Test changes prior to transition implementation;
- Software delivery phase to allow testing and involved staff real-time simulation training.

Transition Plan

- **Phase 1** (May/June 2011):
Software “and equipments” delivery & internal testing to support NEW & PRESENT formats
- **Phase 2** (April/May 2012):
Tests with CFMU on (April/May 2012);
Tests with adjacent ACCs and to verify functionalities & conversion table (NEW to PRESENT) and Also exchanged coordination messages related to OLDI protocol, will be fixed during the AEFMP meeting expected on April 2011.
- **Phase 3** (July to November 2012):
Airspace users system test with ONDA ATM systems

Thanks for your attention
Any questions?

ONDA aspects

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