THE MOROCCAN KINGDOM
MINISTRY OF WORKS AND TRANSPORT
CIVIL AERONAUTICS DEPARTMENT

# Final Report

of the Technical Investigation into the serious incident which occurred between the Airbus A300-600 and the Boeing B757-200 at the Mohammed V Casablanca Airport on 03 March 2006

## **WARNING**

This report expresses the conclusions of the Investigation Commission of the Civil Aeronautics Department on the circumstances and causes of this serious incident.

In conformity with Annex 13 of the Convention relating to International Civil Aviation and the Ministerial decree No. 533-62 of 14 September 1962 relating to the conduct of investigations concerning aviation accidents, the investigation is not carried out in order to establish guilt or to evaluate individual or collective responsibilities. Its only objective is to draw from this occurrence the lessons likely to prevent further incidents or accidents.

Consequently, the use of this report for other purposes than that of prevention might lead to erroneous interpretations.

## Contents

# Synopsis

- 1.- Basic information
  - 1.1 Flight progress
  - 1.2 ... (not translated)
- 2.- Analysis
- 3.- Conclusion
  - 3.1 Established facts
  - 3.2 Causes
- 4.- First corrective measures
- 5.- Recommendations

## SYNOPSIS

Date of incident:

03 March 2006

at 21:44 UTC

Aircraft:

1. Airbus 300-600,

registration marks TF-ELW

2. Boeing 757,

registration marks CN -RMT

Place of incident:

Mohammed V Airport

Owners:

Parking post Juliette 11 1. TF-ELW: ALS Irish Aircraft Leasing

MSN 755 Limited

2. CN -RMT: Royal Air Maroc

Operators:

1. TF-ELW: Air Atlanta Icelandic

2. CN -RMT: Royal Air Maroc

<u>Charterer:</u>

1. TF-ELW: Air France

Nature of flight:

Persons on board:

1. TF-ELW: regular flight 1. TF-ELW: 04

AFR6587 taxiing after 2. CN -RMT: 00 landing, regular cargo

transport.

2. CN-RMT: Aircraft at parking site <<J11>>

Summary:

Friday 03 March 2006, the Airbus A300-600 of Air Atlanta Icelandic, registration TF-ELW, chartered by Air France, effectan instrumental (IFR) goods transport flight, landed in the ing

night on runway 35 right at the Mohammed V airport at 21:41 hours UTC, coming from Nouakchott.

While taxiing towards parking site <<J14>> leaving the cross-over (bretelle) <<P>>, the A300-600 aircraft, registration marks TF-ELW, hit a Boeing 757-200 aircraft, registration marks CN-RMT, parked on parking site <<J11>>.

p.4

## Consequences

		<u>Persons</u>		<u> Material</u>	Third parties
<u>Aircraft</u>	<b>Killed</b>	Wounded	<u>Unhurt</u>		
TF-ELW	00	00	04	damaged	00
CN-RTM	00	00	00	damaged	00

# Material damage

- Right elevator (gouverne de profondeur) of the B757-200 seriously damaged, needing major repairs.
  - The wing tip of the A300-600 needs a few minor repairs.

# Human loss

None.

#### 1. Basic information:

## 1.1 Flight progress:

On 03 March 2006, the aircraft of the type Airbus 300-600, registration marks TF-ELW, which was effecting, flying by instruments (IFR), the goods transport flight (AFR6587) between the airport of Nouakchott and Casablanca Mohammed V, landed on runway 35 right at 21:41 hours UTC.

The aircraft A300-600 exits the runway by the crossover <<0>> then turns right and enters taxiway <<T4>>. It receives instructions to proceed towards <<J14>> by way of crossover <<P>>.

When leaving the crossover <<P>>, the aircraft A300-600 turns right, passing behind the <<J>> parking sites where a B757-200, registration marks CN-RMT, was correctly parked on <<J11>>.

The crew makes a complete right turn to steer clear of the B757-200. In spite of this manoeuvre, the left wing tip of the A300-600 hit the right elevator of the B757-200.

Following the incident, the pilot informed the Control Tower which requested him to stop taxiing and cut the engines.

A follow-me vehicle went to the site of the incident and at the same time fire-fighting equipment was immediately dispatched by the Tower.

p. 17

## 2. Analysis:

The Airbus 300-600 had taken off from Nouakchott at 19:26 hours UCT, after a flight of 02:15 hours it lands at the Mohammed V airport. It leaves service runway 35 right by way of the crossover <<0>> then turns right and takes the taxiway <<T4>> and notifies the Tower that it is on crossover <<0>>.

Having it[the aircraft] in sight, the [air traffic] controller reminds it that it is already on the T4 and requests it to continue taxiing towards <<J14>> by way of the crossover << P>>.

The pilot acknowledges reception. He leaves taxiway <<T4>> by way of the crossover <<P>>. But as he exits it, he makes a right turn and continues taxiing, trusting the parking and alignment (accostage?) map (JEPPESEN) at his disposal, which is in conformity with the AGA 2-4-6 map from 23 December 2004.

After new parking sites were laid out, a NOTAM (A0008/06) was issued, announcing the cancellation of the <<B>> site and the implementatio of other combined <<E & J>> parking sites, with-out precise indications as to the route (cheminement) or their location.

Although the pilot did not have the said NOTAM at his disposal in his flight dossier, he declared nevertheless that he knew, from preceding flights to Mohammed V airport that site J14 replaced site B14.

The analysis of the preceding facts leads us to note the following chronological order:

- 1) Right turn of the A300-600 after the crossover <<P>>:
  - The flight crew effects this manoeuvre trusting its
     Jeppesen map in conformity with the AGA map from
     23 December 2004 published on the AIP Morocco at
     the time;
  - The flight crew did not have at its disposal the NOTAM A0008/06.
  - The crew may have been misled by the earlier markings partially visible on the ground;
  - The flight crew may have been sustaineded in its manoeuvre by the absence of intervention by the controller over the radio;
  - The phraseology used between the crew and the controller was not standard.

#### p. 18

- 2) Continuation of taxiing up to the collision with the B757:
  - a) The crew, in spite of having seen the B757 on parking site J11, continued its taxiing because it might have been reassured in its manoeuvre by:
    - the presence of the old markings on the ground, still partially visible;
    - the absence of lighting for the <<J>> parkings;
    - the absence of intervention by the controller over the radio.

- b) the crew, notwithstanding its doubts as to the separation distance to the B757, did not stop taxiing nor did it request assistance;
- c) The controller who had seen the A300-600 make a turn just after the taxiway <<P>> did not intervene to interrupt the manoeuvre;
- d) The combined parking sites J and E are not lighted/illuminated.

#### 3. Conclusion:

## 3.1- Established facts:

- The crew and aircraft documents of the A300-600 were in conformity with current rules and regulations;
- The B757-200 was correctly parked on <<J11>>;
- The old markings remained partially visible in spite of the fact that they had been repainted in black;
- The currently valid NOTAM No. 0008/06 does not supply all the information on the new routes (cheminements) and location of the parkings?;
- The parking map published in the AIP Maroc and reproduced by JEPPESEN is not in conformity with the real markings;
- The combined J and E parking sites were not lighted /illuminated;

- As the pilot estimated that the separation distance to the B7757 was insufficient he moved to the right.

#### p. 19

#### 3.2- Probable causes:

- The parking map published in the AIP Maroc and reproduced by JEPPESEN is not in conformity with the real markings;
- The old taxiing route (which still figures in the AIP and the JEPPESEN map) remained partially visible although it had been repainted in black;
- The controller did not intervene over the radio during the taxiing of the aircraft on parking site <<J>>;
- The crew did not request the controller to follow the taxing when it was on parking site <<J>>;
- The parking site <<J>> was not lighted/illuminated;
- The crew thought the separation between the two aircraft A300-600 and B757-200 was sufficient;
- The crew did not have at its disposal the NOTAM A0008/06 announcing the cancellation of the <<B>> sites and the implementation of the other combined <<E& J>> parkings;
- The NOTAM (A0008/06) did not set out the change of the route nor the location of the parkings.

#### 4.- First corrective measures:

Following this occurrence the following corrective measures were decided by the investigation commission and put into operation:

- The establishment and publication of an internal note relating to the operation of the parking sites which are to the south of the E12 site for the benefit of the air traffic control personnel.
- The total and effective suppression of the old markings which were misleading;
- Suspension of the operation of the combined <<E13 to E18>> parking sites [along] with the <<J>> sites.
- Installation of lighting devices alongside the <<J>> parking sites.
- Updating of the parking and alignment (accostage?) map AGA 2-4-6 of 23 December 2004.

# 5.- Security recommendations:

- The administration (ORGANISME GESTIONNAIRE) of the airport must take the necessary measures in order to have all changes of the infrastructure of the airport published in rules and regulations within the set delays;
- Remind crews that in the event of doubt they must imperatively stop taxiing and request assistance from the appropriate organs;

- The administration (organisme gestionnaire) of the airport shall ensure lighting on the parking sites;
- Remind the controllers to respect the procedures for ground traffic;
- The operator shall take the necessary measures for the conservation of all registrations relating to flight (CVR).
- ... (Annexes et al not translated,)