



## **ORGANISATION OF TUNISIA AIS, PREPARATION FOR MIGRATION FROM AIS TO AIM AND QMS WITHIN TUNISIA AIS**

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**Presented by :**

**- Hassen SAHBANI ( Head of AIS Department)**

**E-mail : [hassen.sahbani@oaca.nat.tn](mailto:hassen.sahbani@oaca.nat.tn)**

**- Sami THABET (Head of Quality Department)**

**E-mail : [sami.thabet@oaca.nat.tn](mailto:sami.thabet@oaca.nat.tn)**

# I- Chart of Tunisia AIS

## Air Navigation Direction

**AIS**

**Aerodrome AIS Units**

**NOF unit**

**BIV unit**

**AIP unit**

**Mapping unit**

**information Control unit**

**Dissemination unit**

# I-1 NOF

## NOTAM Office Unit

- **The main mission of NOF is :**
- ✓ **to collect and process all the aeronautical information exchange NOTAMs on the international level.**

**N.B : *The NOF is the only unit with the ability to disseminate national NOTAMs***

# I-2 Flight Information (BIV)

## Flight Information Unit

- **The main mission of Flight Information Unit (BIV) is :**
  - ✓ **to collect and ensure the selection (filtering), formatting, displaying and updating information relevant to the ACC.**

**N.B : The coverage area of the BIV = Tunisia and the 5 adjacent FIRs .**

# I-3 AIP

## Aeronautical Information Publication Unit

- **The main mission of the AIP unit, in coordination with the mapping and control sections of the information, is :**
  - ✓ **to plan and develop amendments to the AIP, SUP AIP and AIC.**

# I-4 MAPPING

## Mapping unit

- **The main mission of the mapping unit, in coordination with the AIP and control of the information units, is :**
  - ✓ **to compile and maintain all aeronautical charts published by AIS .**

# I-5 INFORMATION CONTROL

## Information Control Unit

- **The main mission of the information control unit is :**
  - ✓ **to control all the aeronautical information before their publication by the AIS .**

# I-6 DISSEMINATION

## Dissemination Unit

- **The main mission of the Dissemination unit is :**
  - ✓ **to dispatch all the aeronautical information to domestic and foreign subscribers of AIS Tunisia .**

# I-7 AERODROME AIS UNITS

## Aerodrome AIS units

- **The main objective of the Aerodrome AIS units is :**
  - ✓ **to make available pre-flight information (production of PIB, verbal briefing, wall displays ...etc.) ;**
  - ✓ **to inform the AIS of any changes to the air navigation facilities of the aerodrome.**

## **II - actions undertaken by the AIS in order to improve the quality**

**➤ Among the actions undertaken by the AIS in recent years and which are prerequisites for the establishment of a quality system, we mention the following actions :**

## **II - actions undertaken by the AIS in order to improve the quality**

- **Automation of NOTAM/SNOWTAM (STANOS)**
- ✓ **The system (STANOS) was designed and implemented by the Civil aviation and Airports Authority (Republic of Tunisia) in accordance with the ICAO documents (Annex 15, Annex 10, Doc 8126 and Doc 8400). It is installed in the Aeronautical Information Service ( AIS) at the NOTAM OFFICE ( NOF) and at the briefing office of all Tunisian airports (ARO).**

## **II- actions undertaken by the AIS in order to improve the quality**

**This system will offer such functions as:**

- Automatic processing of the NOTAM / SNOWTAM and messages;**
- Storage of the NOTAM / SNOWTAM in a central data base;**
- Distribution and storage of the NOTAM / SNOWTAM in local databases located in the Tunisian airports;**

## **II- actions undertaken by the AIS in order to improve the quality**

- **Automatic issuing of 4 types of pre-flight information bulletins (PIB) to be supplied to the airline operators (type aerodrome, zone, standard and narrow route);**
- **Statistical analysis ;**
- **Creation and modification of the geographic data;**
- **Database management;**
- **Other features.**

## **II- actions undertaken by the AIS in order to improve the quality**

- ✓ **Restructuring the AIP Tunisia in accordance with the ICAO new format since May, 22nd 1997 ;**
- ✓ **Electronic capture of the text portion of the AIP;**
- ✓ **Implementation of the World Geodetic System WGS-84 since February, 26th 1998 ;**

## **II- actions undertaken by the AIS in order to improve the quality**

- ✓ **Elaboration of Tunisian CD-ROM AIP ;**
- ✓ **Elaboration of CD-ROM containing the national legislation relating to civil aviation ;**
- ✓ **Integration of AIS items containing AIP, SUP AIP, AIC, AIRAC and NOTAM in force on the OACA Web site :**

**[www.oaca.nat.tn](http://www.oaca.nat.tn)**

## **III- From AIS to AIM**

### **Next step**

**Establishment of a national task force to guarantee a smooth migration from AIS to AIM**

**Main tasks of the TF :**

- ✓ Elaboration of e-AIP**
- ✓ Establishment of an electronic terrain and obstacle database (e-TOD)**
- ✓ Integration of all components of integrated aeronautical information package**

# IV- QMS (PROJECT BEGINING)

## GENERALITIES

- **A global strategy of OACA in a Quality Management field;**
- **The amendment of Annex 15;**
- **The ICAO recommandations related to the Quality Management in AIS.**

**OACA create a committee to manage the project of the certification of AIS and aerodrome AIS units (Décision dated on mars 08, 2001).**

**The committee is composed by member from the Air Navigation Direction and the aerodrome AIS units (decision dated on mars 08, 2001)**

**Managing role, works validation...;**

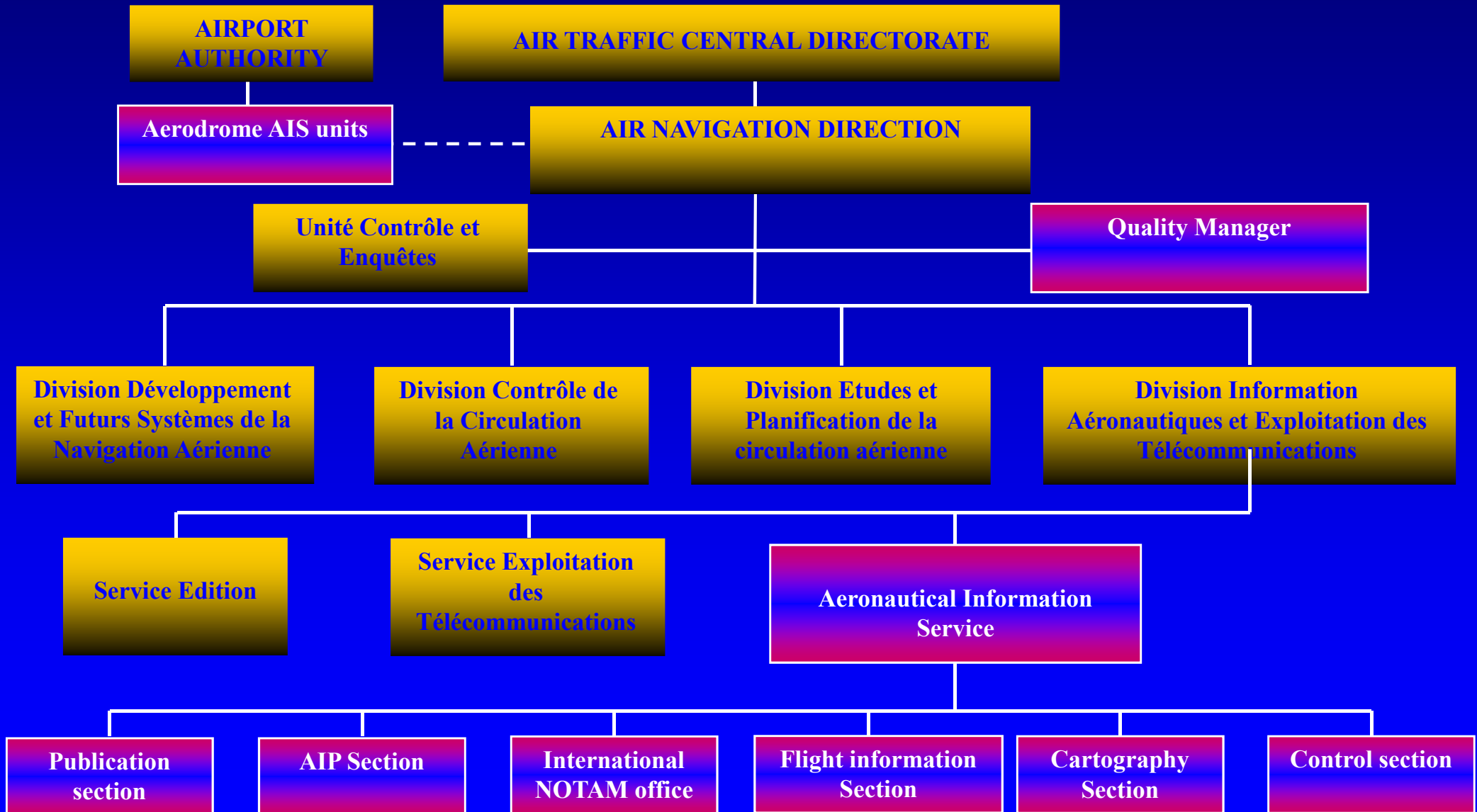
- **Multiple meetings to follow up the project and to validate established documents. Since the beginning of the project we have conducted 30 meetings.**
- **Conducting trainings and sensibilisation.**

**At the beginning of the project, We organised a first sensibilisation seminar**

- **Date: june, 18 2001**
- **Population :**
  - ✚ **Directors,**
  - ✚ **DGAC representative,**
  - ✚ **Heads of aerodrome AIS units,**
  - ✚ **DNA staff,**
  - ✚ **Airlines representatives (Tunisair, Tuninter, Nouvelair, Tunisavia,...)**
  - ✚ **INM representative,**
  - ✚ **Ministry of Defense representative...**
- **Project Introduction : concerned units, referentiel...;**
- **Introduction to the ISO 9001 standards and the concept of Quality**

# IV- QMS

## PERIMETER OF CERTIFICATION



# IV- QMS

FIELD

## ➤ Type of Certification

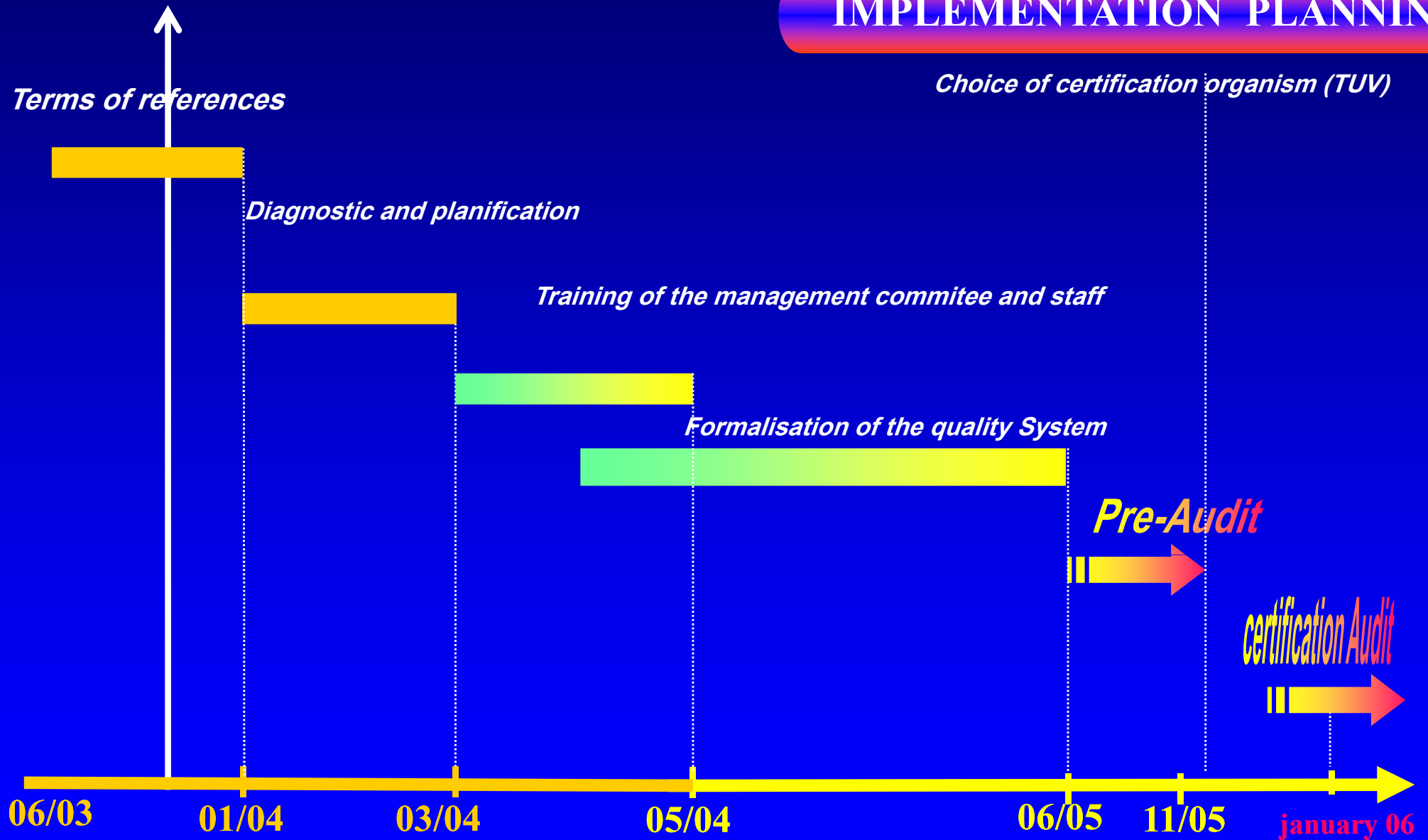
**DIN EN ISO 9001:2008**

## ➤ Domain

**Receipt, processing, Edition and publication of aeronautical information**

# IV- QMS (IMPLEMENTATION)

## IMPLEMENTATION PLANNING



# IV- QMS (IMPLEMENTATION)

## TERMS OF REFERENCES AND PROJECT PHASES

- **Elaboration of the terms of references**
  
- **The project include four phases**
  - **initial Diagnostic,**
  - **trainings,**
  - **System formalisation,**
  - **Pre-audit and corrective actions.**

# IV- QMS (IMPLEMENTATION)

## TRAININGS

- **12 training actions was performed by a specialists in the quality field**
- **Multiples training action was performed by the management commitee between october et november 2004**
  - **Population :163 persons were concerned by trainings**
  - **Themes :**
    - **General concept of the quality management**
    - **The standard ISO 9001,**
    - **Documentation of a quality system,**
    - **Quality policy and objectives,**
    - **AMDEC**
    - **BRAINSTORMING**
    - **Audit technics**

# IV- QMS (IMPLEMENTATION)

## QUALITY POLICY

- **Elaboration, validation et approval of the document:**  
« **direction engagement and quality policy** »
- **The quality policy focus on:**
  - ✚ **The conformity to the national and international standards in air navigation field**
  - ✚ **Customers satisfaction,**
  - ✚ **The improvement of competences,**
  - ✚ **Good relationship with providers.**

# IV- QMS (IMPLEMENTATION)

## RELATIONSHIP WITH CUSTOMERS

- **Related to measurement of the satisfaction rate, we establish every year:**
  - ✚ **A questionnaire published by AIC to all our customers;**
  - ✚ **The results of the questionnaire analysis are communicated to customers;**

## RESULTS OF CUSTOMERS LISTENING IN BRIEF !!!

NUMBER OF ANSWER TO CUSTOMER'S QUESTIONNAIRE OF SATISFACTION ASSESSMENT (PUBLISHED IN AIC17/05)

**110** ANSWERS WERE RECEIVED FROM PILOTS

**08** ANSWERS WERE RECEIVED FROM AERONAUTICAL INFORMATION SERVICES (AIS)

SIA CUSTOMER'S SATISFACTION RATE

**85%**

AERODROME AIS UNITS CUSTOMER'S SATISFACTION RATE

**81%**

## RESULTS OF SATISFACTION ASSESSMENT INVESTIGATION - AERODROME AIS UNITS -

### STATEMENT

### ACTION TAKEN

THE CUSTOMER'S SATISFACTION RATES HAVE DECREASED FOR THE FOLLOWING CRITERIA:

- 1- UPDATING DOCUMENTS
- 2- TIME OF ANSWER TO REQUESTS OF ESTABLISHMENT OF PIB

- 3- CONFORMITY OF PIB WITH REQUEST

1,2- FOR THESE TWO CRITERIA, THE QUALITY OBJECTIVES IMPLEMENTED PROVE THAT DOCUMENTS AVAILABLE IN BRIEFING OFFICES ARE UPDATE, AND THAT PIB ARE CONFORM TO INTERNATIONAL REQUIREMENTS AND CUSTOMERS REQUESTS

3- ALL PIB PRODUCED BY BRIEFING OFFICES ARE VERIFIED BEFORE BEEN SUPPLIED TO PILOTS. NO CLAIM CONCERNING PIB WAS BEEN RECEIVED DURING THE TWO LAST YEARS. SO, NO ACTION CAN BE TAKEN IN THIS FIELD

## RESULTS OF SATISFACTION ASSESSMENT INVESTIGATION

- AIS -

### STATEMENT

### ACTION TAKEN

ALL THE QUALITY OBJECTIVES OF THE YEAR 2006 RELATED TO "CUSTOMER PROCESS" WAS BEEN REACHED

A NEW QUALITY OBJECTIVES HAD BEEN IMPLEMENTED IN ORDER TO INCREASE THE CUSTOMER'S SATISFACTION RATES AND TO AMELIORATE THE QUALITY OF OUR PRODUCTS. OUR PRINCIPAL AIM IS TO PUBLISH A CORRECT AND UNDERSTANDABLE AERONAUTICAL INFORMATION

THE AIS CRITERIA RELATED TO:

- EASINESS OF THE USE OF CD-ROM AND;
  - CD ROM PRICE
- DON'T CONTRIBUTE TO THE AMELIORATION OF THE QUALITY OF OUR PRODUCTS

THESE TWO CRITERIA WILL BE DELETED FROM THE NEXT CUSTOMER'S SATISFACTION ASSESSMENT INVESTIGATION

THE CUSTOMER'S SATISFACTION RATE DECREASED FOR THE FOLLOWINGS CRITERIA:

- 1- NUMBER OF HAND AMENDMENT IN AIP

1- DURING 2005, TUNISIA AIS WAS BEEN OBLIGED TO PUBLISH A LOT OF NOTAM PERM BECAUSE OF THE MULTIPLE MODIFICATIONS IN NAV AIDS WITCH AFFECT THE INSTRUMENTAL APPROACH CHART

- 2- COMPLIANCE OF NOTAM TO ICAO SARP'S

2- ALL NOTAM'S PUBLISHED BY TUNISIA AIS ARE CONFORM TO THE ICAO SARP'S. THIS CRITERIA WILL BE DELETED IN THE NEXT INVESTIGATION

- 3- COMPREHENSION OF TUNISIAN NOTAM LANGUAGE

3- THE AIS IS READY TO ANSWER TO ANY REQUEST RELATED TO TUNISIAN PUBLICATION

- 4- PRODUCTION OF PREVOL INFORMATION BULLETIN (PIB) BY AIS IN CASE OF NECESSITY

4- AN AMELIORATION OF OUR STANDS WILL BE IMPLEMENTED



# IV- QMS (IMPLEMENTATION)

## RELATIONSHIP WITH PROVIDERS

- **Establishment and validation of contracts with 12 providers of AIS**
  
- **Object :**
  - ✚ **Standardize exchanges between AIS and his providers,**
  - ✚ **Identify responsibilities,**
  - ✚ **Evaluate providers.**

# IV- QMS (CERTIFICATION)

## TERMS OF REFERENCE AND PROJECT PHASES

- **The certification audit was attributed to TÜV CERT**
- **The certification was conducted in three phases:**
  - ✚ **Phase 1: - documents review,  
- Pré-audit.**
  - ✚ **Phase 2: Certification Audit (January 2006).**
  - ✚ **Phase 3: - follow up 1 audit (january 2007),  
- Follow up 2 audit (january 2008).**

## **IV- QMS (CERTIFICATION)**

**PHASE 1: - Documents review  
- Pre-audit**

- **The pre-audit started in November 25, 2005 with the opening meeting conducted in Air Navigation Center. TUV experts, members of management committee and heads of units were invited to this opening meeting;**
- **The pre-audit was conducted in AIS and aerodrome AIS units in the period between November 28, 2005 and the first of december 2005.**

## **IV- QMS (CERTIFICATION)**

### **PHASE 2: - Certification Audit**

- **TUV auditors conducted the certification audit in the period between January 04, 2006 and January 06, 2006;**
- **The certification audit concern AIS and aerodrome AIS units of Tunis carthage, Monastir Habib Bourguiba and Borj El Amri;**
- **AIS and all units were certified ISO 9001 in january 27, 2006 for a period of three years;**
- **The compliance of all the activities with ISO 9001 standards were verified during certification audit.**

# Certificat

Référentiel **ISO 9001:2008**

Enregistré sous le n° 01 100 052726

TÜV Rheinland Cert GmbH certifie:

Titulaire du certificat:



**OACA Air Traffic Central Direction  
Air Navigation Direction  
Aeronautical Information Service and  
Tunisian Aerodrome AIS Units**  
Aéroport Tunis-Carthage - B.P. 137 - TN - Tunis

avec les lieux d'implantation

Tunis Carthage, Monastir Habib Bourguiba, Djerba Zarzis,  
7 Novembre Tabarka, Sfax Thyna, Tozeur Nefta, Gafsa Ksar,  
Borj El Amri

Domaine de validité: Réception, Traitement, Edition, Exploitation et  
Diffusion des Informations Aéronautiques

Par l'audit consigné dans le rapport n° 052726 la conformité  
aux exigences de la norme ISO 9001:2008 a été démontrée.  
La date limite de réalisation pour les audits suivants est le  
07-01 (dd.mm).

Validité: Ce certificat est valable du 2009-05-06 jusqu'au 2012-01-25.  
Certification initiale 2006

Cologne, 2009-05-06

TÜV Rheinland Cert GmbH  
Am Grauen Stein • 51105 Köln



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## IV- QMS (CERTIFICATION)

PHASE 3: - follow up 1 (january 2007)  
- follow up 2 (january 2008)

- **The first and the second follow up audit were conducted in january 2007 and january 2008;**
  - ✚ **No non-conformity was mentionned during this first follow up audit;**
  - ✚ **The certification was maintained until january 2009.**

## IV- QMS (CERTIFICATION)

### Reconduction audit

- **The first reconduction audit was conducted in mars 2009;**
  - ✚ **During this audit, we included the aerodrome AIS Units of Gafsa Ksar;**
  - ✚ **The audit was conducted in compliance with the ISO 9001 version 2008 standards;**
  - ✚ **No non-conformity was mentionned during this audit;**

## **V- International cooperation**

**1- Following on APIRG 15 conclusion 15/44 on AIS/MAP familiarization visits to foreign AIS units, AIS Tanzania and Senegal have visited Tunisia AIS.**

**2- Cooperation with TANZANIA**

**✓ Visit to AIS tunisia organized during the period from 6th to 9th April 2009;**

**✓ Very fruit full and benefic visit;**

## **V- International cooperation**

- ✓ **An agreement for cooperation was prepared by Tunisia and Tanzania Authority for approval.**

### **3- cooperation with SENEGAL**

- ✓ **Visit of Senegal delegation to AIS Tunisia during the period from 13th to 16th July 2009;**
- ✓ **Very fruit full and benefic visit;**
- ✓ **A project of agreement for cooperation will be prepared by both parties.**

# CONCLUSION

- **The QMS permit to AIS units to improve the quality of its products, motivate staff and ensure their involvement ;**
- **Due to the QMS implemented in AIS, we increased the satisfaction rate of our customers;**
- **TUNISIA is ready to collaborate with arabic and african AIS to assist them in all stapes related with implementation of QMS in AIS activities.**

**THANKS FOR ATTENTION**