Morocco: developing a reputation for excellence in the field of air navigation

The agreement between Morocco and EUROCONTROL, signed in April 2016, is part of a long-term strategic programme of the Office National Des Aéroports (ONDA) to improve the quality of service and the safety management systems within the Pôle Navigation Aérienne (PNA), the ONDA body responsible for delivering air navigation services (ANS).

"With the signature and entry in force of this agreement, our country has not only achieved a global first, in that EUROCONTROL has never before signed such an agreement with a country outside Europe, but also recognises the performance of the Moroccan air traffic management (ATM) services and is consolidating a mutually desired and beneficial partnership between ONDA and EUROCONTROL," said Zouhair Mohammed El Aoufir, Director General of ONDA, speaking at the signing event of the agreement between Morocco and the Agency.

The strategy of the PNA is underpinned by systemic and inclusive management, capitalising on the practices already in place and ensuring synergy with the Global Air Navigation Plan (GANP) of the International Civil Aviation Organization (ICAO) and the strategic plans of ONDA and the European Commission’s Single European Sky (SES) programme.

This strategy was strengthened in 2016 by the adoption of the performance-based approach (PBA) and the agreement with EUROCONTROL to anchor regulatory conformity practices and to migrate towards a form of management based on the performance and excellence of the ATM system at national level. According to the comprehensive agreement, the Kingdom of Morocco will be fully integrated into EUROCONTROL’s working structures and will benefit from all services the Agency provides. The agreement brings significant operational advantages to airlines and passengers, including improved crisis management, more organised and harmonised management of the traffic flows between North Africa/the Canary Islands and the European continent, improved predictability in the planning of daily operations, improved safety of operations and a wider network approach to all developments such as airspace design, infrastructure coordination and management.

Morocco can take advantage of the various services offered by the Agency and increased participation in its many working groups, as well as draw on the expertise acquired by EUROCONTROL’s experts in support of the regulatory convergence of Morocco with SES regulations and the improvement of air navigation services (ANS) performance in accordance with European standards. Other benefits include: the preparation of ANS for the certification of all its services in accordance with the European Union (EU) regulations in force; the improvement of ANS and their convergence with European standards in terms of safety, operations, systems and training/rating of staff; and the improvement of civil-military cooperation in terms of interfaces, flexible use of airspace (FUA), interoperability and the regulation of civil and military systems.

The PNA has developed its quality and safety management system to establish, apply and improve various processes designed to guarantee a quality of provision of the services supplied to airlines in line with international standards. It continuously develops the resources required to respond to ongoing technological change in the civil aviation sector. The quality and safety system has been developed to respond to air transport growth requirements and to provide ANS while continually guaranteeing an acceptable level of safety.

Morocco had already signed a European Civil Aviation Agreement with the EU, opening the two air traffic markets to unlimited access for airlines, which will increase traffic volumes and require a common airspace design and common air traffic procedures between Morocco and Europe. The liberalisation of air transport, the growth in traffic and the signature of the Open Sky Agreement have necessitated an evolution of Morocco’s ATM system.

Until 1980, airports and air navigation...
A strategy to 2025: PNA’s current and future ATM modernisation programme

The Pôle Navigation Aérienne has set out a long-term modernisation programme to meet its strategic goals. The main elements of the strategy are:

1. Strengthening the interoperability of air navigation systems and data management and harmonisation of procedures by means of:

   • installation of Doppler Very High Frequency Omni-Directional Range (DVOR) systems at 10 airports in Morocco;

   • installation of Automatic Dependent Surveillance/Contract (ADS/C) and Controller-Pilot Data Link Communication (CPDLC) in the “Océanique” and “Ouest” sectors of the Casablanca Flight Information Region (FIR) as back-up for the Very High Frequency (VHF) radio frequency;

   • strengthening the radio (VHF), radar (monopulse secondary surveillance system and primary surveillance radar) and Automatic Dependent Surveillance-Broadcast (ADS-B) cover of the airspace above Morocco’s “Zone Sud” outside the Casablanca FIR/UIR (upper information region) and at the airports of Morocco;

   • deployment of the new aeronautical information management (AIM) system.

2. Optimisation of airspace capacity and flight flexibility by means of:

   • restructuring airspace associated with airports and implementation of Global Navigation Satellite System (GNSS) procedures in accordance with the PBN/Morocco plan;

   • implementation of the free-route concept for a specific time period, during night shifts, made available to aircraft operators in the Route Availability Document (RAD) document;

   • implementation of the FUA concept to maximise use of Moroccan airspace and optimise flights serving the Casablanca FIR/UIR;

   • implementation of continuous-descent approach procedures (CDO).

3. Improving the traffic flow and increasing air safety by means of:

   • implementation of radar and flight data displays and processing systems with a view to the provision of a radar approach control service at Marrakesh, Tangier, Fez and Oujda airports;

   • construction of a second regional control centre at Agadir.
services were administered directly by
the Ministry of Transport. The Moroccan

government then decided to opt for auton-

omous administration, with the creation
of the first public airport administration

establishment, the Office des Aéroports de

Casablanca (OAC, the Casablanca Airport

Authority), whose powers were initially

limited to the Casablanca airports.

Subsequently, in 1990, ONDA was

created by transforming the OAC into

an establishment responsible for the

administration of all airports in Morocco

and the provision of ANS, to consolidate

activities into a single organisation. This

meant ONDA became a national strategic

instrument, a powerful vehicle for eco-

nomic development, a creator of value

and wealth at regional and local levels,

recognised throughout the world as an

airport authority working to international

standards.

A new regional air traffic control (ATC)
centre was opened at the end of 2007. This
new centre has significantly contributed
towards improving the safety and quality
of the services provided and to increase
the capacity of Moroccan airspace while
optimising traffic flows in phase with the
growth in air traffic recorded in recent
years. This centre has also given control-

lers better working conditions, to some of

the highest international standards.

Air navigation services are now pro-

vided by the PNA to ensure the safety of

air navigation at airports and airspace

level under national jurisdiction and to

administer air operations in accordance

with national and international regu-

latory requirements. The PNA is also

responsible for the planning and coordi-

nation of communications, navigation

and surveillance/air traffic management

(CNS/ATM) as recommended by the global

ATM plan and the Aviation System Block

Upgrades (ASBU) roadmap, strengthening

cooporation with EUROCONTROL in the

ATM domain (following an initial coopera-
tion agreement signed in 2008) and opera-
tional management and organisation of

Moroccan airspace.

The PNA is employing state-of-the-art
technologies and best practices by promot-
ing cooperation with EUROCONTROL and

many other bodies in the sector, to consol-

date air safety and improve performance
to make ONDA a vehicle for the develop-

ment of the national economy while gain-
ing a reputation for excellence in the field

of air navigation.