



International Civil Aviation Organization

AIR NAVIGATION SYSTEMS IMPLEMENTATION GROUP

Third Meeting (ANSIG/3)
(Cairo, Egypt, 2 – 4 July 2018)

Agenda Item 4.2.2: Specific Air Navigation Issues

MANDATE OF ELECTRONIC FLIGHT DATA EXCHANGE (AIDC/ OLDI)

(Presented by UAE)

SUMMARY

The purpose of this working paper is to share the safety and efficiency gains UAE achieved by way of implementing ONLINE DATA INTERCHANGE (OLDI) with its adjacent ATSUs. UAE proposes to expedite the implementation of AIDC/OLDI in the MID Region and mandate such implementation by Q1 2020

Actions by the meeting are at paragraph 3.

REFERENCES

- ATM SG/4 Report
- CNS SG/6 Report
- MID DOC 002
- MID DOC 006

1. INTRODUCTION

1.1 Flights subject to ATC services are transferred from one ATSU to the next as it progresses, ensuring safety. It is a standard procedure that the passage of each flight across the boundary of the areas of responsibility of the two units is coordinated between them beforehand.

1.2 This coordination is a major support task at ATSUs where it is carried out by telephone. This is where the AIDC/OLDI is extremely beneficial.

1.3 AIDC/OLDI is an efficient method of coordinating flight data between two adjacent ATSUs automatically. ATM systems at ATSUs coordinate flight data accurately; eliminating the need for telephone coordination.

1.4 OLDI is in use in Europe since 1980s and in the UAE since 2009.

2. DISCUSSION

2.1 Flight data coordination was a major ATC support task at Emirates ACC until the implementation of the first OLDI link in 2009 with Abu Dhabi International Airport. The safety gains due to the exchange of accurate flight data by eliminating human error and the efficiency gains of timely coordination of flight data were immediately realised.

2.2 This was demonstrated to other ATSUs and the activities necessary for building confidence in automated flight data coordination were provided by Emirates ACC to its potential OLDI partners.

2.3 A nationwide OLDI implementation plan was prepared and all supporting documentation including test scenarios, training material for ATC staff, templates for Standard Operational Procedures and Implementation checklists were prepared.

2.4 A Working Paper was presented in the 38th session of ICAO General Assembly to accept OLDI as the MID Region equivalent for AIDC.

2.5 A complete implementation package was presented in the ICAO MID Region AIDC/OLDI Seminar in March 2014.

2.6 The gradual implementation of OLDI in the UAE and the progressive move to automation is listed in the table below:

Serial No	ATSU (OLDI Partner)	Airspace/Airports Included	Implementation Date	% of Traffic coordinated via OLDI
01	Abu Dhabi APP	OMAA, OMAD, OMAL, OMAM, OMAW	April 2009	14%
02	Doha APP	OTHH, OTBH, OTBD	January 2010	27%
03	Sharjah TWR	OMSJ	February 2011	37%
04	Ras Al Khaimah TWR	OMRK	March 2011	38%
05	Dubai APP	OMDB, OMDM, OMDW	June 2012	54%
06	Bahrain ACC	Traffic to/from Bahrain FIR	July 2017	66%
07	Muscat ACC	Traffic to/from Muscat FIR	March 2018	79%

2.7 Since OLDI implementation in SZC, a significant reduction in coordination failures by 60% between 2010 and 2017 was achieved which directly contributes to the enhancement of safety.

2.8 This automation altogether resulted in reducing the required number of ATC support staff in ACC Operations. Their main tasks included correction of erroneous flight plans, coordination with non-OLDI adjacent ATSUs and manual coordination during contingency situations, such as technical failures or adverse weather conditions. Therefore, OLDI implementation provides a significant contribution to the effective utilization of manpower and resources.

2.9 The other initiative UAE successfully used is the concept of OLDI terminals. OLDI terminals are used as an intermediary system where the respective ATM systems were not capable to exchange OLDI messages directly.

2.10 The AIDC/OLDI implementation has become a catalyst for a strong bond between the partners. The success of such automation is highly dependent on the mutual trust built by unconditional and unlimited cooperation between the partners throughout the implementation. This has been the essence of all the aforementioned implementations.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) take note of the contents of this paper in particular the gains brought by electronic flight data exchange;
- b) urge States to expedite the implementation of electronic flight data exchange; and
- c) consider mandating the use of AIDC/OLDI in the MID Region by Q1 2020.