



THIRTEENTH AIR NAVIGATION CONFERENCE

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COMMITTEE A

Agenda Item 3: Enhancing the global air navigation system

3.5: Other ATM issues

MULTI-STAKEHOLDER COLLABORATION TOWARDS THE SUCCESS OF THE UAE AIRSPACE RESTRUCTURING PROJECT

(Presented by the United Arab Emirates)

EXECUTIVE SUMMARY

This paper presents the United Arab Emirates' experience and collaborative efforts in enabling the successful implementation of the United Arab Emirates (UAE) Airspace Restructuring Project.

1. INTRODUCTION

1.1 On 7 December 2017, the United Arab Emirates successfully implemented one of the region's largest airspace changes to date. The airspace change transformed the Emirates flight information region (FIR) to a fully performance-based navigation (PBN) environment with a navigation specification of RNAV-1(GNSS), whilst also enabling the ability to support sufficient capacity, capability and efficiency towards the 2022 traffic growth forecast.

1.2 From the origins of the UAE Airspace Restructuring Project (UAE ARP) the core foundations were built around multi-stakeholder engagement and collaboration. Governance of the UAE Airspace Restructuring Project was also composed of a Multi-Agency UAE Management Structure to ensure that a consolidated national viewpoint would be achieved for the aviation community.

1.3 Throughout all phases of the UAE Airspace Restructuring Project the composition supported teams of project management, technical experts and dedicated representation from the six UAE ANSPs (GCAA, dans, Abu Dhabi ANS, Fujairah, Ras Al Khaimah and Sharjah), fifteen core agencies (including the UAE national airlines, UAE airport authorities, UAE military, regulatory representation, IATA and the National Center of Meteorology and Seismology) and the five surrounding international air traffic service providers.

1.4 The project required over 70 000 dedicated man-hours to develop an airspace network capable of managing future requirements of the Emirates FIR. Multiple fast time and real time simulations in Italy, the United Kingdom and in the UAE formed critical multi-stakeholder activities

towards the validation and verification of the airspace network resulting in the training of over 250 air traffic controllers.

2. DISCUSSION

2.1 The successful implementation of the UAE Airspace Restructuring Project was due to the core values built from dedicated UAE collaboration. Governance of the project was undertaken by the General Civil Aviation Authority, however the project adopted a multi-agency governance structure and multiple cross industry working groups throughout the project lifecycle.

2.2 Numerous workshops throughout the project lifecycle maintained the core values and enabled all parties to contribute towards the development and delivery of the required capabilities.

2.3 Early engagement with surrounding FIRs was also key to ensuring cross border enhancements within the project and further supported a smooth and successful transition event.

2.4 The initiation of a multi-stakeholder UAE Airspace Restructuring Project Safety Steering Group (SSG) harmonised and centralised UAE stakeholder requirements and output in support of project safety assurance activities.

2.5 Accurate and timely communication was an essential activity towards a project and was enabled through the generation of a joint communication strategy. As part of the strategy a UAE airspace restructuring project communications and engagements document was collaboratively developed to be a single source reference for all stakeholders, allowing the ability to access and input towards key project information and reference material, delivering clarity, transparency and commonality across the aviation community.

2.6 In preparation for the airspace transition and implementation, the UAE Airspace Restructuring Project formed an industry lead Transition Plan Development Team (TPDT). The team incorporated representation from all key industry stakeholders. The role of the TPDT was to develop a comprehensive transition period/event schedule and ensure a smooth and successful implementation of the new airspace structure. Due to the traffic dynamics and scheduling within the Emirates FIR, a unique and bespoke plan was developed which would minimise any risk of disruption to operators. Operational analysis from the UAE airports, ANSPs and airlines formed a joint data source utilised by the TPDT to isolate a “sweet spot” in time to implement the airspace change catering for the major flows in traffic demand within the Emirates FIR.

2.7 On the night of transition, a transition cell was activated at the GCAA’s Sheikh Zayed Air Navigation Centre. Within the cell contained senior management from the UAE ANSPs, regulatory personnel and representation from UAE national carriers. The cell also contained a transition manager for the event and was utilised for immediate stakeholder oversight of activities and for rapid decision-making capability, if required. Throughout the event, a published schedule of teleconferences allowed all external stakeholders ability to be informed and able to contribute towards the transition activities. The collaborative development, preparation and execution adopted throughout the UAE Airspace Restructuring Project ensured a smooth and successful implementation of the new airspace on 7 December 2017.

2.8 To ensure the Emirates FIR continues to deliver future airspace capability requirements for its aviation community, the GCAA’s National Airspace Advisory Committee (NASAC) formed an Integrated Airspace Master Plan Working Group. This group will see the continuation of the successful

core values used within the UAE Airspace Restructuring Project and will place collaborative responsibility across the UAE's aviation community to develop a master plan fit for the UAE for decades to come.

3. **CONCLUSION**

3.1 The Conference is invited to:

- a) note the contents of the information paper and the multi-stakeholder collaboration leading to the success of the UAE Airspace Restructuring project; and
- b) note that the UAE is willing to provide knowledge sharing and lessons learnt from the experiences gained through the UAE Airspace Restructuring Project.

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