

International Civil Aviation Organization
UNDP/ICAO Regional Project RLA/98/003
Transition to the CNS/ATM Systems in the CAR/SAM Regions

Second Meeting/Workshop of ATM Authorities and Planners
(Lima, Peru, 14-18 May, 2001)

Item 6: Review of the implementation programme for RNAV pre-operational trial and demonstration routes

(presented by the Secretariat)

Summary

This working paper contains a schedule of activities to be carried out by the parties involved in order to implement a pre-operational trial and demonstration programme on RNAV routes UT 410, UT 655, and UT 776.

Reference:

- First Meeting/Workshop of ATS Authorities and Planners of the CAR/SAM Regions

1. Introduction

1.1 In response to the proposal to carry out a trial and demonstration programme on the Buenos Aires/Miami, Sao Paulo/Los Angeles, and Sao Paulo-Rio de Janeiro/New York RNAV routes, an implementation programme was drawn up and sent to the civil aviation administrations involved through letter LT 11/3.19.6 SA0263 dated 29 March 2001. This programme will give a clear idea of the steps to be taken in order to have a successful programme of pre-operational trials and demonstrations on the cited RNAV routes.

2. Analysis

2.1 The implementation programme for the pre-operational trials and demonstrations (see **Appendix A**) describes the activities to be carried out by the States, users, IATA and ICAO and the target dates for completion of those activities, and also includes additional information, where applicable. The dates given in this timetable are tentative and intended as a reference. In light of the agreements reached during the meeting, this implementation timetable should be revised and modifications made as deemed necessary.

2.2 This implementation timetable was used during the implementation of RNAV routes UT 780 and UT 795/UT 799 and was later modified based on the experience gained in implementing those routes.

2.3 In this case, the date 18/05/01 has been used for implementation of RNAV trial and demonstration routes UT 410, UT 655, and UT 776. The timetable has been prepared on the basis of that date, leaving sufficient time for each of the parties involved to successfully accomplish all of the assigned tasks.

3. **Suggested action**

3.1 The meeting is invited, in light of the agreements reached during its course:

- a) to review the implementation timetable for the pre-operational trials and demonstrations on the RNAV routes in question, set out in **Appendix A** to this working paper and make any amendments it deems advisable; and
- b) if the pre-operational trials and demonstrations on RNAV routes UT 410, UT 655, and UT 776 are approved, to formulate the following conclusion:

Conclusion XXX – Timetable of activities for implementation of RNAV routes *UT 410, UT 655, and UT 776*

That, in light of the agreements reached during the meeting and in order to carry out the programme for implementation of RNAV routes UT 410, UT 655, and UT 776, the parties involved in the pre-operational trials and demonstrations on those routes, States, users, IATA, and the ICAO NACC and SAM Regional Offices take into consideration and apply the timetable of activities shown in Appendix **XXX** to this part of the report.

APPENDIX A

TIMETABLE FOR IMPLEMENTATION OF A PROGRAMME OF PRE-OPERATIONAL TRIALS AND DEMONSTRATIONS ON THE BUENOS AIRES/MIAMI (UT 410), SAO PAULO / LOS ANGELES (UT 655), AND SAO PAULO-RIO DE JANEIRO/NEW YORK (UT 776) RNAV ROUTES

EXPLANATION OF THE TABLE

Column 1	Describes the activities to be carried out by the States/Organizations involved
Column 2	Shows the target dates for completion of the activities described in column 1
Column 3	Contains additional information

Activities that are the responsibility of the States whose FIR/s are involved		
ACTIVITY	COMPLETION DATE	REMARKS
-1-	-2-	-3-
Agreement on the RNAV routes to be implemented and on the trials/demonstrations to be conducted	18/05/01	Route paths, reporting points, agreements, etc., to be defined at the Second Meeting/Workshop of ATM Authorities and Planners (14-18/5/01)
Review of bilateral/multilateral agreements between service suppliers and/or identification of cases requiring their execution	18/05/01	According to the route paths, reporting points (including the geographical coordinates), agreements, etc., that are defined at the Second Meeting/Workshop of ATM Authorities and Planners
Verification and approval of geographical coordinates	31/07/01	The geographical coordinates are expected to be established in the course of the meeting. Otherwise, the necessary coordinations will be made for that purpose through the respective ICAO NACC and SAM Regional Offices
Publication of AIC and AIP Supplement	09/08/01	States affected by the RNAV trials should publish a common AIC and AIP Supplement
Training of controllers and, if necessary, development of procedures	04/09/01	The more information that is given to the controllers, the greater the chance of success in the trials and demonstrations
Inclusion of agreements and procedures in national operating manuals	04/09/01	If necessary, States will include the agreements and procedures in their operating manuals
Decision to start the trials and demonstrations	04/09/01	The ICAO NACC and SAM Regional Offices will make an evaluation together with each of the States involved and it will be decided whether to keep or postpone the starting date for trials and demonstrations

Activities that are the responsibility of the States whose FIR/s are involved		
ACTIVITY	COMPLETION DATE	REMARKS
-1-	-2-	-3-
Entry into effect of the pre-operational trials and demonstrations	04/10/01	RNAV trial and demonstration routes to be agreed upon at the Second Meeting/Workshop of ATM Authorities and Planners (14-18/05/01)
Collection of trial and demonstration data	TBD	To be carried out by the unit appointed by each State
Conclusion of the trial and demonstration period	21/02/02	Processing of data by each State and IATA for presentation at the Third Evaluation Meeting.
Third Evaluation Meeting	To be established at the Second Meeting of ATM Authorities and Planners (14-18/05/01)	Trial and demonstration conclusions will be evaluated with a view to the definitive implementation of the temporary RNAV routes
Completion of trials and demonstrations	11/7/02	The trials and demonstrations are expected to cover a period of 9 months

Activities for which the Users are responsible		
ACTIVITY	COMPLETION DATE	REMARKS
-1-	-2-	-3-
Agreement on the routes to be implemented and on the trials/demonstrations to be conducted	18/05/01	Route paths, reporting points, agreements, etc., to be defined at the Meeting/Workshop of ATM Authorities and ATS Planners (14-18/05/01)
Crew training/development of procedures, if needed	04/09/01	The more information that is given to the crews, the better the chance of success in the trials and demonstrations
Entry into effect of the pre-operational trials and demonstrations	04/10/01	RNAV Trial and Demonstration routes to be agreed upon by the Second Meeting of ATM Authorities and Planners (14-18/05/01)
Collection of trial and demonstration data	TBD	To be carried out by each of the users, which will forward the information to IATA (for its member enterprises) and to the aeronautical authority of its State (for non-IATA member users)
Conclusion of the trial and demonstration period	21/02/02	In principle, trials and demonstrations will be carried out over a period of 9 months
Processing of trial and demonstration data	21/02/02	To be carried out by each State and IATA
Third Evaluation Meeting	To be established at the Second Meeting of ATM Authorities and Planners (14-18/05/01)	Trial and demonstration conclusions will be evaluated with a view to the definitive implementation of the temporary RNAV routes
Completion of trials and demonstrations	11/7/02	The trials and demonstrations are expected to cover a period of 9 months

Activities for which IATA is responsible		
ACTIVITY	COMPLETION DATE	REMARKS
-1-	-2-	-3-
Agreement on RNAV routes to be implemented and on trials and demonstrations to be conducted	18/05/01	Route paths, reporting points, agreements, etc, and the like to be defined at the Second Meeting/Workshop of ATM Authorities and Planners (14-18/05/01)
Coordination with Jeppesen to obtain precise route coordinates	18/06/01	Jeppesen should be contacted in order to obtain the precise geographical coordinates, which should be forwarded to the ICAO NACC and SAM Regional Offices for distribution to the States involved
Printing of charts incorporating the new RNAV routes to be implemented	29/06/01	Agreements should be reached with Jeppesen for the printing of the appropriate charts
Circulation of trial and demonstration information to the airlines. Selection of airlines capable of flying the routes in question	04/09/01	The more information that is distributed among the users, the better the chance of success in the trials and demonstrations
Entry into effect of the pre-operational trials and demonstrations	04/10/01	RNAV Trial and Demonstration routes to be agreed upon by the Second Meeting of ATM Authorities and Planners (14-18/05/01)
Collection of data	TBD	IATA will collect data from its participating member airlines and will send copy of such data to the respective ICAO Regional Offices
Conclusion of the trial and demonstration evaluation period	21/02/02	IATA should analyse the data obtained from the airlines participating in the trials and draw relevant conclusions for presentation to and evaluation at the Third Meeting/Workshop of ATM Authorities and Planners
Third Evaluation Meeting	To be established at the Second Meeting of ATM Authorities and Planners	The conclusions of the trials and demonstrations will be evaluated with a view to the definitive implementation of the temporary RNAV routes

Activities for which IATA is responsible		
ACTIVITY	COMPLETION DATE	REMARKS
-1-	-2-	-3-
Completion of trials and demonstrations	11/7/02	In principle, the trials and demonstrations will be conducted over a period of 9 months.

Activities for which ICAO is responsible		
ACTIVITY	COMPLETION DATE	REMARKS
-1-	-2-	-3-
Agreement on the RNAV routes to be implemented and on the trials and demonstrations to be conducted	18/05/01	Route paths, reporting points, agreements, etc., to be defined at the Second Meeting/Workshop of ATM Authorities and Planners (14-18/05/01)
Coordination /assistance in reviewing the bilateral/ multilateral agreements between service suppliers and/or identification of cases requiring their execution	18/05/01	According to the route paths, reporting points (including the geographical coordinates), agreements, etc., that are established at the Second Meeting/Workshop of ATM Authorities and Planners (14-18/05/01).
Remittance of geographical coordinates to the States involved	31/07/01	The ICAO NACC and SAM Regional Offices will coordinate the route information supplied by IATA with the States for its publication in the AIC and AIP Supplement
Verification with the States of the schedules for publication of the AIC and AIP Supplement	01/08/01	RNAV trial and demonstration routes to be agreed upon by the Second Meeting/Workshop of ATM Authorities and Planners (14-18/05/01)
Decision to start trials and demonstrations on the selected routes	04/09/01	The NACC and SAM Regional Offices will make an evaluation with each of the States involved and it will be decided whether to keep or postpone the starting date for the trials and demonstrations. The decision taken will be forwarded to all interested parties
Entry into effect of the pre-operational trials and demonstrations	04/10/01	RNAV Trial and Demonstration routes to be agreed upon by the Second Meeting of ATM Authorities and Planners (14-18/05/01)

Activities for which ICAO is responsible		
ACTIVITY	COMPETITION DATE	REMARKS
-1-	-2-	-3-
Coordination of data processing	25/02/02	The processing of trial and demonstration data to be presented at the Third Meeting of ATM Authorities and Planners will be coordinated with the States and IATA
Coordination of the Third Evaluation Meeting	To be established at the Second Meeting of ATM Authorities and Planners	The trials and demonstrations will be evaluated with a view to the definitive implementation of the temporary RNAV routes
Completion of trials and demonstrations	11/7/02	In principle, the trials and demonstrations will be carried out over a period of 9 months.