



Agenda Item 2: Optimisation of SAM airspace

a) PBN regional implementation

ATS ROUTE CATALOGUE FOR PLANNING AND FOLLOW-UP

(Presented by the Secretariat)

SUMMARY

This paper describes the activities involved in the drafting of the ATS route catalogue for planning and follow-up.

1. Background

1.1 The activities involved in the drafting of the ATS route catalogue for planning and follow-up were carried out between 15 April and 3 May 2019, as agreed by the RCC/12 of Project RLA/06/901 in August 2018. This catalogue also serves as support for updating the ICARD database of ATS route designators.

1.2 The drafting of the catalogue in Excel was done by Mr. Eloy Tafur Carbajal, ATS specialist of the DGAC of Peru, as part of a contribution in human resources.

2. Discussion

2.1 The ICARD database contains a module for recording regional and non-regional ATS route designators, as stipulated in ICAO Annex 11 (see Table 1). The purpose of this database is to apply the basic designators assigned to the Regional Offices and avoid duplication, based on the following tables:

Basic Designator:	A, B, G, R – Routes which form part of the Regional Networks of ATS routes and are not Area Navigation routes (Regional, Conventional) L, M, N, P – Area Navigation (RNAV) routes which form part of the Regional Networks of ATS routes (Regional, RNAV) H, J, V, W – Routes which do not form part of the regional networks of ATS routes and are not Area Navigation routes (Non-Regional, Conventional) Q, T, Y, Z – Area Navigation (RNAV) routes which do not form part of the regional networks of ATS routes (Non-Regional, RNAV)
Prefix before designator:	K - Low level route established for use primarily by helicopters U - Route or portion thereof is established in upper airspace S - Route established exclusively for use by supersonic aircraft
Suffix after designator:	F – Advisory service only is provided. G – Flight information service only is provided.

Table 1

Basic Desig.	EUR/NAT	APAC	SAM	MID	ESAF	NACC	WACAF	RESERVED
A	100-124 225-249 350-374 475-499 700-724 800-849 900-974	200-224 325-349 450-474 575-599	300-324 425-449 550-574 675-699	400-424 775-799	525-549 650-674	500-524 625-649 750-774 875-899	600-624 725-749 850-874 975-999	1-99 125-199 250-299 375-399
B	100-124 225-249 350-374 475-499 700-724 800-849 900-974	200-224 325-349 450-474 575-599	300-324 425-449 550-574 675-699	400-424 525-549	650-674 775-799	500-524 625-649 750-774 875-899	600-624 725-749 850-874 975-999	1-99 125-199 250-299 375-399
G	100-124 225-249 350-374 475-499 700-724 800-849 900-974	200-224 325-349 450-474 575-599	300-324 425-449 550-574 675-699	650-674 775-799	400-424 525-549	500-524 625-649 750-774 875-899	600-624 725-749 850-874 975-999	1-99 125-199 250-299 375-399
R	100-124 225-249 350-374 475-499 700-724 800-849 900-974	200-224 325-349 450-474 575-599	300-324 425-449 550-574 675-699	650-674 775-799	400-424 525-549	500-524 625-649 750-774 875-899	600-624 725-749 850-874 975-999	1-99 125-199 250-299 375-399
L	1-99 125-199 600-624 725-749 850-874 975-999	500-524 625-649 750-774 875-899	400-424 525-549 650-674 775-799	300-324 550-574 700-724	425-449 675-699	200-224 325-349 450-474 575-599	100-124 225-249 350-374 475-499	250-299 375-399 800-849 900-974
M	1-99 125-199 600-624 725-749 850-874 975-999	500-524 625-649 750-774 875-899	400-424 525-549 650-674 775-799	300-324 550-574 700-724	425-449 675-699	200-224 325-349 450-474 575-599	100-124 225-249 350-374 475-499	250-299 375-399 800-849 900-974
N	1-99 125-199 600-624 725-749 850-874 975-999	500-524 625-649 750-774 875-899	400-424 525-549 650-674 775-799	300-324 550-574 700-724	425-449 675-699	200-224 325-349 450-474 575-599	100-124 225-249 350-374 475-499	250-299 375-399 800-849 900-974
P	1-99 125-199 600-624 725-749 850-874 975-999	500-524 625-649 750-774 875-899	400-424 525-549 650-674 775-799	300-324 550-574 700-724	425-449 675-699	200-224 325-349 450-474 575-599	100-124 225-249 350-374 475-499	250-299 375-399 800-849 900-974

Table 2

Basic Desig.	EUR/NAT	APAC	SAM	MID	ESAF	NACC	WACAF	RESERVED
H	300-324 425-449 550-574 675-699	400-424 525-549 650-674 775-799	500-524 625-649 750-774 875-899	615-624 725-749 850-874 975-999	600-614	100-124 225-249 350-374 475-499	200-224 325-349 450-474 575-599	1-99 125-199 250-299 375-399 700-724 800-849 900-974
J	300-324 425-449 550-574 675-699	400-424 525-549 650-674 775-799	500-524 625-649 750-774 875-899	615-624 725-749 850-874 975-999	600-614	100-124 225-249 350-374 475-499	200-224 325-349 450-474 575-599	1-99 125-199 250-299 375-399 700-724 800-849 900-974
V	300-324 425-449 550-574 675-699	400-424 525-549 650-674 775-799	500-524 625-649 750-774 875-899	600-624 725-749 880-874 975-999	850-859	100-124 225-249 350-374 475-499	200-224 325-349 450-474 575-599	1-99 125-199 250-299 375-399 700-724 800-849 900-974
W	300-324 425-449 550-574 675-699	400-424 525-549 650-674 775-799	500-524 625-649 750-774 875-899	600-624 725-749 850-864 975-999	865-874	100-124 225-249 350-374 475-499	200-224 325-349 450-474 575-599	1-99 125-199 250-299 375-399 700-724 800-849 900-974
Q, T, Y, Z	---	---	---	---	---	---	---	---

Table 3

2.2 The South American Regional Office manages the basic designators and the numbering, based on a block assigned for the regional route network: A, B, G and R for conventional routes, and L, M, N and P for RNAV routes.

2.3 For example, for regional RNAV routes with the basic designator P, the numbering that corresponds to the SAM Office is the one contained in the following blocks: 400-424, 525-549, 650-674 and 775-799. In the case of the CAR/SAM Regional air navigation plan, CAR/SAM Table ATM II uses the numbering of the Lima or Mexico Office indistinctly for inter-regional routes, since one designator can extend over two or more regions.

2.4 In the case of non-regional routes (domestic routes), States should coordinate with the Regional Office in order to obtain a basic designator and a number from the corresponding list: H, J, V, W for conventional routes (for RNAV routes, see the note below). However, several Regions are not applying the number blocks assigned for domestic routes.

Note. - Basic designators Q, T, Y, Z for RNAV routes do not have number blocks distributed among the Regional Offices.

2.5 Based on the catalogue, some opportunities for improvement have been identified, including the following:

- Cases of effective duplication – route numbers are published in the charts of two Regions, for example, SAM and EUR. However, the number corresponds to SAM (blocks 400-424 and 525-549).
- For decades, SAM has been using block 300-324 for RNAV routes, but this block is assigned to MID.
- There are cases of NACC numbers (CAR + NAM) used by SAM in non-adjacent airspaces (e.g., the South Atlantic).

2.6 In summary, the catalogue is a great ATM planning tool, since it allows for the analysis and recording of inconsistencies unintentionally generated in our Region, as a result of the implementation of RNAV-5 and the optimisation of regional ATS airspaces and domestic airspaces. The catalogue is also a database for entering route designators in ICARD.

2.7 Any solution to the aforementioned inconsistencies must be carefully analysed, since it is linked to amendments to the CAR/SAM eANP and would generate simultaneous changes in the airspace, charts, letters of agreement, etc., of several States and Regions. The Secretariat will continue coordinating with those responsible for ICARD and will analyse future activities in order to standardise the use of ATS route designators in the SAM Region.

3. Suggested action

3.1 States are invited to take note and analyse, the information contained in this paper.
