



Agenda Item 2: Optimization of the ATS routes

AERONAUTICAL INFORMATION PUBLICATION (AIP) – ENR 3.3 Air Navigation Routes

(Presented by the Secretariat)

Summary	
This working paper proposes the use by all SAM States of a standard format for RNAV routes publication, AIP, Section 3.3 – Air Navigation routes (RNAV).	
References: <ul style="list-style-type: none">• ICAO Annex 15• Doc 8126 – Manual for Aeronautical Information Services	
ICAO Strategic objectives	<i>A – Safety</i> <i>C – Environmental Protection</i> <i>D – Efficiency</i>

1 Background

1.1 As per Annex 15, Aeronautical Information Services, aeronautical information publications (AIP) have the main objective to meet international requirements for aeronautical information exchange, of a permanent nature, which is essential to air navigation.

1.2 Modifications to the important AIP for operations must be published as per AIRAC procedures.

1.3 WP/06 presents the proposal for amendment to the CAR/SAM ANP, which contains a list of RNAV routes that will be implemented at a regional level, as well as other that modify its trajectory, while others will be definitively eliminated from ATS Routes Table of such document.

2 Analysis

2.1 At the same time, States involved must comply with the publication of modifications to the AIP to be carried out. In Doc 8126 – Manual for aeronautical information services, shows in its Section ENR-3, Routes a detailed list of all ATS routes established within the territory covered by the AIP, either if they form part of regional air navigation agreements or if they are used only for local air traffic. Section ENR 3.1 includes lower airspace ATS routes; in Section ENR 3.2 those corresponding to the upper airspace, and Section 3.3 includes air navigation routes (RNAV).

2.2 The proposal for amendment shown in WP/06, among others, contains different RNAV routes, therefore the same must be incorporated into the different sections mentioned, as appropriate.

2.3 Specially, this working paper refers to the problem to be presented in Section ENR 3.3 RNAV Routes, in view that these routes to be incorporated into the different SAM Region AIPs, contain routes that, as of November 2010 will belong to the RNAV5 airspace.

2.4 In view that the current Doc 8126 corresponds to the Sixth Edition – 2003, the Secretariat has asked ICAO Headquarters AIM Section to confirm whether there have been any changes in the text corresponding to sections ENR 3.1; ENR 3.2; and ENR 3.3, and the reply has been that there are no changes, but that those sections are under revision and will be shortly amended in order to adequate them as per the information to be originated, as PBN implementation occurs.

2.5 In view of this and in order to have a standard format for the publication of information corresponding to the AIP Section ENR 3.3 – RNAV Routes, **Appendix A** to this working paper shows a format expected to be used by SAM States.

3 Suggested action

3.1 The meeting is invited to propose SAM States that, taking advantage of RNAV routes publication in the AIP, use the format proposed in **Appendix A** to this working paper, which is in full agreement with Doc 8126.

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APPENDIX A

ENR 3.3 RUTAS DE NAVEGACIÓN DE ÁREA – AREA NAVIGATION ROUTES

<i>Designador de ruta (especificación para la navegación)</i> <i>Nombre de los puntos significativos Coordenadas</i> <i>Route designator (Navigation specification) Name of significant points Coordinates</i>	<i>Punto de recorrido IDENT de VOR/DME BRG & DIST ELEV antena DME</i> <i>Waypoints VOR/DME IDENT BRG & DIST ELEV antenna DME</i>	<i>Distancia Ortodrómica (NM)</i> <i>Orthodromic distance (NM)</i>	<i>Límites superiores Límites inferiores Clasificación del Espacio aéreo</i> <i>Upper limits Lower limits Airspace Classification</i>	<i>Dirección de los niveles De cruceiro Cruise level direction</i>		<i>Observaciones Dependencia de control Frecuencia</i> <i>Remarks Control Unit Frequency</i>
				<i>Impar Odd</i>	<i>Par Even</i>	
1	2	3	4	5		6
UM 403 (RNAV 5) ▲ Limite FIR /FIR BDRY (NILKI) 243923S 0565210W ▲ SOSMO 233806S 0554535W 	NIL VAS 110° 265.4 NM 140M	195,6	<u>FL 450</u> FL 245	↓	Para continuar véase AIP...(especifíquese) To continue refer AIP... (specify) Asunción ACC FREC: 126,900 MHZ Resistencia ACC FREC: 125,300MHZ 	
		321	<u>FL 460</u> FL 245 	↓		
UM530 (RNAV 5) ▲ EZEIZA VOR (EZE) 344927S 0583207W ▲ DORVO 344258S 0573102W 	NIL 030M EZE 110° 60NM 030M 	70	<u>FL 450</u> FL 195 <u>FL 450</u> FL 195 	↓	Baires Control FREC: 124,500MHZ Para continuar véase AIP...(especifíquese) To continue refer AIP... (specify)	
		↓		
<p>1. <i>Especificación para la navegación</i>: Conjunto de requisitos relativos a la aeronave y a la tripulación de vuelo necesarios para dar apoyo a las operaciones de la navegación basada en la performance (PBN) dentro de un espacio definido. Existen dos clases de especificaciones para la navegación:</p> <ul style="list-style-type: none"> • <i>Especificación RNAV</i>: Especificación para la navegación basada en la navegación de área que incluye el requisito de vigilancia y alerta de la performance, designada por medio del prefijo RNAV, por ejemplo RNAV 5, RNAV 1. • <i>Especificación RNP</i>: Especificación para la navegación basada en la navegación de área que incluye el requisito de vigilancia y alerta de la performance, designada por medio del prefijo RNP, por ejemplo, RNP 4, RNP APCH <p>1. <i>Navigation specification</i>. A set of aircraft and aircrew requirements needed to support performance-based navigation operations within a defined airspace. There are two kinds of navigation specification:</p> <ul style="list-style-type: none"> • <i>RNAV specification</i>. A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, e.g. RNAV 5, RNAV 1. • <i>RNP specification</i>. A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH. 						