



International Civil Aviation Organization

South American Regional Office

**Seventh Workshop/Meeting of the SAM Implementation Group
(SAM/IG/7) – Regional Project RLA/06/901**

Lima, Peru, 23 to 27 May 2011

SAM/IG/7- WP/16

9/5/11

Agenda Item 3: Implementation of performance-based navigation (PBN) in the SAM Region

Agenda Item 6: Assessment of operational requirements to determine the implementation of improvements in communication, navigation and surveillance (CNS) capabilities for en-route and terminal area operations

ANALYSIS OF DME/DME COVERAGE FOR RNAV-5 ROUTES IN THE SAM REGION

(Presented by the Secretariat)

This working paper presents the results obtained from the analysis of DME/DME coverage for RNAV-5 routes in the SAM Region.

References:

- ICAO Annex10, Vol. I–Radio Navigation Aids;
- Project RLA/06/901 -
- SAM /IG/5 meeting report(Lima, Peru,10-14 May 2010);
- SAM/IG/6 meeting report (Lima, Peru, 18-22 October 2010);
- RCC4 meeting report (Lima, Peru,1-3December 2010);
- CAR/SAM Performance-Based Navigation Roadmap;
- Aircraft Operations (Doc8168), Vol. II;
- Performance-Based Navigation Manual (Doc 9613); and
- CNS/ATM/SG/1 and CNS/ATM/SG/2 meeting reports.

**ICAO
Objectives:**

Strategic

*A – Safety; and
C–Environmental protection and sustainable
development of air transport*

1. Introduction

1.1 PBN implementation entails the need to analyse the ground radio aid infrastructure, mainly DMEs, that will have a significant impact on State plans regarding deployment and the corresponding investment plans.

1.2 RNAV procedures should permit the use of GNSS. However, since there are aircraft that lack GNSS capability, and since GNSS can fail, it is necessary to have an alternate infrastructure based on the use of DME/DME or DME/DME/INS.

1.3 The SAMIG/6 meeting took note of the need to define the actions required to assess DME/DME coverage in the States with a view to meeting the RNAV-5 implementation date of 22 September 2011.

1.4 In this regard, the SAMIG/6 meeting considered the need to engage an expert for a period of 15 days for analysing DME/DME coverage in the SAM Region and, subsequently, to conduct a workshop in Lima. The fourth meeting of the Coordination Committee of Project RLA/06/901 (RCC/4) approved these tasks.

1.5 The workshop that had been originally planned could not be carried out because the DME/DME software tool was only licensed for one computer. Consequently, it was decided that the work be carried out by two experts of the Brazilian aeronautical administration with the support of two experts of the Peruvian aeronautical administration (DGCA and CORPAC).

1.4 The group of experts met in Lima on 25 April to 6 May 2011 to conduct the coverage study, whose results are presented below.

2. Analysis

Description of the software tool

2.1 The software used was EMACS (ElectroMagnetic Airport Control & Survey), a tool developed by IDS for analysing electromagnetic propagation and which was acquired by Brazil in 2010. Its main platform is a CAD environment called Microstation.

2.3 The first task performed by the group of experts was the conversion of the South American SRTM 900m terrain file into a format compatible with EMACS, using the Intergraph ISEU software.

2.4 Subsequently, the Microstation was fed with the geographical coordinates of the 292 DME stations in South America, taken from the database developed by Project RLA/06/901 and presented at the SAMIG/5 meeting, and from the FASID Table. Figure 1 contains the DME chart for the SAM Region.

2.5 Information about the power and antennae radiation diagram of each DME was added, as shown in figure 2. The power considered for each DME was 1 KW, in the 1126 Mhz frequency (not all frequencies need to be inserted, since the resulting coverage pattern is practically the same in the DME frequency range), and linear polarisation was selected.



Figure 1 –DME chartfor the SAM Region

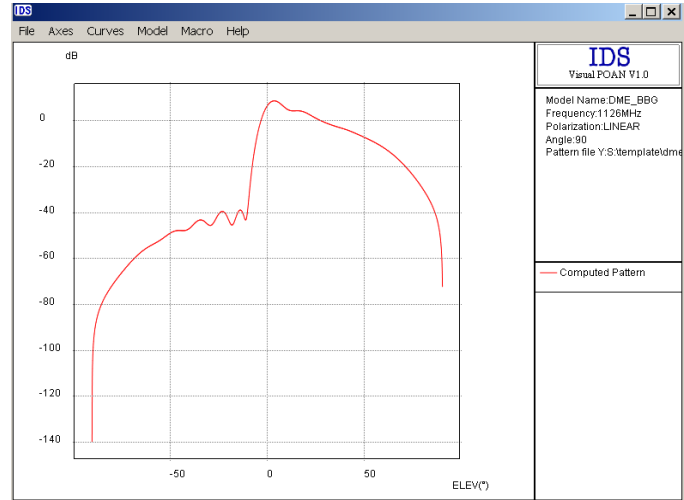


Figure 2 – DME antenna radiation diagram

2.6 Given the complexity of the calculations for defining DME/DME coverage, and taking into account the number of DMEs in the SAM Region, the area of analysis was divided into 60 1000 km x 1000 km grids, with a resolution of 1078x1078 calculation points, which expedited processing and reduced the time required to attain results.

2.7 All the DMEs that could be involved in the calculation of DME coverage were defined for each grid, as shown in Figure 4.

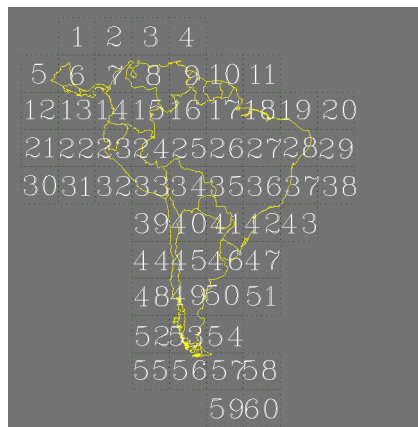


Figure 3 – Division of the SAM Region into 60 grids

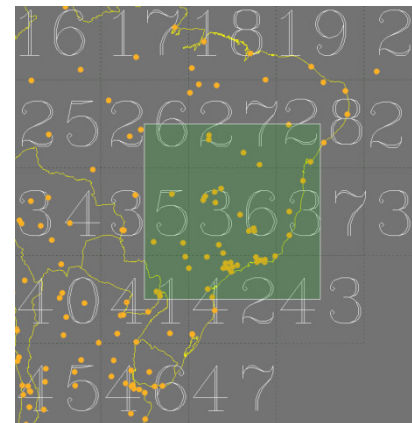


Figure 4 – Definition of the DMEs involved

2.8 According to Document 8168, Volume II, Part III, Chapter III, and the PBN Manual (Doc 9613), it was felt that the DME facilities shall not be used if located more than 160 NM or less than 3 NM away, and that the elevation between the station and the aeroplane shall be less than 40 degrees. Likewise, for DME/DME navigation, there must be double DME coverage, at an angle between 30° and 150°. These conditioning factors have a direct impact on the precision obtained in an RNAV operation. Figure 5 shows the definition of the DOC (Designated Operational Coverage) as given in the EMCAS and the insertion of the aforementioned restriction parameters.

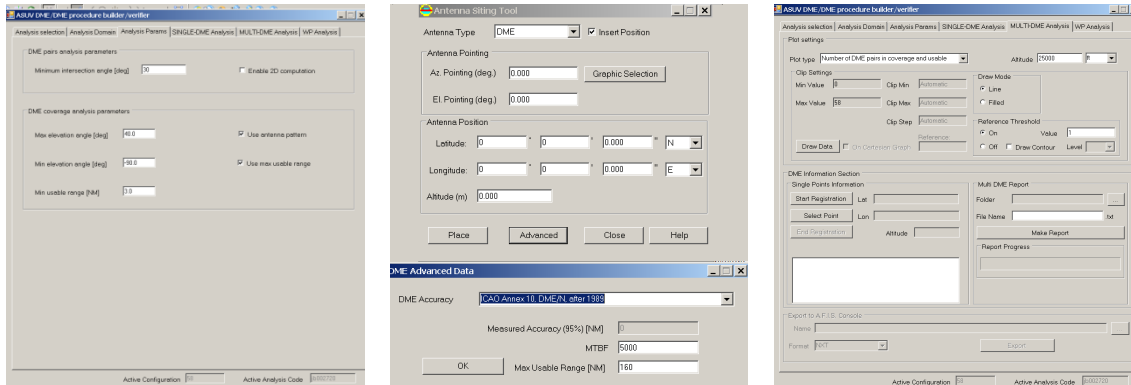


Figure 5 – Definition of DOC (Designated Operational Coverage) and insertion of Doc 9613 parameters in the EMACS

2.10 The resulting DME/DME coverage at FL250 for each of the 60 grids, taking into account the parameters mentioned in 2.8, has been exported to the Google Earth environment, since it is a free-of-charge, user-friendly tool.

2.11 It should be noted that there are small differences in coordinates between EMACS and Google Earth since the former uses LAMBERT-type projections to represent the terrain, and the latter uses geographic projections.

2.12 Thus, in order to avoid errors in the analysis of the coverage on RNAV routes, users shall not use Google Earth “zoom” function with display altitudes of less than 1000 km.

2.13 Positioning data for DMEs, FIRs, RNAV-5 routes, and fixes of the SAM Region were also imported to the Google Earth environment and included in the DME/DME coverage, resulting in a unique KML file that will be distributed to the States and which is to be used according to the instructions contained in **Appendix A** to this paper.

2.14 Based on this file, the group of experts made a preliminary assessment of each of the 143 RNAV routes sent by SAM States to the ICAO Regional Office. For each route segment (between two fixes), the degree of DME/DME coverage was verified to determine whether it was inexistent, partial or complete. The results of the analysis are shown in **Appendix B** to this paper.

2.15 In order to keep the DME/DME coverage in the SAM Region updated to support RNAV-5 routes, States must keep the ICAO SAM Regional Office informed about any changes in the existing DME facilities. In this respect, the following draft conclusion is submitted to the consideration of the Meeting:

DRAFT CONCLUSION SAM/IG/7-X

Updating of the DME/DME study

That SAM States, when making any changes to DME systems, inform the ICAO SAM Regional Offices so that it may update and distribute the DME/DME coverage study to support RNAV-5.

3. Suggested action

3.1 The Meeting is invited to:

- a) take note of the information provided;
- b) analyse the results of the studies on DME/DME coverage for RNAV-5 routes shown in Appendix B to this working paper, so that they may be used by SAM States for preparing the publications required for RNAV-5;
- c) review the draft conclusion contained in paragraph 2.15 of this working paper; and
- e) examine other aspects that the Meeting may deem appropriate in relation to this matter.

APPENDIX A

INSTRUCTIONS FOR THE USE OF THE KML FILE ON DME/DME COVERAGE AT FL 250

Introduction

The KML file contains a series of data that allow the user to analyse DME/DME coverage at FL 250 throughout the SAM Region. This coverage has been generated using the IDS EMACS software, and the data were then exported to the Google Earth software platform.

The EMACS software operates in a CAD environment (Microstation), providing coverage data for regions and airways. For this work, regional coverage was used to permit an analysis at the continental level.

Calculations are based on all the criteria contained in Annex 10, Doc 8168, and ICAO document entitled “Navigation Infrastructure Assessment in Support of PBN”.

Information on airways, fixes or DME position was obtained from the data sent by the countries of the Region, entered in Excel format and then exported to the KML format.

Requirements

1. Software Google Earth installed.

System requirements for Google Earth:

- Operating system: Windows XP, Windows Vista or Windows 7
- CPU: 500 Mhz Pentium 3
- System memory (RAM): 256 MB
- Hard disk: 400 MB of free space
- Speed: 128 Kbits/s
- Graphics: DirectX 9 3D, with 64 MB VRAM
- Screen: 1024x768, "16 bit High Color" - DirectX 9 (to be executed in Direct X mode)

Content

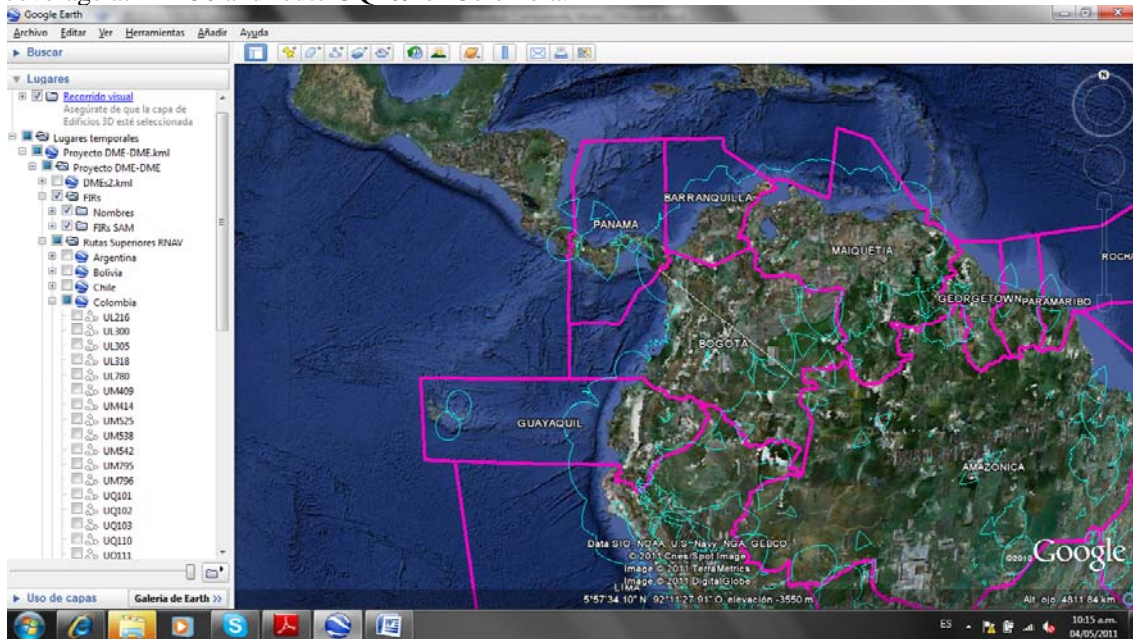
- “DME/DME Project” KML file containing:
 - FIRs (polygons and names)
 - DMEs
 - Upper RNAV airways
 - Waypoints (WP) of the SAM Region
 - Coverage graphs at FL250.

Start-up

With Google Earth open, click on: File > Open, and select the desired KML file.

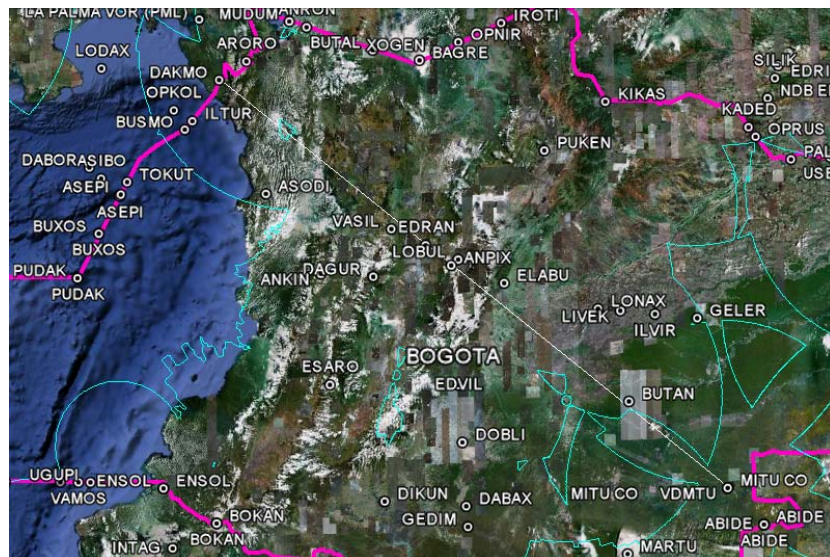
Operation

In Google Earth, in the left menu: Places, you can select what you want to show on the globe. In the figure shown below, FIRs were selected with their names and boundaries, together with DME/DME coverage at FL 250 and route UQ109 of Colombia.



We can see that the route has DME/DME coverage almost in all its length.

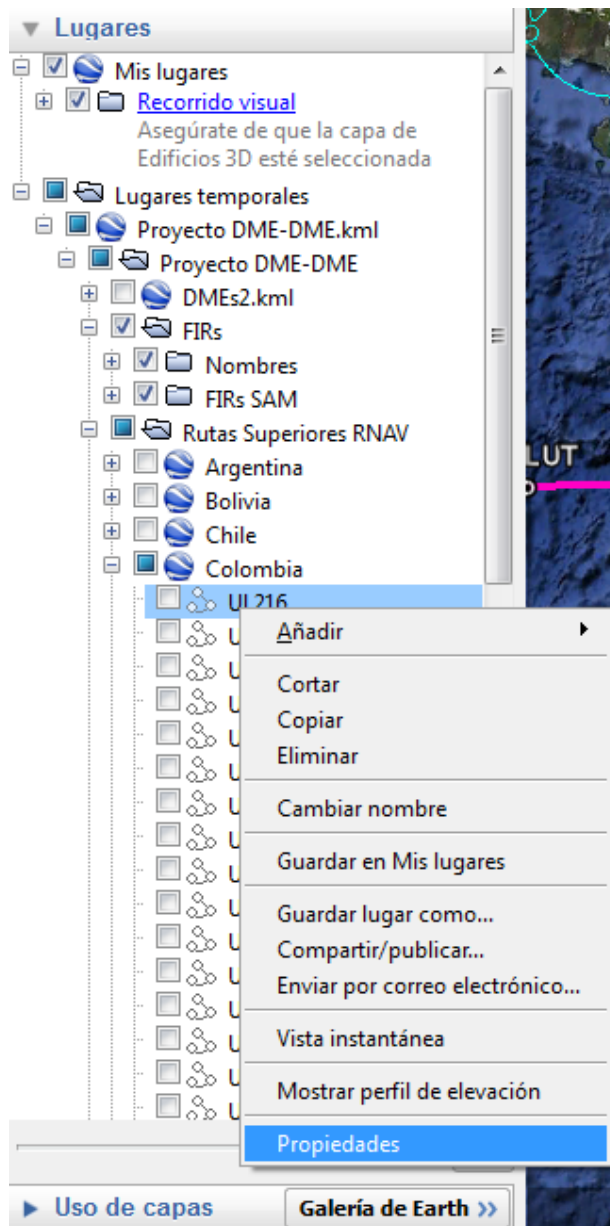
If a more precise or detailed analysis is desired, fixed points may be included, zooming in to a height of 1000 km to ensure correspondence between EMACS coordinate systems and Google Earth.



Data editing

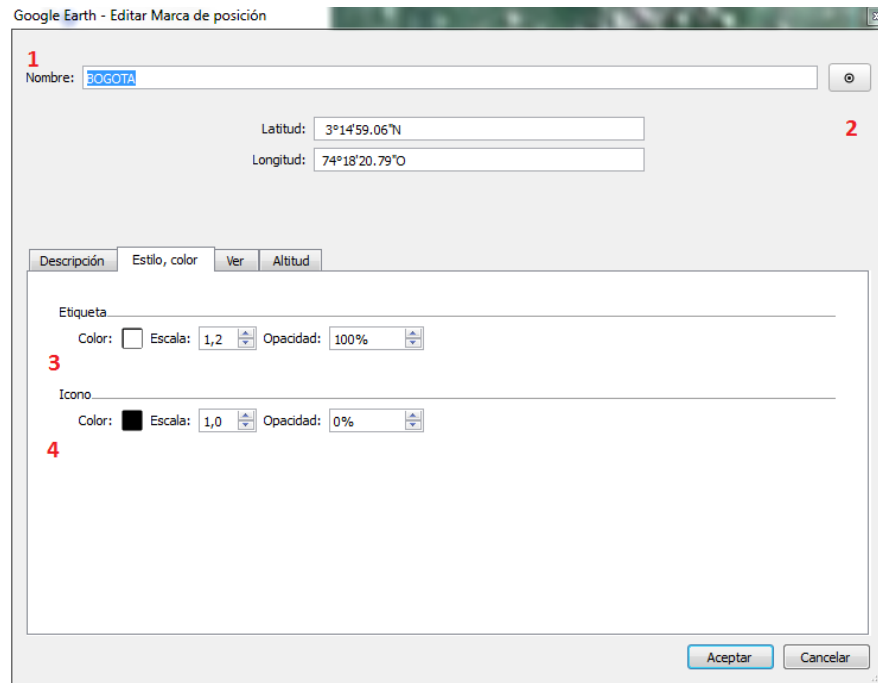
The procedure for editing element properties is simple. However, for editing a route, it should be noted that after clicking “Accept”, there is no possibility of undoing the action. Care must be taken when editing these elements.

For editing, click on the right button over the element to be edited and then on Properties, as shown in the figure below, where a route is selected (UL 216).



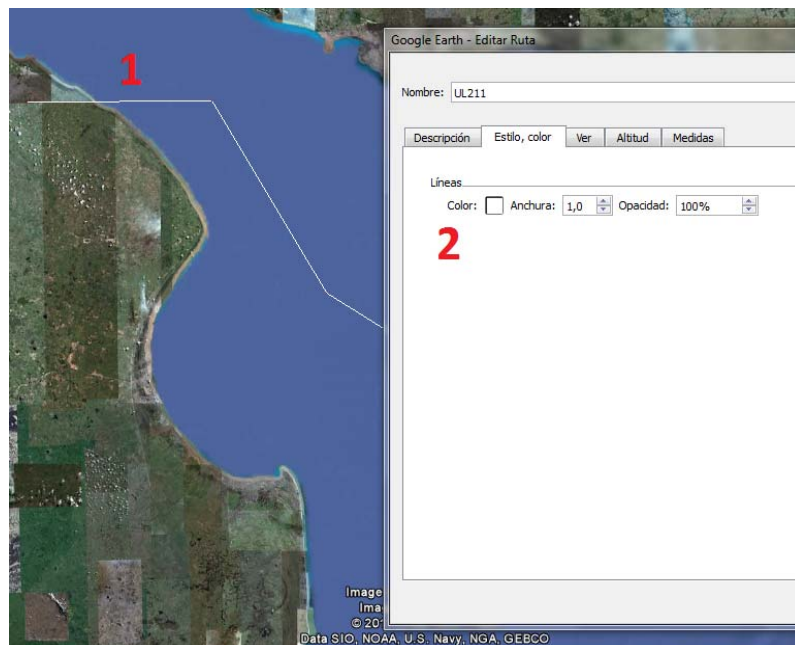
The “DME-DME Project” contains the following elements:

a) Fixes, DMEs and FIR names. The following aspects may be edited:



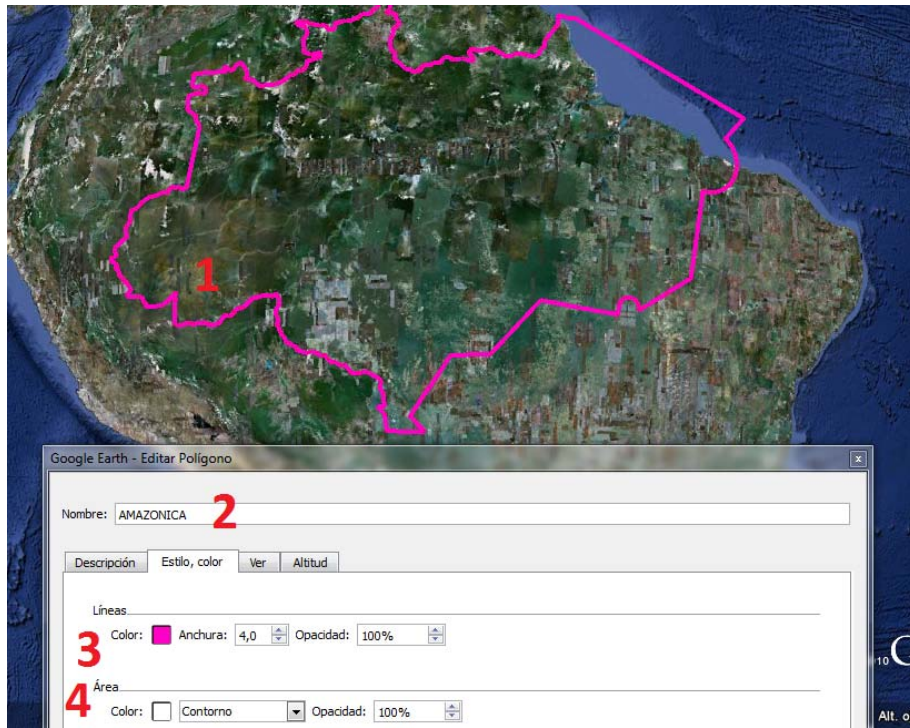
1. Name;
2. Symbol of the element;
3. Colour, size and transparency of the name; and
4. Colour, size and transparency of the symbol.

b) Airways



1. Path of the route (once the change is accepted, the action cannot be undone)
2. Colour, size and transparency of lines.

c) FIR boundaries



1. FIR boundaries;
2. Name of FIR;
3. Colour, width and transparency of boundaries; and
4. Transparency and colour of inside hatching.

APPENDIX B / APENDICE B**RNAV ROUTES SAM REGION / RUTAS RNAV REGION SAM**

WP	RESULTS OF THE DME/DME COVERAGE ANALYSIS / RESULTADOS DE ANALISIS DE	FIR
MITU CO VOR/DME (MTU)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BOGOTA
ABIDE		
ABIDE	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
CLOTI	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
MINIB		
BUMBA	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
EGLER		AMAZONICA
PERSA		
OBEBA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
IRUMI		
BARGE		
RONEN		
ARPAR		
KUGMA		
CANON		
CANON	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
ILMOK		
EQUAL	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
ANGOL		
GRACE	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
MABMA		BRASILIA
ABUSE		
TESEK	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
ISIRO		
ASTOB		
HASTE	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
PIRASSUNUNGA VOR/DME (PIR)		

VITORIA VOR/DME (VTR)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
CALVO		
CALVO	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
ABROLHOS NBAV		
PAMOX		
DEMON	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	RECIFE
ILKOX		
GIANT		
FLUTE		
NEMOL		
BUGAT		
REGIS		
ARUNU	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
BUTAP		
KODOS		
LA PLATA VOR (PTA)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ESLAN		
GATOS		
PAGAD	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
REKUL		
GUXOR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	EZEIZA
ANKOK		
KILOS		
KAKIN		
KETIS		
MORSI		
MUNES		
FOZ VOR/DME(FOZ)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
BITUR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
BITUR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ASUNCION
SOSMO		
EGELU		
ARVOP		
ARVOP	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	CURITIBA
ESDER		
SIDAK		

SIDAK	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LA PAZ
POSPA ARMUK		
ARMUK UBSIM ESBUL DOTKI EVOLO ILSOV PORTO VELHO VOR/DME (PVH)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
NELIT MAZAR RITMO MEDLE NAFTA BUMBA AKSUK GABRIEL VOR/DME (SGC) ZORRO		
ZORRO	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA
LOKES	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	MAIQUETIA
LOKES PUERTO AYACUCHO VOR/DME (PAY) EKUNA SAN FERNANDO VOR/DME (SFD) DAVEX SAN SEBASTIAN NDB (SSB) ALTOS VOR/DME MAIQUETIA/MIQ	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
MARICA VDMRC	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
VULGO		
ROKAD	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
CIDER		
BOGOTA "BOG" VOR/DME-NDB ROLUS	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA
ROLUS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LIMA
IQUITOS VOR/DME (IQT) OSORA		

OSORA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	AMAZONICA
TEMOR (FIR AMAZONICA)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
SELVA		
SELVA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	LIMA
ETEBA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
TOMIX		
OPKUL	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
OLGAS		
ARICA VOR/DME (ARI)		ANTOFAGASTA
ARICA VOR/DME (ARI)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
TIVIL INT	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
TUNIN INT	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
BAGRE INT		
ALDER INT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
TONGOY VOR/DME TOY	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
		SANTIAGO
ASUNCION VOR/DME(VAS)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
KEVUR		
BITUR		
BOLIR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
BOLIR		
VENUS		
TILKI		
RABAN		
MINOT	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
GALES		
FLORI		
DIONI		
ANDOR		
CONGONHAS VOR/DME (CGO)		

LIMA DVOR/DME (LIM)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	LIMA
ARPON		
ILMAR		
IREMI	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ANTOFAGASTA
IREMI INT		
ASEPU INT		
ELASA INT		
ATEDA INT	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	SANTIAGO
TONGOY VOR/DME (TOY)		

BONSUCESSO VOR/DME (BCO)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
OPRAM		
POCOS NDB (PCL)		
ZANET		
EDOLA		
CORVO		
PAGUE		
ROMIX		
PAMEO		
GOIANIA VOR/DME (GOI)		
KOMGA		
OPLIK		
OPORA		
OPRUX		
OPRUX		
TEREX		
LITUK		
DADOT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
MULUV		
MUMSA		
DARLO		
ITAITUBA NDB (YUB)		
ILTAN		
ESLEX		
TEPIM		
PUERA		
KAKIL		
ILNOV		
DAPSA		
BOA VISTA VOR/DME (BVI)		
BOA VISTA VOR/DME (BVI)		
BUVKU	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
BUVTU	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ISANI		

ISANI CANAIMA VE VOR/DME (CMA) LODIR RONER ERIPA CABO CODERA VOR/DME (CBC)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	MAIQUETIA
AKNUR BEGAB OPSEN EDGEL GAVA ILKIT	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
BARRANQUILLA VOR/DME /BAQ)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
MAGANGUE VOR/DME (MGN) BAGRE		
BAGRE	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
OTU VOR/DME (OTU) MARIQUITA VOR/DME (MQU)		
GIRARDOT VOR/DME (GIR)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
DIKUN	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
PULTU	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
PULTU TERAS		
TERAS OSUBU	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LIMA
VUKOK		
TARAPOTO VOR/DME (TAP)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
ENPAP	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
AMVEX	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
LIMA DVOR/DME (LIM)		
LIMA DVOR/DME (LIM)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	LIMA
KADEL	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
SELVA		

SELVA BOBAS PANOL VERDE PALIO ARTIK INTER LANCE RITMO JOUST EGLER	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
SALSA ESBUV EGBIB CHECK ASUMI MANAUS VOR/DME (MNS) TEPEM DADEG DOMGA PUERA INPUT LODOK ROGIN LONAS AKNIB ANSOX SIROS		
SIROS DIMAS DORLI DABRA CAYENNE VOR/DME (CYR)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
UGADI ANPAL ANPAL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	GUAYAQIL
ITALU UGEMA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	LIMA
ISREN SALINAS VOR/DME (SLS) LIMA DVOR/DME (LIM)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	

GABRIEL VOR/DME (SGC) IODAD CLOTI MULIP PRIMA JURIS INTER GEDOX BRANCO VOR/ME (RBC) GRAFO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
GRAFO	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
GRAFO ELANI AKSES LA PAZ VOR/DME (LPZ) IRONO EMPEX	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	LA PAZ
EMPEX		
CALAMA VOR/DME (LOA) CEPAM PABOS ASALO DILOK TABON DVOR/DME (TBN)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ANTOFAGASTA
	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	

CONGONHAS VOR/DME (CGO) DORMI ORANA PAGIN SERGI PUNTO ATARI EDMAR SIGAS ERVAS ARULA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	CURITIBA
	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	

LOGAL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	GUAYAQUIL
ANGES		
ERIZO		
OSAKI		
OSAKI	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	LIMA
AKSER	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
SALINAS VOR/DME (SLS)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	

ESMERALDAS VOR/DME	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	GUAYAQUIL
VAMOS		
VAMOS	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA
BOLDO		

GEORGETOWN VOR/DME (TIM) BUVIP	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	GEORGETOWN		
BUVIP ILNOV ISOSU KIGOM ISUNU ISIVA MANAUS VOR/DME (MNS) CHAMP POLEN	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA		
DOKBU AROPI PAKEM BARGE SIMON ILTAR REDON ILTEG ESBUL MUDAB ILRES				
ILRES				
VAROM				
NILSO				
SEDMA VIRU-VIRU (VIR) GAXOK GAXOK				
SALTA VOR/DME SAL				
			SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LA PAZ

ALGAR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME
BUSLO		
EGIKA		
ILSUR		
ASIMO		
ASIMO	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	SANTIAGO
DILOK		
TABON VOR/DME TBN		

FOZ VOR/DME (FOZ)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	RESISTENCIA
CATARATAS DEL IGUAZU VOR/DME (IGU)		
ALDOS		
LUCIA		
ILPEP		
ELAMO	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	CURITIBA
ELAMO		
CUARA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MONTEVIDEO
CUARA		
GUTIL		
DAYMA		
ANPON		
PALOL	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
TORON		
KUKEN		
KUKEN	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	EZEIZA
EZEIZA VOR/DME (EZE)		

PORTO VOR/DME (PCX)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
KIGUV		
PANAS		
VITORIA VOR/DME (VTR)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
VITORIA VOR/DME (VTR)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
LIVAM		
PORGA		
PORGA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
GUSOD		
ONSEK		
VADAD		
ETIMO		
ASANU		
SERIM		

VITORIA VDVTR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
MINIG POLVO		
POLVO DESEX EMTUP BILUX UDIGA EGUPA ASDOK	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO

VITORIA VDVTR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
KIKAT	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
GARUP	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
GARUP VODSA TURAB		
MELEM ISUPA DAGAM AKRAN		

VUDAL ALDIT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	MAIQUETIA
DABAM EDMAX GUTIM ILMET ARMUR		

PORTO VOR/DME (PCX)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
KIGOL LOBIK		
TENIG EKALO	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	

ARTOM	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
PUPES LOLIN AMERO		

AMERO	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
VALEM	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ANKOR		
EVRIID		
SALINAS VOR/DME (SLS)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
LIMA DVOR/DME (LIM)		

DOMINGO VOR/DME DGO	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
MORSA INT		SANTIAGO
ROBIK INT	TRAMO SIN COBERTURA DME/DME	
MAKRA INT		
CARPA INT		
TACAS INT		
GAMBA INT		
OSTRA INT		
VINAP INT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
ISLA DE PASCUA VOR IPA		
HANPI INT		
SAKOB INT		
SAURI INT		

UKEDI		
EGIMI		
DIKEB		
OBKUT		
ORARO		
BODAK		
NOISE	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
PUGSA		
DIGOR		
ARUNU		
UDIGA		
ETIMO		
ISUPA		
LOKIM		
SISSET		

VENTANAS VOR/DME VTN	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	SANTIAGO
ANPUK		
ANPUK	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ANTOFAGASTA
JURAK		
ESDIN INT		
ESDIN		
ILVOS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LIMA
KARAZ		

KARAZ OSELO	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	GUAYAQUIL
CERES VOR /DME ERE MEVUR	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	CORDOBA
UBRIX BOKEN MARIA		
MARIA VIRU VIRU VOR/DME (VIR)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	LA PAZ
EGAPO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	BARRANQUILLA
ISATO		
ALGUK	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
MIBEN UGOTA IROTI		
IROTI PUKEN	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BOGOTA
LONAX		
BUTAN	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
PABON		
PABON ARUXA DOGLO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
TENUG ARTIK ESBUK		
BRANCO VOR/DME (RBC)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
ISARA		
ISARA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	LA PAZ
APARE KIMUR PUBUM		
PUBUM IMBER	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	CORDOBA
UBRIX MEVUR CERES VOR/DME (ERE)		

ISEBA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	PANMA
OPKOL		
ILTUR		
ILTUR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BOGOTA
AMBALEMA VOR/DME (ABL)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
TABOGA DVOR/DME (TBG)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	PANAMA
ARNAL		
TABOGA DVOR/DME (TBG)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	PANAMA
MANBO		
FRANK		
ROKIN	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	BARRANQUILLA
ROKIN		
TOMEK		
NADIR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
PABID		
MOLRI		
ISULO		
RIXOM		
ILNES		
IMPERATRIZ VOR/DME (YTZ)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
KEVOS		
ESNER	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
KOLGI	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
ESLUR		
UGUTO		
ISKAX		
ORAVU		
DADOT	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
ISTAR		
PADAK		
GERTU	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
UVBIL		
ESKES		
VUDAM	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
DADEL		
ILMOK		

ESLEK KUMIR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		
OGTUR			
UREVI			
ISUNO			
ISIVU			
KOGMO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LA PAZ	
ERVEL			
ERVEL			
KIVIL			
VIRU VIRU VOR/DME (VIR)			
LIMA DVOR/DME (LIM) ASIA VOR/DME (ASI)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LIMA	
PISCO VOR/DME (SCO)			
ESGOL			
DORKA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	ANTOFAGASTA	
DORKA			
SAREG			
CALAMA VOR/DME(LOA)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	CORDOVA	
KONRI	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		
KONRI	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		
ALGAR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME		
TUCUMAN VOR/DME (TOC)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL		
PUBER	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME		
PORKA			
OPTIR			
DOPRI	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	EZIZA	
ROKER			
ROSARIO VOR/DME (ROS)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME		
ATACAMA VOR/DME DAT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ANTOFAGASTA	
PABOS INT			
GEKAL INT			
GEKAL INT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	CORDOVA	
BUSLO	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL		
CATAMARCA VOR/DME (CAT)			

EGODI	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	PANAMA
ASIBO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
ASEPI		
ASEPI	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA
ESARO		
DABAX		
SIMAT		
IRUVA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
PABON		
ASAPA		
ASAPA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
AKTOR		
JURIS		
LANCE		
MASON		
OGLAM		
BOGUR		
DIKAL		
REDON		
TELIR		
ISOSA		
MARIN		
CRONE		
UREVI		
ISENA		
ISENA		BRASILIA
ISEKI		
ISUDU		
DIMER		
ANGAS		
ESTER		
EGIMO		
EGIMO	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	CURITIBA
LIVER		
KALER		
SILOR		
DAKEM	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
BAURU NDB (BRU)		

ARUSI EGIMI DIKEB OBKUT ORARO BODAK NOISE PUGSA DIGOR BUTAP EGUPA ASANU DAGAM FHAW	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
PUERTO MONTT VOR/DME GUTIN PABAL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	PUERTO MONTT
PABAL ESQUEL VOR/DME ESQ	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	COMODORO RIVADAVIA
KAISO IBERT UTGIN ROLIG NEKOB	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	GEORGETOWN
NEKOB TIRIOS NDB (TIR)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	PARAMARIBO
TIRIOS NDB (TIR) AKNIB AMVER MOMVI PADIL GAVUX ISKAX MEVOS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
MEVOS RONAL DOLVI BRASILIA VOR/DME (BSI)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
DAGUD BUXOS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	PANAMA
BUXOS UGUPI	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA

UGUPI	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	GUAYAQUIL
GUAYAQUIL VOR/DME VAKUD		
VAKUD	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	LIMA
TRUJILLO VOR/DME (TRU)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
ISREN	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
MOXES	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
SORTA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
SORTA INT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ANTOFGASTA
ISPEL INT LIVOR INT		
SULNA INT	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	SANTIAGO
VENTANAS VOR/DME VTN		

PAGAK ALGOK KAKER IMBAT	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MAIQUETIA
GATUG EDPAL DAVEX BIVAP LOGON		
SIMUR		
LOGIR UGAGA		
UGAGA		
AKNOV	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
TEFE VOR/DME (TFE) EGLER GLINT MUPEG ISOLU	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
EGELO DIKAL EVOLO KUGOL ALBOM UDIDI	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	

VALLE KIBIL OMERO ZOZOG CAMBA ORUMU ORUMU	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LA PAZ
ORUMU MOROS EGEXO KUBIR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ASUNCION
KUBIR AKPEL RESISTENCIA VOR/DME SIS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	RESISTENCIA
DAMIS KILIP TODES	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
TODES IMBAK DALAB GUALEGUAYCHU VOR/DME GUA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ESIPO OPTAS LOKUR DOLPO ATIGA DANVO TOMAX SUBMA EKUNA LOGON VUMPI	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MAIQUETIA
VUMPI BIVUT BINAS LUCRE ASUMI REPIL FERAL CHAMP IRUMO UGEMU ALTA FLORESTA VOR/DME (ATF) UVBIL RONIL	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	AMAZONICA
RONIL KOGPA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	

SAMAR GARCAS VORDME (BAG) NILON NEFAR ATONI MIKAN PASTE QUILT RUTLE PIRASSUNUNGA VOR/DME (PIR)	<div>SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME</div> <div>SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL</div> <div>SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME</div>	BRASILIA
IQUIQUE NDB UCU AKNUV INT TOKOL INT ILPEM INT	<div>SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME</div>	ANTOFAGASTA
CORDOBA VOR/DME (CBA) GEMOP OPTIR ROMUR SIKOB SIKOB	<div>SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME</div>	CORDOBA
KILIP PULEN ARULA ARULA	<div>SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME</div>	RESISTENCIA
ERVAS REKIR ISOVI VUPIT PERNA TIGDA PADIR TENUD GEDEL	<div>SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL</div> <div>SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME</div> <div>SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL</div>	CURITIBA

PAKOV		
SIDOX	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
RONUT		
IMBEK		
KOLBI		
ROPAS		
BITAK		
VULGO		
ALDEIA VOR/DME (ADA)		

ISIGI SIDAM SIDAM	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MAIQUETIA
TELUR KUMIX KUMIX UDUSA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	GEORGETOWN
UDUSA ILNER KOKPO BOA VISTA VOR/DME (BVI) ANBIX NILBU ILSUB KIGUX MANAUS VOR/DME (MNS) KOKPA IRUMO OPLIM DEMIT SIPAK ARPAR PARDO ISUGO NABAL CRONE ABATE ISIVU NIBMI UBKAB	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
SIDAK SIDAK	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
REMEK LOBAX ASUNCION VOR/DME (VAS) UPOVA KONTO SIMOR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	ASUNCION

SIMOR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	RESISTENCIA
BOKIL		
KIMIK		
KIMIK SEKLO	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
SEKLO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	MONTEVIDEO
MUKIB		
MIGOT		
ILSIM		
ETEXU		
OGLAP		
ANDAN		
VUKAS		
CARRASCO VOR/DME (CRR)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
BRASILIA VOR/DME (BSI)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
SIREM		
PAMEO		
KETUL		
EGONI		
ATONI	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	CURITIBA
TESEK		
VAMIK		
PUKIL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
PUKIL		
POXET		
KALER		
BUTNA		
SIRIS	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ORBAM		
DUNCE		
KABEG	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
REBOX	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ASUNCION
REBOX		
SOSMO		
NILKI		
ASUNCION VOR/DME (VAS)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	

PORTO VDPCX	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
ABSAL		
BARBACENA NDB (BBC)		
BELIA		
DEJAN		
EKUBA		
AKSUG		
TRIVI		
MOPDA		
REINA		
FLAND		
PROVE		
DOMGI		
FORMOSA VDFRM		
ILSUL		
DOMLI		
DOTKA		
BRAZE		
DOLVI		
EGBAV	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
POLAN		
DOTLA		
DADOT		
DOMDA		
EPKOK		
ESMAR		
GAXIM		
MAMGI		
SIGEP		
KUBID		
MALPU		
TEPEM		
ISUNU		
ILSUB		
GEDIX		
PABUX		
DOGTO		
LITUX		
BIVUT		
VUMPI		

VUMPI SIMUR PUERTO AYACUCHO VOR/DME (PAY)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	MAIQUETIA
PUERTO AYACUCHO VOR/DME (PAY) AMAYA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA
AMAYA EDRIN BARINAS VOR/DME (BNS) ISAGA BUTOL IROSA SIGAB MARACAIBO VOR/DME (MAR)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MAIQUETIA
NDBELORZA/EZA OPRUS	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MAIQUETIA
OPRUS GELER	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA
ILTEN	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
ILMUX	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
ILMUX IQUITOS VOR/DME (IQT)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
BORLA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LIMA
TINGO MARIA NDB (TGM)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
AMVEX	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
LIMA DVOR/DME (LIM)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
LIMA DVOR/DME (LIM)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ASIA VOR/DME (ASI)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
MEXUR		
LITOT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LIMA
OPKUL JULIACA VOR/DME (JUL) DOBN		
DOBN	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
VIRU VIRU VOR/DME (VIR)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LA PAZ
SIDAK	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	

SIDAK DARIO ESPIN MUCUS DUNCE PRUDENTE VOR/DME (PRR) NERVO KNAVE GROVE ORDEA EGITO SOROCABA VOR/DME (SCB)	<div>SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL</div> <div>SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME</div>	CURITIBA
VOR/DME MAIQUETIA / MIQ KOTOM TUY VOR/DME (TUY) MUDAG UGRUL VAGAN	<div>SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME</div> <div>SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL</div>	MAIQUETIA
VAGAN AKSUM ISODI ILNIG NILBU KIGOM ISOBA DADEG LUTVI NISLA ESDAS MAVBA ESMAR LUVTA TAROP	<div>SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME</div> <div>SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL</div> <div>SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME</div> <div>SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL</div>	AMAZONICA
CORDOBA VOR/DME CBA MAVBI DOPRI	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CORDOBA
UMSAR IMBAK	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	EZEIZA

RODOV RODOV	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MONTEVIDEO
SASKU MUKIB ARTOX UBLAM		
UBLAM	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
SIDUL	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	CURITIBA
EKOGA		
MUNOR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
MUMIL ISOGU PORTO ALEGRE VDPOR		
TABOGA DVOR/DME (TBG) AROI ANSON	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	PANAMA
GUAYANA VOR (GNA) PAKON	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	MAIQUETIA
PAKON DIVRA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
BOA VISTA VOR/DME (BVI)		
KIGOX ISOSU NAXIT DOMGA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
DOLTI ESMED EVNUL ESLAX NAXUM MUPIR		
EPKOK		
TAROP	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
PADAK		
MORMA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	

MORMA	<div>SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME</div>	BRASILIA
MUMBU		
MALMI		
OBGES		
DIMUB		
MOXOB		
MOSNA	<div>SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL</div>	
MUPET		
NAXIV		
NEBAL		
EGONI		
RORAG		
PASTE		

SANTIAGO DVOR/DME AMB	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	SANTIAGO
LINER INT		
SUPRA INT		
ALBAL INT		
ALBAL	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MENDOZA
SAN RAFAEL VOR/DME SRA		
RODIK	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
RODIK		
EDNOR	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	EZEIZA
LOGAM		
PABAS	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ASADA		
EZEIZA VOR/DME EZE		

TABOGA DVOR/DME (TBG)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	PANAM
SIROT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
BITIX		
BITIX	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	BARRANQUILLA
AMBIL		
BUTES	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
BUTUM		
ANDUR		
ALGUK		
EDMOL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
SELAN		

LIMA DVOR/DME (LIM)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	LIMA
GAVIL		
MUMAT	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
SIGOB		
SIGOB	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
TEMOR		

TEMID	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
SIGIX		
MINUT		
TEMID		
VUKEB		
TENUG		
AKTOR		
MULIP		
MINIB		
AKSUK		
AKNOV		
DIMUK		
ARVIX		
BIVUT		
ARVOT		
AKSUM		
BUVKU	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
DIVRA		
DOBDA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	GEORGETOWN
DOBDA		
TIM		
UTGIN		
DAGTO		
UMREM		
UMREM	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	PARAMARIBO
TRAPP		

RESISTENCIS VOR/DME SIS	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	RESISTENCIA
TIKLA		
PORKA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CORDOBA
KUGIN		
BURMI		
SAN JUAN VOR/DME JUA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	MENDOZA
ASIMO		
ASIMO	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	SANTIAGO
DILOK		
TABO VOR/DME (TBN)		

BRASILIA VDBSI	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
KOGDI		
OPLIK		
MOSNA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
ISOPA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
SAMAR		
MIRAD		

ILFAD	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
ILSOT		
LUVTI		
EQUAL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
KOGDU		
ESLEK		
MUGEP		
ISUGO		
ISOSA		
KODPI		
KOGLA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
ILTEG		
DOTKI		
KUGOL		
KOGLU		
BUVKI		
BUVKI	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	LA PAZ
DADED		
DADED	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	AMAZONICA
BRANCO VDRBC		
BRASILIA VDBSI		
KUKOL		
ROMIK	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ILPAV		
RORAG		BRASILIA
MIKAN	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
ISIRO	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	

MUGOT SILOR VULTO	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
LONEG PRUDENTE VDPRR SIREN		
RODUS		
TILKI DIDOM TELIX	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
NEDOK		
LODUR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
SIGAS		
REKIR CUARA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
ROSARIO VOR/DME ROS ANRAL	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	EZEIZA
DALAB SUGRA		MONTEVIDEO
SIGRA ENSAS	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
LOLIL ILSIM PORLI URURI		
URURI	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
LOBOR		
ISOBU	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
NEBID OBLAD PORTO ALEGRE VDPOR		
TABOGA DVOR/DME (TBG) LODAX	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	PANAMA
DABOR PUDAK		BOGOTA
PUDAK ITATA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	

CARRASCO VOR/DME (CRR)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MONTEVIDEO
MOLBI		
AKPOD	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
AROMA		
CALVE	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
PORTO ALEGRE VOR/DME (POR)	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	CURITIBA
JUICE	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
NANDU		
PONCA	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
OSAMU		
PUDAK	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA
ITATA		
ITATA	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
MIBAR		
ATIPU	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	GUAYAQUIL
ATENO		
ARNEL		
ASUNCION VOR/DME (VAS)VAS	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
PADOT	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	ASUNCION
EGELU	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
AKSUL		
AKSUL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	CURITIBA
ESPIN		
CAMPO GRANDE VDCGR		
VAS	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	ASUNCION
ROLOK		
FOZ VOR/DME (FOZ)		

FOZ VOR/DME (FOZ)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
DOGTI		
TELEX	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
ILBEK		
PUNTO		
DADUS		
VERBO	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
CURITIBA VDCTB		
PARANAGUA NBPNG		
RONUT		

EZEIZA VOR/DME EZE	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	EZEIZA
KUKEN		
KUKEN		MONTEVIDEO
TILDA		
PUMIL	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ETEXU		
PORLI		
GAMOT		CURITIBA
GAMOT		
SIDUL		
BRICK	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
VUPIT		
ATARI		
ILBEK		
AULIC		
RABAN	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
NETOS		
KNAVE		BRASILIA
BAURU NDB (BRU)		
PERAU		
PERAU	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
FOSSE		
HASTE	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
GAUZE	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
ABAFT	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
EDOLA		
BACON		
CROWD		
DEPTI	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
FLAND		
PRUMO		
AFTER		
NIDNA		
1HATCH	SEGMENT WITH PARTIAL DME/DME COVERAGE /	

NEFAS	TRAMO CON COBERTURA DME/DME PARCIAL		
NEFAS	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	RECIFE	
MALBA			
OLEAR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME		
PACAS			
AUGUR			
BIRTI	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		
KODMI			
NEFRO			
GAXEX			
PUREU	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL		
ILNER	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		
FORTALEZA VDFLZ			
SOROCABA VOR/DME (SCB)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA	
BETEL			
MINCE			
BAURU NDB (BRU)			
EQUIV			
MUGOT			
MEVIL			
PUKIL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	BRASILIA	
PUKIL			
KOXIS	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL		
MAMGU			
MALMU	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		
KODMU			
ANGOL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA	
LUVTI			
RAPAT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		
RAPAT			
DADEL			
ESDAG			
KIGUL			
DEMIT			
DOKBU			
EGBEM	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		
EKOXU			
ESBUV			
ESDAX			
EPKIR			
MONIC			
DIMUK			
BUVKA			
BUVKA			
LOGIR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		

LOKES RELUN	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	MAIQUETIA
USEKO		
SILIK BARINAS VOR/DME (BNS)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
LESIR OGLUT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	PANAM
OGLUT ANRAX	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	BOGOTA
ANRAX GUAYAQUIL VOR/DME	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	GUAYAQUIL
CARRASCO VO/DME (CRR)		
KILIUM TODAX DAKIS	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MONTEVIDEO
DAKIS OPTUR	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	CURITIBA
TOSAD DIDAB	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
IREKI ARVOR MILUG	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
NEPEV ROKAD		
LOBIK TOMID SIREL	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	

ESDAV KIKAT	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
LIVAM		
MINIG		
MUDSA		
OPROP PAMOX SAMTI TEMUP	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
KOGRI		
KULEP		
MOXIP		
NILKI		
VUKIR		
PUGSA		
ERETU		

ARICA VOR/DME ARI	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	ANTOFAGASTA
DANKI LOLES	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	LIMA
LOLES VAGUR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ANTOFAGASTA

GUAYAQUIL VOR/DME	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	GUAYAQUIL
PUNAS		
CUENCA VOR/DME		
KORBO		
KORBO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LIMA
OSUBU		
IQUITOS VOR/DME (IQT)		

LIMA DVOR/DME (LIM)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	LIMA
GATUK		
GEBAG		
AKREL		
CUSCO VOR/DME (ZCO)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
URCOS VOR/DME (URC)		
OPTOP		
OBLIR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	

OBLIR ANKIS	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
BOKAP OBKUL PAPEK KADOX	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
TRINIDAD–VOR (TRI) NILSO TEPUG LOBON	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
POSPA GEDUS		
GEDUS KOGMO NIBMI ISUDU CUIABA VOR/DME (CIA)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
LISAN KODMU GRACE MOLPA		
NILON		
NAXIV ILTAS	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
GOIANIA VOR/DME (GOI)		
KOGMA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
BRASILIA VOR/DME (BSI)		

MELO VOR (MLO) AKNEN	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MONTEVIDEO
AKNEN	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	CURITIBA
OBLAD	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ISOGU		
COVER	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
DO SUL VDCXS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
NADAR		
GLOVE	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
OSAMU		
RONUT ANISE	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	

TABOGA DVOR/DME (TBG)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	PANAMA
MILAT		
TOKUT		
TOKUT	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA
TUMACO VOR/DME (TCO)		
TUMACO VOR/DME (TCO)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	GUAYAQUIL
ENSOL		
INTAG		
CONDORCOCHA VOR/DME		
PAKOK		
EKUMO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LIMA
EKUMO		
ROBIG		
VUKID		
BOBUG		
ATOGO		
GALGO		
LIMA DVOR/DME (LIM)		
CONDORCOCHA VOR/DME	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	GUAYAQUIL
PUMTA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
GELAR	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
TERAS	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
TERAS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	LIMA
IQUITOS VOR/DME (IQT)		
ELORZA NDB (EZA*)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	MAIQUETIA
PALIR		
PALIR	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA
ATATU		
SAO GABRIEL "SGC" VOR/DME-NDB	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
ARNAL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	PANAMA
LONET		
AGUJA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BARRANQUILLA
AGUJA		
XOGEN	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BOGOTA
XOGEN		
BARRANCABERMEJA "EJA" VOR/DME	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
LONAX		
MITU VOR/DME (MTU)		
MITU VOR/DME (MTU)		
ABIDE		
MULIP		
ROUSE		

MEDLE JOUT GLINT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
PINUP SIMON ISOKI SIDUM PARDO MUGEP KUMIR		
ANPOS CUIABA VOR/DME (CIA)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	BRASILIA
SIRIA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
TOMBO		
ALBEX POXET MEVIL	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	CURITIBA
LIMPO MINUT	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	AMAZONICA
PANOL KILEV	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
KILEV ALBEG OBKUL DIBUG LOKOX GUVAS SAVRA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	LA PAZ
PALIV BOLET	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
PILCO		

PILCO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	RESISTENCIA
GETRA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
RESISTENCIA VOR/DME (SIS)		
CORO VOR/DME (CRO)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MAIQUETIA
LOKUR REBIM		
REBIM ROPOL	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BARRANQUILLA
ROPOL NELUR KIKOL TELAX	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	PANAM
CONGONHAS VOR/DME (CGO) CURSE	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
PARANAGUA NDB (PNG) PAKOV	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
DELAY		
NAFIL MOVER	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
PENSO		
ASDEK BAKER MUNOR ISOBU BAGE VOR (BGE)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
IQUIQUE NDB UCU TARKA CALAMA VOR/DME LOA KADAT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ANTOFAGASTA
KADAT JUJUY VOR/DME (JUJ)	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	CORDOVA
MIMEX IMBER	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
BOKEN VINOS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	

VINOS	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	RESISTENCIA
AKPEL KALOM		
KALOM ASUNCION VOR/DME (VAS)	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	ASUNCION
KOGMU KOGNA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
KOGNA		
KIGUG KOGDO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
KOGNO KOGNU		
ISUPI ESDAB	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
ISUBA		
ABUCU ILNER SALNU ESMEM KIKAD		
ISUGI ABASE KIGUK KODSO EPKIM CAMPINA GRANDNBCPG ISUKU RECIFE VDREC	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	RECIFE
CONGONHAS VDCGO CURSE	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
PARANAGUA NBPNG		
PAKOV	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
DELAY		
NAFIL MOVER	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
PENSO		
ASDEK EAGLE MUMIL NEBID AKNEN	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	

AKNEN MELO VOR (MLO)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MONTEVIDEO	
AROMO			
TELAK			
CARRASCO VO/DME (CRR)			
LIMA DVOR/DME (LIM)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	LIMA	
ASIA VOR/DME (ASI)			
ALAMO			
LAKUN			
AREQUIPA VOR/DME (EQU)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	LA PAZ	
OLGAS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		
KOMPA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL		
KOMPA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME		
LA PAZ-VOR (PAZ)		LA PAZ	
DAKOG			
TEDOK			
COCHABAMBA-VOR (CBA)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL		
VAREB	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME		
SANSO			
VIRU VIRU-VOR (VIR)			
COLBY	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	PANAMA	
ENPAN			
OGRUL			
LA PALMA VOR/DME (PML)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	BOGOTA	
ILTUR	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL		
ILTUR	SEGMENT WITH DME/DME COVERAGE / TRAMO	GUAYAQUIL	
BOKAN			
BOKAN			
PUMTA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	LIMA	
LOBOT	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME		
LOBOT			
KUSKU			
PUPMI	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL		
RELOR			
GAXIX			
MULAM	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL		
LIMA DVOR/DME (LIM)			
MENE MAUROA VOR/DME (MAU)			

MARACAIBO VOR/DME (MAR) AKNIL	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	MAIQUETIA
AKNIL ISIMO	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BARRANQUILLA
ISIMO PAKOP ALGEN PADUR	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	PANAMA
TABON VOR/DME (TBN)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	SANTIAGO
DILOK ASIMO		
ASIMO SIBOX	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	CORDOBA
LA RIOJA VOR (LAR) KAKAN		
CATAMARCA VOR/DME(CAT)	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
PUBER MUDUL GAVEX		
UBRIX VINOS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
VINOS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	RESISTENCIA
GETRA AKNEL		
AKNEL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ASUNCION
EGEXO ILPUR REMEK		
REMEK ESDER	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	CURITIBA
DARIO	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ARGOS	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
CANOP	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
TOSAR		
TOSAR ESTER	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	BRASILIA
SIRIA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
ISUKA		
LISAN ANGOL SAMAR DIMUB		

KOGTU	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	BRASILIA
EGOLA		
TERES		
POLAN		
BERNA		
ELDOR		
RONAL		
ZELAN		
ALVAR		
ALVAR	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	AMAZONICA
TEREB		
ISOBI		
GEDOG	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
GIRAL		
URUGU		
INTEL	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
RICAR		
BELIS		
GEDIR		
KOGNI		
VUKER		
EPKOL		
ISKAB		
ISIXU		
ILSUD		
NADIR		
ESLEB		
BUVMU		
KOGNO		
MASVA		
ESLEL		
EGBIR		
EGIMI		
MOVGA		

NANIK	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
DIKEB		
PUGSU		
JOBER		
JOBER	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	RECIFE
FORTALEZA VOR/DME (FLZ)		
SALNU		
ARMAN		
NEBIV		
BISSA		
DALMA		
ILNOS		
ILPUR		
HAMBU		
CARDO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	BRASILIA
CARDO		
GOLFO		
DOLTU		
LISBO		
TRES MARIAS VOR (TRM)		
REINA		
UNIDO		
GAXEV		
VERME		
ZANET		
PIRASSUNUNGA VOR/DME (PIR)		
GRADE		
OROKA		
OROKA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
BETEL		
EGITO		
GERAL		
FLORI	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
DARCI		
MADRI		
SERGI		
VERBO		
PERNA		
NOBEL		
EKOGA		

LOBOR		
BAGE VOR (BGE)		
ISALA		
ISALA	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	MONTEVIDEO
OGLAP		
DURAZNO VOR/DME (DUR)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
PONPA		
PAPIX		EZEIZA
PAPIX	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
EZEIZA VOR/DME (EZE)		
EZEIZA VOR/DME EZE		
LA PLATA VOR PTA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	EZEIZA
DORVO		
DORVO		MONTEVIDEO
PABOT		
LOMID	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ANDAN		
MELO VOR (MLO)		
OGRUN		
OGRUN	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	CURITIBA
ABELA		
TORON	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
PORTO ALEGRE VOR/DME (POR)		
JUICE		
EGBIP	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
EKUBI		
DEUCA	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
FEITO		
AKNUB	SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
BITAK		
KOGBA		
MARICA VDMRC		
KIGOL	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
ISOLI		
KOKPI		
KIGUV		
DOGSU		

DOGSU	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
SASBU	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
DAGEL	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	RECIFE
DAGEL		
PORTO SEGURO NBSGR		
BIDEV		
EKUGO		
ESLIB		
MEDIT		
RUBEN		
AMBET		
FERNANDO VDFNO	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
NEURA		
NEURA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
PUGUN		
NOISE		
ERETU		

BONSUCESSO VOR/DME (BCO)	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	BRASILIA
SORAI		
TRIVI		
VISTA		
KIKAX		
KODMO		
KIGUB	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
KODNU		
PENTE	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
QUARU		
RUBIC	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
RUBIC		
SPINO	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
MANPI		
TROVA	SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	RECIFE
ADEMI		
BANGU	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
EDITE		
KIGUK		
MOSSORO VDMSS	SEGMENT WITH PARTIAL DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME PARCIAL	
MAGNO		

MAGNO		SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
OBKUT			
DEKON			
TASIL		SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	ATLANTICO
ORARO			
INTOL			
INTOL		SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	
FEMUR			
IBAGA			
NATAL	VDNTL	SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
SEVIL			
EPKIM			
VACAR			
EVPAB			
AVILA		SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
TOMAS			
ADOLF			
BORBA		SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	
IRUMO			
KODSA			
DEDOR			
ELEFA		SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
GONZA			
BUXER			
BUXER		SEGMENT WITH NO DME/DME COVERAGE / TRAMO SIN COBERTURA DME/DME	BRASILIA
FERMA			
MORGA			
EVPAD			
GAVUP			
GAVUP		SEGMENT WITH PARTIAL DME/DME COVERAGE/ TRAMO CON COBERTURA DME/DME PARCIAL	
MEDIA		SEGMENT WITH DME/DME COVERAGE / TRAMO CON COBERTURA DME/DME	CURITIBA
BARBACENA NDB (BBC)			