



AP/ATM/5

INTERNATIONAL CIVIL AVIATION ORGANIZATION

South American Regional Office

UNDP/ICAO Regional Project RLA/98/003

Transition to the CNS/ATM Systems in the CAR/SAM Regions

REPORT

Fifth Meeting/Workshop of Air Traffic Management

Authorities and Planners in the CAR/SAM Regions for RVSM,

RNAV routes and RNP Implementation

(AP/ATM/5 RVSM-RNAV-RNP)

(Panama City, Panama, 18 to 20 June 2003)

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

INDEX

i -	Index	i-1
ii -	History of the Meeting	ii-1
	Place and duration of the Meeting	ii-1
	Opening ceremony and other matters	ii-1
	Organization, Officers and Secretariat	ii-1
	Working languages	ii-1
	Agenda	ii-2
	Attendance	ii-2
	List of Conclusions AP/ATM/5 Meeting	ii-2
iii -	List of participants	iii-1
	Report on Agenda Item 1:	
	Review of the Implementation Programme of RNAV routes	1-1
	Appendix A:	1A-1
	Appendix B:	1B-1
	Report on Agenda Item 2:	
	Review the Action Plan for the Implementation of RNP 10 Pre-Operational Trials in parallel routes UL 780 and UL 302 in the Santiago de Chile-Lima segment	2-1
	Appendix A:	2A-1
	Report on Agenda Item 3:	
	Review of the CAR/SAM RNP Application Strategy	3-1
	Report on Agenda Item 4:	
	Review of the issues related with RVSM Implementation in the CAR/SAM Regions	4-1
	a) ATC Operations Working Group (ATC/WP)	
	b) Aircraft Operation and Airworthiness Working Group (OPS/AIR/WG)	
	c) Safety and Airspace Monitoring Working Group (SAM/WG)	
	d) Review of the Task List for RVSM Implementation in the CAR/SAM Regions	
	Appendix A:	4A-1
	Appendix B:	4B-1
	Appendix C:	4C-1
	Appendix D:	4D-1
	Appendix E:	4E-1
	Appendix F:	4F-1
	Report on Agenda Item 5:	
	Other matters	5-1

HISTORY OF THE MEETING

ii-1 PLACE AND DURATION OF THE MEETING

The Fifth Meeting/Workshop of Air Traffic Management (ATM) Authorities and Planners for RVSM, RNAV routes and RNP implementation, was held in Panama city, Panama, from 18 to 20 June 2003.

ii-2 OPENING CEREMONY AND OTHER MATTERS

Mr. Jorge Fernández, ATM/SAR Regional Officer of the ICAO Lima Office, welcomed the participants and gave a brief explanation of the issues to be reviewed during the meeting. Likewise, Mr. Claudio Dutary, Air Navigation Director of the Aeronautical Authority of Panama, greeted the participants and inaugurated the meeting emphasizing the matters to be dealt with.

ii-3 SCHEDULE, ORGANIZATION, WORKING METHODS, OFFICERS AND SECRETARIAT

The Meeting agreed to held its sessions from 0900 to 1630 hours, with appropriate breaks. The work was done with the Meeting as a Single Committee and Working Groups to examine the RVSM matters. The RNAV and RNP issues were examined by Ad-hoc Groups that worked after the schedule of the Meeting to deal with some items of the Order of Business.

Lic. Claudio Dutary, member from the Delegation of Panama, was unanimously elected as Chairman of the Meeting. Mrs. Leslie Cary chaired the RVSM/TF activities. Mr. Jorge Fernández Demarco, ATM/SAR Regional Officer of the ICAO Lima Office, acted as Secretary, being assisted by the Rapporteurs of the three working groups of RVSM TF; Mr. Brian Throop from USA (ATC WG), Mr. Jairo Sandoval from Colombia (AIR/OPS WG) and Mr. Saulo José Da Silva from Brazil (SAM WG), as well as by Mr Julio Pereira from Brazil, RNAV/RNP Rapporteur. The secretariat was also conformed by Messrs. Víctor Hernández, RO/ATM/SAR of the ICAO Mexico Office; Roberto Cardoso RO/SO of the ICAO SAM Office and José Moreno, ATM Consultant, Project RLA/98/003.

ii-4 WORKING LANGUAGES

The working languages of the Meeting and its relevant documentation were English and Spanish.

ii-5 **AGENDA**

The following agenda was adopted:

- Agenda Item 1: Review of the Implementation Programme of RNAV routes
- Agenda Item 2: Review the Action Plan for the Implementation of RNP 10 Pre-Operational Trials in parallel routes UL 780 and UL 302 in the Santiago de Chile-Lima segment
- Agenda Item 3: Review of the CAR/SAM RNP Application Strategy
- Agenda Item 4: Review of the issues related with RVSM Implementation in the CAR/SAM Regions
- a) ATC Operations Working Group (ATC/WP)
 - b) Safety and Airspace Monitoring Working Group (SAM/WG)
 - c) Aircraft Operation and Airworthiness Working Group (OPS/AIR/WG)
 - d) Review of the Action Plan for RVSM Implementation in the CAR/SAM Regions
- Agenda Item 4: Other matters

ii-6 **ATTENDANCE**

Ten States of the CAR Region and 13 of the SAM Region as well as 6 International Organizations, AITAL, ARINC, COCESNA, IATA, IFALPA and IFATCA, totaling 79 participants, attended the meeting. The list of participants is shown in pages iii-1 to iii-13.

ii-7 **LIST OF CONCLUSIONS OF THE AP/ATM/5 MEETING**

Conclusión N°	Title	Page
AP/ATM/5/1	List of RNAV/CAR/SAM routes	1-1
AP/ATM/5/2	RNAV/RNP Survey	
AP/ATM/5/3	Coordination of RNAV routes Implementation among RNAV/RNP and RVSM Task Forces	1-2
AP/ATM/5/4	Trunk routes Planning	1-2
AP/ATM/5/5	SID and STAR implementation at intermediate airports	1-2
AP/ATM/5/6	Deletion of the VIR VOR – Moreno VOR/DME segment of route UA 301	1-3
AP/ATM/5/7	RNAV Route ASIMO - VOR SLI	1-3
AP/ATM/5/8	RNAV route RBG VOR – MELLA	1-3
AP/ATM/5/9	RNAV routes Asuncion/Sao Paulo and Sao Paulo/Asuncion	1-4
AP/ATM/5/10	RNAV route Santiago de Chile/Sao Paulo	1-4

Conclusión N°	Title	Page
AP/ATM/5/11	RNAV route Sao Paulo/Santiago de Chile	1-4
AP/ATM/5/12	Extension of route UN 741	1-5
AP/ATM/5/13	RNAV route KUKEN/FLZ VOR	1-5
AP/ATM/5/14	Realignment and Extension of route UN 857	1-5
AP/ATM/5/15	Realignment and Extension of route UN 873	1-5
AP/ATM/5/16	Realignment and Extension of route UN 866	1-6
AP/ATM/5/17	Route Buenos Aires/Sao Paulo	1-6
AP/ATM/5/18	Route Sao Paulo/Buenos Aires	1-6
AP/ATM/5/19	Route Montevideo/Sao Paulo	1-7
AP/ATM/5/20	Route Sao Paulo/Montevideo	1-7
AP/ATM/5/21	Route Sao Paulo/Santa Cruz de la Sierra	1-7
AP/ATM/5/22	Route Asuncion/Manaus	1-8
AP/ATM/5/23	Implementation of RNAV Routes in the United States airspaces	1-8
AP/ATM/5/24	Submission to Chile and Peru of the airspaces safety assessment results for RNP 10 Pre-operational Implementation in the Santiago de Chile-Lima segment of routes UL 302 and UL 780	2-1
AP/ATM/5/25	Adoption of the Action Plan for RNP 10 Pre-operational Implementation in the Santiago de Chile/Lima segment of parallel routes UL 780 and UL 302	2-2
AP/ATM/5/26	ATC RVSM Simulations	4-1
AP/ATM/5/27	Aspects to evaluate in ATC RVSM simulations	4-1
AP/ATM/5/28	Organization of flight levels in the CAR/SAM Regions	4-2
AP/ATM/5/29	Preference assignment to RVSM aircraft vs. NON-RVSM aircraft in RVSM airspaces	4-3
AP/ATM/5/30	Inclusion of the Table of Cruising Levels in the CONOPS	4-3
AP/ATM/5/31	Non-implementation of transition airspaces	4-3
AP/ATM/5/32	Contingency Procedures for RVSM Suspension	4-3
AP/ATM/5/33	Domestic Plans to Accommodate Non RVSM Approved Aircraft	4-4
AP/ATM/5/34	Communications to CARSAMMA of the CAR/SAM aircraft RVSM approval status	4-5
AP/ATM/5/35	Minimum Monitoring Requirements	4-5
AP/ATM/5/36	Lateral offset for CAR/SAM Regions	4-6
AP/ATM/5/37	SAM/WG Tasks	4-7
AP/ATM/5/38	Large height deviation reports	4-7
AP/ATM/5/39	Information on RVSM approval status of other Regional Monitoring Agencies	4-8
AP/ATM/5/40	Data on RVSM approval status of other Regional Monitoring Agencies	4-8
AP/ATM/5/41	Cost/Benefit Analysis	4-8
AP/ATM/5/42	Costs of ATC modifications	4-8
AP/ATM/5/43	Minimum Monitoring Requirements	4-9
AP/ATM/5/44	Mode C Data Collection	4-9
AP/ATM/5/45	Use of ASE data provided by other RMA	4-9
AP/ATM/5/46	New Traffic Data Collection Form	4-9
AP/ATM/5/47	New data collection	4-10

**Fifth Meeting/workshop of ATM authorities and planners in the CAR/SAM Regions for RVSM,
RNAV routes and RNP Implementation (AP/ATM/5 RVSM-RNAV-RNP)**

(Panama City, Panama, 18 to 20 June 2003)

**ANTILLAS NEERLANDESAS /
NETHERLANDS ANTILLES**

Rolando Emers
Manager Air Traffic Services
Directorate of Civil Aviation
Ministry for Transport and
Communications
Seru Mahuma z/n
Curacao, Netherlands Antilles

Tel: +599-9 839 3316
Fax: +599-9 869 5041
E-mail: rolemers@curinfo.an

Hughbert Delsol
Inspector Quality Assurance
Kaya Rakeliou 11, Schlpwyk
Curacao, Netherlands Antilles

Tel: +599-9 737 9601
Fax: +599-9 839 4141
E-mail: delsolh@fly-dca.net

Gregor Koote
Fleet Manager MD-82/DC-9-30 Pilot
Dutch Caribbean Airlines
Hato International Airport
Curacao, Netherlands Antilles

Tel: +5999 833 8144 / 236
Fax: +5999
E-mail: kooteg@fly-dca.net

ARGENTINA

Guillermo Cocchi
Jefe División Espacios, Rutas
y Sistemas de Navegación Aérea
Dirección de Tránsito Aéreo
Comando de Regiones Aéreas- CRA
Av. Comodoro Pedro Zanni 250
Oficina 169, Sector Verde
Capital Federal, 1104
Buenos Aires Argentina

Telefax: +5411 4317 6307 - 43176502
E-mail: ditraer@faa.mil.ar

Luis Augusto Demierre
Jefe del Proyecto CNS/ATM
Comando de Regiones Aéreas
Edificio Cóndor Edificio Cóndor
Comodoro Pedro Zanni 250
Oficina 173, Sector Verde
Capital Federal, 1104
Buenos Aires, Argentina

Tel: +5411 4317 6313
Fax: +5411 4317 6126
E-mail: cns-atm@faa.mil.ar
demierre@faa.mil.ar

Víctor Marcelo de Virgilio
Jefe de la División Contralor
de Vuelos
Comando de Regiones Aéreas
Edificio Cóndor
Comodoro Pedro Zanni 250
Oficina 169, Sector Verde
Capital Federal, 1104
Buenos Aires, Argentina

Telefax: +5411 4317 6502
E-mail: mdevirgilio@arnet.com.ar
dta@faa.mil.ar

BOLIVIA

Julio Fortún Landivar
Jefe Unidad de Navegación Aérea
Dirección General de Aeronáutica
Civil
Edif. Palacio de Comunicaciones
Av. Mariscal Santa Cruz No. 1278, piso 4to.
Casilla No. 9360
La Paz, Bolivia

Telefax: +5912 211 4465
E-mail: dgacnav@caoba.entelnet.bo

BRASIL/BRAZIL

Ary de Almeida Portela
Asesor de la Sección de Normas
ATM del DECEA
Av. Gral. Justo 160, 2do. Andar,
Centro Castelo, Río de Janeiro,
RJ, CEP 20031-030
Brasil

Tel: +5521 3814 6273
Fax: +5521 3814 6088
E-mail: atm1-1@decea.gov.br

José Tristao Mariano
Asesor de Tránsito Aéreo
DECEA - Departamento de
Control del Espacio Aéreo
Av. Gral. Justo 160, Centro
Castelo, Río de Janeiro,
RJ, CEP 20031-030, Brasil

Tel: +5521 3814 6590
Fax: +5521 3814 6088
E-mail: ass3datm@decea.gov.br
tristaocta@aol.com

Julio César de Souza Pereira
Especialista ATM, DECEA
Av. Gral. Justo 160, 2º Andar
Centro, Río de Janeiro
RJ, CEP 20021-340
Brasil

Tel: +5521 3814 6278
Fax: +5521 3814 6088
E-mail: atm3-9@decea.gov.br
julioval@uol.com.br

Saulo José da Silva
Especialista ATM, DECEA
Av. General Justo 160, 4o Andar, Centro
Río de Janeiro, RJ-20021-340, Brasil

Tel: +5521 3814-6281
Fax: +5521 3814-6088
E-mail: atm3-7@decea.gov.br
safila@uol.com.br

Alvimar de Lucena Costa Junior
Inspector de Operaciones
R. Santa Luzia 651, M-206
Castelo, Rio de Janeiro RJ
CEP 20.030-005, Brasil

Tel: +5521 3814 6853
Fax: +5521 3814 6852
E-mail: lucena@dac.gov.br

CANADA

Don MacKeigan
RVSM Project Manager
NAV CANADA
77 Metcalfe Street
Ottawa, Ontario, Canada K1P 5L6

Tel: +1613 563 5678
Fax: +1613 563 7987
E-mail: mackeid@navcanada.ca

CHILE

Juan Ramírez Stiven
Supervisor ATC CCAU
DGAC Chile
San Pablo 8381
Pudahuel, Santiago de Chile
Chile

Tel: +562 767 1636
Fax: +562 767 2001
E-mail: ramirezstiven@yahoo.com

Andrés Prado Grez
Responsable Área Aviónica
DGAC Chile
Av. Miguel Claro 1314
Providencia, Santiago
Chile

Tel: +562 410 7684
Fax: +562 335 5710
E-mail: aprado@dgac.cl

COLOMBIA

Jairo Sandoval Orjuela
Inspector de Operaciones
de Vuelo – Aerocivil
Avenida Eldorado No. 106-95
Santa Fé de Bogotá, D.E
Colombia

Tel: +571 266 3720 / 3731
Fax: +571 413 9115
E-mail: jsandova@aerocivil.gov.co
jso.48@hotmail.com

Gerardo Delgado
Jefe División Procedimientos ATS
Centro Nacional de Aeronavegación
División de Procedimientos
Aeropuerto Internacional Eldorado
Santa Fé de Bogotá, D.E., Colombia

Tel: +571 266 2545
Fax: +571
E-mail: gdelgado@aerocivil.gov.co
Website: www.aerocivil.gov.co

Andrea del Pilar Ramírez Jiménez
Asesor Jurídico Aeronáutico
Abogados Aeronáuticos de Colombia
Bogotá, Colombia

Tel: +576 338 1936
Fax:
E-mail: redheadgirl@latinmail.com

CUBA

Fidel Ara Cruz
Jefe Grupo Tránsito Aéreo
Instituto de Aeronáutica Civil de Cuba-IACC
Calle 23 – N° 64 Esq. Infanta
Apartado Postal 6215
Vedado, C. Habana, Cuba

Tel: +537 55 1121
Fax: +537 55 1183
E-mail: dan@iacc.avianet.cu
fidel.ara@iacc.avianet.cu

ECUADOR

Gonzalo Echeverría Vinuesa
Jefe Departamento Tránsito Aéreo
DGAC
Buenos Aires 149 y 10 de Agosto
Quito, Ecuador

Tel: +5932 2238 364
Fax: +5932 2238 364
E-mail: goecheverria@yahoo.com

Juan López Medina
Inspector de Seguridad Aérea -
Despachador
Buenos Aires 149 y 10 de Agosto
Quito, Ecuador

Tel: +5932 2231 006
Fax: +5932 2506 043
E-mail: l_clopezm@yahoo.com.mx

Manuel Santamaría
Inspector Aeronavegabilidad
Buenos Aires Oe 1-53 y 10 de Agosto
Dpto. Aeronavegabilidad, piso 9, DGAC
Quito, Ecuador

Tel: 5932 2504 915
Fax: 5932 2504 915
E-mail: ingdacuio@hotmail.com

Bolívar Dávalos
Jefe Sección Planificación ATS
Departamento de Tránsito Aéreo
DGAC
Buenos Aires 149 y 10 de Agosto
Apartado 1701-2077
Quito, Ecuador

Tel: +5932 2238 364
Fax: +5932 2238 364
E-mail: bolivar_davalos.dgac.gov.ec
bolodavalos@hotmail.com

EL SALVADOR

Oswaldo Jiménez Larín
Inspector de Operaciones de
Aviación Comercial
Autoridad de Aviación Civil
Bulevard del Ejército, Apto. de Ilopango
San Salvador, El Salvador

Tel: +503 296 6351 / 295 0433 ext.179
Fax: +503 296 6349
E-mail: o.jimenez@telesal.net

Sandra Guadalupe Granados
Jefe AIS – Inspector Aeronáutico
Autoridad de Aviación Civil
Km. 9 ½, Carretera Panamericana
Ilopango, El Salvador

Tel: +503 295 0264
Fax: +503 295 0443
E-mail: estadis@es.com.su
sangranados06@yahoo.com

ESTADOS UNIDOS/UNITED STATES

Leslie Cary
ATS International Program
Officer, AAT-30 – FAA
800 Independence Ave, S.W.
Washington, D.C. 20591, United States

Tel: +1202 267 9601
Fax: +1202 267 2150
E-mail: leslie.cary@faa.gov

Brian Colamosca
Manager, Separation Standards Group
ACB-310, FAA Technical Center
Atlantic City, NJ 08405
United States

Tel: +1 609 485 6603
Fax: +1 609 485 5117
E-mail: brian.colamosca@faa.gov

Brian Throop
Operations Officer, ATP-130
Air Traffic Services, FAA
800 Independence Ave, S.W.
Washington, D.C. 20591, United States

Tel: +1202 267 3160
Fax: +1202 267 5110
E-mail: brian.throop@faa.gov
bthroop@excitite.com

Robert Swain
DRVSM Program Manager, FAA
470 L'Enfant Plaza
Suite 4102, Washington, DC 20024
United States

Tel: +1202 385 4576
Fax: +1202 385 4653
E-mail: robert.swain@faa.gov

José Luis Pérez
RVSM Implementation Team Member
ACB-310 - FAA
William J. Hughes Technical Center
Atlantic City International Airport
NJ 08405, United States

Tel: +1609 485 5365
Fax: +1609 485 5117
E-mail: jose.perez@faa.gov

Robert Miller
Director, Airspace Analysis and Modeling
CSSI, Inc.
400 Virginia Ave, SW, Suite 210
Washington, DC 20024
United States

Tel: +1202 484 3359
Fax: +1202 863 2398
E-mail: rmiller@cssiinc.com

Ross Burton
Program Manager, Oceanic Analysis and Modeling
400 Virginia Ave, SW, Suite 210
Washington, DC 20024
United States

Tel: +1202 863 7439
Fax: +1202 863 2398
E-mail: rburton@cssiinc.com

Jennifer Harris
International Air Traffic Control.
Specialist - CSSI, Inc
400 Virginia Avenue, S.W., Suite 210
Washington, D.C. 20024 - United States

Tel: +1202 484 3358
Fax: +1202 863 2398
E-mail: jharris@cssiinc.com

Megan James
Analyst – CSSI Inc.
6712 Washington Ave., Suite 301
Egg Harbor Township, NJ 08234
United States

Tel: +1609 407 9173
Fax: +1609 407 9356
E-mail: mjames@cssiinc.com

Pete Gullo
Traffic Management Officer
U.S. DOT/FAA
7500 NW 58th St., Miami,
Florida 33166, United States

Tel: +1305 716 1591
Fax: +1305 716 1577
E-mail: pete.gullo@faa.gov

Felipe Fraticelli
Support Manager for Plans and Programs
DOT/FAA San Juan CERAP
5000 Carr, 190
Carolina, Puerto Rico 00979

Tel: +787 253 8695
Fax: +787 253 8650
E-mail: felipe.fraticelli@faa.gov

GUATEMALA

Francisco Estuardo Ochoa Velásquez
Jefe de Control de Tránsito Aéreo
Centro de Control de Tránsito Aéreo
Av. Hincapié 11-66, Zona 13
Ciudad de Guatemala, Guatemala

Tel: +502 331 5281
Fax: +502 331 5281
E-mail: e8alfa@yahoo.com
e8alfa@amigo.net.gt

Iván Mauricio Velásquez Marroquín
Planificación del Espacio Aéreo
Centro de Control de Tránsito Aéreo
Av. Hincapié 11-66, Zona 13
Ciudad de Guatemala, Guatemala

Tel: +502 331 5281 / 331 6510
Fax: +502 331 5281
E-mail: ivanmggt@yahoo.fr

GUYANA

Chaitrani Heeralall
Manager ATC Operations
Timehri Control Tower
Civil Aviation Authority
Cheddi Jagan Intl. Airport
Guyana

Tel: +592 261 2564
Fax: +592 261 2279
E-mail: artie@networksgy.com

GUYANA FRANCESA/FRENCH GUYANA

Jean-Antoine Philippe
Deputy Chief of French Guyana Aeronautical
District
Cayenne-Rochambeau Aerodrome
97351 Matoury,
Guyane Française

Tel: +594 594 359303
Fax: +594 594 356166
E-mail: jean-antoine.philippe@aviation-civile.gouv.fr

HAITI

Jacques Boursiquot
Deputy Director of Air Navigation
OFNAC, P.O. Box 1346
Port-au-Prince, Haiti HT6110

Tel: +509 250 0052
Fax: +509 250 0998
E-mail: jboursiquot@ofnac.org

Marc Paulémon
Technical Advisor
OFNAC, P.O. Box 1346
Port-au-Prince, Haiti HT6110

Tel: +509 250 0647 / 250 0052
Fax: +509 250 0998 / 0175
E-mail: mpaulemon@ofnac.org
avanesso@yahoo.com

JAMAICA

Randolph St. A. Jones
Manager, Air Traffic Services
Civil Aviation Authority
4 Winchester Rd., Kingston 10,
Jamaica

Tel: +876 960 3965
Fax: +876 920-0194
E-mail: mats@jcaa.gov.jm
Website: www.jcaa.gov.jm

MÉXICO

Mario Sardiña Camacho
Jefe del Área de Planeación ATM
SENEAM
Boulevard Puerto Aéreo 485
Col. Federal, C.P. 15500, Moctezuma
México, DF, México

Tel: +572 61510 / 572 61530
Fax: +572 61589 / 572 61511
E-mail: jzapiain@sct.gob.mx

PANAMÁ

Claudio Dutary
Director de Navegación Aérea
Autoridad Aeronáutica Civil
Albrook Edificio 611, Balboa, Ancón
Apartados 5006
Zona 5, Panamá

Tel: +507 315- 9802
Fax: +507 232- 6622
E-mail: claudiodut@cwpanama.net

Juan Ramón González Carvajal
Jefe de los Servicios de Tránsito Aéreo
Dirección de Navegación Aérea - AAC
Apartado 5006, Balboa, Ancón
Panamá

Tel: +507 315-9804 / 9803
Fax: +507 232 5238
E-mail: jurago2000@hotmail.com

Wendy de Vásquez
Supervisora del Centro de Control Radar
Dirección de Navegación Aérea - AAC
Apartado 5006, Balboa, Ancón
Panamá

Tel: +507 315 9807 / 9806
Fax: +507 232 5904
E-mail: wendyalmillategui@hotmail.com

Omar Enrique Guerra F. Controlador de Área y Aproximación Radar CERAP Apartado 5006, Balboa, Ancón Panamá	Tel: +507 315 9807 / 9806 Fax: +507 232 6622 E-mail: oegef@hotmail.com
Kerima de Lasso Controlador de Área y Aproximación Radar Dirección de Navegación Aérea - AAC Apartado 5006, Balboa, Ancón Panamá	Tel: +507 315 9807 / 9806 Fax: +507 232 5904 E-mail: kiklasso@yahoo.com
Gabriel Bernard Controlador de Área y Aproximación Radar CERAP Apartado 5006, Balboa, Ancón Panamá	Tel: +507 315 9807 / 9806 Fax: +507 232 6622 E-mail: oegef@hotmail.com
Nasli López Ruíz Controlador de Área y Aproximación Radar Dirección de Navegación Aérea - AAC Apartado 5006, Balboa, Ancón Panamá	Tel: +507 315 9807 / 9806 Fax: +507 232 5904 E-mail:
Ana Teresa Montenegro Especialista en Procedimientos Terminales, Sección Planificación del Espacio Aéreo Apartado 5006, Balboa, Ancón Panamá	Tel: +507 315 9812 Fax: +507 232 6622 E-mail: anateresa09@hotmail.com
Erazel Anguizola Jefa de Información Aeronáutica Dirección de Navegación Aérea - AAC Apartado 5006, Balboa, Ancón Panamá	Tel: +507 315 9822 / 9818 Fax: +507 232 6622 E-mail: eanguizola@hotmail.com
Luis R. Friedman Jefe del Departamento de Operaciones Dirección de Seguridad Aérea - AAC Apartado 7501 y 7615 Panamá 5, Panamá	Tel: +507 315 9137 / 38 / 39 Fax: +507 315 0386 E-mail: lfriedman@mail.aeronautica.gob.pa
Ruth E. Quintero G. Inspectora de Aeronavegabilidad Dirección de Seguridad Aérea - AAC Departamento de Aeronavegabilidad Apartado 7501 y 7615 Panamá 5, Panamá	Tel: +507 315 9164 Fax: +507 315 0386 E-mail: rquintero@aeronautica.gob.pa

Javier Schwencke
Asesor de Aeronavegabilidad
OACI – OPAS
Panama 5, Panamá

Tel: +507 315 9118
Fax:
E-mail: javischw@hotmail.com

PARAGUAY

Roque Díaz Estigarribia
Gerente Servicios Aeronáuticos del
Aeropuerto Internacional Guaraní
Dirección Nacional de Aeronáutica Civil
Mcal. López entre Vice Pdte. Sánchez y
22 de Septiembre
2º piso Edif. Ministerio de Defensa Nacional
Gerencia de Navegación Aérea
Asunción, Paraguay

Telefax: +59521 205 365
E-mail: tayi@geomundos.com
atmtayi@hotmail.com

Tomás Alfredo Yentzch Irala
Jefe de los Servicios de Planificaciones ATM
Dirección Nacional de Aeronáutica Civil
Mcal. López entre Vice Pdte. Sánchez y
22 de Septiembre, 2º piso, Edif. Ministerio
de Defensa Nacional - Gerencia de Navegación Aérea
Asunción, Paraguay

Tel: +59521 205 365
Fax: +59521 205 365
E-mail: atm_gna@dinac.gov.py

PERÚ

Fernando Hermoza Hübner
Inspector Navegación Aérea
Dirección General de
Aeronáutica Civil
Ministerio de Transportes y
Comunicaciones
Av. 28 de Julio 800
Lima 1, Perú

Tel: +511 425 1780
Fax: +511 425 1780
E-mail: fhermoza@mtc.gob.pe

Moisés Rondón Rondón
Inspector de Operaciones
DGAC
Ministerio de Transportes y
Comunicaciones
Av. 28 de Julio 800
Lima 1, Perú

Tel: +511 433 9823
Fax: +511 433 0273
E-mail: mrondon@mtc.gob.pe

Luis Zavala Sierra
Inspector de Aeronavegabilidad
Sistemas Aviónicos, Departamento
de Ingeniería y Certificación - DGAC
Ministerio de Transportes y Comunicaciones
Av. 28 de Julio 800
Lima 1, Perú

Tel: +511 332 2781 / 9984 2679
Fax: +511 332 2781
E-mail: azavala@mtc.gob.pe

REPUBLICA DOMINICANA

Francisco Artiles
Encargado de Tránsito Aéreo
Aeropuerto Intl. Las Américas
Santo Domingo, República Dominicana

Tel: +809 549 1310 ext. 233
Fax: +809 549 0314
E-mail: far3210@codetel.net.do

Johann Estrada
Supervisor de Tránsito Aéreo
Aeropuerto Intl. Las Américas
Santo Domingo, República Dominicana

Tel: +809 688 5303
Fax: +809 6824776
E-mail: johannestrada@hotmail.com

URUGUAY

Roberto Arca Jaurena
Jefe Dpto. Técnico de Tránsito Aéreo
Dirección General de
Infraestructura Aeronáutica
DINACIA
Aeropuerto Intl. De Carrasco
Canelones 14000, Uruguay

Tel: +5982 604 0249
Fax: +5982 604 0251
E-mail: rlarca@adinet.com.uy

Jorge Alvarez
Jefe Depto. Operaciones
Dirección de Seguridad de Vuelo, DGAC
Aeropuerto Intl. de Carrasco
Hall Central, Sala 3
Canelones 14000, Uruguay

Tel: +5982 604 0116
Fax: +5982 604 0116
E-mail: jorgealvarez2@adinet.com.uy

VENEZUELA

Nelson Campos
Jefe Depto. Tránsito Aéreo
Ministerio de Infraestructura
Av. Lecuna Edificio Parque Central
Torre Este, Piso 32
Dirección de Aeronáutica Civil
Caracas, Venezuela ZP 1010

Tel: +58212 509 2256
Fax: +58212 509 2259
E-mail: nelsoncampos@cantv.net

Gonzalo García Alzurú
Jefe División de Normas y
Procedimientos ATS
Instituto Nacional de Aviación Civil
Edificio Parque Central
Torre Este, piso 32
Dirección General de Aeronáutica Civil
Caracas, Venezuela ZP 1010

Tel: +58212 509 2248
Fax: +58212 509 2278
E-mail: ggonzalo@cantv.net

José Antonio Sánchez
Presidente Secocenco
Controlador Centro Control Maiquetía
Aeropuerto Intl. Maiquetía
Edificio ATC
Venezuela

Tel: +58212 312 5943 / 58416 620 9066
Fax: +58212 351 7752
E-mail: secocenco@cantv.net

AITAL

Juan Carlos Duque
Asesor de Operaciones y Seguridad Aérea
Av. El Dorado 93-13
Bogotá, Colombia

Tel: +571 295 7972
Fax:
E-mail: juancduque@cablenet.co

ARINC

Michael Ramirez Janin
Regional Director – Latin America
2551 Riva Road
Annapolis, MD 21401-7465
United States

Tel: +1954 349 0748 / 914 2995
Fax: +1954 349 8762
E-mail: mramirez@arinc.com

COCESNA

Uriel Urbizo Fley
Gerente CNS/ATM
Corporación Centroamericana de
Servicios de Navegación Aérea
Apartado Postal 660
Tegucigalpa, D.C. Honduras, C.A

Tel: +504 234 3360
Fax: +504 234 3360 Ext. 1322
E-mail: urbizo@cocesna.org
Website: www.cocesna.org

Rodrigo Brenes
Coordinador de Regulaciones
ACSA – COCESNA
Apartado 173-4003
Costa Rica

Tel: +506 443 8968
Fax: +506 430 0697
E-mail: rbrenes@cocesna.org

IATA

Angel López-Lucas
Director Adjunto – Latin America
703 Waterford Way (NW 62 Ave)
Suite 600
Miami, Florida 33126, United States

Tel: +1305 266 7552
Fax: +1305 266 7718
E-mail: lucasa@iata.org
Website: www.iata.org

Ruth Morlas
Intern – Continental Airlines / IATA
1600 Smith St. Houston Tx 77002
United States

Tel: +1713 324 7182
Fax:
E-mail:

Juan Carlos Reddersen Ramírez
Ingeniero – Continental Airlines
1600 Smith St., Houston, Tx 77002
United States

Tel: +1713 324 5148
Fax:
E-mail:

IFALPA

Fernando Alvarez Paczka
Miembro del Comité ATS
IFALPA CAR/SAM
Paloma 110 Col.Reforma Social
México D.F., México

Tel: +5255 5202 5959
Fax: +5255 5540 6361
E-mail: fernandoalvarez@mail.com

Cap. Orlando Bernat
Secretario del Exterior - SIPAC
Vice Presidente Regional
IFALPA SAM / NORTH
Bethania El Avance #2
Apartado 9476 Zona 6, Panamá

Tel: +507 263 9332 / 236 3951
Fax: +507 269 7764
E-mail: orlandobernata@cableonda.net

Raúl Pinzón Mata**

Tel: +
Fax: +
E-mail: raul@kolorines.com.mx

IFATCA

Juan Pérez Mafla
Presidente Ejecutivo para
América IFATCA
Zip Code 6-7658, El Dorado,
Panama, Rep. of Panama

Tel: +507 647 4938 / 673 4709
Fax: +507 232 6622
E-mail: jpmafla@cwpanama.net
evpama@ifatca.org

OACI / ICAO

Jorge Fernández Demarco
RO/ATM/SAR
Oficina Regional SAM
Apartado Aéreo 4127
Lima 100, Perú

Tel: +511 575 1646 / 575 1476
Fax: +511 575 0974 / 575 1479
E-mail: jf@lima.icao.int
Website: www.lima.icao.int

José Moreno
Experto ATM
Proyecto Regional
OACI/PNUD RLA/98/003
Oficina SAM OACI
P. O. Box 4127 - Lima 100, Perú

Tel: +511 575 1646 / 575 476
Fax: +511 575 0974 / 575 1479
E-mail: jm@lima.icao.int
Website: www.lima.icao.int

Roberto Cardoso
RO/SO
Oficina Regional SAM
Apartado Aéreo 4127
Lima 100, Perú

Tel: +511 575 1646 / 575 476
Fax: +511 575 0974 / 575 1479
E-mail: rc@lima.icao.int
Website: www.lima.icao.int

Víctor Hernández Sandoval
RO/ATM/SAR
Oficina Regional NACC
Presidente Masaryk 29 - 3er Piso
Col. Chapultepec Morales,
11570 México, D. F., México

Tel: +572 61510
Fax: +5255 5203 2757
E-mail: vhernandez@mexico.icao.int
Website: www.icao.int/nacc