



ICAO

International Civil Aviation Organization
North American, Central American and Caribbean Office

**Second ICAO/CANSO/AIRBUS Webinar on Aviation Cybersecurity Implementation-
Cybersecurity Policy Manual**

16 to 18 March 2021, GTM-06; 9:00 AM to 12:00 PM, Mexico

Summary of Discussions

Date 16 to 18 March 2021

Location Online Webinar

Opening Ceremony 165 representatives of States/Territories and International Organizations of the NAM/CAR Regions attended the event. The list of registered participants is shown in Attachment A. The list of registered participants is provided in the **Attachment**.

Opening remarks were provided by:

Mr. Julio Siu, Deputy Regional Director, North American, Central American and Caribbean Regional Office, International Civil Aviation Organization

Mr. Javier Vanegas, Regional Director for the Americas, Civil Air Navigation Services Organization (CANSO)

Mr. Julien Touzeau, Head of Security and Crisis Management, Airbus Americas

1. References

1.1 State Letter Ref.: NT-NR7-2 — E.OSG - NACC84977, NAM and CAR States were invited to participate in the second event of cybersecurity supported by CANSO and AIRBUS, together with SAM States (through SAM RO).

2. Objectives

2.1 This second webinar is part of the Cybersecurity Project approach led by the ICAO NACC Regional Office with the aim of supporting the CAR States in their cybersecurity approach for air navigation services.

2.2 In the webinar the Implementation-of the Cybersecurity Policy Manual was discussed to provide information about the different aspects that States have to consider on their aviation system, which are developed in this document.

2.3 Information of the event can be found at the following link: <https://www.icao.int/NACC/Pages/meetings-2021-canso02.aspx>. The link contains documents, presentations and recordings of the different sessions.

2.4 The webinar was addressed to cybersecurity experts, the designated Points of Contact (PoC) cybersecurity of the States and persons responsible for cybersecurity activities

within Air Navigation Services Provider (ANSP) from CAR States. The goal was to prepare personnel in the different ANSP to work in conjunction with ICAO NACC Regional Office to evaluate and improve their Cybersecurity Policy during 2021.

2.5 During the 2021, ICAO NACC Regional Office in conjunction with CANSO and AIRBUS will continue to support CAR States in the following activities:

1. Evaluate and improve ANSPs cybersecurity policy
2. Support CAR States to start their cybersecurity implementation and report their status
3. Support CAR States to develop their own national cybersecurity manual.

3. Relevant Webinar considerations – ANS Cybersecurity Benefits and implementation

3.1 As first part of the webinar, the positive elements that aviation has in respect to incident management and security were highlighted. Elements such as: the culture of care and attention to support safety; that the systems generally operate in an isolated environment (although this is changing), aviation processes and procedures are naturally defensive and cautious, and checklists to ensure correct implementation procedures.

3.2 Technologies are changing, with that change Aviation has more challenges and threats to address. It is important to update procedures to make us unpredictable for an attacker.

3.3 To build an ANS Cybersecurity Policy, this must be based on risk management, regulation, maintenance, security communication, incidents handling, and an approach to implement new systems, access control, operational procedures, compliance and assets management.

3.4 Each ANSP has a responsibility to work and develop a Cybersecurity Policy for its internal operations and its operation with other stakeholders to ensure cybersecurity in all their processes.

3.5 The Air Traffic Management Cybersecurity Policy Template is a living document developed in conjunction with ICAO with the support of CANSO and Airbus to facilitate the CAR States a document that every State may use to assess their operation and start to develop their own cybersecurity policy manual that applies to their real operations.

3.6 The Cybersecurity Policy Manual integrates in its content information on Cybersecurity requirements in many areas, information to be considered for the own State assessment on its operations.

3.7 Documentation that should be integrated by the State Cybersecurity evaluation recommended in the webinar is as follows:

- Resolution A40-10: Addressing Cybersecurity in Civil Aviation
- Air Traffic Management Cybersecurity Policy Template

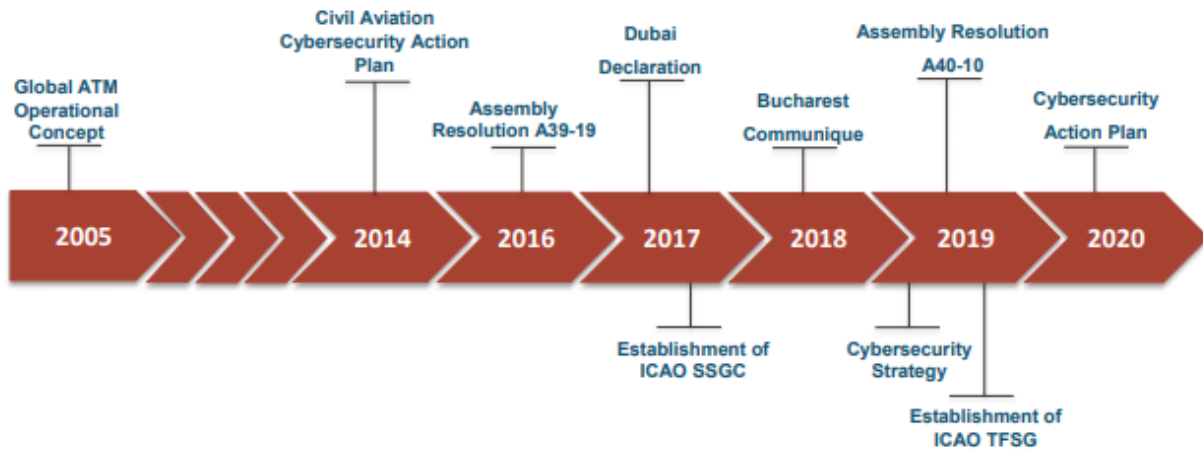
- Safety Management Manual (SMM) (Doc 9859)
- ICAO Aviation Security Global Risk Context Statement (Doc 10108)
- Aviation Security Manual (Doc 8973)
- Annex 17: Security Provisions
- Air Traffic Management Security Manual (Doc 9985)
- Annex 19; Safety Management
- ICAO Aviation Cybersecurity Strategy
- CANSO Standard of Excellence in Cybersecurity
- ISO/IEC 27000-series comprises information security standards
- ICAO Cybersecurity Action Plan

3.8 States have to understand that cybersecurity must interface with other disciplines (safety, efficiency) similarly to what currently happens with “traditional” aviation security to ensure the accurate assessment of exposure to cybersecurity threats and ensure the development of effective and efficient risk-based cyber-protection strategies. Cybersecurity needs to build bridges between aviation security and safety, as well as the multi-disciplinary nature of cybersecurity needs to benefit from security and safety.

4. Developments in Cybersecurity in ICAO

4.1 Why Cybersecurity in Civil Aviation? Inter-connection and Inter-operability of Digital Systems between Aviation Stakeholders Expands the Cyber Threat Landscape.

4.2 ICAO Cybersecurity Timeline:



4.3 ICAO provided information to support State in the process of cybersecurity implementation such as Legal Instruments, Assembly Resolutions A39-19 and A40-10 on Cybersecurity, Standards and Recommended Practices, Guidance Material, documents focus in cybersecurity like Aviation Cybersecurity Strategy and Cybersecurity Action Plan, also ICAO is working in Cybersecurity Training.

4.4 ICAO Cybersecurity webpage is under the following link:
<https://www.icao.int/cybersecurity/Pages/default.aspx>

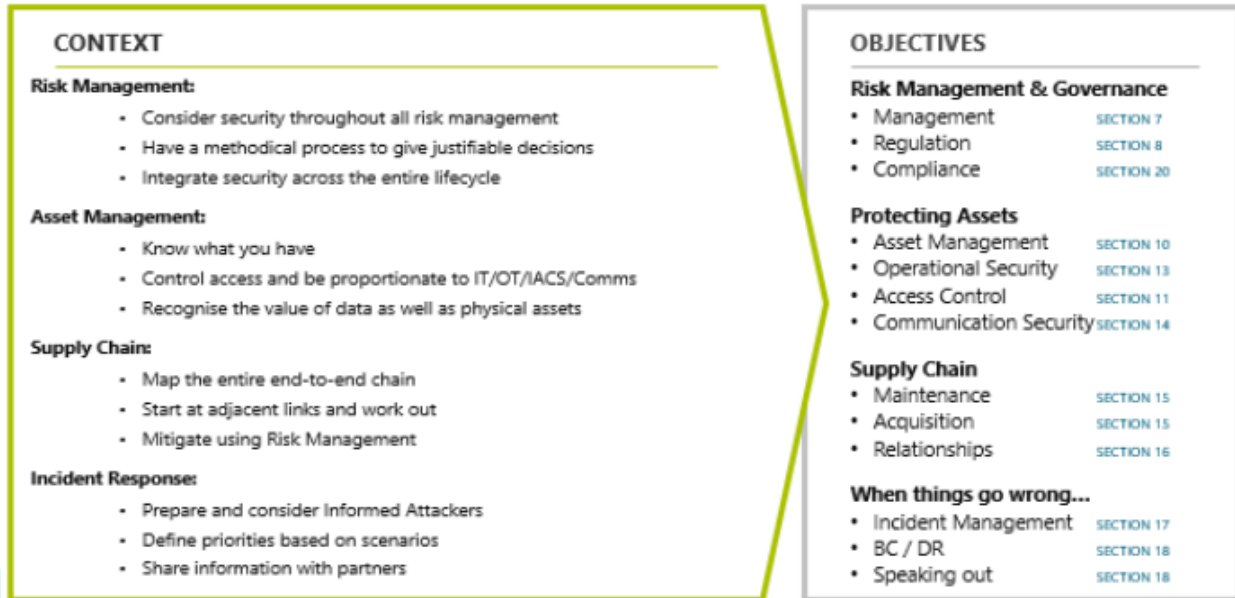
4.5 Many experts from Industry are working with ICAO on this matter, part of the ICAO Study Group includes:

- *Secretariat Study Group on Cybersecurity – SSGC*
- *Trust Framework Study Group – TFSG*

5. Introduction of the Air Traffic Management Cybersecurity Policy Template

5.1 The scope and objectives on the Cybersecurity Police Manual were discussed in the webinar; especially the requirements addressed to ANSP and stakeholder part of their operations.

5.2 Each requirement was discussed, providing examples of its steps implementation and lesson learned:



6. Outcomes/Recommendations

- 6.1 Being ready to face cybersecurity-attacks is like the following quote from *The art of war* of Sun Tzu, “**The supreme art of war is to subdue the enemy without fighting**” Sun Tzu – **The art of war**”. Every State has to prepare itself and its staff to face many challenges at any moment, and monitor and improve any required time .
- 6.2 Manage risks in accordance with a proper risk assessment and put in place security controls to deter and prevent cyberattacks: every ANSP has to be sure that any cyber-attack will not be successful.
- 6.3 In the case of any cyber-attack has consequences for the ANSP, be prepared to react in case cyber security risk materializes:
- Business continuity plan
 - Incident and crisis management
- 6.4 A comprehensive cybersecurity strategy includes identification of all stakeholders, understanding and management of all aviation operations, implementation of effective procedures in all cybersecurity approach process and provide adequate resources to support the process.
- 6.5 Both ICAO Regional Offices, for the NAM/CAR and SAM Regions, highlight the importance of working together, address cybersecurity challenges, be prepared for cyber-attacks, constant assessments, prepare the personnel and benefit from all ICAO documentation to improve security.

6.6 The webinar is the second cybersecurity event of this kind and is part of the Cybersecurity Project of the ICAO NACC Regional Office. The Project belongs to the ICAO-CANSO-AIRBUS initiative on cybersecurity which will include future activities.

6.7 A Cybersecurity Checklist was explained during the event. This Checklist has to be completed by every State with the aim to evaluate its cybersecurity implementation. It was explained that there are not good or bad answers, but every State has to answer honestly. The Checklist will provide the following information:

- State cybersecurity implementation status
- A general overview of the regional status

With this information, the next activities to continue supporting regional cybersecurity will be addressed.

Attachment / Adjunto

No	<u>First Name /</u> <u>Nombre</u>	<u>Last Name</u> <u>/Apellido</u>	<u>Email / Correo electrónico</u>	<u>Organization /</u> <u>Organización</u>	<u>Job Title / Puesto</u>	<u>State/Region –</u> <u>Estado/Región</u>
1	Cosmore	Barnes	cosmore.barnes@ab.gov.ag	Ministry of Civil Aviation	Deputy oversight officer	Antigua and Barbuda / Antigua y Barbuda
2	Latisha	Edwards	latisha.francis@ab.gov.ag	Ministry of Civil Aviation	IT Specialist	Antigua and Barbuda / Antigua y Barbuda
3	Débora	Da luz	deboranatalia.daluz@hotmail.com	Policía de Seguridad Aeropuertaria	Auxiliar policial, en el área de Seguridad de la Aviación Civil perteneciente al Centro de Análisis, Comando y Control de la PSA	Argentina
4	Oscar	Rubio	oscararubio@gmail.com	Policia de Seguridad Aeroportuaria (PSA)	Director AVSEC	Argentina
5	Victoria Beatriz	Gavilan	gavilanvictoria1992@hotmail.com	Policía de seguridad aeroportuaria	Asesor técnico y jurídico en seguridad de la aviación.	Argentina
6	Hernan	Parada	hernanparada84@gmail.com	EANA - Empresa Argentina de Navegacion Aerea	Jefe Seguridad Informática	Argentina
7	Matias	Broido	mbroido@eana.com.ar	EANA	SegInfo	Argentina
8	Alberto	Pacheco	apacheco@psa.gob.ar	Policia de seguridad aeroportuaria	Director de Gestion tecnologica	Argentina
9	FABIO	RAVAGNI	fravagni@eana.com.ar	EANA SE	Seguridad Informatica	Argentina
10	Ricardo Santiago	Sferco	rsferco@psa.gov.ar	Policia de Seguridad Aeroportuaria	Inspector Nacional Avsec	Argentina
11	CINTHIA ESTEFANIA	TOMO	ctomo@psa.gob.ar	POLICIA DE SEGURIDAD AEROPORTUARIA	AUXILIAR AVSEC	Argentina
12	Maria del Carmen	Toledo	mariadelcarmen.toledo@msn.com	Policía de Seguridad Aeroportuaria	AVSEC	Argentina
13	Andrés Gustavo	ROLON	a_rolon@hotmail.com	Policia de Seguridad Aeroportuaria	División Operaciones de la UOSP Rosario	Argentina

14	Raul Alberto	Huenchuman	geniusbch@gmail.com	PSA	Division de Gestion Tecnologica V	Argentina
15	Paola	Onore	paolaonore@gmail.com	policía de seguridad Aeroportuaria	referente avsec	Argentina
16	Simon	van Eenennaam	simon.vaneenennaam@dca.gov.aw	Dep. of Civil Aviation Aruba	security policy advisor	Aruba
17	Frederik	Bergen	Frederik.bergen@dca.gov.aw	Department of Civil Aviation	Operations Inspector	Aruba
18	Petr	Vit	petr.vit@frequentis.com	Frequentis AG	Presales engineer	Austria
19	Donna	Archer	donna.archer@barbados.gov.bb	Barbados Civil Aviation Department	Chief Aeronautical Information Service Officer	Barbados
20	Kevon	Hunte	Kevon.Hunte@barbados.gov.bb	Barbados Civil Aviation Department	AIM Officer	Barbados
21	Ernest	Arzu	ernest.arzu@cocesna.org	COCESNA	CNS ATM Manager	Belize / Belice
22	Nathan Shinar	Gonzales Castro	gonzales.nathann@gmail.com	DGAC	INSPECTOR FISCALIZACION AVSEC	Bolivia
23	Jose	Lopez	zensoft.pc@gmail.com	DGAC	Inspector AVSEC	Bolivia
24	SHIRLEY	MACKAY	hmackay@dgac.gob.bo	DGAC	RESPONSABLE EN NORMATIVA AVSEC	Bolivia
25	Sergio	Lampert Filho	lampert@atech.com.br	Atech S/A	Systems Engineer	Brazil
26	Rashad	Karaky	rkaraky@icao.int	ICAO	Aviation Cybersecurity Officer	Canada
27	Saulo Jose	Silva	sdasilva@icao.int	ICAO	Chief GIS	Canada
28	Robin	Emard	robin.emard@tc.gc.ca	Transport Canada - Aviation Security	Aviation Security Policy Analyst	Canada
29	Alex	Goyes	alexgoyes@gmail.com	Transport Canada	Senior Policy Analyst	Canada
30	Brett	Hockley	brettjhockley@gmail.com	Transport Canada	Aviation Safety Policy Analyst	Canada
31	alfredo	castillo	alfredo.castillo@dgac.gob.cl	Direccion General Aeronautica Civil	Director Auditoria	Chile
32	Rosbin	Villalobos	rosbin.villalobos@cocesna.org	COCESNA	Técnico Vigilancia Aeronáutica	Costa Rica
33	Gabriel	Quirós Pereira	gabriel.quirós@cocesna.org	COCESNA	Gerente Técnico	Costa Rica
34	Cristhian	Mora	cristhian.mora@cocesna.org	COCESNA	Coordinador Técnico	Costa Rica
35	Dionelly	Gonzalez-Drommond	pm-dcansp@outlook.com	DC-ANSP	Project Manager Assistant	Curaçao / Curazao

36	Victor	Krips	victor.krips@gobiernu.cw	Curacao Civil Aviation Authority	AVSEC/FAL/DG Inspector	Curaçao /Curazao
37	Natasha	Leonora-Belefanti	mh.planning.cur@gmail.com	DC-ANSP	Manager AIS/ARO - ICAO NACC AIM TF Rapp	Curaçao / Curazao
38	Tomas	Psenicka	psenicka@ans.cz	Air Navigation Services of the Czech Republic	Chief Information Security Officer	Czech Republic / República Checa
39	Juan	Gautreau	bgautreau@idac.gov.do	Instituto Dominicano de Aviación Civil	Information Security Coordinator	Dominican Republic / República Dominicana
40	Juan	Thomas	jthomas@asca.edu.do	IDAC	Director ASCA	Dominican Republic / República Dominicana
41	Raúl	Muñoz Estrada	raul.munoz@idac.gov.do	IDAC	DTIC	Dominican Republic / República Dominicana
42	suletty	crespo	Suletty.crespo@idac.gov.do	IDAC	División de auditorías	Dominican Republic / República Dominicana
43	Paola	Martinez	paola.martinez809@gmail.com	IDAC	ICT Project Management	Dominican Republic / República Dominicana
44	jonathan	mendez	jonathan.mendez@idac.gov.do	IDAC	Enc. Seccion Soporte ATN	Dominican Republic / República Dominicana
45	Maciel	Cepeda	macielcepeda@gmail.com	Idac	Tecnico Especialista En Seguridad Informatica	Dominican Republic / República Dominicana
46	Carlos	Severino	carlos.severino@idac.gov.do	Instituto Dominicano de Aviación Civil IDAC	Tec. de 1RA. Soporte de Redes Aeronáuticas	Dominican Republic / República Dominicana
47	Luciano	Rojas Almonte	LUCIANOROJAS_ALMONTE@HOTMAIL.COM	IDAC	Enc. Sección Soporte Automatización Sistemas Radar	Dominican Republic / República Dominicana
48	Emil Antonio	Arias Natera	emil.arias@idac.gov.do	Instituto Dominicano de Aviación Civil	Analista de Gestión Integral	Dominican Republic / República Dominicana

49	Saffayeldin	Abdelwahed	Sky.guard1@hotmail.com	NANSC	Senior air traffic controller	Egypt / Egipto
50	mahmoud	nabil	m.a.n.nansc777@gmail.com	NANSC	air traffic controller	Egypt / Egipto
51	ahmed	shady	captin_shady2010@hotmail.com	nansc	ATCO	Egypt / Egipto
52	Hagar	Alaaeldin Mohamed Ahmed	hagar.alaa@gmail.com	National Air Navigation Services Company	Communication Engineer	Egypt / Egipto
53	mahmoud	mabrouk	mahmoud.mabrouk.mousa@gmail.com	NANSC	GM of international cooperation	Egypt / Egipto
54	Essam	Akl	Essamrh2011@hotmail.com	NANSC	ATC	Egypt / Egipto
55	Liliana Magdalena	Guillen	lguillen@aac.gob.sv	Autoridad de Aviacion Civil	Jefe de Seguridad Aeroportuaria	El Salvador
56	Danelia	Ramirez	dramirez@aac.gob.sv	Autoridad de Aviación Civil	Inspectora Nacional AVSEC	El Salvador
57	JAIME	PEREZ	jperez@aac.gob.sv	AUTORIDAD DE AVIACION CIVIL	INSPECTOR NACIONAL AVSEC	El Salvador
58	Jose	Cornejo	jcornejo@aac.gob.sv	AAC	Avsec	El Salvador
59	Ulises	Palma	palmachin@gmail.com	COCESNA	Técnico Aeronáutico	El Salvador
60	Juan Enrique	Martinez	jmartinez@aac.gob.sv	Autoridad de Aviacion Civil	Inspector de Seguridad Aeroportuaria	El Salvador
61	Yann	BERGER	yann.berger@airbus.com	APSYS	Product Security Expert	France / Francia
62	Florent	RIZZO	florent.rizzo@cyberinflight.com	CyberInflight	CEO	France / Francia
63	Pablo	Palacios	pablo.palacios-orellana@airbus.com	Airbus	Marketing Lead	France / Francia
64	Elena	Skalovskaia	skalovskaia@yahoo.com	FoxATM	BizDev	France / Francia
65	Benjamin	Bernard	benji.bernard.bb@gmail.com	ENAC student	Worked with Yann BERGER Panelist	France / Francia
66	Jihane	Ronda	jihane.ronda@gmail.com	ENAC student	Worked with Yann BERGER Panelist	France / Francia
67	Tom	BORDIER	tom.bordier@alumni.enac.fr	ENAC	ENAC students in collaboration with Yann berger Panelist	France / Francia
68	Richard	Homiah	rhomiah@caa.com.gh	Ghana CAA	ATC	Ghana

69	Emmanuel	kwadade-Cudjoe	kwadadd@gmail.com	Ghana Civil Aviation Authority	Air traffic Controller	Ghana
70	Richard	Homiah	paahomiah@gmail.com	Ghana CAA	ATM	Ghana
71	John	Kwofie	Jkwofie@caa.com.gh	Ghana Civil Aviation Authority	Air traffic controller	Ghana
72	Reynaldo	Guerra	reynaldoguerra37@gmail.com	Dirección General de Aeronáutica Civil	Instructor Nacional Avsec	Guatemala
73	Victorino	Paredes Saz	victorino.paredes@dgac.gob.gt	Dirección General de Aeronautica Civil	Jefe del Departamento Nacional de Control de Calidad	Guatemala
74	Victor Hugo	Gimenez	gimenez@dgac.gob.gt	DGAC	Asesor Informático	Guatemala
75	Luis	Chavac	luischavac011@gmail.com	DGAC	Inspector Nacional de Seguridad	Guatemala
76	ANIBAL	LUNA	abuelolun@gmail.com	Dirección General de Aeronáutica Civil	Inspector Nacional AVSEC	Guatemala
77	Luis	Ayala	lui.fer593@gmail.com	DGAC Guatemala	Inspector Nacional AVSEC	Guatemala
78	Mario Alberto	Canto	Mariobroll@gmail.com	DGAC Guatemala	Inspector Nacional AVSEC	Guatemala
79	Ruben	Lopez	Rubenloas@gmail.com	DGAC	Inspector Nacional AVSEC	Guatemala
80	José	Chávez	josemchl09@gmail.com	Dirección General de Aeronáutica Civil -DGAC-	Inspector Nacional AVSEC	Guatemala
81	RUDY	SOLVAL	rudysolval85@gmail.com	Dirección General de Aeronáutica Civil	Inspector Nacional de control de calidad	Guatemala
82	Alvaro	Rodas	alvaro.rodas@dgac.gob.gt	Dirección General de Aeronáutica Civil Guatemala	Coordinador Nacional AVSEC/FAL	Guatemala
83	Raul	Chavac	raulechavac74@gmail.com	DGAC	Instructor Nacional de Seguridad	Guatemala
84	Juan Carlos	de Guise Romano	juan.deguse@dgac.gob.gt	Dirección General de Aeronáutica Civil	Técnico Operativo	Guatemala
85	Raul	Calo	raul.calo@cocesna.org	COCESNA	TECNICO AERONAUTICO	Guatemala
86	Oscar	Jiménez	oscarafaelgt@gmail.com	DGAC	Inspector Nacional AVSEC	Guatemala
87	Juan Carlos	Vega Juarez	jc.vega@dgac.gob.gt	Dirección General de Aeronáutica Civil	Técnico Profesional III	Guatemala

88	Luis	Baten	Arluguz2012@gmail.com	DGAC	Inspector Nacional AVSEC	Guatemala
89	Julio	Gonzalez	jlosalic@gmail.com	Dirección General de Aeronáutica Civil	Inspector Nacional de Seguridad de la Aviación Civil	Guatemala
90	Juan	Burgos	jrburgosdc@hotmail.com	Dirección General de Aeronáutica Civil	Jefe del Departamento Nacional de Instrucción AVSEC	Guatemala
91	Miguel	Raxtun	miguel.raxtun@cocesna.org	COCESNA	ESP CNS	Guatemala
92	Louis Fanel	Telcy	telcyfa03@gmail.com	OFNAC	Aviation cybersecurity	Haiti
93	Emmanuel	Jacques	emmanueljacques@gmail.com	OFNAC	CNS Engineer	Haiti
94	Genard	Cherfils	cherfilsg12@gmail.com	OFNAC	Technician	Haiti
95	Estima	BERNARD	bernardestima@gmail.com	OFNAC	CNS engeneer	Haiti
96	JEAN JOSUE	LEGER	jeanjosueleger@yahoo.fr	OFNAC	SUP ELECTRONICIEN	Haiti
97	Nadia	Leopold	nleopold@hotmail.com	OFNAC	Chief Communications GG/AG Unit	Haiti
98	Karim	Alvarez	jkalvarezb@gmail.com	COCESNA	Gerente TI	Honduras
99	REYNALDO	RIVERA MONCADA	reynaldo.rivera@cocesna.org	COCSNA	TECNICO AERONAUTICO	Honduras
100	Alberto	Zuniga	josalberto777@gmail.com	Agencia hondureña de aeronáutica civil	Supervisor Nacional CNS	Honduras
101	MANUEL	FLORES	manuel.flores.hn@gmail.com	COCESNA	Sub Gerente Tecnico	Honduras
102	ROGER	PEREZ	roger.perez@cocesna.org	COCESNA	ACNA Senior Manager	Honduras
103	Samuel Isaí	Canales	sammyhunny@hotmail.com	Agencia Hondureña de Aeronáutica Civil	Inspector de Servicios ANS	Honduras
104	Carlos	Rodriguez	operaciondsa@dni.gob.hn	Division de Seguridad Aeroporturia	Jefe de Operaciones	Honduras
105	Rudy	Villa	rudy.villa@cocesna.org	COCESNA	Ing. Mantenimiento	Honduras
106	Moises	Cukier	micukm@gmail.com	Independent	Cybersecurity expert	Honduras
107	Ana Lucia	Ulloa	ana.ulloa.hn@gmail.com	UNAH	Docente universitario	Honduras
108	Leonardo	Herrera	leonardo.herrera@cocesna.org	COCESNA	Coordinador Técnico	Honduras
109	Selvin	Raudales	rselvin20101@yahoo.com	Cocesna	Tecnico Aeronautico	Honduras
110	Rosa	Rodriguez Amaya	rouse.adelia34@gmail.com	Division de Seguridad Aeroportuaría (DSA)	Oficial AVSEC	Honduras

111	David	Flores	david.flores@cocesna.org	COCESNA	Especialista en Infraestructura Web	Honduras
112	Carlos	Hernandez	carlos.hernandez.hn@gmail.com	COCESNA	Gestor Técnico de MACC	Honduras
113	Fany Dinora	Navarro caballero	dinoranavarro.dn@gmail.com	Privada	Aministradora	Honduras
114	Franklin	Ayestas	franklin.ayestas@cocesna.org	Cocesna	Mantenimiento	Honduras
115	Rigoberto	Rivera	r.iigo2009@gmail.com	Agencia Hondureña de Aeronautica Civil	Inspector de Operaciones	Honduras
116	Mario Edgardo	Pinel Alvarado	mario.epinel@gmail.com	COCESNA	Gestor Tecnico	Honduras
117	Oscar	Villela	oscar.villelam@gmail.com	Independiente	Consultor Ciberseguridad	Honduras
118	Eduardo	Santos	ee_santos@hotmail.com	Cocesna	DBA	Honduras
119	Lester	Sacaza	lester.sacaza@cocesna.org	COCESNA	Especialista en Infraestructura Informática	Honduras
120	Esly Josue	Raudales Corrales	dsamhtg@dnii.gob.hn	División de Seguridad Aeroportuaria	Oficial AVSEC	Honduras
121	Lawrence	Law	lchlaw@gmail.com	Hong Kong Civil Aviation Department	IT Officer (Cyber Security)	Hong Kong SAR
122	Ronald Ka Chung	Lam	rkclam@cad.gov.hk	Civil Aviation Department	Air Traffic Management Standards Officer	Hong Kong SAR
123	Gavin	Gayle	ggayle@aerotel-jm.com	Aeronautical Telecommunication Ltd (JCAA)	Senior Technician	Jamaica
124	Peter	Spence	Pspence@aerotel-jm.com	AEROTEL	Asst Ops Mgr	Jamaica
125	David	Miller	dmiller@aerotel-jm.com	AERONAUTICAL TELECOMMUNICATIONS LIMITED	Regional Operations Manager	Jamaica
126	Erick	Meli	erickmeli@kcaa.or.ke	Kenya Civil Aviation Authority	Chief Technical Officer	Kenya / Kenia
127	Pavels	Truskovskis	p.truskovskis@inbox.lv	VAS Latvijas gaisa satiksme	engineer	Latvia / Letonia
128	Buya	Mansaray	bsmansaray9@gmail.com	Roberts FIR	Deputy Chief Engineer	Liberia
129	Fernando	Casso	fernando.casso@idac.gov.do	IDAC	Radar Systems Division Manager	Mexico
130	Victor	Butrón	vbutronp@sct.gob.mx	AFAC	IVA-DSAC	Mexico

131	Verónica	Gutiérrez	buba93@yahoo.com	directum	Intérprete Simultanea Esp<>Ing	Mexico
132	Miguel	Ocampo	miguel.ocampo@sct.gob.mx	Agencia Federal de Aviación Civil	Director de Seguridad de la Aviación Civil	Mexico
133	José María	Peral Pecharromán	jmperal@icao.int	ICAO NACC Regional Office	Regional Officer AVSEC/FAL	Mexico
134	JORGE	PAT	jpaordon@sct.gob.mx	AGENCIA FEDERAL DE AVIACIÓN CIVIL	SUBDIRECTOR DE SEGURIDAD DE LA AVIACIÓN	Mexico
135	Julio	Siu	jsiu@icao.int	ICAO	ICAO NACC Deputy Director	Mexico
136	Sereya	Schotborgh	SSchotborgh@icao.int	ICAO	Regional Officer, Flight Safety, OPS	Mexico
137	Mayda	Avila	mavila@icao.int	ICAO	RO/CNS	Mexico
138	Alejandro	Serrano	alejandro.serranoa@outlook.com	CPAM	'-	Mexico
139	youssef	lazar	lazaryoussef@gmail.com	onda	head of cns department	Morocco
140	Emma	King	emma.king@canso.org	CANSO	design coordinator	Netherlands / Países Bajos
141	Jade	Newton	jade.newton@canso.org	CANSO	Senior Events Coordinator	Netherlands / Países Bajos
142	Rodolfo	Rosales	rodolfo.rosales@cocesna.org	COCESNA	Ingeniero en Mantenimiento	Nicaragua
143	Cesar	Jiron	planificacion@inac.gob.ni	Instituto Nicaragüense de Aeronáutica Civil - INAC	Responsable de Planificación y Control de Calidad.	Nicaragua
144	JAVIER	JIRON	javier.jiron@cocesna.org	COCESNA	Ingeniero en Mantenimiento	Nicaragua
145	César Augusto	Estrada Aburto	inacvirtual@gmail.com	Instituto Nicaraguense de Aeronautica Civil, INAC	Soporte Técnico en Informática	Nicaragua
146	Silvio	Nunez	silvio.nunez@cocesna.org	COCESNA	Coordinador Tecnico	Nicaragua
147	Luis	Aleman	luis_deus2007@hotmail.com	Instituto Nicaragüense de Aeronáutica Civil (INAC)	Inspector CNS	Nicaragua
148	Victor	Nwobia	vicanwobia@yahoo.com	Nigerian College Of Aviation Technology, Zaria	Chief Instructor Surveillance Radar Systems	Nigeria
149	Havzi	Emini	havzi.emini@mnavigation.mk	M-NAV	IT	Macedonia
150	Kliment	Chepunjoski	Kliment.Chepunjoski@mnavigation.mk	M-NAV GOJSC	CNC SUR Engineer	Macedonia
151	eduardo	delgado	eduardo.delgado@aeronautica.gob.pa	Autoridad Aeronautica Civil	Director de Tecnología	Panama
152	Manuel	González	manuel.gonzalez@aeronautica.gob.pa	Autoridad Aeronautica Civil	Jefe de Control de Calidad AVSEC	Panama

153	Aristides	Aldeano	aaldeano@tocumenpanama.aero	Aeropuerto de Tocumen	Control de Calidad	Panama
154	Manuel	Castillero	manuel.castillero@aeronautica.gob.pa	Autoridad de Aeronáutica Civil	Ing. en Telecomunicaciones	Panama
155	Natalia	Acuña	natitamaría@hotmail.com	DINAC	Coordinadora de secretaría general	Paraguay
156	Rocio	Morinigo	ro-morinigo@hotmail.com	Dirección Nacional de Aeronáutica Civil	Gerencia de Normas AVSEC	Paraguay
157	Raquel	Bordón	raquelbordon17@gmail.com	Dirección Nacional de Aeronautica Civil - DINAC	Jefe de Departamento Programas AVSEC	Paraguay
158	ALMA	RECALDE	almarec22@hotmail.com	DINAC	JEFA DE DEPARTAMENTO	Paraguay
159	Roberto	Fernández	rocafergo@gmail.com	DINAC	TI	Paraguay
160	mitic	centurion	mcenturion@mitic.gov.py	MITIC	Responsable de Infraestructura Critica	Paraguay
161	Marcos	Centurion	micenturiongiles@gmail.com	MITIC	Responsable Infraestructura Critica	Paraguay
162	Néstor Andrés	Sánchez Turlan	nestorsanchez.as@gmail.com	Dirección Nacional de Aeronáutica Civil-DINAC	Inspector Nacional AVSEC	Paraguay
163	Roberto	Fernández	rocafergo@dinac.gov.py	DINAC	TI	Paraguay
164	Gustavo	Sandoval	gusanlamas74@gmail.com	Dirección Nacional de Aeronáutica Civil	Coordinador Nacional AVSEC	Paraguay
165	ICAO - SAM	Lampariello Pablo	plampariello@icao.int	ICAO	Regional Officer	Peru
166	Jaime Joan	Bravo	jaime.prado.bravo@gmail.com	Freelance	Instructor de Seguridad de la Aviación iación	Peru
167	Christian	Huertas	Chuertasf@mtc.gob.pe	DGAC Perú	Inspector AVSEC	Peru
168	Luis	Salazar	Lsalazar@mtc.gob.pe	DGAC PERÚ	Inspector Seguridad de la Aviación	Peru
169	Ramón	Pinto	rpintod18@gmail.com	DGAC	Coordinación Avsec	Peru
170	Juan	Meregildo	jmeregildo@mtc.gob.pe	Dirección General de Aeronáutica Civil	Inspector de Seguridad de la Aviación, Mercancías Peligrosas y Facilitación	Peru
171	GISELA	CERDAN	gcerdan@mtc.gob.pe	DGAC	Coordinador Técnico de Seguridad de la Aviación, Mercancías Peligrosas y Facilitación	Peru

172	Leonardo	Boszczowski	lboszczowski@icao.int	ICAO	Regional Officer, Aviation Security and Facilitation	Peru
173	Bruno	Limo	brulimo@gmail.com	Dirección General de Aviación Civil	Inspector de Seguridad Aeronáutica	Peru
174	Juan	Meregildo	juan.meregildop@gmail.com	Drección General de Aeronáutica Civil	Inspector de Seguridad de la Aviación, Mercancías Peligrosas y Facilitación	Peru
175	Ricardo	Podestá	ricardopodestamontero@gmail.com	DGAC	Inspector AVSEC	Peru
176	Sérgio	Ramos	a21230092@isec.pt	University of Coimbra	Researcher	Portugal
177	Jarid	Sutton	jaridsutton@gmail.com	St. Kitts and Nevis Customs and Excise Department	Customer Officer I/II	Saint Kitts and Nevis
178	PAULETTE	BARTLETTE	paulette.bartlette@niagov.com	IMMIGRATION	IMMIGRATION OFFICER	Saint Kitts and Nevis
179	Elmar	Martines	elmarmartines@skncustoms.com	Customs Department	Head of Enforcement Division	Saint Kitts and Nevis
180	Arthnel	Jordon	arthnel.jordon@gmail.com	Ministry of Foreign Affairs and Aviation	Civil Aviation Officer (Security Inspector/Instructor)	Saint Kitts and Nevis / Saint Kitts y Nevis
181	Vonrick	Morton	vonrickmorton@outlook.com	St. Kitts & Nevis Customs & Excise Department	Customs Officer	Saint Kitts and Nevis / Saint Kitts y Nevis
182	Ozbert	France	ozbertfrance@skncustoms.com	Customs and Excise Dept	Customs Officer Gr. IV	Saint Kitts and Nevis / Saint Kitts y Nevis
183	Danika C.	Simpson	d-nyka@live.com	Customs and Excise Department	Customs Officer	Saint Kitts and Nevis / Saint Kitts y Nevis
184	Sheldon	Jeffers	sheldon.jeffers@gov.kn	Immigration - St. Kitts and Nevis	Senior Immigration Officer	Saint Kitts and Nevis / Saint Kitts y Nevis
185	Cephus	Whittaker	cephuswhittaker@gmail.com	Customs&Excise Department	risk anaysis	Saint Kitts and Nevis / Saint Kitts y Nevis
186	Kersha	Martin	kershamartin@skncustoms.com	Customs & Excise Department	Customs Officer Grade II	Saint Kitts and Nevis / Saint Kitts y Nevis

187	ROYSTON	GRIFFIN	civilaviationaffairs@gmail.com	Ministry of foreign Affairs and Aviation	Civil Aviation Officer	Saint Kitts and Nevis / Saint Kitts y Nevis
188	eustace	cherry	eustace.cherry@govt.lc	Government of Saint Lucia	Chief Aviation Officer	Saint Lucia / Santa Lucía
189	Augustus	John	augustushjohn@gmail.com	Aviation Services Department	Civil Aviation Officer	Saint Vincent and the Grenadines / San Vicente y las Granadinas
190	Adel	Alaafi	aalaafi@sans.com.sa	Saudi Air Navigation Services	International Cooperation Office Manager	Saudi Arabia / Arabia Saudita
191	Tariq	Fadel	tfadel@sans.com.sa	Saudi Air Navigation Services	Cybersecurity Risk Specialist	Saudi Arabia / Arabia Saudita
192	Reem	Almorshed	ralmorshed@sans.com.sa	SAUDI AIR NAVIGATION SERVICES	Cybersecurity Governance & Data Protection Specialist	Saudi Arabia / Arabia Saudita
193	Faraz Mujahid	Islam	faraz_gaca@yahoo.com	Saudi Air Navigation Services	Project Manager	Saudi Arabia / Arabia Saudita
194	Ghada	Alnaghmoosh	Ghada.alnaghmoosh@gmail.com	Saudi Air Navigation Services	Cybersecurity business enablement	Saudi Arabia / Arabia Saudita
195	Abdullah	AlSharif	a-10@outlook.com	SANS	Cybersecurity Incidents Response	Saudi Arabia / Arabia Saudita
196	Obaid	Alzubaidi	oalzabedi@sans.com.sa	SANS	Cyber Program Leader	Saudi Arabia / Arabia Saudita
197	Mohamed Mahmoud	Taleb Ahmed	talebahmedmoh@asecna.org	ASECNA	cadre navigation aérienne	Senegal
198	Ivan	Babanic	ivan.babanic@smatsa.rs	SMATSA	Principal Surveillance Engineer	Serbia
199	František	Mesiarkin	frantisek.mesiarkin@lps.sk	LPS SR, š. p.	Cyber expert	Slovakia / Eslovaquia
200	Zulaigha	Ismail	zulaighai@atns.co.za	ATNS	Manager: Infrastructure Planning	South Africa / Sudáfrica
201	Daniel	Navas	jodanze03@gmail.com	DGAC	Inspector Nacional AVSEC	Spain / España
202	Mario Sergio	Dávalos Solís	el_pallino@hotmail.com	seneam	Director de transito aereo	Spain / España

203	MARISEL	BAMBERGER	bambergermarisel@gmail.com	POLICIA DE SEGURIDAD AEROPORTUARIA	DIRECCION DE SEGURIDAD DE LA AVIACION	Spain / España
204	Benjamin	Uceta Gomez	bugomez@e-externas.enaire.es	ENAIRES	GNSS Security Engineer	Spain / España
205	José	Villaverde	villaverdejose@hotmail.com	Instituto Nacional de Aeronáutica Civil (INAC)	Inspector AVSEC Jefe	Spain / España
206	Denis	Sánchez Ardón	dasa@cocesna.org	COCESNA	Gestor de Ciberseguridad e Infraestructura TI	Spain / España
207	luis manuel	Coello flores	luis.coello@cocesna.org	cocesna	ing.manto acc	Spain / España
208	Mario	Marin	seguridad@dinac.gov.py	Direccion Nacional de Aeronautica Civil - DINAC	Secretario Tecnico - Subdireccion de Seguridad de la Aviacion Civil	Spain / España
209	C	Toemin	ctoemin@yahoo.com	Ministry of Transport	Policy	Suriname
210	Worasak	Laowatanaroj	worasakla@gmail.com	AEROTHAI	engineer	Thailand / Tailandia
211	Ted	Martin	tmartin@caa.gov.tt	Trinidad and Tobago Civil Aviation Authority	Manager Aviation Security and Facilitation	Trinidad and Tobago / Trinidad y Tobago
212	Rupnarine	Baboolal	rbaboolal@caa.gov.tt	TTCAA	CNS Supervisor	Trinidad and Tobago / Trinidad y Tobago
213	Veronica	Ramdath	vramdath@caa.gov.tt	T&T	CNS	Trinidad and Tobago / Trinidad y Tobago
214	Thomas	Otim	totim@caa.co.ug	Uganda Civil Aviation Authority	SANSI	Uganda
215	WILLIAM	AMOAKO	wamoako@caa.com.gh	Ghana Civil Aviation Authority	Safety, Standards and Quality Assurance Manager	United Kingdom / Reino Unido
216	Alexandra	Vasile	alexandra.vasile@think.aero	Think Research	ATM Consultant	United Kingdom / Reino Unido
217	Andy	Boff	andy.boff@askhelios.com	Egis	Principal Security Consultant	United Kingdom / Reino Unido
218	Dzintars	Kolosovskis	dzintars.kolosovskis@lgs.lv	LGS	Information security manager	United Kingdom / Reino Unido

219	Joseph	Baden	josephbaden12@gmail.com	US/FAA	Foreign Affairs Specialist	United Kingdom / Reino Unido
220	Keith	Dutch	keithdutch@gmail.com	Federal Aviation Administration	Air Traffic Control Specialist	United Kingdom / Reino Unido
221	Ramón	Flores Améndola	ramon.amendola@cocesna.org	Cocesna	Técnico Vigilancia Aeronáutico	United States / Estados Unidos
222	Jeffrey	Bruck	jeffrey.a.bruck.faa@gmail.com	USA FAA	IT Specialist	United States / Estados Unidos
223	Julien	Touzeau	julien.touzeau@airbus.com	Airbus Americas	Head of Security & Crisis Management	United States / Estados Unidos
224	marvin	duporte	marvinduporte@gmail.com	customs	customs officer	United States / Estados Unidos
225	Andy	Velayos	avcoinc@yahoo.com	FAA API	Foreign Affairs Specialist	United States / Estados Unidos
226	HUGO GONZALO	URQUIDI CARDENAS	hurquidi@dgac.gob.bo	Direccion General de Aeronautica Civil	Responsable Fiscalización	United States / Estados Unidos
227	Andrea	Freeburg	alschwartzfree@gmail.com	Federal Aviation Administration	Foreign Affairs Specialist	United States / Estados Unidos
228	Raymond	Jacobs	raymond.jacobs@sintmaartengov.org	Sint Maarten Civil Aviation Authority	AVSEC/FAL Inspector	United States / Estados Unidos
229	Alejandro	Salomon	alejandro.salomon@sct.gob.mx	SENEAM	Officer in Charge of Cybersecurity at SENEAM	United States / Estados Unidos
230	John	Fort	john.fort@frequentis.com	Frequentis California	CEO	United States / Estados Unidos

231	Kerry-Ann	Barrett	kabarrett@oas.org	OAS	Cybersecurity Policy Specialist	United States / Estados Unidos
232	Raul	Chong	rgcpancha@gmail.com	FAA/ATO	Intl. Prog. Officer, Americas Team	United States / Estados Unidos
233	Melissa	Shah	mshah@me.com	TSA	Analyst	United States / Estados Unidos
234	Khalid	Alkinaydri	kalkinaydri@sans.com.sa	SANS	Cybersecurity Compliance and assurance specialist	United States / Estados Unidos
235	Siddharth	Gejji	siddgejji@gmail.com	FAA	Manager, Cybersecurity	United States / Estados Unidos
236	Melany	Ortiz	melany.ortiz@idac.gov.do	IDAC	Tecnico Especialista en Redes	United States / Estados Unidos
237	Katherine	Rawls	michaud.katherine@gmail.com	Federal Aviation Administration	Aviation Cyber Program Specialist	United States / Estados Unidos
238	Javier	Vanegas	javier.vanegas@canso.org	CANSO	Director Regional	United States / Estados Unidos
239	Deslie	Greenaway	desliegreenaway@skncustoms.com	Customs and Excise Department	Customs Officer	United States / Estados Unidos
240	Crystal	Oseana-Rodriguez	crystalrodriguez79@gmail.com	DC-ANSP	QASM Manager	United States / Estados Unidos
241	Arwa	Alsahli	aalsahli.contractor@sans.com.sa	Saudi Air Navigation Services	SOC Analyst	United States / Estados Unidos
242	Casandra	Blake	casandrablake@skncustoms.com	Customs Department	Customs Officer	United States / Estados Unidos

243	Angela	Mankowski	mitch.mankowski@me.com	DHS/TSA	Program Analyst	United States / Estados Unidos
244	Angel	Luna	Angluna@gmail.com	Federal aviation administration	Operational safety analyst	United States / Estados Unidos
245	Stephanie	Braxton	stephbraxton@gmail.com	FAA	IT Specialist	United States / Estados Unidos
246	Leah	Moebius	leahmoebius@yahoo.com	FAA-ATO	ATO ICAO Global Lead	United States / Estados Unidos
247	Buya	Mansaray	bmansaray@robertsfir.org	Roberts FIR	Deputy Chief Engineer	United States / Estados Unidos
248	Oscar	Pagoada	oscar.pagoada@cocesna.org	COCESNA	Mantenimiento	United States / Estados Unidos
249	Rudolph (Rudy)	Lawrence	trinkatch1@gmail.com	FAA	Air Traffic Control Specialist	United States / Estados Unidos
250	Sergio	Morales	diravsec@dinacia.gub.uy	DINACIA	Dirección AVSEC	Uruguay
251	Sergio	Gomez	sgomez@dinacia.gub.uy	DINACIA	IT	Uruguay
252	Agustin	da Rosa	agustin.darosa@dinacia.gub.uy	DINACIA	Informatica	Uruguay
253	Patricia	Pereyra	ppereyra@dinacia.gub.uy	DINACIA	Inspectora Nacional Avsec	Uruguay
254	ADRIANA	FERNANDEZ	adriana.fernandez@dinacia.gub.uy	DINACIA	JEFE CONTROL DE CALIDAD AVSEC	Uruguay
255	Orlando	Sanchez	orlando.sanchez@inac.gob.ve	INAC	Meteorologo	Venezuela
256	Anira	Padrón	dinorys28@gmail.com	Instituto Nacional de Aeronáutica Civil (INAC)	Gerente General de Transporte Aéreo	Venezuela
257	Marcos	Maldonado	Marcops1@hotmail.es	INAC	Técnico Comunicaciones Aeronautico	Venezuela
258	Eduyennyn Loammy	Chavez	Eduyennyn.cabanerio@inac.gob.ve	INAC	GTE Technology	Venezuela
259	Adonis	Blanco	Adonismuguerza13@gmail.com	INAC	Técnico Radioayudas	Venezuela
260	Analex	Gotto	analexgotto@gmail.com	INAC	Técnico Radar	Venezuela

261	Nilsa	Nieves	nilza.nievesb@gmail.com	INAC	Técnico Radar	Venezuela
262	Alexander	Flores	a.flores@inac.gob.ve	INAC	Servicios a la Navegación Aérea	Venezuela
263	Ivana	Acosta	leibyrossi1992@gmail.com	Instituto Nacional de Aeronáutica Civil (INAC)	Inspector Aeronáutico I	Venezuela
264	jarumy	Castillo	jarumycastillo@gmail.com	INAC	Gerente de Mantenimiento SNA	Venezuela
265	Alexander	Flores	alexanderafs25@gmail.com	INAC	Jefe Operaciones atita	Venezuela
266	Yovel	Morantes	yovel_7@hotmail.com	INAC Venezuela	Técnico AMHS	Venezuela
267	Jerson	Moreno	j.morenoartigas3112@gmail.com	INAC VENEZUELA	Jefe de energía inac	Venezuela
268	Carlos	Labrador	ucv.carloslabrador@gmail.com	Servicios a la Navegación Aérea	Estadístico en Sistema de Gestión Integrado	Venezuela
269	Richard	Canales	Dragonracj@gmail.com	INAC	Técnico AMHS	Venezuela
270	Sabrina	Rodriguez	Sa.rodriguez@inac.gob.ve	INAC Venezuela	Encargada departamento AMHS	Venezuela
271	Maricel	Berroteran	maricelberroteranq@gmail.com	INAC	Servicios a la Navegación Aérea	Venezuela
272	Juan carlos	Aparicio	juanc.apariciob@gmail.com	INAC	Jefe de región maiquetia	Venezuela
273	Darwin	Quintero	desiderioq2009@gmail.com	INAC VENEZUELA	Coordinador CNS	Venezuela
274	Roberto	Marrero	robertomarrero0719@gmail.com	INAC VENEZUELA	Técnico de comunicaciones	Venezuela
275	Jose	Yamarte	karaviador23@gmail.com	INAC	Servicios a la Navegación Aérea	Venezuela