

INTERNATIONAL CIVIL AVIATION ORGANIZATION NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN REGIONAL OFFICE

FIFTH MEETING OF THE HAITI CIVIL AVIATION STEERING COMMITTEE

CASC/5

REPORT

PÉTION VILLE, PORT-AU-PRINCE, HAITI
30 JANUARY 2013

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HISTORICAL

ii.1 Place and Date of the Meeting

The Fifth Meeting of the Haiti Civil Aviation Steering Committee (CASC/5) was held at the Karibe Hotel in Pétion Ville, Port-au-Prince, Haiti, on 30 January 2013.

ii.2 Opening and Officers of the Meeting

Capt. Jean-Marc Maurice Flambert, Director General of the Office National de l'Aviation Civile (OFNAC), civil aviation authority of Haiti, welcomed the delegations, provided introductory remarks and served as Chairman of the Meeting, supported by Mr. Pierre André Laguerre, Director General of the Autorité Aéroportuaire Nationale (AAN), airports authority of Haiti. Mrs. Loretta Martin, Regional Director of the North American, Central American and Caribbean (NACC) Regional Office of the International Civil Aviation Organization (ICAO), served as Secretary with the assistance of Mr. Michiel Vreedenburgh, Deputy Regional Director, also of the ICAO NACC Regional Office, and Mr. Juan Lamosa, Regional Coordinator - The Americas, Implementation Support and Development Section, Aviation Security Branch, ICAO Headquarters.

ii.3 Meeting Agenda

- 1. Haiti Civil Aviation Status and Development
- 2. ICAO Update
- 3. States/Organizations Updates on Assistance Projects
- 4. Next Steps
- 5. Other Business

Information on the CASC is available at:

http://www.mexico.icao.int/RegionalGroups/HaitiCASC.html

ii.4 Attendance

The meeting was attended by 34 participants representing Haiti (OFNAC, AAN, Centre National de Météorologie (CNM), Canada (CBSA), France (DGAC, DSNA), United States (TSA, Embassy), IATA, IDB, MINUSTAH, OAS, World Bank and ICAO, as detailed in the following List of Participants.

LIST OF PARTICIPANTS

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Paul Pagliuso

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Report on Agenda Item 1 Haiti Civil Aviation Status and Development

- 1.1 OFNAC provided an update on the status of civil aviation and development in Haiti, which reflected some change since the previous briefing provided at the CASC/4 Meeting held in August 2012. However, the CASC once again noted with concern the limited progress with the implementation of the most urgent critical projects required to resolve high priority safety deficiencies. The highest priority and urgent requirements remain the following:
 - VHF air-ground radio communications equipment
 - Prefabricated Air Traffic Control Tower (ATC-TWR) cab on top of existing passenger terminal building
 - DVOR/DME at Port-au-Prince International Airport
- 1.2 Noteworthy Government of Haiti (GoH) developments were reported as follows:
 - On-going Cap Haïtien Airport Improvement (runway extension and apron expansion)
 Project loan amount limitation being reviewed in relation to the provision of a new air traffic control tower, air-ground communications system, DVOR/DME and radar.
 - On-going Port-au-Prince International Airport passenger terminal building (PTB) rehabilitation arrivals area completed in 2012; anticipated completion of the departures area expected in July 2013.
- 1.3 Projects planned for implementation expected to commence in the 1st quarter of 2013, once the MTPTC releases funds collected from passenger fees and destined for aviation development, were reported to include the following:
 - Rehabilitation of ATC-TWR on top of passenger terminal building (PTB) with an equipped prefabricated cab
 - New VHF air-ground radio communication equipment for Area Control Centre (ACC) and Approach Control Office (APP) in "Tete Etang" remote station, radios for ATC tower and Voice Communication Switching System (VCSS)
 - Air Traffic Service (ATS) Messages Handling Systems/Aeronautical Telecommunication Network (AMHS/AFTN) including infrastructure, software and training
 - New Doppler VHF Omnidirectional Radio Range (DVOR) and Distance Measuring Equipment (DME)/Port-au-Prince Intl. Airport for terminal and en-route services
 - Repair VOR/OBLEON station for en-route service
 - New Instrument Landing System (ILS), Glide Path (GP)/DME and Localizer (LLZ) stations (Runway 10)
 - Training of 40 air traffic controller (ATCO) candidates retained by OFNAC
- 1.4 Centre National de Météorologie (CNM) reported that the Automated Weather Observing System (AWOS) at Port-au-Prince International Airport was restored to service with WMO assistance, but not fully, and the commencement of a WMO/Canada "Haiti Weather Systems Programme: Climate Services to Reduce Vulnerability in Haiti" Project, which will include the installation of the remaining AWOS donated by WMO.

1

- 1.5 The 5-year project aims at providing essential support to re-establish weather, climate and hydrology forecasting activities in Haiti under the coordination and management of WMO. The Project has four main focus areas:
 - Constructing a building to house the National Hydro-Meteorological Service (NMHS) of Haiti. The building will be Net-Zero Energy, as well as earthquake and hurricane proof;
 - Undertaking capacity building including training of both scientific and technical
 personnel and developing a business plan for the NMHS taking into account all
 aspects of developing a functioning and modern weather, climate and hydrology
 service;
 - Re-establishing the climatological and hydrological observing networks and implementing a data management system; and
 - Developing a wide-reaching dissemination system, to inform stakeholders and the general population of climate related risks.

Report on Agenda Item 2 ICAO Update

- 2.1 ICAO provided a presentation including an update on its activities completed since the CASC/4 Meeting held in August 2012, which guided deliberations and is presented in **Appendix A** to this report.
- 2.2 The main developments since the CASC/4 Meeting were summarized as follows:
 - ICAO letter to OFNAC dated 31 October 2012, on Deficient air-ground communications in the Haiti Airspace recommending immediate action to mitigate aviation safety risk
 - Coordination with France during E/CAR/DCA/24 Meeting regarding ATCO training assistance (October 2012)
 - ICAO Universal Safety Oversight Audit Programme (USOAP) Comprehensive Systems Approach (CSA) Audit (December 2012)
 - ICAO Aviation Security Assistance Mission for On-the-Job Training (OJT) of OFNAC Inspectors (October December 2012)
 - ICAO Aviation Security (AVSEC) State Improvement Plan (SIP) implementation to commence February 2013
 - Updated Haitian Civil Aviation Development Action Plan (**Appendix B**)
- 2.3 The ICAO USOAP CSA audit was conducted in December 2012 and the draft audit report will be submitted to OFNAC in March 2013. However, three potential Significant Safety Concerns (SSCs) were identified during the audit, one of which was corrected within the deadline, but the remaining two were posted in an Electronic Bulletin dated 8 February 2013. OFNAC will require external assistance from CASSOS and ICAO in order to implement the Corrective Action Plan to be prepared once the audit report is received.
- 2.4 ICAO conducted an AVSEC Assistance Mission for OJT of OFNAC Inspectors from October to December 2012, which included the following activities completed since the last meeting:
 - 9-week OJT for national inspectors
 - 2 short-term experts for 9 weeks (France and United States)
 - 1 short-term expert for 4 weeks (United States)
 - OJT focused on access control and screening
 - Oversight procedures developed
 - Standard Operating Procedures (SOPs) developed for screening checkpoint
 - Combined Test Piece (CTP) briefcases acquired by AAN
 - Screening improved
 - Access control improved

- 2.5 The ICAO AVSEC State Improvement Plan (SIP) implementation is to commence in February 2013 and will comprise the following phases:
 - Phase 1 National Civil Aviation Security Committee (NCASC)
 - Phase 2 National Civil Aviation Security Programme (NCASP) and Cargo Security
 - Phase 3 National Civil Aviation Security Training Programme (NCASTP) and Screening Certification Programme (SCP)
 - Phase 4 National Civil Aviation Security Quality Control Programme (NCASQCP)
 - Phase 5 Airport Security Programmes (ASPs)
- 2.6 An ICAO AVSEC Consultant will be deployed for 9 months who will act as project manager for the 5 phases. Initial focus will be running Phases 1 and 2 concurrently, including the NCASP Workshop to be held in Port au Prince, Haiti, from 25 February to 1 March 2013, and the Cargo Security Course to be held in Port au Prince, Haiti, from 4 to 8 March 2013.
- 2.7 The additional assistance required from donors to support implementation of the AVSEC Security Improvement Plan (SIP) includes the following:
 - Explosive Ordnance Disposal (EOD) Project MINUSTAH support has discontinued and is now planned to be provided by the Miami Dade Aviation Department
 - ETD for PAX and hold bag screening checkpoints
 - National Air Transport Facilitation Programme development
 - AVSEC Course Development Training
- 2.8 OFNAC expressed appreciation for the ICAO AVSEC assistance provided to date and planned for the remainder of 2013.

Report on Agenda Item 3 States/Organizations Updates on Assistance Projects

World Bank "Haiti Civil Aviation Sector Infrastructure and Institution Emergency Recovery Grant" Project

- 3.1 Following the OFNAC report, which identified intent to procure communications and navigation aid equipment with GoH funds, the World Bank (WB) informed that the plan to finance the same equipment would be cancelled. In response to the consultation by ICAO whether the available funds could be utilized to fund other projects, the WB responded this would be consulted internally and with the Ministry of Finance and MTPTC.
- 3.2 The progress on the following completed, on-going, and planned projects was reported by the meeting participants:

Canada (Canada Border Services Agency - CBSA)

- Document security and Machine readable travel document (MRTD) training provided
- Will consider providing assistance in conjunction with Transport Canada to develop a National Air Transport Facilitation Programme

France (DGAC and DSNA)

 Conducted evaluation of air traffic management service, facilities, equipment and staffing in preparation for the submission of a proposal to provide OFNAC ATCO documentation and training

United States

<u>Federal Aviation Administration (FAA) conveyed by the US Embassy representative</u>

 ATC Training at FAA Academy is available but on a cost-recovery basis – OFNAC to submit request to receive a proposal and cost estimate, if interested

Transportation Security Administration (TSA)

- Provided four vehicles and ETD equipment to AAN
- AVSEC training provided in conjunction with OAS-CICTE
- Miami Dade Aviation Department to provide EOD assistance
- Committed support for ICAO AVSEC SIP implementation and offered instructors for the respective training
- Maintenance contracts for AVSEC equipment is available but on a costrecovery basis - AAN to submit request to receive a proposal and cost estimate, if interested

<u>United States Agency for International Development (USAID) conveyed by the US Embassy representative</u>

• Solar lights for perimeter patrols were provided for Cap Haitien International Airport

United Nations Stabilization Mission in Haiti (MINUSTAH)

- UNPOL discontinued providing EOD coverage
- Search and Rescue (SAR) MoU developed with OFNAC
- Rescue and Fire Fighting Services (RFFS) Personal Protective Equipment (PPE) to be donated to AAN

Inter-American Development Bank (IDB)

• Aéroport de Paris Ingénierie (ADPi) was contracted and commenced the project to: 1) update of the Master Plan for MTPP; 2) detailed design for the construction of a new ATCT and ACC; 3) airport surrounding land use study; and 4) public private partnership feasibility study and model, all to be completed by June 2013.

International Air Transport Association (IATA)

 Project for the development of Area Navigation/Required Navigation Performance (RNAV/RNP) procedures delayed but expected to commence in April and be completed by the end of 2013.

Organization of American States (OAS) / Inter-American Committee against Terrorism (CICTE)

- Scholarship for Haiti to attend the ICAO Aviation Security National Inspectors Course, Trinidad and Tobago, 16 24 October 2012
- Canada Border Services Agency (CBSA) Air Cargo Interdiction Training, Haiti, 22 26 October 2012
- Scholarship for Haiti to attend the Best Practices Workshop on Travel Document Security and Identity Management, Trinidad and Tobago, 5 7 December 2012
- ICAO/OAS-CICTE Capacity Gap Assessment and Project Development Mission, Haiti, 26 February 1 March 2013 (postponed)
- TSA Preventive Security Measures Course, Cap-Haitien, Haiti, 11 15 March 2013
- Scholarship for Haiti to attend the ICAO Airport Security Programme Workshop, Maryland, United States, 6 10 May 2013
- Scholarship for Haiti to attend the US CBP, ICE-FDL, and FBI Subregional Passenger Interdiction Course, Jamaica, June 2013

Caribbean Aviation Safety and Security Oversight System (CASSOS) conveyed by ICAO representatives

• Offered assistance to OFNAC to prepare and implement the Corrective Action Plan following the submission of the ICAO USOAP CSA audit report.

Report on Agenda Item 4 Next steps

- 4.1 The Meeting discussed the next steps and agreed upon the following:
 - France to submit proposal for Air Traffic Management (ATM) documentation and training
 - MINUSTAH to support runway strip and Runway End Safety Area (RESA) improvements and RFFS PPE donation and new station
 - WMO/Canada "Haiti Weather Systems Programme: Climate Services to Reduce Vulnerability in Haiti" Project to complete Automated Weather Observing System (AWOS) installation
 - IATA PAP RNAV/RNP procedures development project
 - IDB Executive Design for the Control Tower and Update of the Master Plan of the International Airport Toussaint-Louverture at Port-au-Prince project
 - World Bank to consider other items for "Haiti Civil Aviation Sector Infrastructure and Institution Emergency Recovery Grant" Project
 - ICAO AVSEC State Improvement Plan implementation with TSA support for training and CBSA support for the Facilitation (FAL) programme development (NATFP)
 - ICAO USOAP CSA Audit SSCs closure, Audit Report and Corrective Action Plan with CASSOS assistance
 - Possible ICAO Haiti Air Transport Policy and Strategy Study
 - Possible ICAO SSP/SMS training with American Airlines support
 - ICAO/WHO CAPSCA Assistance Visit (6 7 May 2013)
 - Next CASC Meeting date To be advised

Report on Agenda Item 5 Other business

5.1 No other business was discussed.





ICAO Update since CASC/4 Meeting (August 2012)



- **★** Coordination with France during E/CAR/DCA/24 meeting regarding ATC training assistance (October 2012)
- ★ICAO Universal Safety Oversight Audit Programme (USOAP) Comprehensive Systems Approach (CSA) Audit (December 2012)
- **★ICAO** Aviation Security Assistance Mission for OJT of OFNAC Inspectors (October December 2012)
- **★ICAO AVSEC State Improvement Plan (SIP) implementation** to commence February 2013
- **★ Updated Haitian Civil Aviation Development Action Plan**

ICAO USOAP CSA Audit



HAITI

MONITORING

- CSA Audit in December 2012 LEI 94%
- **Departures 2011**: 10,203
- Traffic growth (2007-2011): 17.7% (47% in 2011)
- Accidents (2007-2011): 4 (non-fatal)
- SSCs identified: 3

ASSISTANCE

- RO advice on SSCs & technical missions
- RO CASC Secretariat & coordination http://www.mexico.icao.int/RegionalGroups/HaitiCASC.html

Plan of Action: To be developed after the CSA audit report

DISCUSSION POINTS

- CSA audit in Dec 2012 identified 3 SSCs regarding AOC and licensing processes as well as aeronautical information on the operational status of NAVAIDS, including VOR/DME and ILS
- Haiti submitted action plans for resolution of SSCs
- RO missions, reports and action plans have identified additional critical safety issues
- More donor focus is needed on high-risk aviation safety related deficiencies for which no action is being taken towards their resolution

ICAO AVSEC Survey Mission



HAITI

MONITORING

- Haiti has never received a Universal Security Audit Programme (USAP) audit
- Once assistance is provided, coordination within the AVSEC Branch will determine the feasibility/timing of an audit activity

ASSISTANCE

- ISD-SEC and the NACC Regional Office conducted a security survey of the State
- State Improvement Plan (SIP) developed and being delivered to the State
- OJT phase of the SIP completed
- Hiring process for a Project Manager for next phase of assistance is underway
- Additional assistance being provided by US, CANADA, MINUSTAH, IATA, OAS-CICTE, and IDB

DISCUSSION POINTS

• The effectiveness of assistance provided will be determined over time.

ICAO AVSEC State Improvement Plan





- Activities completed since the last meeting
 - 9-week OJT for national inspectors
 - 2 short-term experts for 9 weeks (France 1, USA 1)
 - 1 short-term expert for 4 weeks (USA)
 - OJT focused on access control and screening
 - Oversight procedures developed
 - SOPs developed for screening checkpoint
 - Combined Test Piece (CTP) briefcases acquired by AAN
 - Screening improved
 - Access control improved
 - ICAO is continuing to monitor improvements

















INTERNATIONAL CIVIL AVIATION ORGANIZATION HAITIAN CIVIL AVIATION DEVELOPMENT ACTION PLAN

(Rev. 30 January 2013)

No.	Item Description	Haiti Organization	Donor State / Organization (Status)	Priority (1, 2, 3)	Cost Estimate (USD)
1	Rehabilitation of Air Traffic Control Tower (TWR) on top of passenger terminal building (PTB) with an equipped prefabricated cab	OFNAC	OFNAC (planned)	1	700,000
2	New VHF air-ground radio communication equipment for ACC and APP in "Tete Etang" remote station ¹ , radios for ATC tower and VCSS	OFNAC	OFNAC (planned)	1	1,540,000
3	AMHS/ AFTN system including infrastructure, software and training ²	OFNAC	OFNAC (planned)	1	500,000
5	New DVOR and DME/Port-au- Prince Intl. Airport for terminal and enroute services ³	OFNAC	OFNAC (planned)	1	1,300,000
6	Improve Aeronautical Information Management (AIM) Office, including facilities, equipment, software and training	OFNAC		1	350,000
7	New Runway 10 Category 1 Approach Lighting System	OFNAC / AAN		1	700,000
9	New PAPI lights for both runways and systems calibration	AAN		1	300,000
10	RFFS personnel protection equipment (75), fire proximity suits (12), self contained breathing apparatus (SCBA - 12) and air compressor for SCBA	AAN	MINUSTAH (possible)	1	750,000
11	Improve west Runway End Safety Area (RESAs) and improve runway strip	AAN	MINUSTAH (possible)	1	475,000
13	Communication system linking the fire station with the TWR and rescue and fire fighting vehicles, to be integrated into the ACC Voice Switching System	AAN	MINUSTAH (possible)	1	250,000

¹ This item includes redundant radio link, hot-standby radio transceivers for four frequencies to implement services (PAP APP, emergency, 2 PAP ACC)

with remote control/monitoring system, antennae, antennae tower, redundant power supply, grounding and lightning protection and shelter.

² Item includes central system, user terminals, Web server, New flight Plan format compliance and network interfaces. It also includes training and documentation
³ This item in

This item includes shelter, power supply system, air conditioning, grounding and lightning protection, and devices for remote operational status information (for PAP TWR and PAP ACC) as well as remote control unit for the Technical Equipment Room. It should also include flight commissioning, on-site training, documentation and installation activities.

No.	Item Description	Haiti Organization	Donor State / Organization (Status)	Priority (1, 2, 3)	Cost Estimate (USD)
16	Repair runway and taxiway surface, rehabilitation of apron pavement, and replace taxiway and apron edge lights and electrical connections.	AAN	MTPTC / AAN (planned)	1	5,000,000
17a	New, repair and maintain AVSEC equipment, including pax, cabin and hold baggage screening and ETD	AAN	IDB / AAN, US TSA (part)	1	750,000
17b	Provide EOD capability including equipment and training	AAN	MINUSTAH / MDAD	1	250,000
18	Repair VOR and DME/OBLEON Station for en-route service	OFNAC	OFNAC (planned)	1	500,000
19	New Instrument Landing System (ILS), Glide Path (GP) / DME and Localizer (LLZ) stations (Runway 10) ⁴	OFNAC	OFNAC (planned)	1	1,500,000
20	Automatic Weather Observation System (AWOS) at 6 locations	CNM	WMO / Canada (planned)	1	1,000,000
21	Illuminated signs for the movement area	AAN		1	500,000
22	New DVOR and DME/Cap Haïtien Intl. Airport for terminal and enroute services ⁵	OFNAC	Government Loan BANDES (planned)	1	1,000,000
23	New VHF air-ground radio communication equipment at "Vegie" remote station for PAP ACC and APP, and for Cap Haïtien TWR ⁶	OFNAC	Government Loan BANDES (planned)	1	500,000
24	Training of professionals (air traffic controllers, technicians and operators) and the development of procedures and manuals for air navigation services	OFNAC	DSNA France, Dominican Republic, U.S. FAA (possible)	1	3,000,000
35	WIFS workstation	OFNAC/CNM	WMO / Canada (planned)	1	40,000
28	8 vehicles for OFNAC to access its facilities and perform maintenance and inspections	OFNAC	* /	2	325,000
29	Develop Aeronautical charts including a new WGS-84 Survey and publication considering the geoid undulation (EGM96) for THRs coordinates in the AIP and implementation of e-TOD	OFNAC		2	750,000

⁴ Item includes shelter, redundant power supply system, grounding and lightning protection and devices for remote operational status information for PAP TWR as well as remote control unit for Technical Equipment Room. It should also include flight commissioning, on-site training, documentation and installation activities.

⁵ This item includes shelter, power supply system, air conditioning, grounding and lightning protection and devices for remote operational status information (for Cap Haïtien TWR and PAP ACC), as well as remote control unit for Technical Equipment Room. It should also include flight commissioning, on-site training, documentation and installation activities.

⁶ This item includes redundant radio link, hot-standby radio transceivers for five frequencies to implement services (emergency, 2 PAP ACC, PAP APP and

⁶ This item includes redundant radio link, hot-standby radio transceivers for five frequencies to implement services (emergency, 2 PAP ACC, PAP APP and Cap Haïtien TWR) with remote control/monitoring system, antennae, antennae tower, redundant power supply, grounding and lightning protections, and shelter.

No.	Item Description	Haiti Organization	Donor State / Organization (Status)	Priority (1, 2, 3)	Cost Estimate (USD)
30	10 airport operations, maintenance and security vehicles, vehicle and equipment spare parts, and security communications equipment	AAN		2	425,000
37	Airport perimeter security lighting including power supply in guard posts	AAN	MINUSTAH (part)	2	800,000
38	Upgrade water supply and fire hydrant system	AAN		2	500,000
40	Cap Haïtien Intl. Airport upgrading and expansion	AAN	Government Loan BANDES (ongoing)	2	33,000,000
41	Equipped Search and Rescue (SAR) Regional Coordination Centre (RCC)	OFNAC	MINUSTAH MoU	2	1,000,000
44	New RFFS Station to provide direct access to runway and comply with required response times	AAN	MINUSTAH (possible) IDB AMP Study	2	1,500,000
45	Surveillance system that may be, according to study, a Wide Area Multilateration System (WAM) with ADS-B capability receivers or a 2-channel Monopulse Secondary Surveillance Radar (MSSR) station with double motor and double encoder configuration ⁷	OFNAC	Government Loan BANDES (ongoing)	2	4,000,000
46	New Area Control Centre (ACC) building (collocated with new TWR) ⁸	OFNAC	IDB AMP Study	2	6,000,000
15	Two perpendicular link taxiways between apron sides to runway	AAN	IDB AMP Study	3	5,000,000
26	New Air Traffic Control Tower (TWR) ⁹ (collocated with new ACC)	OFNAC	IDB AMP Study	3	5,000,000
27	New passenger terminal building including apron expansion, link taxiways, public access roads and vehicle parking areas	AAN	IDB AMP Study	3	200 million
39	Wind shear detection equipment at Port-au-Prince runway end	CNM	WMO / Canada (planned)	3	200,000
43	Rehabilitate Runway 10/28 and taxiway pavement and upgrade airfield ground lighting (AGL)	AAN	IDB Design (complete) IDB AMP Study	3	18,000,000
47	Runway visual range (RVR) at Port-au-Prince Intl. Airport	CNM	WMO / Canada (planned)	3	200,000
50	Parallel taxiway (could be phased with initial partial length to west runway end) and rapid exit taxiway	AAN	IDB AMP Study	3	20,000,000

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⁷ MSSR item includes site preparation, radome, radar tower, radio link to communicate signal, parrot to be located at PAP, redundant power supply and lightning and electric protection, grounding, flight commissioning, installation, documentation and training.

⁸ Item includes structural cabling infrastructure, redundant power, grounding and lightning protection and equipment for provision of air navigation services (ANS) as detailed in section "Proposed Equipment and Systems for TWR, ACC and Associated Facilities" (Attachment). This item also includes hardware/software MEVA node expansion, transferring the existing MEVA VSAT station to new ACC, and integration of the circuits into the VCSS.

⁹ This item includes structural cabling infrastructure, redundant power supply, grounding and lightning protection, TWR accessories, and equipment related to provision of air traffic control (ATC) services detailed in section "Proposed Equipment and Systems for TWR, ACC and Associated Facilities" (Attachment).

ATTACHMENT

PROPOSED EQUIPMENT AND SYSTEMS FOR NEW PAP ATC TWR, ACC AND ASSOCIATED FACILITIES

1. New PAP TWR Control Room

- ATC consoles for four positions (Aerodrome, Ground, Clearance Delivery and Supervisor)
- VHF air-ground radio communication system, including primary and back-up equipment for TWR and back-up APP (hot-standby radio transceivers for four frequencies to implement: PAP TWR, emergency, PAP APP, surface movement/general purpose)
- Back-up ground-ground communication system
- Voice Communication Switching System (VCSS) (this may be part of the ACC VCSS)
- Other radio communication systems
- Display of Automated Weather Observation System (AWOS)
- Navaid status display
- ATC devices, including light gun, binoculars, etc.
- Crash alarm system
- Time information displays
- Flight plan processing system position (strip printer and computer)
- Air traffic display
- AMHS terminal equipment
- Other auxiliary communication equipment and devices

2. New PAP ACC Control Room

- ATC consoles for ACC and APP functions (Cap Haïtien will be an APP Sector) including air traffic displays, VCSS touch screens, flight plan displays, flight plan strip printers, MET/AIS positions, etc.
- The ATC system will have Cap Haïtien as a remote sector as well as remote radar displays in PAP and CAP TWRs for which the necessary communications means are to be included
- VHF air-ground radio communication system, including primary and back-up for APP and ACC (hot-standby radio transceivers for four frequencies to implement PAP APP, emergency, 2 PAP ACC)
- Back-up ground-ground communication system
- Navaid status panel for APP control position
- Time information displays
- AMHS terminal equipment
- ATC operational supervisor position
- Other auxiliary communication equipment and devices

3. Technical Room of the ACC and TWR

- Voice Communication Switching System (VCSS) and voice recorder for TWR/APP/ACC
- Automated System: flight data processors (FDP), surveillance data processors (SDP) with enough capacity to include radar feeds from adjacent FIRs (Dominican Republic, Cuba, etc.) and ADS-B and multilateration feeds, data recording
- VHF air-ground radios for TWR, APP and ACC functions, including interface system linked to the remote VHF stations
- Radio link system with "Tete Etang" and other VHF remote stations and surveillance remote stations
- Central automated ATC flight plan processing equipment
- Ground-ground central system, including interface linked with national airports
- Common clock for time distribution system
- ILS and VOR/DME remote control / status system
- AMHS central system, including Web server and network interfaces
- MEVA VSAT station for international and Cap Haïtien aeronautical telecommunication
- Cable interconnection and patch panel modules
- Other communication and ATC auxiliary systems
- Electric, grounding and lightning protection system

4. Power Supply Rooms

- UPS True On-line units for power supply of the central equipment of Technical Room with capacity for autonomous service
- Acid-seal battery set
- Electric generators
- Other auxiliary equipment

5. Monitoring and Control System

- Surveillance, radio, navaid, UPS and other electronic monitoring displays
- ATC technical supervisor position
- Personal computers
- Interconnection and distribution system
- Other auxiliary equipment and devices