



# ICAO

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

NAM/CAR/CATC/WG/5 — WP/03  
21/05/19

**Fifth NAM/CAR Civil Aviation Training Centres Working Group Meeting (NAM/CAR/CATC/WG/5)**  
San Salvador, El Salvador, 28 to 30 May 2019

**Agenda Item 5: Identification and Analysis of Training Needs in the NAM/CAR Regions for 2019-2021**

**IDENTIFICATION AND ANALYSIS OF TRAINING NEEDS**

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
This paper presents the list of Training Needs for Course Development for the corresponding analysis of the Meeting.	
<b>Action:</b>	The Meeting is invited to analyse the List of Training Needs and discuss its development in the Training Centres of the NAM/CAR Regions.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li><li>• Security &amp; Facilitation</li><li>• Economic Development of Air Transport</li><li>• Environmental Protection</li></ul>

**1. Introduction**

1.1 As it is well known, training is an essential component for aviation safety and efficiency in all its technical areas.

1.2 The characteristics of the NAM/CAR Regions pose additional challenges to the aviation environment, insofar as it presents diversities of culture, geography, infrastructure, economy and development, among others.

1.3 Thus, the existence of a group focused on coordination and integration of training efforts is invaluable and shall be used to the benefit of the NAM/CAR Regions.

1.4 **Appendix A** of this paper lists the training needs for the NAM/CAR Regions, identified by the ICAO NACC Regional Officers in their respective areas of activity, while **Appendix B** lists the training needs identified by CASSOS for its members.

1.5 It is proposed that a study be carried out to consolidate these demands, so as to allow their future provision for the region, considering the offer of courses already made available by the GAT, as well as the need to develop the other courses.

## **2. Suggested Action**

2.1 The Meeting is invited to:

- a) review and analyse the material contained in the Appendixes; and
- b) carry out a study to consolidate the demands presented in the Appendixes.

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## LIST OF TRAINING NEEDS FOR COURSE DEVELOPMENT

*Disponible únicamente en inglés*

Priority Number	Mandate or Performance Requirement	Subjects of the course to be offered	Description of the training need	Comments	Course Objectives	Course Title	Target Audience (CAA)	Authorized Area(s) (please select an area from the drop-down list)
<b>Air Navigation Services (ANS)</b>								
	GASP	Regional syllabus for: 1- ANS Inspectors specialized in the air navigation fields. 2- Safety Oversight of meteorological services for international air navigation  3- Recurrent training	1.1 Training of inspectors specialized in the different air navigation services fields. 2.1 Increase State safety oversight capabilities of meteorological services 3.1 Recurrent training courses, including on the job training	2.1 At least 4 NACC States have required assistance on the matter	2.1 develop the following topics: 2.1.1 Working arrangements between ICAO and World Meteorological Organization 2.1.2 Annex 3 SARPs, and related PANS. 2.1.3 The QMS and the provision of meteorological service 2.1.4 Requirements concerning the qualifications, competencies, education and training of meteorological personnel in aeronautical meteorology	2.1 Safety Oversight of meteorological services for international air navigation	CAA and MET Service Providers	Air Navigation Services
<b>Aerodromes and Ground Aids (AGA)</b>								
	Aerodrome Certification	How to conduct safety assessments	Outline the methodologies and procedures to be followed when undertaking a safety assessment; including a description of how a safety assessment fulfils an element of the overall aerodrome operator's SMS. An aerodrome operator's SMS should enable the aerodrome operator to manage the safety risks it is exposed to as a consequence of the hazards it must face during the operations of the aerodrome	Workshop to be held in the third quarter of 2019	Create awareness of the operational procedures to be applied by aerodrome regulators and operators for initial aerodrome certification and continuing aerodrome safety oversight in particular, where full compliance with the SARPs in Annex 14, Volume I, cannot be achieved.	<b>Workshop on Safety Assessment for Aerodromes and certification plans</b>	CAA	Aerodromes

Priority Number	Mandate or Performance Requirement	Subjects of the course to be offered	Description of the training need	Comments	Course Objectives	Course Title	Target Audience (CAA)	Authorized Area(s) (please select an area from the drop-down list)
	Aerodrome safety improvements	A-CDM implementation at airports	The A-CDM will allow aerodromes, aircraft operators, air traffic controllers, ground handling agents, pilots and air traffic flow managers to exchange operational information	Workshop to be held in the second quarter of 2019	To provide guidance related to the concept of A-CDM with the objective to improve the performance of airport operations and provide overall better predictability, by enabling the stakeholders to work together as a team for mutual benefit. Three experts are considered for conducting the workshop, the NACC RO/AGA, SME of Canada, ACI SME and FAA SME	<b>Workshop on Aerodrome Collaborative Decision Making (A-CDM) Implementation</b>	CAA	Aerodromes
<b>Aeronautical Information Management (AIM)</b>								
1	The Global Air Traffic Management Operational Concept, developed by the level of technology available at the time, was endorsed by AN-Conf./11.	Quality management System and Quality control	The training of AIM personnel is adapted to the new requirements on skill and competencies introduced by the transition to AIM. Quality management measures are re-enforced to ensure the required level of quality of the aeronautical information products	Urgent to provide the QMS course to AIM Staff	Assistance on the planning and implementation of a QMS for aeronautical information management (AIM) in order to full fill the requirement in Annex 15 — Aeronautical Information Services for States to introduce a QMS and to assist in the development of a quality documentation, which constitutes the basis for the provision of aeronautical information in a manner that will satisfy the requirements for timeliness and quality contained in Annex 15	Quality Management System (QMS)	AIM and IT personnel	Air Navigation Services
2	The Global Air Traffic Management Operational Concept, developed by the level of technology available at the time, was endorsed by AN-Conf./11.	eAIP - Provision of the electronic and digital data required by the ATM components	The training will be conducted to serve to digital ANS users community requirements, ATM as a priority	In this course must be included the electronic Aeronautical Charts and AMDB (Aerodrome mapping database) themes	Specify how Aeronautical Information Service (AIS) States can ensure that all aeronautical data and aeronautical information, provided, is made available to the next intended user and as a minimum, in a way that allows the content and format of those data and information to be directly readable on a computer system	Electronic AIP	AIM and IT personnel	Air Navigation Services

Priority Number	Mandate or Performance Requirement	Subjects of the course to be offered	Description of the training need	Comments	Course Objectives	Course Title	Target Audience (CAA)	Authorized Area(s) (please select an area from the drop-down list)
1	The Global Air Traffic Management Operational Concept, developed by the level of technology available at the time, was endorsed by AN-Conf./11.	AIXM – Ver. 5.1 Aeronautical Information Exchange Model	Defining the semantics of the aeronautical information to be managed and interchange in terms of digital data structures is essential for data interoperability	The use of the Internet as a communication media is, for example, one important bottom-up driver in the definition of the model. The use of well-established, geographic information standards also applied in non-aeronautical domains is another important technological choice	To emphasis and calls for the importance of analysis of guidance material on digital data exchange based on AIXM. Use of automation in AIM, is to also enable digital data exchange based on an ICAO references on PANS AIM for metadata	AIXM ver5.1	AIM and IT personnel	Air Navigation Services
1	The Global Air Traffic Management Operational Concept, developed by the level of technology available at the time, was endorsed by AN-Conf./11.	Aeronautical Digital relational databases (DB) and the use of geographic information systems (GIS)	The material that will be provided under AIXM will provide guidance to validate the DB design (metadata) for facilitating the data exchange	The establishment and maintenance of a database where digital aeronautical data from a State is basic to produce current and future AIM digital and electronic products and services	The objective of the Geographic Information System (GIS) course is transforming existing information into digital data geo-referenced so that aeronautical information is available quickly and reliably, for eAIP including eCharting	Geographic Information System (GIS) course	AIM and IT personnel	Air Navigation Services

Priority Number	Mandate or Performance Requirement	Subjects of the course to be offered	Description of the training need	Comments	Course Objectives	Course Title	Target Audience (CAA)	Authorized Area(s) (please select an area from the drop-down list)
1	The Global Air Traffic Management Operational Concept, developed by the level of technology available at the time, was endorsed by AN-Conf./11.	PANS AIM And new ICAO Doc 8126 (Vol. I, II, III and IV)	Split of data origination requirements from data publication requirements. Introduction of the Aeronautical Data Catalogue (Metadata). New terminology, etc.	PANS-AIM provides a detailed description of the AIM functions, products and services and outlines the data origination requirements and the procedures according to which data shall be collected and transmitted to the AIM in accordance with accuracy, resolution and integrity classification requirements	The objective of the Course is to disseminate among the States of the Region the operational elaboration process, concepts, scope and field of application of the new ICAO PANS-AIM document (Doc. 10066), which entered into force in November 2018	PANS AIM Course	AIM Personnel	Air Navigation Services
<b>Aeronautical Meteorology (MET)</b>								
	GANP	IWXXM exchange model	1- Influence on air operations 2- Operative products 3- Information dissemination 4- Global and regional inter-operability 5- Data, information and services model. 6- Products format 7- Exchange mechanism	Several implementation issues in the NACC Region	Global developments Overview of Guidelines for the Implementation IWXXM implementation challenges and potential solutions	IWXXM Implementation	MET/COM Service Providers	Air Navigation Services
	GANP	Quality management	Quality management System for the provision of meteorological service for international air navigation	QMS implementation is required	Develop the following topics: Fundamentals of the Quality Managements Quality requirements Risk management approach	Quality management System for the provision of meteorological service for international air navigation	MET Service Providers	Air Navigation Services
<b>Communications, Navigation and Surveillance (CNS)</b>								
	GANP	ATS Interfacility data Communication (AIDC)	Description about the AIDC operation, ATC implementation. Technical and operational requirements and other necessary for the ATS data interchange message.	Several implementation issues in the NACC Region	that those responsible for the AIDC channel implementation, identify the technical and operational requirements necessary for the implementation of automated protocols.	ATS Interfacility data Communication (AIDC)	ATC service provider	Air Navigation Services

Priority Number	Mandate or Performance Requirement	Subjects of the course to be offered	Description of the training need	Comments	Course Objectives	Course Title	Target Audience (CAA)	Authorized Area(s) (please select an area from the drop-down list)
	ANNEX 10	Aeronautical Telecommunications	Train technical personal about aeronautical telecommunications standards	lack of knowledge of aeronautical telecommunications standards	technical personnel responsible for the communication, navigation and surveillance systems of the service providers	ICAO Annex 10 - Aeronautical Telecommunications	Aeronautical Engineers	Air Navigation Services
<b>Flight Safety (FS)</b>								
	Annex 19	SMS for Maintenance organizations (AIR)	1. Approval/ acceptance process 2. Surveillance and follow up	During the missions to the states is being found lack of guidance material to support the implementation of the SMS in Maintenance Organizations	Provide guidance material and knowledge to the inspectorate to evaluate, accept and survey the SMS implementation on the maintenance organizations	Provide the airworthiness inspectors with the required knowledge	CAA	Flight Safety and Safety Management
	Annex 6	Fuel Tank Safety Training (AIR)		During the missions to the states is being found lack of guidance material to support the incorporation of this training as part of the needs assessment of the states	Provide the airworthiness inspectors with the required knowledge for the approval and survey of the fuel tank safety operations within the operators and maintenance organizations	Provide the airworthiness inspectors with the required knowledge	CAA	Flight Safety and Safety Management
	Annex 6	Maintenance Training program approval (AIR)	1. Guidance and certification process 2. Standards and quality system	During the missions to the states is being found lack of guidance material for the inspectorate to perform the approval of a Maintenance training program	Provide the airworthiness inspectors with the required knowledge for the approval and survey of the maintenance program of the operators and/or maintenance organizations	Provide the airworthiness inspectors with the required knowledge	CAA	Flight Safety and Safety Management
	Annex 6	EDTO certification process (AIR)	1. Approval/ process 2. Surveillance and follow up	During the missions to the states is being found lack of guidance material to support the approval of this special operation	Provide the airworthiness inspectors with the required knowledge for the approval and survey of the EDTO of the operators.	Provide the airworthiness inspectors with the required knowledge	CAA	Flight Safety and Safety Management

Priority Number	Mandate or Performance Requirement	Subjects of the course to be offered	Description of the training need	Comments	Course Objectives	Course Title	Target Audience (CAA)	Authorized Area(s) (please select an area from the drop-down list)
	Annex 6	Training program development for authorities (GENERAL)	1. Guidance and training need assessment. 2. Standards and quality system	During the missions to the states is being found lack of guidance material for the development of an acceptable training program for the state's inspectorate	Provide the states with the required knowledge for the development of the state's training program.	Provide the CAAs with the required knowledge	CAA	Flight Safety and Safety Management
<b>Aviation Security and Facilitation (AVSEC/FAL)</b>								
2	Annex 17	Cybersecurity or computing security for information, communication and technology critical systems	The objective of the course should focus on training those responsible for decision making to address cybersecurity incident or accident cases, including their ICT specialists.	Centres should develop, as a minimum, awareness workshops on this issue and decision-making courses for personnel, including government entities related with civil aviation.	Familiarize CAAs, airlines, airports and related entities with the new Annex 17 provisions regarding cybersecurity and share best practices for monitoring and implementation.	Cybersecurity in civil aviation	The target audience would be staff from Civil Aviation Authorities (CAA), airports, airlines, air navigation providers and related entities.	Security and Facilitation
3	Annex 17	Analysis of suspicious behaviour	The objective should focus on preparing supervisors and security personnel to analyze potential suspicious behavior of those using commercial air transport and those visiting airports land sides.	Should consider the development of workshops or courses on this issue, supporting themselves on specialists from other government entities dedicated to criminal surveillance, among others.	Promote and share best practices on behaviour detection. Integrate this concept in the overall industry shift towards a more risk-based approach to screening.	Behaviour detection	The target audience would be staff from Civil Aviation Authorities (CAA), police bodies and private security companies.	Security and Facilitation
1	Annex 9	Facilitation	Most of State officials assigned to FAL tasks do not have a complete view of all the subjects that this field encompasses. Therefore, it is recommended a course to teach how to deal collectively with facilitation provisions and implement them (e.g. customs, immigration, health, passengers with disabilities).		The objectives are to share knowledge and good practice, and to prepare officials from the different State entities with a broad view of what encompasses Facilitation and for the implementation of facilitation provisions.	Facilitation Basic Course	The target audience would be staff from Civil Aviation Authorities (CAA), airports, airlines operators and related entities.	Security and Facilitation

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24<sup>th</sup> Meeting of the CASSOS Board of Directors  
Venue: Courtyard by Marriott, Paramaribo, Suriname  
Date: 1<sup>st</sup> -3<sup>rd</sup> April 2019

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**Agenda Item: 6**

**CASSOS STATES TRAINING NEEDS**

(Presented by CASSOS)

<b>SUMMARY</b>
The Meeting is invited to review and update as appropriate the CASSOS States training needs in order to accomplish and maintain an effective and efficient safety oversight system according to ICAO SARPs.
<b>References:</b>
<ul style="list-style-type: none"><li>• 23<sup>rd</sup> CASSOS Board of Directors Meeting Report</li><li>• Online Meeting of the CASSOS Board of Directors, 7 November 2018, Report</li></ul>



**1. Introduction**

1.1 States need to maintain the required number of qualified personnel properly and currently trained in order to exercise aviation safety oversight effectively and efficiently in compliance with ICAO Standards and Recommended Practices (SARPs).

1.2 CASSOS States being aware of this issue have tasked the CASSOS to liaise with NAM/CAR Regional Training Centers to check the availability of courses in the various safety oversight areas as provided to the CASSOS during the 23<sup>rd</sup> CASSOS Board of Directors Meeting.

**2. Discussion**

2.1 Some CASSOS States do not have the in-house capability for train their personnel in all areas. Therefore, as mandated by the Board of Directors, the CASSOS contacted the following States/Organizations that have aviation training centers in the NAM/CAR Region:

- Barbados: Civil Aviation Department Training Center
- COCESNA: Instituto Centroamericano de Capacitación Aeronáutica (ICCAE)
- Cuba
- Dominican Republic: Academia Superior de Ciencias Aeronáuticas (ASCA)
- ICAO
- Jamaica: Jamaica Civil Aviation Authority Training Institute (CAATI)
- Mexico: Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares “Ing. Roberto Kobeh González” (CIIASA)

- Trinidad and Tobago:
  - Trinidad and Tobago Civil Aviation Training Center
  - Airports Authority of Trinidad and Tobago
- United States: Federal Aviation Administration (FAA) Flight Academy

2.2 As a result, some of the Regional Training Centers contacted provided information related to the specific courses requested as shown in the **Attachment** of this information paper. Other informed during teleconferences and personal meetings their willingness of providing their services once a formal request for an specific activity is issued.

2.3 The discussion at this point is whether CASSOS States consider still valid the training needs presented in the 23<sup>rd</sup> Board of Directors Meeting.

2.4 In the case that the Meeting considers that the training needs are not current, Directors are invited to provide their staff training request to the CASSOS specify by Audit Area according to the ICAO Universal Safety Oversight Audit Programme (USOAP): AGA: aerodromes and ground aids, ANS: air navigation services, AIG: aircraft accident and incident investigation, AIR: airworthiness of aircraft, OPS: aircraft operations, PEL: personnel licensing and training, ORG: civil aviation organization, LEG: primary aviation legislation and civil aviation regulations, and additionally in SM: Safety Management.

### 3. Conclusion

3.1 All NAM/CAR Regional Training Centers are willing to cooperate with CASSOS States for delivering training. The financial issue was not covered in this initial contact.

3.2 The CASSOS learnt that English language would be an issue for certain training centers (instructor and/or facilitator and the material of the course not available). Also that the training programs can be designed according to each State needs.

3.3 The CASSOS recognizes that the allocation of human and financial resources is paramount for planning the training activities in civil aviation matters, and requires great attention and priority by States, considering that it is an on-going activity.

3.4 The CASSOS encourages CASSOS States to review their existing training capabilities and identify areas of weakness in order to inform the CASSOS about their needs for proper action.

3.5 Therefore, the CASSOS suggests CASSOS States to provide it their training needs well in advance, in order to allow the CASSOS to liaise with the appropriate entities in a timely manner as required, looking for economies of scale that would provide cost reduction for all while maintaining the same level of standardization needed among the civil aviation professionals of CASSOS States.

3.6 The CASSOS acknowledges that having the appropriate number of qualified personnel would allow CASSOS States to bring their regulatory oversight capabilities fully in line with ICAO standards for enhancing safety, build capacity, and improve the level of Effective Implementation (EI) of Audit Area and Critical Element (CE) of USOAP.

**Attachment****Training Needs – CASSOS States****November 2018****COCESNA/ICCAE**

Area	Technical Assistance and Training Needs	COCESNA/ICCAE Comments
<b>AGA</b>	<ol style="list-style-type: none"> <li>1. <i>Aerodrome Inspection training for Inspectors and Aerodrome Operators.</i></li> <li>2. Risk assessment methodologies for Aerodromes.</li> <li>3. <i>Airport Operations training (middle management).</i></li> <li>4. <i>Aerodromes oversight training initial and OJT.</i></li> <li>5. <i>Development of Aerodrome Manuals.</i></li> </ol>	Italic fonts: available in English
<b>AIG</b>	<ol style="list-style-type: none"> <li>1. Practical assessments for Accident and Incident investigation.</li> <li>2. CVR and DFDR analysis of reports.</li> <li>3. Aircraft Rescue and Firefighting Services.</li> <li>4. <i>Search and Rescue Operations.</i></li> <li>5. <i>AIG initial training.</i></li> </ol>	Italic fonts: available in English
<b>ANS</b>	<ol style="list-style-type: none"> <li>1. <i>PBN development and implementation Plans</i></li> <li>2. <i>Introduction to the Principles of operations of DVOR, DME and RADAR.</i></li> <li>3. PBN and AIS/AIM oversight training including OJT.</li> <li>4. <i>ANS Oversight training (Regulatory and Service Provider).</i></li> <li>5. <i>Development of ANS Manuals.</i></li> </ol>	Italic fonts: available in English
<b>SSP and SMS</b>	<ol style="list-style-type: none"> <li>1. SSP implementation inclusive of training from regulatory framework development to the working use of the SSP including the development of SMS. NB. The outcome should be a guideline to complete implementation.</li> <li>2. Training or guidance on the protection of safety sensitive data for SSP. What will be the acceptable model to allow a satisfactory assessment for implementation.</li> <li>3. <i>Resolution of safety concerns. This course should be repeated to allow improvements of our performance based on the USOAP results.</i></li> <li>4. Risk assessment methodologies for SMS, SSP.</li> <li>5. <i>Development of SMS Manuals.</i></li> </ol>	Italic fonts: available in English
<b>Other</b>	<ol style="list-style-type: none"> <li>1. <i>Airworthiness training (including Initial).</i></li> <li>2. <i>Flight Operations OJT and Refresher Training.</i></li> <li>3. Aviation Law.</li> <li>4. Training for Manager of Regulation and Compliance.</li> <li>5. CO<sub>2</sub> State Action Plans-implementation and follow-up.</li> </ol>	Italic fonts: available in English

**Training Needs – CASSOS States**  
**Dominican Republic – ASCA**

Area	Technical Assistance and Training Needs	ASCA Comments
<b>AGA</b>	1. Aerodrome Inspection training for Inspectors and Aerodrome Operators.	It can be designed, according to the State needs.
	2. Risk assessment methodologies for Aerodromes.	It can be designed, according to the State needs.
	3. Airport Operations training (middle management).	Not available
	4. Aerodromes oversight training initial and OJT.	Done in Spanish, can be translated to English.
	5. Development of Aerodrome Manuals.	It can be designed, according to the State needs.
<b>AIG</b>	1. Practical assessments for Accident and Incident investigation.	Not available
	2. CVR and DFDR analysis of reports.	Not available
	3. Aircraft Rescue and Firefighting Services.	Done in Spanish, can be translated to English.
	4. Search and Rescue Operations.	Available in English.
	5. AIG initial training.	Done in Spanish, can be translated to English.
<b>ANS</b>	1. PBN development and implementation Plans.	It can be designed, according to the State needs.
	2. Introduction to the Principles of operations of DVOR, DME and RADAR.	It can be designed, according to the State needs.
	3. PBN and AIS/AIM oversight training including OJT.	It can be designed, according to the State needs.
	4. ANS Oversight training (Regulatory and Service Provider).	It can be designed, according to the State needs.
	5. Development of ANS Manuals.	It can be designed, according to the State needs.
<b>SSP and SMS</b>	1. SSP implementation inclusive of training from regulatory framework development to the working use of the SSP including the development of SMS. NB. The outcome should be a guideline to complete implementation.	It can be designed, according to the State needs.
	2. Training or guidance on the protection of safety sensitive data for SSP. What will be the acceptable model to allow a satisfactory assessment for implementation.	It can be designed, according to the State needs.
	3. Resolution of safety concerns. This course should be repeated to allow improvements of our performance based on the USOAP results.	It can be designed, according to the State needs.
	4. Risk assessment methodologies for SMS, SSP.	It can be designed, according to the State needs.

Area	Technical Assistance and Training Needs	ASCA Comments
	5. Development of SMS Manuals.	It can be designed, according to the State needs.
Other	1. Airworthiness training (including Initial).	Done in Spanish, can be translated to English.
	2. Flight Operations OJT and Refresher Training.	Done in Spanish, can be translated to English.
	3. Aviation Law	Done in Spanish, can be translated to English.
	4. Training for Manager of Regulation and Compliance.	It can be designed, according to the State needs.
	5. CO <sub>2</sub> State Action Plans-implementation and follow-up.	It can be designed, according to the State needs.

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**Training Needs – CASSOS States**  
**ICAO**

Area	Technical Assistance and Training Needs	Comments from ICAO NACC RO
<b>AGA</b>	<ol style="list-style-type: none"> <li>1. Aerodrome Inspection training for Inspectors and Aerodrome Operators.</li> <li>2. Risk assessment methodologies for Aerodromes.</li> <li>3. Airport Operations training (middle management).</li> <li>4. Aerodromes oversight training initial and OJT.</li> <li>5. Development of Aerodrome Manuals.</li> </ol>	<ol style="list-style-type: none"> <li>1. Need more details on airport operations training.</li> <li>2. AGA inspector training available.</li> <li>3. AGA inspector Manual development may be included in AGA inspectorate training.</li> </ol>
<b>AIG</b>	<ol style="list-style-type: none"> <li>1. Practical assessments for Accident and Incident investigation.</li> <li>2. CVR and DFDR analysis of reports.</li> <li>3. Aircraft Rescue and Firefighting Services.</li> <li>4. Search and Rescue Operations.</li> <li>5. AIG initial training.</li> </ol>	<ol style="list-style-type: none"> <li>1. An AIG Workshop planned in ICAO NACC RO for 2017.</li> <li>2. May be structure under RAIO-C initiative.</li> </ol>
<b>ANS</b>	<ol style="list-style-type: none"> <li>1. PBN development and implementation Plans</li> <li>2. Introduction to the Principles of operations of DVOR, DME and RADAR.</li> <li>3. PBN and AIS/AIM oversight training including OJT.</li> <li>4. ANS Oversight training (Regulatory and Service Provider).</li> <li>5. Development of ANS Manuals.</li> </ol>	<ol style="list-style-type: none"> <li>1. ANS inspector workshop for 2017 in NACC.</li> <li>2. PBN courses available in training Centers.</li> <li>3. DVOR/DME and radar basic course included in CNS course.</li> <li>4. AIS/AIM oversight may be included in ANS inspectorate training.</li> <li>5. ANS Manual? – ANS inspector Manual development?</li> </ol>
<b>SSP and SMS</b>	<ol style="list-style-type: none"> <li>1. SSP implementation inclusive of training from regulatory framework development to the working use of the SSP including the development of SMS. NB. The outcome should be a guideline to complete implementation.</li> <li>2. Training or guidance on the protection of safety sensitive data for SSP. What will be the acceptable model to allow a satisfactory assessment for implementation.</li> <li>3. Resolution of safety concerns. This course should be repeated to allow improvements of our performance based on the USOAP results.</li> <li>4. Risk assessment methodologies for SMS, SSP.</li> <li>5. Development of SMS Manuals.</li> </ol>	<ol style="list-style-type: none"> <li>1. ICAO is conducting the Safety Management for Practitioners course: to include the Amendment 1 to Annex 19.</li> <li>2. A course on Protection of safety information will be conducted by ICAO in 2017.</li> </ol>
<b>Other</b>	<ol style="list-style-type: none"> <li>1. Airworthiness training (including Initial).</li> <li>2. Flight Operations OJT and Refresher Training.</li> <li>3. Aviation Law.</li> <li>4. Training for Manager of Regulation and Compliance.</li> <li>5. CO<sub>2</sub> State Action Plans-implementation and follow-up.</li> </ol>	<ol style="list-style-type: none"> <li>1. Airworthiness training available in ASCA (Dominican Republic).</li> <li>2. Aviation Law? Manager of regulation and compliance? Please specify.</li> <li>3. Co2 State Action Plan implementation? This is not training.</li> </ol>

**Training Needs – CASSOS States  
Mexico - CIIASA**

Area	Technical Assistance and Training Needs	Comments CIIASA*
<b>AGA</b>	<ol style="list-style-type: none"> <li>1. Aerodrome Inspection training for Inspectors and Aerodrome Operators.</li> <li>2. Risk assessment methodologies for Aerodromes.</li> <li>3. Airport Operations training (middle management).</li> <li>4. Aerodromes oversight training initial and OJT.</li> <li>5. Development of Aerodrome Manuals.</li> </ol>	<p>*1. Option available through TRAINAIR PLUS programme “Aerodrome Inspection”</p> <p>*1 and 3. Option available in coordination with ACI “GSN 6: Aerodrome Auditing and Compliance”.</p> <p>* 2. Course available.</p> <p>* 4. Please give more details about target audience.</p> <p>* 5. Option available through TRAINAIR PLUS “Establishment of an Aerodrome Manual”.</p>
<b>AIG</b>	<ol style="list-style-type: none"> <li>1. Practical assessments for Accident and Incident investigation.</li> <li>2. CVR and DFDR analysis of reports.</li> <li>3. Aircraft Rescue and Firefighting Services.</li> <li>4. Search and Rescue Operations.</li> <li>5. AIG initial training.</li> </ol>	<p>* CIIASA could deliver this courses as a IATA Regional Training Partner. Previous coordination is required.</p>
<b>ANS</b>	<ol style="list-style-type: none"> <li>1. PBN development and implementation Plans</li> <li>2. Introduction to the Principles of operations of DVOR, DME and RADAR.</li> <li>3. PBN and AIS/AIM oversight training including OJT.</li> <li>4. ANS Oversight training (Regulatory and Service Provider).</li> <li>5. Development of ANS Manuals.</li> </ol>	<p>* CIIASA could deliver this courses as a IATA Regional Training Partner. Previous coordination is required.</p>
<b>SSP and SMS</b>	<ol style="list-style-type: none"> <li>1. SSP implementation inclusive of training from regulatory framework development to the working use of the SSP including the development of SMS. NB. The outcome should be a guideline to complete implementation.</li> <li>2. Training or guidance on the protection of safety sensitive data for SSP. What will be the acceptable model to allow a satisfactory assessment for implementation.</li> <li>3. Resolution of safety concerns. This course should be repeated to allow improvements of our performance based on the USOAP results.</li> <li>4. Risk assessment methodologies for SMS, SSP .</li> <li>5. Development of SMS Manuals.</li> </ol>	<p>* 1 and 2 could be delivered in a one course (seven days/sessions estimated).</p> <p>* 4 and 5 are included in point 1.</p> <p>* 3. Please give more details about target audience and issues required in the course content. Probably due to scope metioned at this point it needs consultancy instead of training.</p>
<b>Other</b>	<ol style="list-style-type: none"> <li>1. Airworthiness training (including Initial).</li> <li>2. Flight Operations OJT and Refresher Training.</li> <li>3. Aviation Law.</li> <li>4. Training for Manager of Regulation and Compliance.</li> <li>5. CO<sub>2</sub> State Action Plans-implementation and follow-up.</li> </ol>	<p>*1. Option available through TRAINAIR PLUS programme “ICAO Government Safety Inspector Airworthiness – Air Operator and Approved Maintenance Organization Certification (GSI-AIR-18701)” Previous coordination is required.</p> <p>*2. Not available.</p> <p>*3 y 4 Courses available.</p> <p>*5. Not available.</p>

**Training Needs – CASSOS States**  
**United States - FAA**

Area	Technical Assistance and Training Needs	USA FAA Comments
<b>AGA</b>	<ol style="list-style-type: none"> <li>1. Aerodrome Inspection training for Inspectors and Aerodrome Operators.</li> <li>2. Risk assessment methodologies for Aerodromes.</li> <li>3. Airport Operations training (middle management).</li> <li>4. Aerodromes oversight training initial and OJT.</li> <li>5. Development of Aerodrome Manuals.</li> </ol>	The airports division cancelled all airport training at the FAA Academy and only offers online courses for employees.
<b>AIG</b>	<ol style="list-style-type: none"> <li>1. Practical assessments for Accident and Incident investigation.</li> <li>2. CVR and DFDR analysis of reports.</li> <li>3. Aircraft Rescue and Firefighting Services.</li> <li>4. Search and Rescue Operations.</li> <li>5. AIG initial training.</li> </ol>	Accident investigation is conducted by the Transportation Safety Institute, an attached agency to the Aeronautical Center. From the items in your list, for <b>item 5</b> they offer course number 00035- Basic Aircraft Accident Investigation. There is one offering for industry and international students scheduled for May 14-23, 2019.
<b>ANS</b>	<ol style="list-style-type: none"> <li>1. PBN development and implementation Plans</li> <li>2. Introduction to the Principles of operations of DVOR, DME and RADAR.</li> <li>3. PBN and AIS/AIM oversight training including OJT.</li> <li>4. ANS Oversight training (Regulatory and Service Provider).</li> <li>5. Development of ANS Manuals.</li> </ol>	<p>In this area we can offer;</p> <ul style="list-style-type: none"> <li>• PANS-OPS Basic 200 hours</li> <li>• PANS-OPS Advanced 120 hours</li> </ul> <p><b>For item 4,</b></p> <ul style="list-style-type: none"> <li>• International Technical Surveillance Program for Air Navigation Providers. 56 hours</li> </ul>
<b>SSP and SMS</b>	<ol style="list-style-type: none"> <li>1. SSP implementation inclusive of training from regulatory framework development to the working use of the SSP including the development of SMS. NB. The outcome should be a guideline to complete implementation.</li> <li>2. Training or guidance on the protection of safety sensitive data for SSP. What will be the acceptable model to allow a satisfactory assessment for implementation.</li> <li>3. Resolution of safety concerns. This course should be repeated to allow improvements of our performance based on the USOAP results.</li> <li>4. Risk assessment methodologies for SMS, SSP.</li> <li>5. Development of SMS Manuals.</li> </ol>	<p><b>For items 1,4, and 5-</b> Course number 15249001 (SMS). 9 days.</p> <p>SMS has the capability to expand levels of operational safety well beyond regulatory minimums by treating safety as a core business enterprise. It is proactive, predictive, and tailored to the needs of each individual organization. SMS is now required by ICAO for all safety service providers. This course consists of lecture, case studies, and exercises. At the conclusion of the course participants will understand SMS concepts and how to apply them to their organization. The course is appropriate for small CAAs, air traffic services, airports, airlines, and maintenance organizations.</p> <p><b>For item 3,</b> Resolution of Safety Concerns course. 5 days.</p>



Area	Technical Assistance and Training Needs	USA FAA Comments
<b>Other</b>	<ol style="list-style-type: none"> <li>1. Airworthiness training (including Initial).</li> <li>2. Flight Operations OJT and Refresher Training.</li> <li>3. Aviation Law.</li> <li>4. Training for Manager of Regulation and Compliance.</li> <li>5. CO<sub>2</sub> State Action Plans-implementation and follow-up.</li> </ol>	<p><b>For item 1,</b></p> <ul style="list-style-type: none"> <li>• <b>GSI Certification course- Airworthiness</b></li> <li>• <b>GSI Certification- Operations</b></li> <li>• <b>Air Operator Certification course- Airworthiness</b></li> <li>• <b>Air Operator Certification course- Operations</b></li> <li>• <b>Surveillance of Service providers- International (7 days)</b></li> </ul> <p><b>For item 2,</b></p> <ul style="list-style-type: none"> <li>• <b>Introduction to Flight Procedures (TERPS) 120 hours.</b></li> <li>• <b>Overview of Flight Procedures Development. 40 hours.</b></li> </ul> <p><b>For item 4,</b></p> <ul style="list-style-type: none"> <li>• <b>Please expand. Is this a managerial position for someone with prior technical expertise?</b></li> </ul>

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