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

FIRST MEETING OF DIRECTORS OF CIVIL AVIATION OF THE
CARIBBEAN REGION (CAR/DCA/1)

Agenda Item 2:   **Safety Oversight:**

a) ICAO Global Aviation Safety Plan (GASP)
b) ICAO Universal Safety Oversight Audit Programme (USOAP)
c) Expansion of the USOAP
d)   ICAO Regional activities

(Presented by the Secretariat)

Summary

This Paper presents background information on the ICAO Global Aviation Safety Plan, as well as on the ICAO Universal Safety Oversight Audit Programme (USOAP), and the conclusions of the initial Audit phase. It also includes information on further enhancement of the USOAP and its expansion to the ICAO Annexes 11, 13 and 14. This paper will also briefly address the ICAO Regional activities.

1.   ICAO Global Aviation Safety Plan (GASP)

1.1   Background

1.1.1   Assembly Resolution A-32-15 realized that the public's perception of aviation safety is largely based on the number of aircraft accidents **rather than the accident rate**, and noted that the expected increase in the volume of international civil aviation would result in an increasing number of aircraft accident unless the accidents rate was reduced.

1.1.2   Therefore, although the current accident rate is relatively low, an increase in the number of accidents due to an increase in traffic volume is likely to undermine public confidence in civil aviation, which would in turn affect the growth of the industry. The Assembly stressed the need for reduction in the rate of fatal accidents in air transport operations, and recognized that improvements in the accident rate would require new approaches on the part of all participants in the aviation industry, including ICAO, States, air operators and aircraft manufacturers.

1.1.3   In view of the above-mentioned critical factors, in 1997 the ICAO Global Aviation Safety Plan (GASP) was formed **(Appendix A)**. The GASP was formally created by Assembly Resolution A32-15 and among its objectives are:

- monitor of accident rates not only world-wide, but also at a Regional level,
- identify local remedial actions; and
- the need to draw on all conclusions from USOAP reports and on the experience gathered by the industry.

1.1.4   The GASP gathers the inputs received from all possible sources concerned with aviation safety. The additional objective of GASP aims to provide the necessary leadership by ICAO, and to gain a commitment from Contracting States and the Aviation Industry as a whole in an effort to enhance safety in order to:

- achieve a significant decrease in worldwide accident rates, placing emphasis on regions where these remain high; and
- enhance contracting states or group of states cooperation with ICAO, in order to improve ICAO's own capability to compile, assess and disseminate safety related information.

1.1.5   The ICAO Global Aviation Safety Plan will therefore identify and give priority to those tasks and programmes likely to produce the best safety dividend in terms of reducing the accident rate on global scale. The GASP database will carry out annual review of the causal factors for accidents including the ICAO Accident/Incident (ADREP) reporting system, and disseminate the results for use in the accident prevention programmes. Complementary programmes to the Global Aviation Safety Program (GASP), regional initiatives like the Pan American Aviation Safety Team (PAAST), headed by IATA, ICAO and Flight Safety Foundation (FSF) have emerged.

2.   GASP activities in the CAR/SAM Regions

2.1   On July 16-20 2001, the ICAO NACC Regional office conducted the ICAO/PAAST/ALAR/CFIT Seminar/Workshop in San José, Costa Rica. The event was attended by total of 55 participants.

2.1.1   During November 27-29 2001, the ICAO with the co-operation of University of Texas presented the Line Operational Safety Audit (LOSA) seminar, hosted by the CAA of Panama together with sponsorship of COPA Airline. The LOSA can be considered as an extension of the ongoing regional aviation safety programs such as the Flight Operation Quality Assurance (FOQA). The focus of LOSA is to access human factors data and by using captured data, develop countermeasures to human error.

2.1.2   As the continuation of LOSA program, the CAA of El Salvador under sponsorship of the TACA Airlines hosted the ICAO Threat and Error Management training (TREM), April 30 – May 1st. 2002. The objectives of this event were to prepare and educate the future users of TREM and also as the extension of the Crew Resources Management (CRM), and as the entry platform for the LOSA program to Latin America.

2.1.3   Due to the lack of structure, standardization and formal training, increase in traffic and complexity of the runways and taxiways layouts, the safety and efficiency on the airport surface movement surface have decreased. With this in the mind, ICAO NACC Regional Office is preparing the ICAO NAM/CAR/SAM Runway Safety/Runways Incursion Conference. The General Direction of Civil Aviation (DGAC), *Servicios a la Navegación en el Espacio Aéreo Mexicano* (SENEAM) and *Aeropuertos y Servicios Auxiliares* (ASA) of Mexico will host this event in Mexico City from 22-25 October 2002.

3.   ICAO Universal Safety Oversight Audit Programme (USOAP)

3.1   Background

3.1.1   With the introduction of modern technology in the States, the need for implementation of a system that would assure compliance with ICAO Annexes 1, 6, and 8 and its related Standards and Recommended Practices became more apparent. On 7 June 1995 the ICAO Council approved, as recommended by the Air Navigation Commission, the ICAO Safety Oversight Programme, as well as a related mechanism for the implementation of the Programme. The Programme was endorsed by the 31st Session of the Assembly, and become operational in March 1996. From 10 to 12 November 1997, a Directors General of Civil Aviation conference was held at ICAO Headquarters in Montreal with the objectives of developing a global strategy on safety oversight and making the ICAO safety oversight Programme more assertive and effective. The 32nd Session of the Assembly adopted, *inter alia,* Resolution A32-11 endorsing the establishment of the Programme.

3.1.2   The ICAO Universal Safety Oversight Audit Programme (USOAP) was launched on 1 January 1999, pursuant to Assembly Resolution A32-11, and on the basis of the recommendations made by the Directors General of Civil Aviation (DGCA) Conference on a Global Strategy for Safety Oversight of November 1997. The Programme, which is mandatory, transparent and funded by ICAO, supersedes the safety oversight assessment programme established in 1995, which was voluntary, confidential and funded by States contributions. USOAP is managed and run by the Safety Oversight Audit Section in the Air Navigation Bureau.

3.1.3   The objective of the ICAO Universal Safety Oversight Audit Programme is to promote global aviation safety through auditing Contracting States, on an ongoing basis, to determine the status of States' implementation on safety oversight, relevant ICAO Standards and Recommended Practices (SARPs), associated procedures, guidance material and safety-related practices. The present scope of the Programme was limited to Annex 1 - *Personnel Licensing*, Annex 6 - *Operation of Aircraft* and Annex 8   *Airworthiness of Aircraft*. The initial mandate of the Programme was to audit all Contracting States and a report to the Assembly was made in 2001.

3.1.4   In order to assist other States in forming an opinion on the safety status of the audited State, ICAO makes available to all Contracting States summary reports, which include an abstract of the findings of the audits, the corrective actions proposed by States, the status of implementation of ICAO Annex provisions, and comments by ICAO on the overall soundness of the safety oversight system in each audited State.

4.   Status of the ICAO USOAP

4.1.   A comprehensive report was presented to the 33rd Session of the Assembly. With the exception of a few States, which could not be audited due to security clearance or operational considerations, the mandate given by the Assembly in 1998 was successfully met. In all, 179 Contracting States were audited. All Contracting States in the NACC Region were audited. Results are shown in **Appendixes B, C** and **D.**

4.1.1   The Secretariat has begun the conduct of follow-up missions, with the objective of validating the implementation of action plans submitted by each audited State. These missions have proven useful to identify problems encountered by States in the implementation of their action plans, and to determine the need for external assistance to resolve the safety concerns identified in the course of the audits. The follow up mission to the State is being scheduled only, when the action plan is reported to be completed at 60%. As of July 2002, forty eight (48) follow-up missions had been conducted, six of them in the NAM/CAR Regions, as indicated below.

- United States   05-07 September 2001
- Jamaica   14-17 September 2001
- Cuba   07-11 December 2001
- Costa Rica   13-14 December 2001
- El Salvador   4-6 February   2002
- Guatemala   8-12 February 2002
- Honduras   Date pending
- OECS   Date pending
- Bahamas   Scheduled between September-November, 2002
- Dominican Republic   Scheduled between September-November, 2002
- Trinidad and Tobago   Scheduled between September-November, 2002

4.1.2   A correlation between USOAP findings and accident rates is found at **Appendix E. Appendix F** depicts the benefits of maintaining Universal, Regular and Mandatory Audits.

5.   Expansion of the USOAP to include the ICAO Annexes 11, 13 and 14

5.1   The Assembly recognized the successful implementation of the Programme and adopted two Resolutions: Assembly Resolution A33-8 - *Continuation and expansion of the ICAO Universal Safety Oversight Audit Programme*, provides, *inter alia*, for the continuation of the Programme and for its expansion to Annex 11- Air *Traffic Services* and Annex 14   *Aerodromes* as of 2004. It also calls for expansion, as soon as possible, to the core elements of Annex 13   *Aircraft Accident and Incident Investigation.* Assembly Resolution A33-9: *Resolving deficiencies identified by the Universal Safety Oversight Audit Programme and encouraging quality assurance for technical cooperation projects* calls, *inter alia*, for the provision of assistance to States to resolve deficiencies identified by the audits, for the establishment of a quality assurance function with regards to safety oversight projects, and for the support of bilateral and multilateral agreements. (WP/ 06 and WP/09 on Agenda Items 4.1 and 4.3 refer)

6.   ICAO Regional activities

6.1   **The Agency for Central American Aviation Safety (ACSA)**. The Agency is a subsidiary of the Corporation of Central American Navigation Services (COCESNA). ACSA was established and approved during the 42nd extraordinary Meeting of Directors of Civil Aviation of Central America and Panama conducted on December 15, 1999 in El Salvador. The Agency was created with the goal to serve, assist and guide Central American States in compliance with the obligation to establish and maintain prescribed standards of Convention on Civil International Aviation and its Annexes 1, 6 and 8. However, the final responsibility for aviation safety is retained by the respective States. The headquarters of the Agency is located in San Jose, Costa Rica. The ACSA is now a fully operational agency.

6.1.1   **The Association of Civil Aviation Authority of Caribbean (ACAAC).** The agreement for the establishment and operation of a Regional Aviation Safety Oversight System for the Caribbean was signed during the 17th Meeting of the Directors of Civil Aviation of the Eastern Caribbean held on December 4-7, 2001 in Port of Spain, Trinidad and Tobago. The agreement was finalized during the 10th CARICOM Meeting of Technical Directors of Civil Aviation, held in Kingston, Jamaica 7-8 February 2002. The headquarters of the System was established in Kingston, Jamaica.

6.1.2   **Regional RLA/99/901.** Continuing Aircraft Airworthiness and Operational safety of Aircraft in Latin America. The Project RLA/91/901 was authorized in October 1, 2001. The Project is being administrated by the ICAO SAM Regional Office in Lima, Peru. The objective of the project is to create multinational mechanism with the aim of participation of the States during the ICAO Universal Safety Oversight Audit Programme and to provide ICAO qualified available personnel and experts for the ICAO audit team, and to:

- recommend remedial measures for the States in order to comply with the deficiencies detected during the USOAP.
- optimize the Aircraft Operation Safety level in the Region, and
- provide close coordination with the ICAO during the harmonization and actualization of the regulations and the procedures related to the operational safety of the aircraft in the participating States.

7.   Conclusion

7.1   It is of utmost importance and an obligation of the States to look for a solution to comply with the Aviation Safety through compliance and implementation of Safety Oversight Action Plans. It is important for the States to fully cooperate with the aviation safety related programs included in the GASP, as well as the forthcoming audits in respect to aerodromes and air traffic services.

8.   Action required

8.1   The Directors of Civil Aviation are invited to:

- note the information provided in respect to the ICAO Universal Safety Oversight Programme, as well as programs such as GASP and all regional safety oversight activities;
- support the above activities including the consideration of participation in the aviation safety related programs; and
- commence the early preparation for the expansion of the ICAO USOAP to the ICAO Annexes 11 and 14, as well as for the possible expansion to parts of the ICAO Annex 13.

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APPENDIX A

THE ICAO GLOBAL AVIATION SAFETY PLAN (GASP)

1.   **OBJECTIVES**

1.1   The objectives of the ICAO Global Aviation Safety Plan are to:
    a)   reduce the number of accidents and fatalities irrespective of the volume of air traffic; and
    b)   achieve a significant decrease in worldwide accident rates, placing emphasis on regions where these remain high.

1.2   This should be achieved by:
    a)   identifying repetitive causes for accidents on a worldwide and a regional basis and recommending specific actions;

    b)   enhancing identification of all elements that can impair safety, such as shortcomings and deficiencies in the air navigation system or lack of compliance with ICAO Standards and Recommended Practices (SARPs), and recommending corrective actions; and

    c)   enhancing the cooperation between Contracting States or groups of States with ICAO in order to improve ICAO's own capability to compile, assess and disseminate safety-related information.

1.3   The ICAO Global Aviation Safety Plan will therefore identify those tasks and programmes likely to produce the best safety dividend in terms of reducing accident numbers and rates both on a worldwide and on a regional basis. It is intended that GASP will serve all parties involved in aviation safety both as a planning and as a tracking tool, in order to enable them to list in a public document the above-mentioned tasks and programmes and to check on the progress achieved in these areas of ICAO activity. In order to make GASP easily accessible, the document will be distributed on a regular basis by ICAO through a State letter and on the ICAO Web site.

2.   **FUNDAMENTALS**

2.1   The three fundamentals of the GASP are as follows:

First: Fundamental Reviewing the causal factors of aircraft accidents worldwide in order to identify specific safety issues which must be addressed to reduce accident numbers and rates. particular attention is given to the reasons for regional variations in accident rates;

Second: Fundamental Keeping abreast of the activities of existing safety groups in order to identify safety issues which have global perspectives. In doing this, GASP focuses on those safety initiatives that offer the best safety dividend in terms of reducing accident numbers and rates; and

Third: Fundamental Promoting safety awareness worldwide by facilitating the effective sharing and use of aviation safety data and information.

3. **ELEMENTS**

3.1 **Carry out an annual review of the causal factors in accidents and incidents using all available sources of information, including the ICAO Accident/Incident Data Reporting (ADREP) System. (First Fundamental)**

Related Tasks

a) Identify specific safety issues;

b) Identify the safety issues that result in disparities in accident rates on a regional level;

c) Develop safety indicators to readily identify trends in safety performance; and

d) Disseminate the results of these activities for use in accident prevention programmes by States and industry.

3.2 **Recommend safety actions in response to findings of the ICAO Universal Safety Oversight Audit Programme (USOAP). (First and Second Fundamentals)**

Related Tasks

a) Review the safety critical elements identified by the ICAO Universal Safety Oversight Audit Programme (USOAP);

b) Assist States in developing appropriate safety oversight structures;

c) Assist States in developing easy to understand regulatory material;

d) Promote and prioritize the expansion of USOAP to other safety-related fields; and

e)   Where necessary, update existing SARPs or develop new SARPs.

3.3   **Enhance the identification of, and address, deficiencies in the air navigation field provided by all sources, including ICAO Planning and Implementation Regional Groups (PIRGs), and Regional Safety Groups. (Second Fundamental)**

Related Tasks

a)   Review, and where possible, provide guidance and assistance to States in the implementation of appropriate safety actions.

3.4   **Review and improve existing safety database systems to facilitate the dissemination of safety-related information. (3 rd Fundamental)**

Related Tasks

a)   Participate in the Global Aviation Information Network (GAIN) Government Support Team (GST) to explore ways to reduce impediments, legal or otherwise, to the communication of safety-related information;

b)   Develop Annex provisions and guidance material for voluntary incident reporting systems;

c)   Develop appropriate means to ensure the non-punitive nature of voluntary incident reporting systems;

d)   Develop appropriate means to ensure non-disclosure of confidential safety information;

e)   Participate in industry activities, such as the CAST/ICAO taxonomy working group, to develop common taxonomies to facilitate the worldwide coding, storage and dissemination of safety-related information;

f)   Update Annex provisions in order to facilitate the collection and dissemination of safety-related information;

g)   Provide relevant safety-related information on an ICAO Web site; and

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h)   Consider the establishment of a comprehensive data analysis and information dissemination network.

3.5   **Collaborate with States and the aviation industry to identify additional safety measures. (Second Fundamental)**

Related Tasks

a)   Liaise with the Commercial Aviation Safety Team (CAST) in the United States, the Joint Strategic Safety Initiative (JSSI) in Europe, the global aviation information network (GAIN) in the United States and any other potential safety initiatives;

b)   Participate in industry / government safety initiatives addressing specific safety issues;

c)   Identify the high priority safety-related tasks on the basis of their impact on improving safety to determine if developing safety initiatives have a global perspective and warrant inclusion in the Technical Work Programme (TWP) of the Organization in the Air Navigation Field;

d)   Hold regular consultations with aviation industry leaders. The purpose of these consultations, which gather representatives of industry and international organizations together with the ANC and supported by members of the ICAO Secretariat, is to:

i)   update all participants on progress achieved on safety issues in the context of GASP;

ii)   exchange information and, in the light of the experience gathered by the industry, review all data and proposals which could justify further GASP initiatives; and

iii) give the industry and international organizations an opportunity to update GASP.

3.6   **Develop solutions to identified safety issues. (Second and Third Fundamentals)**

Related Tasks

a)   Develop Annex provisions regarding new technology equipment to be installed on board aircraft;

b)   Incorporate the findings of industry task forces (such as CFIT and ALAR) into ICAO provisions;

c)   Develop guidance material for flight data analysis programmes required for the operators of large commercial aircraft;

d)   Update Annex provisions regarding terrain portrayal on approach charts and electronic terrain data for cockpit displays;

e)   Ensure airport and airspace capacity enhancement developments are safe;

f)   Develop provisions concerning the enhancement of air-ground communication procedures, including minimum skill-level requirements in the common usage of the English language in ATC communications;

g)   Provide guidance on and monitor the introduction of safety management systems for aerodromes and air traffic services;

h)   Expand the USOAP programme to include Annexes 11 and 14;

i)   Establish and foster regional safety groups;

j)   Develop SARPs aimed at improving the technical reliability of aircraft;

k)   Continue to incorporate human factors considerations in ICAO regulatory provisions and guidance material;

l)   Develop SARPs or guidance material to address the runway incursion problem; and

m)   Develop provisions concerning the enhancement of ATM equipment, procedures and human performance.

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