

**INTERNATIONAL CIVIL AVIATION ORGANIZATION****FIRST MEETING OF THE REGIONAL AVIATION SAFETY GROUP -  
ASIA AND PACIFIC REGIONS (RASG-APAC/1)***Noumea, New Caledonia, 10 - 11 October 2011***Agenda Item 4: Member State Presentations****AVIATION SAFETY ACTIVITIES IN NEPAL**

(Presented by Nepal)

**SUMMARY**

This paper touches upon some of the recent safety initiatives taken by Civil Aviation Authority of Nepal in light of emerging concepts and requirements in general and findings of ICAO Universal Safety Audit carried out on Nepalese Aviation Safety System in 2009, in particular. CAA Nepal seeks cooperative support from the international aviation community for transition to a new environ of the civil aviation system of Nepal.

**1. STATE SAFETY PROGRAM**

Civil Aviation Authority of Nepal (CAAN) has approved State Safety Program (SSP) to ensure implementation of the safety culture within the organization itself as well as among other stakeholders in the aviation industry. The SSP will serve as solid foundation in the implementation of the Safety Management System (SMS) with the service providers.

**2. SMS IMPLEMENTATION**

In order to comply with the ICAO guidelines in fulfilling SMS implementation as well as to respond to SSP implementation guidelines in this regard, CAA Nepal has developed the requirements and guidance materials for the service providers. It is believed that the implementation of SMS among the service providers will induce the safety culture which will automatically regulate the safety cycle.

**3. ECTM IMPLEMENTATION**

In order to ensure the safety of the single engine aircraft, CAAN has formulated the requirements that require all single engine aircraft to be monitored in Engine Condition Trend Monitoring (ECTM). Hailed as an advanced leap, the Requirements stipulates that all single engine aircraft regardless of the date of manufacturer or the nature of operations shall undergo the ECTM program.

**4. CVR/FDR READ OUTS**

CAA Nepal has made it mandatory to provide the CVR and FDR read out data at the time of annual inspection of the aircraft. Majority of the operators are capable of having their own CVR and FDR

facilities enabling them to carry out the recorders in the event of incident or abnormal flight so that the internal investigation could be concluded to the logical end with the aid of sophisticated technology. This alleviates the burden on CAAN inspectors to look into all the insignificant incidents. In order to enable the CVR and FDR to serve the very purpose they are installed for, a routine check and calibration of the sensors are essential so that the required data at the time of demand will be intelligible and logical so that the conclusion can be derived from the recording therein. Taking it into account, CAAN has already taken a step to calibrate all the sensors of the FDRs. Moreover, CAAN has, in concurrence with the airline industry, made it mandatory to install solid state CVR and FDR in the aircraft to be imported so that the reliability of the recorders are maintained high. In the similar vein, the existing analogue CVR and FDR will be replaced by the solid state CVR and FDR.

## **5. INTERFACE OF NAST-NEPAL WITH OTHER REGIONAL SAFETY TEAMS**

National Aviation Safety Team (NAST) -Nepal is a national level safety team formed within the civil aviation community in Nepal with a sole purpose of resolving all safety related issues is playing an active role with more than 25 meetings and resolving close to 100 safety issues till date. It does interface with the other regional organizations like COSCAP-SA, SARAST, ARAST etc in the matters related with the safety. NAST-Nepal updates the meeting minutes and resolves safety issues with these entities so that a closed loop of information is in place. The safety issues and solutions in one of these regions may be useful for us and vice versa. Nepal is registering a prominent participation in all of the activities of the SARAST. ARAST and COSCAP-SA so that the maximum benefit can be derived out of these activities. In order to disseminate the issues raised and outcomes of these activities, CAAN has got a system in place where all stakeholders participate in the presentation delivered by the participant in such activities abroad. In addition, a log of the safety issues raised and resolved is maintained so that the status is current and actions are timely initiated to address them.

## **6. OPERATION SPECIFIC ISSUES**

Incontestably, the air transport system in Nepal is unique in the world with numerous limitations dictated by the hostile geographical terrain and weather, which can not be avoided, indeed. However, a prudent way needs to be devised to make the flights safe amid these unavoidable limitations. With the experience gained in these limiting environments, CAAN has imposed some operational restrictions like number of maximum allowed landing in 24 hours, minimum visibility requirements in various air fields, especially devised standard operating procedures (SOP) for these challenging airstrips. In this connection, CAA Nepal with recommendation from NAST-Nepal has lowered the number of maximum permissible landing to 10 so as to avoid the fatigue that might lower the flying efficiency and judgment of pilots. Similarly, the SOP for the short take off and landing airfields which are prone to the air mishaps owing to the various factors, coupled with high altitudes, unstable weather phenomena and short as well as poor runway conditions, have been developed taking into account special attention.

In the same way, helicopter rescue operations in the mighty Himalayas are one of the major challenges for the aviators, especially the helicopter flyers. On the one hand, they have to save the lives of the victims at the formidable altitude and weather conditions and on the other they have to safeguard their own lives in the hostile environment.

Similarly in order to mitigate the potential risks stemmed from the common parking place of fixed and rotary wing aircraft, CAAN has decided to separate the parking areas for these two types of aircraft.

Taking into account the vulnerability of operations during monsoon season, CAAN continues with “pilot-ATC monsoon interaction” every year, for the past few years, during the onset of monsoon season. In addition, CAAN issues the monsoon circulars that require the operators to operate their aircraft in best possible conditions.

## **7. IUSOP AND NEPAL**

CAAN underwent the comprehensive systems audit (CSA) by ICAO in May 2009. A comprehensive Corrective Action Plan (CAP) was submitted to ICAO within the stipulated time. Activities in the areas of legislation formulation, organization, personnel licencing, flight operations, air worthiness, air navigation services, aircraft accident investigation and aerodromes are in gradual progress. Serious attempts are being made to resolve safety related deficiencies of IUSOAP within its resources. However some of issues still need concrete progress especially for the aerodrome and accident investigation. Those issues related with the civil construction and framing rules and regulation need more time to comply. Nepal is still working hard in compliance of all submitted corrective action plan.

Keeping in mind the impending follow up validation audit in future, preparations are underway in time bound manner so that all of the noted deficiencies could be resolved during the follow up mission by ICAO. CAAN has identified the critical areas which require an extra attention. We also welcome the new concept of continuous monitoring approach (CMA) put forth by ICAO in future to assess the member States to assess their safety oversight capabilities.

## **8. STRENGTHENING SAFETY OVERSIGHT MECHANISM**

Inspections have been a major tool for safety oversight and audit activities. Carrying out inspections has been more challenging with the rapid growth in the number and type of aircraft in use and their increasing technical specifications. On the one hand, while inspections demand a strong and competent pool of inspectors in areas of ANS, flight operations, airworthiness, and aerodrome, in particular, on the other hand, we have still to go a long way to make provisions for inspectors to have unrestricted and unlimited access to aircraft, mandate and aviation documents. But question still remains – how and when will Nepal be equipped with skilled inspectors? It had been our emphasis, and USOUP has rightly pointed the same in its findings, that regulatory and service provider role and functions must be segregated. As and when CAAN becomes an absolute Regulator, we must have by that time put in place a good number of inspectors to oversee ANS, training organizations, airliners' airworthiness, flight operations, and entire industry that dispense aviation services. We have so far few numbers of new inspectors in ANS, Aerodrome and flight operations. Commitment of CAAN in this direction is not enough; active support of States and ICAO, and its regional groupings like COSCAP-SA in the provision of basic and recurrent, and advanced trainings is vital. CAA Nepal, is like other States, facing a basic problem of recruiting, training and retaining the inspectors with the huge disparity in the benefits in comparison of industry counterparts, especially for the pilot and aircraft maintenance engineers.

- a) EU-SAARC project- With successful completion of the first EU-Asia project in 2006, Nepal has agreed to participate in EU-SAARC project in 2011. This project, in comparison with EU-Asia project, encompasses larger spectrum of civil aviation including those areas latter project covered. With the introduction of this project, CAA Nepal believes that the deficiencies in the part of the training to the officials will be addressed to some extent as it was learned that experts from the Europe and region will be arranged for the necessary training activities.
- b) SARI and Nepal- Nepal has been an inactive member of South Asia Regional Initiative (SARI) with active participation in the various activities like SARI steering committee meetings, SARI working group meeting and SARI trainings, workshops and seminars as well. SARI has advanced towards the harmonization of regulation in aircraft maintenance with the introduction of SARI part 145. SARI part 66 and 147 in under draft phase and SARI is working towards introduction of SARI part M and 121 so that in all elements of aircraft

maintenance and continuing airworthiness are completed. Furthermore, SARI is working towards the SARI standardization exercise so that the implementation of SARI regulation is uniform within South Asia. However a challenge in this direction is a confidence among the regulator and industry partners to implement these new regulations.

- c) COSCAP-SA and Nepal- COSCAP-SA has been in the region for quite a long time assisting the States to strengthen in safety oversight mechanism. COSCAP-SA did a good job in assisting the States to prepare for the IUSOAP in recent past including Nepal. The utilization of COSCAP-SA experts to address the deficiencies of IUSOPA is commendable.
- d) ICAO DCTP- In order to address the deficiencies in training of the human resource, CAA Nepal is expecting the cooperation of various agencies. ICAO Developing Countries Training Program (DCTP) is one of opportunities to facilitate in solving the need of training of the developing countries like Nepal. We look forward to receive such opportunities from the friendly agencies in future.

## **9. HIGH LEVEL SAFETY CONFERENCE (HLSC)**

Nepal registered its active participation during the High Level Safety Conference organized by ICAO in Montreal in 29 March-1 April 2010. As the Conference concludes with following declaration for the aviation safety, Nepal commits its full efforts in realizing the vision set by the HLSC.

- 1) Even though air transport is a very safe mode of transportation, there is a need to achieve a further reduction in the number of accidents and especially fatal accidents to maintain the public confidence in the safety of the global air transport system; and
- 2) States support an ICAO safety framework based on sound safety management principles and processes. (HLSC 2010)

## **10. ACTION BY THE MEETING**

The Meeting is invited to:

- a) note the contents of the paper: and
- b) urge States in the Region to provide cooperation and support in areas of aerodrome, ANS, Flight operations, Accident investigation, Airworthiness to enable CAAN to meet existing and emerging challenges.

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