

**COMBINED ACTION TEAM - IMPLEMENTATION OF INSPECTOR COMPETENCIES
(CATIIC)**

CONCEPT NOTE:

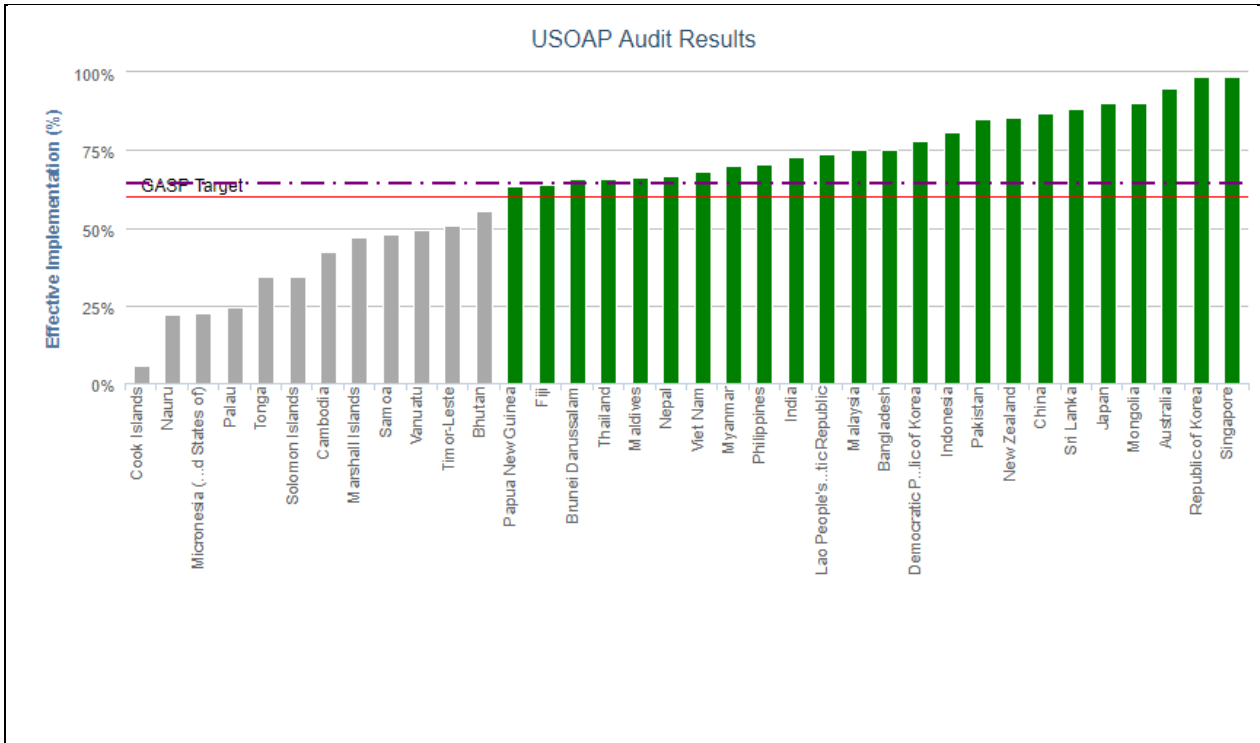
on a project to provide the technical assistance missions for ICAO-APAC States to;

- a. evaluate the CAA Inspector’s Competencies and prepare an action plan for the prioritized On the Job Training (OJT) to be imparted.**
- b. deploy relevant experts to conduct OJT on site according to the action plan.**

1.0 Introduction and Background

1.1 Present status of the APAC region in terms of Effective Implementation of ICAO SARPS

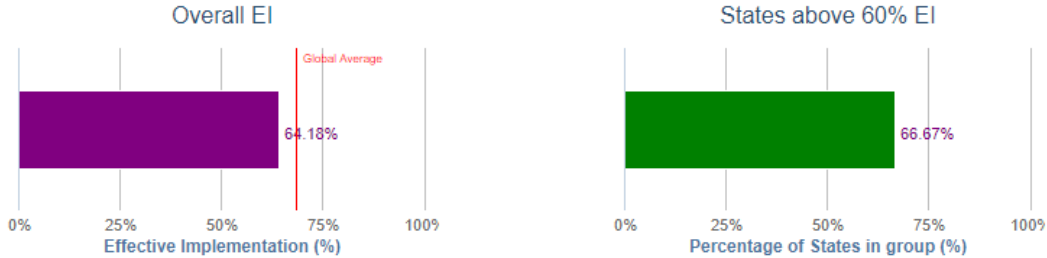
Asia and Pacific region (APAC) is one of the most diverse regions in terms of the size, complexity and the growth rate of air traffic in the aviation Industry, within which some of the states have very good Effective Implementation (EI) scores and some have scores less than the global average. As a region striving to enhance it’s average EI levels above global average and the scores expected by GASP 2020 the region as a whole is required to work on additional concerted efforts properly identified, well developed and consistently implemented.



APAC contains 38 States. 2 States have not yet received a USOAP audit.

The current average USOAP score for States in APAC is 64.18% which is below the world average of 68.41%.

66.67% of the States in APAC have achieved the target of 60% EI, as suggested by the Global Aviation Safety Plan (GASP)



As indicated in the above tables there are about twelve states who are currently below the world average and 33.33% states below the GASP target for 2020. Further GASP 2020-2022 (draft) requires the states to achieve targets of higher average levels of EI.

1.2 Global Aviation Safety Plan (GASP) 2020-2022 Goals and Targets, relevant SARPs and References

Draft GASP 20-22 is envisaging and encouraging all states of the region to achieve a goal of enhance safety oversight capabilities, Goal number 2 as indicated below, through improved average EI level of 75% by 2022.

(Ref: GASP 2020-2022 Goal 2: Strengthen States’ safety oversight capabilities.)

Goal	Target	Indicators
<p>Goal 2: Strengthen States’ safety oversight capabilities</p>	<p>2.1 All States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State’s safety oversight system (with focus on priority PQs) as follows:</p> <p>a). By 2022 – 75% b). By 2026 – 85% c). By 2030 – 95%</p>	<ul style="list-style-type: none"> • Number of States that met the EI score as per the timelines • Number of States that have fully implemented the priority PQs related to a safety oversight system • % of priority PQs implemented by a State • % of each priority PQs implemented globally • Number of States timely updating the filing of differences • % of required CAPs submitted by States (using OLF) • % of completed CAP per State (using OLF)

In order to keep up pace with the GASP goals, the region would have to continuously engage the states whose score is lower than 75% at present and particularly in a more rigorous manner on the states whose current EI level is lower than global average. In addition, few states whose current EI level is even less

than 25-30% would demand special attention in developing laborious and tedious activities expensing more resources than others.

ICAO DOC 8335 for Manual of procedures for operations inspection, certification and continued surveillance, para 6.3 explains on the training of inspectors and the maintenance of technical qualifications in terms of initial training and continuation training with a view to gain the net result of such training achieving better job performance and greater respect from the operator. *DOC 9734 Safety Oversight Manual Part A on The Establishment and Management of a State Safety Oversight System* in para 3.4 mentions on the Qualified Technical Personnel (CE-4). Guidance for the minimum qualifications of civil aviation inspectors is provided to States in the *Manual on the Competencies of Civil Aviation Safety Inspectors (Doc 10070)*. The manual in particular elaborates on the need for entry level and/or qualification requirements for civil aviation inspectors in the different domains that are involved in licensing, certification and surveillance activities, including those who perform tasks and functions on behalf of the CAA. A civil aviation inspector should be fully qualified, with specific regulatory skills, and demonstrate a minimum appropriate level of technical knowledge. The qualifications of a civil aviation inspector should ideally match the qualifications of those who are being inspected. The training policy should commit to provide all necessary training to all technical personnel in all areas, including initial training (e.g. induction and basic training), on-the-job training (OJT), recurrent training and specialized or advanced training. Furthermore, the training policy should require the establishment of a training programme for each technical staff position and training plans for each technical staff member. The State authorities also need to provide the necessary financial resources and time for their technical personnel to receive the required training.

Technical personnel should satisfactorily complete OJT before being assigned safety oversight-related tasks and responsibilities. OJT should be provided by experienced, senior technical staff in the subject area or task, and should follow a structured process, such as observing, working under supervision, competence assessment and authorization, etc. It is important to ensure that staff are only authorized to perform tasks after having been assessed as qualified. The completion of the OJT, including the competency assessment, should be properly documented. The State authorities should establish and implement a system for the maintenance of training records for their technical personnel. This includes records of the OJT received, reflecting the various phases of the OJT completed (i.e. observation, performance of tasks under supervision and final assessments) as well as the assessment of competence of the personnel.

For more information concerning competency-related provisions refer to the *Procedures for Air Navigation Services – Training (PANS-TRG, Doc 9868)*. The implementation of Civil Aviation Safety Inspector (CASI) competency-based training should only be envisaged once a functioning and adequately sized inspectorate is established. Many States have not yet established a training policy. A training policy together with the availability of sufficient funds for the effective implementation of the training programmes are the building blocks of the CAA's training system. In the absence of such a policy, or when the training policy exists but is not comprehensive or appropriately implemented, States may lack or have insufficiently detailed training programmes for some or all of the CAA inspector positions; training records may be partially maintained (consisting mainly of a compilation of course completion certificates); and the on-the-job training (OJT) may not be performed by sufficiently qualified and experienced staff and/or may not be documented in the training records. Few Core Elements of Competency for Regulatory Inspectors that Civil Aviation Safety Authority of Australia (CASA) follows may be a good reference as basic building block;

- Regulatory Culture & Communications
- Legal/Rules & Standards Development (CE-1 and CE-2)
- Managing Differences & Exemptions (CE-1 and CE-2)
- Entry and Exit Control (CE-6)
- Developing risk-based surveillance programmes (CE-7)
- Awareness

Basic Audit Skills
Lead Audit Skills
Safety Management Systems
Human Factors
Safety Investigation & Analysis (CE-8)
Regulatory Records

2.0 Regional Office Commitment

A strengthened aviation system provides a conducive environment for economic growth and development in the APAC States. Enhancement of Safety Oversight capabilities of the regional states is the key to strengthening the safety of an aviation system. The Asia and Pacific Regional office having identified the need for the enhancement of safety oversight capabilities of the states, embarked on a mission cited as Combined Action Team popularly known as CAT mission in 2016 across the region totaling up to 45 missions in triennium period benefitting 26 plus states including follow up. Key objective of such missions is to assist states in the interpretation of USOAP CMA PQs in terms of eight critical elements, preparation of CAPs for not satisfactory PQs and few training sessions on OLF, Inspector Training Programmes and Plans. CAT missions have yielded expected improvements in the regional EI levels after being verified by ICVMs or Audits.

2.1. Need for a new strategy

CAT mission aforementioned brought results enhancing states oversight capabilities to an acceptable level during the triennium of its operations from 2016-2019. Introduction of new goals and targets by the GASP 20-22 has now posed new challenges demanding more aggressive plans and implantation of such plans assisting states in a new dimension expanding horizons of states capacity. Obviously the phase at which CAT missions yielded results would not cater to this new challenge. In the course of finding solutions to the new area of challenges a closer look in a more analytical manner would be required.

2.2 Analysis of the root cause

2.2.1 Analysis of the critical areas for the region, as depicted in below charts, registered lowest in the Audit area of AIG and by Critical Elements it is registered as CE4, CE7 and CE8. Obviously the whole region is required to pay more and more attention and allocation of resources to establishment of an Independent AIGs for most of the states in order to improve EI level relevant to Annex 13. All the CAT Mission reports and USOAP CMA reports also highlights that qualified inspectors and human resources for the CAAs are increasingly becoming the root cause which actually affects the rest of the critical elements. As such, proper credentials of an inspector enhance the capacity of a CAA in terms of implementing proper certification, surveillance and resolution of safety concern. The implementation in the field for those weaker States is often suffering as the inspectors are mostly shaky to challenge the industry where OJT for regulatory oversight can be the foundation to overcome the deficiencies.

2.2.2 CE4 being training and development of human resources which is considered as essential component of the establishment of oversight organization, regional office has identified and prioritized CE4 as the most urgent need for the improvement of the regional EI levels. Although the chart has registered lower levels of CE7 and CE8 obviously improvements on training of Inspectors would imply improvements consequently for the simple reason that establishment CEs would certainly influence improvement in Implementation CEs.

2.2.3 As already mentioned in above 1.2 few states those who have scores below 30%, mainly the Pacific Island states should have a different strategy being planned and implemented for the purpose of achieving GASP 20-22 targets and Goals.

USOAP Results by Area and Critical Element

7 areas and 5 critical elements are above the target of 60% EI.



3.0 Solutions derived

3.1 Solutions for the first category of states who needs assistance and support in the establishment and operation of an Independent Accident Investigation Authority may be considered as less priority as it has no direct impact on safety oversight of a state.

3.2 Second category of the states is the main focus of this concept paper based on a proposal to improve CE4; training of Inspectors. Close engagements with the states during the assistance missions had revealed that most of the Inspectors in safety critical areas of the region had followed appropriate training programs in the class room environment without being given the opportunity of On the Job Training conducted by an appropriately qualified OJT Instructor. Main objective of this paper is to introduce a project resolving the issue of OJT provision. Detailed description of the proposed project is provided in the paragraph 4 below.

3.3 Third category of the states is the eleven number of states whose average EI level is extremely lower and hence they need another comprehensive project or improvement of the operation of PASO undertaking safety oversight activities on behalf of the states.

IMPLEMENTATION OF CATIIC MISSIONS:

4.0 Project Outcome - Proposed project for the provision of developing CAA Inspectors Competency specifically focusing on OJTs and raise CE-4 EI which will positively impact rest of the CEs and thereby build the capacity of a CAA

4.1 Implementation process of the project

Identify the States below world average in CE-4 and provide them support only to build the inspectors competency in terms of OJT covering all area. The end result will be accomplished planning the mission in two phases;

1st Phase – Execute a week long Mission to evaluate the CAA Inspector Competencies and prepare an action plan for the prioritized On the Job Training (OJT) to be imparted covering all/preferred area.

2nd Phase - Deploy relevant experts from a pre-selected pool of experts from the region to conduct OJT on site according to the action plan. In case, OJT provider is not available in the region, seek assistance from any other source.

4.2 Scope of the project

Safety oversight of states demands competent Inspectorate for each of the Audit areas, PEL, OPS, AIR, AGA, ANS and AIG in general. Project may be developed in anticipation of all audit areas for prioritized states. Similar to CAT missions each regional Officer when identified as the team leader may have to do an in-depth analysis to evaluate the qualifications of inspector in terms of OJT that is recorded and documented. The actual scope of the mission will vary case by case but it should be carried out in two phases as described in 4.1.

4.3 Basic Requirements

Successful engagement of conducting an OJT is entirely dependent on the availability of a Guidance Material or a Manual on Inspectors Training System (ITS) preceded by the core qualifications of the inspectors in their respective area. For example, a Flight Operations Inspector must have his basic qualifications to be a CAA inspector and should go through a Core Course like Government Safety Inspectors (GSI) Course on Operations and AOC and a Flight Operations Inspectors (FOI) Course etc. Then the inspector must undertake the OJT for each sub task and role that he is responsible under a senior inspector who is an authorized OJT provider and all records must be documented.

CATIIC Mission will identify those deficiencies for a State and prepare an action plan to be implemented. Once the experts are available, those OJTs will be provided on site according to the action plan in second phase.

4.4 Duration criteria

Duration period of the OJT is a critical factor determining effectiveness of the Inspections. The first phase will be an onsite deployment for 3-4 days for 2-3 experts. The action plan may be analyzed by the OJT provider to determine each deployment duration on site for the second phase. Second phase for many countries may take from 15 days to 03 months depending on the size and complexity of aviation activities in each area. Planning and execution of Phase-1 to have an Action Plan in hand for a State is the first priority and then Phase-2 may start on the need basis and availability of funds.

4.5 Budget and Funding

Broadly, project funding for Phase-1 will be similar to the CAT Mission budget. However, for Phase-2, the budget requirement will be much more compared to the Phase-1. As such, we may plan to conduct the Phase-1 in 2020 for at least for 15-20 States/administration and continue through 2021. Phase-2 may start in 2021 after the Action Plans are in hand. Hence, the estimated budget for Phase-1 is calculated here.

For Phase-1 - the combination is likely to be 03 experts deployed for 03 days excluding the travel time. Considering the distance and flight time, countries like the Pacific Islands, Afghanistan, Mongolia and around will need business class tickets (more than 9 hours' flight) which will raise the expenses for those missions. So for Pacific Island States and distant States, if we consider 5 activities and rest in closer distances 15 activities, the estimated cost as below;

Basis of Calculation:

- a. For Economy Class Travel – Average per expert is 3000 USD including 03 days DSA
 $3000 \text{ USD} \times 3 \text{ Experts} = 9000 \text{ USD/Mission}$

$9000 \text{ USD} \times 15 \text{ Activity} = 135,000 \text{ USD}$

- b. For Business Class Travel – Average per expert is around 8000 USD including 03 days DSA

$8000 \text{ USD} \times 3 \text{ Experts} = 24000 \text{ USD/Mission}$

$24000 \text{ USD} \times 5 \text{ Activity} = 120,000 \text{ USD}$

TOTAL : \$255,000 USD (Two Hundred and Fifty Five Thousand USD) for 20 activities.

Expectations from Donors and Partners - In terms of funding, the partners and donors may provide direct finance, resources/experts, training materials etc. as deemed necessary to support the project.

5.0 Conclusion

5.1 This concept paper is developed as an introduction of an additional tool for the good use of APAC regional office in preparation for the satisfying Targets and Goals GASP 20-22 for a segment of regional states within the diverse APAC region. Determination of which states may take priority over another state or what criteria may be used in the determination of the scope of the mission and the criteria used for the selection of OJT providers have not been considered and excluded from the discussion.

5.2 During the implementation of the project, this concept may be further developed and expanded to make it a pragmatic and viable solution in order to satisfy the needs of the region overcoming future challenges in managing proper safety oversight.

5.3 Following Action Items are recommended to start the project once approved in principle:

- a. Considering that each State's requirement will be different in terms of ascertaining the competency of CAA Inspectors followed by conducting few OJTs, there needs a survey for determining those needs (need analysis) and addressing them by developing the inspector's competency/providing OJT.

Action - a survey template will be developed and circulated to the States/Administration once the project is approved.

- b. Regional office will take initiative to identify those competency gaps required for the States below global average in CE-4 and lead the mission in Phase-1. Then, find the experts amongst the APAC States who can be used as the OJT provider for Phase-2.

Action – Carry out a pilot project for one or two State and develop an action plan to see the feasibility of such missions to the States.

- c. Regional office may request the reputed aviation academies in the region to develop courses for some of the common competencies identified for the region, so that those ATOs can be a part of the capacity building initiative.

Action – *Coordinate with the leading TrainAir Plus ATOs in region and get their mandate to support this initiative of capacity building in CE-4.*

- d. Regional Office will plan, coordinate the Combined Action Team – Implementation of Inspector’s Competency (CATIIC) Missions verifying all the ICAO reports for CE-4 (USOAP CMA, ICVM, CAT reports and Survey). CATIIC Missions will basically find out the need of the State in terms of competency requirement or deficiency in first phase and develop a programme for that state where experts will be deployed on site to provide OJT on prioritized tasks in second phase.

Action – *Regional Office will identify the pool of experts from APAC Region to be used on site for developing the CAA Inspector’s competency. Develop a matrix to verify those OJT Provider’s qualification and put them on roster to effectively use for each other State. If scarcity of such qualified OJT providers in the region, GAT or any other competent and recognized organization/individual outside the region can be engaged in coordination with a particular State (case by case).*

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