

N° 005993-01

Novembre 2008

Mission d'assistance aux autorités de l'aviation civile philippines

Ressources, territoires et habitats
Énergie et climat Développement durable
Prévention des risques Infrastructures, transports et mer

**Présent
pour
l'avenir**



CONSEIL GÉNÉRAL
DE L'ENVIRONNEMENT ET DU DÉVELOPPEMENT DURABLE

Rapport n° : 005993-01

Mission d'assistance
aux autorités de l'aviation civile
philippines

établi par

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CGEDD / 4ème section « Risques, Sécurité, Sûreté »

Novembre 2008

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INTRODUCTION

Cette mission a été effectuée par Jean-Paul Troadec (CGEDD-IGAC) et Gérard Lehoux (DGAC) à Manille du 13 au 22 octobre. Elle a été réalisée à la demande d'Airbus Industrie et se place dans le cadre de l'accord d'assistance d'Airbus Industrie aux autorités philippines, qui fait suite à la décision de la FAA de les « déclasser », décision qui a des conséquences défavorables sur les perspectives de vente d'Airbus. Enfin, cette mission se place aussi dans la perspective du prochain audit USOAP de l'OACI prévu en octobre 2009.

Le rapport expose brièvement le déroulement général de la mission, les éléments de contexte, les principaux points des diverses réunions, du séminaire et des workshops et les premières réflexions sur l'évolution de la nouvelle autorité philippine, la CAAP (Civil aviation authority of Philippines).

On y trouve in-extenso l'ensemble des présentations faites aux membres de la direction de la CAAP.

1. - DÉROULEMENT GÉNÉRAL DE LA MISSION ET PERSONNES RENCONTRÉES

Le 14 octobre : réunion avec M Lebastard, chef de la mission économique à Manille

Le 15 octobre : réunion avec M. Ciron Ruben, Directeur général de la CAAP

Les 15,16 et 17 octobre : déroulement du séminaire au sein de la CAAP

Le 20 octobre : tenue de "workshops" au sein de la CAAP

Le 21 octobre : rencontre avec l'ambassadeur de France et le représentant de l'UE

Retour le 22 octobre matin.

2. - ÉLÉMENTS DE CONTEXTE

2.1. - Le contexte du transport aérien philippin

Le transport aérien philippin est aujourd'hui florissant et, malgré la crise, il a des chances de connaître une croissance supérieure à celui d'autres régions du monde en raison du poids donné au tourisme (source majeure de revenus que le gouvernement veut développer), des besoins nationaux liés à la géographie (insularité) et ceux liés aux expatriés.

Il y a en effet environ 9 millions de travailleurs émigrés (soit 10% de la population) dont 3,5 aux USA qui contribuent de façon décisive à l'économie philippine (transferts monétaires) et bien entendu à celle du transport aérien. D'ailleurs les Philippines, en raison aussi de la qualité de leur enseignement et de leur anglophonie, exportent beaucoup de travailleurs qualifiés.

2.2. - Les enjeux industriels

Les constructeurs aéronautiques sont intéressés par le potentiel de croissance local : à ce jour, deux compagnies philippines exploitent un grand nombre d'Airbus (320, 330 & 340) et des ATR, Philippines Airlines pourrait acheter des A380, l'avion étant particulièrement bien adapté à ses besoins notamment en raison de l'insuffisance de capacité des pistes de Manille (2 pistes croisées). EADS est impliqué dans le renouvellement de certaines installations de contrôle aérien et Fraport a construit - en BOT - l'aérogare 3 de l'aéroport de Manille (de lourds contentieux demeurent avec leur partenaire local).

2.3. - Le contexte institutionnel aéronautique philippin

2.3.1. - Une nouvelle administration

L'ancienne administration de l'aviation civile, l'ATO (Air transport office) a été remplacée par une nouvelle structure qu'une loi récente (mars 2008) a dotée de pouvoirs nouveaux et importants : autonomie budgétaire, personnalité juridique, relative liberté de fixer les salaires et le niveau des redevances et pouvoir de juridiction d'appel en première instance.

Cette structure dispose d'un Conseil d'administration (Board) avec des représentants des divers ministères (justice, finances, intérieur ...) dont la présence est liée à l'étendue de ses pouvoirs.

La loi exigeait la mise sur pied de la CAAP et de son conseil d'administration dans un délai de 6 mois après publication de la loi. Les membres du conseil ainsi que le directeur général ont été nommés fin juin. Depuis le conseil a adopté un règlement fixant la structure de la CAAP et devrait considérer un premier lot de règlements d'exploitation lors de sa séance du 29 octobre. Quelques personnels ont déjà été embauchés à des positions clé dans le cadre d'un programme OACI.

2.3.2. - Les difficultés résultant des résultats d'un audit FAA

En 2007, la FAA a audité l'ancienne administration, l'ATO, pour vérifier les progrès réalisés suite à l'audit OACI de 2005 qui avait mis à jour à un certain nombre de lacunes. Les progrès étant insuffisants, la FAA a rétrogradé l'autorité en classe 2 (c'est à dire ne remplissant pas les obligations internationales) et a répondu négativement pour ce motif aux demandes de Philippine Airlines d'augmenter ses fréquences de desserte des USA.

Pour les mêmes raisons, la Commission européenne avait envisagé, au vu de l'audit FAA, de classer l'ensemble des compagnies philippines en liste noire (bien qu'elles ne desservent pour l'instant aucune destination européenne).

En définitive, la Commission européenne a, au cours de la réunion du comité de sécurité aérienne du 4 novembre, décidé de réaliser son propre audit des autorités philippines début 2009 (quelques mois à peine avant le nouvel audit de l'OACI)

L'audit OACI (ainsi que celui de la FAA) portait sur les aspects « pilote, opérations et maintenance » (objets des annexes 1, 6 et 8 et des premiers audits OACI.). La CAAP devrait être auditée à nouveau par l'OACI en octobre 2009 mais sur l'ensemble des exigences auxquelles s'engagent les États en signant la convention de Chicago notamment sur la surveillance des aéroports et des services ATC, à l'exception des aspects sûreté et facilitation audités dans un autre cadre par l'OACI.

3. LE SÉMINAIRE ET LES WORKSHOPS

Le séminaire a été introduit par le directeur général qui a lui même assisté à une partie. Il s'est déroulé, en anglais, sur 3 jours complets les 15, 16 et 17 octobre. Entre 20 et 28 personnes l'ont suivi (selon les sessions). Malgré le peu d'éléments fournis à l'avance sur l'évolution du contexte de la CAAP, son contenu a semblé bien adapté aux besoins. 14 présentations, d'une durée de 45 à 90 mn, ont été faites sur les 3 jours, présentant les différents aspects de l'activité d'une autorité de l'aviation civile :

- présentation du séminaire
- missions de l'autorité chargée de l'aviation civile
- acteurs de l'aviation civile
- conséquences de l'adhésion à la convention de Chicago
- principes généraux du programme USOAP de l'OACI
- préparation et déroulement de l'audit OACI
- contexte Philippin suite à la nouvelle loi sur l'aviation civile
- organisation d'une autorité d'aviation civile: principes généraux
- relations avec les autres partenaires
- budget
- ressources humaines et financières
- plan d'action

Tout au long des présentations nous avons insisté à la fois sur le fond et sur certaines exigences formelles qui seront notamment auditées par l'OACI.

Ces différentes présentations ont été l'occasion d'échanges intéressants de part et d'autre.

Prévus initialement pour durer 2 jours, les workshops ont en fait été limités au lundi matin et ont porté sur le budget et sur la politique de communication. Les Philippins n'ont pas en effet souhaité d'autres workshops, estimant sans doute que nos interventions avaient déjà beaucoup mobilisé leurs responsables.

4. REMARQUES GÉNÉRALES

La situation de l'ancienne administration de l'aviation civile philippine est celle d'une autorité gérée comme une administration traditionnelle d'un pays en voie de développement, mais confrontée à des exigences de niveau international. La publication de la loi représente un pas très important pour asseoir l'autorité de la CAAP.

Une des grandes difficultés de la précédente organisation provenait notamment de la politique salariale, dramatiquement inadaptée à une activité de cette nature et qui menait à un fort taux d'évasion de personnels formés vers des postes à l'étranger plus rémunérateurs. Or la loi qui donne maintenant à la CAAP l'autonomie budgétaire, lui permet de récupérer entièrement les recettes de toute nature liées à son activité et de les augmenter. Les simulations que nous avons vues semblent indiquer que la CAAP a les moyens de sa politique en matière salariale.

Ce changement, au plan budgétaire, doit s'accompagner de la modernisation du système de gestion (comptabilité, perception des recettes, meilleure implication du management) et de l'acceptation, par les opérateurs aériens, des augmentations affectant les diverses redevances et taxes.

La nouvelle politique salariale devrait permettre de procéder à des recrutements nouveaux pour combler les déficits qualitatifs et quantitatifs actuels, notamment dans le domaine du contrôle technique et répondre ainsi aux critiques de la FAA.

Mais il faudra aussi moderniser l'ensemble du système informatique (automatisation des bases de données et des recueils d'information divers, site web, intranet etc...) et bien évidemment former les personnels, revoir les procédures de travail, finaliser la réglementation (qui n'est toujours pas publiée), etc...

Tout ceci ne se fera pas en un jour, aussi avons nous insisté sur la nécessité de définir un plan d'action réaliste, phasé, avec des étapes crédibles et mesurables. A cet égard, la proximité de l'audit OACI ne permettra sans doute pas de corriger toutes les insuffisances, ce qui rend indispensable la définition de priorités.

CONCLUSION

La volonté de changement est manifestement présente et s'est déjà traduite sur le plan politique par l'adoption de la nouvelle loi qui renforce considérablement les pouvoirs et moyens donnés à la CAAP.

Il nous semble important de donner du temps aux responsables de la CAAP pour mettre en place leur nouvelle organisation, leur nouveau budget, adapter leur politique salariale, former les personnels, etc... On ne peut pas s'attendre à des miracles à court terme et l'audit OACI (et a fortiori celui de la Commission européenne) vient sans doute un peu tôt pour que des progrès décisifs soient déjà perceptibles. Enfin on peut craindre que le souci de répondre à ces différents audits ne vienne mobiliser des forces qui devraient être employées en priorité à améliorer en profondeur l'organisation.

Jean-Paul TROADEC

Ingénieur général
des Ponts et Chaussées

Annexes

Annexe 1 - Lettre de mission



MINISTÈRE DE L'ÉCOLOGIE, DE L'ÉNERGIE,
DU DÉVELOPPEMENT DURABLE ET DE L'AMÉNAGEMENT DU TERRITOIRE

**Conseil général de l'environnement
et du développement durable***

Le Vice-Président

Référence CGEDD n° 005993-01

La Défense, le 22 OCT. 2008

Note

à

Monsieur le Ministre d'Etat,
Ministre de l'écologie, de l'énergie,
du développement durable
et de l'aménagement du territoire

A l'attention de
Monsieur le Directeur
du transport aérien

Par note du 2 octobre 2008, vous avez demandé au Conseil général de l'environnement et du développement durable de diligenter une **mission d'assistance à la réorganisation de l'autorité de l'aviation civile des Philippines**.

Je vous informe que, selon votre souhait, j'ai désigné **M. Jean-Paul TROADEC**, ingénieur général des ponts et chaussées, pour effectuer cette mission. J'ai bien noté que les frais seront pris en charge par Airbus.

Claude MARTINAND

Ressources, territoires et habitats
Énergie et climat
Prévention des risques
Développement durable
Infrastructures, transports et trier

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www.cgedd-sg@developpement-durable.gouv.fr

* Le CGEDD est issu de la réunion
du conseil général des Ponts et Chaussées
et de l'inspection générale de l'Environnement

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Direction générale de l'aviation civile

Le directeur du transport aérien

Paris, le 2 octobre 2008

Le directeur du transport aérien

A

Monsieur le Vice-président du Conseil Général
de l'environnement et du développement
durable

Référence : 08 01 95 / DTA
Vos réf. :

Affaire suivie par : Emanuela Lacaze
emanuela.lacaze@aviation-civile.gouv.fr
Tél. 01 58 09 36 37 - Fax : 01 58 09 40 16

Objet : Mission d'expertise aux Philippines

A l'occasion de contacts récents entre mes collaborateurs et des responsables d'Airbus, ces derniers ont présenté le programme d'assistance qu'ils envisagent de mettre en place à la demande de l'autorité de l'aviation civile des Philippines qui a été récemment audité par la FAA.

Parmi les sujets prioritaires pour lesquels une assistance a été demandée, figurent la réorganisation complète de l'autorité de l'aviation civile des Philippines et la mise en place d'un budget autonome pour financer ses activités.

Ces sujets ne relevant pas de la compétence de l'industriel, ce dernier s'est rapproché de la DGAC pour solliciter l'intervention de deux experts pour animer un séminaire à Manille et tenir des réunions de travail sur les thèmes précités.

L'objectif est d'apporter une aide à l'autorité de l'aviation civile des Philippines dans la réflexion qu'elle mène actuellement sur sa réorganisation et ses moyens de financement.

Il paraît souhaitable de donner une suite favorable à cette demande et je souhaiterais que Monsieur Jean Paul Troadec, membre du CGPC qui a une expérience dans le domaine, puisse réaliser cette mission aux Philippines pour le compte de la DGAC.

PJ :
Copie à : M. Maugard - IGAC

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Les frais inhérents à cette mission, qui se déroulerait du 13 au 22 octobre 2008, seront pris en charge par l'industriel.

La Mission de la Coopération Internationale de la Direction du Transport Aérien se tiendra à la disposition de cet expert, si cette proposition vous agréée, pour lui donner toutes les informations complémentaires pour l'aider à organiser cette mission.

Le Directeur du Transport/Aérien



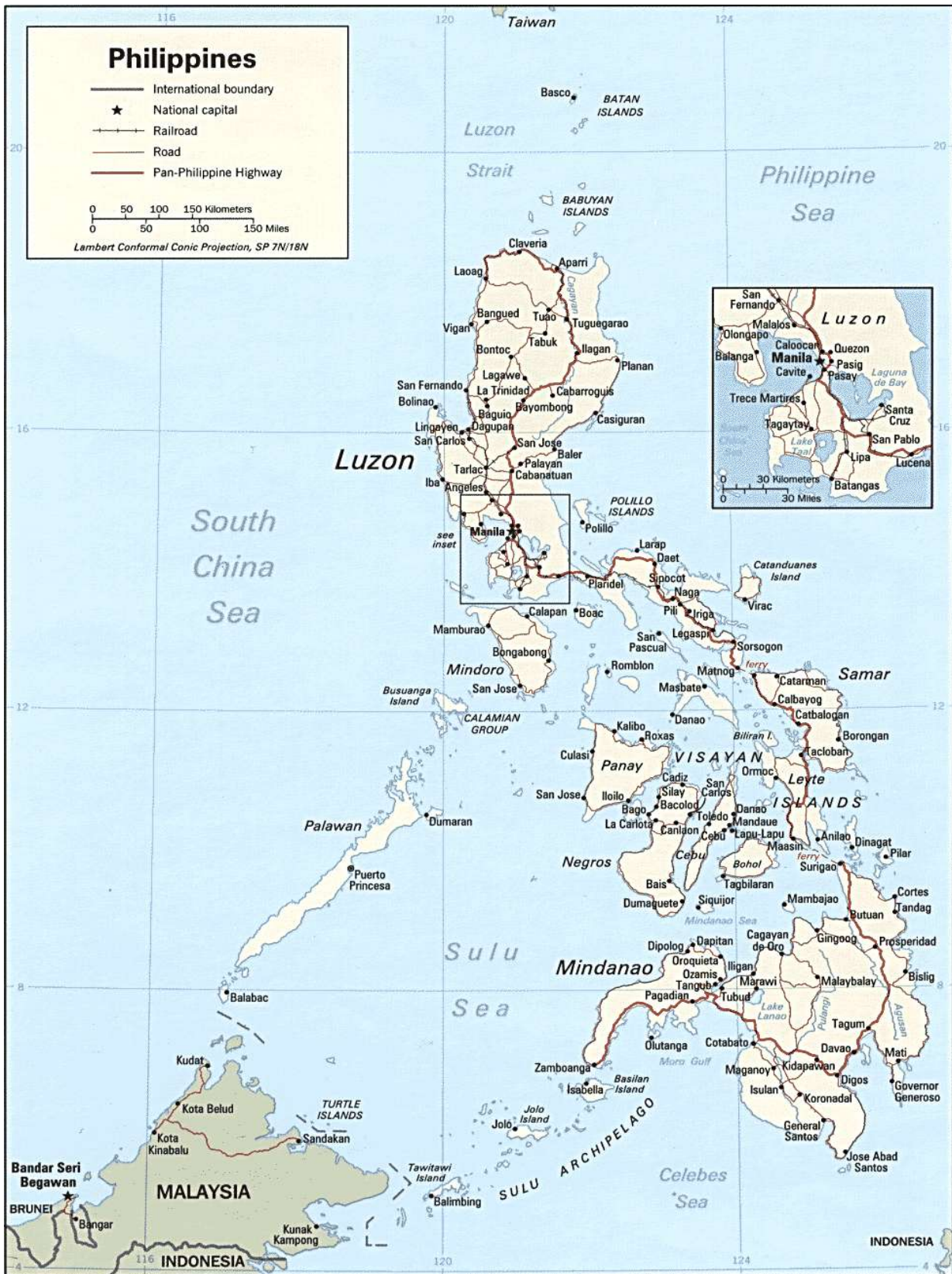
Paul SCHWACH



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Annexe 2 – Carte des Philippines



Annexe 3 – Certificate of Appreciation



Republic of the Philippines
Department of Transportation and Communications
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
Old MIA Road, Pasay City, Metro Manila, Philippines



This

Certificate of Appreciation

is hereby given to

JEAN-PAUL TROADEC
Inspecteur General de l'Aviation Civile

*for his immense contribution in conducting the
Seminar-Workshop for Senior CAAP Executives on the*

AIRBUS-CAAP Cooperation Programme

*Presented this 20th day of October 2008
at the CAAP Main Building, Pasay City, Metro Manila.*

RUBEN F. CIRON, PhD
Director General

Présentation des modules

Module I.0. - Presentation of the seminar



Overview of the seminar

- Who are we ?
- Our objectives
- The organisation of the seminar
- The organisation of the work-shops



Jean-Paul TROADEC

- A long career in the french CAA
 - director of the DGAC pilot training schools
 - director of the air traffic services
 - director of the strategic planning
 - director of human resources
- A transposition of the aviation safety methods in the rail sector
 - director general of the french rail safety authority
- A significant experience as airman
 - 2000 flight hours



Gerard LE HOUX

- Long career in french CAA
 - some years in ATC (planning & strategy)
 - training of pilots, airworthiness & operations
 - rulemaking
- Great expertise in international matters
 - international agreements (mutual recognition)
 - secretary general of JAA
- Some experience as airman
 - twin engines, IR - 1400 flight hours



Our objectives

- Our objective is to share with you our experience as :
 - Operators of aviation services
 - Managers of CAA's departments
 - Regulators
 - In charge of safety authorities
- Our objective is **not** to give you all set solutions **but** help you raise and solve questions so that you can define your own solutions



Organisation of the seminar

- Sessions of 45 / 60 mn during which
- We present information on slides & answer your questions
- Breaks to allow full concentration and informal exchanges
- Program can be adapted as required
- Workshop to allow further, more practical developments

Organisation of the seminar

- Day 1 : CAAs' responsibilities
- Day 2 : organisation of a CAA
- Day 3 : management issues

Day 1

The program will focus on CAA responsibilities

- 09h30-10h15 : presentation of the seminar
- 10h30-11h30: missions and roles of a CAA (JPT)
- 11h45-12h30 : roles and responsibilities of the actors in the air transport safety (JPT)
- 13h30-14h30 : the consequences of adhering to the Chicago convention (GLH)
- 14h45-15h30 : the ICAO USOAP (1st part)
- 15h45-16h45 : the ICAO USOAP (2nd part)

Day 2

The program will focus on the CAA organisation

- 09h00-10h15 : the Philippines framework (JPT)
- 10h30-12h00 : classification of the missions and discussion on the organisation (GLH)
- 13h00-14h00 : relationships with the stakeholders (JPT)



Day 3

The program will focus on management issues

09h00-10h00 : establishing the annual budget (JPT)

10h15-11h15 : establishing taxes and fees (JPT)

13h00-14h00 : human resources policy (JPT)

14h00-14h45 : planning the transition (GLH)



Organisation of the work-shops

- To be decided



Module I.1. - Missions of the CAA



Missions of a Civil Aviation Authority

- The specificity of aviation
- The missions of the CAA
- Focus on safety missions



The specificity of aviation

- The international dimension
 - standardisation of equipments and procedures
 - risks due to foreign operations
- The economic dimension
 - air transport
 - airports
 - manufacturers
- The paramount importance of safety and security



The need for a specific authority

All the above mentioned factors are interrelated

- Airport development policy must take in account the development of air transport, the evolution of aircraft.
- International standardisation needs to be adopted by national regulations, equipments.
- Safety management can not ignore the economic situation of airlines and vice-versa.

All these factors justify the creation of an authority in charge of all aspects of civil aviation, even independently of any international obligation



The missions of the authority

The objective of the authority is to promote a safe, regular, efficient and economical development of air transport in the framework of the national policies concerning :

- transport ;
- defence ;
- environment ;
- international relations ;
- industry and economy.

The civil aviation authority is always a major governmental agency.



The need for a safety authority

- There is no development of aviation possible without a high level of safety :
 - cost of accidents.
 - reaction of passengers and public.
- Safety cannot be guaranteed in the long term without the supervision of a public authority :
 - possible opposition between safety and economy.
 - particularly in young, fast growing or small entities.
 - trust vested in authority by the public (because neutral and independant from economic pressure...).

The missions as service provider

- Usually the CAA is in charge of providing ATC services, either en route and/on airports. In some countries, this task may be delegated to an autonomous body.
- Operations of airports may also be the task of the authority, although there is a tendency to delegate to public or private entities.
- In some countries CAA may also operate pilot training schools, sometimes in competition with the private sector.

The other missions

- The other missions of the authority can cover :
 - airport planification
 - noise regulation related to aircraft and airports
 - negociation of traffic rights
 - economic regulation and survey
 - support to aeronautical industry
- Some of these missions, or all, can be fulfilled by a ministerial department.

The safety tasks of the authority

- Establish national regulations, according to national rulemaking process and incorporating international obligations ; make them easily accessible to the stakeholders.
- Deliver the certificates and authorisations requested by the regulations.
- Monitor the continuous safety of the sector by means of :
 - periodic renewal of authorisations
 - audits and inspections
 - analysis of safety events (including accidents)
- Take action when regulations are violated.
- Draw lessons from safety events (organise return of experience).
- Promote a safety culture.

Establishing the regulations

- The framework :
 - general legislative corpus
 - basic aviation laws
 - ICAO annexes and SARPS
- Regulations must be clear, updated and easily accessible to stakeholders :
 - all the texts, whatever their level, must be grouped by subject in an appropriate documentation
 - « http://www.stac.aviation-civile.gouv.fr/amenag/refpublic/ref_certif_web.php »
 - periodic information must be provided to stakeholders

An example of regulation: certificates and authorisations

- Imposing licences, certificates or authorisation before conducting a specific activity may be a good method to make sure that a minimum level is achieved (at the start).
- Setting up a system of renewal is a good method to check safety level in a periodic manner.
- The activities and equipment not covered by such an authorisation are de-facto put under the responsibility of the operator which must be able to prove its capacity to operate them safely.

Deliver certificates to individual people

Licences may concern those people whose role is critical to safety :

- aircrew
- maintenance technicians for aircraft and ATC installations
- air traffic controllers
- flight operations officers

Aircrew licences are the only licences which have always been required by ICAO

Certificate organisations

- Air operator certificates applies to airlines
 - its validity is limited in time
 - covers all the operations of the airline
- Airports certificates applies to airports
 - may cover or not ATC
- ATC certificate may apply to Air traffic service providers
- Design and production approvals may apply to aircraft manufacturers
- Maintenance shop certificates apply to maintenance activities

Certificate aircraft and equipments

- Aircraft registration
 - identifies the aircraft but more importantly the law applicable and the authority in charge
- Aircraft airworthiness type certificate
- Aircraft airworthiness individual certificate
 - usually delivered on the basis of the initial certification

Monitor the continuous safety of the sector (2)

- Analysis of safety events
 - all safety significant events must be recorded and reported to the authority.
 - an efficient reporting system must be non-punitive.
 - these events must be analysed by the authority which must check that corrective actions have been taken by the operator.
- Organisation of the return of experience
 - these events and other pertinent information may be used to publish periodic safety reports of the authority for the use of public and aviation sector.

Monitor the continuous safety of the sector (1)

- Periodic renewal of certificates and authorisations
 - any certificate or authorisation is limited in time.
 - its renewal give the possibility to check the maintain of the safety conditions.
- Audits and inspections
 - all safety functions of an authorised organisation must be periodically checked (at least once during the validity period of the certificate).
 - the CAA must have the right to inspect the aircraft or organisations if he judges it necessary.

React in case of violations of regulations

- In the case of non-compliance with an authorisation delivered, the authority may limit or suspend or revoke the authorisation.
- In the case of violation of regulations, the authority may impose fines and other penalties, depending of the national legislation.

Promote the safety culture

- Safety culture is the situation where the safety concern is taken in account when conducting any activity or planning any modification to an equipment, procedure...
- It is the role of the authority to promote safety culture through :
 - information on cultural/economic factors which may have an impact on safety
 - publications/seminars/websites.

Module I.2. - The Actors in the air transport safety

The actors in the air transport safety

Many actors are involved in air transport safety :

- Government
- Accident investigation bureau
- CAA
- Airlines and other aircraft operators
- Air traffic services providers
- Airport operators

But primary responsibility lies with operators

The accident investigation bureau

- It must be an independent organisation, generally put directly under the responsibility of the minister.
- The AIB investigates accidents and major safety events, it makes recommendations in order to improve safety.
- It has a major role in the return of experience that it shares with the CAA which normally follows all safety events.

The government

Normally, the government is in charge of :

- Preparing and publishing laws and decrees.
- Defining and supervising the general aviation policy in the framework of the transport policy.
- Defining and conducting the international policy.

Some of these tasks may be delegated to the CAA

The CAA

- The CAA is the focal organism for air safety, that it manages with all stakeholders.
- It has to report its action to its government but also to the international community.
- It is in charge of defining and managing the national safety plan.

Its detailed tasks will be developed in the next session

The air transport operators

- They have a primary and global responsibility on the safety of their operations.
- They must comply with regulations but they also have to take any measure needed for safety.
- They must not rely on the CAA to manage it and have to take care of any aspect :
 - staff competences and training
 - aircraft airworthiness
 - procedures
 - return of experience

The air traffic services providers

- As operators they have a primary safety responsibility as airlines.
- They may be part of the authority.
- In that case, the authority must establish a separate body to ensure check and surveying functions.
- The same applies to airport operators.

Module I.3. - Chicago Convention

Consequences of adhesion to Chicago Convention

- Sovereignty & international air transport
- Chicago Convention
- Rights and duties
- Trust
- Consequences for authorities

Chicago Convention

- Which defines the fundamentals for safety in terms of services or critical elements and methods of work to ensure minimum safety level.
- Which provides a forum to discuss issues, regulations, methods of work.
- Which provides means to publish national differences.
- Which states the rights and duties in force once a given states has ratified the convention.

Sovereignty & international air transport

- Sovereignty over territory and space :
 - freedom to impose a given safety level.
 - freedom with methods to check that it is achieved.
- International air transport :
 - case by case authorisations unworkable.
 - too many different methods of work unworkable.
 - need for standards and trust in others.
 - hence.

Rights

- Right to over fly or land without former authorisation.
- Right to expect a given type of ATC or airport service abroad and a given level of service.
- Right to check a number of items
 - licence of pilot, certificate of airworthiness, general state of an aircraft,
- Right to deny the right to land or over fly if incoming foreign aircraft does not meet standards.

Duties

- National regulations must comply with ICAO standards and ensure minimum level of safety with operators, pilots, aircraft, organisations... meeting standards.
- National regulations should encompass recommended practices.
- Services (ATC, ANS, S&R ...) must be provided at the standard.
- Aircraft must be airworthy, operators certificated, pilots licensed ...

Trust

- Need for trust that foreign operations and services are safe.
- Trust is achieved if :
 - Operators, aircraft, persons, organisations
 - Have to meet known standards & regulations (& be certificated or licensed accordingly)
 - Actually apply the regulations & standards
 - Hence are certificated, surveyed & checked by their authority
 - The authority is seen as being « competent »
 - One can perform some checks of its own.

Trust

- To achieve trust, states have decided to go beyond initial aims of CC
 - not only rules and standards
 - but a check that they are applied at right level.
- Hence
 - USOAP audits against annexes 1, 6 and 8.
- And now
 - comprehensive approach audits.

Consequences for authorities 1

- Authority must have been set up and correctly empowered to perform the job.
- The authority must do what it is supposed to do :
 - implement effectively the SARPS
 - implement the critical elements of a safety oversight system
 - implement relevant safety practices & procedures.
- Standards & regulations to be published with differences with ICAO standards to be notified.

Consequences for authorities 2

- The authority is assessed (ICAO audits) on a periodical basis.
- Results of assessment have an impact on rights given through the signing of Chicago Convention.
- Case by case authorisations or limitations....
- Assessments to be made public to increase pressure on states to stick with their Chicago commitments.

Consequences for authorities 3

- Need for authorities to check their set up & functioning in terms of :
 - structure and powers
 - level of competence
 - adequacy of resources (personnel, budget)
 - appropriate regulations and
 - level of performance in certificating, surveying, reacting to incidents...
- ICAO audits check just that ; they are most important.

Module I.4. - ICAO USOAP General Principles



ICAO USOAP - General principles

- The general objective of audits.
- Some history on audits ; trends.
- Audit's features & principles.
- Auditing process.



Some History 1

- Reports in years 1990 on lack of implementation by states of ICAO SARPS.
- Accidents indicating insufficient safety oversight.
- Concern over the level of aviation safety worldwide.
- Need to reduce accident rate to offset air traffic growth.
- Need for action.



General Objective

- To promote safety by auditing all contracting states to assess their ability to oversee safety.
- An added tool for international community on air transport safety with :
 - number & reports of accidents
- To reinforce mutual trust between states which is positive for air transport.



Some History 2

- Voluntary assessment 1995- 1998
- DGAC conference (1997) : mandatory audit programme USOAP
 - annexes 1, 6 & 8 only
 - 181 audits + 162 follow up
- 35th assembly (2004) : comprehensive approach ; all annexes (except 9 & 17)
- DGAC conference (2006) : increased transparency, information to public
- 36th assembly (2007): beyond 2010



Scope & Method

- The new approach is not based anymore directly on the annexes (all but 9 & 17) but is :
- A Comprehensive Systems Approach (CSA).
- It implements a structured process and methodology for the :
 - planning, preparation, conduct, reporting, follow-up and evaluation of ICAO safety oversight audits.

Scope & method

- The CSA approach is designed to determine States' capability for safety oversight through the effective implementation of the critical elements of a safety oversight system.
- There are 8 critical elements :
 - 5 dealing with the set up of the organisations in charge of safety oversight (the corresponding laws, the organisation , personnel, training.
 - 3 dealing with actual work of authority (ies) in charge.

Scope & Method

- It is a structured approach that enables an audit process which is methodically conducted and documented to ensure :
 - standardization,
 - traceability, and
 - accountability
 - compatible with USOAP Principles.

Audits' features for trust

- Good background principles
 - sovereignty, universality, fairness, quality, consistency, objectivity, fair use of publicity
- Good working auditing principles
- « Good » auditors
- Full transparence on audit system
- Quality system



Auditing principles

- Fair presentation: obligation to report truthfully & accurately.
- Due professional care (diligence & judgment in auditing).
- Independence (impartiality & objectivity).
- Evidence -based approach (systematic process to reach reliable conclusions).



Auditing process 1/3

- A national safety oversight coordinator NSOC
 - to help in case of many organisations being involved in audit process.
 - better link between ICAO & state.
- Known, available tools :
 - state aviation activity questionnaire
 - compliance checklists
 - audits protocols
 - ICAO Documentation & guidance material
 - checklists for SPO(Montreal)/ team leader/ team members.



Auditors

- States may provide auditors.
- Auditors receive comprehensive training :
 - ethics
 - principles
 - attitude
 - ...
- Syllabi are available to all states.



Auditing process 2/3

- Agreed timetable & procedures :
 - before the audit
 - during the audit
 - after the audit (publication of report & afterwards)
- Before : pre-audit phase
 - agreement on date between state & ICAO (12 months advance notice).
 - list of questions & presentation of answers (law, structure...).



Auditing process 3/3

- Audit
 - well defined; adapted following pre-audit phase (more or less according to subjects in lie with information provided).
 - proofs required during audits (with a deadline ! for evidence).
 - a final meeting with draft findings & recommendations.
- After : post audit phase
 - interim report,
 - state's comments,
 - final report,
 - publication of final report which may contains state's comments if there are any.

Sum up on USOAP/CSA

- The approach is based on 8 critical elements.
- The scope has increased from USOAP to CSA (ATC & Airports).
- General systemic approach rather than strictly based on annexes.
- There is a will (& a calendar) to publicise the results of the audits which make them all the more important.

Sum up on USOAP/CSA

- Objective
 - assess level of safety oversight in each state
 - provide elements & priorities to improve the state's system for overseeing safety
- Audit is a tool within a global approach :
 - used by a « third party ».
 - to provide a fair view on current level of safety oversight.
 - vital to increase trust in the world aviation system.
- All states are subject to the same process.

Module I.5. - ICAO USOAP « On the Field »

ICAO USOAP « on the field »

- The 8 critical elements
- The scope of audit
- Reference material
- The auditing process
- Evidence

The 8 critical elements

- Legislation
- Operating regulations
- Organisation
- Technical experts training
- Guidance, procedures & information
- Licensing & certification obligations
- Surveillance & inspections obligations
- Resolution of safety concerns

The 8 critical elements

- The 5 first are elements to be established so that the state can discharge its functions properly
- The last 3 concern the actual work performed
 - at initial stage before authorizing (certification or licensing)
 - during the duration of authorisation (surveillance)
 - in case of « trouble » (unplanned situations with critical safety concern to be resolved so as not to re-appear).

Legislation CE1

- The audit checks that the aviation law is comprehensive and effective & compatible with size and complexity of aviation activities :
 - e.g. makes provision for the setting up of authority, for a budget, for independence of surveillance authority in relationship with service providers.
 - empowers of people responsible for safety oversight, for inspections (e.g. right of access, right to stop an operator, right to request a penalty....).
 - empowers DG (or somebody else but not congress) to issue (numerous) regulations of « lower level » (provides for ability to adopt, in a timely manner, amendments to annexes or new RPs).



Specific operating regulations CE2

- Regulations must provide, within framework established by aviation law, for standardized operational procedures as required or recommended by ICAO SARPS
 - in particular, adoption of ICAO amendments will be checked
 - or reactions to new recommended practices.



Technical personnel qualification & training CE4

- Check that minimum requirements for knowledge and performance are established for people involved in safety oversight.
- That a training (initial and recurrent) policy is installed and actually put in place.



State civil aviation system and safety oversight functions CE3

- The audit checks :
 - the existence of a CAA, with CEO , appropriate budget and human resources (technical and non technical), appropriate tools and logistics.
 - that safety functions and a safety policy are spelled out with objectives and ways to measure the degree of fulfilment.
- Includes all authorities involved in safety functions (AIG, bodies empowered to perform some functions...).



Technical guidance, tools on safety related matters CE5

- Check that guidance(processes and procedures) , tools (including facilities and equipment) and safety critical info are provided to experts so that they can perform their oversight function.
- Check that the aviation industry also receives guidance with regard to implementation of regulations and instructions.



Licensing & certification CE6

- The actual implementation of processes and procedures to licence or certificate people or organisations.
- Check that it is actually being done, that it is done exhaustively and that it is done in the right manner.
- Check that people and organisations meet the established requirements before being allowed to exercise privileges of licence, certificate...

Surveillance Obligations CE7

- Check that processes (such as inspections or audits) are implemented to proactively ensure that aviation licence, certificate or authorisation holders
 - continue to meet existing requirements and
 - function at the level of competency and safety required to undertake an aviation activity.
- This surveillance may concern designated personnel who perform surveillance tasks on behalf of the authority.

Resolution of safety concerns CE8

- The implementation of processes & procedures to address deficiencies impacting aviation safety residing in the system and detected by the authority or other bodies.
- This encompasses the ability to :
 - detect and analyse deficiencies
 - forward recommendations
 - support the resolution of identified deficiencies and
 - take enforcement actions when appropriate.

Audit reference material

- Legislation & regulations : Convention
- Organisation & safety oversight : SAAQ
- Then technical domains :
 - personnel licensing : annex 1
 - aircraft operations : annexes 6, 18; PANS-OPS
 - airworthiness of aircraft : annexes 6,7,8,16
 - aerodromes : annex 14
 - air navigation system : annexes 2,3,4,5,10,11,12,15,& PANS-ATM
 - Accident investigation : annex 13.

SAAQ

- State Aviation Activity Questionnaire (SAAQ) :

All States have to complete it and submit it to ICAO. States have to update the information contained in their respective SAAQ whenever there is a change in their civil aviation system.

An updated SAAQ must be submitted at least 90 days prior to the conduct of the on-site phase of the audit. The SAAQ can be completed online using the web based application.

The auditing process

- A team (which will be introduced).
- A work programme (sent to state in advance).
 - with some aspects looked at as a team and
 - technical domains looked at by the experts specialised in domain
- A link between the team & the state : NSOC.
- Daily meetings with the state to take stock of questions, information & documents needed.
- A referential and collection of evidence.

Evidence

- Basic major principle ; objective, fact-based audit
- Need for state to prove e g
 - provide copy of manuals to prove that guidance is provided.
 - provide records of training sessions with list of trainees to prove that training has been given & received.
 - provide individual file of personnel to show that he has been assessed against competence needed, that he has received training .
 - provide records of meetings, documents leading to certification of a maintenance shop or airline

Module II.1. - Philippines context

The Philippines context

- The results of the FAA audit creates a difficult situation for authorities and international airlines of Philippines
- Important measures have already been taken which provide a comprehensive framework
- The challenge is now to implement the new organisation in the perspective of the future ICAO audit
- Most probably this implementation shall be conducted by steps

The FAA audit (1)

The main FAA concerns relates to :

- ATO empowerment (corrected by the new law)
- Lack of equipment, personnel and procedures to conduct effective AO certification
- Non-compliance of airmen licensing and operator certification
- Lack of an effective surveillance system
- No appropriate action to address safety issues with the air-carriers

The FAA audit (2)

- The FAA audit did not cover items which will be addressed by the ICAO audit such as ATC, airports and accident investigation
- Those items will also have to be addressed in the new organisation for the next comprehensive ICAO audit

The new civil aviation law (1)

- The new law gives important powers to the CAAP in line with ICAO recommendations
- It defines some structures of the organisation
 - office of enforcement and legal service
 - flight standard inspectorate service
 - air traffic services
 - air navigation services
 - aerodrome development and management services
 - administrative and finance service

The new civil aviation law (2)

- The law mentions other support functions to the FSIS
 - aircraft registration
 - aircraft engineering and standards
 - airmen examination
 - office of the flight surgeon
- Other tasks of the CAAP will have to be dealt with the structure
 - airport security and police
 - information and communication
 - training schools and CAAP fleet operations
 - internal audit
 - safety data base and ROE
 - airlines policy and economy (subject to the responsibilities of the CAB).

The office of enforcement and legal services

- Its role is defined in the law :
 - legal assistance to the CAAP
 - determination and enforcement of sanctions
- More accurately, it will :
 - examine any regulation proposed or issued by the CAAP : law, decree, document, recommandation
 - be consulted on the legality of any decision taken by the authority (authorisation, contract,...)
- These functions need administrative and civil matters competences.

The flight standard inspectorate service

- The functions of the FSIS are defined by the law :
 - airworthiness inspections
 - flight operations inspection and evaluation
 - personnel licensing
- The FSIS does not seem to address the inspection function for ATC and airports as service providers.

Air traffic and air navigation services

- In our understanding :
 - air traffic services relate to air traffic control operations
 - air navigation services relate to infrastructure : route planning, aeronautical information, air navigation equipment installation and maintenance...
- In most countries, ATC and ANS are merged in a service-oriented organisation
 - subject to the same type of inspection as air operators.

Aerodrome development and management service

- Aerodrome development and aerodrome management are two distinct functions.
- Aerodrome development is a strategic and economic function, relating to :
 - national transport policy
 - land use and noise.
- Aerodrome management is an operational function, subject to safety certification and the same type of inspection as ATC.

Support functions to the FSIS

- Aircraft registration is more a legal and administrative task
- Aircraft engineering needs the same competences as airworthiness inspections
- Airmen examination and office of the flight surgeon are closely linked with the delivery of licences.

Administrative and finance service

- CAAP is given budget autonomy :
 - it has to prepare and manage its own budget
 - it has to define its financing scheme and enforce it.
- CAAP is also given the power to define its own salary policy (with some constraints?), to recruit and train its personnel.
- This service has two related but distinct major functions :
 - finance
 - human resources.

Other functions

- Some other functions are either :
 - not mentioned by the law or
 - mentioned without reference to their organisation.
- It is the case for :
 - information and communication
 - CAA fleet operations
 - internal audit
 - reaction and improvement capability
 - airline policy
- Finally, there is no reference to a possible local organisation.

Information and communication

- It is an important task of the CAA to
 - make the regulations easily accessible to public and stake holders
 - inform on safety and promote the safety culture
 - more generally inform on aviation policy
- To implement these tasks, one finds generally directly under the authority of the DG an information and communication service in charge of :
 - managing the website
 - publishing documentation
 - press relations

Return on experience

- It is the responsibility of the CAAP to continuously oversight safety of air transport.
- For this it has to collect all safety events and to request operators for reporting and for corrective actions.
- For this the CAAP should manage a data base.
- FSIS, will use these data to define priorities for inspections.

Internal audit

- An organisation like the CAAP should have an identified internal audit at least for safety functions .
- The internal audit service should report directly to the DG.

Airline policy and air transport economy

- Usually, CAA's are in charge of :
 - airline policy and economic regulation.
 - Traffic rights negotiation (in relation with foreign affairs departments).
 - supervision of slot allocations on major airports.
 - promotion of civil aviation.
 - delivery of air operators licences.

Central vs regional offices

- Some certification and surveillance functions of the CAA may be exercised at a local level as they relate to :
 - small airports
 - general aviation and aerial work
 - private pilot training and license delivery.
- Once this choice of organisation made, a central control must be enforced to guarantee the harmonisation at local level.

(Nota : CAAP has no regional office)

Module II.2. - Organisation of an authority

Organisation of an authority

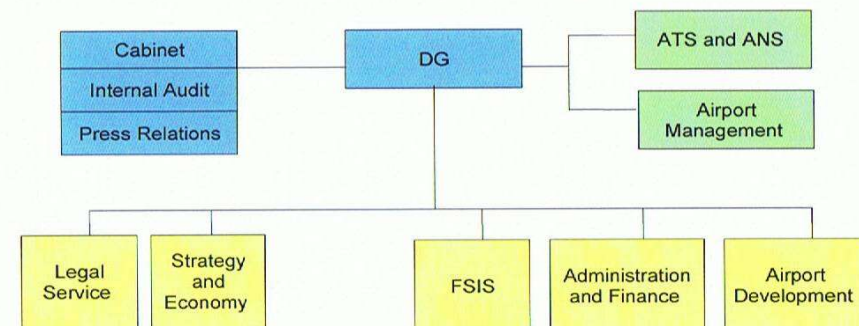
- Functions and structure
- Main sections in authority
- Responsibilities
- Depth of work
- Size
- Methods

Organisation / structure

- Strategic and economic department
- Service providers such as ATC provider or training provider
- Surveillance department (FSIS)
- Administrative and finance service
 - budget
 - HR
 - logistics
- Legal service
- DG cabinet (communication...)

Functions

- Whatever is needed to ensure trust and positive environment
 - public order
 - right working framework to allow a future for aviation.
- i.e. safety (needed for trust in aviation mode)
 - regulations (on level of safety and allocation of responsibilities)
 - safety oversight.
- Fairness & visibility (to allow / encourage investment of operators and service providers)
 - rules (freedom to act within framework, stability of framework)
 - authority to check respect of rules.



Organisation structure : the musts

- Need to separate providers and FSIS so as to :
 - promote unbiased views
 - generate trust in surveillance system and its conclusions
- In the same way, service providers should be separate from economic /strategic section which sets up the general working framework.
- Links between actors to be described in procedures and processes (for rulemaking, surveillance tasks, audits, inspections..).

Strategic / Economic section

- Deals with functions outside safety
- May deal with the rulemaking process (with input on content from other actors)
- Relates to other governments bodies
- Establishes, for aviation, the economic rules (such as competition, price, access to market....)

Nota : the economic policy is under the responsibility of the civil aviation baord

Service providers

- Some services might be run by authority : usually ATC & ANS and sometimes training and airports
- Need to treat those providers as if they were outside (on principle, for clarity and also because there might be outside competitors as well)
 - the regulations apply to them – same as others
 - the surveillance is the same
 - they are service-oriented with some requirements : quality of service, ISO certification, traceability, duty to provide access to authority for surveillance)

Logistics

- Is vital for the authority to work properly.
- Deals with resources : tools, equipment budget, human resource, publication facilities, website, intranet, extranet...
- Lacks of quality might be a major hindrance :
 - inability to go « on the field »
 - poor reaction time
 - lack of publicity to regulations
 - inability to consult with stakeholders when rulemaking
 - inability to organise training sessions or provide manuals...

FSIS : tasks

- Certificates or licenses whomever or whatever organisation needs to be before they can use the corresponding privilege.
- Performs continuing surveillance :
 - of compliance to regulations
 - of safety level achieved.
- Participates to the rulemaking process :
 - mentions needs to act, gives directions
 - participates to manuals & training of operators.

FSIS : domain

Covers almost every domain subject to ICAO annexes (security is subject to similar processes) :

- domains covered by the first ICAO audits : pilots, airlines, maintenance (annexes 1, 6 & 8)
- **but also** new fields : airports, ATC , ANS, SAR...

FSIS : perimeter

- FSIS must cover outside operators as well as inside operators
 - airports
 - ATS and ANS
 - CAAP training schools and own fleet
- FSIS must cover also services provided abroad (if any) : pilot training, maintenance.
- Procedures and processes for certification and surveillance must be set up, reflecting independence between CAAP's operators and FSIS.

FSIS : organisation

- Localisation of experts must be defined
 - Central and regional or only central
 - Based on number and localisation of operators and expertise needed: a regional deployment implies more workforce
- Numbers of experts to be decided
- Recourse to RSOO (or other foreign experts) might be envisaged for « ultra specialised » expertise such as ETOPS when need is limited and non-permanent

Safety Regulation Group



With effect from 1 April 2008

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Responsibilities of the actors

- Allocation of responsibilities should be clear to all
- Primary safety responsibility lies with operator (airline , ATC provider, maintenance shop..) or actor (pilot, mechanic)
- The authority /strategy provides :
 - an aim for safety level (of a political nature, in line with ICAO)
 - a positive working framework

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Responsibilities of the CAA

- The authority / surveillance is an added loop to check the actual level achieved and make sure that regulations at least are enforced.
- Within authority's FSIS, responsibilities (with limits and duties to report) should also be clearly stated :
 - who works on audits, content of audit, who signs the report
 - same with inspections

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Responsibilities of the FSIS

- FSIS must get as much information as it can :
 - from audits, inspections, exchanges with foreign authorities
 - from operators who have a duty, through rules, to report on incidents & accidents.
- It may be held responsible :
 - for not knowing and
 - having done nothing while knowing.

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Depth of work

- The depth of work of safety section may depend on
 - safety work performed by other bodies
 - quality achieved in given activity.
- The FSIS should have a policy on depth of inspections, frequency of audits , priority items to survey...
- That policy should be put in writing and circulated to all agents concerned

Methods of work (1)

- Methods should be clear, in writing, accessible to all within section (manuals are good tools to learn, practice or improve).
- Manuals should cover the normal business (certification or licensing process....) and provide for possible difficulties or unplanned features (through procedure).
- Most of them should be made available to the operators who are subject to certification or surveillance as guidelines.

Size

Size of organisation and of FSIS depend on :

- Work performed and work delegated
- Maturity of the system (the more mature the system is, the smaller the authority can be)
- When launching authority or new activities, one has to invest hence a greater workforce is needed.

Methods of work (2)

- They must provide for traceability of process
- Where and when changes are made, information and possibly training should be given (with list of trainees attending)
- People vested with authority of access and inspection should be easily recognised by all concerned (airport, operator...)
 - clear identification card with the right legal reference giving authority.

Methods of work (3)

- Regulations :
 - must be accessible
 - must be understood (clear content and applicability)
 - must be applicable (realistic in content and schedule of application)
- Hence, the rulemaking process must provide for :
 - consultation (taking into account comments)
 - a good publication system
 - guidelines (and rationale for rule) which make the rule easier to apply

Quick sum up

- The organisation's structure must clearly distinguish the functions : strategic matters, services provisions and surveillance
- Responsibilities and procedures must be clear
- Work can be shared if splitting is clear
- Procedures and processes are better put in writing
- Regulations must be accessible in every sense (access to text, understanding, method of use...).

Module II.3. - Relations with the partners

Relations of the CAA with its partners

- The CAA is at the heart of the national aviation system
- It controls and promotes civil aviation activities
- It has also to manage possibly conflictual roles
 - its primary objective lies with the safety of civil aviation : but it has to be careful not to impose undue burden to operators
 - it is naturally considered as the supporter of the aviation cause which can be in opposition with other causes (environment, land use...)
 - inside the aviation sector, it may have to referee between commercial and general aviation
- All this requires professionalism, credibility, neutrality, transparency, diplomacy and political sense ! (amongst a lot of other qualities)

CAA and airlines

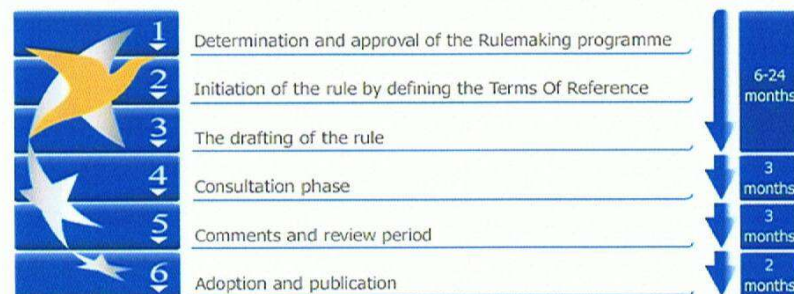
- Airlines are the major partners of the CAA and the major providers of its budget.
- Inside airlines one can find important pool of competence for the CAA.
- CAA decisions and efficiency impact directly airlines performances.
- An objective of a CAA should be to establish cooperative and confident relations with airlines.

CAA and airlines (2)

- Airlines must be associated to the setting up and evolutions of regulations, procedures, methods...which can impact them (FAA and EASA have a rulemaking process).
- Prior to decisions, CAA budget should be discussed with airlines. Transparency is a first objective, cost control a second.
- CAA human resources policy should be discussed with airlines in order to
 - Identify pool of competences needed by the CAA.
 - Exchange on HR policies.

Managing the rule making process

The example of the EASA





CAA and general aviation

- The same as for airlines applies as regards regulations, procedures, methods
- It is of current practice to subsidize general aviation through:
 - Air navigation fees exemptions
 - Airport charges exemptions
- But what general aviation needs above all is support from the authority in operational and safety matters through
 - Publications
 - Seminars
 - Field presence of inspectors on airports and in airclubs



CAA and Air Force

- Civil and military share the same airspace, sometimes the same airports and may have common missions (SAR).
- Air Force may be provider of ATC and airport services to civil aircraft.
- Air Force may be a pool to CAA for some competences.
- In many countries, Air Force choose to operate some activities under civil rules.
- It is then necessary to maintain a close relation with Air Force.



Judicial authorities

- In case of a major accident, two procedures are conducted in parallel
 - An administrative investigation by the AIB with an objective of safety prevention under annex 13.
 - A judicial investigation by the justice in order to determine responsibility.
- These two investigations relate to same facts, the same elements but depend on different authorities with different procedures.
- Signing a protocol between the AIB and the judicial authorities may be a good method to avoid difficulties and coordinate the two investigations.



Press relations

- Good and confident press relations are important factors to manage crisis, in particular in case of accident
- These relations may be built-up by periodic conferences with the press at event such as annual report presentations
- Generally speaking, an open attitude towards press is in the interest of the CAA and the aviation sector as a whole
- It improves confidence of the public in aviation



Airport neighbours

- Land planning cannot prevent noise nuisance
- Change in air navigation procedures, traffic increase, and uncontrolled buildings are the main sources of noise increase
- In conjunction with airport and local authorities, CAA must :
 - Set-up noise prevention rules
 - Explain them and check their application
 - Communicate on measured noise levels

Nota: this item is not part of USOAP audit!

Foreign CAAs

- Seamless international flight operations require agreement between adjacent air traffic and navigation services. This is done by ICAO regional plans.
- Some countries have set-up common air traffic control organisms, but Philippines situation may not require it.
- RSOO might be a good way to put in common very specialised competences and to alleviate workload (rulemaking, SAR resources, ATC coordination).

Conclusion

- Promoting safety is not only a question of technical expertise
- It needs cooperation, dialogue, teaching and communication skills

Module III.1. - Budget

Establishing the CAAP budget

Establishing the CAAP budget requires to dimension the organisation according a number of homogenous cost centers :

- ATS and ANS
- airport management
- airport development
- CAAP fleet operations
- other training activities (in house or subcontracted)
- FSIS and associated activities
- accident investigation
- legal services
- Common services (DG, finance and HR, communication)

ATS and ANS

- ATS and ANS budgets are dimensioned by the aviation activity (en route and on airports) and the investment policy.
- They are split into:
 - salaries
 - current expenses
 - Investments
- Costs are normally covered (partly or in full) by air navigation fees and possibly airport taxes for terminal services.
- Air navigation fees must cover only ATS and ANS service provider activities (with possibly inspection costs and CAA overheads).
- The importance of this latter budget justifies that it be managed separately.

Management Principles

- Budgets must be economically justified.
- Each cost center (some may be merged) should have an identified budget placed under the responsibility of a manager.
- Each cost center should have identified resources.
- It should be possible, for each basic mission, to associate costs and resources.

Airport management

- Airport management covers
 - aeronautical services (ATC, security, infrastructure, services to aircraft...)
 - commercial services (shops...)
- Aeronautical services are (partly or in full) covered by airport taxes and fees
- Commercial services are covered by revenues
- Both sources of revenues can be merged (in order to reduce aeronautical charges).
- CAA is usually involved in general airports' policy and may be involved in the running of some activities (ATC, security...).

Airport development

- Generally, commercial investments are under the responsibility of the airport operator
- CAA may be directly in charge of some investments on airports
 - land acquisition
 - installations and runways construction
 - security equipments
- These investments are covered by :
 - government subsidies
 - airport fees or taxes

CAAP fleet operations

- Fleet operations may represent an important cost center and must be identified as such.
- This activity may encompass :
 - staff travels
 - nav-aids flight inspection
 - flight inspectors training
- Corresponding expenses are not covered by external resources
- They have to be supported by the cost centers benefitting from its services.

FSIS and associated activities (1)

- As previously stated, we have considered that all functions related directly to the safety responsibility of CAAP come under this cost center :
 - FSIS
 - aircraft engineering and standards
 - airmen examination
 - office of the flight surgeon
 - safety data base and ROE
 - possibly aircraft registration (although it is not really a safety function)
- The dimensioning of this budget is driven mainly by the staffing of these activities.

FSIS and associated activities (2)

- There is no magic formula to dimension a CAA safety function.
- One has to consider :
 - present national staff (is it enough ?)
 - benchmark with other countries having a similar activity
 - maturity of the national aviation safety system
 - organisation of the CAA (centralised vs decentralised)
 - national regulations
- It is possible to develop an analytic method based on the work load associated to each activity.
- These activities are financed either by fees, taxes, or state budget.

Accident investigation

- The AIIB is a separate body, only functionally separated in a first period.
- Its size depends on the way it is organised, with permanent and non-permanent experts.
- Its financing comes from taxes or state budget.

CAA common services

- The cost of these activities are typically overheads and have to be shared between all cost centers.

Legal service

- It seems difficult to dimension a priori this service, depending on its tasks.
- This activity can be :
 - either considered as an overhead of the CAAP and the cost split between the different cost centers.
 - or considered as being in the general interest of the public and financed by state budget.

Module III.2. - Financial Resources

Financial resources

- The CAA financial resources must :
 - provide a stable and appropriate level of financing.
 - be accepted by the aviation sector.
 - correspond to the missions of the authority.
 - be economically justified.
- They are covered by :
 - state budget.
 - fees for regulatory acts activities.
 - air navigation fees.
 - taxes on aviation activity.
 - other revenues from commercial or quasi-commercial activities.

Fees for regulatory acts (1)

- Regulatory acts for individual people or company may be covered by a fee :
 - pilot exam
 - licence delivery
 - aircraft registration
 - air carrier certificate
 - maintenance workshop agreement
 - airworthiness certificate
- When the fee does not cover the total cost, it has to be complemented by taxes or state budget.

The state budget

- In the past, in most countries, state budget used to be the only resource of the authority.
- This situation made it difficult to adapt budget to the needs.
- In some cases, CAA can be financed without resort to the state budget (depending on its perimeter).
- Generally, a part of the CAA budget comes from state budget :
 - to cover some investments
 - to cover some missions fulfilled in the public interest
 - to avoid excessive burden on some activities (ie: general aviation)
- There is a trend to progressively decrease state budget participation to CAA financing.

Fees for regulatory acts (2)

- When the delivery of an authorisation or certificate gives rise to a continuous inspection or audit activity by the CAA, the initial fee should be followed by a fixed annual fee :
 - to avoid any financial interference with the process of inspection.
 - to provide stable resources.
- There is no general rule to determine the bases of the various fees :
 - in some cases, it could be the real cost of setting-up the certificate.
 - generally, the fee is either fix or depending of parameters associated to the complexity of delivering the certificate.

Air navigation fees

- Each country has some freedom to define its air navigation fees provided it is on fair basis.
- European countries have defined common rules in the framework of Eurocontrol, which makes the difference between en-route charges and terminal charges.
- En-route charges cover the total cost of air traffic control and air navigation services at a distance over 20 km of airports :
 - it is function of distance* $\sqrt{\text{aircraft weight}}$.
 - this formula provides a hidden cross subsidy to small aircraft, as the ATC cost is independent from the weight contrary to the price.

Air navigation fees (2)

- Contrary to en-route charges, terminal charges are determined on national basis. In France they are in proportion with the square root of weight.
- Air navigation terminal charges can be :
 - either a separate fee.
 - or included in airport taxes or fees.
- According to national policy, VFR flights may be exempted from any air navigation fee :
 - the corresponding cost is covered by state budget or other taxes.

Taxes on aviation activities

- Taxes on aviation activities cover costs for which a fee is not appropriate or cannot cover the overall costs.
- These taxes are in a sense a complement to state budget.
- Their basis can be an indicator of activity, for example : number of passengers (domestic/international).
- Example of costs possibly covered :
 - security costs on airports
 - regulatory act costs not covered by the fees.

Other revenues

- CAA may provide some services on commercial or quasi-commercial basis :
 - training
 - documentation
- These revenues are normally determined on commercial basis to cover all the associated costs.

Airport charges

- These charges are under the responsibility of the airport operators which are not usually the CAA.
- When the CAA is airport operator, it can separate its related costs between :
 - aeronautical costs (use of passenger terminals, runways, parking...)
 - commercial costs (shops...)
- Aeronautical costs can be covered by the airport tax (and partly commercial revenues).
- Commercial cost are covered by revenues.

Module III.3. - Human Resources

Human resources policy

- Medium term objective.
- Job description.
- Recruitment, training and salary.
- Alternative solutions.
- Short term policy.
- Conclusion.

Jobs descriptions

- Each post (or family of post) should be described in a task sheet including :
 - the name of the post.
 - the position in the organisation.
 - a description of the tasks.
 - the experience and personal qualities required.
 - the on-going training needed.
 - the evaluation criteria (yearly objectives).
 - the salary scale.
- This job description is indicative and should not considered as contractual (depending of the national legislation).

Medium term objective

- There no HR policy without a vision of the medium term (3 to 5 years) situation for the CAAP.
- This vision should encompass :
 - the organisation
 - the missions
 - the quantitative and qualitative needs per family of posts, depending of in-house/subcontracted tasks.
- The steps to attain the medium-term objectives.

Recruitment and training

- For each family of jobs, one has to consider the availability of such personnel on the job market (is there an existing pool?).
- Different situations may occur according to the job families :
 - it is current and standard one amongst various private and public organisms (case1)
 - the existing pool lies inside airlines (case 2)
 - there is no existing pool (case 3)

Case 1: the competences exist on the market

- Obviously, it is the easiest situation.
- Salary policy is driven by the market situation.
- But, most probably, this situation concern a limited number of people in the organisation (mostly in the administrative or logistics tasks).

Case 2 : pool exists inside airlines

- This is the situation for airline pilots, cabin crew, experienced mechanics and other airline specialists.
- At a national level, one has to consider that this type of competences must be fairly shared between the authority and the operators.
- CAA salary policy must be equivalent to airline policy.
- The CAA must try to cooperate with national airlines, in their mutual interest :
 - by organising recruitment channels from the airline to the CAA;
 - by mutual information on their respective needs and situation.
- The resort to foreign manpower can be a solution (if legal).
- The aviation army can also provide specialised resources.

Case 3 : there is no existing pool

- This the case (at least in France) for air traffic controllers, pilot instructors, air navigation specialists, administrative jurists,...
- The only practicable solution is to train these specialists ab-initio from an ad-hoc background inside the CAA schools.
- The salary policy must be determined by comparison with equivalent job (subject to discussion with unions !).

Alternative solutions

- Up to now we have considered full-time and jobs for tasks performed inside the organisation.
- But other solutions can be considered, which are efficient and accepted by ICAO, which are :
 - subcontract to the private sector.
 - delegate to other national authorities.
 - mutualise with foreign authorities.

Subcontract to the private sector

The tasks subject to subcontracting, if appropriate, can be divided in 2 types :

- Tasks not falling under the legal missions of the CAA : subcontracting these tasks is just a management decision (cost, flexibility, specialisation...).
- Tasks falling under the legal missions of the CAA : the CAA remains responsible for the execution of these tasks and must give an agreement to the subcontractor. This situation should be limited to those tasks:
 - Easy to control.
 - Requiring very specialised personnel and equipment.
 - And/or non permanent.
 - Examples could be : controlling the conformity of an aircraft or equipment, certifying a maintenance shop.

Mutualise with foreign authorities

- Subject to Philippines foreign policy, it can be imagined than some tasks are exercised in common with other authorities.
- This is accepted by ICAO when national but is of course quite awkward to implement for responsibilities questions.
- But subcontracting some tasks to a foreign authority, or, of course, signing agreements in order to validate agreements and authorisations given by a foreign authority, provides also efficient solutions.

Delegate to other national authorities

- The law permits the CAAP to use facilities and services of other governmental agencies, either for legal or other missions.
- Although the contractual scheme is certainly different, there should be in principle no difference as regards the CAAP responsibility. In particular these agencies can be audited by ICAO if they fulfill a safety mission.

Short term policy

- Defining manual and procedures, recruiting and training people is a long process than cannot be fully implemented in the short term.
- The CAAP should then consider a plan where in the short term :
 - priority should be given to those inspections tasks more critical to safety.
 - all alternative solutions as exposed above should be explored, some of them as interim solutions.
 - in the same time, a recruitment an training program should be set-up for the medium-term objective, with the associated resources.

Module III.4. - Transition

Near future for CAAP

- Preliminary questions
- Preliminary actions
- First actions
- Tentative elements of action plan

Preliminary questions

- We currently ignore state of development of CAAP.
- CAAP has to decide what the general schedule is to be, and priorities
 - Work towards a good ICAO audit ? (& get credit)
 - Set up a minimum surveillance function?
 - Streamline & improve what existed in former ATO with guidelines ?
 - Concentrate first on « exported services » (annexes 1,6,8) or go for wide scope with ATC & airports ?

Preliminary actions

- Assess actual safety level of operators (airlines - international & national; airports, ATC).
- Assess actual insufficiencies of authority (the FAA audit points at some , the new law has provided some answers but some fields have not been investigated).
- Assess nature and calendar of threats (on airlines, on airports ?....) raised by that insufficient performance of authority.

Suggestions before defining action plan

- Include some « easily » achievable matters to start a « winning » process.
 - E.g deal with regulations as law provides for authority in this respect or structure of authority.
 - Establish a realistic pace of progress you can achieve.
- Invest in secretarial workforce (as well as in experts) ; there will be a lot to formalise.
- Do not forget logistics.

First actions

- Define your priorities
- Involve stakeholders (they will be part of the effort)
- Define a general short /mid term plan
- Define the main features of the longer term « dream » (I have a dream.....!)
 - Values for authority,
 - Workforce (numbers, level of competence, localisation..); likely careers
 - Budget

First actions

- Put this short term plan into shape with calendar and ways of measuring progress
- Communicate on it within the national aviation community and with other state departments

First actions

- Work on a precise short term working plan keeping in mind long term values and objectives but :
 - allowing deviations from « dream »
 - allowing foreign help
 - allowing limited scope.
- Try to plan duration of short term steps.
- Discuss it with your stakeholders so that they participate, understand it, adhere to it.
- Inform the foreign authorities concerned.

First elements of action plan

- Decide on structure of authority
 - Surveillance activities of airports, ATC within FSIS ?
 - Shape and scope of non safety departments
- Formalise structure
 - With description of responsibilities
 - With major features concerning e.g separation between service providers - within authority or outside - and surveillance, Accident investigation...
 - Publish it with (realistic) date of entry into force.

First elements of action plan some priorities

- Work on workforce
- Work to correct insufficiencies detected at audits
- Streamline the functioning of authority
- Get prepared to the ICAO audit

Action plan : specific operating regulations

- Work on specific (currently missing) operating regulations (for people or organisations) eg
 - Start with results of former ICAO & FAA audit;
 - See added duties as defined within ICAO comprehensive approach
 - Certification of airports
 - Duties on ATC providers, on ANS , on S&R
 - Provide guidance for new items (gather it from foreign countries when a lot exists)
- Publish rules with adequate date of applicability
- Follow up closely critical items

Action plan : workforce

- Define in detail, work & responsibilities of future department managers (they must be a driving force, have ideas, gather data from foreigners...)
- Invest in RH department so that
 - They can define salaries, competence, specific conditions
 - & manage a recruiting process
- Then recruit or nominate department managers
 - They could be assisted by foreigners for a time
- Define with managers numbers, location and competence level of staff

Action plan : provision for ATC & airports

- Surveillance of ATC & airports was not audited previously (hence no deficiencies detected).
- Assess your position in respect of ICAO SARPS.
- Make provision for progress in those fields
 - Regulations
 - Training of people within authority
 - Defining the certification process , producing a manual
 - Defining the audit/ inspection policy....
 - Checking the actual practices

Action plan : getting prepared for ICAO audit (1)

- Nominate a national coordinator
- Train managers to ICAO audits (1wk training)
 - Good investment (it will save efforts & it will help restore trust in authority)
 - Future efforts will be worthwhile (in content and form)
- The state is audited :
 - Do not forget AIB besides CAAP and other bodies if state's tasks are delegated to them
 - Check periodically (self audit) your work and progress against ICAO protocols (good for exhaustivity and direction)

Sum up

- Some actions pretty clear for immediate future
- Within reach : law provides empowerment
- Need for good managers
- 2 phases : short term with long term in view
- Do not fear inventive solutions to quickly get into shape

Action plan getting prepared for ICAO audit (2)

- Formalise whatever you do
- Check whether you would be able to bring evidence that what you claim - in terms of safety methods, results, practices, procedures - is actually happening
 - eg manuals are used by your people or by operators
 - inspections are mad eat a given frequency
 - files are held for people, training, incidents,....
 - training that you claim happened is recorded
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