

Report of the Third Meeting of the NGAP Task Force 7 to 10 February 2011

1. Introduction

1.1 Ms. Nancy Graham, Director of the Air Navigation Bureau opened the meeting. Ms. Graham thanked Mr. Mervyn Fernando, President of the Air Navigation Commission for allowing the NGAP Task Force to meet in plenary in the chambers of the Air Navigation Commission on an exceptional basis. 54 participants from 11 States and 6 International Organizations attended the meeting representing international organizations, universities, regulatory authorities, industry and students involved in aviation-related programmes (The list of participants can be accessed on the GENERATE website). Dr. Thomas Carney chaired the meeting. Participants introduced themselves and indicated what their expectations were as outcomes of the NGAP Task Force.

1.2 Ms. Graham thanked the task force participants for their help in leading the effort to support the next generation of aviation professionals. She raised the following points:

- The NGAP voluntary task force started approximately 18 months ago and its work and objectives are becoming clearer.
- Appreciation for the work of the IATA Training and Qualification Initiative (ITQI), especially in the areas of evidence-based training, and instructor evaluator competencies, as well as in the development of a competency framework for aircraft maintenance personnel.
- A serious shortage of qualified aviation professionals around the world is envisaged. By 2030, the number of pilots and maintenance personnel must be doubled in order to support estimated traffic requirements.
- The idea of an international association for aviation training has been mentioned several times in different forums and should be pursued.
- The sub-groups of the NGAP Task Force should specify deliverables and timelines for the development of competencies for flight crew command, inspectors, Air Traffic Control Operators (ATCO) and Air Traffic Safety Electronics Personnel (ATSEP). Once completed, ICAO intends to incorporate these competencies into either the PANS Training or guidance material by the end of 2012.
- Outreach opportunities should be identified and pursued.
- Discussions on accreditation of aviation university-degree granting programmes are very important. Concurrently, ICAO is ensuring that its actions for the endorsement of training activities support the needs of the future.

2. Agenda

2.1 Participants reviewed and approved the proposed agenda of the meeting. Several presentations were made during the meeting. These can be accessed through links within the agenda found at Attachment A.

3. Discussion

3.1 Several presentations were made in order to set the stage and to define in more detail the approach the task force could take in developing its deliverables. Jim Dow explained the competencies that had been developed for the multi-crew pilot license and why a 'phase-of-flight' approach had been taken by the Flight Crew Licensing and Training Panel. This was not intended to be a general model for other professions and the competencies being developed by NGAP should not feel constrained by the MPL competency model. In fact, a more general approach to setting out competencies will give greater potential for finding common ground among all aviation professions, with some competency units and even some competency elements being shared by many technical specialties. Mr. Henry

Defalque provided information on ICAO documentation and more specifically on the role and status of the Procedures of Air Navigation Services – Training (PANS-Trg). Ms. Barrette-Sabourin proposed a process to progress the work on the development of competencies in the FCL and ATM sub-groups.

3.2 In addition, four presentations provided updates on the following topics:

- An emerging association of European training providers (Peter Moxham)
- Recent events in the US concerning flight crew training (Tom Carney)
- Canada's approach to developing occupational standards for aviation (Glenn Priestley)
- A glimpse of ICAO document 9956, which provides a forecast for aviation personnel (Frédéric Malaud)

3.3 The participants then joined either the flight crew or air traffic management sub-group break-out session.

3.4 Flight Crew Group

3.4.1 After reviewing the instructor competencies developed through the IATA Training and Qualifications Initiative, participants broke out in several smaller groups to progress the work more effectively on the command competencies. The Sub-group expects to have:

- the instructor competencies ready to give to the ICAO Secretariat in April 2011; and
- the command competencies, now being progressed as core competencies, ready to give to the ICAO Secretariat by June 2011.

Once this work is completed, the sub-group will develop competencies for inspectors overseeing competency-based training. These should be ready for the ICAO Secretariat in September 2011.

3.5 Air Traffic Management Group

3.5.1 Participants initiated development of a competency framework for air traffic controllers and air traffic services electronics personnel, after an introductory presentation outlining the parameters under which these frameworks are to be developed.

3.5.2 The following timetable of deliverables was developed:

Issue/Concept	Goal/Deliverable	Time-line	Additional comments
Competency Framework (CF) for ATCO	1 st Draft Description	March 2011	Populated on the basis of available documentation
	1 st Version	August 2011	After comparison with national training models
	Final Version	December 2011	
Competency Framework for ATSEP	1 st Draft Description	April 2011	
	1 st Version	September 2011	After comparison with national training models
	Final Version	December 2011	
Training Manual for ATCO	1 st Draft	November 2011	Using European CCC
Competency Framework for adjacent functions (i.e. OJTI, supervisors, examiners, etc.)	1 st Draft	February 2012	To be harmonized with Flight crew group.

3.6 Outreach Group

3.6.1 A series of initiatives to support outreach were described. These initiatives include the development of kits for high school students and aviation students, the conduct of a series of regional NGAP conferences that will lead to the 2nd NGAP symposium, an ICAO NGAP website, and the ICAO Training reports.

3.6.2 The following timelines and deliverables were developed:

Issue/Concept	Goal/Deliverable	Time-line	Additional comments
Uni/College	Kits for students	End Feb 2011	
High School	Kit for HS Students	End Apr 2011	
NGAP Web Site	Web Site	End Feb 2011	The posting of the NGAP website was delayed due to unforeseen circumstances. It is planned to have the NGAP website available to the public by the end of March 2011.
Regional Conf	Regional Conf	End Mar 2011 and throughout 2011	Please see ICAO electronic bulletin at ICAOEBulletinNGAPregconf.pdf
Int Civil Av Day	Int Civil Av Day	7 Dec 2011	
Publication	ICAO Training Reports	Two issues for 2011 (July and November)	
2nd NGAP Symposium	2nd NGAP Symposium	April 2012	

3.6.3 In addition, a case was made for the development of guidance material related to the airport professionals through the NGAP Task Force. ICAO agreed to facilitate this work provided that a sub-group including all stakeholders (association, service providers, industry, regulators, training and education providers, etc.) could be brought to task on this issue. This sub-group, once established, could eventually develop competency frameworks for airport professionals and related ICAO guidance materials. This proposal was well received by the participants.

3.7 Accreditation

3.7.1 The purpose of this sub-group meeting were: a) to discuss how accreditation of aviation university-degree granting programmes can be a means to support competency of the next generation of aviation professionals, b) to identify global initiatives that can support accreditation, and c) to better understand points of agreement and differences regarding accreditation of degree programs from region-to-region around the world. In order to establish the scope and context in which this purpose should be met, four presentations were made. The participants then identified commonalities among the different approaches presented. The results of this work can be found in Attachment B. The timeline and deliverable are as follows:

Issue/Concept	Goal/Deliverable	Time-line
Develop more inclusive framework for international accreditation standards	Involve more Regions, through Regional Meetings and targeted invitations to future NGAP TF meetings	Oct. 31, 2011
Guidance for ICAO	Develop a draft ICAO Circular for accreditation concepts	Oct. 31, 2011
Guidance for ICAO	Develop a final ICAO Circular for accreditation concepts	February 28, 2012
ICAO Circular	Presentation of final accreditation guidance Circular to Second NGAP Symposium	April 10-13, 2012

4. Fourth Meeting of the NGAP Task Force

4.1 Participants agreed that the next meeting of the NGAP Task Force be scheduled prior to the second NGAP symposium, currently scheduled for April 2012. It was tentatively proposed to hold the meeting from 24 to 26 October 2011 at ICAO Headquarters in Montreal.

ATTACHMENT A

THIRD MEETING OF THE NGAP TASK FORCE (NGAPTF/3)

Programme

Montréal, 7 to 10 February 2011

Monday, 7 February 2011 – Plenary and Breakout sessions for flight crew and ATM sub-groups

0830 – 0900	Registration
0900 – 0930	<p>Welcome:</p> <ul style="list-style-type: none"> • D/ANB (Nancy Graham) • NGAP Task Force Chair (Tom Carney) • Logistics (Adriana Bonilla) • Participants' introductions • Presentation of the programme (Tom Carney)
0930 – 1030	<p>Plenary Session (chaired & facilitated by Tom Carney):</p> <p>The purpose of this first plenary session is to set the stage and to define in more details the approach the task force will take in developing its deliverables.</p> <p>To do this we need to:</p> <ul style="list-style-type: none"> • Remember how the multi-crew pilot licence was the first step toward competency-based training in Annex 1 and why the competencies look like a job task analysis (Jim Dow) • Describe how ICAO documentation works (Annexes and PANS), and more specifically how the PANS Training is constructed – Presentation by ICAO Secretariat (Henry Defalque) • Revise our definition of competency so that it supports the improvement of performance towards excellence (Nicole Barrette-Sabourin) <p>Q&A</p>
1030 – 1045	Coffee/Tea Break
1045 – 1200	<p>We also need to appreciate the context in which the work of the NGAP Task Force is done. To do this, we will hear reports on:</p> <ul style="list-style-type: none"> • An emerging association of European training providers (Peter Moxham) • Recent events in the US concerning flight crew training (Tom Carney) • Canada's approach to developing occupational standards for aviation (Rob Donald and Glenn Priestley) • A glimpse of ICAO forecasts for aviation personnel (Frédéric Malaud) <p>Q&A (facilitated by Tom Carney)</p>
1200 – 1300	Lunch

1300 - 1700	<p>Breakout sessions for flight crew and ATM sub-groups</p> <p>The purpose of the breakout sessions is to progress work towards specific deliverables for the flight crew and ATM sub-group. The outcome of the discussions in these sub-groups will be reported to the plenary in the afternoon of 8 February.</p>	
<p>Coffee/Tea Breaks to be scheduled as convenient, but no later than 1500 hours (Cafeteria closes at 1530)</p>	<p>Flight Crew Sub-group (facilitated by Jim Dow)</p> <ul style="list-style-type: none"> • MPL Considerations (tentative) • Instructor/evaluator competencies - (Jim Dow) Report on the instructor/evaluator competencies developed by ITQI for inclusion in PANS Training – Next steps. • Inspector competencies (Jim Dow) This will be a brainstorming session to generate preliminary material for units, elements and performance criteria for inspector competencies for those inspectors assigned work related to competency-based training. • Command competencies (Miguel Marin) This will be a brainstorming session to generate preliminary material for units, elements and performance criteria for command competencies. • Discussion on the feasibility of a global longitudinal study of first officer competencies (Boeing) • How to progress the work: timelines, deliverables, virtual and face to face meetings opportunities and focal points (Jim Dow) 	<p>ATM Sub-group (facilitated by Farid Zizi)</p> <ul style="list-style-type: none"> • Introduction: scope of the work of the ATM sub-group and deliverables for ATCOs and ATSEPs (Farid Zizi) • Discussion and consensus on the ground rules for the ATM deliverables: level of detail, competency based approach, commonalities with other parts of PANS-TRG. This will include a discussion on the assumptions that will underlie the approach used in developing the deliverables. (Farid Zizi and Francois Robert) • Identification and collection of relevant materials to the development of the deliverables from as many parts of the world as possible (Farid Zizi and Francois Robert) • Presentation and discussion of working papers proposed (Farid Zizi and Michel Gaulin) • Distribution of tasks for future work (Farid Zizi) • How to progress the work: timelines, deliverables, virtual and face to face meetings opportunities and focal points (facilitated by Farid Zizi)

Tuesday 8 February 2011 – Flight Crew and ATM sub-groups (Continued)

0900 - 1530	<p>Breakout sessions for flight crew and ATM sub-groups (Continued)</p> <p>The purpose of the breakout sessions is to progress work towards specific deliverables for the flight crew and ATM sub-group. The outcome of the discussions in these sub-groups will be reported to the plenary in the afternoon of 8 February.</p>	
<p>Coffee/Tea Breaks to be scheduled as convenient, but no later than 1500 hours (Cafeteria closes at 1530)</p>	<p>Flight Crew Sub-group (facilitated by Jim Dow)</p> <ul style="list-style-type: none"> • MPL Considerations (tentative) • Instructor/evaluator competencies - (Jim Dow) Report on the instructor/evaluator competencies developed by ITQI for inclusion in PANS Training – Next steps. • Inspector competencies (Jim Dow) This will be a brainstorming session to generate preliminary material for units, elements and performance criteria for inspector competencies for those inspectors assigned work related to competency-based training. • Command competencies (Miguel Marin) This will be a brainstorming session to generate preliminary material for units, elements and performance criteria for command competencies. • Discussion on the feasibility of a global longitudinal study of first officer competencies (Boeing) • How to progress the work: timelines, deliverables, virtual and face to face meetings opportunities and focal points (Jim Dow) 	<p>ATM Sub-group (facilitated by Farid Zizi)</p> <ul style="list-style-type: none"> • Introduction: scope of the work of the ATM sub-group and deliverables for ATCOs and ATSEPs (Farid Zizi) • Discussion and consensus on the ground rules for the ATM deliverables: level of detail, competency based approach, commonalities with other parts of PANS-TRG. This will include a discussion on the assumptions that will underlie the approach used in developing the deliverables. (Farid Zizi and Francois Robert) • Identification and collection of relevant materials to the development of the deliverables from as many parts of the world as possible (Farid Zizi and Francois Robert) • Presentation and discussion of working papers proposed (Farid Zizi and Michel Gaulin) • Distribution of tasks for future work (Farid Zizi) • How to progress the work: timelines, deliverables, virtual and face to face meetings opportunities and focal points (facilitated by Farid Zizi)
1530 – 1700	<p>Plenary (chaired by Tom Carney) Report of flight crew and ATM sub-groups (Jim Dow, Farid Zizi)</p> <p>Discussion and Q&A</p>	

Wednesday 9 February 2011 - Outreach

<p>0900 – 1015 - Outreach</p> <p>1015 – 1030 – Break</p> <p>1030 – 1200 - Outreach</p> <p>1200 – 1300 –Lunch</p> <p>1300 – 1500 - Outreach</p> <p>1500 – 1515 – Break</p>	<p>Plenary</p> <p>Presentation on airport professionals (Dr. Othman Al Khouri)</p> <p>Outreach initiatives underway (Paul Bates)</p> <ul style="list-style-type: none">• High School Kit (Mitch Cockburn and Stephan Korobaylo)• Plan to reach out to aviation students (Mitch Cockburn and Stephan Korobaylo)• Presentation of the proposed NGAP website (Hervé Touron and Dawn Flanagan)<ul style="list-style-type: none">○ Brainstorming on populating the website (facilitated by Paul Bates)• Regional Conferences for 2011 leading to 2nd NGAP symposium<ul style="list-style-type: none">○ Schedule of regional conferences (Mostafa Hoummady/Hervé Touron)○ Standard programme and description of panel and themes of regional conferences (Mostafa Hoummady/Hervé Touron)○ Description of what we will take away from regional conferences (Paul Bates)• Discussion on 2nd symposium (Paul Bates)<ul style="list-style-type: none">○ What should the theme be?○ What should be the outcomes?• Other outreach initiatives<ul style="list-style-type: none">○ 7 December 2011: international civil aviation day (ICAO Secretariat)○ ICAO training reports (Nicole Barrette)• How to progress the work: timelines, deliverables, virtual and face to face meetings opportunities and focal points
<p>1515 – 1700</p>	<p>Plenary (chaired by Tom Carney)</p> <p>Presentation of programme for accreditation sub-group (Tom Carney)</p> <p>Summary by NGAP Task Force Chair of meeting discussions including deliverables (Tom Carney)</p> <p>Ways and means to support the work of the NGAP Task force and scheduling of the fourth meeting (Tom Carney)</p>

Thursday 10 February 2011 - Accreditation

0900 – 1015 – Work session	<p>The purpose of this sub-group meeting is twofold: a) to discuss how accreditation of aviation university-degree granting programmes can be a means to support competency of the next generation of aviation professionals and b) to identify global initiatives that can support accreditation</p> <ul style="list-style-type: none">• Accreditation models:<ul style="list-style-type: none">○ AABI accreditation overview, structure and process (Tom Carney and Gary Kiteley)○ European accreditation model overview (William Agius)○ Asian perspectives on accreditation (Graham Hunt)○ Report on ICAO Endorsement (Dawn Flanagan)• Discussion on global initiatives to support accreditation• How to progress the work: timelines, deliverables, virtual and face to face meetings opportunities and focal points (Tom Carney)
1015 – 1030 – Break	
1030 – 1200 - Work session	
1200 – 1300 –Lunch	
1300 – 1500 - Work session	
1500 – 1515 – Break	
1515 – 1700 – Work session	

ATTACHMENT B

Summary Information from the NGAP Aviation & Certification Sub-Group 10 February 2011

1. Points of Agreement/recommended accreditation concepts for ICAO

Issue/Concept	U.S./North America	Europe	Asia	Australia/New Zealand
Life-long learning as a key concept/criterion for accreditation	X	X	X	X
Coursework directed to a specific career field	X	X	X	X
5-year term of accreditation/reaffirmation	X	X	X	X
KSAs are industry-developed/connected	X	X	X	X
Recognition of professional experience for academic credit	X	X	X	X
Direct industry participation	X	X	X	X
Accreditation "is a good thing"---gives evidence of some level of quality as externally-veted	X	X	X	X
Accrediting body is an independent third party	X	X (may not be applicable in all countries)	X	X
Licensure may be included in the degree program	X	X	X	X
Incorporation of current industry standards	X	X	X	X

2. Points of disagreement

Issue/Concept	U.S./North America	Europe	Asia	Australia/New Zealand
Ease of movement across borders/between institutions		X		
Outcome-based approach	X			
Accreditation not for degree program, but for combinations of modules		X		
Programs are student-focused, not institution-focused		X		
National diploma				X

(graduate level)				
Program objectives strongly-driven by industry partners		X		X
State recognition of accreditor	X			
Specification of subjects required	X	X		
Alternative means of compliance (credit for licensure/ experience)	X		X	no/X
Accreditation is of degree programs	X (linked to an institution)	X (may be independent from an institution)		
Accreditation is of subject areas		X		
Performance-based promotion to proceed to the next academic level		X		

Related Issues

***Competency = Outcome

***Produce draft guidance materials/circular for ICAO (Guidance material→PANS document→Annex)

***ICAO Endorsement Program for Training Providers is underway

***An important caveat is that this is just a beginning and we need much more regional input before completion

***To take our work to the next level, we must have buy-in across all the regions around the World.

***Accreditation is an extremely important concept, but it can only exist in certain economic constructs.

We are looking at providing ICAO with principles that make accreditation possible.

***It is important to seek mechanisms that will allow students flexibility in coursework selection among institutions.

***We need to clearly understand what purpose accreditation serves.

***The aviation construct and the means by which we attain it is likely to vary widely across regions/among States

***We need a chart to give a common roadmap to what accreditation implies toward attained skill-sets (i.e., we need a “Magic Decoder Ring”

3. Accreditation Subgroup Efforts to Move Forward

Issue/Concept	Goal/Deliverable	Time-line
Develop more inclusive framework for international accreditation standards	Involve more Regions, through Regional Meetings and invitation to future NGAP TF meetings	Oct. 31, 2011
Guidance for ICAO	Develop a draft ICAO Circular for accreditation concepts	Oct. 31, 2011
Guidance for ICAO	Develop a final ICAO Circular for accreditation concepts	February 28, 2012
ICAO Circular	Presentation of final accreditation guidance Circular to Second NGAP Symposium	April 10-13, 2012