



NINTH NEXT GENERATION OF AVIATION PROFESSIONALS (NGAP) PROGRAMME MEETING

Montréal, Canada, 29 November 2017

REPORT

1. INTRODUCTION

1.1 The Ninth ICAO Next Generation of Aviation Professionals Programme Meeting was held at ICAO Headquarters in Montréal, Canada on 29 November 2017, after the conclusion of the NGAP Global Summit that was held from 27 to 28 November 2017.

1.2 The meeting agenda is at Appendix A of this report. The meeting was attended by 55 participants. The participants list for the meeting is at Appendix B of this report. Lori Brown, Outreach Working Group Chair, IPTA and UNESCO sent their regrets due to other commitments.

1.3 The Director of the ICAO Air Navigation Bureau opened the meeting and the Chief of the Implementation Planning and Support Section for Safety highlighted some of the major NGAP activities from 2017 (Appendix C - 2017 Progress Report):

- a) NGAP Global Summit 2017 and the side activities (<https://www.icao.int/safety/ngap/Pages/default.aspx>), as well as the concluding communiqué (Appendix D);
- b) decision to hold the NGAP Global Summit annually;
- c) collaboration and partnerships with UN organizations with similar initiatives;
- d) decision to include NGAP in aviation training events, such as the ICAO Global and Regional Aviation Training and TRAINAIR PLUS symposia in Kazakhstan and Ethiopia in 2017;
- e) Beta launch of the Aviation Training and Education Directory (ATED);
- f) focus on the NGAP Programme in the latest issue of the ICAO Training Report;
- g) development and quarterly dissemination of the NGAP Outreach Newsletter;
- h) ATCO and ATSEP competency-based training workshops in all regions; and
- i) promotion of NGAP at various events, including Global Aviation Training (GAT) Symposia, AABI, IPTA meetings, etc.

1.4 The meeting was conducted by the ICAO Secretariat, supported by Ms. Mary Nelson, Implementation Working Group Chair, Ms. Diana Dumitrache, NGAP Strategies and Planning Working Group Chair, Dr. Suzanne Kearns, Outreach Working Group Vice-Chair and Ms. Lynne McMullen, Outreach Working Group Vice-Chair. Secretariat support was provided by the Chief and Technical Officers of the Implementation Planning and Support Section for Safety of the Air Navigation Bureau.

2. SUMMARY OF DISCUSSIONS

2.1 The meeting objective was to review: the progress of the activities of the action plan, agreed to at the previous Annual Meeting; the outcomes of the NGAP Global Summit; and the status of the NGAP Working Group activities in support of the ICAO NGAP Programme. Additionally, the meeting discussed further activities and projects to be supported by the Working Groups, and reviewed the NGAP Programme organization.

2.2 The Chief of the Implementation Planning and Support Section for Safety highlighted some of the overall achievements of the NGAP Programme. The Chairs and Vice-Chairs of the Working Groups also provided briefings on their respective work completed since the last NGAP meeting held in December 2016. Presentations were provided by G.C.G.P Dabarera (Aviation Industry Jobs & Science, Technology, Engineering, Math Outreach Programme), Ms. Mary Nelson (implementation workshops), Ms. Rebecca Lutte (Aviation Outreach Model and Gap Analysis), GAT (ATED) and ANB (Outreach Best Practices Tool and NGAP On-Line Aviation Educational Awareness Tool). The presentations are available at: <https://www.icao.int/safety/ngap/Pages/NGAP-Programme-Meetings.aspx>.

2.3 In regards to the NGAP Global Summit, it was announced that this Summit is planned to be an annual event. Major outcomes of the NGAP Global Summit 2017 include:

- a) need for a global strategy for NGAP outreach and implementation that would help interested stakeholders to develop their own national and regional strategies;
- b) importance of collecting and sharing best practices that would provide guidance to States and industry for planning and implementing NGAP initiatives; and
- c) need for bridging the gap between industry, training and educational institutions in terms of research and collaboration. ICAO should explore the possibilities and modalities of providing a platform to set up a network of aviation universities.

2.4 GAT provided an overview of the beta version of the ATED, focusing on the educational institutions part which will be available to universities free of charge. It was suggested to add the possibility of incorporating start year/semester for each university, and also to rework the order of the academic degrees conferred. It was clarified that ICAO will not be responsible for the accuracy of the information provided, and a disclaimer will be added to the website accordingly. All the participants were provided with a link to access the website (<https://www4.icao.int/naims/Account/Login>); and asked to share their initial comments/feedback with ICAO by 15 December 2017. This will facilitate the soft launch of the website by the end of January 2018.

2.5 A brief overview of the beta version of Best Practices Tool was provided. A link to this form was shared with the participants (https://d-iasdex.icao.int/asiap/ngap_index.html) to provide their initial comments/feedback by 15 December 2017.

2.6 Rebecca Lutte from the University of Nebraska presented an overview of the Aviation Outreach Model and Gap Analysis which is designed to establish essential criteria for aviation outreach

activities, events, campaigns etc. and how to measure the outcomes. It was suggested that Ms. Lutte join the Strategies and Planning Working Group, as this Model can be incorporated into the Handbook and future guidance materials.

2.7 A proposed Basic Global On-Line Aviation Educational Awareness Tool was presented by ICAO on behalf of the Implementation Working Group as a possible future project. This tool will make secondary school students world-wide aware of all the different career opportunities available in civil aviation and could be included in the proposed NGAP application contribution and input from various stakeholders will be required for this project. It was clarified that a lead will need to be identified for this project, a project document prepared for review and approval, and that participants from all the Working Groups should be involved.

2.8 The Chief of the ICAO Aviation Data and Analysis Section provided a brief update on the new aviation personnel forecasts which could include a breakdown by gender in the future. He also advised of the development of a tool to assist States identify their aviation personnel gaps, thereby assisting them in helping to identify their training needs and build human capacity. This tool will be free to States and will be available by June 2018.

2.9 The Chief also advised of the Civil Aviation Management Programme that was being developed by ICAO in conjunction with several universities. A study was conducted by ICAO regarding the accreditation of aviation management programmes. It was agreed to share this study with the NGAP Programme Meeting participants and to have further discussions with the NGAP members from the Aviation Accreditation Board International (AABI), as well as other university representatives that were present at the meeting.

2.10 Dreams Soar is planning to start a new phase of outreach activities with more focused events in each region. The future flights will be joint, with local influential women in aviation, rather than solo flights. ICAO reaffirmed its full support of this initiative, especially through the Regional Offices. Dreams Soar will also launch a scholarship programme to help and inspire children interested in aviation.

2.11 The following conclusions also resulted from the meeting discussions with respect to the future activities and plans:

- a) ILO and ICAO to coordinate a teleconference in December to explore the possibilities for collaboration. ILO will join the Strategies and Planning Working Group;
- b) Strategies and Planning Working Group will continue its work on the Handbook. A review of the current content and material is needed as we move forward. Once the Handbook is ready, it may be developed into a Manual;
- c) Outreach Working Group will continue its activities. It was suggested that the newsletter cover all areas of the NGAP Programme instead of just outreach activities. All members were requested to share their NGAP related events/activities with the Outreach Working Group;
- d) Implementation Working Group will conduct their last workshop under the current cycle in Cairo in March 2018;

- e) There was an enquiry in regards to the possibilities of receiving data on women's participation rate in workshop/conferences, that will be further coordinated between ICAO Headquarters and Regional Offices;
- f) Sri Lanka will implement the NGAP Aviation Industry Jobs & Science, Technology, Engineering, Math (AIJ-STEM) Outreach Programme, which is planned for September 2018. ICAO offered support and others interested in the programme should contact Sri Lanka directly;
- g) It was suggested that an app be developed for the NGAP Programme. This would facilitate wider outreach and regular communication between the members. Following the suggestions of the meeting participants, ICAO will also explore the possibility of adding a mentoring aspect to this proposed app to provide ongoing mentorship to students and young professionals;
- h) Outreach Working Group, with support from ANB, will update the NGAP Programme Flyer, which will be added to the website as well as the app;
- i) GAT training events will include NGAP in their programmes. The NGAP team will continue to participate in WATS/SECA events;
- j) The Environment office of ICAO will become more active in NGAP;
- k) ANB will enhance the Regional Office NGAP focal points preparation for their regional coordination and outreach roles;
- l) ICAO will issue another State letter requesting NGAP voluntary contribution funds and secondment;
- m) ICAO is coordinating, with Beihang University, China, hosting of the next NGAP Global Summit, which is tentatively planned for the week of 3 to 7 December 2018 in China, to also include the annual NGAP Programme planning and coordination side meeting;
- n) The NGAP Programme Management Group will continue to hold quarterly teleconferences;
- o) The agreed Work Plan for 2018 is presented in Appendix E; and
- p) Working Groups were invited to continue their group discussions in the afternoon.

3. CONCLUSION

3.1 The Chief of the Implementation Planning and Support Section for Safety concluded the meeting by thanking all of the participants for their attendance, contributions and support to the ICAO NGAP Programme.

3.2 This meeting met its objective to update the NGAP Work Programme and to plan the direction for the future. The Working Groups will continue their ongoing and new projects. ICAO looks forward to continuing these activities with the support from its partners and contributing organizations and individuals.

3.3 The meeting concluded with congratulations expressed to Mary Nelson on her upcoming retirement. ICAO expressed appreciation for her contributions to NGAP Programme over the years, including her significant contribution as the Chair of the Implementation Working Group.

APPENDIX A
MEETING AGENDA

1. Approval of the agenda
2. Review of Action Plan from previous meeting
3. Review of the NGAP Global Summit outcomes
4. Review and update of future action plan
5. Review of NGAP Programme organization
6. Any other business
7. Next meeting and summit

APPENDIX B

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APPENDIX C

ICAO NGAP PROGRAMME

2017 PROGRESS REPORT

8th NGAP Meeting Report Reference	Action	Progress & Status	Comments
Para. 2.4 Item a)	NGAP Promotion	<ul style="list-style-type: none"> • NGAP Panels at ICAO Global and regional training symposia • NGAP papers presented at ICAO regional DGCA meetings • NGAP presentations at CATF, IPTA, ASPA events • Collaboration with IPTA • NGAP link in Dreams Soar Initiative • NGAP mentioned in Fundamentals of the Air Transport System (FATS) e-learning course • Various regional and national NGAP related initiatives 	
Para. 2.4 Item h)	Invite UNESCO and ILO to join NGAP	Completed. UNWOMEN and ITU also invited	
Para. 2.4 Item i)	Aviation Training and Education Directory	Beta version completed	To be launched in 2018
	Doc 9956 update	Revised personnel forecasts completed	Document to be published and tool to be launched in 2018
	NGAP secondee to ICAO	No proposals received	Re-issue vacancy notice in 2018
Para. 2.4 Item j)	NGAP meeting and symposium	Completed and Model ICAO Forum also held	Summit is planned to be annual
Para. 2.4 Item k)	NGAP management group quarterly teleconferences	Not completed due to scheduling challenges	To be discussed during meeting
Para. 2.4 Item c) and App C - Implementation WG	Deliver regional ATCO & ATSEP CBT workshops	Completed in Dakar, Bangkok, Nairobi and Luxembourg	Last workshop to be delivered in Cairo in March 2018
App D – Outreach WG – C1	Issue Outreach Newsletters	Completed and ongoing	
	Administer Facebook	Transferred to IPTA	

8th NGAP Meeting Report Reference	Action	Progress & Status	Comments
	Update Flyer	Pending	To be discussed during meeting whether required
App D – Outreach WG – C2	ICAO Training Report	Completed and ongoing	
App D – Outreach WG – C3	Administer & update web site	Completed and ongoing	
	Best practices tool	Pending	To be implemented in 2018
	NGAP video	Completed for Summit	
App D – Outreach WG – E1	AABI meeting	Completed	
App D – Outreach WG – E2	SECA event at WATS	SECA event cancelled NGAP side meeting held	Plan for 2018
App E – Strategies & Planning WG	NGAP guidance	Ongoing but needs best practices information and author contributions	Handbook to be published in 2018 once best practices collected through new tool

APPENDIX D

ICAO NEXT GENERATION OF AVIATION PROFESSIONALS (NGAP) GLOBAL SUMMIT ICAO Headquarters, Montréal, Canada, 27 – 28 November 2017

COMMUNIQUÉ

The International Civil Aviation Organization (ICAO) convened the ICAO inaugural Next Generation of Aviation Professionals (NGAP) Global Summit, from 27 to 28 November 2017 in Montréal, Canada. The NGAP Global Summit was attended by over 500 participants representing ICAO Member States, international organizations, education institutions, training centres, students and industry.

NGAP Global Summit participants came together to:

- *intensify* awareness regarding the forecast shortage of aviation professionals and encourage Civil Aviation Authorities to communicate and cooperate with government education bodies and industry to promote aviation as a profession;
- *promote* cooperation and coordination for the development of ICAO NGAP guidelines for use by all aviation stakeholders (i.e. Civil Aviation Authorities, government education authorities, industry, international organizations, education institutions and training centres);
- *facilitate* the exchange of knowledge, ideas, best practices and experiences regarding NGAP related strategies and activities amongst States, industry, international organizations, education institutions and training centres;
- *encourage* collaboration between States and the aviation industry to identify long-term human resource needs and establish strategies to attract, educate and retain aviation professionals, considering gender equality and the importance of the 2030 Agenda for Sustainable Development and that NGAP is closely linked to Sustainable Development Goals (SDGs);
- *promote* Science, Technology, Engineering and Math (STEM) education to youth to provide the next generation with the necessary foundation to embark on careers in aviation; and
- *urge* States and the aviation industry to collaborate on programmes and projects aimed at promoting aviation careers to young girls and women with the objective of enhancing the participation of women in all aspects of the aviation sector.

Mindful of these points, NGAP Global Summit participants:

- 1) *Reiterated* the importance of Assembly Resolutions A39-29: *Next Generation of Aviation of Professionals* and A39-30: *ICAO Gender Equality Programme promoting the participation of women in the global aviation sector*, as well as A39-25: *Aviation's contribution towards the United Nations 2030 Agenda for Sustainable Development*, and *welcomed* the commitments by States to implement them.
- 2) *Recognized* the importance to establish effective dialogue with government education bodies and the aviation sector to develop strategies for promoting aviation and STEM education, as well as the need to develop competent aviation professionals and retain them within States.
- 3) *Supported* the need for facilitating communication and collaboration between States and industry to develop NGAP strategies for engaging and cultivating the next generation of aviation professionals, as well as sharing best practices.

4) *Supported* the need of ICAO to collaborate with education and research institutions for the development of guidance and tools to enable States to determine their future needs and to develop strategies to engage the next generation of aviation professionals.

5) *Recognized* that human and institutional capacity development should address the specific needs and conditions of States/regions, especially for States in special situations, reflecting their national development strategies and priorities, and including the next generation of aviation professionals.

6) *Recognized* the need to establish a dedicated and comprehensive network which includes the many education institutions globally with aviation programmes in partnership with ICAO. The network of education institutions would aim to collaboratively develop initiatives to attract and prepare NGAP, as well as play a leading role to create, publish, distribute, and promote educational programmes serving the needs of NGAP. The network should explore opportunities for ICAO to recognize educational institutions.

7) *Recognized* the importance to develop partnership between ICAO, education and research institutions and industry to develop solutions to current and future global aviation challenges by conducting relevant research to support aviation planning and development.

8) *Welcomed* the commitment by States to foster partnerships with relevant stakeholders within the aviation industry and education institutions with the aim of identifying long-term human resources needs and establishing strategies to attract, educate and retain in the sector aviation professionals, considering the need to enhance gender equality within the global aviation community.

9) *Supported* the need to promote best practices that focus on meeting the needs and values of the next generation of aviation professionals to enable employee productivity, performance, recruitment, retention, health and safety.

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APPENDIX E

ICAO NGAP PROGRAMME

2018 WORK PLAN

Project	Lead Responsibility	Planned Completion Schedule	Next Actions/Remarks
NGAP web site	ICAO ANB	Ongoing	
NGAP Newsletter	Suzanne/ Victoria	Quarterly	To cover all NGAP, not just Outreach; all working groups to provide input
NGAP Articles for the ICAO Training Report	Suzanne/Lori	Bi-annually	NGAP articles to be included in each edition of training report
NGAP Flyer	Suzanne	March 2018	Updated PDF version on web site and App
ATCO/ATSEP CBT Workshop	ICAO ANB/RO	Cairo, 5 – 7 March 2018	
Aviation Training & Education Directory	ICAO GAT	End January 2018	Will be free for universities. Comments from NGAP Programme meeting participants to be sent to ICAO ANB by 15 Dec 2017
Outreach Best Practices Tool	ICAO ANB	March 2018	Include fields for information on other diversity groupings. Comments from NGAP Programme meeting participants to be sent to ICAO ANB by 15 December 2017
WATS/SECA	Lynne/Lori	Orlando, 17-19 Apr 2018	ICAO to provide support
NGAP App for Smartphones	ICAO ANB	June 2018 (beta version)	
NGAP Mentors	Lori/Suzanne	June 2018	Initial list of mentors to be taken from NGAP Global Summit and contacted; to be placed on App
Personnel Forecasts Publication	ICAO ATB	June 2018	Consider gender forecasts in the future update
Personnel Forecasting Tool	ICAO ATB	June 2018	Will be free for States
NGAP Strategy and Guidance Handbook	Diana	June 2018	
NGAP Aviation Industry Jobs & Science, Technology, Engineering, Math (AIJ-STEM) Outreach Programme	Mr. Dabarera	September 2018	
NGAP Summit	ICAO ANB	China, 3 – 7 December 2018	Confirm city and dates; draft programme and side events
NGAP Programme Meeting	ICAO ANB	China, December 2018	Follow-up 2018 work plan actions
GAT Global and Regional Symposia	ICAO GAT	TBA	NGAP Panel to be included in every programme
NGAP online workshop tool on aviation professions for high school students	Mary/Herman	TBD	To be placed on app. Develop project document with objectives, activities, deliverables, schedule, resources and budget for approval by ICAO ANB
Dreams Soar Initiative Regional Outreach for STEM and NGAP and raise funds for scholarships	Shaesta Waiz	TBD	To involve ICAO Regional Offices which can provide support. Initial coordination with ICAO ANB.

— END —