



International Civil Aviation Organization

WORKING PAPER

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ASSEMBLY — 39TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 31: Other high-level policy issues to be considered by the Executive Committee

THE ICAO NEXT GENERATION OF AVIATION PROFESSIONALS (NGAP) PROGRAMME

(Presented by the Council of ICAO)

EXECUTIVE SUMMARY

The ICAO Next Generation of Aviation Professionals (NGAP) Initiative was launched to help ensure that enough qualified and competent aviation professionals are available to operate, manage and maintain the future international air transport system. This is especially critical as a large contingent of the current generation of aviation professionals will retire, access to affordable training and education is increasingly challenging, and aviation competes with other industry sectors for attracting highly skilled professionals. With the elevation of the initiative to an ICAO Programme, support from States, international organizations, industry and academia is essential to the programme's success.

Action: The Assembly is invited to:

- note the developments of ICAO NGAP Programme;
- encourage States, international organizations, industry, academia and the TRAINAIR PLUS Programme (TPP) network to participate and support ICAO by providing resources (human, financial and data) to support the NGAP Programme;
- instruct the Secretary General to update the *Global and Regional 20-year Forecasts* (Doc 9956), considering gender equality, and make the document easily accessible to all; and
- adopt the Assembly Resolution proposed in the appendix to this paper.

<i>Strategic Objectives:</i>	This working paper relates to all the Strategic Objectives.
<i>Financial implications:</i>	The activities referred to in this paper will be undertaken within the resources available in the 2017-2019 Regular Programme Budget supplemented by extra budgetary contributions.
<i>References:</i>	A39-WP/62 Doc 10022, <i>Assembly Resolutions in Force</i> (as of 4 October 2013) Doc 9868, <i>Procedures for Air Navigation Services — Training</i> (PANS-TRG) Doc 9956, <i>Global and Regional 20-year Forecasts</i>

1. BACKGROUND

1.1 Since 2009, under the Next Generation of Aviation Professionals (NGAP) initiative, ICAO has been working with key stakeholders to address the forecasted shortage of aviation professionals. NGAP was launched to help ensure that enough qualified and competent aviation professionals are available to operate, manage and maintain the future international air transport system. This is critical as a large contingent of the current generation of aviation professionals will retire, access to affordable education and training is increasingly challenging, and aviation competes with other industry sectors for highly skilled professionals. The lack of harmonized competencies in some aviation disciplines and a lack of awareness by the “next generation” of the types of aviation jobs available further compound the problem.

1.2 The ICAO NGAP initiative addresses some key factors for the long-term successful implementation of ICAO’s Global Aviation Safety Plan (GASP) and Global Air Navigation Plan (GANP) as the industry responds to air transport passenger and total flight growth. As indicated in ICAO Doc 9956, *Global and Regional 20-year Forecasts*, during the next twenty years, passenger aircraft is expected to have an average annual growth of 3.1 per cent. It will be necessary to increase the pilot population from 463 386 (2010) to 1 214 006 (2030) and maintenance personnel from 580 929 (2010) to 1 164 969 (2030) in order to sustain this increase in aircraft.¹

1.3 ICAO is working with States, international organizations, industry and academia to create greater awareness of the impending shortages of personnel, promote gender equality in aviation and assist the global aviation community in attracting, educating and retaining the next generation of aviation professionals. Since the inception of the initiative, support has been provided by voluntary contributors with varied subject matter experience that provide assistance and support to ICAO in order to implement an agreed work programme.

1.4 Due to the importance of the NGAP initiative, ICAO has determined that it is necessary to provide greater support to this work and, as a result, has elevated the NGAP initiative to an ICAO Programme. The ICAO NGAP Programme has been incorporated into the ICAO Business Plan and Global Plans.

2. DISCUSSION

2.1 Second NGAP Symposium

2.1.1 The second NGAP Symposium was held from 3 to 4 December 2014 at ICAO Headquarters in Montréal, Canada and was attended by over 300 participants from civil aviation authorities, industry, international organizations and educational institutions. The objectives of the Symposium were to:

- a) review the lessons learned from the NGAP initiative since its establishment in 2009 (Phase I);
- b) establish partnerships with stakeholders to support NGAP activities; and
- c) identify a work programme for the future in partnership with stakeholders to support NGAP initiatives (Phase II).

¹ ICAO Doc 9956 *Global and Regional 20-year Forecasts*

2.1.2 The symposium provided an opportunity to launch Phase II of the NGAP initiative, including the introduction of several new activities. In this phase, the NGAP initiative will roll-out new provisions to support implementation of competency-based training for air traffic controllers (ATCOs) and air traffic safety electronics personnel (ATSEPs) with guidance manuals and regional workshops, as well as create tools to support States to implement human resources best practices.

2.2 The NGAP Programme

2.2.1 In acknowledgment of the benefits of the NGAP initiative to the aviation community and the need for NGAP to continue to be supported and strengthened by ICAO, States and industry, the initiative has been formalized as an ICAO Programme and NGAP objectives and targets have been incorporated into the ICAO Business Plan and Global Plans. Furthermore, the proposed new Assembly Resolution (attached), complements and expands on continuing Resolution A38-12, Appendix D with reference to qualified and competent aviation professionals.

2.2.2 The ICAO NGAP Programme will support various outreach efforts, with a particular focus on awareness activities including the gathering and promoting of best practices from around the world for engaging the next generation. Some key initiatives include garnering support for the Dreams Soar solo flight around the world to promote science, technology, engineering and mathematics (STEM); outreach activities in several States (e.g. Cameroon, Singapore and Sri Lanka); an Aviation Discovery Programme for Africa; 2016 Civil Aviation Week in Montréal; as well as various communications plans and strategies. ICAO, with its partners Airports Council International (ACI) and the International Air Transport Association (IATA), are providing opportunities for young aviation professionals to gain work experience at the three organizations through the Young Aviation Professionals Programme (YAPP). Due consideration is given during the selection process to gender and geographic diversity.

2.2.3 It should be noted that, independently of the work undertaken through the NGAP Programme, the *Procedures for Air Navigation Services — Training* (PANS-TRG, Doc 9868) has been amended to accommodate the introduction of competency frameworks for other aviation disciplines related to safety and efficiency. In addition, in support of discussions at the 38th Session of the Assembly under Agenda Item 30, as part of the CAA Human Resources (HR) Tool initiative, a civil aviation safety inspector manual is under development and will include guidance concerning inspector competencies.

2.3 NGAP Programme Way Forward

2.3.1 With the elevation of NGAP to an ICAO Programme, ICAO is working closely with its Regional Offices and key partners on future work and deliverables of the Programme. Continued support by States, international organizations, industry and academia, in the form of human and financial resources, as well as data, is essential to the Programme's continued success.

2.3.2 The NGAP Programme will help achieve the following objectives:

- a) establishment of a global forum to communicate and assist States and industry stakeholders in identifying their long-term human resources needs and establishing strategies to attract, educate and retain aviation professionals; and
- b) assistance to States and industry by providing guidance and tools for engaging the next generation and promoting aviation amongst youth as a viable career.

2.3.3 In order for the NGAP Programme to be successful in achieving these goals, greater participation, cooperation and support from States, international organizations, industry and academia is required. It is necessary to continue raising awareness of the importance of effective human resources planning, and development, as well as gender equality in order to ensure sufficient numbers of skilled aviation professionals are available to meet projected future needs to support aviation growth and development.

3. CONCLUSION

3.1 ICAO continues to work with stakeholders to create greater awareness of the impending shortages of personnel, and assist the global aviation community in attracting, educating and retaining the next generation of aviation professionals. Furthermore, ICAO is promoting the use of competency-based training methods through the development of training manuals for ATCOs, ATSEPs and in the future for other categories of aviation professionals as well as developing workshops to assist with implementation of these methods.

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APPENDIX

DRAFT ASSEMBLY RESOLUTION FOR ADOPTION ON THE 39TH SESSION OF THE ASSEMBLY

Resolution 31/xx: Next Generation of Aviation Professionals

Recognizing that aviation is a growing industry that is critical for promoting global connectivity while supporting economic development and growth around the world;

Recognizing that in order to support growing aviation needs and ensure the safe and efficient operation of the air transportation system, qualified and competent aviation professionals, as well as a diverse aviation workforce, are required;

Considering that, to meet current and future human resources needs, it is important for States and industry to engage the next generation of aviation professionals;

Noting that partnerships between government, regional organizations, industry and educational organizations are important to attracting, educating and retaining the next generation of aviation professionals, considering gender equality;

The Assembly:

1. *Urges* Member States to work with the aviation community to identify long-term human resources needs and establish strategies to attract, educate and retain in the sector aviation professionals, considering gender equality;
2. *Encourages* Civil Aviation Authorities to communicate and cooperate with government education and labour bodies, the TRAINAIR PLUS Programme (TPP) network and the aviation industry to develop strategies for promoting aviation and developing competent aviation professionals and retaining them within States;
3. *Encourages* Member States to facilitate, through internationally agreed upon guidance and assessment practices for mutual recognition of qualifications and licenses, administrative procedures to allow for the free flow of professionals across borders;
4. *Instructs* the Council to ensure a continued leadership role for ICAO, in facilitating communication and collaboration with States and industry to support the development of forecasts, strategies, sharing of best practices, planning tools, and guidelines for engaging and cultivating the next generation of aviation professionals;
5. *Encourages* Member States 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, and safety; and
6. *Encourages* Member States, international and regional organizations, academia and industry to support the NGAP Programme, as one of the integral elements of capacity building, by providing technical expertise and guidance, and resources (human, financial and data) to help achieve the Programme's objectives.

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