



WORKING PAPER

COUNCIL — SPECIAL MODEL SESSION

Subject No. XX: Challenges and best practices in attracting the next generation of aviation professionals

**THE REPUBLIC OF KOREA'S
NEXT-GEN AVIATION LEADER DEVELOPMENT AID PROJECT**

(Presented by the Republic of Korea)

EXECUTIVE SUMMARY

The aviation industry has been facing drastic changes of advanced technology and new aircraft. At the same time, the attention was drawn to how to obtain qualified and competent 'human resource' who will secure the safety of future traffic. Most of all, among aviation personnel, the pilot has the most responsibilities on safe operation of flight and lives of passengers.

This paper presents some of the issues and challenges that why people hesitate to become a pilot even though there is high demand in the market. Also the paper introduces the Republic of Korea's (ROK) 'Next-gen Aviation Leader Development Aid Project' (NALDA Project), specifically on training new pilots. This project shows how the close cooperation between government, airport authority and stakeholders can contribute to the aviation industry.

Action: *The Council is invited to:*

- a) note the information contained in this paper; and*
- b) urge Member States to put an effort with the stakeholders involved to establish and implement national initiatives to attract next generation of aviation professionals and share the best practices with ICAO and other Member States.*

<i>Financial implications:</i>	Not applicable
<i>References:</i>	Doc 9750, Global Air Navigation Plan

1. INTRODUCTION

1.1 Today, the global aviation transportation contributes \$USD 2.4 trillion to the global economy with the safest and fastest among all transportation. However, because aircraft carry millions of passengers and cargo, the aircraft accident causes a fatality or serious injury, and also substantial damage to the aircraft. Moreover, the numerous studies found that most of aircraft accidents are caused by human error.

1.2 International Civil Aviation Organization (ICAO) expects the global air traffic will be double in next 15 years, and the total passenger numbers are expected to rise to 3.91 billion by 2017. To secure the safety of increasing traffic, it is crucial to secure the qualified and competent ‘human resource’ who will operate, manage and maintain the future international air transport system. Accordingly, the Boeing 2013 outlook indicates that by 2032 the world will require 498,000 new pilots and 556,000 new maintenance personnel. Although, there is a high demand for the future aviation personnel, the concerns lead to the lack of current training facilities and capabilities, and how to ease the burden of trainee who hesitates to afford the money and time, which is much larger and longer than any other jobs in the market, to become aviation personnel.

2. ISSUES AND CHALLENGES

2.1 The aviation industry has been experiencing drastic changes of advanced technology and new aircraft, and this increased the reliance on computerised flight control and aircraft management system for the safety of aircraft. Above all, it is the ‘human’ who controls, monitors and handles any abnormal operation of the system. Especially among aviation personnel, the pilot has the most responsibilities on controlling, monitoring and handling the abnormal situations.

2.2 According to the Annex 2 to the Chicago Convention, the pilot of an aircraft has the responsibility for the operation of the aircraft in accordance with the rules of air. More than any other job in the airline industry, the pilot is responsible for the very lives of passengers. In consequence, the pilot is required to meet and absorb high degree of knowledge, skills and experience to provide safe and efficient operation of the aircraft. In other words, becoming a pilot is a time and money consuming process. However, success of becoming a pilot is not necessarily proportional to amount of one’s effort put into the time and money.

2.3 ICAO expects that with the current training facilities and capabilities existing around the globe, the world will require approximately 25,000 new pilots annually which will lead to create more than five hundred thousand new jobs worldwide. Even though there is high number of demand in the market, new generations hesitate to be the one due to a time and money consuming process.

2.4 Furthermore, the lack of training facilities and capacities all around the world, to deliver globally standardized, harmonized and specialized curriculum and produce certified and qualified pilot is one of the additional factor that brings the shortage of pilots in aviation market. And access to the right facility with right curriculum is another challenge. Also, to build, set up equipments, maintain and operate aviation training facilities will cost a tremendous amount and require long period of time.

3. THE REPUBLIC OF KOREA’S NALDA PROJECT

3.1 General

3.1.1 To solve these issues and challenges, the Republic of Korea (ROK) has established and implemented a ‘Next-gen Aviation Leader Development Aid Project’ (NALDA Project) since 2009. The NALDA Project was initiated by the Korea Office of Civil Aviation (KOCA) to provide wider opportunities to attract new skilled manpower in national aviation industry and also to ease the burden of expense that the trainee has to spend to become well qualified aviation personnel.

3.1.2 The NALDA Project is composed of four parties as follows:

- a) KOCA: overall management of the project and provides budget in operating and managing the project
- b) Project Parent Entity : selection and management the training facilities and contract organizations, and overall management of budget and administrative work
- c) Training facilities and Contract Organizations: establishment and provision of curriculum to the internally selected students for this project
- d) Steering Committee : composition of experts and professionals in aviation industry to evaluate the performance and plan for next year submitted by the training facilities and contract organizations

3.1.3 The project has four programs focusing on new manpower development as pilot, space technology/international aviation expert, master and/or doctor's degree course in aviation and maintenance personnel/technician. The training facilities and contract organizations are selected by public contest.

3.2 **Training New Pilots**

3.2.1 One of the main objectives of the project is to train new pilots to meet the upcoming demand. The KOCA analysed that 348 new pilots are required annually for the airlines in ROK. To reinforce new pilots into the domestic market, the Project Parent Entity designates flight schools to provide training curriculum, the KOCA provides the right to use of low-density traffic airport exclusively for pilot training purposes and training facilities, the Airport Authority runs and manages the airport, and the local government provides a dormitory for trainee and relative staff. This system drove win-win situation for all the parties involved, and the close cooperation between parties provides best learning environment for the trainees.

3.2.2 Selected flight schools provide one-year curriculum. And when the trainee completes the training successfully, the trainee will have total 250 flight hours with commercial pilot license and ready to work as pilot in the market. The budget is normally used for oil expenses, purchasing aircraft components, instructor costs, etc., which has \$ 10,000 of supporting effect for each trainee. In addition, the program also provides opportunity of internship in aviation industry as pilot.

3.2.3 As a result, 71.7% of trainees in this program from 2009 to 2013 have successfully recruited as a pilot in the domestic market.

4. **CONCLUSION**

4.1 Planning future human resource cannot be done in isolation, and once it is established, it needs a long period of time to get finally implemented and settled. It may not be so difficult to plan and discuss tomorrow's human resource. However, producing one set of concrete conclusion derived from the active cooperation, collaboration and communication between the government, airlines and industries is essential. Moreover, it is inevitable that gathering the experiences and lessons learned from Member States should be shared at a regional and global level to create better environment that will allow the next generation to lead in the development of aviation's future.

5. **ACTION**

5.1 The Council is invited to

- a) note the information contained in this paper; and
- b) encourage Member States to put an effort with the stakeholders involved to establish and implement national initiatives to attract next generation of aviation professionals and share the best practices with ICAO and other Member States.