



WORKING PAPER

COUNCIL – SPECIAL MODEL SESSION

Subject No. XX: Challenges relating to the projected shortages of skilled aviation personnel

(Presented by Japan)

EXECUTIVE SUMMARY

Current statistical forecasts demonstrate that aviation will exponentially grow throughout the next 20 years. Studies also show that parallel to this, there will be a significant shortage of young aviation professionals. Enhancing global labour mobility and strengthening the brand image of aviation professionals will help attract young generations to this field.

Action: The Council is invited to:

- a) request the ICAO Secretariat to develop a policy for a Bilateral Aviation Safety Agreement (BASA) scheme, so as to ultimately facilitate international recognition of aviation licenses and thereby enhance global mobility of next-generation aviation professionals.
- b) endorse the development of more robust action plans for technical and training assistance to States, with a view to promoting international recognition of licenses and therefore global mobility
- c) prioritize engagement in commercial space transportation with a view to enhancing the brand image of aviation professionals

<i>Financial implications:</i>	The proposed activities can be carried by using ICAO's regular budget
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<i>References:</i>	Doc 9956, <i>Global and Regional 20-year Forecasts</i> <i>Air Navigation Report 2014 Edition</i>
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1. INTRODUCTION

1.1 One hundred years following the first flight by the Wright brothers, it is remarkable that presently there are 100,000 flights daily. In 2013 alone, there were 33 million aircraft departures, which carried 3.1 billion passengers in total around the world. According to the 2014 *Air Navigation Report*, it is estimated that by 2030, those numbers will nearly double.

1.2 Due to technological innovation, flying around the world has become easier and faster. Yet, it is predicted that as this growth is takes place, there will be a significant shortage of young aviation professionals.

2. BACKGROUND

2.1 In the past, the aviation industry was considered a respectable and thrilling occupation. Pilots in particular were given high wages and were the center of attention. This does not seem to be the case today. Unfortunately, many distinguished individuals aim to become doctors and lawyers instead of pilots.

2.2 This is one component which has led to a shortage of young aviation workers. In terms of pilots, experts estimate that the world will need more than twice the number of current pilots by 2030 due to international demand. In the Asia-Pacific region specifically, by 2030, approximately 4.5 times the number of current pilots will be required. In other words, there will be a shortage of 9,000 pilots per year if the shortage continues. The training of new pilots is crucial. However, in many cases, training requirements exceed training capacities.

2.3 Amongst the pilot population, most pilots come from North America, which represents 63% of the pilot population. The next largest population belongs to Europe, which is only 18%. Furthermore, only 2% belongs to the Middle East, followed by 1% from Africa. Such low representation from developing nations should call for significant concern.

2.4 As for aircraft maintenance personnel, there is an estimated shortage of 584,000 people projected for 2030. The number of maintenance personnel must be twice as much as the today's number. Europe, Latin America, and the Middle East in particular must increase their maintenance personnel population by a factor of 3.9 to keep up with global demand. Except for North America, all regions will experience maintenance personnel shortages in 2030.

2.5 It is worth mentioning that there will be a surplus of both pilot and maintenance personal population in North America, while other regions will suffer the significant shortage, in accordance with *Global and Regional 20-year Forecasts* (Doc 9956). Due to today's maintenance personnel and pilot population and high training capacities, North America is expected to have an annual surplus of aviation workers.

3. CONSIDERATION OF ISSUES

The development of global labour mobility and brand image of aviation professionals will help attract young aviation professionals.

3.1 Enhanced global mobility

3.1.1 Global mobility will provide excellent opportunities for young generations to find aviation-related professional jobs across the global market. Through mobility, the surplus of aviation professionals belonging to some regions may become available in regions experiencing shortages. Such opportunities may also increase the number of young professionals worldwide who view aviation as a prospective career. This especially applies to young generations in not only North America but also developing countries.

3.1.2 Global mobility may be facilitated through more efficient international recognition of aviation licenses. A major way in which license recognition can become more efficient is through improvements to policies pertaining to Bilateral Aviation Safety Agreements (BASAs).

3.1.3 With BASAs, the only requirement for transferring licenses is usually the completion of paper exams. The completion of practical exams is not usually required. Thus, the initiative by States to sign BASAs will promote young aviation workers in pursuing work opportunities not only in their own country but also globally.

3.1.4 There are several elements which hinder the creation of BASAs. For example, States are conservative in terms of opening their labour markets. As more deep concerns, developed states may hesitate to conclude BASAs with developing states since the formers are skeptical about the aviation technical capacity of the latters. In addition, there is a lack of international policies needed for the facilitation of BASAs between States. Therefore, ICAO can play a significant role in addressing this issue through the development of such policies.

3.2 Commercial space transportation

3.2.1 Brand image plays a fundamental role in attracting young professionals to the field of aviation. Developments in commercial space transportation may be key in enhancing this brand image.

3.2.2 Young generations are particularly drawn to commercial space travel since it is an emerging field and since it represents the forefront of technology. It also provides a channel for innovation – prospective professionals may be attracted to the development of commercial space transportation systems. Young generations, including current as well as prospective pilots and engineers, have fresh ideas and are eager to leave their footprint in a new and rapidly-evolving area of aerospace.

3.2.3 These factors suggest that commercial space transportation may lend a renewed sense of opportunity and distinction to aviation-related professions. ICAO should therefore dedicate higher priority to this domain, through stronger efforts to establish its regulatory framework or through initiatives involving increased dialogue and research.

4. FINANCIAL IMPLICATIONS

4.1 ICAO can use its regular budget to devise policies for BASAs and to take action to improve technical and training assistance to developing nations.

4.2 ICAO may also use its regular budget for the development of initiatives to further engage in commercial space transportation.

5. ACTION

5.1 The ICAO Council should request the Secretariat to develop a policy for a BASA scheme. BASAs largely facilitate international recognition of aviation licenses and therefore, enhance global mobility of next-generation aviation professionals.

5.2 In addition, the ICAO Council should consider technical and training support for developing countries so that the license obtained in developing countries is equal to that of the one obtained in developed countries. This will facilitate developed countries and developing countries to sign BASA.

5.3 It is requested of the ICAO council to prioritize engagement in commercial space transportation with a view to enhancing the brand image of aviation professionals.

6. CONCLUSION

The forecasted decline of aviation professionals has prompted ICAO and the aviation industry to take several initiatives to attract young minds to the field. As part of this effort, the ICAO Council should focus on BASAs as well as technical and training support to developing States, which will largely facilitate international recognition of aviation licenses and therefore enhance global mobility of next-generation aviation professionals. The domain of commercial space travel is an innovative aspect of the aviation industry. The ICAO Council should focus on commercial space transportation in order to improve the brand image of aviation professionals and attract young generations in the aviation world.