

## **Ageing of Aviation Personnel, Elderly Air Travelers in Indonesia and Other Countries**

**Ariawan Gunadi,<sup>1</sup> Farhana,<sup>2</sup> Martono K.<sup>3</sup>**

*Corresponding Author: Ariawan Gunadi*

**ABSTRACT:** This article purported to explore ageing of aviation personnel, elderly air travelers in Indonesia and other countries. It is consist of six items such as legal ground of human rights and elderly peoples includes Act no.39 Year 1999, Act No.13 Year 1998, high light of Act No.39 Year 1999, national action on ageing, policies and programs, extends retirement age in Indonesia; legal ground of aviation activities includes historical background, the philosophy and high light of civil aviation; regulation of elderly's and discount elderly passenger, sick and disable passengers; ageing on aviation personnel includes ageing of PIC in China, Indonesia, private pilot license and student pilot in Indonesia, ageing of PIC in Japan, Malaysia, Pakistan, the Philippines, Singapore, the USA, consideration to increase the pilot retirement and ageing of aviation mechanics; traveling of the ageing travelers from their home to airport terminal, entrance terminal, security check-point, gate to gate, arrival gate, terminal exit and leaving the airport; air ageing in Indonesia and Malaysia, finally conclusion and recommendation.

**KEY-WORDS:** ageing of aviation personnel, PIC, elderly travelers and aircraft's ageing

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### **I. INTRODUCTION**

The successful economic growth of the Republic of Indonesia (ROI) has contributed to the rise in life expectancy of the Indonesian population in recent years. In the light of the increasing and expected increase of the elderly in Indonesia, the Government of the ROI is strongly committed to promote the welfare and to protect the human rights of the elderly as part of the implementation of Pancasila, the five philosophical principles of the Indonesian State, especially, the principle to ensure full realization of social justice for all the peoples of Indonesian citizens.<sup>4</sup>

The share of the elderly population, both in number and percentage of the total population in Indonesia has been increasing. In 1970, the number of elderly people was 5.3 million or around 4.5% of the total population in Indonesia. Since then, the number of elderly people has been increasing. In 1990 there were 12.7 million, in 2000, 14.4 million, in 2005, 16.8 million, and in 2008, 19.5 million. In 2020, the number is predicted to reach 28.8 million or around 11.34% of the population. At the same time, the prosperity of the Indonesian population was improving gradually as indicated by rising human development index (HDI) of Indonesia. The

<sup>1</sup>. Dr Ariawan Gunadi S.H., M.H.,(Tarumanagara University), a senior lecturer at Universitas Tarumanagara, PhD cum laude (University of Indonesia) is a lecturer at the Law Faculty of Tarumanagara University and a legal consultant specialist in, among other topics, International Law, International Trade Law, International Business Transactions, and International Relations. He is a member of the Board of Executive and Legal Head of the Tarumanagara Foundation

<sup>2</sup> Dr Farhana S.II.,M.H.,(Islamic University of Jakarta), currently the Law Faculty Dean at Islamic University of Jakarta.

<sup>3</sup> Prof.Dr.H.K.Martono, S.H.(Indonesian University),LL.M (Mc Gill), PhD (Diponegoro University) Previously served as the chief of the legal division of the Directorate General of Civil Aviation, at Indonesia's Ministry of Communications. He has written extensively about aviation law and regulations in Indonesia and was the parliamentary resource person for when Indonesia was drafting the Civil Aviation Act of 2009.Prof.Dr.H.K.Martono serves as lecturer at the University of Tarumanagara (UNTAR), the Islamic University of Jakarta (UID) and Suryadarma University (UNSUR).

<sup>4</sup> Information on the Implementation of General Assembly Resolution 65/182 Entitled "Follow-up to the Second World Assembly on Ageing" in Indonesia. [www.indonesianmission-ny.org](http://www.indonesianmission-ny.org) email : [ptri@indonesianmission-ny.org](mailto:ptri@indonesianmission-ny.org)

life expectancy of the Indonesian population is currently approaching 70.7 years old.<sup>5</sup> The rise in life expectancy in Indonesia also has a significant role related to aviation/air transportation's activities, taking into account that aviation/air transportation's activities could not be separately with aviation/air transportation's personnel in Indonesia and others' countries.

## **II. RESEARCH METHOD**

The search for this paper relied on normative juridical practices with normative legal research methods, including reviewing and analyzing the legal material and legal issues related to ageing of aviation personnel, elderly air travelers in Indonesia and other countries. In this research, the results are formulated into recommendations about what needs to be done to resolve the issues. The sources of legal materials used in this research consisted of primary, secondary, and tertiary legal material. The primary materials are authoritative legal materials, meaning that such materials have the authority (namely laws) of official records. Laws used as the primary legal materials are the Chicago Convention of 1944,<sup>6</sup> the constitutional of the Republic of Indonesia of 1945, Act No.39 Year 1999,<sup>7</sup> Act No. 13 Year 1998,<sup>8</sup> Tokyo Convention of 1963,<sup>9</sup> Act No.83 Year 1958,<sup>10</sup> Act No.1 Year 1967,<sup>11</sup> Act No.1 Year 2009,<sup>12</sup> including its implementation regulations. Secondary sources are overall publications addressing the law and regulations that are not official documents but related to the subject matter. Such publications include textbooks, theses, and law-related dissertations. The tertiary materials used in this research are legal dictionaries, comments on court decisions, and the opinions of legal experts published via journals, magazines, or other media.

## **III. DISCUSSION AND THE RESULT**

### **1. Legal Ground of Human Rights and Elderly Peoples**

#### **a. Act No.39 Year 1999.**

According to Act No.39 Year 1999,<sup>13</sup> human right, as being creations of God Almighty charged with the task of managing and protecting the universe, with total devotion to and responsibility for the welfare of humanity, being His creation are bestowed with basic rights to guarantee their human dignity and worth, and harmony with their environment. Human rights are basic rights bestowed by God on human beings, are universal and eternal in nature, and for that reason, human rights must be protected, respected and upheld, and may not be disregarded, diminished, or appropriated by anyone whosoever. Additionally, human rights also have a basic obligation to one another and to society as a whole, with regard to society, nation and state. As a member of the United Nations (UN), Indonesia has a moral and legal responsibility to respect, execute, and uphold the Universal Declaration of Human Rights (UDHR) promulgated by the UN and several other international instruments concerning human rights, for that reason Indonesia to issue an Act No.39 Year 1999.

#### **b. Act Number 13 Year 1998**

For the purpose to promote and protect the human rights of elderly people, the government of the ROI adopted several various laws, regulations such as Act Number 13 Year 1998,<sup>14</sup> Government Regulation No.43 Year

<sup>5</sup>. Information on the Implementation of General Assembly Resolution 65/182 Entitled "Follow-up to the Second World Assembly on Ageing" in Indonesia. [www.indonesianmission-ny.org](http://www.indonesianmission-ny.org) email : [ptri@indonesiamission-ny.org](mailto:ptri@indonesiamission-ny.org)

<sup>6</sup>. *Convention on International Civil Aviation*, signed at Chicago on 7 December 1944; For the Text see Dempsey P.S.,(2005) Vol. XXX-Part I Ann of Air & Sp.L. at 19-51; Milde M., (1993) Vol. XVIII- Part II Ann of Air & Sp.L. at 5-77.

<sup>7</sup>. Act *Concerning Human Rights*. Act No.39 Year 1999. State Gazette of the Republic of Indonesia No.165 Year 1999

<sup>8</sup>. Act *Concerning Human Rights*. Act No.39 Year 1999. State Gazette of the Republic of Indonesia No.165 Year 1999.

<sup>9</sup>. *Convention on Offences and Certain Other Acts Committed on Board Aircraft*, signed at Tokyo on 14 September 1963, for the Complete text see Dempsey P.S., (2005) Vol. XXX-Part I, Ann of Air & Sp.L. at 185-193.

<sup>10</sup>. Act *Concerning Civil Aviation*, State Gazette of the Republic of Indonesia, Supplement State Gazette of the Republic of Indonesia.

<sup>11</sup>. Act *Concerning Foreign Investment*.

<sup>12</sup>. Act *Concerning Civil Aviation*, Act No.1 Year 2009, State Gazette of the Republic of Indonesia Nu.1 Year 2009, Supplement State Gazette of the Republic of Indonesia No.4956.

<sup>13</sup>. Act *Concerning Human Rights*. Act No.39 Year 1999. State Gazette of the Republic of Indonesia No.165 Year 1999.

<sup>14</sup>. *Ibid.*

2004,<sup>15</sup> Presidential Decree No.52 Year 2004,<sup>16</sup> Presidential Decree No.93 Year 2005,<sup>17</sup> the Declaration on 29 May as the National Day for older persons as one of many strategies to create public awareness and sensitively toward the ageing issue; The Presidential Instruction No.1 and No.3 of 2010.<sup>18</sup> These two Presidential Instructions focus on promoting the rights of marginalized and vulnerable groups.<sup>19</sup>

**c. Hight Light of Act Number 39 Year 1999**

The human rights Act Number 39 Year 1999 that came into force on 23 September 1999 provides basic rights namely human rights and freedoms, the right to security, the right to welfare, woman's rights, children' rights, human obligations, government duties and obligation, limitation and prohibitions, the national commission on human rights, public participation, human right tribunal, transitional provisions and concluding provisions.<sup>20</sup>

With respect to elderly people, basically, elderly people is born equal in dignity and human rights, is bestowed with the intellect and reason to live with others in a spirit of brotherhood; has the right to be recognized, guaranteed, protected, and treated fairly before the law and is entitled to equal legal certitude and treatment before the law without any discrimination, whatsoever reason; has the right to not to be tortured, the right to freedom of the individual, to freedom of thought and conscience, the right not to be enslaved, the right to be acknowledges as an individual before the law, and the right not to be prosecuted retroactively under the law are human rights that cannot be diminished under any circumstances whatsoever; is recognized as an individual who has the right to demand and obtain equal treatment and protection before the law as the law as benefits elderly people; has the right to truly just support and protection form an objective, impartial judiciary etc.<sup>21</sup>

With regard to social welfare, elderly peoples has the right to own property, both alone and with others, for the development of himself, his family, nation, and society through lawful means, no one shall subjected to arbitrary or unlawful seizure of his property and the right to ownership has a social function; has the right to ownership of a property in the public interest shall not revoked, except with the restoration of fair, proper and adequate compensation, based on prevailing legislation; in the event that in the public interest a property must be destroyed or abandoned, either permanently or temporary, compensation shall be paid in accordance with prevailing legislation; has the right to form and join trade unions for the protection and promotion of elderly interest, in accordance with the prevailing law; has the right to a place to live and the right to an adequate standard of living.<sup>22</sup>

**d. National Action on Ageing**

The Government of the ROI adopted National Action Plan (NAP) on Ageing for the period of 2003-2008, which focuses on establishing and ensuring necessary support for the elderly people. Additionally, Indonesia has also to establish the National Commission for the Elderly (NCE) people, through Presidential Decree the above-mentioned, which coordinate various government programs and activities for the welfare of elderly people, in cooperation with non-government organization (NGOs). With reference to NPA for elderly welfare, the future social welfare program for elderly will be directed to promoting the elderly wellbeing and social security system; improving the healthy services system; the strengthening of the family and community support; improving quality of life and developing special facilities.<sup>23</sup>

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<sup>15</sup>.Government Regulation *Concerning the Implementation of Measures to Improve the Welfare of Older Person.*

<sup>16</sup>. Presidential Decree *Concerning the Establishment of the National Commission on Ageing.*

<sup>17</sup>. Presidential Decree *Concerning the Membership on the National Commission Ageing.*

<sup>18</sup>.On Equitable Development Program.

<sup>19</sup>.Gunawan Djajputra, Ariawan Gunadi, Augustinus Yoga and Martono K. ,*Ageing Related to Aviation : Pilot-in-Command (PIC), Passengers and Others in Indonesia, ASEAN Countries and Other*, Vol.6 (9) [www.ijhssi.org](http://www.ijhssi.org) 58(September 2017).

<sup>20</sup>.*Ibid.*

<sup>21</sup>. *Ibid.*, at 59.

<sup>22</sup>. *Ibid.*

<sup>23</sup>. Att. Ms Juana Sotomayor, Secretariat of the United Nations, Office of the High Commission for Human Right, Room DC1-0511, New York, Ny 10017.

e. **Policies and Programs**

The government of the ROI provides services for older populations, especially for the neglected and/or sick elderly, were delivered through Social Nursing Homes (SNH), locally known *Panti Sosial Tresno Werdha (PSTW)*, daycare and social security for the elderly. At present, there are 278 SNH all over Indonesia. Since 2006, the government of the ROI has implemented as assistance program that supplements the basic needs of elderly living in SNH as well as gradually increasing the provision of social security for the neglected elderly. To enhance the health and quality of life of older persons, elderly health services are prioritized towards disease prevention, but does not disregard curative and rehabilitative services. Health services for impoverished elderly are complementary, provided through the existing procedures. The government is promoting and guiding member of families to observe and respect the interest and welfare of older members of the family; promoting and guiding community, social agencies, non-government organizations and private sector on services for the elderly; promoting, reinforcing and socializing national behavior and norms in respect of the elderly in their daily life; socializing norms to respect the elderly and acknowledge them as valued citizens, and extending this norm to their grandchildren.<sup>24</sup>

f. **Extends Retirement Age in Indonesia**

Under new Ministry for the Empowerment of the State Apparatus Regulations (SAR), raised the national retirement age for civil servant from 56 years old to 58 years old automatically extended to another two years. The two-year extension was for civil servants that usually handled administrative duties. For first and second-ranking officials in the civil servant, the retirement age has been extended four years to 60 years old. With the new extension, some 11,000 civil servants would see their retirement postponed. The law stipulate that civil servants found guilty of serious disciplinary violations may be discharged, albeit honorably. Civil servants who would face dishonorable discharge are those who violated the tenets of Pancasila, the state ideology, or the 1945 Constitution, and those who were found guilty and served jail terms for crimes engaged during the exercise of their function or beyond.<sup>25</sup>

**2. Legal Ground of Aviation Activities**

a. **Historical Background**

The policy of old order regimes (*emphasize added*) under the former President Soekarno tends to be a socialist ideology, for that reason aviation activities is completely conducted by the government of the ROI. Air transportation conducted by state-own enterprises such as Garuda Indonesian Airways (GIA),<sup>26</sup> and Merpati Nusantara Airlines (MNA),<sup>27</sup> whilst the regulator conducted by Ministry of Air Communication (MOAC). In the old order regimes, all aviation activities such as economic aspects, aviation safety and security, the use of aircraft, tariff shall be conducted by civil servants, no private sector involve to the aviation activities.<sup>28</sup>

The aviation policy under the regime of General Soeharto tends to be neo-liberal ideology which was a mix between socialist and liberal ideologies base on Act Number No.1 Year 1967.<sup>29</sup> In the neo-liberal ideology, all aviation activities conducted by the civil servant services and private sector as well. With regard to economic aspect conducted by state-own enterprise such as GIA, MNA and private airlines. State-owned GIA serves trunk line and MNA serves feeder lines together with private-owned airline companies such as Bouraq Indonesian Airlines, Mandala Airlines, Sempati Airlines and Indonesian Air Transport Based on Ministerial

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<sup>24</sup>. Doc.321/SOC-301/IV/11 dated 29 April 2011., *Permanent Mission of the Republic of Indonesia to the United Nations*, New York.

<sup>25</sup>. Gunawan Djajaputra, Ariawan Gunadi, Augustinus Yoga and Martono K., *supra* note 18 at 6.

<sup>26</sup>. Government Regulation Concerning Change from State-owned Enterprise (PN) Perhubungan Udara to Limited Company Liability (PT) Garuda Indonesian Airways Govern. Reg. No.67 Year 1971.

<sup>27</sup>. Government Regulation Concerning Change of State-owned enterprise (PN) Perhubungan Udara Daerah dan Penerbangan Serbaguna change to Limited Company Liability (PT) Merpati Nusantara Airlines (MNA). Govern. Reg. No.70 Year 1971.

<sup>28</sup>. Gunawan Djajaputra, I Gusti Ayu Ketut Rachmi Handayani., *An Indonesian Air Transport; A Critical Analysis of Christmas Celebration of 2016 and New Year Holidays of 2017*. Vol.6(2) [www.ijbmi.org](http://www.ijbmi.org) 50 (February 2017).

<sup>29</sup>. *Act concerning Foreign Investment, Act. No.1 Year 1967.*

Decree SK 13/S/1971.<sup>30</sup> In addition, there is also general aviation to cater to the aerial work and other activities using an aircraft based on Ministerial Decree No.31/U/P/1970.<sup>31</sup>

**b. The philosophy of Civil Aviation Act of 2009**

The philosophy of civil aviation Act of 2009,<sup>32</sup> is the same as held by other States, it is not necessary to have too many airlines, but existing airlines should not too weak to compete successfully. It is better for airline to be small but capable to fulfil air transportation needs to support the national economic development, and capable to compete at national, regional and global levels. It is the reason, the civil aviation act of 2009 provides requirements to establish airline companies so that they can survive and compete both national and internationally. For that reason, the civil aviation act of 2009 requires, among other obligations, that an airline have sufficient aircraft ownership, the necessary capital investment, a national majority share-holders, a bank guarantee, and professional human resources capabilities supported by aviation operational principles such as safety, security, law enforcement, compliances, high technology and just cultures.

**c. Hight Light of Civil Aviation Act of 2009**

The Indonesian Civil Aviation Act of 2009 (the CAA of 2009) which came into force on 1<sup>st</sup> January 2009, has been very important for the development of aviation activities and national economic development taking into account that its provides an extra-territorial regulating sovereignty in airspace, aircraft production, nationality of aircraft, aircraft operation, and airworthiness, aviation safety and security in aircraft, aircraft procurement, aircraft insurance, independency of accident investigation, establishment of public services, establishment of aviation professionalism, establishment of public service institute, scheduled and non-scheduled air transportation, general aviation, international air transport, airlines capital, single majority shares, ownership of aircraft, and possession of aircraft, aircraft leasing, tariffs, passenger accident insurance, transportation of disable people, dangerous goods transportation, shipping agencies, liability of air carriers, air carrier's liability insurance, aviation human resources in technical operation as well as air navigation, air navigation facilities, airport authority, airport operation, airport services, single air traffic service provider, law enforcement, administrative sanctions, prevention of unlawful acts and other provision which had not been regulated previously to support national and international air transportation development in Indonesia.<sup>33</sup>

**3. Regulation of Ageing, Discount, and Sick Passengers**

**a. Elderly's Passengers**

The CAA of 2009 provides elderly passengers. Its provides that elderly people shall have the rights to receive special services such as treatment and facility from commercial air transportation business entity. Such as special treatment and facilities shall consist of provision of additional priority on seating, availability of facilities for getting on and off aircraft, availability of facilities for disable people while onboard aircraft, aid facilities for sick/ill person, availability of personnel to communicate with elderly people, availability guide-book on aviation safety and security for aircraft passengers and other facilities that are understandable to elderly passengers. Such a special treatment and facilities shall not be charged addition costs.<sup>34</sup>

Beside elderly passengers, for the implementation of Act No.39 Year 1999, the CAA of 2009, provides that disable peoples, children below age of 12 years and/or sick people persons, shall have the rights to receive special services such as special treatment and facilities from commercial air transportation business entities. Such special treatment and facilities shall consisting of provision of addition priority on seating, availability of facilitation for getting on and off aircraft, availability of facilities for disable people while on board the aircraft, aid facility for sick/ill people, availability of facilities for children while on board aircraft, availability of personnel with ability to communicate with disabled, sick/ill people and availability guide-book

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<sup>30</sup>. Ministerial Decree *Concerning Requirements and Provision Regarding Using Airplane for Commercial*, Ministerial Decree No.13/S/1971.

<sup>31</sup>. Ministerial Decree *Concerning Requirements and Provision of General Aviation Within the Republic of Indonesia*. Ministerial Decree No.31/U/P/1970.

<sup>32</sup>. Act Concerning Civil Aviation, *supra* note 10. .

<sup>33</sup>. Tundjung, Gunardi and Martono. *Legal Aspects of Air Transportations and Environmental Pollution in Indonesia*. Vol.6(4) [www.ijbmi.org](http://www.ijbmi.org) 47( April 2017).

<sup>34</sup>. Gunawan Djajputra, Ariawan Gunadi, Augustinus Yoga and Martono K., *supra* note 18 at 62.

on aviation safety and security for aircraft passengers and other facilities that are understandable to the disable and sick/ill people. Such special facilities shall not be charged addition costs<sup>35</sup>

**b. Elderly Discount Passengers**

Basically, tariffs policies are neo-liberal in nature since the tariffs consisting of economy and non-economy tariffs. Economy class tariffs are regulated by the MOC to protect consumers, while non-economy class tariffs are determined by airlines companies based on market forces to guarantee the sustainability of airlines operations. The tariffs set by the MOC have an upper limit which takes into account factors such as the need to protect consumers and prevent unfair competition. On the whole, Indonesia's aviation regulations protect consumers by indirectly specifying a lower limit for the determination of tariffs and at the same time the tariff regulations also prevent under pricing practices by air services providers that aim to squeeze competing carriers out of the market.<sup>36</sup>

In determining tariffs, the MOC considers the interest of aviation safety and security, as well as the needs of the public and airlines' operation. The MOC Decree of 2010,<sup>37</sup> clarifies how passenger tariffs for economy class are determined and that they are based on the distance flown, tax, mandatory accident insurance and surcharge. The distance tariff is the amount of tariff per flight route per trip, for each passenger, and is a calculation based on the basic tariff multiplied by the distance. This formula also factors in the nation's purchasing power or affordability of the tariff. The distance tariff consisting of a basic average fee plus a reasonable profit plus value added tax based on taxation regulations. Mandatory passenger accident insurance is required by the laws and regulations. Surcharges are imposed based on additional costs that air transportation company has to pay to operate the business. In relation to tariff, for the purpose to implement Act No.39 Year 1999, the CAA of 2009 provides that air transport business commercial **shall give discount to the elderly passengers as well as the infant under 12 (twelve year old)** (*emphasize added*).<sup>38</sup>

**c. Regulation of Sick Passengers**

Airlines pre-flight, passengers must submit a medical certificate, which allowed the passenger transport aircraft, as well as additional requirements should be specified with the conditions of carriage. Medical advice and support is not needed for those passengers who need special assistance at the airport or in the commission of embarkation / disembarkation. **Ill passengers include passengers who suffer from blindness and deafness, deaf and blind passengers; children with visible communicable diseases (measles, chicken pox, etc.), elderly passengers** (*emphasize added*).<sup>39</sup>

Passengers with no hearing or vision, if necessary, and relevant documents to prove it can at no additional cost to transport a guide dog on board. To transport a guide dog, a passenger must be proof of special training the dog. Making the flight, a guide dog must be at the feet of the passenger in a muzzle and leash. The dogs are not given a separate place. To land disabled (limited-capable passenger) and persons who accompany them to the other passengers boarding the same flight as follows. Disembark from the aircraft, such passengers are committing the very end. Passengers who have passed their wheelchairs in the luggage can take advantage of airline seats provided.

**d. Regulation of Disable Passengers**

Patients/persons with disabilities include those passengers who require individual attention, especially (in the case of force majeure, when boarding and disembarking from the aircraft, maintenance during flight and upon arrival) due to physical or psychological condition. According to the regulations, the number of disable passengers on board the aircraft shall not exceed the number of passengers that may help people with disabilities in an emergency (emergency). The airline reserves the right to refuse to carry those passengers. The Airline has a right not to take on board his plane the patient, if the passenger endangers the lives of passengers and property of passengers, crew and the plane of life. Also, the airline will not allow passengers to board the plane, which

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<sup>35</sup>. *Ibid*

<sup>36</sup>. Martono and Ariawan Gunadi., *Current Regulations of Aviation Tariffs in Indonesia*. (2014) XXXIX Ann Air & Sp.L. at 204.

<sup>37</sup>. Ministerial Decree Concerning the Calculation Mechanism and Determination of Ceiling Passengers for Economy Tariff Class of Air Transportation Domestic Services, Ministerial Decree No.26 Year 2010.

<sup>38</sup>. Gunawan Djajputra, Ariawan Gunadi, Augustinus Yoga and Martono K., *supra* note 18 at 62.

<sup>39</sup>. *Ibid.*, at 65.

according to medical testimony may not use oxygen tanks, but which are required for medical reasons during the entire flight supplemental oxygen, which must be transported on a stretcher.<sup>40</sup>

To carry out flight disabled persons must submit a medical certificate that is signed and witnessed by the attending physician wet seal of a medical institution, if the mental or physical condition of the passengers may get worse during the flight. Airlines have the right to demand from passenger travel by air to complete a declaration of compensation, which includes the responsibility of passengers for possible deterioration in health status between the commission, this declaration is exempt from any type of air carrier liability for the previously described effects.

Persons who need special assistance namely passengers whose physical or mental behaviors need to provide special assistance or endanger other passengers, property, passengers, crew life and integrity of the aircraft; passengers whose physical or mental behaviors need to provide special assistance or endanger other passengers, property, passengers, crew life and integrity of the aircraft; passengers with infectious diseases that are transmitted to other passengers (except for the usual childhood diseases); passengers who need to board the aircraft medical equipment; and passengers have to limb in plaster or splint. This category of passengers transported in the cabin only accompanied by a person achieved the age of 15 who have the physical strength and are trained to use, where appropriate, measures the influence of the accompanying person and carry a medical certificate (valid only for specified therein flight numbers and dates).<sup>41</sup>

**4. Ageing on Aviation Personnel**

**a. International Civil Aviation Organization (ICAO)**

According to ICAO provisions, prior to November 2006, applies standard maximum 60 years old for pilot-in-Command (PIC) and recommended practice maximum age 60 years old for first officer (Co-Pilot), however from November 2008 on increased from 60 years old to 65 years old for Pilot-in-Command (PIC). Older pilots question mandatory retirement age of 60 years old, but younger brethren want Federal Aviation Administration (FAA) rule to stay in place.<sup>42</sup>

From November 2006 shall fulfill the conditions for pilots 60 to 65 years old such as PIC shall over 60 years and, co-pilot must be under 60 years old. All pilots over 60 years old must have a 6-monthly medical check, while single pilot limit remains at 60 years old. On 10 March 2006, the ICAO-Council conducted meeting to decide the limitation age of PIC. The result was 27 participants in favor, 4 against, including the United States of America and France and 4 participants abstentions. It is 2/3 (24) in favor needed. Based on such meeting concluded that upper limit for PIC can be safely increased from 60 to 65 in 2-pilot operation; medical examinations (and, to a lesser extent, simulator checks) are not (yet) sufficiently sensitive to enable abolition of an upper age limit.<sup>43</sup>

**b. Ageing of PIC in China**

The Civil Aviation Administration of China (CAAC) plans to raise the mandatory retirement age for pilots from the current 60 as part of a strategy to ease the shortage faced by Chinese airlines. The agency has yet to arrive at a decision on the exact age, but it plans to implement the change in two or three years. The shortage could get more acute as airlines acquire more aircraft and that hiring foreign pilots has become more difficult over the past five years as airlines around the world face a similar situation. Many airlines in the region have also raised the retirement age, salary and other benefits for their pilots to stay. Official estimates forecast a need for about 2,800 to 3,000 pilots annually over the next three years. The 12 flying schools across China can produce only between 1,250 and 1,300 a year.<sup>44</sup>

Local airlines increasingly send their cadet pilots to the U.S., Europe or Australia for training due to the limited capacity at local schools. Cadets must undergo a minimum 80-hour English course before they start training. Some schools require six months of coursework. Chinese carriers attract experienced foreign pilots

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<sup>40</sup>. *Ibid.*

<sup>41</sup>. *Ibid.*

<sup>42</sup>. Jon Hilkevitch and John Schmeltzer, *Tribune staff reporters*, August 22. 2006.

<sup>43</sup>. Dr Anthony Evans, Chief, Aviation Medicine Section of ICAO, Montreal., *Upper Age Limit for Pilots*.

<sup>44</sup>. William Dennis., *China To Raise Mandatory Retirement Age for Pilots, on 30 May 2017; See* <https://www.ainonline.com/aviation-news/air-transport/2017-05-30/china-raise-mandatory-retirement-age-pilots>.

with retention bonuses and big salary packages ranging from \$240,000 to \$310,000 a year for a captain, depending on his or her experience and aircraft type rating. Airlines prefer hiring pilots with a current type rating in the interest of reducing training costs. Pilots from Australia, the U.S., Latin America, Singapore and South Korea fly under contracts that usually run for three years with provisions for extension. According to Boeing's 2016-2035 projection, the Asia-Pacific region will need 248,000 pilots during that time, the most of any region in the world. Among Asia-Pacific countries, China will require the most by far.<sup>45</sup>

**c. Ageing of PIC in Indonesia**

In Indonesia, the MOC has agreed to increase the maximum age of retirement for professional pilots from 60 to 65 years, bringing Indonesian regulations into line with those set by the ICAO, to help Indonesian alleviate its acute shortage of experienced pilots. The change in the retirement age is in response to a request from the Indonesian National Air Carrier Association (INACA) seeking to help meet the unprecedented demand for pilots resulting from the rapid growth in the national aviation sector. Taking into account that older pilots are more susceptible to illness, the Government will designate a specific hospital to review the fitness of older pilots, will continue to require physicals once every six months, and only allow pilots over age 60 to fly with a co-pilot also at the controls.<sup>46</sup>

**d. Ageing of Private Pilot License in Indonesia**

According to Ministerial Decree KM 66 Year 2017,<sup>47</sup> private pilots to be eligible for a private pilot license, **shall fulfill at least 17 years of age** (*emphasize added*), except that a private pilot license with a free balloon or a glider rating only may be issued to a qualified applicant who is at least 16 years of age; be able to read, speak, and understand the English language, or have such operating limitation place on his pilot license as necessary for the safe operation of aircraft, to be removed when he shows that he can read, speak and understand the English language; hold at least a current second-class medical certificate issued under Part 67 of the CASRs, or, in the case of a glider or free balloon rating, certify that he has no known medical defect that makes him unable to pilot a glider or free balloon, as appropriate; pass a written test on the subject areas on which instruction is required by Part 61.105; pass an oral and flight test on procedures and maneuvers selected by a DGAC inspector or designated examiner to determine the applicant's competency in the flight operations on which instruction is required by the flight proficiency provision of Part 61.107 and comply with the sections of this part that apply to the rating he seeks.

**e. Ageing of Student Pilot in Indonesia**

According to Ministerial Decree KM 66 Year 2017,<sup>48</sup> student pilots to be eligible for a student pilot license, a person **shall fulfill at least 16 years of age, or at least 14 years of age** (*emphasize added*) for a student pilot license limited to the operation of a glider or free balloon; be able to read, speak and understand the English language, or have such operating limitations place on his pilot license as are necessary for the safe operation of aircraft, to be removed when shows that he can read, speak and understand the English language; and hold at least a current second-class medical certificate issued under Part 67 of CASR's or, in the case of glider or free balloons operations, certify that he has no known medical defect that makes him unable to pilot a glider or a free balloon.

**f. Ageing of PIC in Japan**

The Ministry of Transport (MOT) of Japan raised its mandatory retirement age of pilot-in-command (PIC) from 62 to 64 in 2004 and again to 67 in February 2015 to cope with a similar shortage following appeals from Japanese carriers. The retirement age for Japanese pilots has been raised from 63 to 65 years old, for that reason the peak of imminent retirees has obviously played a major role in the JCAB's (Japan Civil Aviation Bureau's) decision to revise the age at which pilots flying in Japan can operate domestically in airlines. It is also an indication that Japan is unable to attract sufficient non-Japanese pilots, to fill the massive vacancies that will

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<sup>45</sup>. William Dennis., *China to Raise Mandatory Retirement Age for Pilots*, on 30 May 2017.

<sup>46</sup>. *Retirement Age Raised for Indonesian Pilots*; See also [www.pprune.org](http://www.pprune.org) > PPRuNe Forums > Flight. Deck Forums > Rumours & News.

<sup>47</sup>. Ministerial Decree Concerning Licensing of Pilot and Instructor, Ministerial Decree No.KM 66 Year 2017 (4 August 2017).

<sup>48</sup>. *Ibid.*

inevitably occur, meaning Japanese airlines will be left unable to cope with projected future growth, and therefore losing valuable market share if Japan wishes to cash in on the burgeoning tourist influx. China's tourist numbers to Japan have been on a progressive rise for the past number of years, as the affordability of air travel, and affluence of that country increases. Pilot salaries offered by Chinese airlines have been on a continual rise, whereas salaries and conditions offered by the Japanese have decreased, making the Japanese aviation employment scene "just another Asian contender."<sup>49</sup>

**g. Ageing of PIC in Malaysia.**

As Malaysians live longer, there have been calls to raise the retirement age from the current 60 to at least 65 years old. According to J. Solomon, Malaysian Trades Union Congress (MTUC) secretary-general, believe to raise the retirement age from the current 60 to at least 65, is not only feasible, but will boost economic growth as Malaysians who work longer would have stronger spending power. One must be mindful that many great leaders are above the age of 60 and the recent suggestion by the former Chief Justice to extend the judges' retirement age from 66 to 70 proves they can still serve and serve well. J. Solomon, argues that older workers tended to be more loyal to a company and had more experience and skill sets even as he acknowledged that age does not necessarily equal productivity or adaptability.<sup>50</sup> Malaysia Airlines raised its retirement age from 55 to 60 in 2006, whilst Air-Asia mandates retirement at 65. Men flight attendants retire at 55 no matter what (their) grade.

**h. Ageing of PIC in Pakistan**

The Pakistan International Airlines (PIA) claimed that increasing the pilot retirement age-limit from 60 to 65 years old could help save over Rs2 billion between the period from 2013 to 2020, considering the pensions and provident funds to be paid to the PIA pilots who would be retiring at 60 in the coming years. The number of 60-year retirements between 2013-20, however, the Director Flight Operations (DFO) contends the proposal of PIA to increase the pilot retirement age-limit from 60 to 65 years old, taking into consideration that the airline could manage without increasing the retirement age-limit of pilots.<sup>51</sup>

**i. Ageing of PIC in the Philippines**

The Philippines has studied the extended retirement age for commercial airline pilot since June 30, 2014 to June 30, 2016 and finally the Civil Aviation Authority of the Philippines (CAAP) decided to extend the retirement age for commercial airline pilots on domestic operations from 65 to 67 for a two-year study period to address the decreasing number of pilots in the country. For that reason, according to John Andrews, CAAP deputy director general, the CAAP to amend the Philippine Civil Aviation Regulation (PCAR) to allow experienced but overage pilots to fly Philippine-registered civil aircraft engaged in domestic commercial air transport provided that they are physically fit. Under the amendment, any pilot beyond 65 years of age who holds license and valid medical certificates may be allowed to fly as pilot-in-command or co-pilot with a mandatory CAAP medical check-up every six months, however, if the pilot-in-command is above 65, his co-pilot must be under 60 years of age. The extension of retirement age for commercial airlines pilot taking into consideration that the Filipino commercial pilots in the country are rapidly decreasing as some of them are applying at foreign airlines. Becoming a licensed pilot, however, is very expensive as the flying course requires millions of pesos.<sup>52</sup>

**j. Ageing of PIC in Singapore**

According to Boeing's 2016-2035 projection, the Asia-Pacific region will need 248,000 pilots during that time, the most of any region in the world. Among Asia-Pacific countries, Singapore Airlines' retirement age stands at 62, although it can extend the limit to 64 based on the health of the pilot and at the discretion of the

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<sup>49</sup>. Kaptin M., The retirement age for Japanese pilots has been raised from 63, to 65 recently; See also <http://www.pprune.org/archive/index.php/t-154713.html> , on 6 December 2004); See also Gunawan Djajputra, Ariawan Gunadi, Augustinus Yoga and Martono K., *supra* note 18 at 70.

<sup>50</sup>. <http://epaper.nymail.com.my/2017/04/26/case-for-extending-malaysia-s-retirement-age-past-60/>

<sup>51</sup>. PIA delays decision to increase pilots' retirement age limit; See also <http://nation.com.pk/business/08-Nov-2013/pia-delays-decision-to-increase-pilots-retirement-age-limit>

<sup>52</sup>. Rudy Santos., *CAAP extends retirement age for commercial airline pilots*; See also [www.philstar.com/headlines/.../caap-extends-retirement-age-commercial-airline-pilots](http://www.philstar.com/headlines/.../caap-extends-retirement-age-commercial-airline-pilots)

management.<sup>53</sup> Under changes to the Retirement and Re-employment Act, employers will have more flexibility through the option of allowing consenting, eligible employees to be re-employed by another employer. With the law amended, it will be legal for companies to transfer their re-employment obligations to another firm, with the worker's consent required. If the worker disagrees, the original employer has to offer Employment Assistance Payment (EAP) to the worker, if it cannot find a job for him within the company. After the changes were passed, the MOM, National Trades Union Congress and Singapore National Employers Federation issued updated re-employment guidelines that included the EAP revision. From a recommended range of S\$4,500 to S\$10,000, the new range is S\$5,500 to S\$13,000, or 3.5 months' salary.<sup>54</sup>

**k. Ageing of PIC in the USA.**

According to Capt Lim, on 16 December 2007, Internationally, an airline pilot can fly up to 60 years. ICAO retains as a standard, an age-60 limit for persons acting as pilot-in-command of an aircraft engaged in scheduled international air services or non-scheduled air transport operations for remuneration or hire and recommends that the first officer (co-pilot) also be under age 60. The rule is also enshrined in section 121 of the USA's FAR and it mandates that a pilot may not fly in revenue service for a Part 121 air carrier upon reaching his or her 60<sup>th</sup> birthday. This retirement age applies only to pilots with (FAR 121) airlines, it does not apply to FAR 125 or 135 operations, nor "corporate" pilots. However, not all airlines adhere to these rules. Some airlines make 55 years old as the mandatory retirement age.<sup>55</sup>

When a first officer (co-pilot) or even a Captain becomes short-sighted, it is not a problem provided his vision can be corrected to normal with optical aids. Not every illness will cause the pilot to be grounded for ever. If he recovers from a medical problem and pass the medical test, he can regain his medical status and continues to fly again. However, if a pilot is grounded due to a heart problem, he may be employed by the airline as a simulator instructor if he is already qualified.<sup>56</sup>

**l. Consideration to Increase the Pilot Retirement**

There are a variation consideration related to increase the pilot retirement age-limit from 60 to 65 years old namely the shortage faced by the airline (China), bringing regulations into line with those set by the ICAO, to help alleviate its acute shortage of experienced pilots (Indonesia), fill the massive vacancies that will inevitably occur (Japan), while the Pakistan International Airlines (PIA) claimed that increasing the pilot retirement age-limit from 60 to 65 years old could help save over Rs2 billion between the period from 2013 to 2020, considering the pensions and provident funds to be paid to the PIA pilots who would be retiring at 60 in the coming years.

**m. Ageing of Aviation Mechanics in the USA**

A shortage of aviation mechanics within the next decade threatens the expansion and modernization of the global airline fleet. The gap between the supply of aviation mechanics and demand for them should develop in the USA by 2022 and reach a peak of 9% by 2027. The problem may emerge sooner in Asia where a bulk of the growth in the aircraft fleet is slated. Ultimately, the shortfall may raise the cost of maintenance for airlines and potentially force them to retain more spare planes to avoid cancellations and late departures resulting from maintenance delays. The shortage is a consequence of an aging global population. Between 2017 and 2017, a record number of maintenance technicians will be eligible to retire as more baby boomers reach their sixties. For example, in the USA, the median age of aviation mechanics is 51 years older than the median age of the broader USA workforce as calculated by the USA Bureau of Labor Statistics.<sup>57</sup>

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<sup>53</sup> *Airline's crew rules 'embarrassing'* Posted on 10 January 2008. down load on 2 July 2017.

<sup>54</sup> Neo Cha Chin., *From July, the re-employment age will go up from 65 to 67 and employers will no longer have the option to cut employees' wages at the age of 60.* Singapore on 10 January 2017.

<sup>55</sup> Gunawan Djajputra, Ariawan Gunadi, Augustinus Yoga and Martono K., *supra* note 18 at 64.

<sup>56</sup> <http://www.askcaptainlim.com/-profession-flying-52/499-when-does-an-airline-pilot-retire-from-flying.html>

<sup>57</sup> Brian Prentice and Derck Costanza., *Aging Baby Boomers Cause Aircraft Mechanics Shortage As Global Fleet Expands, Modernizes;* <https://www.forbes.com/sites/oliverwyman/2017/04/24/looming-aircraft-mechanic-shortage-may-threaten-the-grow>

Another problem of aviation mechanics stems from aviation mechanics' current wages and benefits. The survey from the airlines and maintenance, repair and overhaul (MRO) industry, 51% of respondents identified wages and benefits as an obstacle. The Aviation Technical Education Council (ATEC) estimates that 30% of those who finish an aviation maintenance training course end up accepting employment in another industry. The aging of the mechanic workforce and rash of anticipated retirements could not come at a worse time for the industry, as it gears up to accommodate a larger, newer, and more technologically advanced fleet. The forecast shows global airlines adding 10,133 planes by 2027, growing the fleet by 40 percent to 35,501.<sup>58</sup>

## **5. The Ageing of Air Traveler Related to Airport Services**

It has been well documented that the proportion as well as the actual number of older persons in the United States of America (USA) is increasing at a faster rate than in the general population. The Administrative on Ageing (AoA) estimates the number of people over 65 years of age will increase from approximately 40 million in 2010 to 70 million by the year 2030 and from 13% to 19% of the population, whilst the percentage of elderly person in the European population is already higher than that in the USA, with level above 16%, which may account for the apparently greater focus on elderly issues in European airport terminal design. The USA Travel Association notes that mature travelers, those born before 1946, account for 21% of all leisure travelers, making four trips a year on average; and 14% of all business passengers, making approximately eight trips a year. It is also expected that the proportion of elderly travelers choosing to fly increase as a result of increased education levels.<sup>59</sup>

During the traveling from their home to the airport, the elderly travelers face several problems such from home to airport terminal, from terminal entrance to security check-point, from security check-point to gate and from gate to gate, from the arrival gate to the terminal exit and from the terminal exit to leaving the airport as follows:

### **a. Characteristics of the Elderly Traveler**

The number of air travelers over aged 65 is reaching retirement age, and that people are generally living longer, they are elderly persons are healthier than in the past, however this age is subject to such chronic illnesses such as cardiovascular diseases, arthritis, hypertension, Alzheimer's, diabetes, osteoporosis and obesity and any of which can affect a person's ability to navigate in the airport. A general deterioration in some physical and mental functions can be expected with advancing years. Mobility and stamina can be impaired by a variety of muscular problems and respiratory conditions, and eyesight and hearing generally decline. Elderly persons tend to be less flexible than they were in their youth and can often be in denial about not having the same capabilities they had formerly. The psychological effects of aging cannot be overlooked, the elderly are more risk averse and anxiety-prone, which can result in difficulty with decision making, particularly under pressure of an unfamiliar environment.<sup>60</sup>

### **b. From Home to the Airport Terminal**

Air traveler can be stressful, beginning with the journey from home to the airport and terminal entrance. If the trip to the airport is by public transport, there should be no wayfinding issue unless the train or bus does not drop off directly at the terminal front door, however rather at a remote location such as a ground transportation center. In this case, requiring a secondary method of transportation to the terminal can provide a challenge for the elderly in finding their way to the shuttle or moving walkway system. The fact that they are probably still hauling the bags they intend to check. Most airports mitigate this problem by running shuttle buses with low decks that closely align with the curb, and having paid or volunteer staff to assist with directions.<sup>61</sup>

#### **1). Highway Wayfinding**

There are multiple factors that increase the complexity of the journey, such as a series of arrivals or departures in a single journey, short-term or long-term parking, rental car return, etc. Airline signage also be an

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<sup>58</sup>. *Ibid.*

<sup>59</sup>. Airport Cooperative Research Program., *Impacts of Aging of Travelers on Airport: A Synthesis of Airport Practice*. Washington D.C., Transportation Research Board, 2014, at 4.

<sup>60</sup>. *Ibid.*

<sup>61</sup>. *Ibid.*, at 6.

issue, especially at large airport where a single airline may occupy more than one terminal with many gates in each, leading to the possibility of gates changes during course of the journey to the airport.<sup>62</sup>

## **2). Parking Services**

Parking options at the airport can be especially confusing to elderly travelers, taking into account the higher cost of close-in parking and longer stays associated with leisure travel, aging passengers frequently use remote parking facilities. Often these facilities are large surface lots exposed to the weather, where there may be long waits for shuttle buses. These remote lots create the same problems of transferring to the terminal that the ground transportation centers do. Some remote parking and most closed-in parking is in large multi-level parking structures, where it may be difficult to identify the convenient area to park in order to minimize the walk distance to the terminal entrance. Even close-in lots can be hazardous in winter, when ice can lead to falls.

Most parking garages do not have baggage carts available within them because of their potential damage to cars. This requires elderly passengers to transport their check-in baggage and carry-on bags to the terminal unassisted. This issue has been ameliorated somewhat for the elderly by Americans with Disabilities Act (ADA) requirements for ramps and automatic doors along travel paths. One airport had a passenger service website that allowed passengers to call and arrange for an agent to meet them at their parking space with a wheelchair to convey them to the check-in lobby.<sup>63</sup>

## **3). Dealing With Their Baggage**

The greatest challenge at the airport for elderly travelers is dealing with their baggage. The ultimate solution to this problem is to have one's baggage picked up at home or other originating location, but this raises several Transport Safety Administration (TSA) security issues, especially that the baggage may have been tampered with. There is no opportunity to have an airline employee positively identify the person checking the bag. There are many off-site locations such as terminals certified by the TSA that deliver bags directly to the airport for screening and loading onto the aircraft. These services, as well as on-site locations, are generally provided by third party vendors. The trend of shipping bags door-to-door is an alternative that could be a relief for elderly travelers.<sup>64</sup>

## **4). Curbside Check**

The most common method of checking a bag prior to entering the terminal is at curbside. This method is generally convenient for the elderly traveler and is available at all the larger airports, but, this does not eliminate all the issues for those who find it difficult to handle their bags. Generally, curbside agents will not lift bags from the trunks of cars, and curbside porters may only be interested in conveying bags from the car to the ticket counter. Elderly passengers who are dropped off at the curb while their traveling companion is parking the car or while waiting for a wheelchair can rarely find a place to sit, although waiting in what is often an unpleasant environment of vehicle exhaust fumes and traffic noise.<sup>65</sup>

### **c. From Terminal Entrance to the Security Check-Point**

Traditionally, the check-in area is represented the front door to an airport terminal. Nowadays, an older traveler entering such a space, with its visual information overload, large numbers of people, and loud ambient noise levels, may find it stressful and even disorienting. Some passengers will have already checked-in, either at curbside or at a remote location such as a parking garage, and deposited their baggage prior to entering the building, but many will not have. For those aging travelers who need to obtain a boarding pass and check their baggage inside the terminal building, wayfinding can be a challenge.

## **1). Check-in Area Wayfinding**

Navigating the check-in process can be made more difficult by an excess of signs in the lobby, some of which are in airline jargon that may not be clear to a person who travels infrequently. At one of the terminals at London's Heathrow International Airport (HIA), signs identifying check-in areas, bag drop, ticketing, etc., are replaced by three very large signs that imply read Step 1, Step 2, and Step 3. Step 1 refers to obtaining a boarding pass; if the individual already has a boarding pass, a sign below the main sign instructs them to

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<sup>62</sup>. *Ibid.*

<sup>63</sup>. *Ibid.*

<sup>64</sup>. *Ibid.*, at 7

<sup>65</sup>. *Ibid.*

proceed to Step 2, which is the bag drop. From there, passengers are instructed to either to security or Step 3 for further assistance with check-in.<sup>66</sup>

## **2). Coping With Technology**

One obvious concern is how older travelers cope with the proliferation of technology, particularly self-service check-in device. The airlines were generally doing a good job of assisting their customers using self-service devices. One airport that it had its own help stations near the self-service check-in areas. At a number of airports, the self-service devices have audio menus and instructions that can be accessed by headphones, which those who are hard of hearing often carry. The trend among airlines to have an agent approach the passenger with a handheld check-in device, enabling the identification and assistance of an elderly person who may be experiencing difficulties, was identified as a positive development.<sup>67</sup>

## **3). Fatigue**

The issue of fatigue among older travelers caused by their having to stand in line in an overcrowded check-in area. Most had added seating to the lobby, so that elderly passengers could wait while their more able traveling companion checked them in, or while awaiting a wheelchair. The elderly passengers could be given a number or an electronic device similar to those used by restaurants, so they could sit down until their turn came for checking in. Lifting bags into the bag well at the check-in counter poses another physical problem for the elderly travelers.

## **4). Security Screening Check Point**

Once check-in has been completed, aging travelers are faced with the challenges of the security screening check-point. Such problems include waiting in line and prolonged standing, removing personal items and items of clothing and depositing them in tubs, maneuvering baggage onto and off the screening conveyor belt and walking through the passenger screening devices. The process of clearing the security check point queue can be even more stressful than that of negotiating the check-in lobby. Once airport is addressing the problem by installing live videos earlier in the queuing area that show clearly what is about to take place. The recomposing areas on the other side of the check-point are often too small, usually as a result of the constraints of adding check-points to buildings that were instituted. One airport designed terminal includes a large “recomposing lounge” where passengers can relax without having immediately to rush to their gates.<sup>68</sup>

In this regard, the TSA in the USA has made considerable efforts to accommodate those with disabilities and the elderly. Travelers who believe they will have difficulties at security can obtain a TSA Notification Card that assures assistance for the holder when passing through security. There is a program called TSA Cares, which operates a help line passengers can call to receive advice about getting through the security process. There is also a smart phone app called “My TSA” available at some airports that directs the travelers to the security check-point with the shortest line. Additionally, passengers over the age of 75 can also apply to use “Pre-Check” lanes at most airports, which exempt passengers from having to take off their shoes, belts, or light jackets, but, this might result in mixing elderly passengers with business travelers, which could cause some conflicts.<sup>69</sup>

### **d. From the Security Check-point to the Gate and From Gate to Gate**

From the security check-in point to the gate and from gate to gate, the elderly travelers facing the problems such as airside wayfinding, transitioning between floors, long walking distance, concession and amenities as follows:

#### **1). Airside Way-finding**

Most of the airport, the signage clutter was a problem. The primary approach was to establish a sign that could differentiate direction and informational notice from commercial display. The criteria for terminal signage shall take into consideration of placement, orientation, color, text size and complexity. Ideally, the design of public sign would have a strong colored background with large, white, or yellow unadorned letters, preferably back-lit. The second most common method of way-finding is using information points. The elderly travelers apparently preferred to seek directions at booths staffed by volunteer “ambassadors” many of whom

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<sup>66</sup>. *Ibid.*, at 9

<sup>67</sup>. *Ibid.*

<sup>68</sup>. *Ibid.*, at 10

<sup>69</sup>. *Ibid.*

were elderly themselves and were therefore considered to be approachable. There is a “new” generation of older travelers who are more conversant with technology, for whom touch-screen information kiosks may be preferable to engaging in conversation.<sup>70</sup>

## **2). Transitioning Between Floors**

Frequently the path of travel through an airport terminal involved the passenger changing levels, most commonly by escalator, with elevators and stairs being secondary choices. The escalators create problems for the elderly travelers and the accident were not uncommon. The Consumer Product Safety Commission (CPSC) estimates that more than 10,000 people are injured on escalators in public area every year. This was also a frequent opinion found in the literature review, including in the ICAO Planning Manual, which states that elevators or ramp are preferable to escalators. The installation of variable speed escalators, which are generally preferred for energy saving reasons, may benefit the elderly travelers, but there is no definitive data on that aspects.

## **3). Long Walking Distances**

Another frequently problem facing elderly travelers is the long walk distances often involved in getting to the gate and between gates. Planning standards generally recommend a maximum unassisted walk distance of 1,000 feet; however, distance far shorter than that can be tiring for an elderly traveler. The installation of moving walkways has been the common answer to this issue but, as with escalators, these moving belts can present problems getting on and off. Audible alerts before the end of the walks can be effective depending on the surrounding environment; but in certain situation they may only add to the general cacophony. In this connection, walking fatigue may also increase the likelihood of tripping and falling, which can be a serious problem for elderly travelers.<sup>71</sup>

Motorized carts are another common method of reducing the impact of walking, but their operation tends to be haphazard. Airport had formalized the service into a mini-transit system, with clearly identified stops and seating for waiting elderly traveler or disable passengers. Another airport had gone further by developing what is called a “compact transit system” of carts, with separate lanes in some locations for pedestrians, moving walkways, and carts. The availability of carts is particularly important for passengers making connections, although booking flights in segments should enable elderly travelers to plan for adequate layovers between flights.<sup>72</sup>

## **4). Concession and Amenities**

Airport concessions can be challenging for the elderly travelers as well to navigate. To ensure optimum accessibility, one airport revised its contracts with concessions to require them to meet the same, more stringent standards for corridor widths, etc., as the public areas of the terminal. Amenities offered at the surveyed airports that are especially relevant to the elderly travelers included quiet rooms, some containing a hospital-type bed; and on site medical facilities, wheelchair services were offered at all the airport.

Upon arriving at the gate, the elderly travelers need a place to sit and relax. The evolution of hold room functionality and design taking place in the industry recognizes the differing requirements of elderly travelers and would be beneficial overall. It is worthwhile to note here that some of the lounge-type seating being installed in hold rooms can be challenging for an elderly traveler to get in and out of easily. Most the airports had set aside hold room seating for the disable passengers that also served the elderly travelers, but it was often taken up by regular passengers. Inadequate spacing between rows of seats was identified as a problem. The difficulty in hearing gate announcements was also mentioned several time, with the suggestion that boarding groups and other information be proffered visually as well as audibly.<sup>73</sup>

### **e. From the Arrival Gate to the Terminal Exit**

The elderly traveler moving through an airport terminal, the emergence from the aircraft cabin into the open spaces of the terminal, where they are faced with swarms of people hurrying to their gates, the visual confusion of competing signage, and the distractions of concessions and advertising, can be the most un-setting. There are additional physical factors that can add to the disorientation: The jet bridge may be steep and uneven, and the change in lighting levels between the bridge and the concourse may be significant. It is worthwhile to note here that wider jet bridges would facilitate the use of wheelchairs without blocking egress for other

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<sup>70</sup>. *Ibid.*, at 12.

<sup>71</sup>. *Ibid.*, at 14

<sup>72</sup>. *Ibid.*

<sup>73</sup>. *Ibid.*, at 15

passengers. However, while directional signs to bag claim or connecting gates are often not immediately visible from the deplaning doorway, none of the airport representatives interviewed was addressing this issue apart from general efforts to improve signage.

#### **1). Restrooms Issues**

On the way to baggage claim, the amenity most commonly used by deplaning passengers is the toilets. Most of the airports were aware of the problems faced by the elderly traveler using toilets. There appears to be a trend towards enlarging the stalls to make room on the floor for carry-on luggage, so that older travelers do not have to lift it onto a shelf. The airport was installing more "family" toilets, which it considers helpful to the elderly travelers who may need assistance from a traveling companion. There was some interest in the concept of "universal design," which essentially makes amenities such as sinks and water closets equally easy to use for everyone, similar to the standardized design for drinking fountains.<sup>74</sup>

#### **2). Baggage Claim Area Issues**

Wayfinding in the baggage claim hall is not nearly so difficult as in the check-in lobby and was not identified as a problem, however, there are other challenges for the elderly travelers, the first being the likelihood of having to stand, sometimes for long periods, while waiting for baggage to arrive. Some airports have begun to provide seating, but often, because of space constraints, it is not close to the claim devices themselves. The next issue is the retrieval of baggage from the claim device. Sloped plate carousel claim units have a still difficult to lift a bag over. Furthermore, it is virtually impossible for an elderly traveler to retrieve a double-stacked bag from below another. Flat plate devices are far more user-friendly, since bags can be slid off of them. While they are relatively uncommon at US airports, where sloped plate devices are generally preferred because of their greater capacity and suitability for remote feeding.<sup>75</sup>

#### **3). Facilities for Arriving Passengers**

After claiming their baggage, passengers may have to wait for some time to be picked up, or for ground transportation to arrive. Instead of the passengers waiting outside in the elements, the passenger could be accommodated in an "arrivals lounge." There they could sit and relax and be informed of their ground transportation arrival status by a video display or by cellular phone. Such amenity had been included in a recently completed terminal and had already proved a benefit to elderly traveler and disable passengers.<sup>76</sup>

##### **f. From the Terminal Exit to Leaving the Airport**

The problems faced by elderly travelers when they leave the terminals building are similar to those they face when arriving at the terminal, including possible long walks to parking or ground transportation and wayfinding issues. One key difference is that the elderly travelers may have to wait for some time for transportation. Since majority of airports do not have arrivals lounges, such as those described in the previously, the waiting environment usually consists of a curbside or island that is covered but otherwise exposed to heat, cold, and likely low lighting levels. This situation can be aggravated by stress regarding the unknown arrival time for ground transport and possible concerns about personal safety.

The problems with shuttle buses for departing elderly travelers can be more critical for arriving elderly travelers since they invariably have their checked baggage with them, making the boarding of shuttle even more difficult. The proliferation of shuttle services often made it difficult for travelers to find the correct curb or island and the appropriate shuttle stop. A trend that could certainly benefit elderly travelers is the delivery of a passengers' bag from the bag claim hall to their destination by a third party. One company will transport a bag up to 40 miles from the airport within four hours for less than US\$ 50. The service can be ordered on-line as late as the time of departure of the passengers' flight.

##### **g. Special Case Related to Ageing Travelers**

At that time, the plane has just landed at Soekarno-Hatta airport at 11:45 am. When all passengers have disembarked the plane, Vera saw one passenger, an elderly woman, was still seated on seat 41C. The passenger was accompanied by one of her relatives. Without thinking twice, Vera approached the woman. It turned out that the elderly woman needed a wheelchair to get off the plane. Vera then talked to her while waiting for the wheelchair. From the conversation, it was found that the woman was a member of the minor hajj group who had to take a connecting flight. Such services are consistently with the CAA of 2009 which provide fully air services. Vera and Ninik Septinawati for taking the initiative to help an elderly passenger get off the aircraft on a Kuala

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<sup>74</sup> *Ibid.*, at 17

<sup>75</sup> *Ibid.*

<sup>76</sup> *Ibid.*

Lumpur-Jakarta flight. They spontaneity of both cabin attendants in helping passengers who in need of help. The cabin crew serve with their fully heart to the elderly passengers.<sup>77</sup>

## 6. Ageing of Aircraft

### a. Ageing of Aircraft in Indonesia

After a 34-year-old de Havilland Canada Twin Otter 300 operated by Aviastar Mandiri crashed into Mount Latimojong during a scheduled passenger flight from Masamba to Makassar on the island of Sulawesi, killing all 10 people aboard, Ignasius Jonan, the Minister of Transportation (MOT) issued regulation banning the import of any commercial passenger aircraft more than 10 years old and freighters more than 15 years old. According to a senior aviation technical executive, while a ban on any aircraft more than 30 years old appeared likely to cause serious financial hardship for operators of some commercial, general aviation and regional aircraft.

Indonesia's new aging-aircraft rule also bans any Indonesian carrier from operating any commercial aircraft older than 30 years of age. Carriers operating aircraft aged 30 or older at the rule's promulgation date have 36 months to stop flying them. If any carrier doesn't do so within that time, the Indonesian government will de-register the aircraft concerned and potentially also will remove the airline's Air Operator's Certificate. Two of Indonesia's three fatal accidents in 2015 have involved aircraft more than 30 years old: the Aviastar Mandiri Twin Otter and a 54-year-old Lockheed C-130B operated by the Indonesian Air Force, which crashed shortly after taking off from Medan-Soewondo Air Force Base on June 30, killing all 122 aboard the aircraft and 17 on the ground.<sup>78</sup>

In Indonesia's third fatal accident in 2015 also involved an aging aircraft. On August 16, a 27-year-old ATR 42-300 operated by Trigana Air Service crashed on Tanggo Mountain while approaching Oksibil Airport in Papua Province, killing all 54 onboard. However, Indonesia's two most recent commercial-aircraft incidents have involved young jets. On December 21, a nine-year-old Embraer 195 operated by Kal-Star Aviation overran the runway at Kupang El-Tari Airport while landing during a storm. Although none of the 125 people onboard suffered serious injury, the aircraft sustained substantial damage.

On November 6, a two-year-old 737-900ER operated by Lion Air sub-Sidiary Batik Air ran off the side of the wet runway upon landing at Yogyakarta, Adisutjipto Airport. The aircraft's nose gear collapsed but all 177 people aboard survived. Additionally, on December 28, 2014, Indonesia's worst accident in nearly 18 years involved an aircraft that was just six years, three months old. That airplane—an AirAsia Indonesia A320—crashed into the Java Sea after the pilots lost control at FL320 and stalled the aircraft. The accident killed all 162 people onboard. By restricting the importation of commercial aircraft to those aged 10 years or less (15 or less for freighters). The purpose of ageing aircraft in Indonesia likely all airliners it registers in the future will contain modern navigation equipment and situational awareness aids.<sup>79</sup>

Additionally, the President of the ROI, Jokowi promised a review of the country's ageing air force fleet and a defense modernization after the Hercules C-130B aircraft, which went into service half a century ago, was carrying 122 people when it ploughed into a residential area in the city of Medan shortly after taking off from an airbase, however, Metro-TV news channel, at least 141 bodies had been brought to a nearby hospital, indicating around 20 people were killed on the ground. There must be an evaluation of the age of planes and defense systems. The plane had been on its way from an air force base in Medan, one of Indonesia's largest cities, to Tanjung Pinang in the Riau Islands off Sumatra. Media said the pilot had asked to return to the base because of technical problems.<sup>80</sup>

### b. Ageing of Aircraft in Malaysia

According to Capt. Datuk Mohd Nawawi, Chief executive officer, MAS-wings Sdn Bhd, phase out its three ageing Twin Otter aircraft as part of efforts to better serve rural areas in Sarawak and Sabah. Six Twin Otter Viking Series 400 planes replaced the ageing aircraft, which have been in operation for 30 years and are no longer in production. The new aircraft will be used to provide improved and additional services to rural areas

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<sup>77</sup>. Lucky., Heartwarming: *Garuda Indonesia Flight Attendant Carries Passenger Off Plane* , on 8 January 2017.

<sup>78</sup>. Gunawan Djajputra, Ariawan Gunadi, Augustinus Yoga and Martono K., *supra* note 18 at 63.

<sup>79</sup>. Chris Kielgaard., *Indonesia Introduces Aging Aircraft Ban*. 11 February 2016.

<sup>80</sup>. Roni Bintang., *Indonesia to Review Aging Air Force Fleet After Deadly Crash*. Medan, Indonesia; See also <http://www.reuters.com/article/us-indonesia-military-crash-idUSKCN0PA0M120150701>

in Sarawak and Sabah. In addition, MAS-wings is also upgrading its services with six new ATR 72- 600 turboprop planes by yearend to cater to demand in the Brunei, Indonesia, Malaysia, the Philippines East ASEAN's Growth Area ( BIMP-EAGA). Another two 600 aircraft arrived between August and October 2014.<sup>81</sup>

In addition, the National carrier Malaysian Airline System (MAS) Bhd will replace 24 of its ageing narrow body and turboprop aircraft within the year as part of its fleet efficiency upgrade. The airline will phase out inefficient aircraft for new high-utilization ones including the Airbus A380. MAS increased utilization of its narrow body aircraft up to 20% and plan to do more and is phasing out fuel inefficient and ageing aircrafts such as the Boeing 747-400. In addition, MAS had major aircraft introduction like the Airbus A380 to London and since MAS have received all six A380s, MAS are flying twice daily to London, Paris and Hong Kong using six aircraft.<sup>82</sup>

#### **IV. CONCLUSION AND RECOMMENDATION**

##### **1. Conclusion**

The development of high technology has contributed to the rise in life expectancy in Indonesia. To response the rise in life expectancy, Indonesia adopted several various laws and regulation such as Act No.13 Year 1998, Government regulation No.43 Year 2004, Presidential Decree No.52 Year 2004, Presidential Decree No.93 Year 2005, Presidential Instruction No.1 and No.3 Year 2010 to promote and protect the human rights of elderly people to ensure full realization of social justice for all the peoples of Indonesian citizens in line with Pancasila, the five philosophical principles of the Indonesian State.

With regard to aviation personnel, elderly travelers, Indonesia, ASEAN Countries such as Malaysia, Singapore, Thailand and other countries such as China, Japan, Pakistan adopted several laws and regulation related to pilot in command (PIC), student pilot, aviation mechanics, cabin attendance, passengers, aircraft and airports operation to ensure the aviation safety and security, convenience of elderly travelers. In this regard, description is focused on the ageing of air travelers in airports.

##### **2. Recommendations**

Based on the above-mentioned conclusion, the authors recommend that all members' of International Civil Aviation Organization (ICAO) adopt laws and regulations to response the impact of the high technology development to ensure the aviation safety , security, comfort for passengers and economic international air transport all over the worlds.

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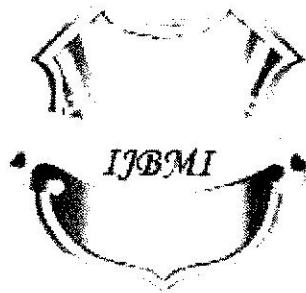
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