



The Lion Air JT610 Crash Due to Lack of Pilot Training: Is There Responsibility for Indonesia?

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Abstract

This research analyses international law, specifically in the realm of international aviation law. This research aims to determine whether Indonesia is responsible for the crash of Lion Air JT610 that happened on October 29, 2018. The accident was also followed five months later by the crash of Ethiopian Airlines ET302 on March 10, 2019. Both crashes involved the Boeing 737 MAX 8 and were linked to inadequate pilot training on the new Maneuvering Characteristics Augmentation System (MCAS). Using the normative legal research with statutory and case approach, the findings proved that besides its responsibility as a regulator, Indonesia is only responsible for issuing the airworthiness certificate, supervision, and investigation. On the other hand, the responsibility to ensure the maximum level of flight safety remains in the hands of the manufacturer company, including conducting pilot training and providing information regarding the new system.

Keywords: boeing; maneuvering characteristics augmentation system;; state responsibility



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Abstrak

Penelitian ini menganalisa terkait hukum internasional khususnya di bidang hukum penerbangan internasional. Penelitian ini bertujuan untuk menentukan apakah Indonesia bertanggung jawab atas jatuhnya Lion Air JT610 yang terjadi pada tanggal 29 Oktober 2018. Kecelakaan ini juga diikuti lima bulan kemudian oleh jatuhnya Ethiopian Airlines ET302 pada tanggal 10 Maret 2019, dimana kedua kecelakaan tersebut melibatkan Boeing 737 MAX 8 dan terkait dengan pelatihan pilot yang tidak memadai mengenai *Maneuvering Characteristics Augmentation System* (MCAS) yang baru. Dengan menggunakan penelitian hukum normatif dan pendekatan peraturan-peraturan hukum internasional serta pendekatan kasus, temuan daripada penelitian ini menunjukkan bahwa selain tanggung jawabnya sebagai regulator, Indonesia hanya bertanggung jawab dalam hal penerbitan sertifikat kelaikan udara, pengawasan, dan investigasi. Di sisi lain, tanggung jawab dalam memastikan tingkat keselamatan penerbangan yang maksimal tetap berada di tangan perusahaan manufaktur termasuk dalam pelaksanaan pelatihan pilot serta penyediaan informasi terkait sistem baru.

Kata Kunci: boeing; maneuvering characteristics augmentation system (MCAS); state responsibility.

A. Introduction

Indonesia's geographical situation in an era that requires the effectiveness and efficiency of time in reaching the destination has encouraged even further development, especially in technology and transportation. Air transportation is one of the many forms of transportation that has a vital role in

supporting human needs to move places quickly.¹ All parties must consider the responsibility of ensuring the safety of all passengers without exception. Safety and security in aviation are top priorities in the aviation industry. Aviation safety is a condition where safety requirements are met in the utilization of aircraft. Aviation security is a matter that can protect flight activities from unlawful acts and endanger passengers.²

On October 29, 2018, the crash of Lion Air flight JT610 from Jakarta to Pangkal Pinang in the Java Sea 13 minutes after the airplane took off caused the death of 189 passengers and crew.³ A few months later, in March of 2019, the second accident with the same type of 737 MAX model to the Ethiopian Airlines ET302. An Angle of Attack (AoA) sensor alarm sounded ten seconds after departing, signaling another erroneous reading

¹ Sazpah, W., Wantu, F., & Kasim, N. M. (2020). "*Tanggung Jawab Korporasi Boeing Company Atas Kecelakaan Pesawat Di Wilayah Indonesia*" *Gorontalo Law Review*, Vol.3 No.1 (2020) <<https://doi.org/10.32662/golrev.v3i1.912>>

² Anita N. (2022). "Aspek Hukum Keselamatan Penerbangan di Indonesia" *Jurnal Hukum Sasana*, Vol 8, No.2 (2022) <[dx.doi/sasana.10.59999/v8i2.1875](https://doi.org/10.59999/v8i2.1875)>

³ Widiyanto, S., et.al. (2023). "Implementasi Hukum Udara Internasional Sebagai Upaya Keselamatan Penerbangan" *Indonesian Journal of Legality of Law* 6(1) : 18-23 (2023) <<https://postgraduate.universitاسbosowa.ac.id/>>

suggesting the plane was nearly vertical. The situation as mentioned prompted the activation of MCAS, which the Captain and First Officer tried to turn off multiple times.⁴ The accident occurred 5 minutes after the airplane took off from Addis Ababa Bole International Airport, causing the death of 157 passengers.⁵

In addition to the above, this accident was also caused by the absence of simulator training on the latest system in the 737 MAX series aircraft, the Maneuvering Characteristics Augmentation System (MCAS), which resulted in the pilot's not knowing the system.⁶ Boeing designed and implemented MCAS, a flight stabilization system that automatically adjusts the aircraft's pitch downward to prevent a stall during maneuvers with high angles of attack.⁷ The Maneuvering Characteristics Augmentation System (MCAS) was implemented on the

⁴ Malunga, et.al. (2022). "Key Lessons from the Boeing 787 MAX 8 Accidents" Loss Prevention Bulletin Institution of Chemical Engineers, SIESO Media Paper, (2022)

⁵ Naor M. (2020). "Psychological Safety In Aviation New Product Development Teams" Sustainability Article 12:8994, (2020) < doi:10.3390/su12218994 >

⁶ Komite Nasional Keselamatan Transportasi (KNKT). (2019). Aircraft Accident Investigation Report, October 2019, p. 179-181, 190-200

⁷ Noah. T Curran, et.al. (2023). "I's Boeing 737-MAX Still Safe? Analysis and Prevention of MCAS-Induced Crashes" Department of Science and Engineering of University of Michigan (2023)

737 MAX 8 with to enhance the aircraft's longitudinal stability under certain conditions. These conditions include retracting the flaps and flying at high Angles of Attack (AoA). MCAS is primarily responsible for adjusting the nose-down stabilizer to improve pitch behavior during specific situations, such as steep turns with increased load factors and flying with flaps up at speeds close to stalling. It is worth noting that MCAS operates independently without any pilot input and is only active when the aircraft is under manual control with the flaps up. However, the system is designed to allow the flight crew to counteract MCAS inputs by utilizing the control column trim switches or activating the stabilizer aisle stand cutout switches.⁸ However, this new development feature was not widely known by the 737 MAX pilot and its flight crew.

Following the Lion Air JT610 plane crash, the Indonesian Ministry of Transportation released a final report through the National Transportation Safety Committee (KNKT); here are some of the statements issued in the final report:⁹

⁸ Sebastian Makó, et.al. (2019) "Evaluation on MCAS System" *Acta Avionica Journal*, Vol. XXI 40, No. 1 (2019) p.22

⁹ Komite Nasional Keselamatan Transportasi (KNKT), loc.cit.

- a. Boeing proposed removing MCAS from the Flight Crew Operating Manual (FCOM), which was granted by the FAA. Specifically, it is written in 14 FAR 25.1585 (b): *“Information or procedures not directly related to airworthiness or not under the control of the crew must not be included, nor must any procedure that is accepted as basic airmanship.”*

This may indicate that Boeing intentionally omitted the MCAS in the Flight Crew Operating Manual because they thought that this system was automatic, so it did not require separate handling. They also considered that no specific procedure is required in this case MCAS, no procedure different from existing procedures. They also thought this system was not an airworthiness-related system where, in fact, when it is not getting the proper attention about dealing with it when something happens, it could put people’s lives in danger. The Lion Air JT 610 plane crash showed the need for different skills compared to what was presumed to mitigate the repetitive erroneous activations of MCAS.

- b. The Final Report also states that training for the flight crew would have helped them recognize anomalous circumstances and take the proper action. Boeing did not provide information or extra training requirements for B737-MAX8 because it was thought that its condition was comparable to that of earlier 737 models (737-NG).

In addition, the Federal Democratic Republic of Ethiopia Ministry of Transport and Logistics and the Aircraft Accident Investigation Bureau also released a statement that the Flight Crew Operations Manual (FCOM) contained no information about the new system.¹⁰

The similarity of the two final reports issued by the governments of each state shows that simulator training for the pilot and its flight crew is missing, assuming the design development carried out did not affect the operation of the aircraft. From the abovementioned elaboration on airplane crashes and their current issues, especially related to International

¹⁰ The Federal Democratic Republic Of Ethiopia Ministry Of Transport And Logistics. (2022). Investigation Ethiopian Airlines, Dec 2022.

Aviation Law, the principal emerging question that this article sets to answer is: How is the state's responsibility for civil aviation safety in the perspective of International Aviation Law? And is the absence of pilot training as the main cause of the Lion Air JT610 crash Indonesia's responsibility? This research aims to conduct a descriptive analysis of the authority and responsibility of a contracting state for the interests of flight safety from the perspective of international aviation law. This article explores whether Indonesia is responsible for the absence of training for pilots and flight crew on the updated system in the 737 MAX series.

The normative legal research method is employed to answer the research question above. This method tends to view law as a prescriptive discipline focusing solely on its norms. This approach involves utilizing a statutory method, examining and analyzing international conventions, and other laws and regulations relevant to the issue under study. Additionally, this research incorporates a case study, specifically analyzing the Lion Air JT610 plane crash case.

B. Discussion

1. The State Responsibility for the Safety of Civil Aviation

Civil aviation must adhere to relevant laws, both internationally and nationally, must adhere to relevant laws to ensure the safety of passengers, flight crews, aircraft, and cargo, as outlined by various international agreements. The Chicago Convention of 1944 serves as the foundational document for international civil aviation within public international aviation law. Member states of the International Civil Aviation Organization use this Convention as a guideline when creating their national aviation laws to support international civil aviation operations.¹¹

Over time, the international community has established several conventions pertaining to civil aviation, the most significant of which is the Chicago Convention of 1944, which replaced the Paris Convention of 1919 and the Warsaw Convention of 1929.¹²

¹¹ Article 4 of Chicago Convention on International International Civil Aviation.

¹² Hasan Sidik. (2016). Tanggung Jawab Pengangkut Udara Atas keterlambatan. *Interstemic: Journal of International Studies*, Vol. 1 No. 1, 2016 < doi: 10.24198/interstemic.v1n1.5 >

The actors involved in the aviation industry must possess a profound understanding of the significant responsibility associated with their activities. Aviation safety is a collective obligation for both direct and indirect parties. Indonesia also has adopted the content of the 1944 Chicago Convention into Law No. 1 of 2009 on Aviation. It is widely known that the Chicago Convention and its 18 Annexes pertain to public law concerning a country's authority to establish aviation regulations within each member country of the convention.

These regulations cover various aspects, such as ensuring aircraft airworthiness, granting flight permits, ensuring flight safety, determining aircraft nationality, and setting investigation standards for accidents.¹³ Not only is the state responsible for issuing various regulations as part of its obligations, but it is also responsible for ensuring the safety and security of civil aviation.

¹³ *Ibid.*

(1) The State Responsibility for Aviation in the
Perspective of International Law

Safety is a fundamental principle articulated and stated in the Chicago Convention 1944 and its additional document, namely Annex.¹⁴ The main objective of Annex 6 in the Convention of International Civil Aviation is to discuss the Operation of Aircraft that simply to ensure the maximum safety and efficiency in international air transport by establishing standardized procedures for operating an aircraft.¹⁵

The state's responsibility for civil aviation safety can first be seen in the context of the organization of navigation facilities, Article 28 of the Chicago Convention mandates that States must offer flight navigation facilities to all civil aircraft traversing their airspace by established standards and recommended practices (SARPs). Articles 37 and 38 of the Convention further outline these regulations, assigning States the duty to ensure the provision of safe flight navigation facilities to civil aviation. States are also permitted to

¹⁴ Diederiks-Verschuur. (2006). *An Introduction to Air Law*, The Netherland: Kluwer Law International, p. 253

¹⁵ The Convention of International Civil Aviation Annexes 1 to 18, International Civil Aviation Organization https://www.icao.int/safety/airnavigation/nationalitymarks/annexes_booklet_en.pdf [naspub]

delegate these responsibilities to other parties through contractual agreements as part of their obligation to maintain safety.¹⁶

Other than navigation facilities and safety, the responsibility of the state is also covered in Annex 6. The aim of Annex 6 is to enhance the safety of international air navigation by outlining guidelines for safe operational practices. Additionally, it seeks to promote the efficiency and regularity of international air navigation by encouraging ICAO's Contracting States to facilitate the passage of foreign commercial aircraft that adhere to these safety criteria over their territories.

Annex 6 of the Convention specifies the obligations of States in overseeing their operators, with a specific emphasis on flight crew. The primary requirement is to establish a system for supervising flight operations to ensure an ongoing level of safety. It mandates the provision of an operations manual for each aircraft type and places the responsibility on each operator to adequately educate all operations

¹⁶ Simatupang, Andika Imanuel. (2016) "State Responsibility Over Safety and Security On Air Navigation of Civil Aviation in International Law", *Indonesian Journal of International Law*: Vol. 13, No. 2, Article 5

personnel about their duties and responsibilities, and their relevance to the overall airline operation. Some of the responsibilities of the state in the supervision activities referred to are as an example, In Section 2, Chapter 2.3 of Annex 6 concerning the Airplane Performance Operating Limitation, as a state form of supervision over aircraft maintenance, the certificating authority of The State Registry can determine the operational limitations of an aircraft, along with placards, listings, instrument markings, or combinations thereof, containing those operating limitations prescribed by the certificating authority of the State of Registry for visual presentation that later shall be displayed in the aircraft.¹⁷ In Section 2 Chapter 2.5 of Annex 6 concerning the Airplane Performance Operating Limitation, the State of Registry is responsible for establishing of all the aircraft equipment needed for aircraft communication, navigation, and surveillance equipment.¹⁸

The 1944 Chicago Convention provides regulations related to the investigation of aircraft

¹⁷ Annex 6 to the Convention of International Civil Aviation. (2018) Operation of Aircraft Part II International General Aviation, 10th Edition, July 2018, p. 2.3-1

¹⁸ *Ibid.*

accidents in Article 26 of the 1944 Chicago Convention, which states that¹⁹

“In the event of an accident to an aircraft of a contracting State occurring in the territory of another contracting State, and involving death or serious injury, or indicating serious technical defect in the aircraft or air navigation facilities, the State in which the accident occurs will institute an inquiry into the circumstances of the accident, in accordance, so far as its laws permit, with the procedure which may be recommended by the International Civil Aviation Organization. The State in which the aircraft is registered shall be given the opportunity to appoint observers to be present at the inquiry and the State holding the inquiry shall communicate the report and findings in the matter to that State.”

Furthermore, Annex 13 of the Chicago Convention 1944 regulated the investigation into this airplane crash. Annex 13 outlines the global standards for investigating aircraft accidents and incidents. Chapter 5 of Annex to the Chicago Convention 1944 deals with the investigation process and assigns the responsibility for investigating to the State where the accident or incident occurred. Usually, this State conducts the investigation, but it can delegate

¹⁹ Convention on International Civil Aviation of 1944 Chicago Convention

some or all of the investigation to another State. In situations where the occurrence happens outside the territory of any State, the State in which the aircraft is registered assumes the responsibility for conducting the investigation. The State of Registry, Operator, Design, and Manufacture, who are involved in the investigation, have the right to designate an accredited representative to participate and appoint advisers to participate as well. Furthermore, the State conducting the investigation is authorized to seek assistance from the most qualified technical experts available to aid in the investigation.²⁰

As written in annex 13, the state conducting the investigation shall have independence in its conduct and unrestricted authority over its conduct. The state's responsibility for conducting the investigation shall typically include:²¹

- a) The gathering, recording, and analysis of all relevant information about the accident

²⁰ Abhishek Antony & Celin Thomas. *Has the Impeccable Safety of Air Travel Diluted?: An Analysis in the Light of Recent Air Crashes of Boeing 737 MAX Aircraft*, p. 153

²¹ Annex 13 to the Convention of International Civil Aviation. (2016). *Aircraft Accident and Incident Investigation*, 11th Edition, July 2016, p. 5-2

- b) The protection of certain accident investigation records
- c) The issuance of safety recommendation
- d) The determination of the causes and/or contributing factors
- e) Complete the final report.

As for the Final Report, the state that conducts the investigation shall send a copy of the Final Report draft to the following States, inviting their significant and substantiated comments on the report as soon as possible:²²

- a) The State that instituted the investigation
- b) The state of Registry
- c) The state of the Operator
- d) The State of Manufacturer
- e) The State of Designs
- f) Any State that participated in the investigation as per chapter 5 of Annex 13

If the state that conducts the investigation does not receive any comments from all the relevant states mentioned above within 60 days from the date of the initial transmittal letter, the Final Report will be

²² *Ibid.* p. 61

released unless the concerned states have mutually agreed upon an extension of this timeframe.²³ Chapter 5 of Annex 13 of the Chicago Convention 1944 also includes provisions regarding the investigator-in-charge, flight recorders, autopsy examination, coordination with judicial authorities, informing aviation securities authorities, disclosure of records, and re-opening of an investigation.

(2) The State Responsibility for Aviation in the Perspective of National Law

Indonesia has adopted the content of the 1944 Chicago Convention into Law Number 1 of 2009 concerning Aviation. According to Article 308, paragraphs (1) and (2) of Law Number 1 of 2009 concerning aviation, it is explained that the Minister of Transportation, as a structure of the Indonesian government is, responsible for aviation safety, one of which is by establishing a state safety program.²⁴ The State safety program, as referred to in Article 308, is further contained in the points in Article 309

²³ *Ibid.*

²⁴Article 308 verse (1) and (2) Law Number 1 Year 2009 Concerning Aviation

paragraph (1), whose further provisions are explained in a Ministerial Regulation. The following is a national aviation safety program, which consists of:²⁵

- a) Aviation safety regulations
- b) The objectives of aviation safety
- c) Aviation safety reporting system
- d) Safety data analysis and exchange
- e) Accident and incident investigation
- f) Safety promotion
- g) Safety oversight (supervision)
- h) Law enforcement

The supervision referred to above is to ensure that aviation safety regulations implemented by aviation service providers are met according to existing standards, which aim to ensure the safety of the parties during flight activities. The form of supervision referred to is further written in Article 312 paragraph (2) of Law No. 1 of 2009 concerning Aviation that the supervision takes the form of audits, inspections, observations, and monitoring which was explained further in Ministerial Regulation Number

²⁵Article 309 verse (1) Law Number 1 Year 2009 Concerning Aviation

PM 93 of 2016 concerning the National Aviation Safety Program:²⁶

- a) Audit
- b) Inspection
- c) Observation
- d) Monitoring

2. Indonesia's Responsibility for the Absence of Pilot Training regarding the Latest Development System of the Maneuvering Characteristics Augmentation System (MCAS)

Other than the existing legal sources which did not include that providing and conducting the pilot training was the responsibility of the contracting state, it is also mentioned that the responsibility is only limited to supervision and investigation. The supervision referred to in Annex 13 of the 1944 Chicago Convention is one of which is supervision of the surveillance system as well as supervision of in-depth and detailed observations and tracing of

²⁶Regulation of the Minister of Transportation of the Republic of Indonesia Number PM 93 of 2016 concerning the National Aviation Safety Program, Chapter V National Aviation Safety Assurance.

aviation safety on certain parts that have been determined by procedures, facilities, personnel, to the documentation of aviation service provider organizations such as written in Ministerial Regulation Number PM 93 of 2016 concerning the National Aviation Safety Program.

The obligation to procure pilot training is Boeing's obligation as an aircraft manufacturing company and the FAA as a civil aviation regulatory agency in the United States. It is the same as issuing an aircraft airworthiness certificate, which is Boeing's responsibility as a manufacturing company with FAA approval and supervision..²⁷ Under the provisions related to the continuing airworthiness of aircraft, Indonesia, as the State of Registry, only has the obligation to inform the State of Design when it first enters in its register an aircraft of the type certified by the latter. This is to enable the State of Design to transmit to the State of Registry any generally applicable information it has found necessary for the

²⁷ Khanza Aminatuzzahra, et.al. (2020). Responsibilities of the State and Aircraft Manufacturer on Lion Air JT610 and Ethiopian Airlines ET302 Accidents under International Law, Padjajaran Journal of International Law, Vol. 4, No. 2, June 2020, p. 158

aircraft's continuing airworthiness and safe operation.²⁸

Based on the collected information, it is clear that both Boeing Company and the Federal Aviation Administration (FAA) were major contributors to the Lion Air JT610 accident. Boeing, as the aircraft manufacturer, neglected to provide crucial documentation about the latest updates to the Maneuvering Characteristics Augmentation System (MCAS). This oversight was a significant mistake, as the FAA either did not know about or was inadequately informed of the MCAS system changes. Additionally, Boeing assumed that flight crews were already familiar with the 737 MAX series and believed it operated similarly to previous 737 models. Consequently, Boeing failed to include important MCAS system details in the flight crew manuals and training programs.²⁹ A well-known competition between Boeing and Airbus also became one of the reasons why Boeing was pressured to develop the MCAS system

²⁸ Annex 8 to the Convention of International Civil Aviation. (2005). *Airworthiness of Aircraft 10th Edition*, April 2005

²⁹ Khanza Aminatuzzahra, et. al., *Op.cit.*, p. 158

without giving sufficient priority to thorough prototype testing. Additionally, the FAA, as the civil aviation regulatory agency, faced criticism for its insufficient understanding of the MCAS system and for inadequately supervising Boeing's Organization Designation Authorization (ODA).³⁰

In the first place, Indonesia as a state was not a legal subject in this accident, as Indonesia has carried out its obligations and responsibilities as a country. However, Boeing, as an aircraft manufacturing company, needed to inform about its newest system in the manual and FAA's lack of knowledge of the newest system from the start.³¹ Even before the accident occurred, the airline Lion Air had requested training for its pilots from Boeing to benefit of the 737 MAX aircraft, but the training never took place after Boeing stated that this was not necessary.³²

Boeing aimed to align its aircraft production with ongoing technological advancements and market

³⁰ *Ibid.*

³¹ *Ibid.*

³² Media Indonesia. (2020) "Sebelum Kecelakaan, Lion Air Minta Pelatihan dari Boeing" Januari 2020, terdapat pada <https://mediaindonesia.com/internasional/283427/sebelum-kecelakaan-lion-air-minta-pelatihan-dari-boeing> accessed February 26, 2024

demands for greater efficiency. In response to these pressures, Boeing announced the development of the 737 MAX 8 in 2011, highlighting its improved fuel efficiency. The company assumed that pilots already familiar with the MAX series could operate the new model without the need for extensive simulator training. However, this assumption, combined with other errors, resulted in pilots and flight crews being unable to effectively address issues that occurred during flight.³³

It has been published in several international journals that there is indeed competition between Boeing and Airbus. This rivalry in the aviation industry exerts significant pressure on Boeing, leading the company to develop MCAS quickly without prioritizing proper prototype testing.³⁴ However, The difficulty of suing Boeing Company within the scope of international law is supported by the absence of regulations regarding aircraft manufacturers. The

³³ Mutsa Malunga, et.al. (2022). *“Key Lessons from the Boeing 787 MAX 8 Accidents”*, Sieso Medal Paper, Institution of Chemical Engineer (IChmE), p. 24

³⁴ Michael Naor, Nicole Adler. (2020). *“Psychological Safety in Aviation New Product Development Teams: Case Study of 737 MAX Airplane”*, p.6

scope of the 1929 Warsaw Convention and 1999 Montreal Convention as the two conventions that governed the international air carriage law only regulates within the rights and obligations of air carriers and consumers, including settlement of certain cases and the amount of compensation. However, the scope concerning air manufacturers needs to be regulated in these two conventions, only to similar cases that have happened in the past that were settled by the national laws.³⁵

In January 2021, The Boeing Company (Boeing) reached an agreement with the Fraud Section and the U.S. Attorney's Office for the Northern District of Texas to settle a criminal charge filed against them. The charge pertained to a conspiracy to deceive the Federal Aviation Administration's Aircraft Evaluation Group (FAA AEG) during their evaluation of Boeing's 737 MAX airplane. According to court documents, Boeing, through two of its 737 MAX Flight Technical Pilots, provided false information to the FAA AEG about the speed range capabilities of the Maneuvering

³⁵ Khanza Aminatuzzahra, et.al., Op.cit. page 156-157.

Characteristics Augmentation System (MCAS), a part of the 737 MAX's flight controls.³⁶

On October 21, 2022, the United States District Court for the Northern District of Texas issued a ruling (Order) stating that over a dozen family members and representatives of individuals who lost their lives in the two Boeing 737 MAX crashes, namely Lion Air Flight 610 on October 29, 2018, and Ethiopian Airlines Flight 302 on March 10, 2019, were able to demonstrate that they suffered direct and proximate harm due to Boeing's conspiracy to defraud the United States. Boeing acknowledged this conspiracy in the Deferred Prosecution Agreement (DPA) submitted in this case. As a result, these family members and representatives are considered crime victims under the Crime Victims' Rights Act (CVRA).³⁷

According to the Deferred Prosecution Agreement (DPA), Boeing must make more than \$2.5 billion payments. This includes a criminal monetary penalty of \$243.6 million, compensation of \$1.77

³⁶ The United States Department of Justice, *United States V. The Boeing Company*, available online <https://www.justice.gov/criminal-fraud/case/united-states-v-boeing-company> Accessed on August February 25th 2024

³⁷ *Ibid.*

billion to Boeing's 737 MAX airline customers, and the creation of a \$500 million fund to provide compensation to the heirs, relatives, and legal beneficiaries of the 346 passengers who tragically lost their lives in the Boeing 737 MAX crashes involving Lion Air Flight 610 and Ethiopian Airlines Flight 302.³⁸

In addition, Lion Air, as an airline, also has responsibility for the accident that befell the Lion Air JT 610 aircraft. Those responsible for the accident are the airlines as stipulated in the 1999 Montreal convention as the legal basis for international legal regulations and the Act. Number 1 of 2009 concerning flights and Regulation of the Minister of Transportation Number PM 77 of 2011 concerning the Responsibilities of Air Transport Carriers as Indonesian national law.

Following Article 141 of Law Number 1 of 2009 related to Aviation, the airlines bear responsibility for passengers who go missing, experience death, permanent disability, or injuries resulting from

³⁸ Office of Public Affairs U.S Department of Justice. (2021). Boeing Charged with 737 Max Fraud Conspiracy and Agrees to Pay over \$2.5 Billion, Jan 2021, Available online <https://www.justice.gov/opa/pr/boeing-charged-737-max-fraud-conspiracy-and-agrees-pay-over-25-billion> Accessed on February 25th 2024

incidents that occur during air transport on board an aircraft or during the boarding process. If the loss occurs due to deliberate actions or errors committed by the airlines or the person responsible for transportation, the carrier is held accountable for the loss.³⁹

Article 17 of both the Warsaw Convention of 1929 and the Montreal Convention for the Unification of Certain Rules for International Carriage by Air (MC-99) governs the liability of air carriers concerning passengers. According to Article 17 (1) of the Montreal Convention, it states that:

*“The carrier is liable for damage sustained in case of death or bodily injury of a passenger upon condition only that the accident which caused the death or injury took place on board the aircraft or in the course of any of the operations of embarking or disembarking”.*⁴⁰

³⁹Pramuditya Syaiful Maarif dan Burhanudin. (2021). Implementasi Penerapan Pemberian Ganti Kerugian Korban Kecelakaan Pesawat: Studi Kasus Lion Air JT 610 PK-LPQ, *Journal of Legal Research*, Vol. 3 Issue 4, 2021, p. 628

⁴⁰Eman Naboush and Raed Alnimer. (2020). Air carrier’s liability for the safety of passengers during COVID-19 pandemic. *Journal of Air Transport Management* 89, 2020, p. 2

C. Conclusion

In conclusion, the responsibility of the state for the safety of civil aviation in the perspective of International Aviation Law lies within the responsibility of supervision, as mentioned in Annex 6 of the 1944 Chicago Convention and investigation, as regulated in Article 26 of the 1944 Chicago Convention which was explained further in Annex 13 of the 1944 Chicago Convention. Indonesia also has adopted the 1944 Chicago Convention into Law Number 1 of 2009 concerning Aviation. The existing legal sources did not regulate the contracting state as the provider in conducting the pilot's simulator training, so Indonesia cannot be held responsible. Referring to Chapter 2.4 of Annex 6, the manufacturer should have established and documented of MCAS procedure and training requirements for the MCAS as the new development system. So, the responsibility of providing and conducting the simulator training for a new system remains in the hands of the manufacturing company as they also have the ultimate responsibility of ensuring the highest level of flight safety.

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