

# Implementation of ICAO Standards for Civil Aviation Security in Indonesia

Tumpal Silitonga<sup>1</sup>, R. Widya Setiabudi Sumadinata<sup>2</sup>, Arfin Sudirman<sup>3</sup>, Taufik Hidayat<sup>4</sup>

<sup>1</sup> *Doctoral Degree in International Relations, Universitas Padjadjaran, Bandung, Indonesia*

<sup>2,3,4</sup> *Department of International Relations, Universitas Padjadjaran, Bandung, Indonesia*

## Abstract

The world of aviation, which is full of technology, should be the center of world attention and must be managed strictly and safely. Aviation safety in principle is the main and fundamental thing in the operation of the aviation industry by taking into account the risk aspects in it. Therefore, in realizing an achievement of a good flight safety system requires a policy by prioritizing the regulatory principles regulated in the aviation industry itself. The main objective of this research is to identify policies on relevant regulations based on ICAO standards in encouraging the creation of civil aviation safety in Indonesia. This research is a qualitative research with descriptive method. This type of research is explanatory research, the approach used in this research is survey method, and comparative study. Interviews were conducted to informants who were determined by purposive sampling taken according to data needs. Descriptive analysis technique was applied in the preparation of this study with the consideration that the problem under study requires an understanding approach to a phenomenon that occurs in an effort to improve aviation safety in Indonesia. The results of the research stated that it was found that aspects of the license and bond (CE-6) of the ICAO standard had been implemented well by Indonesia, but overall the implementation of aviation regulatory policies in Indonesia was not entirely in accordance with ICAO standards.

**Keywords** : Aviation, Aviation Safety, ICAO, ICAO Standard

## INTRODUCTION

Air transportation is a type of transportation that is fast, efficient and economical and is an important means for developing natural resources, developing trade, the economy and the tourism industry. Air transportation, both international and domestic, has an increasingly important role and function in human activities, especially for an archipelagic country like Indonesia. But apart from being a mutually beneficial thing between passengers as users of flight services and airlines as providers of flight services, air transportation can also be a scary thing where it is not uncommon to get disasters such as airplane accidents, sabotage, terrorism, and others. Aviation accidents are things that often occur in aviation activities, where one of the contributing factors is human error. (Hasim,

2017). According to the Safety Indicators Study Group (SISG) statistics from the International Civil Aviation Organization (ICAO) showing an increase in the number of accidents in 2018. From 2017 to 2018, there has been an 11 percent increase in the number of accidents, as reported by several countries. The global accident rate of 2.6 accidents per million departures also increased 8 percent from 2.4 accidents per million departures. In accordance (ICAO, 2020). Observing the issue of national aviation safety, in Indonesia there have been several records of air transportation accidents involving various civil airlines and resulting in many fatalities. Adam Air plane crash in Majene waters in 2007 which resulted in the death of 96 passengers and crew, Garuda Indonesia plane crash in the same year in Yogyakarta and killed 21 passengers.

Another air transportation accident occurred in October 2018, the Lion Air plane crash in the Java Sea north of Karawang which resulted in the death of 189 passengers. And most recently, in January 2021, there was a Sriwijaya Air plane crash in the Thousand Islands which killed 62 passengers and crew. Of course, some of these air transportation accidents have shaken all walks of life, from all walks of life, stakeholders, airline authorities, aircraft manufacturers to regulators.

This condition should be interpreted as an important warning for the Indonesian aviation, how to make policies on air transportation and how to regulate regulations on the safety of civil aviation in Indonesia. The world of aviation, which is full of technology, should be the center of world attention, must be managed strictly and safely. Aviation safety in principle is the main and fundamental thing in the operation of the aviation industry by taking into account the risk aspects in it. Therefore, in realizing an achievement of a good flight safety system requires a policy by prioritizing the regulatory principles regulated in the aviation industry itself.

ICAO is an agency under the United Nations (UN) whose activities are to prepare international civil aviation regulations, distribute and monitor and evaluate their implementation (Susanto & Keke, 2020). As an international organization, the ICAO board adopts standards and recommends practices regarding aviation, prevention of illegal interference, and facilitating transnational procedures for international civil aviation (Admin Ilmu Penerbangan, 2021). The Indonesian government in implementing the ICAO regulations uses the form of rules such as Law no. 1 of 2009 concerning Aviation, Government Regulations concerning Aviation, as well as other regulations issued by the Ministry of Transportation. In implementing the regulation, Indonesia uses the CASR (Civil Aviation Safety Regulation) form which is equipped with the ICAO annex, this form is then referred to as PKPS (Indonesia's Civil Aviation Safety Regulation) in Indonesia as an operational reference for flight operators. Although some of the CASR material generally follows the FAR

(Federation Acquisition Regulation) used by the United State, in principle it still refers to ICAO's recommended standards.

However, referring to an audit conducted by ICAO, the Federal Aviation Administration (FAA) as the US civil aviation authority has issued an announcement that aviation safety in Indonesia has dropped from Category I to Category II. (INACA, 2019). Indonesia is assessed by the FAA as a country that does not meet the CASR requirements as determined by ICAO. Category II in FAA regulations that, a country's aviation safety regulations are not implemented properly, their supervision does not meet eligibility, and the flight regulations are not appropriate and do not meet the standards set by ICAO (Hakim, 2016). On the other hand, there are still civil aviation safety policies in Indonesia, which in their implementation have not gone according to what is stipulated. Some things that are considered not to meet compliance standards, for example, lie in the organizational field, such as the function of the Directorate of Airworthiness and Aircraft Operation (DKPPU), the position of the National Transportation Safety Commission (KNKT), facilities and infrastructure as well as the fulfillment of the quality and quantity of the Aviation Inspector.

Researchers have conducted a literature analysis on previous research which is considered to have a correlation with the subject matter to be developed in the further research process. Related research on ICAO such as Button et al., 2004; Huang, 2009b; Leib et al, 2013; Molasiarani, 2017; Achdiat, 2017; Wirasatya, 2017; ICAO Safety Audit Result, 2018; Sky Brary, 2018; Primadi, 2019; Mahoro, 2019; ICAO Safety Documents, 2020b; Keke, 2020; Admin Ilmu Penerbangan, 2021; Sena, 2021, all of which emphasize the safety policy of the ICAO regime which is a compliance requirement for all aviation regulators and authorities. Research related to aviation regulations and policies such as Savage, 1999; Button et al., 2004; Williams, 2009; Wheelen & Hunger, 2012; Yadav & Nikraz, 2014; Putra, 2015; Zerlina et al., 2016; Yarlina & Lindasari, 2017; Doc 9859, 2017; Asmah, 2017; Nursaini, 2018;

Hutagalung et al., 2018; Oliveira & Caetano, 2019 which emphasizes the innovation system in air transportation management where the policy influence is low on operators, aircraft and low understanding of airports.

It is important to note that in order to achieve a good level of flight safety, a regulatory policy is needed, where the policy is expected to obtain an action plan that is oriented to a model of thinking on principles, norms and rules that are mutually agreed upon. The principle difference between the researcher's idea and previous research lies in increasing regulation in ensuring the safety of national aviation through the perspective of the ICAO regime as one of the solutions in solving the current national air transportation problem. This research puts forward a breakthrough to examine the regulation of civil aviation safety in Indonesia from the perspective of the ICAO regime on subjects who are considered competent.

The remainder of the present paper is structured in the following manner. Section 2 contains the Literature Review used in this research. This is followed by Section 3, which explain the Research Method. In Chapter 4, the results of the Research and further discussed. Finally, Section 5 concludes the paper.

## LITERATURE REVIEW

Based on the phenomena in the previous discussion, the researchers approached several theories that were considered appropriate to serve as a basis for conducting field research and further analysis steps. In principle, this research uses regime theory approach and air safety theory (air safety-shell model theory).

### International Regime

Regime theory is a theory of international relations originating in the liberal tradition. International regimes have emerged as an important focus of empirical research and theoretical debate in international relations. Regime interests arise from dissatisfaction with the dominant concepts of international rule, authority, and organization (Haggard & Simmons, 1987). Regime theory argues that international organizations or international regimes influence the behavior of states and

other international actors. This theory states that cooperation is possible in a world system of anarchy because the regime itself is the result of international cooperation (Satnyoto, 2017).

The existence of an international regime is needed in managing relations between countries, for example in regulating international trade and international flights. The international regime can be understood as a tool to facilitate the making of substantive agreements in politics in a world with a cross-country scope (Keohane & Nye, 1989). Regimes facilitate agreement through the provision of implicit and explicit norms, principles, rules, and decision-making procedures. Regimes are expected to be present to regulate the behavior of actors on certain issues and also aim to help actors to face obstacles in the process of international relations between countries (D. Crasner, 1977).

An international regime is something that is indispensable in today's world, because apart from bringing stability, it can also bring peace and brotherhood between mankind. Regimes have emerged for a long time in international relations as a form of response to the dissatisfaction of actors in carrying out their dependence on each other, although on the other hand realists do not accept the existence of regimes, the existence of regimes shows a very strong position in international relations (Haggard & Simmons, 1987). Thus, the regime will also affect the way it is run and the goals to be achieved from the institution (Bilqis, 2014).

From various expert opinions on international regime theory, there will be many births and the formation of regime institutions and organizations in the world in various fields, one of which is the regime in the field of international aviation (ICAO). Based on the perspective and approach of the international regime, it can be said that the ICAO aviation regime, in this study, is closer to the cognitivism perspective. This perspective emphasizes international relations that have interactions to form patterns and rational groupings that are obtained through the contribution of ideas from epistemic circles in generating new ideas and contributions that are used by aviation actors in Indonesia (Operators and Regulators). The Civil

Aviation Safety Management System in Indonesia indicates the need for a new design and formulation of thinking in improving aviation safety in accordance with the relevance of the rules desired by the ICAO regime for the relevant actors.

### **Aviation Safety (Air Safety)**

The ICAO definition of safety is a situation in which the risks associated with aviation activities, associated with, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level (Doc 9859, 2017). In this regard, ICAO uses other terms such as the Safety Management System (SMS) which is a systematic approach to managing safety, including organizational structure, accountability, responsibilities, policies and procedures required. The State Safety Program (SSP) is an integrated set of regulations and activities aimed at to increase safety (ICAO, 2020b).

Roelen & Klompstra (2012) defines safety as freedom from unacceptable risk, risk is a combination of the probability of a hazard occurring and the severity of the harm. Harm is physical injury or damage to people's health either directly or indirectly as a result of damage to property or the environment (Roelen & Klompstra, 2012). So the definition of safety is subjective, because what is acceptable to one group of people may not be acceptable to another group of people. Safety also has a probabilistic aspect, and this is one of the reasons why subject safety is difficult to measure, because the absence of a hazard does not necessarily indicate a risk (Fiyanzar, et al., 2017).

Stolzer (2015) argues that although aviation is one of the safest modes of transportation in the world today, accidents still happen, to further reduce accidents and improve safety, a proactive approach must be taken by the aviation community. Safety is critical to the existence of civil aviation, which is one of the main drivers of the fast-growing global economy (Stolzer, 2015). Furthermore, Mwikya (2018) also mentions that establishing a supervisory body is a standard method of regulation for aircraft operators, and is an important scope for

improving aviation safety around the world. (Mwikya, 2018).

In Government Regulation No. 3 of 2001 concerning Aviation Security and Safety provides the understanding of flight safety as a condition that is manifested in the operation of flights that embody orderly, orderly, safe, secure, comfortable flights at reasonable prices, and avoids unfair business competition practices. not healthy; smoothly in accordance with operating procedures and technical feasibility requirements for aviation facilities and infrastructure and their supports (Tulusan & Dengo, 2018).

The theory of aviation safety (air safety) is very relevant to the international regime, for example aviation safety must pay attention to and fulfill the security requirements for the use of air space, aircraft operations, and all supporting facilities, as regulated in ICAO regulations Annexes 8 and 9. For example, by referring to regulatory policies in Annex 8 (Airworthiness of Aircraft) which regulates airworthiness standards and aircraft inspections which must have the same procedures in all civil aircraft flight activities, and at all airports in Indonesia. Meanwhile, the policy of the ICAO regime in Annex 9 (Facilitation), regulates the standard provisions for airport facilities that support the smoothness and entry of aircraft, passengers and cargo.

### **RESEARCH METHOD**

This research will focus on improving civil aviation safety regulations in Indonesia using qualitative research methods. Qualitative research data is descriptive, namely data in the form of words and pictures obtained from interview transcriptions, field notes, photos, videotapes, personal documents, official documents, memos, and in the form of codes, numbers, sizes, and operational variables.

This type of research is explanatory research. According to Singarimbun, explanatory research is research that explains the causal relationship between research variables and hypothesis testing (Singarimbun, 2006). Sources of research data obtained from the search and collection of primary data and secondary data. Primary data is

data obtained from direct observation and interviews with informants, while secondary data is obtained from literature studies and other sources relevant to this research. Observations are carried out by observing all activities and conditions in the object of research, so that relevant data is obtained in analyzing problems related to the research in question. Interviews were conducted to informants who were determined by purposive sampling with the understanding that the sampling was intentional and meant that the researcher determined the samples taken according to the data needs.

Descriptive analysis is used to determine the condition of the supporting industry so that it can improve the regulation of civil aviation safety in Indonesia. Qualitative methods using descriptive analysis techniques were applied in the preparation of this study with the consideration that the problem under study requires an understanding approach to a phenomenon that occurs in an effort to improve aviation safety in Indonesia.

The process of data analysis in this study begins by examining all available data from various sources, namely from interviews, personal documents, official documents, photographic images, and other sources. With the acquisition of so much data, and after being read, studied, analyzed, followed by the next step, namely conducting data reduction which was carried out by abstraction. Abstraction is an attempt to make a summary of the core, processes, and statements that need to be maintained so that they are maintained in it (Shidiq & Choiri, 2019). Thus, the ultimate goal of analyzing data is to draw conclusions, which in qualitative research is to find concepts or relationships between concepts. Sources of data from this study were officials from the Ministry of Transportation, KNKT officials, Regional ICAO officials, Indonesian Civil Aviation Operators (Garuda and Lion Air). While the object of this research is ICAO Regional, Ministry of Transportation, PT. Garuda Indonesia Airways, PT. Lion Air Group, KNKT, PT. GMF, Vendors and Stakeholders with an observation unit, namely the management of the company.

## **RESULTS AND DISCUSSIONS**

### **Aviation Safety Policy Under ICAO Regulation**

ICAO is concerned with the safety and security of civil aviation around the world. This concern was expressed in a convention held in Chicago in 1944, with the main objective of implementing security and safety issues in air transportation. ICAO issues a series of policies related to decisions as aspirational statements or formulations from several states that join in it, then by itself ICAO is a regime that is able to formulate policy formulations and features in various fields such as rules and procedures which are the compliance framework that is built. based on certain norms.

In this research ICAO serves as an important coordination platform as well as conducting educational outreach, coalition building, and conducting audits, training and capacity building activities worldwide according to needs and priorities identified and formalized by governments. ICAO works to enable the safety standardization necessary to integrate today's exciting innovations in aircraft propulsion, design, autonomous control, and personal mobility, while still maintaining or improving overall network performance. ICAO works to enable the safety standardization necessary to integrate today's exciting innovations in aircraft propulsion, design, autonomous control, and personal mobility, while still maintaining or improving overall network performance.

ICAO's policies as outlined in 19 Annexes and various derivative documents that are always and continuously updated through amendments with policies that are decided based on accountable truths, namely scientific truths obtained from various research and development from various disciplines related both in the form of theory and analytical models.

Of the 19 annexes that have been issued by ICAO, in this case ICAO has a regulatory hierarchy consisting of five major rules :

1. Member countries implement regulations, especially those that are "Standard" (mandatory).

2. A number of conventions must be ratified and converted into internal regulations of each member country in the form of laws, which are adjusted to the relevance of other applicable rules.
3. As an implementation of international regulations, the regulations made by member countries are minimum standards with ICAO, while for reasons or considerations of security and safety, member countries can make relatively stricter national regulations.
4. Each member country is obliged to report its country's product regulations and their implementation to ICAO.
5. ICAO product regulations are universal. In this case, there are only two categories in global aviation safety standards, namely category 1 pass (pass), and category 2 failure (do not pass). If the regulator or aviation authority of a country is incompetent, then the safety of all airlines in that country is practically not guaranteed. On the other hand, if the country's regulator passes or enters category 1, but it is found that there is a serious violation of one or more airlines in that country, only the airline that violates it will be penalized.

### **Application of ICAO Regulations on Civil Aviation in Indonesia**

Air Safety or aviation safety is the main requirement in the air transportation industry that must be adhered to and implemented as well as possible by every ICAO member country. Basically, by complying with applicable safety procedures, it can improve flight safety so that a safe, comfortable and safe flight can be created. As a member of ICAO, flight conditions in Indonesia must also be consistently monitored. Included in the spotlight is how safety compliance is a benchmark used by all ICAO member countries. From this explanation, safety

compliance is divided into 2, namely freedom compliance and mandatory compliance. Freedom compliance is the sovereign right of each ICAO member country that cannot be intervened by other countries. Meanwhile, mandatory compliance is the compliance of all member countries to the ICAO annexes and their derivatives contained in the CASR document at the level after the Constitution in each country. Based on the evaluation of the implementation of ICAO regulations in emphasizing the criteria for compliance aspects in the Aviation Law in Indonesia with the conception of the Standard Safety Compliance for ICAO-Safety Plan Framework which contains three issues, the results obtained are:

#### **1. Systemic Issue**

Systemic problems have become clear to play an important role in the decline in water safety performance in Indonesia. Systemic problems in general are closely related to a series of organizational management procedures related to the implementation of air safety aspects. There are details of systemic problems, namely: (1) air safety planning must work for the Indonesian state by implementing and developing a State Safety Program, (2) air safety planning must implement a safety management system into flight operators, (3) air safety planning must be oriented to safety collaboration. management system, and (4) air safety planning must represent complexity as a system.

#### **2. Operational Issue**

Air safety problems in aviation operational activities in Indonesia can be identified through reporting and analysis of incident data. Safety planning in Indonesia should begin by addressing the major safety risks affecting commercial air transport, particularly those carried out by aircraft. Accidents that occur in Indonesia are currently an important concern for national aviation safety, because the causal factors that encourage these accidents cannot be separated from the fault in the field of Aviation Management Policy itself. However, in Indonesia, the human error factor is still the dominant factor that must be considered. Further analysis was carried out to what extent the factors that were considered dominant to

influence the accident rate were carried out through the safety protocol approach applied by ICAO.

Based on the results of interviews, the significant cause of commercial airplane accidents caused by the human element is 75%. It can be understood together that the human element is a combination of the causes of aircraft accidents which are also caused by non-compliance with a series of procedure elements. Then, from the results of the research study, the cause of airplane accidents from the human element occurs because the regulatory policy for safety aspects does not comprehensively describe how the benefits of regulation as a preventive catalyst for improving human performance.

### 3. Emerging issue

Emerging issues are closely related to the non-optimal use of advanced aviation technology systems based on predictive flight safety risk prevention in operational activities of all flight operators, the absence of efforts to eliminate the direct impact of environmental damage resulting from the operational activities of each flight operator, the effectiveness of a set of aviation regulatory policies, and the provision of professional human resources and specialized expertise to manage the Safety Management System.

### **Optimization of Aviation Organization Restoration in Indonesia**

#### **Indonesia State Safety Program**

Management of the organization of national aviation safety is the focus of the field of organizational optimization and one of the important criteria for the functioning of the State Safety Program. The Indonesia State Safety Program, through optimizing its organization, has the main objective of ensuring holistic compliance with related standards, procedures and regulations. In the results of the study, it was found that the organizational structure of the Indonesia State Safety Program that needs to be optimized is the implementation of safety compliance according to the ICAO regime, regarding a set of mechanisms for expanding responsibilities and coordinating the implementation of the main tasks of the Indonesia-SSP function in accordance with the

principles of the ICAO-Safety Framework on safety policy as the implementer of CASR in Indonesia, meaning that there is a situation where the regulations used (CASR) are equivalent to the enacted State Laws.

### **National Transportation Safety Committee (KNKT)**

The government as the authority and regulator has made efforts to realize national transportation safety by establishing the National Transportation Safety Committee (KNKT). The implementation of the duties and functions of the KNKT can take place optimally if it is separate and independent from other level government institutions or departments in Indonesia. However, this effort to establish the KNKT did not directly result in a reduction in the number of accidents in Indonesia. Therefore, the NTSC must conduct a blueprint study in the development from all aspects related to the problem of carrying out tasks, comparisons with similar investigative agencies abroad and in the end an analysis of the KNKT institutions that are expected in the future.

According to the researcher, as the only institution that conducts research and investigations into the causes of transportation accidents in Indonesia, it is mandatory for the NTSC to have legal aspects as the legal force of the KNKT. This legal aspect is expected to support the implementation of KNKT's tasks at the national and international levels. This legal aspect is also based on the demand that the KNKT can maintain its independence in determining the cause of a transportation accident. This claim implies that in determining the conclusions of possible causes of transportation accidents, KNKT in preparing its safety recommendations is expected not to be influenced by certain policies or powers from the government as regulator, operator or other parties involved in the accident.

### **ICAO Regulatory Compliance Index in Indonesia (Safety Compliance Index)**

The Safety Compliance Index is described in the form of the CE-Critical Element parameter value unit against the focal point of the audited observation during the field inspection by the ICAO auditor. Every national aviation safety

must meet all aspects of the Critical Element (CE) in its efforts to establish and implement an effective safety control system that reflects the shared responsibility of the state and the aviation community. The CE of safety surveillance systems covers the entire spectrum of civil aviation activities, including personnel licensing, aircraft operations, aircraft airworthiness, aircraft accident and incident investigations, air navigation services and aerodromes.

There are 8 critical elements (CE) of the national aviation safety surveillance system in ICAO member countries, namely:

CE-1 Primary aviation legislation

CE-2 Specific operating regulations

CE-3 State system and functions

CE-4 Qualified technical personnel

CE-5 Technical guidance, tools and provision of safety-critical information

CE-6 Licensing, certification, authorization and/or approval obligations

CE-7 Surveillance obligations

CE-8 Resolution of safety issues

The index used as the audit area carried out by ICAO-USOAP with the following eight audit areas identified in the USOAP, namely:

Primary aviation legislation and specific operating regulations.

Civil aviation organization (ORG)

Personel licensing and training (PEL)

Aircraft operations (OPS)

Airworthiness of aircraft (AIR)

Aircraft accident and incident investigation (AIG)

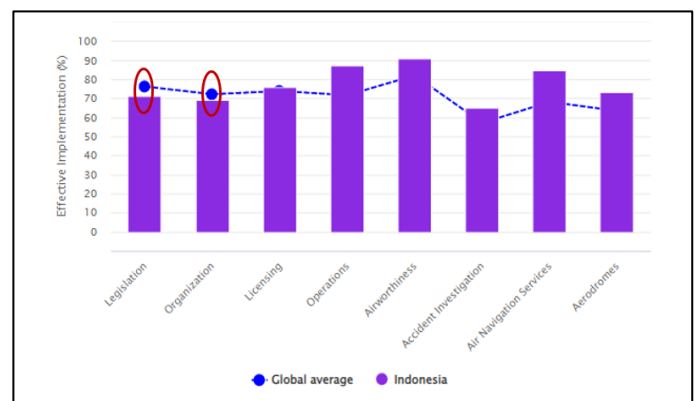
Air navigation services (ANS)

Aerodromes and ground aids (AGA).

In determining the safety compliance index provided by ICAO using a protocol parameter into the formulation to produce a (level) compliance index. The formula used is only a qualitative view in the context that the resulting value is only to determine how effectively ICAO member countries comply with the regulations and policies of the ICAO regime in flight operational activities. The formulation for determining the value is as described below :

$$EI \text{ (Element Implementation)}(\%) = \frac{\text{Number of Satisfactory PQs}}{\text{Total Number of Applicable PQs}} \times 100$$

Qualitatively, it can be presented that conceptually, the safety compliance index is actually obtained based on the equation of the flight safety audit protocol formula in accordance with the ICAO-USOAP program. After analyzing the index, the value of the Safety Compliance Index for ICAO-USOAP in Indonesia against the global is illustrated as follows :



Data Source: ICAO 2022

Value of Indonesia's Safety Compliance Index against ICAO

From the graph, related to the aspects of the audit area carried out by ICAO-USOAP, it has been found that Indonesia has below the average score on the aspects of legislation (Primary aviation legislation and specific operating regulations) and organization (Civil aviation organization) on average globally from all ICAO member countries. So conceptually, researchers can translate from the basic principles of the formula, that the application of ICAO regulatory policies in Indonesia shows a situation where aviation safety factors are still not ideally applied compared to the compliance value analyzed globally.

Furthermore, the researchers combined the results of the Indonesian Safety Compliance Index Value against ICAO with the EI (Element Implementation) index data, so that it can be seen how the regulatory and organizational aspects of the Critical Element (CE) indicator that must be perfected in Indonesian aviation



related to regulatory application policies in accordance with ICAO standards.

	LEG	ORG	PEL	OPS	AIR	AIG	ANS	AGA
<b>Legislation Problem</b>								
<b>Service Problem</b>								
<b>Management Problem</b>								
<b>Service Facilities and Procedures</b>								
CE-1	7	1				8		
CE-2	4		6	9	17	5		8
CE-3		8	4	5	5	10		5
CE-4			4	4	5	7		7
CE-5	2		7	17	15	27		9
CE-6			39	4	17			31
CE-7			10	3	3			23
CE-8			8	5	3	14		10

### EI Index to Compliance Index

From the results of the index, it can be understood that there is a linkage between elements that indicate regulatory elements in the legislative process, the relationship between regulations in their services, and the relationship between regulations in improving facilities that still require development steps in Indonesia. Then the relationship between organizational elements to legislation and the relationship between organizational regulations to their management also requires development steps. Faced with the facts of plane crashes in Indonesia, researchers managed to find that almost all Critical elements (CE) required by ICAO in Indonesian Aviation are still very weak except in the area of licenses and bonds (CE-6). Furthermore, after being analyzed with various interrelated aspects as described in the index, it shows that the cause of the majority of aircraft accidents is due to weak infrastructure and service facilities. It should be understood that there are conditions that are classified as concerning that Indonesia is known for the condition of its airports, which are still poor in terms of infrastructure.

In general, it can be concluded that the impact of implementing aviation regulatory policies in Indonesia is not entirely in accordance with the

ICAO regime regarding aspects of Safety Compliance. So the impact of the Multiplier Effect can affect the organizational performance of flight operators. And lastly, the most dangerous impact due to the weak implementation of regulatory policies related to the Safety Compliance aspect has caused a number of aircraft accidents in Indonesia.

### Factors Causing Indonesia's Non-compliance with ICAO Regulations

From the research results and an explanation of the compliance index analysis of the implementation of safety compliance (ICAO-USOAP audit) in Indonesia, the researcher can translate that the significant factors causing Indonesia's non-compliance with ICAO regulations are as follows:

1. The performance of Indonesia's aviation regulatory policies; Low value compliance

There is potential for inconsistency of Indonesian aviation actors (regulators and flight operators) in the implementation of the ICAO regime's CASR regulatory policy on the quality of the mandatory safety compliance aspect, or in other words Indonesian aviation actors do not follow holistically what the ICAO pillar represents. framework in a comprehensive safety policy component.

2. Functional and structural existence of the Indonesian SSP organization is not effective.

The ICAO-GASP target is not optimally implemented, which should be implemented by the Indonesia SSP with an appropriate and targeted role. There is also the reason why it is not implemented optimally, is when the structural and functional existence of Indonesia's SSP is not running effectively.

3. Low safety margin

To evaluate the competence of an organization that will carry out certain functions on behalf of the country, ICAO will use the USOAP CMA methodology. Based on the results of the assessment, ICAO will recognize and continue to monitor Indonesia's Safety Oversight Organizations (SOO). Through the recognition of SOO Indonesia and identifying the functions that become the competence of aviation in Indonesia, opening various solutions so that these organizations can carry out these functions on behalf of the country. It is a voluntary program in which the State continues to be the sole person responsible for safety oversight as a signatory to the Chicago Convention.

### CONCLUDING REMARKS

Public transportation safety assurance is an absolute requirement in the administration of the public sector in the transportation sector. There is no tolerance for safety guarantees, therefore the State must ensure that safety has a strong standard so that there is no room for negotiation and even bargaining related to safety. The principle of safety must always come first is actually not a monopoly on air transportation, land and sea transportation should apply the same principle. Meanwhile, passenger safety is an absolute guarantee that must be given.

In the world of aviation, compliance with high safety standards is an absolute must. The application of aviation safety needs to be implemented in all sectors, both in the fields of transportation / air transport operations, airports, navigation, maintenance and repairs as well as training that refers to the rules of the

International Civil Aviation Organization (ICAO).

Basically, by complying with applicable safety procedures, it can improve flight safety so that a safe, comfortable and safe flight can be created.

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