Quality Analysis of Health, Safety, Environment and Services of Cargo Company at PT. Jasa Angkasa Semesta (Soekarno-Hatta International Airport, Jakarta)

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Abstract. Cargo is all goods sent by air (airplanes), sea (ship) or land (container trucks) to be traded, either between regions or cities within the country or between countries (international) known as export-import. The flow of domestic and international goods in the era of globalization and wholesale markets will increase because the trade area and consumer needs for goods and products that are quality and competitive are unlimited. For international cargo air freight service companies, the situation is an unlimited opportunity. Therefore, with intense competition, every cargo company needs to pay attention to Occupational Health and Safety and also Services at warehouse that are more oriented to international safety culture standardization based on ICAO regulation. PT Jasa Angkasa Semesta Tbk (CAS Destination JAS Airport Services) one of the Cargo Company in Indonesia, established on 8 June 1984 started off its operation in 1985 at Soekarno-Hatta Airport by providing ground services for Cathay Pacific, Malaysian Airlines, Lufthansa, and Singapore Airlines. As part of ground handling service provided, the Company expanded its business into cargo handling and warehousing services in 2000. In order to be able to compete, PT Jasa Angkasa Semesta (JAS) develops and increases HSE, job performance and also their services in its company. With this HSE PT Jasa Angkasa Semesta (JAS) is expected to be able to reduce the lowest possible risk of accidents and diseases arising from work relations, as well as increasing productivity and efficiency of employees.

Keywords: cargo, occupational health, safety, services, employee

PRELIMINARY

Background

Based on Law Number 1 of 2009 concerning Aviation which has been outlined in Government Regulation Number 3 of 2001 about aviation security and safety, Aviation security and safety has an important and strategic role in the operation of aviation so that its implementation is controlled by the state and its guidance is carried out by the Government in a unified civil aviation security and safety service system. This National Civil Aviation Security Procedure is set to meet the International Standards and Recommendations listed in Annex 17 and other relevant laws and regulations in accordance with the International Civil Aviation Convention (ICAO) or the International Civil Aviation Organization. According to business people, Indonesia does not yet have rules relating to aviation security and safety for international air cargo services. Many international airports and strategic locations cannot make the current transit location for international air cargo services. This problem situation related to international air cargo services which are the main thing that is considered by business people from other countries who prefer airports that have rules for this as a transit point. But the result of a lack of government attention to international airports, current international air cargo services are now in Singapore or Hong Kong as a transit airport, for example shipping a package from Europe to Balikpapan chose a transit place in Singapore compared to Soekarno-Hatta or Hang Nadim International airport Batam, which is as a geographic As a result from this
problem, the country lost considerable revenue from air cargo services for so many years. Therefore, a safe airport and effective and efficient cargo company require clarity of regulation for business people, so that business people will be encouraged to make transit at some international airport in Indonesia and using cargo companies which is available in Indonesia too. In an effort to support international air cargo services and in order to be able to compete, PT. Jasa Angkasa Semesta is need to develop and increases K3 and to study international air cargo services as a transit point and can be used as an indicator for the development of air cargo companies facilities at other airports.

**Formulation of the Problem,** Is the policies that regulated the health, safety, and environment can improve the services of international air cargo services as a transit point for international air cargo business operator?

**The Purpose,** The purpose of this study is to know the security and safety policies in international air cargo services as a transit point for international air cargo service business operators and to know the service quality at the cargo terminal at PT. Jasa Angkasa Semesta, Soekarno-Hatta International Airport.

**Transition Place,** The research location is restricted to the area at Soekarno Hatta Airport. And based on the purpose and function from this study, the scope is as follows:

a. This study is limited to Soekarno Hatta Airport;

b. Inventory legislation related to the study;

c. Identify problems related to facilities, human resources and procedures for international air cargo services;

d. Conduct analysis and evaluation of international air cargo services as a transit point for business people

**Nature of Research,** The nature of the research is uses descriptive qualitative analysis method, to find out and issue policies on international air cargo services as a transit point for business people in Soekarno-Hatta airport.

**Research Method,** Data or information collection is secondary data obtained from the Directorate General of Civil Aviation, PT. Jasa Angkasa Semesta, Soekarno-Hatta International Airport and Changi International Airport website.

**Data Analysis,** After collecting data from PT. Jasa Angkasa Semesta and the Directorate General of Civil Aviation, PT. Jasa Angkasa Semesta, Soekarno-Hatta International Airport and Changi International Airport website, then the data processing is carried out. The results of processing the data were analyzed through qualitative descriptive methods.

**Materials and Research Method**

**Literature Review**

**Definition**

Health, Safety and Environment (K3) according to Endroyo (2006) is part of the overall management system which includes the organizational structure, planning, responsibilities, implementation, procedures, processes and resources needed for the development, implementation, achievement, assessment and maintenance of K3 in the framework of
controlling risks related to work activities, in order to create a safe, efficient and productive workplace.

According to Ashford. (2011), handling goods at the cargo terminal includes four functions, they are **conversion, sorting, storage, and facilitation and documentation**. In the conversion process, items that have a small size are combined into one larger unit to make it easier to handle when processed on the air side or on an airplane. The sorting process is intended to select and combine a number of items to be used as one aircraft load with the same purpose. Storage is needed to do assembly by converting and selecting. Facilitation and documentation is a physical transport process involving airport operators and relevant government agencies.

**National Regulations**

1. Law Number 1 of 2009 concerning Aviation, Chapter VII Aviation Safety and Security, Article 20 states that every facility and / or flight support equipment must fulfill flight safety and security requirements.

2. Government Regulation Number 3 of 2001 concerning Aviation Safety and Security, Article 52 states that everyone, goods, vehicles entering the air side, must go through security checks; Article 53 paragraph (1), aircraft personnel of cargo and post passengers who will be transported by airplane must go through security checks.

3. Minister of Transportation Decree Number 54 of 2004 concerning the National Civil Aviation Security Program, Chapter I Introduction which states that it aims to protect the safety, regularity and efficiency of civil aviation in Indonesia by providing protection for passengers, flight crews, officers on land, communities, aircraft air and airport installations from unlawful actions and provide protection for aircraft operators from unlawful acts; This national civil aviation security procedure is set to meet international standards and recommendations contained in the Annex to the international civil aviation (ICAO Convention).

4. Minister of Transportation Decree Number 14 of 1989 concerning Passenger Control, Goods and Cargoes transported by civil aircraft, in Chapter II, Passenger Examination, Flight Crew and Reporting Time, Article 2, they are:
   a. Every passenger of an airplane, air crew and / or cabin baggage must go through a security inspection process before entering sterile areas or air side areas.
   b. Every passenger of a civil airplane must report to the flight company officer before leaving
   c. Every passenger in transit or transfer must be re-checked before boarding an aircraft
   d. If necessary, the airport or airport administrator can carry out checks in civil aircraft
   e. The deadline for checking-in is 30 (thirty) minutes before the flight departure
   f. Officials of airline companies who are authorized to refuse to carry passengers based on clear evidence can endanger the safety of passengers.

5. Directorate General of Air Transportation Regulation Number Skep / 47 / II / 2007 concerning Implementation Guidelines for Airport Support Activities as outlined in the Research Journal of Air Transportation Vol.37 No.2, June 2011 104 in Chapter II Airport Support Activities Article 3 point (1) letter g, namely cargo services (Decree of the Minister of Transportation Number 79 of 2004 concerning Organization and Work Procedure of Office of Airport Administrators, in Chapter II, first part, article 8 point 2 which covers:

The Airport Security and Airport Order has a duty:
a. Carry out supervision and control of the implementation of security systems and airport services which include securing personnel, material physical security, securing information and securing activities, as well as carrying out supervision and control of the implementation of security elements in charge at airports in normal conditions (green situation).

b. Preparing materials for coordination and control of security and order in the face of threats (yellow situation), preparing materials for upgrading the airport security system, preparing materials to take necessary steps and preparing notification materials to the local POLRI apparatus.

c. Overseeing the implementation of security and order in the area of the airport working environment by taking into account the applicable laws and regulations.

d. Preparing materials for coordination of the preparation and implementation of airport security programs together with implementing activities at airports.

e. Overseeing the implementation of airport security programs.

f. Temporarily secure criminal offenders in the airport working area, for further processing by government agencies responsible for public security and order.

g. Overseeing the implementation of the provisions of the Airport Master Plan in its jurisdiction.

h. Overseeing the implementation of the provisions of the Flight Operational Safety Area around the airport in the airport authority area.

i. Overseeing the implementation of the provisions of the Noise Area around the airport in the airport authority area.

j. Overseeing the implementation of the provisions of the Airport Work Area in the airport authority area.

k. Overseeing the implementation of provisions on Environmental Impact in the airport authority area.

l. Preparing for recommendations for development within the Aviation Operations Safety Zone in airport jurisdiction.

m. Overseeing and control airport facilities and equipment.

n. Oversee the implementation of security duties carried out by airport organizers in carrying out checks on passengers, baggage and carry, post, cargo, personnel, officers, employees who will carry out activities in limited areas (non public area / NPA and restricted public area / RPA) and special places at airports.

o. Overseeing airport services and air transportation services in accordance with service standards that have been set based on applicable laws and regulations.

International Regulations

1. Annex 17 specifically concerning administrative aspects and coordination includes: techniques in terms of protection / compulsory security of international air transport and contracts of a country that establishes ownership of flights with security programs such as the addition of security with the possibility of proposing the provision of other officers.

2. One important / mandatory in security procedures in this annex is inspection / screening of international airport passengers and baggage.

3. Annex 17 also tries / seeks coordination activities involving security programs. This recognizes that operators / airlines must be responsible for their occupants, capital and income, and some countries have guarantees for the development of air transport and are effective in implementing additional security programs that are compatible with some airports that leave their operations.
4. Another specification in Annex 17 is recognizing that this cannot be separated from security. The state / government guarantees that the safety of passengers, crew, airport employees and the community is generally the most important consideration in protecting it. The state / government also invites to pay attention to the safety of passengers and crew for those who do not comply with air traffic regulations that travel continuously.

Three Elements of the Study Approach

Subject, who are the main actors involved in the issues examined in this study, consisting of the Directorate General of Air Transportation as the agency who authorized to issue policies or who are responsible for international air cargo services and PT, Jasa Angkasa Semesta as the organizer of the implementation of air cargo as a provider of officers and cargo facilities.

Object, which is the element of the problem that will be found the solution to the problem, where in this study is covering occupational health, security and safety, and services in international air cargo as a transit point.

Method, which is an element of the method used in problem solving, wherein this study analyzes why the Directorate General of Civil Aviation issued a policy on security and safety and the role of PT. JAS in increasing their occupational health and safety, their job performance and also their services in an effort to improve international air cargo service at Soekarno Hatta Airport as a transit place.

Analysis and Discussion

PT. Jasa Angkasa Semesta

PT Jasa Angkasa Semesta Tbk (JAS Airport Services) is Indonesia’s leading ground and cargo handler. With over 35 years of experiences, JAS Airport Services provides comprehensive ground and cargo handling services, airport hospitality services, and airport assistance services, with over 30 carriers (90% international) and more than 150 shippers and consignee, and operates in 10 Indonesia’s major airport.

- Product and Services
  1. Ground Services, PT. JAS ground service consist of Passenger Services and Ramp Handling Services. PT. JAS differentiate their Services into two categories: Premier and Silver. Premier Services cater the needs of international full-service airlines such as Singapore Airlines, Emirates, Philippine Airlines, Qatar Airways, and Asiana. Silver Services offer basic and no frills services to many low cost carriers and domestic airlines such as AirAsia, Tiger Airways, and Sriwijaya Air.
  2. Cargo Services, The facilities are equipped with integrated service center, eco-friendly, and special facilities such as Vulnerable, Valuable, and Dangerous Goods handling areas. PT. JAS facilities are fully covered with digital CCTV system in order to ensure that shipments under our care are safe and well taken care.
  3. Lounge Services, JAS Airport Services operates lounges, are designed elegantly to offer the best ambience and comfort for our guests. Smoking room, Wi-Fi Internet connection, foot reflexology, shower rooms, and business center are among the facilities provided to guests.
  4. Airport Special Assistant, ASA (Airport Special Assistance) is a service provided by JAS Airport Services. Passengers could gain extra convenience while traveling at the airport terminal with ASA integrated services: Personal Assistant, porter, luxurious car, in-ride entertainment, lounge, and immigration assistance.
• Human Resources

For company air cargo service officers, they have not fully supported the performance and still need to be improved again to the level of skills of officers in cargo services related to their respective job fields, because capacity building training for employees is still limited especially for Basic Cargo training, Dangerous Good License and Occupational Health and Services. Furthermore, with a guideline for cargo service officers in an effort to improve performance, it is necessary to hold routine briefings in accordance with ISO provisions and special briefings as needed. For the pattern of supervision of cargo service officers using a pattern of structural supervision (operations manager, cargo coordinator / supervisor) and through operational performance data.

• Cargo Loading Unloading Equipment or Facilities

Equipment for handling cargo loading with terminal warehousing for domestic and international warehousing, they are:

Table 1
Cargo Handling Facilities at PT. Jasa Angkasa Semesta Soekarno-Hatta Airport

<table>
<thead>
<tr>
<th>No</th>
<th>Equipment / Facilities</th>
<th>Domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>X-Ray</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Hand Metal Detector</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Hand Pallet</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Forklift</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td>High Left Loader</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td>Conveyor Belt</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td>Joint Container Pallet Ldr</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>Cargomatic</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>9.</td>
<td>Pallet Plastic</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>10.</td>
<td>Pallet Dolly</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>11.</td>
<td>Tractor (Carts)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12.</td>
<td>Aircraft Tractor</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>13.</td>
<td>Unit Load Device</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>14.</td>
<td>Strong Box</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>15.</td>
<td>Cold Storage</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>16.</td>
<td>CCTV</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

• System and Procedure

International air cargo services on international provisions refer to IATA TACT Rules, which are issued annually once a year; Dangerous Goods Regulation IATA, Customs and Quarantine Regulations and Skep Director General of Civil Aviation. In handling the cargo service system, PT. Jasa Angkasa Semesta already in accordance with the existing standard rules, which is Work Instruction ISO, Cargo Manual Book and Reference Book from Airlines.

Soekarno Hatta International Airport Cargo Terminal

• Terminal Cargo Conditions

Soekarno-Hatta International Airport is a gateway for the movement of aircraft, passengers and goods from Indonesia to foreign countries and from foreign country to Indonesia. The Soekarno Hatta airport cargo area has two cargo areas, they are:
a. First in 510 warehouses for domestic operators, including PT. Garuda Indonesia, PT Gapura Angkasa, PT Repex Perdana, DHL, and Dharma Mandala. In the warehouse of 520 international warehouses, 530 include PT. Garuda Indonesia and PT. Jasa Angkasa Semesta.
b. Second, the cargo II area which is next to the TKI terminal and supporting warehouse 511 Utility Building, 521 Social Building, Customer Warehouse. Duty Free Warehouse, JPT, Semter Garuda and Defense (Military) Warehouse. In addition, there is also the Soewarna Warehouse warehousing complex.

- The increasing of air cargo at Soekarno-Hatta airport

  The development of air cargo transportation at Seokarno Hatta Airport has seen an increase from 2016 for domestic cargo of as much as 108,246,102 ton. And in 2017 it is increased significantly to 319,091,919. But in 2018 there was a slight decline to 288,410,185.

  For the international cargo, also has the same increased. In 2016, Soekarno-Hatta airport has handled cargo as much as 72,164,296. And in 2017 it is increased significantly to 273,554,457. The increase also occurred in 2018 from 273,554,457 to 326,411,673.

**Changi International Airport Cargo Terminal**

  Singapore Changi Airport, commonly known as Changi Airport is a major civilian airport that serves Singapore, and is one of the largest transportation hubs in Asia. It is currently rated the World's Best Airport by Skytrax, for the seventh consecutive year since 2013. For the 2018 full year figures published by the airport, the airport handled 65,600,000 passengers (a 5.5% increase over the previous year), the most in its 37-year history. In addition to being an important passenger hub, the airport is also one of the busiest cargo airports in the world, handling 2.150 million tonnes of cargo in 2018. The total number of commercial aircraft movements increased by 3.4% from the previous year to 386,000 in 2018.

  The Air Cargo Division of the Changi Airport Group (CAG) manages the Changi Airfreight Centre located in the north of the airport premises. Due to Singapore's large electronics sector, electrical components constitute a significant part of the total cargo traffic handled at the airport. Changi airport has initiated attempts to expand into the perishable air cargo market. In 2015, Changi Airport handled 1,853,087 tones of air freight. In 2017, the airport handled 2,125,226 tonnes of cargo. The top five cargo markets for the airport were China, Australia, Hong Kong, United States and India.

  Many cargo airlines in Asia prefer Changi Airport as a transit center due to the high level of service at the airport. In addition, Singapore Changi Airport offers several things for newly joined airlines including the provision of duty-free landing facilities for the first 3 years and subsidies of US $300 thousand for promotional costs.

**GEOPOLITICAL’s Condition**

  Beside to the national and international legal foundation owned by a country, the geopolitical conditions of a country also affect the attractiveness of business actors in making a country a hub or transit country. Below are the following geopolitical conditions in Indonesia and geopolitical conditions in Singapore as a comparison.

  - Geopolitical in Indonesia
    a. Implementation in Political Life
      Implementation of political life regulated by law, such as the Law on Political Parties, the Law on General Elections, and the Presidential Election Law.
    b. Implementation in Economic Life
      The Indonesian region has high economic potential, such as the position of the equator, vast sea areas, large tropical forests, large mining and oil products, and has a large number of residents. Therefore, implementation in economic life must be oriented to the government, agriculture and industry sectors.
c. Implementation in Social Life
Developing a harmonious national life between different communities, in terms of culture, social status, and region. The development of Indonesian culture, to preserve Indonesia's wealth, and can be used as tourism activities that provide national and regional income sources.

- Geopolitical in Singapore
Learning from the geopolitics and geostrategy of Singapore that utilizes its country's territory by using services as its strategic method in making its country progress. Singapore put forward the service sector in the activities of its country, and it proved to be quite successful by making Singapore the country as a country with a good economy.

Singapore's resilience is strongly influenced by directed and consistent education. This high value is supported by a relatively small population to facilitate the handling of the problem. National security is quite low. He did not have a hinterland as the basis for resignation if there was a war. His military equipment is indeed relatively adequate and modern, but his people have no true combat experience, besides lacking in training opportunities.

The movement of the Singapore economy depends on the movement of goods and services, so that the country's geopolitical interests will not be far from the interests of SLOC security. The vital SLOC point is the Malacca Strait and the South China Sea which draws Singapore closer to the East Asia region and the Indian Ocean.

Analysis
Based on the data obtained in the field, it can be seen that the regulations concerning the security of international air cargo services need to be renewed immediately. This is because business people feel that other countries that already have regulations relating to the security and safety of international air cargo services, can provide a sense of comfort for business people. The policy that has not accommodated the demand for cargo service businesses is deemed not to meet international standards. So that it cannot be denied that the business of air cargo service business such as in Singapore and Hong Kong can develop well. For example, in Indonesia there is no Business Entity that is the guarantor of the safety of air cargo services before being received by the destination airport.

The government has now issued a policy related to the security and safety of air cargo services, namely KM 54 in 2004, which explains that Regulated Agents are Legal Entities in Indonesia that have obtained permission to carry out security control in accordance with applicable provisions for cargo services, courier express parcel, or mail and act as the aircraft operator's representative. However, the regulated agent companies that operate are inadequate in terms of competence, the facilities and equipment they have still need to be repaired, especially related to the security and safety of air cargo handling with reference to international standards. The number of loading bays, the size of the warehouse, the number of x-rays in the available area is relatively less.

In the delivery of goods for international air cargo services in Indonesia it is still too complicated and less informed for senders because of the need for a lot of endorsement from various related elements. Related to the above, to improve the quality of cargo services to users of cargo services in the air, it is necessary to have a one-roof service on the air that covers all licensing processes. The one-stop service process, in addition to facilitating users of air cargo services at the airport, also minimizes the time needed to fulfill the bureaucratic delivery process.
The rate of growth of cargo at the Soekarno-Hatta airport has continued to increase. But the number was deemed unsatisfied. One of the government’s efforts so that the Soekarno Hatta airport can become a hub for transporting cargo in the regional area, needs to be restructured by the air cargo terminal, with the aim of facilitating the flight activities of cargo services and customs supervision. PT. Angkasa Pura II has planned the construction of a special area for air cargo transportation at Soekarno Hatta Airport (cargo village).

But in other hand, Denpasar, Bali’s I Gusti Ngurah Rai International Airport is predicted to be used as an international air cargo transshipment. In addition, the travel time if the transit in Denpasar is relatively faster by 20-40 minutes compared to if it has been transiting through Changi Airport, Singapore. Head of the Bali Province Central Bureau of Statistics (BPS), said that baggage and goods during January-September 2017 were mostly contributed by Australia, reaching 18.915 million tons, followed by Singapore (10.974 million tons), China (9.329 million tons), Malaysia (7.095 million tons), Hong Kong (5.511 million tons), Qatar (5.468 million tons), Japan (4.777 million tons), Thailand (2.590 million tons), South Korea (2.324 million tons), Timor Leste (949 thousand tons).

Conclusion

1. In general, international air cargo services at Soekarno Hatta Airport have not met the expectations of air cargo business operators because they have not guaranteed the security and safety of air cargo goods until they are received by the recipient of the goods.
2. There is no informative certainty regarding the travel of air cargo from delivery until the air cargo goods are received.
3. Implementation of policies related to the safety and security of international air cargo services, namely KM 54 of 2004 with the establishment of a Business Entity that guarantees the safety and security of air cargo goods.
4. An informative certainty is related to air cargo travel starting from delivery until the air cargo goods are received with the establishment of a Regulated Agent.
5. Human resource skills need to be improved in handling cargo, both general cargo and dangerous goods cargo in air transport companies and airport management.

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