



**Ground Handling Services
at *Mutiara SIS Al-Jufri*
Airport,
Palu**

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Place of Research (where)

Mutiara SIS-AI Jufri Airport, Palu.

Significance of Research (why)

To evaluate ground handling services, especially Ground Support Equipment (GSE) and Qualified Operator (Man Power) at Mutiara SIS Al-Jufri Airport for the growth of air traffic and respect to applicable regulations.

Objective of Research (what)

Provide the recommendations to related institutions in an effort to improve ground handling services to meet applicable regulations.

How and Who, will describe ground handling services

- How the Ground Handling Operator will serve the increased passenger and an aircraft movement.
- How the Ground Handling Operator have to complied with the Civil Aviation Regulation.



Introduction

1. Mutiara SIS Al-Jufri Airport, is the main entrance to facilitate the movement of people and goods by air transport to and from Central Sulawesi Province in the City of Palu.
2. The demand to facilitate the movement of people and goods by air has increased in-line with the progress of economic development in Central Sulawesi Province.
3. In respect to the Civil Aviation Law and National Regulation, every airport operator or airport organizing unit are required to provide airport facilities that meet flight safety and security requirements, as well as airport ground handling services in accordance to existing National standards and regulation.
4. Ground Handling services at Air Side which includes equipment (proper GSE management) and Qualified Operator (Man Power) are needed to produce excellent performance.
5. Currently there are numbers of airlines operating to/from Sis Al-Jufri Airport i.e. Garuda Indonesia, Lion Air, Batik Air, Sriwijaya Air, Susi Air and Wings Air.

Research Methods

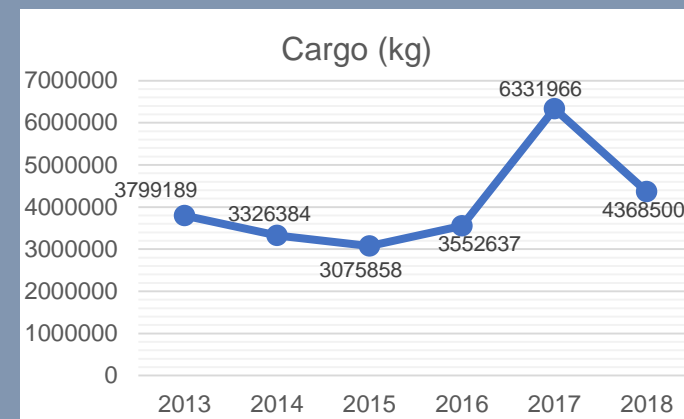
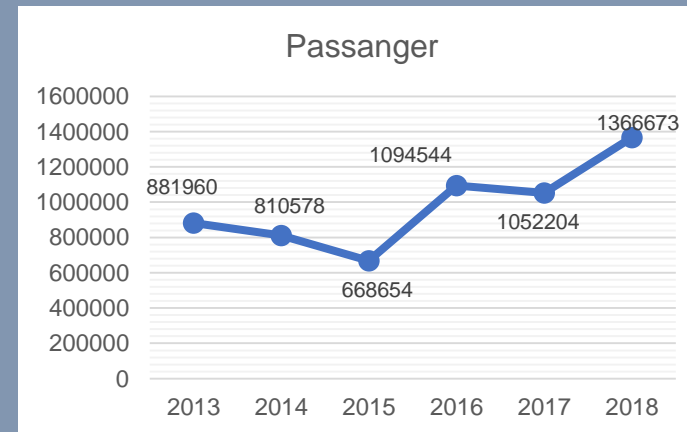
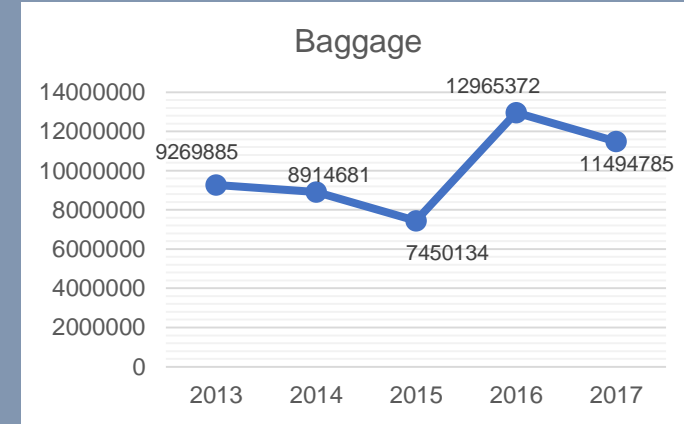
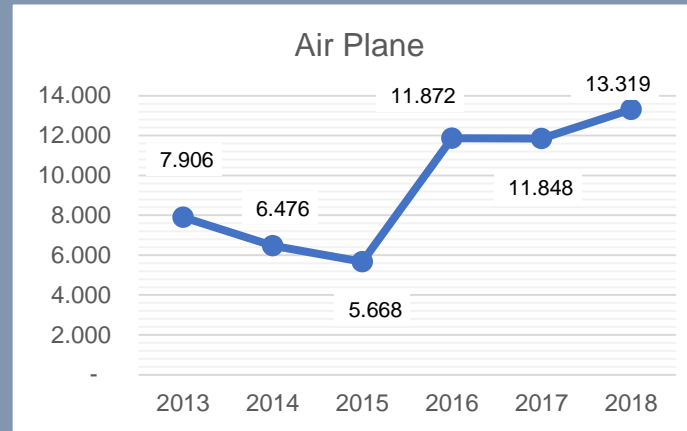
The method in this research is Qualitative Descriptive analysis, using approach by evaluating aircraft movements, passengers, air side facilities, and human resources in ground handling services at Mutiara SIS Al-Jufri Airport, Palu, to be complied with national regulations

Research Scope

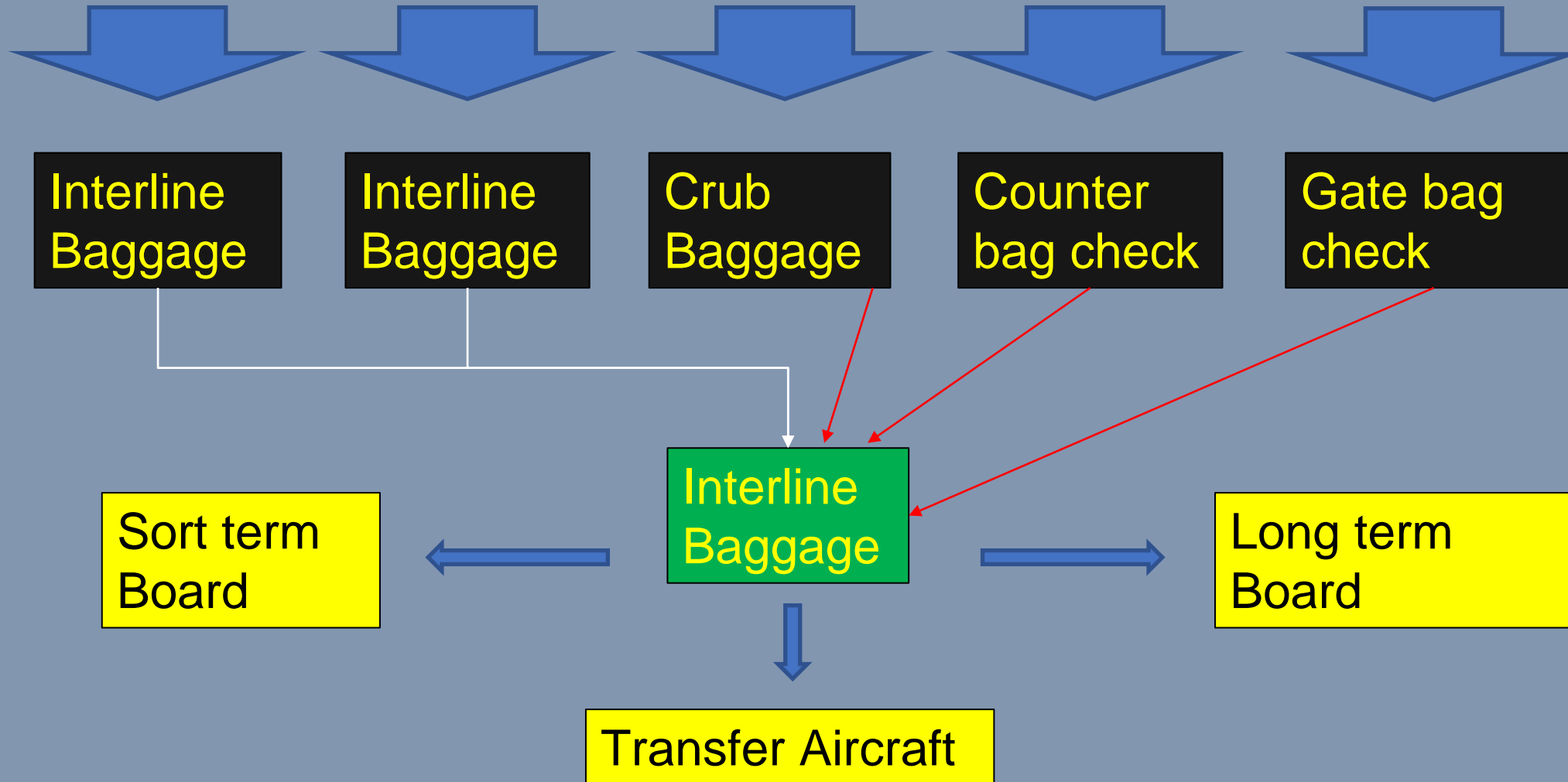
1. Ground Handling Air Side Facilities at *Mutiara SIS Al-Jufri Airport, Palu*.
2. Ground Support Equipment.
3. Qualified Operator (Man Power).
4. Analysing Ground Handling Facilities accordance to *PM.91 tahun 2016*.
5. Analysing man power capacity of existing ground handling services accordance to *SKEP (Director General of Civil Aviation) / 81 / X / 1998*.

Air Transport Traffic

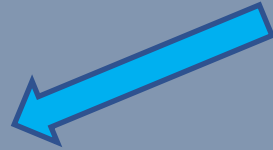
Tahun	Pesawat	Penumpang	Bagasi	Barang (kg)
2013	7.906	881.960	9,269,885	3,799,189
2014	6.476	810.578	8,914,681	3,326,384
2015	5.668	668.654	7,450,134	3,075,858
2016	11.872	1,094.544	12,965,372	3,552,637
2017	11.848	1,052.204	11,494,785	6,331,966
2018	13.319	1.366.673	-	4.368.500



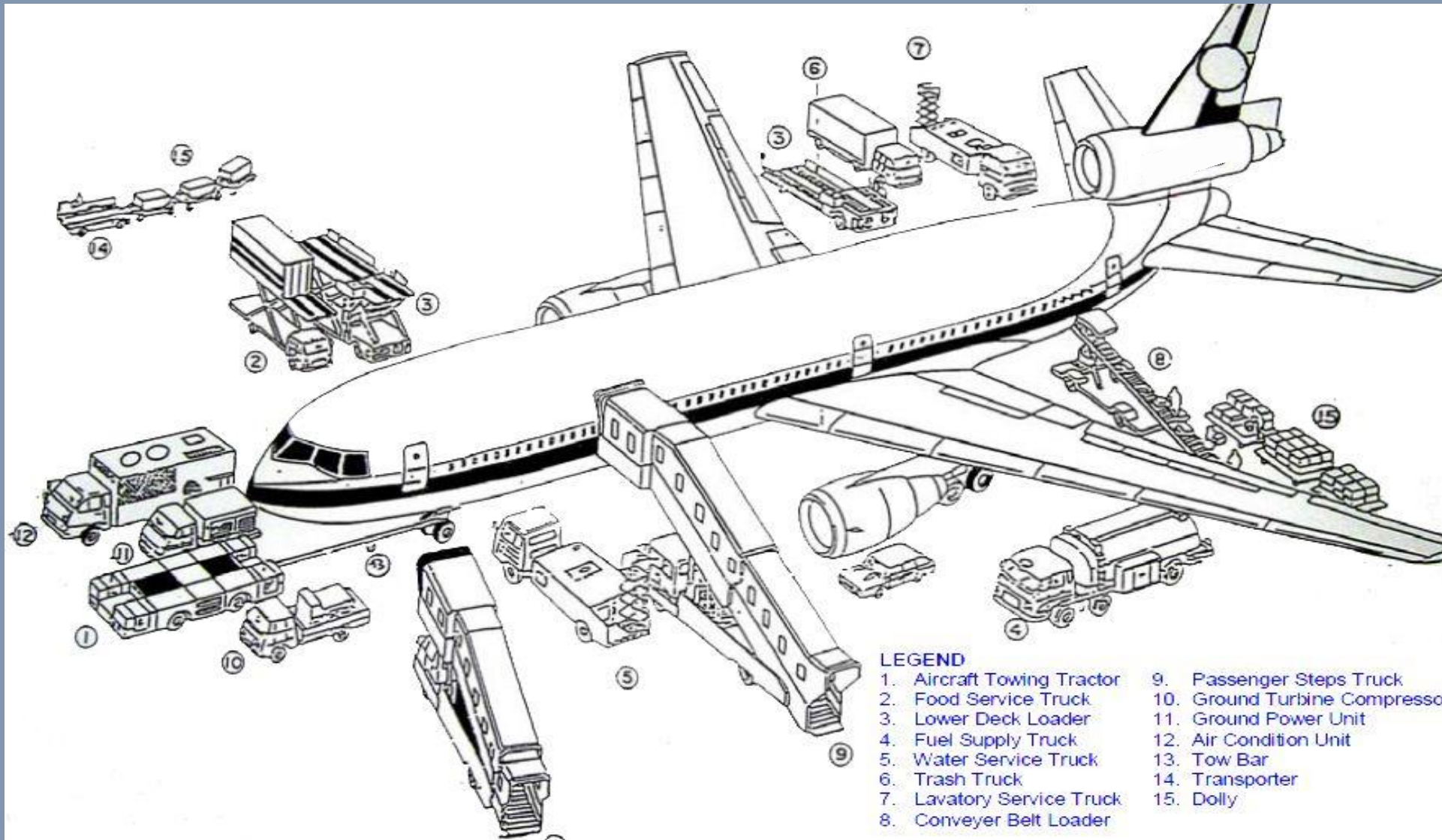
Baggage Flowchart



Baggage Flowchart ground handling service



GSE (Ground Equipment Support) for the aircraft ground handling service



Existing Data

4. Ground Handling Equipment

a. PT. Menara Angkasa

No	Equipment	Qty.	Unit	Purchased
1	Baggage Towing Tractor	1	Unit	2016
2	Lavatory Service Truck	1	Unit	2016
3	Baggage Car Airport	5	Unit	2010
4	Tower Passanger Stairs	2	Unit	2013
5	Passanger Wheel Chair	3	Unit	2012
6	Passanger Wheel Chair	1	Unit	2016
7	Air Wheel Chock	10	Unit	2010

b. PT. Prathita Titianusantara

No	Equipment	Qty.	Unit	Purchased
1	Air Craft Towing Tractor	1	Unit	1997
2	Baggage Towing Tractor	2	Unit	2010
3	Passanger Boarding Stairs	3	Unit	2010
4	Ground Power Unit	2	Unit	1997
5	Air Stater Unit	1	Unit	2001
6	Conveyor Belt Loader	2	Unit	2011
7	Aircraft Towing Bar	3	Unit	2010

5. Qualified Operator (Man Power)

a. PT. Menara Angkasa

No	Man Power	Person	Remark
1	Ground Handling Operator	13	Certified (AVSEC)

b. PT. Prathita Titianusantara

No	Man Power Assignment	Person	Remark
1	Air Craft Towing Tractor Operator	3	Certified
2	Baggage Towing Tractor Operator	4	Certified
3	Passanger Boarding Stairs Operator	5	Certified
4	Ground Power Unit Operator	3	Certified
5	Air Stater Unit Operator	3	Certified
6	Conveyor Belt Loader Operator	4	Certified
7	Aircraft Towing Bar Operator	2	Certified

Analysis and Result

1. Growth of Air Transport Traffic

Tahun	Pesawat	Penumpang	Bagasi	Barang (kg)
2014	-18.09	-8.09	-3.83	-12.44
2015	-12.48	-17.51	-16.43	-7.53
2016	109.46	63.69	74.03	15.50
2017	-0.20	-3.87	-11.34	78.23
2018	12.42	29.89	0.00	-31.01

- Average of Aircraft Movement growth during 5 years is **21.13%**
- Average of passenger Movement growth during 5 years is **12.90%**
- Average of Baggage Movement growth during 5 years is **24%**
- Average of Cargo Movement growth during 5 years is **31%**

Analysis and Result

2. Ground Handling Equipment

a. PT. Menara Angkasa

No	Equipment	Qty.	Unit	Purchased	Mileage per 2018	Remark
1	Baggage Towing Tractor	1	Unit	2016	2	Comply
2	Lavatory Service Truck	1	Unit	2016	2	Comply
3	Baggage Car Airport	5	Unit	2010	8	Suggest to Review
4	Tower Passanger Stairs	2	Unit	2013	5	Comply
5	Passanger Wheel Chair	3	Unit	2012	6	Comply
6	Passanger Wheel Chair	1	Unit	2016	2	Comply
7	Air Wheel Chock	10	Unit	2010	8	Suggest to Review

a. PT.Prathita Titianusantara

No	Equipment	Qty.	Unit	Purchased	Mileage per 2018	Remark
1	Air Craft Towing Tractor	1	Unit	1997	21	Suggest to Review
2	Baggage Towing Tractor	2	Unit	2010	8	Suggest to Review
3	Passanger Boarding Stairs	3	Unit	2010	8	Suggest to Review
4	Ground Power Unit	2	Unit	1997	21	Suggest to Review
5	Air Stater Unit	1	Unit	2001	17	Suggest to Review
6	Conveyor Belt Loader	2	Unit	2011	7	Comply
7	Aircraft Towing Bar	3	Unit	2010	8	Suggest to Review

Conclusion :

1. Base on this research from the results of the discussion it can be seen that there is an increase; Average of Aircraft Movement growth during 5 years is 21.13%, Average of passenger Movement growth during 5 years is 12.90%, Average of Baggage Movement growth during 5 years is 24%, Average of Cargo Movement growth during 5 years is 31%.
2. Base on this research there are still a several equipment that exceeds the age limitation or out of validation period by regulation.
3. Base on this research there are still a several Man Power has no permanent company contract. Nevertheless, the Man Power well trained and has the Ground Handling Personnel License.

Outcome :

1. Pada peralatan yang telah melebihi batas usia kelaikan pakai sesuai aturan yang berlaku, dapat disarankan untuk diganti atau diremajakan, agar dapat digunakan secara optimal
2. For those equipment that exceed the validation period, we are suggesting to fixed or renewal. So that the ground handling operation could be optimized.
3. For the temporary man power who has no permanent company contract, we are suggesting for company to do assessment for them to improve their performance

Thank
you

