

## APPENDIX

### Students' Abstract Thesis

| Students<br>No. | Abstract Thesis   |
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| 1.              | <p style="text-align: center;"><b>ANALYSIS OF THE DISTRIBUTION OF ATS MESSAGES BETWEEN BUA AERODROME FLIGHT INFORMATION SERVICES WITH UJUNG PANDANG FLIGHT SERVICE STATION</b></p> <p>Lagaligo Bua airport with the ATS Unit is Bua Aerodrome Flight Information Service is one of the adjacent units of Ujung Pandang Flight Service Station. As an ATS Unit, Bua AFIS and Ujung Pandang FSS was instrumental in the distribution of ATS Messages as Ministry flight safety due to the distribution of ATS Messages including one form of coordination.</p> <p>Distribution of ATS Messages this relates to facilities used as Aeronautical Fixed Telecommunication Network or Web Based Flight Plan. The plot of ATS Messages distribution set forth in ICAO documents and LOCA. However, the lack of facilities in Bua AFIS causing problem that is not yet the default distribution of ATS Messages and have an impact on the performance of Aeronautical Communication Officer Ujung Pandang in particular Flight Service Station. Thus, it would be a risk for the occurrence of an incident involving the personnel of Aeronautical Communication Officer and flight operations that are in progress.</p> <p>This research uses of data processing in the form of interviews, literature studies, observation, questionnaire, documentation as well as direct observation based from several sources that are relevant and have credibility. The results of this study are the distribution of ATS Messages between Bua AFIS and Ujung Pandang FSS needs to be optimized and in accordance with the standards and procedures set out in LOCA to create safe and efficient flight information services.</p> |
| 2.              | <p style="text-align: center;"><b>OPTIMALIZATION OF COORDINATION FOR CHANGES REGISTRATION AIRCRAFT ON AIR TRAFFIC SERVICE PERUM LPPNPI BANJARMASIN</b></p> <p>ATS-RO Unit of Perum LPPNPI Banjarmasin Branch is one of the units that has the task of sending a departure or arrival message, besides that the ATS-RO unit is also tasked to send a modification message to smooth flight traffic.</p> <p>This paper aims to examine the need for optimizing the coordination of changes in aircraft registration to air traffic service at Perum LPPNPI Banjarmasin.</p> <p>The analysis method used in this study is descriptive qualitative where the value</p>  |

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|    | <p>of variables si studied in order to answer the question using existing data.</p> <p>The results of the study show that the optimization of coordination of changes in aircraft registration to traffic services is needed to facilitate flight communication guides in providing services so that air traffic services at Banjarmasin Syamsuddin noor Airport can be more optimal.</p>   |
| 3. | <p><b>OPTIMIZATION OF LOCA (LETTER OF COORDINATION AGREEMENT) ATS REPORTING OFFICE (ARO) UNIT WITH AIRLINES OPERATOR AND ATFM (AIR TRAFFIC FLOW MANAGEMENT) ON INCREASING COORDINATION IN MANAGEMENT OF TIME SLOT REPLACEMENT IN PERUM LPPNPI DENPASAR BALI BRANCH</b></p> <p>This Final Project explains the obstacles faced by the author regarding the Optimization of the ARO LOCA Unit with Airlines Operator and ATFM to improve coordination in managing Slot Time changes at the Perum LPPNPI Denpasar Bali Branch. LOCA have not yet been implemented between ARO units and Airlines Operators and ATFM has resulted in ineffective management of Slot Time changes in ARO Units so that this has an impact on the obstruction of flight traffic flow.</p> <p>The emergence of these obstacles is due to the frequent delay of Airlines Operators in sending information about new slot time updates so that the slot time management process carried out by ACO personnel serving in the ARO Unit will be hampered, besides the lack of coordination from the ATFM unit regarding Slot Time changes change of slot time. according to the author's analysis this matter is not in accordance with the existing LOCA.</p> <p>The purpose of writing this final project is to find out how to optimize LOCA which is considered still not able to run optimally between ARO Unit and Airlines Operator and ATFM. The method used is descriptive qualitative to describe the conditions and facts that occur based on data obtained by conducting observations, questionnaires and interviews that have been conducted during the lime month on October 3, 2018 to February 28, 2019.</p> <p>This study uses data processing that contains a Likert scale that collects relevant and credible sources. The results of this study are expected to provide alternative solutions to problems needed as ACO (Aeronaucal Communication Officer) can provide maximum service.</p> |
| 4. | <p><b>THE NEED OF OPTIMIZATION IN THE USE OF THE WEB BASED FLIGHT PLAN TO MILITARY FLIGHT TO INCREASE FLIGHT INFORMATION SERVICE IN AIRNAV OFFSHOOT DENPASAR</b></p>  |

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|    | <p>This final project explains the obstacles faced by the author regarding the provision of Flight Information Service at the Denpasar Air Traffic Service Reporting Office (ATSRO) Unit. The military flight plan at the Denpasar branch of AirNav Indonesia is often sent by military personnel at a time adjacent to the Estimate Of Block Time (EOBT) time and is still often found to be a mistake in terms of flight plan writing.</p> <p>The emergence of these obstacles is because military flights cannot be determined by flight schedules. In addition, this problem is due to a lack of military personnel knowledge regarding the provisions for writing a flight plan that causes the provision of Flight Information Service in the Denpasar ATSRO Unit. Therefore, the author composes this Scientific Work in order to provide input and suggestions so that existing constraints can be resolved and the provision of air traffic services can run effectively and efficiently without forgetting the safety aspects. This obstacle can be solved by creating an account on a special military flight based Web Based Flight Plan and the appointment of Person In Charge (PIC) as the person responsible for military flight accounts.</p>  |
| 5. | <p><b>OPTIMALIZATION OF THE LETTER OF OPERATIONAL COORDINATION AGREEMENT BETWEEN AIR TRAFFIC SERVICE REPORTING OFFICE WITH FLIGHT DATA OPERATION OF SERVICE AIR TRAFFIC FLUENCY IN PERUM LPPNPI CABANG BALIKPAPAN</b></p> <p>The increasing air traffic services close related with the performance all the unit, including the Air Traffic Service Reporting Office (ATSRO) unit with Flight Data Operation (FDO) unit. This unit is interrelated in its duties in coordinating with FPL. The coordination is regulated in a Letter of Operational Coordination Agreement (LOCA) that must be obeyed between units. However, the existing LOCA is still unoptimal so that it has an impact on the smoothness of air traffic services.</p> <p>The unoptimal LOCA affects ATSRO's performance with FDO in providing flight traffic services. As such, this would be a risk for incidents involving ATSRO and FDO personnel as well as in the ongoing flight operations.</p> <p>The existing LOCA improvement efforts by adding coordination between ATSRO and FDO units, always giving understanding to personnel to remind the main tasks and functions, especially in handling FPL, are expected to help improve the smoothness of air traffic services.</p> <p>This research uses data processing in the form of likert scale which refers from some relevant source and have credibility. The result of this research are expected to provide an alternative problem solving so that as an air traffic controller can comfortably carry out its duties and improve flight safety at Perum LPPNPI</p> |

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|    | Balikpapan Sub Division.  |
| 6. | <p style="text-align: center;"><b>THE EFFECT OF INTERFERENCE COMMUNICATION ON PROVIDING AERODROME FLIGHT INFORMATION SERVICES</b></p> <p style="text-align: center;"><b>IN PERUM LPPNPI UNIT DABO SINGKEP</b></p> <p>Dabo Singkep Airport is a class III airport that provides aerodrome flight information services. The aerodrome flight information service is provided by Perum LPPNPI Unit Dabo Singkep. Good communication is needed between pilot and aeronautical communication officer where aeronautical communication officer themselves must provide related flight information service and providing more optimal aerodrome flight information service. The author found that the provision of aerodrome flight information service at Perum LPPNPI Unit Dabo Singkep wasn't optimal because the inclusion of airplane pilots who are not traffic to Dabo AFIS Unit interfered with aeronautical communication officer in providing aerodrome flight information service because communication between aeronautical communication officer and pilot couldn't be take place directly, quickly and without obstacles.</p> <p>This final project uses a qualitative descriptive research design that uses 2 variables namely The effect of Interference Communication (variable X) and Providing Aerodrome Flight Information Service (variable Y). Data collection techniques using the method of observation, questionnaires, interviews, documentation and literature studies. The interview was conducted with 2 speakers from aeronautical communication officer. The questionnaire was distributed to 7 respondents namely 3 aeronautical communication officers and 4 pilots.</p> <p>The results of the research that the author has done, it can be concluded that interference communication due to the use of the same frequency interferes with communication between aeronautical communication officer and pilot in Perum LPPNPI Unit Dabo Singkep. Therefore, it is necessary to replace the Dabo information frequency so that the aerodrome flight information service is more optimal.</p> |
| 7. | <p style="text-align: center;"><b>STANDARDIZATION OF FLIGHT COMMUNICATION FACILITIES OF AVIATION FLIGHT FOR COMMUNICATION FLOW IN PERUM LPPNPI BRANCH ELTARI KUPANG</b></p> <p>This increase in communication guide workload is related to FSS communication facilities. In the Government Decree number 103 of 2015 the</p>  |

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|    | <p>document explains that HF radio is a facility used for FSS. However, the existing facilities are still the standard determined by ICAO, which affects the smooth communication in Kupang. Some non-standard facilities affect the smoothness of communication guides in providing communication services. As such, this would be a risk to be reported in ongoing operations. Maximizing existing facilities with several alternatives, always providing understanding to communication guides to understand the task and set the basis for providing information and guidance, trying to request and provide facilities for management to improve safe, comfortable and efficient operations. This is expected to help communication guides to reduce the burden of assistance. This study uses data processing consisting of observation sheets that contain several sources that are relevant and have credibility. The results of this study are expected to provide problem solving solutions as a communication guide that can be done by increasing comfort in PERUM LPPNPI BRANCH ELTARI KUPANG.</p>   |
| 8. | <p style="text-align: center;"><b>THE REVIEW OF LETTER OF OPERATIONAL COORDINATION AGREEMENT BETWEEN BALI FSS WITH KUPANG FSS TO INCREASE THE EFFECTIVENESS OF COORDINATION WITH LABUAN BAJO IN PERUM LPPNPI SUBDIVISION DENPASAR</b></p> <p>This final project assignment review the provision of Flight Informastion Service and Alerting Service in Bali Flight Service Sector (FSS) unit. Traffic westbound (departure) Labuan Bajo often makes first contact to Bali FSS without transfer estimate from Kupang FSS. That resulted in breakdown of coordination so can make a breakdown of separation with the traffic arrival to Labuan Bajo. The author composes this final project in order to review the LOCA between Bali FSS and Kupang FSS so that the provision of the Air Traffic Services can be given effectively and efficiently without forgetting safety aspects. LOCA changes in the coordination section between units by not changing or violating the highest rules (ICAO Annexes).</p> <p>This final project uses a qualitative descriptive research design that uses 2 variables, among others; Review of the LOCA between Bali FSS with Kupang FSS (X variable) and Effectiveness Coordination with Labuan Bajo (Y variable). The data collection techniques using; observation, literature study, interviews and questionnaires. The questionnaire was given to 20 ATS employees in this case are 10 Aeronautical Communication Officers in Denpasar, 5 Aeronautical Communication Officers in Kupang and 5 ATC in Labuan Bajo).</p> <p>From the data obtained as well as the analysis of the problem, it can be concluded that the initial hypotesis is correct that a review is needed for the LOCA Bali FSS – Kupang FSS to increase the effectiveness of coordination with Labuan Bajo. The problem solving that is considered appropriate according to the author is reviewing the LOCA Bali FSS – Kupang FSS to add the delegation of</p> |

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|     | communication in Labuan Bajo's inbound and outbound traffics so that the coordination becomes more effective.   |
| 9.  | <p style="text-align: center;"><b>RESEARCH AND DEVELOPMENT AUTOMATIC PRESENT OF CADET PROGRAM STUDY AERONAUTICAL COMMUNICATION AT PROGRAM STUDY DIPLOMA 3 AERONAUTICAL COMMUNICATION AVIATION POLYTECHNIC OF SURABAYA</b></p> <p>In 2017 ATKP Surabaya transformed into the Aviation Polytechnic (Poltekbang) Surabaya in accordance with the Minister of Transportation Regulation PM 32 of 2017 dated April 27, 2017. The Aviation Communication Study Program (KP) is one of the study programs organized by the Surabaya Aviation Polytechnic to form competent graduates and professionals or better known as the Aeronautical Communication Officer (ACO). In the implementation of training on training, KP study programs also put forward curriculum and quality standards that were recognized by BAN-PT, PT Sucofindo and other quality assurance agencies. In supporting quality assurance, attendance or attendance attendance is required from each cadet who lectures at the Aviation Politechnic of Surabaya campus.</p> <p>In the implementation of attendance, the author will make the design of the development of the automation system using a fingerprint device because it is considered to be more precise, accurate and reduces fraud committed to the cadets when filling out absent. But the author does not only use a fingerprint scanner, but the author also makes a data storage program that serves to directly monitor cadets who are doing attendance or can be called direct scanning.</p> <p>The purpose of this study is as an attendance data support tool that can be used by the Aviation Communication study program in order to obtain accurate, precise data and can facilitate tasks in monitoring attendance attendance. To support the data in this study, the author uses a design development method that is by making a website-based application that will be used to monitor the presence of Aviation Communication Cadets. The writing of this final assignment is one of the requirements for graduating cadets of the Diploma III Aviation Communication Study Program to obtain the title of Associate Expert (Amd). This final project is also used as a means to increase knowledge / insight for cadets at the Surabaya Aviation Polytechnic.</p> |
| 10. | <p style="text-align: center;"><b>APPLICATION DEVELOPMENT OF ICAO ENGLISH LANGUAGE PROFICIENCY (IELP) TEST BASED WEB TO SUPPORT INTERMEDIATE ENGLISH IELP PREPARATION LEARNING IN POLITEKNIK PENERBANGAN SURABAYA</b></p>   |

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|     | <p>Politeknik Penerbangan Surabaya is one of aviation schools under the Human Resource Development Agency Ministry of Transportation. Politeknik Penerbangan Surabaya is delegated from air transport Human Resources Development that can authorize ICAO English Language Proficiency (IELP) test.</p> <p>Aeronautical Communication Officer is obligated has English language ability according with ICAO Doc. 9835 Manual on the Implementation of ICAO Language Proficiency Requirement First Edition 2004, which implementation uses IELP test. With the development of IELP applications based web and equipped timer facility so it can help the implementation of test more efficient. The main problem studied on this research that Politeknik Penerbangan Surabaya does not provide application development of ICAO English Language Proficiency (IELP) Test Based Web to support Intermediate English IELP Preparation learning. The purpose of the research conducted by the author is to develop application of ICAO English Language Proficiency (IELP) Test Based Web to support Intermediate English IELP Preparation learning.</p> <p>Application development of ICAO English Language Proficiency (IELP) test based on PHP web application programs. The application contains various kind of files such as, Portable Document Format (PDF), audio, text, and images. This research uses Research and Development (R &amp; D) research method, with the developing procedure of ADDIE (Analysis, Design, Development, Implementation and Evaluation) model.</p> <p>The conclusion of the series this research is to develop application of ICAO English Language Proficiency (IELP) test based web to support Intermediate English IELP Preparation in Politeknik Penerbangan Surabaya.</p> |
| 11. | <p><b>PENGARUH KEMAMPUAN BERBAHASA INGGRIS TARUNA KOMUNIKASI PENERBANGAN TERHADAP KEMAMPUAN MENGONTROL PADA PELAJARAN AERODROME FLIGHT INFORMATION SERVICE (AFIS) DI POLITEKNIK PENERBANGAN SURABAYA</b></p> <p>In the world flight many aspect which it is required in order to support the level of safety, one of them is language. That language has an important role in addition to providing media other than as a medium to express yourself, a feeling of, the mind, desire and their needs, as creatures of both personal and social, and as a means of social integration and adaptation in developing the society between humans. Humans with language as a means of communication in their activity in the community.</p> <p>The theory used in this research are in accordance with the ICAO in Annex 10 Aeronautical Telecommunication Volume 2 of air traffic services in the sky or ground is required to use of radiotelephony (procedure radio communications</p>   |

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|     | <p>between pilot and controller) with English Language.</p> <p>The purpose of writer from final project to find the influence of the ability speak English of cadet aeronautical communication with ability to control in lecture aerodrome flight information service (AFIS) in Aviation Polytechnic of Surabaya and to know the problem that happened.</p> <p>Descriptive qualitative is the method that used describe the fact or data of influence of the ability speak english of cadet aeronautical communication officer (comm.) with aerodrome flight information service (AFIS) practice in Aviation Polytechnic of Surabaya from collection data will describe on sentence by observation, interviews and documentation.</p> <p>The result of research it is known that many of cadet especially junior that still confused and terrible about phraseology that in developing this in make plain language and aviation language when practice aerodrome flight information service (AFIS), so they just memorization and have an impact on the value of each individual cadet.</p>  |
| 12. | <p><b>OPTIMALIZATION OF THE LETTER OF OPERATIONAL COORDINATION AGREEMENT BETWEEN AIR TRAFFIC SERVICE REPORTING OFFICE WITH FLIGHT DATA OPERATION OF SERVICE AIR TRAFFIC FLUENCY IN PERUM LPPNPI CABANG BALIKPAPAN</b></p> <p>The increasing air traffic services close related with the performance all the unit, including the Air Traffic Service Reporting Office (ATSRO) unit with Flight Data Operation (FDO) unit. This unit is interrelated in its duties in coordinating with FPL. The coordination is regulated in a Letter of Operational Coordination Agreement (LOCA) that must be obeyed between units. However, the existing LOCA is still unoptimal so that it has an impact on the smoothness of air traffic services. The unoptimal LOCA affects ATSRO's performance with FDO in providing flight traffic services. As such, this would be a risk for incidents involving ATSRO and FDO personnel as well as in the ongoing flight operations. The existing LOCA improvement efforts by adding coordination between ATSRO and FDO units, always giving understanding to personnel to remind the main tasks and functions, especially in handling FPL, are expected to help improve the smoothness of air traffic services. This research uses data processing in the form of likert scale which refers from some relevant source and have credibility. The result of this research are expected to provide an alternative problem solving so that as an air traffic controller can comfortably carry out its duties and improve flight safety at Perum LPPNPI Balikpapan Sub Division.</p> |



