IMPLEMENTATION OF REMOTELY AERODROME FLIGHT INFORMATION SERVICES WITHIN INDONESIA AIRSPACE

1.   INTRODUCTION

1.1   Indonesia have more than six hundreds airports and airstrip within its territory. The air traffic services provided to the aircraft is depend on the size and complexity of the traffic. Sixty six medium to large aerodrome are provided with Aerodrome Control Tower services, and the smaller aerodrome are provided with Aerodrome Flight Information Services.

1.2   AFIS is a unit that provides flight information services and alerting services in an uncontrolled airspace area with airspace limit from ground / water level up to 4000 feet within a radius of 5 NM and known as Aerodrome Flight Information Zone.

1.3   There are 209 AFIS units currently managed by Airnav Indonesia (Airnav Indonesia is a State Owned Enterprise which is provide Air Navigation Services within Indonesia Airspace):

  a.   70 AFIS units with scheduled flights and the number of traffic between 2 to 10 movements per day.
  b.   139 AFIS units with non-scheduled flights

1.4   Many AFIS aerodrome facing some problem regarding human resources issue, security issue, isolated area issue, and any other significant issue

2.   REMOTELY AFIS IMPLEMENTATION PHASE WITHIN INDONESIA

2.1   The Aviation System Block Upgrade (ASBU) module B1-RATS (Remotely ATS), set forth many benefits by introducing remotely ATS with utilization of new procedures and technology on visual surveillance

2.2   To improve air navigation safety and efficiency within small aerodrome, DGCA Indonesia in cooperation with Airnav Indonesia now are ongoing to implement remotely Aerodrome Flight Information Services

2.3   Since remotely AFIS plan introduced, DGCA Indonesia and Airnav Indonesia intensively discuss the implementation plan of remotely AFIS. And based on discussion the time frame for implementation plan are as follow

  a.   2017 1st semester, review of relevant regulation and procedures;

  b.   2017 2nd semester, personal training and provision and installation of facilities for pilot project

  c.   2018 1st semester, trial, shadow operation, safety assessment and certification

  d.   2018 2nd semester, Full implementation

2.4   When remotely AFIS implemented, air – ground communication services for some small aerodrome (AFIS Aerodrome) will be provided by relevant AFIS Center (AFIS Center might be Flight Services Station or other AFIS Aerodrome). One AFIS Center can serve one or more remote Aerodrome (based on ASBU module B1-RATS named Single method or multiple method)

2.5   AFIS Center providing flight information service for IFR/VFR aircraft by radio communication which provide information necessary for the safe of aircraft operation at or around the

aerodrome. Airspace is designated as class G with lateral limit is 5 nautical miles from aerodrome reference point and vertical limit is from ground to 4000 feet above ground level.

2.6   The basic elements of information provided by the center are as follows :

     a. The most suitable runway to be used;

     b. Meteorological information;

     c. Aerodrome information;

     d. Traffic information

     e. Any other information necessary for the safe operation of aircraft

2.7   Based on survey on the availability and capability of the facilities, human resource and any other things, the implementation of remotely AFIS will be divided in to three phase.

     a. Phase one or pilot project phase. In this phase remotely AFIS will be implemented in FSS / AFIS unit which is based on survey have the capabilities to be a center without any significant investment, whether investment on facilities or human resources. They FSS / AFIS unit that will be a center / remote on phase one are :

Current condition (16 Airports)
Ready for trial and implementation with very minimal investment

No.	Center	Remote	Total
1.	Kepi (Papua)	Bade, Senggo, Aboge	3
2	Biak FSS	Serui	1
3	Bali FSS	Pagerungan	1
4	Manado FSS	Miangas, Naha, Melongguane, Tojo Una-Una	4
5	Lhokseumawe	Lhoksukon	1
6	Sentani FSS	Senggeh	1
7	Ambon FSS	Dobo, Larat, Amahai, Moa, Kufar	5
		TOTAL	16

     b. Phase two or Potential Phase. In this phase, remotely AFIS will be implemented in AFIS Units which is based on survey, geographically potential to implement remotely AFIS, but then need some investment to doing so. Totally 83 AFIS airports have potential to implement remotely AFIS.

2.8   To ensure that the remotely AFIS can be smoothly implemented, Pilot project that being developed will be assessed and evaluated continuously based on implementation plan.

2.9   Sample of the pilot projects are shown as follows:

Bali FSS will provide air ground communication service to aircraft operating within vicinity of aerodrome Pagerungan aerodrome..
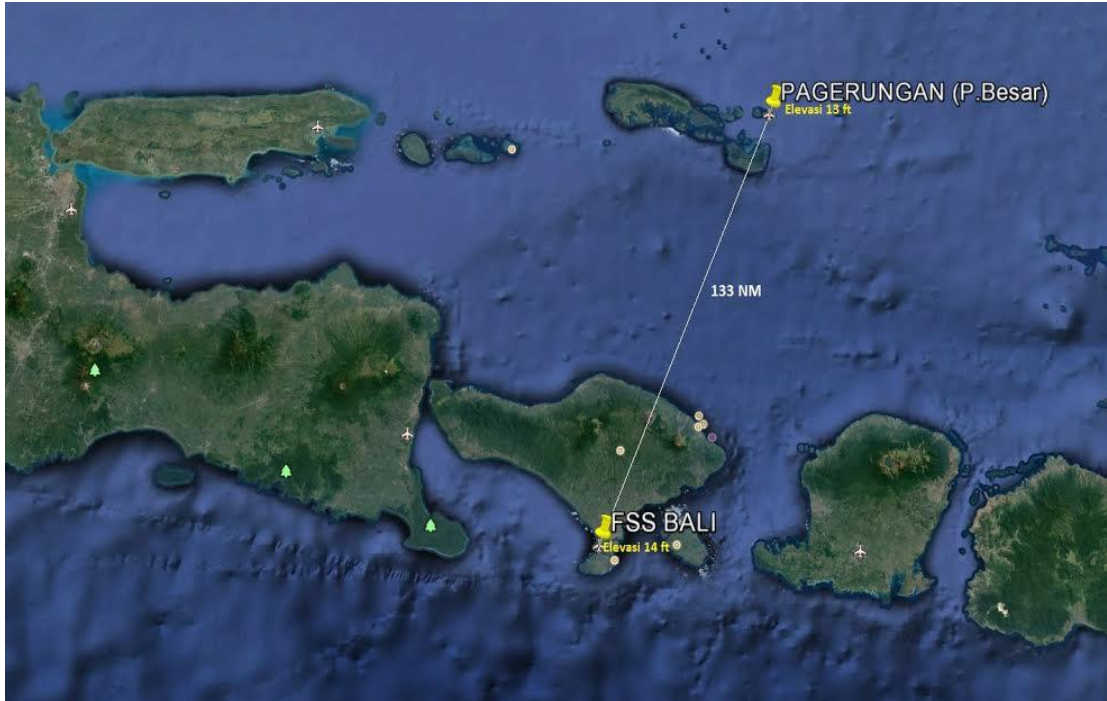
Figure 1. Single Method (Bali – Pagerungan)

3.   REMOTELY AFIS IMPLEMENTATION CHALLENGE

3.1   Since remotely AFIS being introduced and the procedures being developed, some challenges arise, the challenges that been identified are :

   a.   The reference documents regarding the implementation of remotely ATS / AFIS still very limited;

   b.   The provision of meteorological information services challenge within small / isolated aerodrome since the meteorological agency which is responsible to provide such service having problem with human resource issue

   c.   Many aircraft flying within class G airspace have no HF radio equipment, so the aircraft can not establish two way communication with FSS (this issue will be a problem if the FSS is appointed as AFIS Center)

4.   ACTION BY THE MEETING

4.1   The Meeting is invited to:

   a)   Noted information contained in this paper;

   b)   Propose the need of comprehensive reference document regarding the implementation of remotely ATS / AFIS

   c)   Share any information and experience regarding the implementation of remotely Air Traffic Services specially Remotely Aerodrome Flight Information Services;

— END —