



ICAO

*International Civil Aviation Organization***Fourth Meeting of Spectrum Review Working Group (SRWG/4)**

Bangkok, Thailand, 9 - 10 June 2020

Agenda Item 3: Frequency coordination process and improvement for the Asia/Pacific Region**REPORT OF FREQUENCY FINDER IMPLEMENTATION IN INDONESIA**

(Presented by DGCA Indonesia)

SUMMARY

This paper presents the experiences/problem of using Frequency Finder by Indonesia

1. INTRODUCTION

1.1 To minimize bureaucracy in aeronautical frequency coordination and registration, ICAO has introduced a system application called Frequency Finder to replace the conventional ICAO Frequency List No. 3 publication. By using Frequency Finder, the States will be able to check the compatibility of the frequency assignment automatically calculated by Frequency Finder system according to specific range of service, the compatible result then can be exported from system in excel file to be submitted to ICAO APAC Regional Office to get approval and updated to global database.

1.2 Regarding to the implementation of Frequency Finder into the Asia Pacific region, Indonesia with consideration agreed and supported the implementation of Frequency Finder by participating on Frequency Finder Workshop for Asia Pacific region which was held on 18-21 October 2016 in Bangkok, Thailand. The workshop also became an event for ICAO to officially announce the discontinuation of ICAO Frequency List No. 3 publication for years after. Since then, Indonesia has been using Frequency Finder for aeronautical frequency planning and management with coordination to ICAO APAC Regional Office.

1.3 By far, Indonesia has gained many benefits from the Frequency Finder use, some of the biggest advantage are facility for testing the compatibility of new or modified frequency and improvement on coordination with ICAO APAC Regional Office. Nevertheless, like many other systems some difficulties and errors are also experienced by Indonesia in using the Frequency Finder.

1.4 This paper proposes to share the experiences of Indonesia as one of APAC Region States in using the Frequency Finder as a feedback to ICAO in order to improve the system.

2. DISCUSSION

2.1 Since the 2016 Frequency Finder (FF) workshop in Thailand, Indonesia has been regularly updating FF version started from the FF2016.5R, FF2016.9R, FF2017.23R, FF2017.26R and now the latest version FF2020.03R is installed in its platform.

2.2 Indonesia currently has two FF installed computers, one is portable computer and the other is desktop computer. Both of them have the technical specification that exceed the minimum requirement of FF computer. The computer that mainly used for testing the frequency is the portable one because very often the Administrator of Indonesia tests a frequency assignment after office hour at his home, meanwhile the desktop computer located in office is used to check and download the updated database.

2.3 During the use of FF in 2018 Indonesia experienced some errors in ‘Key’ column (refers to Figure 2.3 below). Instead of displaying six-digit number, it appeared as ‘?’ question mark in the column. Indonesia then coordinated with ICAO APAC Regional Office, Mr. Li Peng and ICAO FF expert Mr. Robert Witzen. After we installed the latest version of FF given by them, there were no more ‘?’ question mark in the column.



Figure 2.3

2.4 In the late of 2019, Indonesia experienced some difficulties regarding to automatic downloading process of global database when we started the FF. Though there was no problem with the internet connection we used at that time, the download process was very slow it took all day long to finish. So we contacted Mr. Robert Witzen again to report the case. After some testing from him, then some trials from us it was back to normal condition where it normally takes only few minutes to download the database after starting FF. It was obvious that there were some problems in ICAO server at that time.

2.5 In the late of April 2020, Indonesia submitted 10 frequency assignments to ICAO APAC Regional Office, but in the exported file of excel there were frequencies from other States (China). Figure 2.5 shows the error. Mr. Luo Yi from ICAO APAC Regional Office who is now in charge in coordination with States evaluated the irrelevancy right away by asking us some questions started from which version did we use at that time. Knowing that the version we used at that time was the latest, Mr. Luo Yi then forwarded our case to Mr. Robert Witzen. By their helps through email correspondences, Indonesia eventually solved the case by the end of May 2020.

Key	Region	Frequency	Country full	Ctry	Location	Coordlat	NS
420414	APAC	0.000	China	CHN	CHANGDE	28D55'00"	N
420413	APAC	0.000	China	CHN	XUERLE	41D37'00"	N
63723301466254	APAC	124.900	Indonesia	INS	MANADO SAM RATULANGI	01D32'41"	N
63723299081958	APAC	118.100	Indonesia	INS	MANADO SAM RATULANGI	01D32'41"	N
63723299351947	APAC	119.000	Indonesia	INS	MANADO SAM RATULANGI	01D32'41"	N
63723301167641	APAC	126.400	Indonesia	INS	MANADO SAM RATULANGI	01D32'41"	N
63723301400141	APAC	120.200	Indonesia	INS	MANADO SAM RATULANGI	01D32'41"	N

Figure 2.5

2.6 During above period as mentioned in point 2.5, there were also errors in display of frequency range (refer to Figure 2.6). It was started after Mr. Luo Yi finally approved and updated our 10 frequency assignments explained above, we then check the updated database in our platform in desktop computer at office the next day and what we found was contrary to the result from Mr. Luo Yi’s platform. So again we consulted it to Mr. Luo Yi by email and kept Mr. Robert Witzen in the loop. With Mr. Robert Witzen’s instruction we then found the solution for the error display. It was a procedure to download all frequency by clicking the associate button on the FF.

MOD	Key	Region	Frequency	Country	Location	Latitude	Longitude	DOC	FIR Sector	PolyID	Extended Range	Cat	Stat	Remarks	Ch-date
R	404851	APAC	121.000	Indonesia	INS	BALIKAPAPAN SEPPINGGAN	01D15'06" S	116D04'40" E	APP-U C-100/245			ICAO		TMA	23/05/2020
R	404922	APAC	1223.000	Indonesia	INS	NABIRE	03D21'48" S	135D29'55" E	TWR C-25/40			NAT			23/05/2020
R	420335	APAC	1381.000	ICAO TEST APAC	ZZZ	Maastricht	26D00'00" N	091D00'00" E	ACC-U C-200/450			ICAO		TEST ROBERT	23/05/2020
R	420386	APAC	13815.000	Indonesia	INS	SEMARANG AHMAD YANI	06D08'55" S	110D22'28" E	AS C-2/0			NAT		GROUND CONTROL	23/05/2020
R	420387	APAC	1213.000	Indonesia	INS	GRESIK BAWEAN	05D43'25" S	112D40'36" E	AFIS C-25/40			NAT		BAWEAN AFIS	23/05/2020
R	420452	APAC	12135.000	Indonesia	INS	NABIRE	03D21'46" S	135D29'53" E	APP-U C-150/450			NAT			23/05/2020
R	420453	APAC	1181.000	Indonesia	INS	MANADO SAM RATULANGI	01D32'41" N	124D55'22" E	TWR C-25/40			NAT			23/05/2020
R	420454	APAC	119.000	Indonesia	INS	MANADO SAM RATULANGI	01D32'41" N	124D55'22" E	APP-U C-150/450			NAT			23/05/2020
R	420455	APAC	1264.000	Indonesia	INS	MANADO SAM RATULANGI	01D32'41" N	124D55'22" E	ATIS B-300/450			NAT			23/05/2020
R	420456	APAC	1202.000	Indonesia	INS	MANADO SAM RATULANGI	01D32'41" N	124D55'22" E	TWR C-25/40			NAT		SECONDARY FREQ	23/05/2020
R	420457	APAC	1249.000	Indonesia	INS	MANADO SAM RATULANGI	01D32'41" N	124D55'22" E	APP-U C-150/450			NAT		SECONDARY FREQ	23/05/2020

Figure 2.6

2.7 Interference report. Lately, Indonesia received an interference report from its air navigation service provider on frequency allocation 124.900 MHz located in Manado, Sulawesi. It is said that the frequency experienced interference with Manilla, Philippines. Referring to Figure 2.7 below, it shows the coverage of Manado is actually out of Manila’s frequency coverage range.

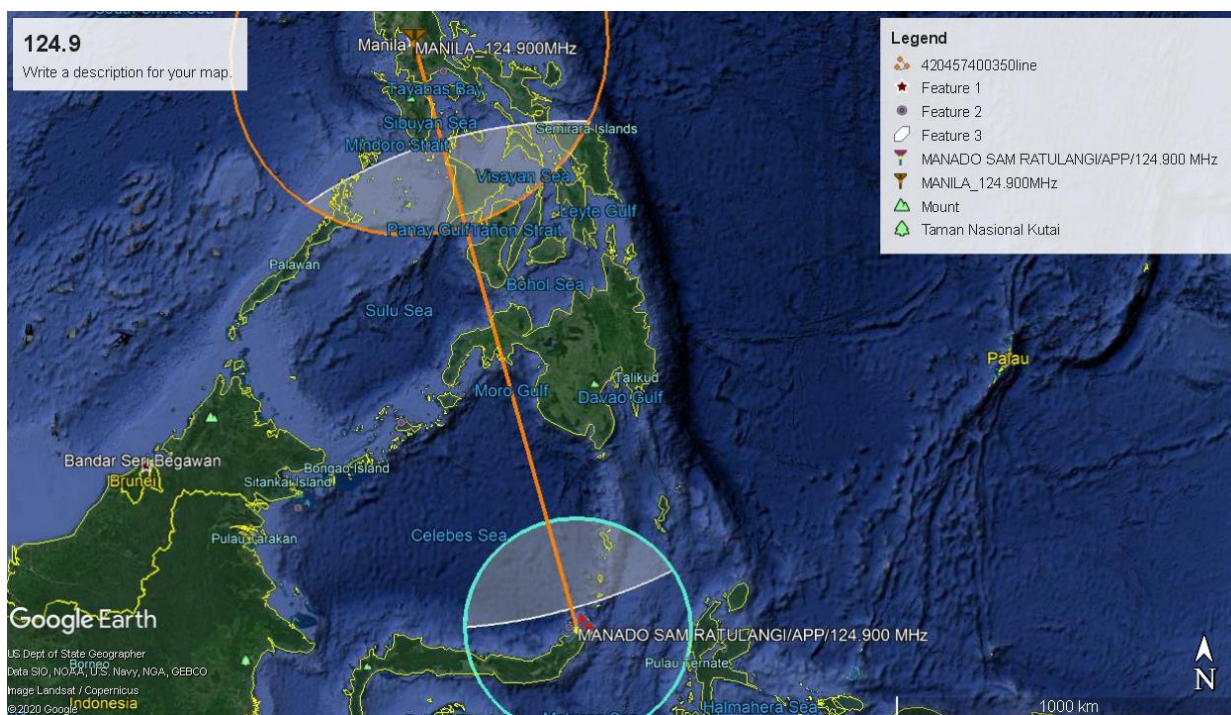


Figure 2.7

2.8 Beside sharing our experiences in using FF, Indonesia would also like to propose a refreshment tutorial by ICAO on the use of Polygon function and mechanism to assign VHF-Extended Range (ER) in FF tool because Indonesia has so many VHF-ER stations spread out in different islands of Indonesia on the SRWG/4 meeting or in an another specific event.

2.9 Indonesia places its deep appreciation and profusely thanks to Mr. Robert Witzten for guidance with the FF tool and to Mr. Luo Yi for fast responsive during our frequency assignments coordination. And through this paper, Indonesia kindly willing to support the Frequency Finder system working on Frequency List No. 1 and 2 as well as Frequency List No.3.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matter as appropriate.
