



ICAO

International Civil Aviation Organization

Tenth Meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/10)

Video Teleconference, 31 May – 02 June 2022

Agenda Item 4: Discussion on PBN Routes Development and FLAS/FLOS Optimization

**REVIEW OF MALAYSIA (KUALA LUMPUR FIR AND KOTA KINABALU FIR)
FLAS/FLOS**

(Presented by Malaysia)

SUMMARY

This paper presents a review of existing FLAS/FLOS operations surrounding Malaysian airspace. The paper will review both Kuala Lumpur FIR and Kota Kinabalu FIR FLAS/FLOS arrangements.

1. INTRODUCTION

1.1 Malaysia airspace consists of two FIR namely Kuala Lumpur FIR and Kota Kinabalu FIR. Kuala Lumpur FIR has common boundary with Bangkok FIR, Chennai FIR, Ho Chi Minh FIR, Jakarta FIR and Singapore FIR. Kota Kinabalu FIR on the other hand shares boundary with Jakarta FIR, Manila FIR, Singapore FIR and Ujung Pandang FIR.

1.2 This paper will review the traffic flow management in the form of Flight Level Allocation Scheme (FLAS) and Flight Level Orientation Scheme (FLOS) agreement/arrangement between Malaysia and its neighbouring FIRs.

1.3 The review of the current usage of FLAS/FLOS between Malaysia and its neighbouring FIR will be a good opportunity to review and aim to enhance the efficient use of routes where adequate capacity could be provided to fulfil traffic demands under normal circumstances.

2. DISCUSSION

KUALA LUMPUR FIR

2.1 The FLAS/FLOS agreement between Kuala Lumpur ACC and Bangkok ACC

ROUTE	ORIENTATION	FLAS/FLOS	REMARKS
P627	Eastbound	290	- Bay Of Bengal area
	Westbound	260, 320	
L645	Eastbound	290	- Airspace CAT R
	Westbound	260, 320	
M757	Eastbound	All eastbound levels available within limits of route.	- Airspace CAT S
M769	Westbound	All westbound levels available within limits of route.	

2.2 The FLAS/FLOS agreement between Kuala Lumpur ACC and Chennai ACC

ROUTE	ORIENTATION	FLAS/FLOS	REMARKS
B466	Eastbound/ Westbound	All westbound and eastbound levels available within limits of route.	- Bay of Bengal area
L645	Eastbound	290	- Airspace CAT R
	Westbound	320	
L510	Eastbound	All eastbound levels are available (except FL290) within limits of route.	
N571	Eastbound	All eastbound levels are available (except FL290) within limits of route.	
	Westbound	280, 300, 340, 380, 400	
P574	Eastbound	All eastbound levels are available (except FL290) within limits of route.	
	Westbound	280, 300, 340, 380, 400	
P628	Westbound	280, 300, 340, 380, 400	

2.3 The FLAS/FLOS agreement between Kuala Lumpur ACC and Jakarta ACC

ROUTE	ORIENTATION	FLAS/FLOS	REMARKS
G468	Eastbound/ Westbound	All eastbound and westbound levels available within limits of route.	- Airspace CAT S
N633	Eastbound/ Westbound	All eastbound and westbound levels available within limits of route.	
R461	Eastbound/ Westbound	All eastbound and westbound levels available within limits of route.	
Y340	Eastbound/ Westbound	All eastbound and westbound levels available within limits of route.	
B466	Eastbound/ Westbound	All eastbound and westbound levels available within limits of route.	- Bay Of Bengal area
P574	Eastbound	All eastbound level available within limit of route except FL290	- Airspace CAT R
	Westbound	280, 300, 340, 380, 400	
P627	Eastbound	290	
	Westbound	320	

2.4 The FLAS/FLOS arrangement between Kuala Lumpur ACC and Singapore ACC

ROUTE	ORIENTATION	FLAS/FLOS	REMARKS
M771	Uni-directional Eastbound	310, 320, 350, 360, 390, 400	- South China Sea Area
L625	Uni-directional Eastbound	310, 320, 350, 360, 390, 400	
N884	Uni-directional Eastbound	310, 320, 350, 360, 390, 400	
M758	Eastbound	270, 290, 330	
	Westbound	280, 300, 340	
M761	Eastbound	270, 290, 330	
	Westbound	280, 300, 340	
G334	Eastbound	250, 270	
	Westbound	260, 280	

KOTA KINABALU FIR

2.5 The FLAS/FLOS agreement between Kota Kinabalu ACC and Jakarta ACC

ROUTE	ORIENTATION	FLAS/FLOS	REMARKS
P648	Eastbound	310,350,390	- Airspace CAT S
	Westbound	320, 360, 400	
M772	Westbound	300,380	

2.6 The FLAS/FLOS agreement between Kota Kinabalu ACC and Manila ACC

ROUTE	ORIENTATION	FLAS/FLOS	REMARKS
M522/M754	Northbound	300,340,380	- South China Sea Area
	Southbound	290,330,370, 410	
M646	Northbound	310,350,390	
	Southbound	320.360,400	
A341	Eastbound	310,370	
	Westbound	320,360,400	

2.7 The FLAS/FLOS arrangement between Kota Kinabalu ACC and Singapore ACC

ROUTE	ORIENTATION	FLAS/FLOS	REMARKS
M758	Eastbound	290,330,370,410	- South China Sea Area
	Westbound	300,340,380	
M768	Eastbound	290,330,370,410	
	Westbound	300,340,380	
M772	Northbound	300,380	

L517	Uni-directional Westbound	280,300,340	
L649/M772	Northbound	300,380	

2.8 The FLAS/FLOS agreement between Kota Kinabalu ACC and Ujung Pandang ACC

ROUTE	ORIENTATION	FLAS/FLOS	REMARKS
A211	Eastbound/ Westbound	All westbound and eastbound levels available within limits of route.	- Airspace CAT S
M522	Eastbound	310,350,390	
	Westbound	320,360,400	
M768	Eastbound	290,330,370,410	
	Westbound	300,340,380	
R223	Eastbound	310,350,390	
	Westbound	320,360,400	

2.9 The FLAS/FLOS arrangement between Kuching ACC and Singapore ACC

ROUTE	ORIENTATION	FLAS/FLOS	REMARKS
G334	Eastbound	250, 270	- South China Sea Area
	Westbound	260, 280	
M761	Eastbound	250, 270, 290, 330, 370, 410	
	Westbound	260, 280, 300, 340, 380	
M646/G580	Eastbound	250, 270, 290, 330, 370, 410	
	Westbound	260, 280, 300, 340, 380	

2.10 The FLAS/FLOS agreement between Kuching ACC and Pontianak APP

ROUTE	ORIENTATION	FLAS/FLOS	REMARKS
R455	Eastbound/ Westbound	All eastbound and westbound levels available within limits of route.	- Pontianak APP

2.11 The FLAS/FLOS review surrounding Malaysia Airspace is illustrated in **Appendix A**, **Appendix B** and **Appendix C**.

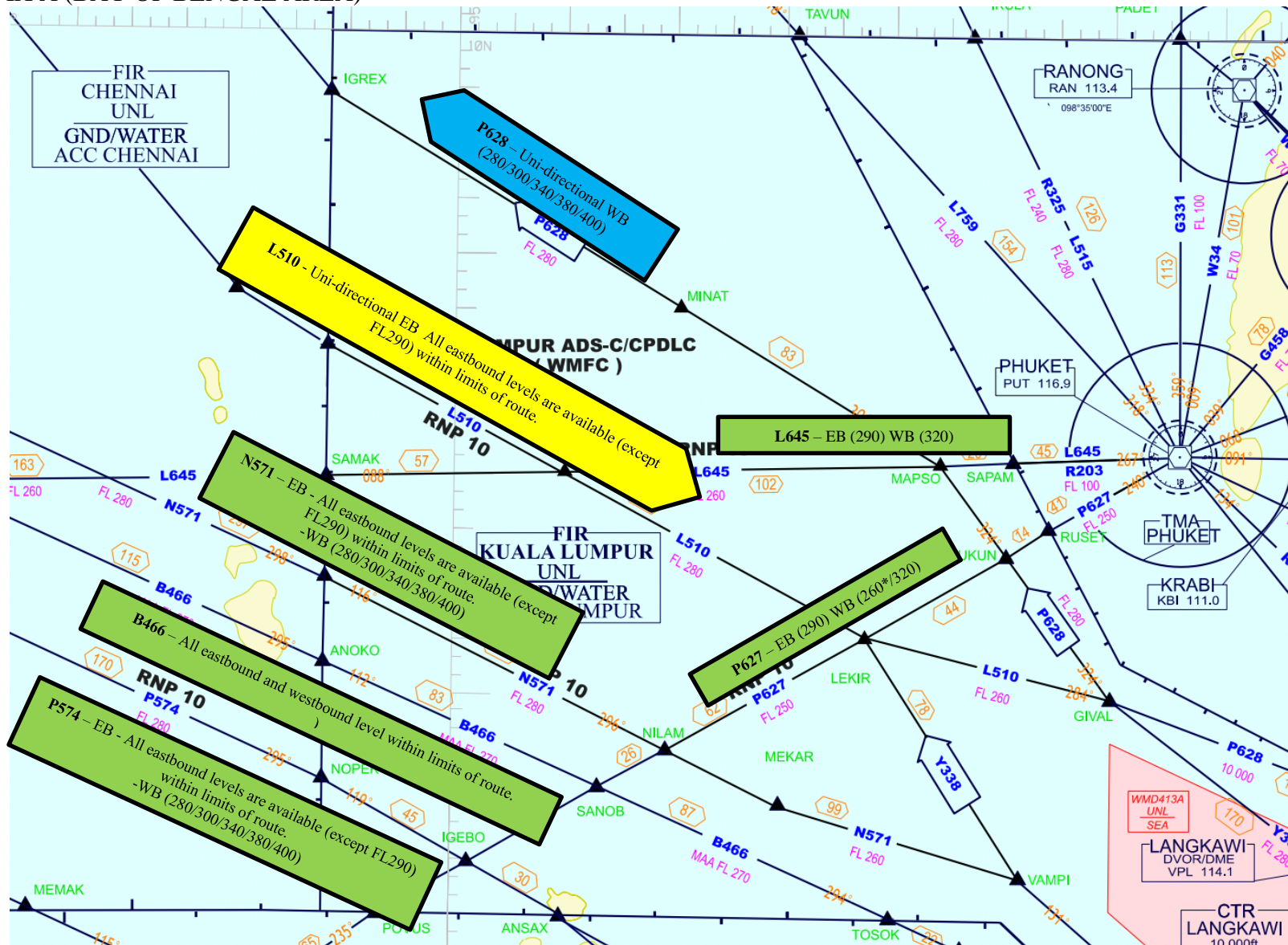
3. ACTION BY THE MEETING

3.1 The meeting is invited to:

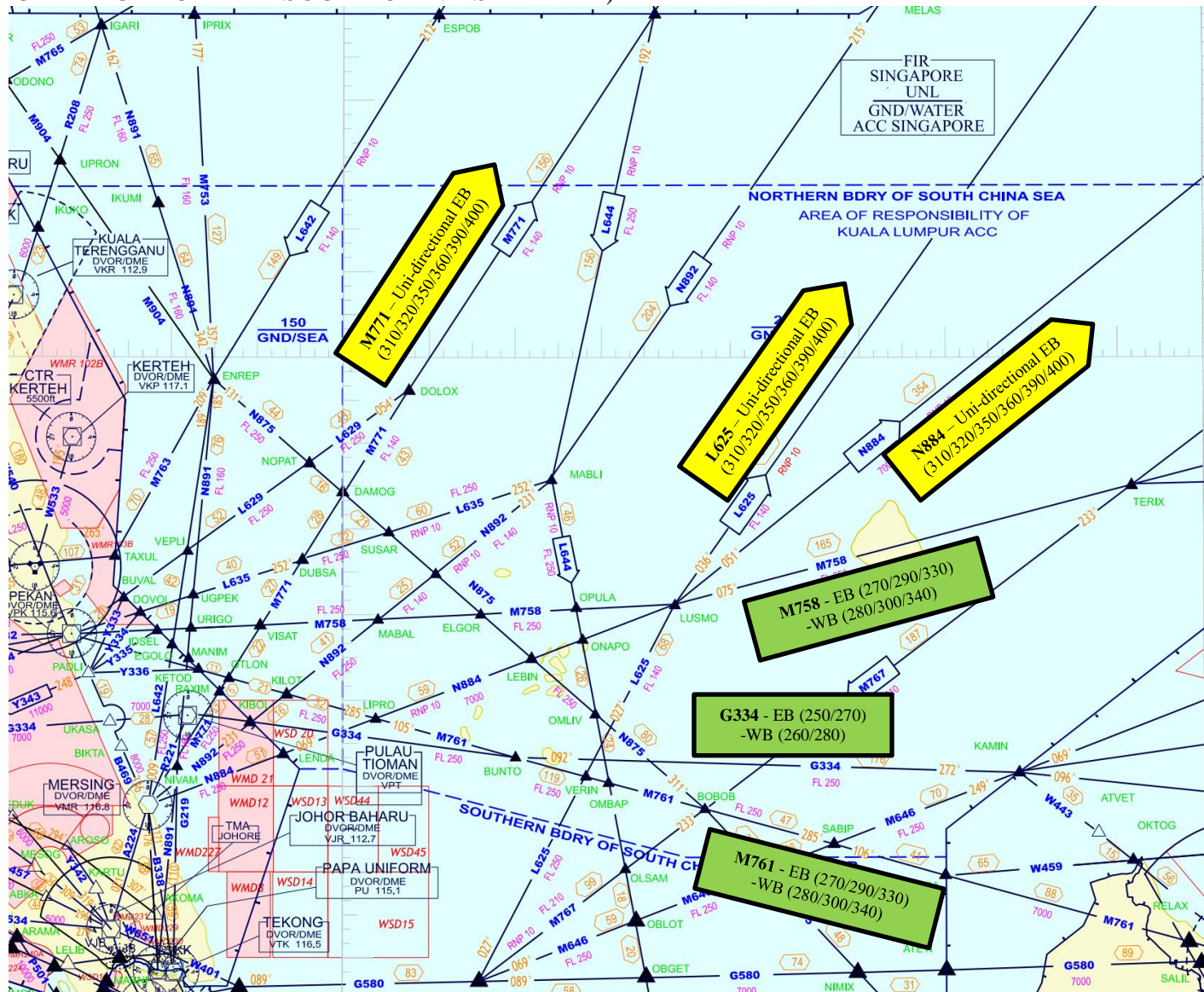
- a) note the information contained in this paper;
- b) review of the current usage of FLAS/FLOS and;
- c) discuss any relevant matters as appropriate.

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APPENDIX A (BAY OF BENGAL AREA)



APPENDIX B (KUALA LUMPUR FIR - SOUTH CHINA SEA AREA)



APPENDIX C (KOTA KINABALU FIR - SOUTH CHINA SEA AREA)

