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AIRAC

KOTA KINABALU FLIGHT INFROMATION REGION

REDESIGNATION OF ATS ROUTE B348 TO RNAV ROUTE M646

1. INTRODUCTION

1.1 The purpose of this AIP Supplement is to provide details on the redesignation of ATS route B348 to RNAV route M646 Kota Kinabalu FIR.

2. BACKGROUND

2.1 On 27 August 2010, the South East Asia Route Review Task Force identified certain conventional routes that were retained without changes to the separation minima. Consequently, mixed separation minima existed between routes with similar alignment.

2.2 ATS service provider of the South China Sea and northern associated airspace later on agreed to redesignate the ATS route B348 to RNAV route M646 with a minimum navigation performance of RNP 10 so as to improve safety and efficiency, taking into consideration of evolving technologies in aviation.

3. RNP 10 NAVIGATION REQUIREMENTS

3.1 An aircraft that is unable to meet the minimum navigation requirements for RNP 10 may not file flight plan on ATS route M646.

3.2 Pilots of aircraft meeting RNP 10 navigation requirements must indicate /R in Item 10 of the ICAO Flight Plan.

3.3 Pilots must advise ATC of any deterioration or failure of navigation systems below the navigation requirements for RNP 10. ATC shall then provide alternate separation and/or alternative routing.

4. SAFETY ASSESSMENT CRITERIA

4.1 The safety criteria associated with the introduction of the reduced lateral separation minima of 50 NM will be in accordance with the requirements for RNP 10 navigation performance, that is, aircraft navigation performance shall be such that the standard deviation of lateral track errors shall be less than 8.7 km (4.7 NM).

5. MONITORING OF AIRCRAFT NAVIGATION PERFORMANCE

5.1 Monitoring of aircraft navigation performance is a joint responsibility between operators, States of Registry or States of Operators (as applicable), regulatory authorities and the ATS providers. The detection and reporting of non-conformance with the navigation requirements against the following parameters will rely primarily on radar monitoring by ATC units:

Lateral deviations:

i. deviation of 15 NM or more from the track centreline based on radar observations.

Longitudinal deviations:

i. where time separation is applied by ATC – when the reported separation based on ATC verified pilot's estimates vary by 3 minutes or more from the expected separation at the reporting point; or

ii. where a distance based standard is applied by ATC based on ADS, radar observation or RNAV distance reports – when the distance varies by 10 NM or more from the expected distance.

5.2 ATC will advise the pilot-in-command when such deviations are observed and implement the required investigation procedures.

5.3 The ATC authorities will investigate the causes of such deviations in conjunction with the aircraft operator and the State of Registry, or the State of the Operator, as applicable.

6. SEPARATION MINIMA

6.1 Lateral Separation Minima:

i. lateral separation minima of 50 NM may only be applied between aircraft equipped in accordance with RNP 10 navigation requirements.

6.2 Longitudinal Separation Minima:

i. longitudinal separation of 80 NM RNAV or 10 minutes (or less) Mach Number Technique (MNT) separation minima may be applied between aircraft equipped in accordance with RNP 10 navigation requirements.

7. OPERATORS PROCEDURES

7.1 The operator shall ensure that in-flight procedures, crew manuals and training programmes are established in accordance with RNP 10 navigation requirements.

8. IMPLEMENTATION DATE

8.1 The above upgrading will occur on 03/05/2012 and in most cases only the route designator and RNP requirement will change. Malaysia will establish a transition and data management plan in order to ensure aircraft in flight during the change will continue to be processed based on the filed flight plan.

8.2 A trigger NOTAM will be issued on 19/04/2012 notifying the effective date of implementation.

9. APPENDICES

9.1 Details of the redesignation of ATS route B348 to RNAV route M646, applicable within Kota Kinabalu FIR are shown in:

Appendix A – Lower and Upper Limit of RNAV route M646.

Appendix B – Chart depicting RNAV route M646.

10. CANCELLATION

10.1 This AIP Supplement will remain current until the information is published in AIP Malaysia.

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UPGRADING OF ATS ROUTE B348 TO RNAV ROUTE M646

Route Designator Significant Points Coordinates	Track (MAG) DIST (NM)	Upper limits Lower limits Minimum Flight Altitude Airspace Classification (Refer to ENR 1.4-1)	Lateral Limits (NM)	Cruising levels		Remarks Controlling unit
				Odd	Even	
1	2	3	4	5		6
M646						
▲ OSANU (FIR BDRY) 074124N 1171736E ▲ KOTA KINABALU DVOR/DME (VJN) 055357.3N 1160202.3E ▲ BRUNEI DVOR/DME (BRU) 045230N 1145254E △ 50 DME BRUNEI 043437N 1140607E △ SAKMA 042428N 1133955E ▲ DARMU 040139.0N 1124036.0E ▲ KAMIN (FIR BDRY) 023442N 1085536E	215° 035° 130.1 NM	FL 460 FL 135 MNM FL 140	20	↓		LONGITUDINAL SEPARATION OF 10 MINS BETWEEN RNAV EQUIPPED AIRCRAFT APPLYING MACH NUMBER TECHNIQUE. **Controlling Authority:** 1. OSANU to BRU DVOR/DME Kota Kinabalu ACC - 126.1 MHz. 2. BRU DVOR/DME to DARMU Kota Kinabalu ACC - 128.3 MHz. 3. DARMU to KAMIN Kuching Control - 134.5 MHz Except that part of AWY within Brunei TMA - Brunei Approach - 127.1 MHz. NON-RNAV EQUIPPED AIRCRAFT CAN OPERATE ON THIS RNAV ROUTE AT FL280 OR BELOW (BELOW RVSM).
	228° 048° 92.0 NM	FL 460 6 500 FT ALT MNM 7 000 FT				
	249° 069° 50.0 NM	FL 460 7 500 FT ALT MNM 8 000 FT				
	249° 069° 28.0 NM					
	249° 069° 63.5 NM	FL 460 FL 135 MNM FL 140		↑		
	249° 069° 241 NM					

REDESIGNATION OF ATS ROUTE B348 TO RNAV ROUTE M646

APPENDIX B