

Telephone: (65) 6595 6051
AFS: WSSSYNYX
Facsimile: (65) 6543 1826
caas_singaporeais@caas.gov.sg
www.caas.gov.sg

REPUBLIC OF SINGAPORE
AERONAUTICAL INFORMATION SERVICES
CIVIL AVIATION AUTHORITY OF SINGAPORE
SINGAPORE CHANGI AIRPORT
P.O. BOX 1, SINGAPORE 918141

174/11
8TH SEPTEMBER

**AIRSPACE CLOSURE KUALA LUMPUR AND SINGAPORE FIRS
EXERCISE BERSAMA LIMA 11
210001UTC OCTOBER TO 021100UTC NOVEMBER 2011**

1. INTRODUCTION

- 1.1 Exercise BERSAMA LIMA 11 will take place within the Kuala Lumpur and Singapore FIRs from 210001UTC October to 021100UTC November 2011. Exercise airspace will be closed to civil and non-exercise military aircraft during this period. Johor Bahru / Sultan Ismail Airport will be closed to non-scheduled traffic throughout the exercise.

2. DEFINITION

- 2.1 For the purpose of this AIP Supplement, Regular Scheduled Traffic means:
- a) Scheduled Public Transport Services; and
 - b) Scheduled Charter Services.

3. EXERCISE AREAS

- 3.1 The exercise areas encompass portions of both the Kuala Lumpur and Singapore FIRs, as described below and depicted in charts 1, 2, 3, 4, 5 and 6 to this AIP Supplement.

- 3.1.1 **Area A.** Area A is considered overland and extends from 023000N 1021106E anti-clockwise along the Kuala Lumpur TMA Boundary to 033612N 1012630E, thence to 041400N 1011500E then anti-clockwise along the Ipoh CTR boundary to 045400N 1011500E, 050000N 1011500E, 050000N 1005200E, 050700N 1000600E, then including the Butterworth CTR centered on BTR (052818N 1002342E) to 054300N 1002900E, 052606N 1010424E, 054600N 1014630E, then along the Kuala Lumpur / Bangkok FIR boundary to 063000N 1023000E, 063000N 1024000E, 053604N 1024944E, then clockwise along the east coast of Peninsular Malaysia, excluding all controlled airspace to 031240N 1032641E then to 023000N 1021106E.

Vertical limits :

Over land : 5,000FT – 12,000FT

Note : Refer to paragraph 3.1.5 and Chart 6 on Low Flying Area.

3.1.2 **Area B.** Area B extends from 063000N 1024000E, 063000N 1073000E, 050000N 1073000E, 040000N 1063000E, 031100N 1052000E, 024500N 1051000E, 020000N 1052500E, 020000N 1053500E, 013500N 1060000E, 004700N 1060000E, 011700N 1043700E, 013000N 1043600E, 013000N 1042000E, 020000N 1042000E, 020000N 1041700E, 022703N 1041700E, 022703N 1034603E, 031240N 1032641E, thence clockwise along the east coast of Peninsular Malaysia, excluding all controlled airspace to 053604N 1024944E, then to 063000N 1024000E.

Vertical limits :

Over land : 5,000FT – 12,000FT

Over water : SEA LEVEL – FL190 except within the Naval Firing Area whenever it is active (see paragraph 14).

3.1.3 **Area C.** Area C extends from 011300N 1040500E, 011300N 1035300E, SINJON, 011000N 1033000E, 012000N 1030900E, 021500N 1014500E, thence anti-clockwise along the Kuala Lumpur TMA boundary to 023000N 1021106E, 031240N 1032641E, 022703N 1034603E, 013303N 1035204E, then to 011300N 1040500E.

Vertical limits :

Over land : 5,000FT - FL290

Note : Refer to paragraphs 3.1.5, 3.1.6, 3.1.7 and Chart 6 on Low Flying Area.

3.1.4 **Area D.** Area D extends from 022703N 1041700E, 020000N 1041700E, 020000N 1042000E, 013000N 1042000E, 013000N 1043600E, 011700N 1043700E, 011518N 1042414E, 011306N 1040609E, 011300N 1040500E, 013303N 1035204E, 022703N 1034603E, 022703N 1041700E.

Vertical limits :

Over land : North of 35 DME VTK vertical limit is 5,000FT. No aircraft are to operate within Area D south of 35 DME VTK without civilian ATC clearance.

Over water : SEA LEVEL – FL190

3.1.5 **Low Flying Area (LFA).** A LFA that is part of the exercise area has been established for use by exercise aircraft. The LFA extends from 015200N 1024900E, 020000N 1025800E, 021100N 1030000E, 021600N 1030300E, 022300N 1031300E, 022200N 1032330E, 021900N 1033000E, 023130N 1035000E, thence north along the east coast of Peninsular Malaysia to 053415N 1025553E, 052450N 1015000E, 040000N 1015000E, 032500N 1020230E, 024900N 1022400E, 023530N 1024230E, 022230N 1024230E, 015900N 1023700E to 015200N 1024900E.

Vertical limits : 250FT - 5,000FT below portions of Area A and Area C.

Note : The LFA excludes the following:

- a) Kuantan CTR;
- b) Kerteh CTR;
- c) Kuala Terengganu CTR.

3.1.6 **Coastal Corridors.** Two coastal corridors have been established for exercise aircraft, and they are as follows:

3.1.6.1 **Coastal Corridor West (CCW)** : 012306N 1034218E, 015900N 1023700E, 014000N 1023100E, 011600N 1033100E, 011518N 1034006E, 012306N 1034218E.

Timings : Duration of exercise period.

Vertical limits : 250FT to 5,000FT

3.1.6.2 **Coastal Corridor East (CCE)** : 014224N 1042524E, 013324N 1040230E, 012530N 1035930E, 012124N 1040018E, 013300N 1043018E to 014224N 1042524E.

Timings : 250215UTC October to 250315UTC October 2011 (see paragraph 11.1)

Vertical limits : 250FT to 5,000FT

3.1.7 **Tengah Scramble Corridor.** A corridor has been established to enable departing aircraft from Tengah Air Base to transit into the exercise airspace. The area is within 012857N 1033422E, 013212N 1033808E, 012622N 1034515E, 012058N 1034452E, 012136N 1033954E, 012403N 1034013E and 012857N 1033422E.

Vertical limits : SURFACE / SEA LEVEL to 5,000FT (All departing aircraft must be at or above 3,000FT by 3 DME and above 5,000FT by 10 DME from TENGAH TACAN.)

4 **REQUESTS FOR CLEARANCES INTO EXERCISE AIRSPACE**

4.1 Civil and non-exercise aircraft requiring clearance into exercise airspace should submit a flight plan to either JATCC or SATCC at least six hours prior to departure. JATCC or SATCC will pass this information to the Airspace Cell at HQ BL11 for approval. The Airspace Cell will process these requests and will endeavour to approve the flight plan or provide a deconflicted slot time. Any queries should be directed to the Airspace Cell at HQ BL11. Airspace Cell at HQ BL11 will pass this information to either JATCC or SATCC for approval dissemination.

5 **CIVIL CONTROLLED AIRSPACE**

5.1 Civil controlled airspace within the exercise area detailed above is listed below and is depicted on the attached Charts 2 to 6. The lateral and vertical boundaries identify the limits of non-exercise airspace available for civil use:

- 5.1.1 Kota Bharu CTR, including Gong Kedak CTR : NO RESTRICTIONS
(within Kuala Lumpur FIR)
- i) Malaysian Helicopter Services (MHS) : 2,000FT – 4,000FT
Transit Corridor east of Kota Bharu
CTR bounded by 062424N 1022228E,
064500N 1024000E, 063900N 1030000E,
061054N 1023410E.
- 5.1.2 Mike 765
- i) Kota Bharu CTR East Boundary to : FL130 – FL460
062324N 1024110E (Area A)
- ii) 062324N 1024110E to 063000N : FL200 – FL460
1025152E (Area B)
- 5.1.3 Golf 466
- i) Kota Bharu CTR to PULIP : FL130 – FL460
- ii) PULIP to Kuala Lumpur TMA Boundary : 11,000FT – FL460
- 5.1.4 Mike 751 / Whiskey 540
- i) VKB to a line joining 050300N 1023400E : 7,000FT – FL460
and 050830N 1025400E
- ii) Mike 751 / Whiskey 540 between a line : FL130 – FL460
joining 050300N 1023400E and 050830N
1025400E, and a line joining 042000N
1025200E and 043000N 1031000E
- iii) From a line joining 043000N 1031000E : 7,000FT – FL460
and 042000N 1025200E to Kuantan
CTR North
- iv) Above Kuantan CTR : FL250 – FL460
- 5.1.5 Kuala Terengganu CTR : GROUND / SEA LEVEL
- FL130
- i) The airspace between the eastern boundary: 7,000FT – FL460
of Mike 751 / Whiskey 540 and Romeo 208
to the southern boundary of the Kuala
Terengganu CTR
- ii) A corridor on radial 345 degrees from VKR : 2,000FT – 5,000FT
VOR / DME 5NM wide direct to Pulau
Redang (054555N 1030025E)

- iii) An area within 5NM of Pulau Redang (054555N 1030025E) : GROUND / SEA LEVEL - 5,000FT
- 5.1.6 Kerteh CTR : GROUND / SEA LEVEL - 9,000FT
 - i) A corridor on radial 239 degrees from Kerteh VOR / DME 8NM wide from the western boundary of Mike 751 / Whiskey 540 to Kerteh CTR West : 4,000FT – 9,000FT
 - ii) MHS Operating Area bounded by 044154N 1032500E, 060000N 1031500E, 063900N 1030000E, 064500N 1024000E, 070000N 1030000E, 070000N 1042848E, 054000N 1060000E, 050000N 1060000E, 042000N 1043000E, 042900N 1033500E, then along the eastern boundary of Kerteh CTR to 044154N 1032500E : SEA LEVEL – 4,000FT
- 5.1.7 Golf 582
 - i) Kuala Lumpur TMA boundary East to R325 centreline : 9,000FT – FL460
 - ii) R325 centreline to VPK : FL130 – FL460
- 5.1.8 Whiskey 533
 - i) Kuala Lumpur TMA boundary East to KIMAT : 9,000FT – FL460
 - ii) KIMAT to Kuantan CTR South West : FL130 - FL460
 - iii) VKE to Kuantan CTR North East : 5,000FT – 10,000FT
- 5.1.9 Golf 584
 - i) Kuala Lumpur TMA boundary East to ISTAN : 9,000FT – FL460
 - ii) ISTAN to western boundary WMR104 South West : FL130 – FL460
 - iii) Western boundary WMR104 to VPK : FL180 – FL460
- 5.1.10 Romeo 208
 - i) IGARI to VKR : FL200 – FL460
 - ii) VKR to MATSU : FL130 – FL460

- iii) MATSU to Kuala Lumpur TMA boundary : 9,000FT – FL460
- 5.1.11 Mike 763
 - i) VPK to TAXUL : FL200 – FL460
 - ii) TAXUL to ENREP : FL250 – FL460
- 5.1.12 Changi CTR and the area north of Changi CTR : GROUND / SEA LEVEL
commencing at 013300N 1040154E to – FL240
013800N 1040154E, 013800N 1042000E, (see paragraph 11.1)
013000N 1042000E, 012400N 1041500E,
012000N 1041224E, then along the Kuala Lumpur / Singapore FIR boundary to 012542N
1040454E, 013042N 1040700E, 013300N
1040154E (see Chart 4)
- 5.1.13 The area bounded by 011310N 1040615E, : 2,000FT – FL240
012000N 1041224E, 012400N 1041500E, (see paragraph 11.1)
012800N 1041500E, 012600N 1042130E,
012500N 1042424E, 011530N 1042424E,
011310N 1040615E (see Chart 4)
- 5.1.14 The airspace from 041341N 1034156E
along the Kuala Lumpur / Singapore FIR
boundary, the northern boundary of WMD21
and WSD20, the eastern boundary of WSD20
to 024500N 1045500E, 022703N 1041700E,
015800N 1041200E, along 35 DME VTK to
the eastern boundary of WMD8 to 013800N
1042000E, 013800N 1040200E, 013300N
1040200E, 013300N 1035400E, 022700N
1034600E, 032100N 1032200E, 032259N
1032524E, 032913N 1032252E, then along
the Kuantan CTR to 035356N 1033105E,
041341N 1034156E with the following vertical
limits:
 - i) From the southern boundary to : 3,000FT – FL240
35 DME VTK (see paragraph 11.1)
 - ii) From 35 DME VTK to VMR : 6,000FT – FL240
(59 DME VTK) (see paragraph 11.1
and Chart 5)
 - iii) From VMR (59 DME VTK) : FL180 – FL320
to 90 DME PU (see Chart 5)
 - iv) The area north of 90 DME PU : FL200 – FL460

NOTE: Overflights by aircraft above FL240 may be approved, subject to real time clearance by ATC.

5.1.15 Singapore Light Aircraft Training Areas A, B and C together with Seletar CTR (Zone 'A' and Zone 'B'), Paya Lebar CTR and Sembawang ATZ. : (see paragraph 11.1)

5.1.16 Alpha 464:

The airspace bounded by 024430N 1021430E, 015724N 1030029E, 013200N 1034800E, 013300N 1040200E, 011300N 1035300E, SINJON, 011000N 1033000E, 012000N 1030900E, along the Kuala Lumpur FIR boundary to 021724N 1012800E, along the southern boundary of Kuala Lumpur TMA to 024430N 1021430E with the following limits:

i) SJ to 90 DME SJ : FL140 – FL240

NOTE: Overflights by aircraft above FL240 may be approved, subject to real time clearance by ATC.

ii) 90 DME SJ to Kuala Lumpur TMA : 7,000FT – FL460

5.1.17 Conditional ATS Route Whiskey 543 activated

i) JB to 90 DME SJ : FL140 – FL240

NOTE: Westbound traffic shall flight plan via JB W543 (ATS Conditional Route) to VMK direct SAPAT to join A457; or SAPAT direct to SALAX to join N563 or M300.

5.1.18 Alpha 457

i) VJR to VKL : FL310 – FL460

5.1.19 Bravo 466

i) VJR to VBA : FL310 – FL460

5.1.20 Romeo 325

i) VJR to VIH : FL310 – FL460

5.1.21 Kluang CTR : GROUND – 3,000FT

5.1.22 Malacca CTR : GROUND – 7,000FT

5.1.23 Above the lateral limits of Butterworth TMA : FL130 – FL460
(see paragraph 7)

- 5.1.24 Golf 580 east of HOSBA : 7,000FT – FL460
- 5.1.25 Johor Bahru / Sultan Ismail Temporary CTR
(To be released to civil ATC under the
Circumstances described at paragraph 8)
- i) 012730N 1034400E, 013530N 1033600E, : GROUND – 8,000FT
then clockwise around the arc of a circle
radius 5.3NM centred on 013742N
1034100E to 014000N 1034555E,
012830N 1034800E, then along the
national boundary to 012730N
1034400E (excluding WMP228)
- ii) 013530N 1033600E, 014900N 1033130E, : GROUND – 8,000FT
then clockwise around the arc of a circle
radius 8NM centred on 014400N 1033730E
to 015110N 1034100E, 014000N 1034555E,
then anti-clockwise around the arc of a
circle radius 5.3NM centred on 013742N
1034100E to 013530N 1033600E
- 5.1.26 Pulau Tioman : (see paragraph 9)
- 5.1.27 An area of 13NM radius centered at 031048N : GROUND – 60,000FT
1030054E (Bukit Ibam)
- 5.1.28 An area of 10NM radius centered at 054632N : GROUND – 6,000FT
1023016E (Bukit Petri)
- 5.1.29 An area of 5NM radius centered at 015100N : GROUND – 5,000FT
1025600E (Batu Pahat)
- 5.1.30 Yankee 336
- i) ISTAN to western boundary of WMR104 : FL130 – FL460
- ii) Western boundary of WMR104 to PADLI : FL180 – FL460
- iii) PADLI to KETOD : FL200 – FL460
- 5.1.31 Yankee 331
- i) PIBOS to R325 centreline : 9,000FT – FL460
- ii) R325 centreline to Kuantan CTR boundary : FL150 – FL460
West
- iii) Kuantan CTR boundary West to TAXUL : FL250 - FL460

5.1.32 Civil controlled airspace from FL200 to FL460 shall apply to the following ATS routes north of 90 DME PU, portions of which fall within Area Bravo:

- i) N891
- ii) M753
- iii) L642
- iv) M771
- v) N892
- vi) N884

6 **BUFFER ZONES**

6.1 A 10NM buffer zone will be observed where the boundaries of the exercise areas coincide with the boundaries of the Bangkok, Ho Chi Minh and Jakarta FIRs.

6.2 Non-exercise traffic may operate up to the limits of the non-exercise airspace. Exercise military traffic will maintain a vertical buffer of 1,000FT and a lateral buffer of 5NM from airspace released for civil use except when operating within the corridors described in paragraphs 3.1.6 and 3.1.7.

7 **RESTRICTIONS AND PROCEDURES – BUTTERWORTH CTR AND KUANTAN CTR**

7.1 Butterworth CTR : GROUND – 12,000FT
Kuantan CTR : GROUND – FL240

(NOTE: During the exercise period, Kuantan TMA is inoperative.)

7.2 Exercise activity in the Butterworth CTR will be moderate. In the Kuantan CTR, the exercise activity will be intensive throughout the entire exercise period and all airspace users must proceed with caution. Butterworth and Kuantan ATC will provide separation and co-ordination between exercise traffic and prior notified non-exercise traffic throughout the period of activation.

7.3 Regular scheduled civil traffic will be coordinated with exercise traffic to permit normal operation where possible within both the Butterworth and Kuantan CTRs. However, some routing restrictions can be expected during the period of the exercise.

7.4 Non-scheduled civil and non-exercise military traffic will be able to operate within Butterworth and Kuantan CTRs provided that prior permission is obtained. Requests for clearance should be made through the appropriate ATC Supervisor to the Airspace Cell at HQ BL11 at least six hours before the intended flight. Continuation and / or circuit training flights will not be permitted within the CTR. Scheduled civil flights that are unable to adhere to their published timings are to notify the Airspace Cell at HQ BL11 through the appropriate ATC Supervisor as soon as delays are identified prior to departure. During periods of heavy exercise activity, some delays may be expected.

7.5 Butterworth TACAN VBT CH80X / 133.3MHZ may be turned off for unspecified periods during the exercise.

8 RESTRICTIONS AND PROCEDURES – JOHOR BAHRU / SULTAN ISMAIL AIRPORT

8.1 Except for the special activity periods stated in paragraph 11.1, regular scheduled civil traffic will be able to operate into Johor Bahru / Sultan Ismail Airport provided that prior permission has been obtained from the Airspace Cell at HQ BL11. Delays may be experienced.

8.2 The Johor Bahru / Sultan Ismail CTR will be deactivated for the period of the exercise. However, to allow for scheduled civil aircraft operations in and out of Johor Bahru / Sultan Ismail Airport, including the completion of standard instrument approaches and departures, a temporary CTR as described at paragraph 5.1.25 will be released to civil ATC from 15 minutes prior to and until 30 minutes after a scheduled flight ETA, and from a scheduled flight ETD until 30 minutes after the ETD. The time windows during which the airspace will be released will be established by reference to the RPL supplied by airlines operating regular schedules into Johor Bahru / Sultan Ismail Airport. The released airspace will revert to Exercise Airspace when the traffic has either landed or departed the temporary CTR, and at all other times between the established time windows.

8.3 Scheduled flights delayed beyond the established time windows may still operate into or out of Johor Bahru / Sultan Ismail Airport, except during the special activity period stated in paragraph 11.1, subject to being coordinated by the relevant military and civil ATC agencies. In such circumstances, delays can be expected.

9 RESTRICTIONS AND PROCEDURES – PULAU TIOMAN AIRPORT

9.1 An area within Pulau Tioman and adjoining corridors to VPK DVOR and VMR DVOR as described below is released to civil control according to the timings prescribed below throughout the duration of the exercise. Outside the prescribed timings, regular scheduled traffic will be able to operate within the area and adjoining corridors with prior coordination made through the appropriate ATC Supervisor to the Airspace Cell at HQ BL11. The corridor coordinates are as follows:

- 9.1.1 Pekan (VPK) to Tioman Island Corridor (Tioman Corridor North)
- i) An area within 5NM radius of Pulau Tioman (024906N 1040950E) : GROUND / SEA LEVEL - 9,000FT (see Chart 5)
 - ii) A corridor 5NM wide from VPK VOR direct to Pulau Tioman with the following heights:
 - a) VPK to 15NM Tioman : 7,000FT – FL130
 - b) 15NM Tioman to Tioman : 3,000FT – 9,000FT (see Chart 5)
- 9.1.2 Mersing (VMR) to Tioman Island Corridor (Tioman Corridor South)
- i) An area within 5NM radius of Pulau Tioman (024906N 1040950E) : GROUND / SEA LEVEL - 9,000FT (see Chart 5)
 - ii) A corridor 5NM wide from VMR VOR direct to Pulau Tioman with the following heights:
 - a) VMR to 10NM Tioman : 7,000FT – 9,000FT
 - b) 10NM Tioman to Tioman : 3,000FT – 9,000FT (see Chart 5)
- 9.2 The timings available for civil aircraft use are as follows:
- i) Pekan (VPK) to Tioman Island Corridor
 - a) from 0030UTC to 0200UTC on 21, 22, 23, 24, 25, 26, 27, 28, 29 and 30 October 2011
 - b) from 0350UTC to 0500UTC on 21, 22, 23, 24, 25, 26, 27, 28, 29 and 30 October 2011
 - c) from 0650UTC to 0740UTC on 21, 22, 23, 24, 25, 26, 27, 28, 29 and 30 October 2011
 - d) from 0030UTC to 0200UTC on 1 and 2 November 2011
 - e) from 0350UTC to 0500UTC on 1 and 2 November 2011
 - f) from 0650UTC to 0740UTC on 1 and 2 November 2011

- | | | |
|---------|-------------|--|
| 10.1.4 | GOLF 334 | Affected Segment : VKL to BUNTO
Alternate Route : Golf 584 VPK Mike 761 |
| 10.1.5 | ALPHA 457 | Affected Segment : VJR to VKL (Exceptions for over flights – see paragraphs 5.1.18, 5.1.19 and 5.1.20.)
Alternate Route : JB W543 VMK W536 SAPAT to join A457. |
| 10.1.6 | ROMEO 325 | Affected Segment : VJR to VIH (Exceptions for over flights - see paragraphs 5.1.18, 5.1.19 and 5.1.20.)
Alternate Route : JB W543 VMK W536 SAPAT to join A457. |
| 10.1.7 | BRAVO 466 | Affected Segment : VJR to VBA (Exceptions for over flights - see paragraphs 5.1.18, 5.1.19 and 5.1.20.)
Alternate Route : JB W543 VMK W536 SAPAT to join A457. |
| 10.1.8 | WHISKEY 534 | Affected Segment : VJR to TOPOR (Exceptions for over flights - see paragraphs 5.1.18, 5.1.19 and 5.1.20.)
Alternate Route : ADPAX W543 VMK W536 SAPAT to join A457. |
| 10.1.9 | ALPHA 224 | Affected Segment : VJR to VMR
Alternate Route : VJR to AKOMA Bravo 469 VMR |
| 10.1.10 | WHISKEY404 | Affected Segment : JR to KK
Alternate Route : Golf 579 JB KK |

11 SPECIAL ACTIVITY PERIOD

- 11.1 During the period 250215UTC October to 250315UTC October 2011, the following airport / airspace restrictions will apply:
- 11.1.1 Singapore Changi Airport – closed to non-exercise operations.
 - 11.1.2 The vertical limits of the airspace described at paragraphs 5.1.12, 5.1.13 and 5.1.14 are temporarily amended to read FL140 to FL240 up to VMR (59 DME VTK).
 - 11.1.3 Johor Bahru / Sultan Ismail Airport – closed to non-exercise operations.
 - 11.1.4 Seletar / Paya Lebar CTRs – closed to non-exercise operations.
 - 11.1.5 Sembawang ATZ – closed to non-exercise operations.

- 11.1.6 Singapore Light Aircraft Training Areas A, B and C – closed to non-exercise operations.
- 11.1.7 Coastal Corridor East (CCE) is activated (see paragraph 3.1.6.2).
- 11.2 To ensure that departures from Singapore Changi Airport are able to pass through FL140 prior to the commencement of the special activity, ATC will only allow departures up to 10 minutes before airport closure time.
- 11.3 For the first 15 minutes following Singapore Changi Airport's re-opening at 0315UTC, Changi arrivals will be allowed to land on both runways while departures will depart on Runway 02C/20C only. Segregated mode of operations will resume after 0330UTC.

12 SINGAPORE DEPARTURE AND ARRIVAL PROCEDURES

- 12.1 Northwest-bound aircraft departing Singapore Changi Airport can expect to fly via ADEX Standard Instrument Departure (SID) ADPAX 1V or 1X for Runway 20; or ADPAX 1U or 1W for Runway 02. The ADPAX SIDs will join ATS Conditional Route W543 towards VMK direct SAPAT to join Alpha 457; or SAPAT direct to SALAX to join November 563 or Mike 300.
- 12.2 Similarly, aircraft arriving via Alpha 464 / Alpha 576 can expect to maintain FL140 until NYLON or SAMKO. (En-route climb or descent may be available, but it should not be anticipated.)

13 RELEASE OF AIRSPACE

- 13.1 Some BERSAMA LIMA 11 airspace may be released to Civil Aviation Authorities when not required for exercise purposes.

14 NAVAL FIRING

- 14.1 **Naval Firing Activities.** Naval firing activities, including Naval Gunfire Support (NGS) and Anti Air Target Firing Exercises (AATFX) will be conducted in the Naval Firing Area (NFA), as described below. During AATFX, an aircraft will tow a sleeved target that may be trailed up to a distance of 15,000FT.
- 14.2 **Naval Firing Area.** The designated area is contained within 023000N 1041700E, 023000N 1051445E, 020000N 1052600E, 020000N 1053000E, 014500N 1053000E, 013000N 1043600E, 013000N 1043500E, 015224N 1042000E, 020000N 1042000E, 020000N 1041700E, 023000N 1041700E.
 - i) Vertical limits : SEA LEVEL – 55,000FT
 - ii) Timings : Duration of exercise period.

15 **REGULAR SCHEDULED CIVIL OPERATIONS**

15.1 Regular scheduled civil traffic can continue to operate unrestricted within the non-exercise airspace as set out in paragraphs 5.1.1 to 5.1.32 (see attached charts) except during period of special activity.

15.2 Domestic scheduled services operating into and out of airports in Peninsular Malaysia via established ATS routes which penetrate the active exercise areas not specifically released for civil use shall be permitted to operate subject to prior coordination. Pilots of such flights shall conform strictly to the ATC clearances issued before penetration of the active exercise areas. Any clearance into the exercise area will automatically expire if the aircraft cannot remain within 10 minutes of the flight planned ETDs and ETAs.

16 **NON-SCHEDULED CIVIL AND NON-EXERCISE MILITARY OPERATIONS**

16.1 Because of the intensity of exercise aircraft operations within the exercise area, all civil and non-exercise military flights are prohibited from entering the exercise area during the period of activation, except for emergency reasons, or where prior permission has been obtained from the Airspace Cell at HQ BL11. Such permission is to be sought as early as possible and at least six hours before the intended flight. Some delays may be expected during heavy activity periods. Any clearance into the exercise area will automatically expire if the aircraft cannot remain within 10 minutes of the flight planned ETDs and ETAs.

17 **SSR CODES**

17.1 All non-exercise SSR transponder-equipped aircraft when operating in the Kuala Lumpur and Singapore FIRs during the exercise period shall have their transponders set to their allocated SSR codes, or if a code has not been allocated, they should set Mode 3/A Code 2000.

18 **INTERCEPTION OF NON-EXERCISE AIRCRAFT**

18.1 Civil and non-exercise military aircraft entering or transiting the active exercise areas may be intercepted for the purpose of identification.

19 **PERMANENT DANGER AREA WMD221**

19.1 The permanent Danger Area WMD221, SURFACE to 10,000 FT, is located adjacent to the LFA. Pilots are to exercise caution when operating in the vicinity of this Danger Area as this area is being used extensively.

20 **ACTION IN THE EVENT OF AN EMERGENCY**

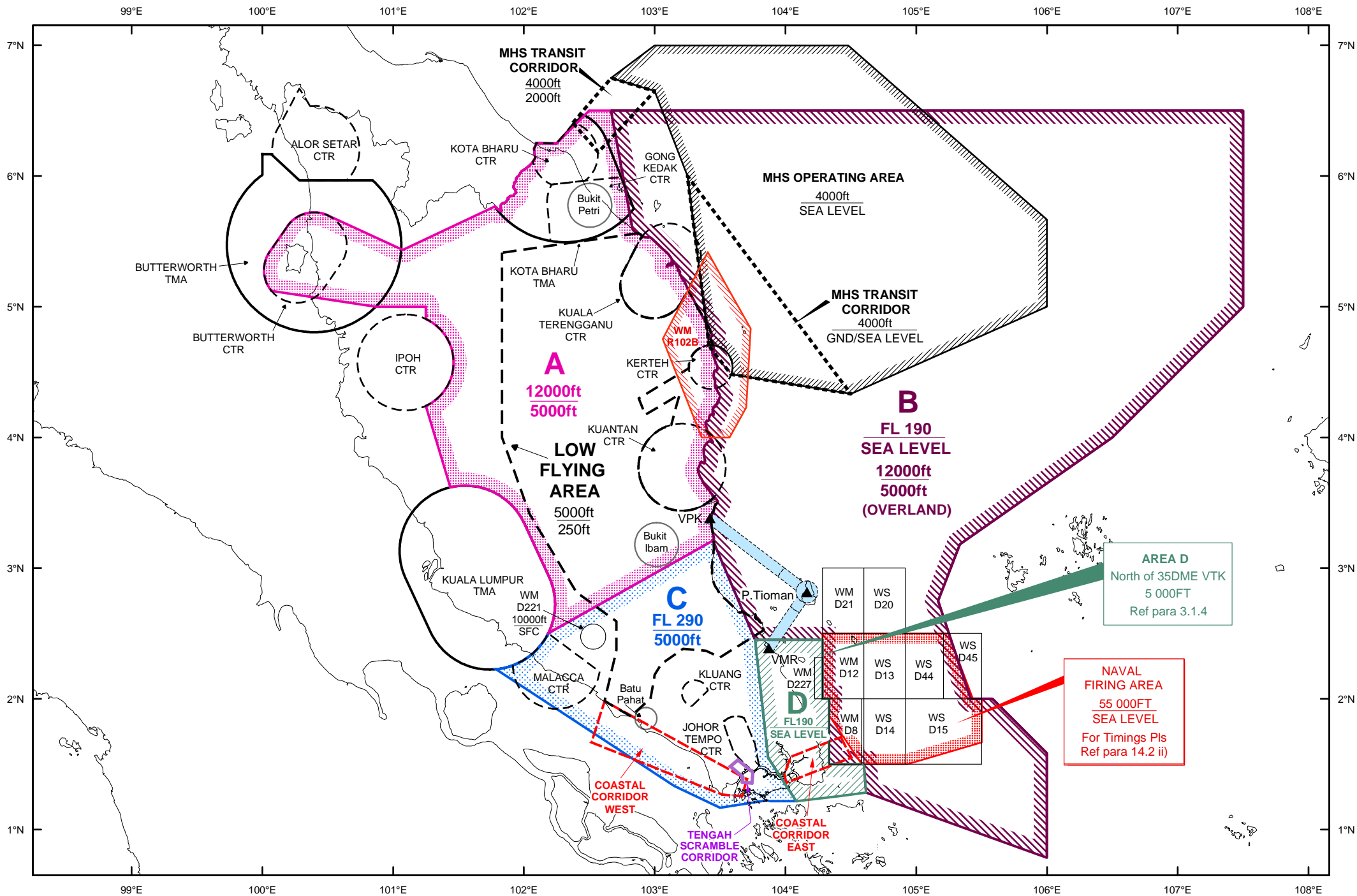
20.1 Civil and non-exercise military aircraft experiencing an emergency that necessitates them entering an active exercise area should immediately advise the appropriate ATC agency so that necessary action can be taken to co-ordinate a safe entry into the area.

21 **COORDINATION TELEPHONE NUMBERS**

- | | | |
|------|--|--|
| 21.1 | Airspace Cell at HQ BL11 | Phone: +65 65945807
: +65 65945809
Fax : +65 65945868
: +60 43325159
Mobile: +6016 4198342
e-mail :airspace@hqiads.mil.my |
| 21.2 | Exercise Coordinator
(JATCC Subang) | Phone: +60 3-78462123
Fax : +60 3-78465605 |
| 21.3 | Singapore Area Coordinator (SATCC) | Phone: +65 65105333
Fax : +65 65105314 |
| 21.4 | Kuantan Area Coordinator | Phone: +60 9-5385232 |
| 21.5 | Butterworth Area Coordinator | Phone: +60 4-3319740 |
| 21.6 | Kuala Lumpur ACC | Phone: +60 3-78465233
+60 3-78473572
+60 3-78473573 |

EXERCISE BERSAMA LIMA 11 - EXERCISE AIRSPACE

CHART 1

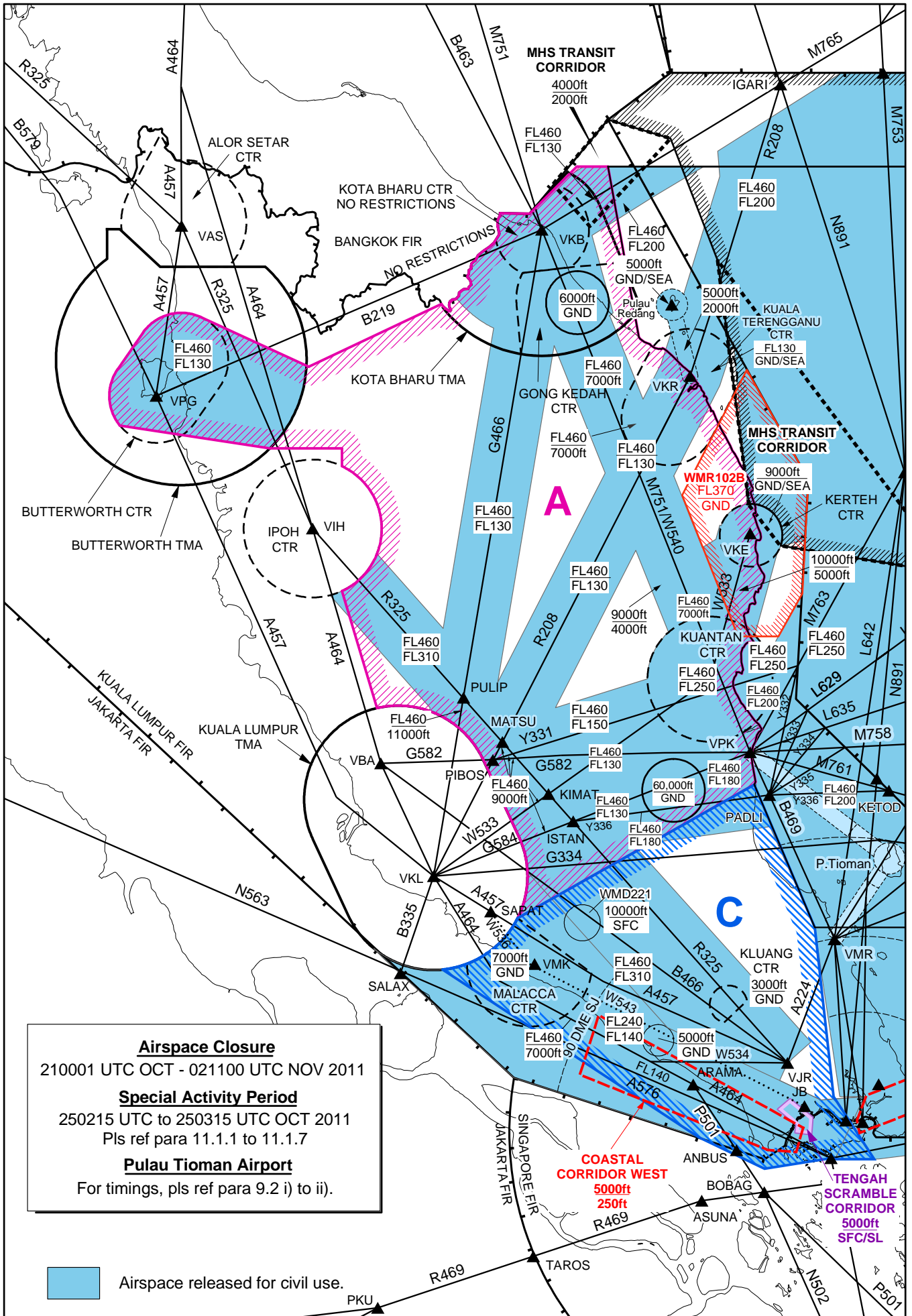


AREA D
North of 35DME VTK
5 000FT
Ref para 3.1.4

NAVAL FIRING AREA
55 000FT
SEA LEVEL
For Timings Pls
Ref para 14.2 ii)

**EXERCISE BERSAMA LIMA 11
SINGAPORE & KUALA LUMPUR FIRs
210001 UTC OCT TO 021100 UTC NOV 2011**

CHART 2



Airspace Closure
210001 UTC OCT - 021100 UTC NOV 2011

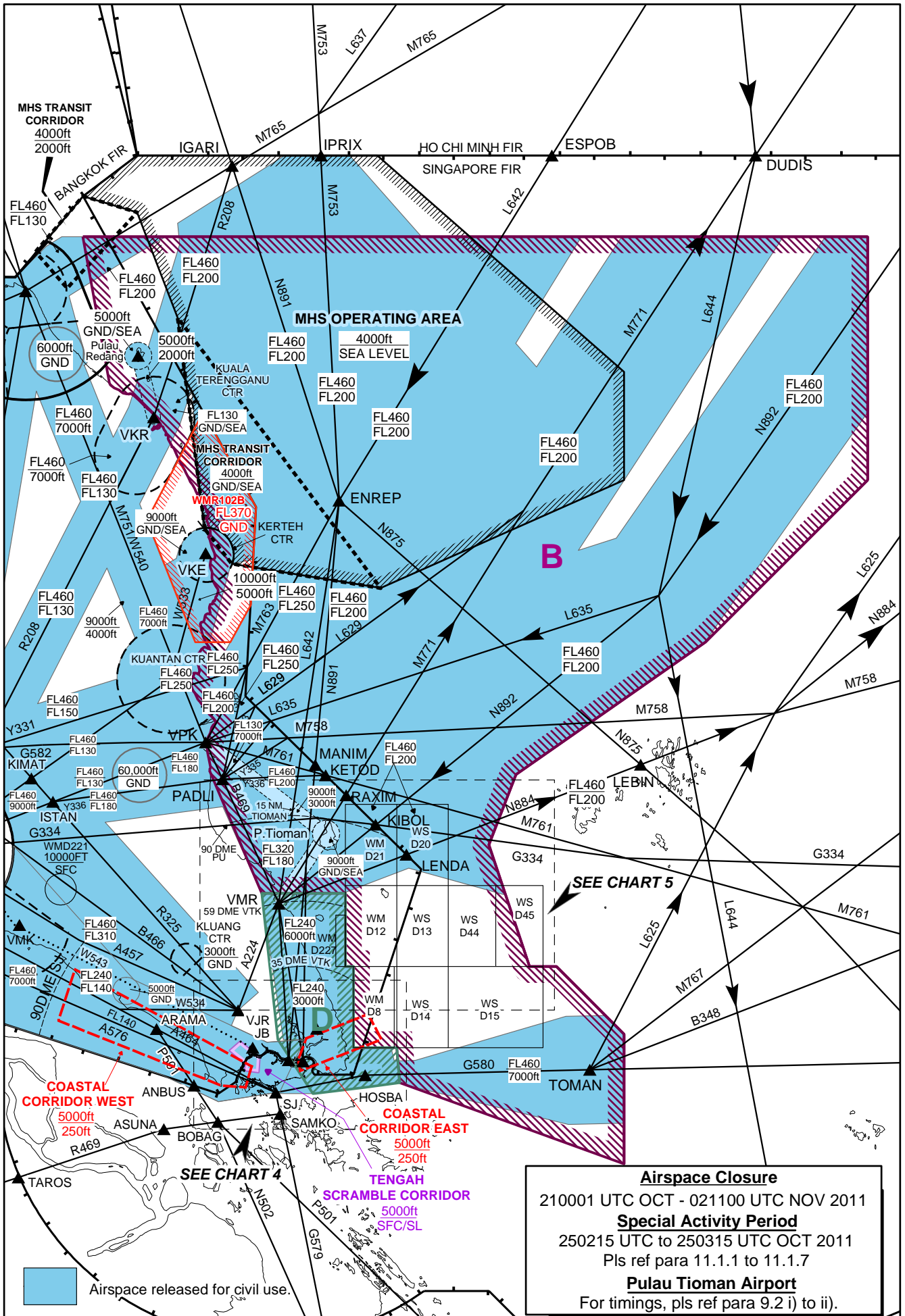
Special Activity Period
250215 UTC to 250315 UTC OCT 2011
Pls ref para 11.1.1 to 11.1.7

Pulau Tioman Airport
For timings, pls ref para 9.2 i) to ii).

Airspace released for civil use.

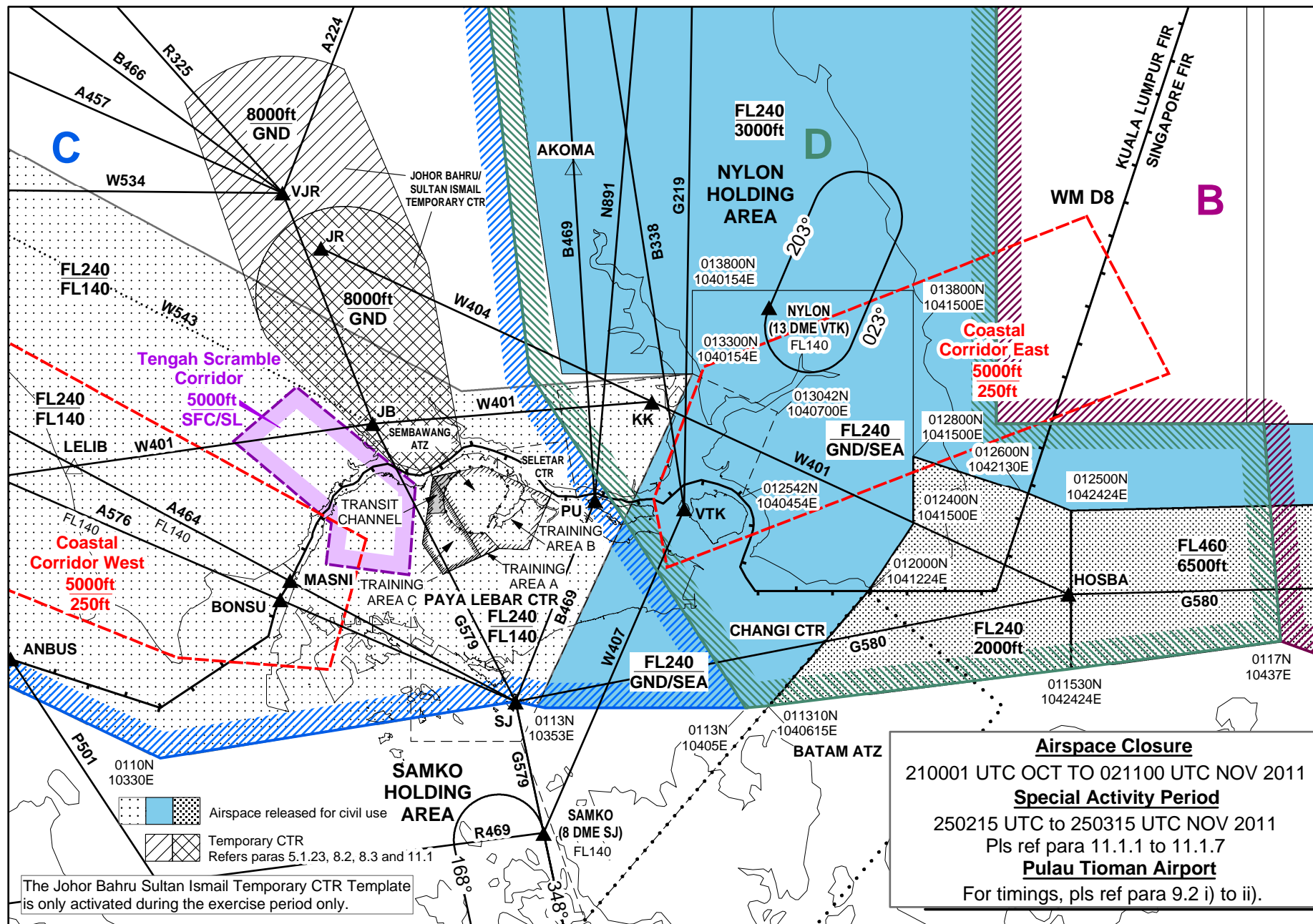
**EXERCISE BERSAMA LIMA 11
SINGAPORE & KUALA LUMPUR FIRs
210001 UTC OCT TO 021100 UTC NOV 2011**

CHART 3



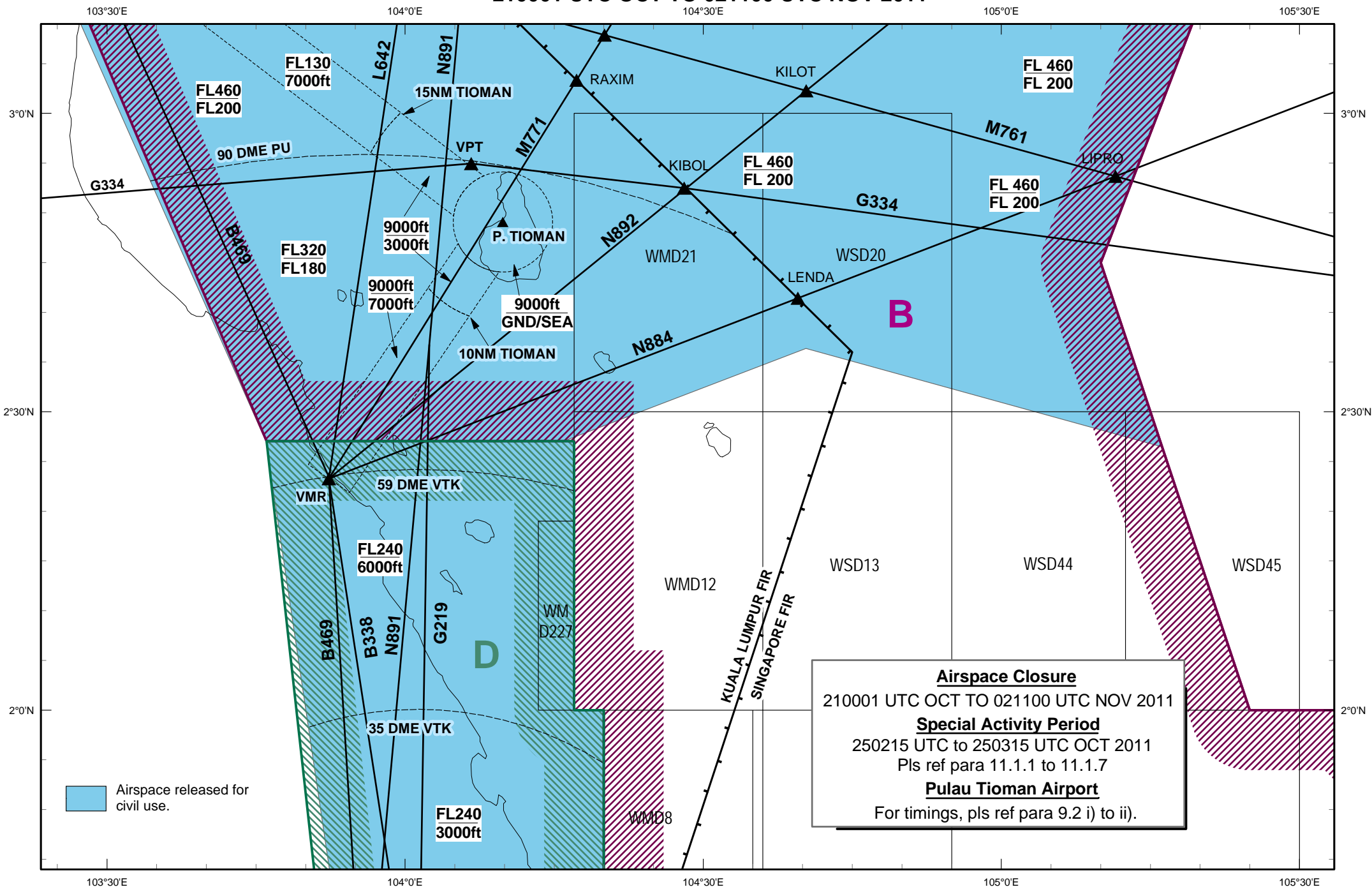
**EXERCISE BERSAMA LIMA 11
SINGAPORE & KUALA LUMPUR FIRs
210001 UTC OCT TO 021100 UTC NOV 2011**

CHART 4



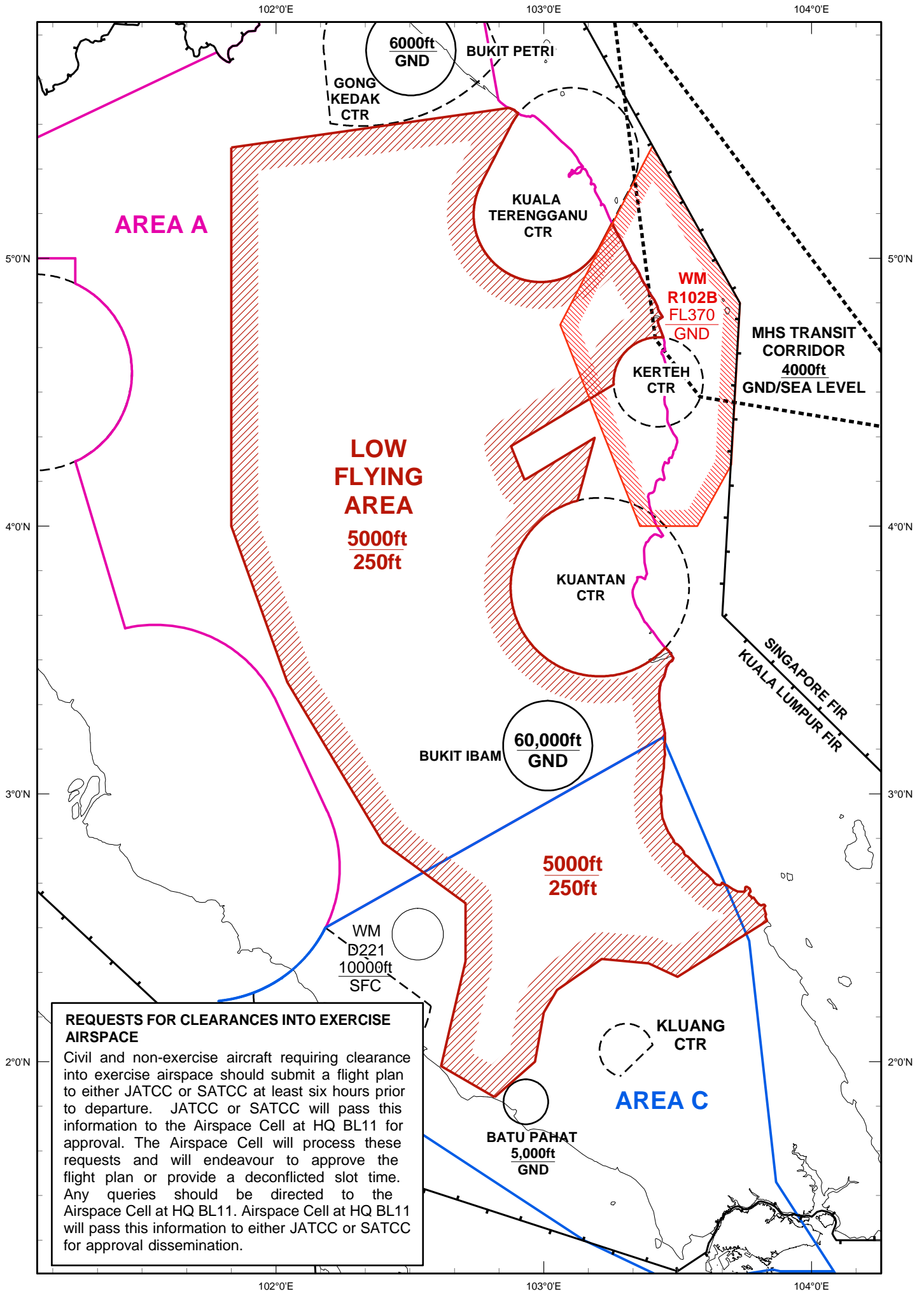
**EXERCISE BERSAMA LIMA 11
SINGAPORE & KUALA LUMPUR FIRs
210001 UTC OCT TO 021100 UTC NOV 2011**

CHART 5



EXERCISE BERSAMA LIMA 11 - LOW FLYING AREA

CHART 6



REQUESTS FOR CLEARANCES INTO EXERCISE AIRSPACE

Civil and non-exercise aircraft requiring clearance into exercise airspace should submit a flight plan to either JATCC or SATCC at least six hours prior to departure. JATCC or SATCC will pass this information to the Airspace Cell at HQ BL11 for approval. The Airspace Cell will process these requests and will endeavour to approve the flight plan or provide a deconflicted slot time. Any queries should be directed to the Airspace Cell at HQ BL11. Airspace Cell at HQ BL11 will pass this information to either JATCC or SATCC for approval dissemination.