

ENR 2 AIR TRAFFIC SERVICES AIRSPACE**ENR 2.1 FIR, UIR, TMA**

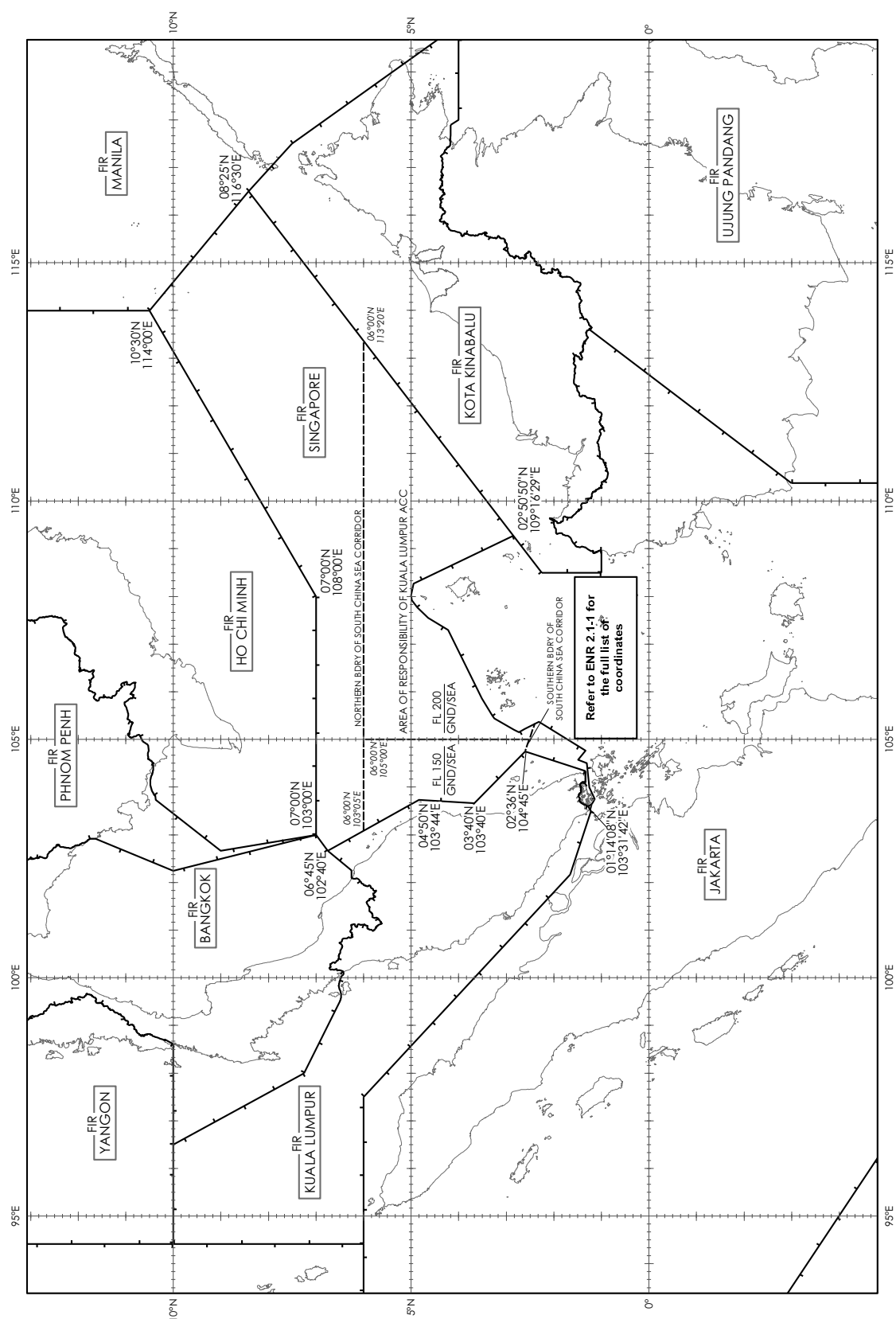
<i>Name Lateral limits Upper limit/Lower limit Class of airspace</i>	<i>Unit providing service</i>	<i>Call sign Languages Area and conditions of use Hr of ser</i>	<i>Frequency /Purpose</i>	<i>Remarks</i>
1	2	3	4	5
SINGAPORE FIR 082500N 1163000E - 025050N 1091629E - 045700N 1081619E - 050012N 1080132E - 045904N 1075525E - 045203N 1074625E - 043820N 1073315E - 041312N 1071743E - 033045N 1055130E - 031727N 1052959E - 031453N 1052619E - 025010N 1051210E - 024348N 1050854E - 023641N 1051311E - 021838N 1052205E - 011947N 1044606E - 012921N 1043441E - 011800N 1043000E - 011500N 1040000E - 010800N 1034500E - 011046N 1034015E - 011200N 1033900E - 011408N 1033142E - 011700N 1033600E thence east along the national boundary of Singapore/ Malaysia, thence along 012000N to 012000N 1042000E - 023600N 1044500E - 034000N 1034000E - 045000N 1034400E - 064500N 1024000E - 070000N 1030000E - 070000N 1080000E - 103000N 1140000E - 082500N 1163000E UNL SFC	SINGAPORE ACC	SINGAPORE RADAR English H24	255.4MHz <u>Primary</u> 123.7MHz 133.25MHz 134.4MHz 133.8MHz 134.2 MHz 134.9 MHz 134.7MHz 135.05 MHz <u>Secondary</u> 127.3MHz 135.8MHz 128.1MHz 133.35MHz 134.35 MHz 134.15kHz 134.95 MHz <u>SEA 1</u> 6556kHz 11297kHz <u>SEA 2</u> 5655kHz 8942kHz 11396kHz <u>SEA 3</u> 6556kHz	The responsibility for providing air traffic services to flights within the following portions of the Singapore FIR is vested in the Kuala Lumpur ACC: The airspace between a line from 023600N 1044500E to 022715N 1051750E - 023641N 1051311E - 024348N 1050854E - 025010N 1051210E - 031453N 1052619E - 031727N 1052959E - 033045N 1055130E - 041312N 1071743E - 043820N 1073315E - 045203N 1074625E - 045904N 1075525E - 050012N 1080132E - 045700N 1081619E - 025050N 1091629E, in the south, and a line along 060000N in the north, and from surface level to FL150 west of longitude 105E and from surface level to FL200 east of longitude 105E. SEA 1, SEA 2, SEA 3: SSB Suppressed Carriers.
		SINGAPORE CONTROL SOUTH CHINA SEA English H24	<u>AFN</u> <u>LOGON</u> WSJC	Suitably equipped aircraft operating outside radar cover and not in ADS-B exclusive airspace within the Singapore FIR should log on to Singapore's AFN LOGON address at least 10 minutes prior to entering the above- mentioned airspace in Singapore FIR. Area Navigation (RNAV) routes suitable for ADS-C and / or CPDLC logon are described in ENR 3.2.

<i>Name</i> <i>Lateral limits</i> <i>Upper limit/Lower limit</i> <i>Class of airspace</i>	<i>Unit</i> <i>providing</i> <i>service</i>	<i>Call sign</i> <i>Languages</i> <i>Area and conditions</i> <i>of use</i> <i>Hr of ser</i>	<i>Frequency</i> <i>/Purpose</i>	<i>Remarks</i>
1	2	3	4	5
AREAS WITHIN JAKARTA FIR WHERE PROVISION OF ATS IS DELEGATED TO SINGAPORE				
The area bounded by 031727N 1052959E - 012450N 1061648E - 001030N 1045656E - 000000N 1050340E - 000000N 1044330E thence around the arc of a circle radius 90 NM centred on 011324N 1035124E to 013430N 1022353E - 011300N 1033000E - 011408N 1033142E - 011200N 1033900E - 011046N 1034015E - 010800N 1034500E - 011500N 1040000E - 011800N 1043000E - 012921N 1043441E - 011947N 1044606E - 021838N 1052205E - 023641N 1051311E - 024348N 1050854E - 025010N 1051210E - 031453N 1052619E - 031727N 1052959E Excluding the Tanjungpinang Terminal Control Area and Control Zone <u>FL370</u> SFC	SINGAPORE ACC	SINGAPORE RADAR English H24	255.4MHz <u>Primary</u> 133.25MHz 134.4MHz 134.2MHz <u>Secondary</u> 135.8MHz 128.1MHz 133.35 MHz	

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AREAS WITHIN THE KUALA LUMPUR FIR FOR WHICH SINGAPORE ACC IS RESPONSIBLE FOR PROVIDING ATS				
SECTOR 1:				
That airspace contained within coordinates 011300N 1033000E - 012203N 1030209E thence along an arc radius 50 DME SJ to 014529N 1031305E - 014225N 1031728E, thence along the Johor TMA western boundary to 013022N 1033437E - 012600N 1034055E, thence along the Peninsular Malaysia and Singapore international boundary to 011700N 1033600E - 011300N 1033000E. The airspace herein is designated as follows: a. AREA B (SJ DVOR/DME - 35 DME SJ) - 3 000ft to FL245 b. AREA D (35 DME SJ - 45 DME SJ) - 5 500ft to FL245 c. AREA F (45 DME SJ - 50 DME SJ) - 9 500ft to FL245	SINGAPORE ACC	SINGAPORE RADAR English H24	<u>Primary</u> 133.25MHz <u>Secondary</u> 135.8MHz	Controlling Authority: Johor APP for airspaces below Sectors 1 and 2, Airway W401 and south of VMR DVOR. <u>Note:</u> <i>In the event an aircraft in the areas is forced to make an emergency descent which will penetrate Malaysian airspace, the pilot shall advise Singapore ATC immediately.</i>
SECTOR 2:				
That airspace contained within coordinates 013206N 1035031E - 022205N 1034724E - 025234N 1033340E - 025432N 1034341E - 033822N 1034139E - 023600N 1044500E - 012000N 1042000E - 012000N 1040528E thence along the Peninsular Malaysia and Singapore international boundary to 012600N 1034055E to 013022N 1033437E - 013130N 1034236E to 013206N 1035031E. The airspace herein is designated as follows: a. AREA A (PU DVOR/DME - 30 DME PU excluding the northern portion of Changi CTR) - 2 000FT to FL245 b. AREA C (30 DME PU - 61 DME PU) - 5 500FT to FL300 c. AREA E (61 DME PU - 90 DME PU) - FL120 to FL360 d. AREA H (from 025432N 1034341E thence along the 90 DME PU arc to the FIR boundary (024712N 1043337E) thence to 033822N 1034139E - 025432N 1034341E) - FL145 to FL360	SINGAPORE ACC	SINGAPORE RADAR English H24	<u>Primary</u> 123.7MHz 133.8MHz <u>Secondary</u> 127.3MHz	
ATS ROUTES W401 and G579				
a. W401 [Airspace between OMKOM and PU radial 324 from 2,000ft to FL245 and PU radial 324 to PIMOK (excluding WMP228) from 3,000ft to FL245]. b. G579 from 2000ft to FL460.	SINGAPORE ACC	SINGAPORE RADAR English H24		

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1 SINGAPORE /JOHOR AIRSPACE COMPLEX All controlled airspace within 022600N 1025605E - 022600N 1043400E - 004300N 1043400E - 004300N 1025605E. <u>*FL250</u> 2000ft ALT	2 SINGAPORE ACC	3 SINGAPORE RADAR English H24	4 <u>Primary</u> 123.7MHz 133.8MHz <u>Secondary</u> 127.3MHz	5 *Upper limit FL450 from HOSBA [34 DME SJ R-079 (24 DME VTK R-103)] Lower limit varies from 2 000ft to 3 500ft ALT.
ALL AIRWAYS WITHIN THE SINGAPORE FIR, KUALA LUMPUR FIR AND ITS TRANSFER AREAS AND KOTA KINABALU FIR (see subsection ENR 3.1)	SINGAPORE ACC	SINGAPORE RADAR English H24	<u>Primary</u> 133.25MHz 123.7MHz 133.8MHz <u>Secondary</u> 135.8MHz 127.3MHz	Airspaces within the Kuala Lumpur FIR under the control of Singapore ACC are depicted in diagrams in AIP pages: ENR 2.1-11 for AWY A464 ENR 2.1-13 for AWY B469
TANJUNGPINANG TMA 002448N 1043700E follow the circle radius 30NM from 005511N 1043134E anti-clockwise until 010342N 1050018E 005612N 1053200E thence along the circle with radius 60NM from 005511N 1043134E clockwise until 000224N 1050206E 002448N 1043700E <u>10 000ft</u> 3000 FT	TANJUNGPINANG G APPROACH CONTROL OFFICE (APP)	TANJUNGPINANG RADAR English H24	<u>Primary</u> 130.2MHz <u>Secondary</u> 119.35MHz	
TANJUNGPINANG NORTH CONTROL ZONE (CTR)				
011533N 1040852E - 011638N 1041620E - 011305N 1042029E - 010942N 1043500E - thence along the circle radius 27 NM from BTM VOR/DME clockwise until 004236N 1041654E - 005315N 1040335E - 010018N 1035530E - 011553N 1040852E <u>3 000ft</u> GND/MSL				
TANJUNGPINANG SOUTH CONTROL ZONE (CTR) 004236N 1041654E follow the circle radius 27 NM from BTM VOR/DME anti-clockwise until 010942N 1043500E - 010342N 1050018E thence along the circle radius 30 NM from 0055.0N 10432.0E clockwise until 002448N 1043700E - 004236N 1041654E <u>6 000ft</u> GND/MSL				

SINGAPORE AND ADJACENT FLIGHT INFORMATION REGIONS

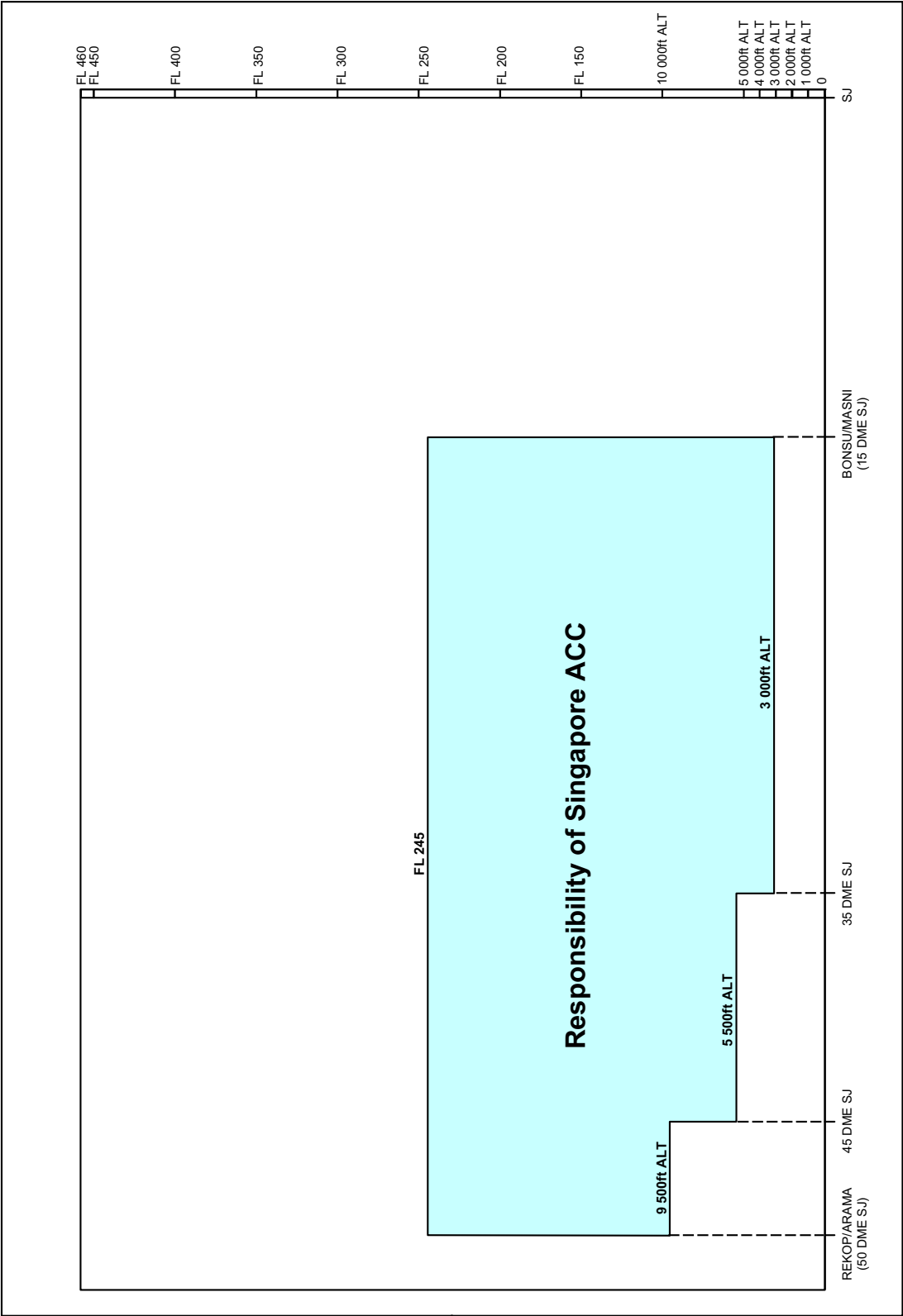


This is a detailed aeronautical chart of the Kuantan Terminal Manoeuvring Area (TMA) and its surrounding regions. The chart includes the following information:

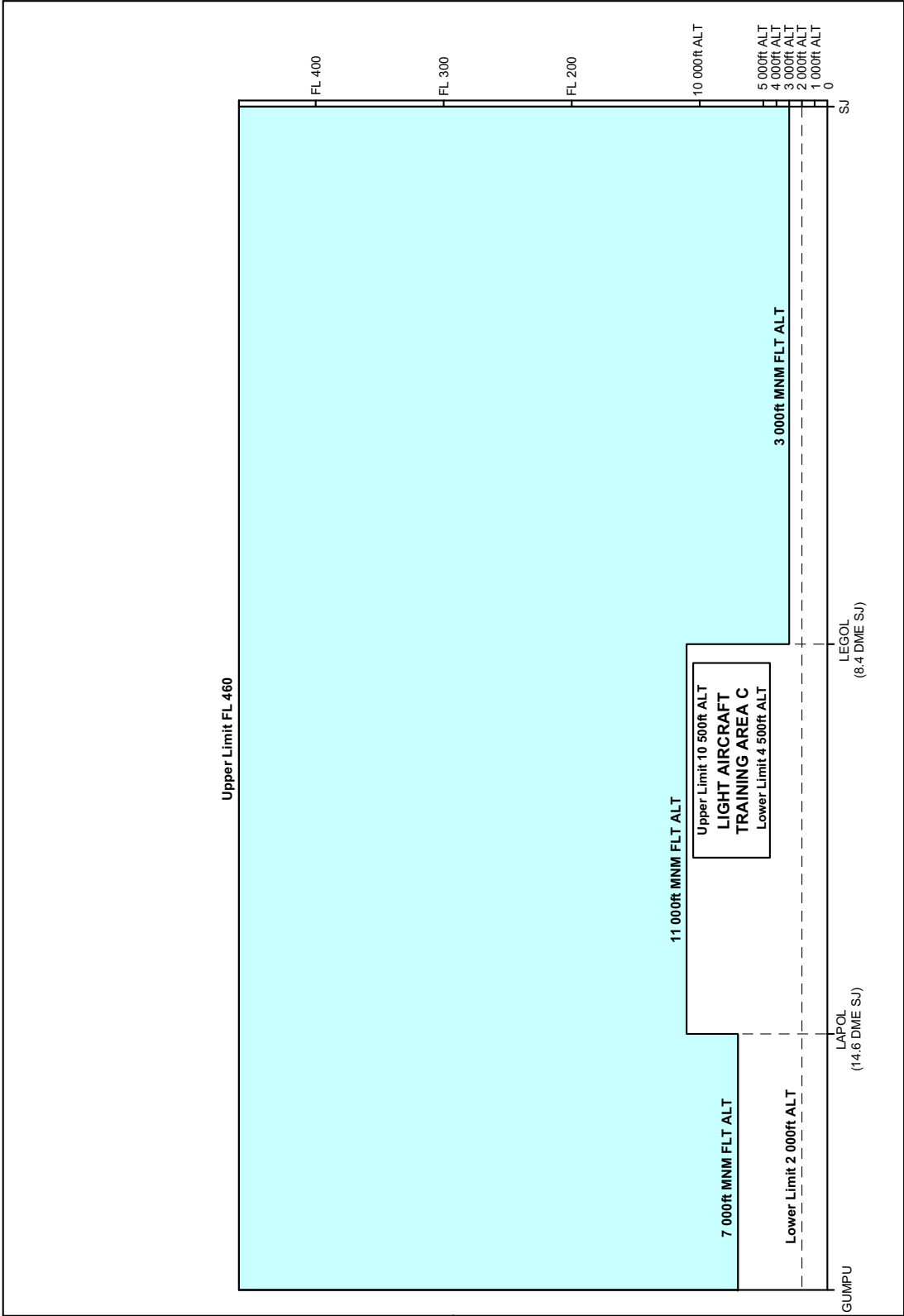
- Geographical Area:** The chart covers the Kuantan TMA, Kuala Lumpur TMA, Johor TMA, and parts of the FIRs for Singapore and Jakarta.
- Airports:** Key airports shown include Kuantan (VKN), Kuala Lumpur (VTL), Johor (VJB), and Singapore (VMM). Other airports include BEKSO, Y349, Y512, Y514, Y344, Y343, Y513, Y511, Y510, Y509, Y508, Y507, Y506, Y505, Y504, Y503, Y502, Y501, Y500, Y499, Y498, Y497, Y496, Y495, Y494, Y493, Y492, Y491, Y490, Y489, Y488, Y487, Y486, Y485, Y484, Y483, Y482, Y481, Y480, Y479, Y478, Y477, Y476, Y475, Y474, Y473, Y472, Y471, Y470, Y469, Y468, Y467, Y466, Y465, Y464, Y463, Y462, Y461, Y460, Y459, Y458, Y457, Y456, Y455, Y454, Y453, Y452, Y451, Y450, Y449, Y448, Y447, Y446, Y445, Y444, Y443, Y442, Y441, Y440, Y439, Y438, Y437, Y436, Y435, Y434, Y433, Y432, Y431, Y430, Y429, Y428, Y427, Y426, Y425, Y424, Y423, Y422, Y421, Y420, Y419, Y418, Y417, Y416, Y415, Y414, Y413, Y412, Y411, Y410, Y409, Y408, Y407, Y406, Y405, Y404, Y403, Y402, Y401, Y400, Y399, Y398, Y397, Y396, Y395, Y394, Y393, Y392, Y391, Y390, Y389, Y388, Y387, Y386, Y385, Y384, Y383, Y382, Y381, Y380, Y379, Y378, Y377, Y376, Y375, Y374, Y373, Y372, Y371, Y370, Y369, Y368, Y367, Y366, Y365, Y364, Y363, Y362, Y361, Y360, Y359, Y358, Y357, Y356, Y355, Y354, Y353, Y352, Y351, Y350, Y349, Y348, Y347, Y346, Y345, Y344, Y343, Y342, Y341, Y340, Y339, Y338, Y337, Y336, Y335, Y334, Y333, Y332, Y331, Y330, Y329, Y328, Y327, Y326, Y325, Y324, Y323, Y322, Y321, Y320, Y319, Y318, Y317, Y316, Y315, Y314, Y313, Y312, Y311, Y310, Y309, Y308, Y307, Y306, Y305, Y304, Y303, Y302, Y301, Y300, Y299, Y298, Y297, Y296, Y295, Y294, Y293, Y292, Y291, Y290, Y289, Y288, Y287, Y286, Y285, Y284, Y283, Y282, Y281, Y280, Y279, Y278, Y277, Y276, Y275, Y274, Y273, Y272, Y271, Y270, Y269, Y268, Y267, Y266, Y265, Y264, Y263, Y262, Y261, Y260, Y259, Y258, Y257, Y256, Y255, Y254, Y253, Y252, Y251, Y250, Y249, Y248, Y247, Y246, Y245, Y244, Y243, Y242, Y241, Y240, Y239, Y238, Y237, Y236, Y235, Y234, Y233, Y232, Y231, Y230, Y229, Y228, Y227, Y226, Y225, Y224, Y223, Y222, Y221, Y220, Y219, Y218, Y217, Y216, Y215, Y214, Y213, Y212, Y211, Y210, Y209, Y208, Y207, Y206, Y205, Y204, Y203, Y202, Y201, Y200, Y199, Y198, Y197, Y196, Y195, Y194, Y193, Y192, Y191, Y190, Y189, Y188, Y187, Y186, Y185, Y184, Y183, Y182, Y181, Y180, Y179, Y178, Y177, Y176, Y175, Y174, Y173, Y172, Y171, Y170, Y169, Y168, Y167, Y166, Y165, Y164, Y163, Y162, Y161, Y160, Y159, Y158, Y157, Y156, Y155, Y154, Y153, Y152, Y151, Y150, Y149, Y148, Y147, Y146, Y145, Y144, Y143, Y142, Y141, Y140, Y139, Y138, Y137, Y136, Y135, Y134, Y133, Y132, Y131, Y130, Y129, Y128, Y127, Y126, Y125, Y124, Y123, Y122, Y121, Y120, Y119, Y118, Y117, Y116, Y115, Y114, Y113, Y112, Y111, Y110, Y109, Y108, Y107, Y106, Y105, Y104, Y103, Y102, Y101, Y100, Y99, Y98, Y97, Y96, Y95, Y94, Y93, Y92, Y91, Y90, Y89, Y88, Y87, Y86, Y85, Y84, Y83, Y82, Y81, Y80, Y79, Y78, Y77, Y76, Y75, Y74, Y73, Y72, Y71, Y70, Y69, Y68, Y67, Y66, Y65, Y64, Y63, Y62, Y61, Y60, Y59, Y58, Y57, Y56, Y55, Y54, Y53, Y52, Y51, Y50, Y49, Y48, Y47, Y46, Y45, Y44, Y43, Y42, Y41, Y40, Y39, Y38, Y37, Y36, Y35, Y34, Y33, Y32, Y31, Y30, Y29, Y28, Y27, Y26, Y25, Y24, Y23, Y22, Y21, Y20, Y19, Y18, Y17, Y16, Y15, Y14, Y13, Y12, Y11, Y10, Y9, Y8, Y7, Y6, Y5, Y4, Y3, Y2, Y1, Y0, Y-1, Y-2, Y-3, Y-4, Y-5, Y-6, Y-7, Y-8, Y-9, Y-10, Y-11, Y-12, Y-13, Y-14, Y-15, Y-16, Y-17, Y-18, Y-19, Y-20, Y-21, Y-22, Y-23, Y-24, Y-25, Y-26, Y-27, Y-28, Y-29, Y-30, Y-31, Y-32, Y-33, Y-34, Y-35, Y-36, Y-37, Y-38, Y-39, Y-40, Y-41, Y-42, Y-43, Y-44, Y-45, Y-46, Y-47, Y-48, Y-49, Y-50, Y-51, Y-52, Y-53, Y-54, Y-55, Y-56, Y-57, Y-58, Y-59, Y-60, Y-61, Y-62, Y-63, Y-64, Y-65, Y-66, Y-67, Y-68, Y-69, Y-70, Y-71, Y-72, Y-73, Y-74, Y-75, Y-76, Y-77, Y-78, Y-79, Y-80, Y-81, Y-82, Y-83, Y-84, Y-85, Y-86, Y-87, Y-88, Y-89, Y-90, Y-91, Y-92, Y-93, Y-94, Y-95, Y-96, Y-97, Y-98, Y-99, Y-100, Y-101, Y-102, Y-103, Y-104, Y-105, Y-106, Y-107, Y-108, Y-109, Y-110, Y-111, Y-112, Y-113, Y-114, Y-115, Y-116, Y-117, Y-118, Y-119, Y-120, Y-121, Y-122, Y-123, Y-124, Y-125, Y-126, Y-127, Y-128, Y-129, Y-130, Y-131, Y-132, Y-133, Y-134, Y-135, Y-136, Y-137, Y-138, Y-139, Y-140, Y-141, Y-142, Y-143, Y-144, Y-145, Y-146, Y-147, Y-148, Y-149, Y-150, Y-151, Y-152, Y-153, Y-154, Y-155, Y-156, Y-157, Y-158, Y-159, Y-160, Y-161, Y-162, Y-163, Y-164, Y-165, Y-166, Y-167, Y-168, Y-169, Y-170, Y-171, Y-172, Y-173, Y-174, Y-175, Y-176, Y-177, Y-178, Y-179, Y-180, Y-181, Y-182, Y-183, Y-184, Y-185, Y-186, Y-187, Y-188, Y-189, Y-190, Y-191, Y-192, Y-193, Y-194, Y-195, Y-196, Y-197, Y-198, Y-199, Y-200, Y-201, Y-202, Y-203, Y-204, Y-205, Y-206, Y-207, Y-208, Y-209, Y-210, Y-211, Y-212, Y-213, Y-214, Y-215, Y-216, Y-217, Y-218, Y-219, Y-220, Y-221, Y-222, Y-223, Y-224, Y-225, Y-226, Y-227, Y-228, Y-229, Y-230, Y-231, Y-232, Y-233, Y-234, Y-235, Y-236, Y-237, Y-238, Y-239, Y-240, Y-241, Y-242, Y-243, Y-244, Y-245, Y-246, Y-247, Y-24

CHANGES : Amendment of ATS Routes M763 and Y332 where TAXUL and PADLI are located.

LONGITUDINAL CROSS-SECTION OF SECTOR 1
SJ-REKOP/ARAMA (50 DME SJ)



LONGITUDINAL CROSS-SECTION OF G579
FROM GUMPU TO SJ



LONGITUDINAL CROSS-SECTION OF SECTOR 2
PU-SINGAPORE/LUMPUR FIR BOUNDARY

