

WSSL AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS		
1	<i>Use of aircraft stand ID signs, TWY guidelines and visual docking/parking guidance system of aircraft stands</i>	Taxiing guidance signs at all intersections with TWY and RWY at all holding positions. Guidelines at apron. Nose-in guidance at aircraft stands.
2	<i>RWY and TWY markings and LGT</i>	<p>RWY LGT: refer to page WSSL AD 2-5 for details. RWY Turn Pad LGT / Markings: Only AVBL at THR RWY 03. Yellow turnpad centreline.</p> <p>TWY LGT: TWY Edge LGT: Blue LGT, inset, elevated and omni-directional. TWY Centreline LGT: Green LGT, fixed. Intermediate Holding Position LGT: Yellow LGT, fixed, unidirectional. TWY markings: Yellow TWY centreline.</p> <p>The fixed green taxiway centreline lights and fixed unidirectional yellow intermediate holding position lights shall be switched on between sunset and sunrise or during periods of poor visibility. ATC will continue to verbalise the taxi route as per current practice. Pilots shall continue to adhere strictly to the taxi clearances issued by ATC at all times.</p> <p>In the event that the fixed green taxiway centreline lights and fixed unidirectional yellow intermediate holding position lights become unserviceable, pilots shall taxi following the single continuous yellow taxiway centreline markings and intermediate holding position markings (single broken line laid across the entire width of the taxiway) as per mode of operations during VMC daylight hours.</p> <p>MARKING AIDS: Threshold, touchdown zone, centreline stripes and RWY designation. RWY width outline from bituminous concrete surface by white lines.</p> <p>AIMING POINT MARKINGS: RWY 03: coincident with PAPI origin located 423.542m from THR respectively. RWY 21: coincident with PAPI origin located 271.279m from THR respectively.</p>
3	<i>Stop Bars</i>	<p>Stop Bars: Red LGT across taxiways W1, W2, W3, E1, E2, E3 and E4, flushed with TWY surface and are supplemented with elevated RWY guard LGT at the sides.</p> <p>By default, red stop bar lights remain on unless deselected by the runway controller. When deselected, these stop bar lights will re-activate automatically after 45 seconds. Pilots shall not cross any lighted red stop bar lights.</p> <p>Pilots and drivers shall enter / cross the runway only when both the following conditions are met: The crew have a) received positive ATC clearance to enter / cross the runway or taxiway, and b) observed that the red stop bar lights are turned off.</p> <p>Crash Alarm Stop Bars: Red LGT across junctions of EP, EC4 and EH2 TWY, flushed with TWY surface.</p> <p>(Note to pilots and tow-crew: Slow down when taxiing / towing on TWY EP between TWY EC4 and abeam the Control Tower. Keep a lookout for emergency vehicles that may cross the taxiway to respond to emergency on the RWY.)</p>

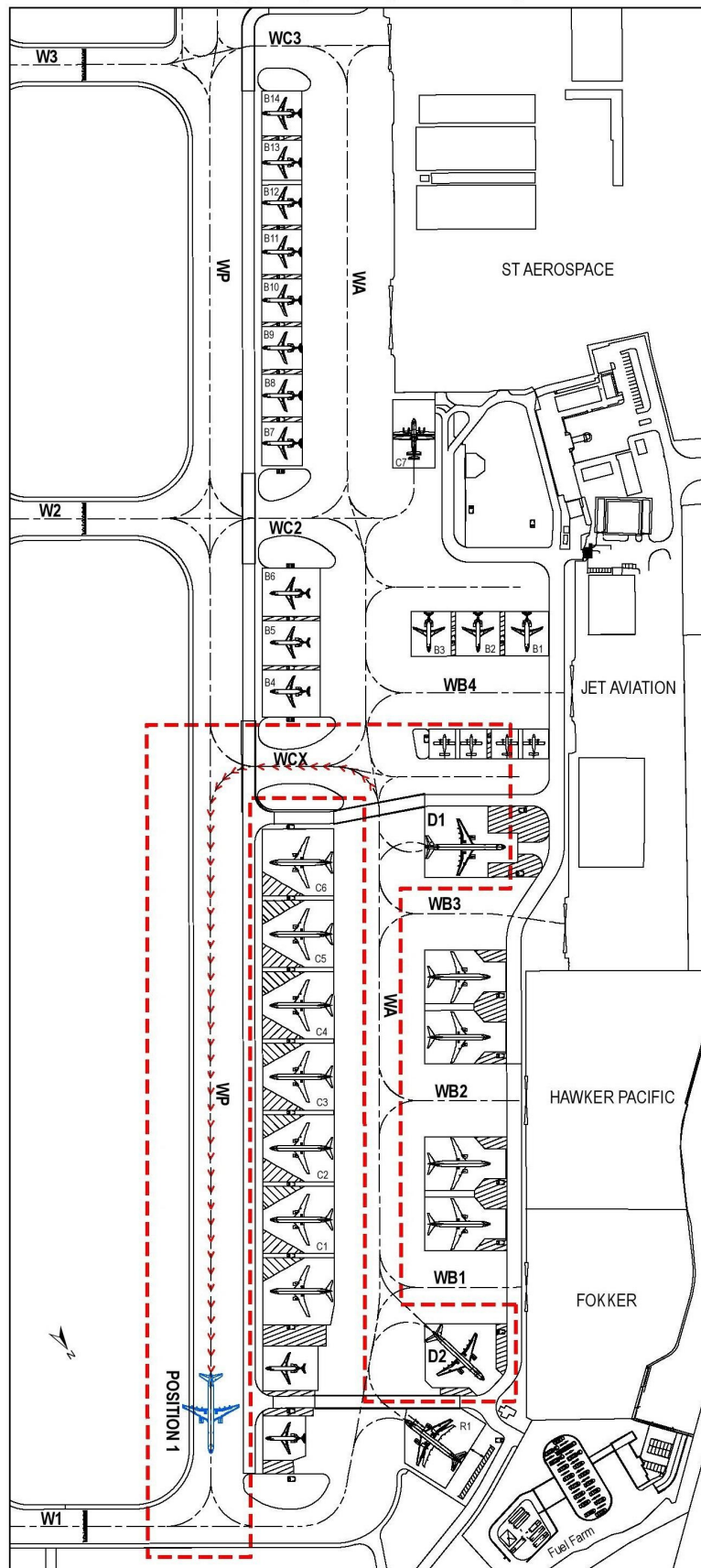
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4	Remarks	<p>a. Aircraft operators/ground handlers shall be responsible for the safe and smooth operations of aircraft at the aircraft stands.</p> <p>b. A ground handler shall be at the aircraft stand when the aircraft is ready to depart and ensure that the area around the aircraft is clear of vehicles, equipment and personnel before aircraft engines are started. When the pilot signals that he is ready to taxi, the ground handler shall marshal the aircraft out of the aircraft stand. All personnel, tow tugs and equipment shall be cleared from the aircraft stand and red chevron markings on the adjacent aircraft stands before self-power out can commence.</p> <p>c. All arriving aircrafts will be assigned an aircraft stand. Aircraft with wingspan larger than 15m shall be marshalled into the aircraft stand by a ground handler.</p> <p>d. Code A, Code B and Code C aircraft can taxi into aircraft stands C1, C2, C3, C4, C5 and C6 from the north or the south via TWY WA.</p> <p>e. Only Code A aircraft, Code B aircraft, aircraft type Global Express (GLEX), Global 5000 (GL5T), Global 6000 (GL6T), Global Express XRS (GLEX), Global 7500 (GL7T), Fokker 50 (F50), Fokker 70 (F70), Fokker 100 (F100), Gulfstream 500 (GLF5), Gulfstream 550 (GLF5), Gulfstream 650 (GLF6), ATR 42 (AT45 & AT46), ATR 72 (AT75 & AT76), DASH 7 (DNC7), Falcon 7X (FA7X) and Falcon 8X (FA8X) are allowed to taxi out from aircraft stands C1, C2, C3, C4, C5 and C6 subjected to (g), (h) or (i).</p> <p>f. All other aircraft not listed in (e) departing from C1, C2, C3, C4, C5 and C6 are required to push back onto TWY WA or tow forward onto TWY WP.</p> <p>g. Aircraft departing stand C1 shall taxi out towards the north only.</p> <p>h. Aircraft departing stand C6 shall taxi out towards the south only.</p> <p>i. Aircraft departing stands C2, C3, C4 and C5 are allowed to taxi out towards the south or the north.</p> <p>j. Aircraft parking stand C7 is unable to accommodate aircraft with wingspan larger than 28.35m.</p> <p>k. No Refuelling is permitted for aircraft parked at aircraft stand C7.</p> <p>l. Aircraft types up to B757-200 (no winglets) can taxi into aircraft stands D50, D51, D52, D53, D54, D55 and D56.</p> <p>m. Only Code A aircraft, Code B aircraft and Code C aircraft, Airbus A320 family (A318, A319, A320, A321), ATR 42 (AT45 & AT46), ATR 72 (AT75 & AT76), DASH 7 (DNC 7), Embraer 190STD (E190), Embraer ERJ 135 (E135), Falcon 7X (FA7X), Falcon 8X (FA8X), Fokker 50 (F50), Fokker 70 - all, Fokker 100 - all, Global Express (GLEX), Global 5000 (GL5T), Global 6000 (GL6T), Global Express XRS (GLEX), Global 7500 (GL7T), Gulfstream 500 (GLF5), Gulfstream 550 (GLF5), Gulfstream 650 (GLF6) and Q400 (DH8) are allowed to taxi out from aircraft stands D50, D51, D52, D53, D54, D55 and D56.</p> <p>n. Aircraft type C130 is restricted to tow in operations at aircraft stand D1, D2 and D50. Aircraft is required to shut down at designated shut down area and be towed to aircraft stand D1, D2 and D50.</p> <p>o. Only aircraft type ATR72 (AT75 & AT76) and aircrafts with wingspan less than 27.2m can be parked at aircraft stands C60, C61 and C62.</p>

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Aircraft Stands	Pushback / Tow Forward Procedures	Phraseology Used By SELETAR GROUND
C1, C2, C3, C4, C5, C6	<p>PUSHBACK</p> <p>The aircraft (on idle thrust) shall be pushed back onto TWY WA to face North (or South) until its nose wheel is at the intersection of the aircraft stand lead-in line and the centreline of TWY WA. The aircraft may breakaway from there.</p> <p>TOW FORWARD</p> <p>The aircraft (on idle thrust) shall be towed forward onto the centreline of TWY WP to face North (or South) until its nose wheel is at the intersection of the aircraft tow-out line and TWY WP centreline. The aircraft may breakaway from there.</p>	<p>Pushback approved, to face North (or South)</p> <p>Tow forward approved, to face North (or South)</p>
C7	<p>PUSHBACK</p> <p>The aircraft (on idle thrust) shall be pushed back onto TWY WA to face North (or South) until its nose wheel is at the intersection of the aircraft stand lead-in line and the centreline of TWY WA. The aircraft may breakaway from there.</p>	<p>Pushback approved, to face North (or South)</p>
C50, C51, C52	<p>PUSHBACK</p> <p>The aircraft (on idle thrust) shall be pushed back onto TWY ES to face North (or South) until its nose wheel is at the intersection of the aircraft stand lead-in line (or pushback line) and the centreline of TWY ES. The aircraft may breakaway from there.</p>	<p>Pushback approved, to face North (or South)</p>
C60, C61	<p>Pushback to face North</p> <p>The aircraft (on idle thrust) shall be pushed back onto TWY EC to face North until its nose wheel is abeam the centreline of aircraft stand C62. The aircraft may break away from there.</p> <p>Pushback to face East</p> <p>The aircraft (on idle thrust) shall be pushed back onto TWY EC2 to face East until its nose wheel is at the "EOP C60/C61" position. The aircraft may break away from there.</p>	<p>Pushback approved, to face North.</p> <p>Pushback approved, to face East.</p>
C62	<p>Pushback to face North</p> <p>The aircraft (on idle thrust) shall be pushed back onto TWY EC to face North until its nose wheel is at the "EOP C62" position. The aircraft may break away from there.</p> <p>Pushback to face South</p> <p>The aircraft (on idle thrust) shall be pushed back onto TWY EC to face South until its nose wheel is abeam the centreline of aircraft stand C61. The aircraft may break away from there.</p>	<p>Pushback approved, to face North.</p> <p>Pushback approved, to face South.</p>

Aircraft Stands	Pushback / Tow Forward Procedures	Phraseology Used By SELETAR GROUND
D1, D2 (for B757-200 and C130)	PUSHBACK AND TOW FORWARD TO TWY WP The tow-crew shall request from Seletar Ground (vehicular) on 122.9MHz for departure pushback approval. Upon receiving the approval, the aircraft shall be pushed back onto TWY WA to face South until its nose wheel is at the intersection of the aircraft stand lead-in line and TWY WA centreline. The aircraft shall then be towed forward to TWY WP until the tow tug towing the aircraft is at the intermediate holding position short of TWY W1 (see chart AD 2.WSSL-9) or TWY W3 (see chart AD 2.WSSL-10). Once the tow tug is disengaged, the aircraft will request start up approval from Seletar Ground (aircraft) on 121.6MHz. The aircraft shall breakaway from there.	1) Tow approved to intermediate holding position on TWY WP short of TWY W1 to face North; or 2) Tow approved to intermediate holding position on TWY WP short of TWY W3 to face South
	FOR LANDED B757-200/C130 AIRCRAFT EXITING VIA TWY W1 After landing, B757-200/C130 aircraft exiting TWY W1 shall stop when its nose is at the information marking "B757/C130 HOLD FOR TOW" on TWY W1. The aircraft shall be on tow starting from this point onwards until they park inside the aircraft stands.	Not applicable
	FOR LANDED B757-200/C130 AIRCRAFT EXITING VIA TWY W2 After landing, B757-200/C130 aircraft exiting TWY W2 shall stop when its nose is at the information marking "B757/C130 HOLD FOR TOW" on TWY W2. The aircraft shall be on tow starting from this point onwards until they park inside the aircraft stands.	Not applicable
	FOR LANDED B757-200/C130 AIRCRAFT EXITING VIA TWY W3 After landing, B757-200/C130 aircraft exiting TWY W3 shall stop when its nose is at the information marking "B757/C130 HOLD FOR TOW" on TWY W3. The aircraft shall be on tow starting from this point onwards until they park inside the aircraft stands.	Not applicable
D50	Pushback to face North The aircraft (on idle thrust) shall be pushed back onto TWY EN to face North until its nose wheel is at the intersection of the aircraft stand pushback line and TWY EN centreline. The aircraft shall then be towed forward until its nose wheel is abeam the centreline of aircraft stand D51. The aircraft may break away from there. Pushback to face South The aircraft (on idle thrust) shall be pushed back onto TWY EN to face South until its nose wheel is at the intersection of the aircraft stand pushback line and TWY EN centreline. The aircraft may break away from there. Tow Forward The aircraft (on idle thrust) shall be towed forward onto TWY EP to face North (or South) until its nose wheel is at the intersection of the aircraft lead-out line and TWY EP centreline. The aircraft may break away from there.	Pushback approved, to face North. Pushback approved, to face South. Tow forward approved, to face North (or South)
D51, D52, D53, D54, D55	Pushback The aircraft (on idle thrust) shall be pushed back onto TWY EN to face North (or South) until its nose wheel is at the intersection of the aircraft stand pushback line and TWY EN centreline. The aircraft may break away from there. Tow Forward The aircraft (on idle thrust) shall be towed forward onto TWY EP to face North (or South) until its nose wheel is at the intersection of the aircraft lead-out line and TWY EP centreline. The aircraft may break away from there.	Pushback approved, to face North (or South). Tow forward approved, to face North (or South)

Aircraft Stands	Pushback / Tow Forward Procedures	Phraseology Used By SELETAR GROUND
D56	<p>Pushback to face North The aircraft (on idle thrust) shall be pushed back onto TWY EN to face North until its nose wheel is at the intersection of the aircraft stand pushback line and TWY EN centreline. The aircraft may break away from there.</p> <p>Pushback to face South The aircraft (on idle thrust) shall be pushed back onto TWY EN to face South until its nose wheel is at the intersection of the aircraft stand pushback line and TWY EN centreline. The aircraft shall then be towed forward until its nose wheel is abeam the centreline of aircraft stand D55. The aircraft may break away from there.</p> <p>Tow Forward The aircraft (on idle thrust) shall be towed forward onto TWY EP to face North (or South) until its nose wheel is at the intersection of the aircraft lead-out line and TWY EP centreline. The aircraft may break away from there.</p>	<p>Pushback approved, to face North.</p> <p>Pushback approved, to face South.</p> <p>Tow forward approved, to face North (or South)</p>

**PROCEDURES FOR PUSHBACK
OF AIRCRAFT FROM AIRCRAFT STANDS D1/D2 AND TOW FORWARD TO TWY WP
POSITION 1 TO FACE NORTH**



PROCEDURES FOR PUSHBACK OF AIRCRAFT FROM AIRCRAFT STANDS D1/D2 AND TOW FORWARD TO TWY WP POSITION 2 TO FACE SOUTH

