

	A319	MACTAN-CEBU INTERNATIONAL AIRPORT	RPVM - CEB	Rev Date : 12/01/06
		<i>Cebu, Philippines</i>	RWY 04	Revision Nos : 0
		A319-111 / CFM56-5B5 Engines		

CONF 2 MTOW(1000 KG) LIMIT CODES V1/VR/V2 (kt)	CONF 3 MTOW(1000 KG) LIMIT CODES V1/VR/V2 (kt)
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OAT C	TAILWIND -10 KT	WIND 0 KT	HEADWIND +10 KT	TAILWIND -10 KT	WIND 0 KT	HEADWIND +10 KT
20	70.9 2/3 148/48/52	71.9 2/3 154/54/58	72.2 2/3 156/56/60	70.7 2/3 149/49/53	71.1 2/3 154/54/58	71.1 2/3 152/54/58
26	70.6 2/3 148/48/51	71.7 2/3 154/54/58	72.0 2/3 155/55/59	70.5 2/3 149/49/52	70.9 2/3 154/54/58	70.9 2/3 152/54/58
27	70.6 2/3 147/47/51	71.7 2/3 153/53/57	72.0 2/3 155/55/59	70.5 2/3 148/48/52	70.9 2/3 154/54/57	70.9 2/3 152/54/58
28	70.5 2/3 147/47/51	71.6 2/3 153/53/57	71.9 2/3 155/55/59	70.5 2/3 148/48/52	70.9 2/3 154/54/57	70.9 2/3 152/54/58
29	70.5 2/3 147/47/51	71.6 2/3 153/53/57	71.9 2/3 155/55/59	70.4 2/3 148/48/52	70.8 2/3 154/54/57	70.8 2/3 152/54/57
30	70.5 2/3 147/47/51	71.5 2/3 153/53/57	71.8 2/3 155/55/59	70.4 2/3 148/48/52	70.8 2/3 154/54/57	70.8 2/3 152/54/57
31	70.4 2/3 147/47/51	71.5 2/3 153/53/57	71.8 2/3 155/55/59	70.4 2/3 148/48/52	70.8 2/3 153/53/57	70.8 2/3 152/54/58
32	70.4 2/3 147/47/51	71.5 2/3 153/53/57	71.7 2/3 155/55/59	70.3 2/3 149/49/52	70.7 2/3 153/53/57	70.8 2/3 152/54/57
33	70.3 2/3 147/47/51	71.4 2/3 153/53/57	71.7 2/3 155/55/59	70.3 2/3 149/49/52	70.7 2/3 153/53/57	70.8 2/3 155/55/58
34	70.3 2/3 147/47/51	71.4 2/3 153/53/57	71.7 2/3 155/55/59	70.3 2/3 149/49/52	70.7 2/3 153/53/57	70.7 2/3 155/55/58
35	70.3 2/3 147/47/51	71.4 2/3 153/53/57	71.6 2/3 154/54/59	70.2 2/3 149/49/52	70.7 2/3 153/53/57	70.7 2/3 155/55/58
40	70.1 2/3 146/46/50	71.3 2/3 152/52/56	71.6 2/3 154/54/59	70.2 2/3 149/49/52	70.7 2/3 154/54/57	70.8 2/3 154/54/58
45	69.8 2/3 146/46/50	70.9 2/3 152/52/56	71.2 2/3 154/54/59	69.9 2/3 147/47/50	70.4 2/3 152/52/56	70.4 2/3 154/54/57
50	66.8 2/3 143/43/47	67.9 2/3 149/49/53	68.1 2/3 150/50/54	66.8 2/3 144/44/47	67.2 2/3 149/49/53	67.2 2/3 149/50/53
*55	64.0 2/3 140/40/44	64.9 2/3 146/46/49	65.1 2/3 148/48/51	63.9 2/3 141/41/44	64.2 2/3 146/46/49	64.2 2/3 145/46/50
*60	61.1 2/3 138/38/41	61.9 2/3 143/43/46	62.1 2/3 145/45/48	60.9 2/3 139/39/41	61.2 2/3 140/42/45	61.2 2/3 140/43/46
*65	58.4 2/3 135/35/38	59.2 2/3 140/40/44	59.4 2/3 142/42/45	58.2 2/3 136/36/39	58.4 2/3 138/40/42	58.4 2/3 138/40/43

INFLUENCE OF RUNWAY CONDITION

WET	-0.7/ -4	-0.1/ 0	0.0/ 0	-1.8/ -2	-0.1/ 0	-0.1/ 0
	-11/ 0/ 0	-6/ 0/ 0	-4/ 0/ 0	-12/ -1/ -1	-6/ 0/ 0	-8/ 0/ 0
	(+65)	(+65)	(+65)	(+65)	(+65)	(+65)
	-0.7/ -4	-0.1/ 0	-0.1/ 0	-1.8/ -2	-0.3/ -1	-0.1/ 0
	-11/ 0/ 0	-6/ 0/ 0	-4/ 0/ 0	-12/ 0/ 0	-6/ 0/ 0	-8/ 0/ 0

INFLUENCE OF AIR CONDITION

OFF	+1.4/ +2	+1.4/ +2	+1.5/ +2	+1.3/ +2	+1.5/ +2	+1.5/ +2
	+1/ +1/ +1	+1/ +1/ +1	+1/ +1/ +1	+1/ +1/ +1	+2/ +2/ +2	+2/ +2/ +2
	(+65)	(+65)	(+65)	(+65)	(+65)	(+65)
	+1.4/ +2	+1.4/ +2	+1.5/ +2	+1.3/ +2	+1.3/ +2	+1.5/ +2
	+1/ +1/ +1	+1/ +1/ +1	+1/ +1/ +1	+1/ +1/ +1	+2/ +1/ +1	+2/ +1/ +1

INFLUENCE OF DELTA PRESSURE (QNH)

Below 1013 mb: (TOGA) Subtract 90 kg per 1 mb lower than 1013 mb. (Flex Temp) Subtract 1 deg C per 6hPa / Above 1013 mb : No Correction

AIRPORT DATA :	OBSTACLE DATA :	INFLUENCE CODE	Check Min V1 /VR /V2	=	107 / 112 / 119
ELEV = 18 ft	NIL	DW(1000kg) / DTFLEX	Check VMU limitation	=	
TORA = 3360 m		DV1 / DVR / DV3 (kt)	Cor. V1 / VR / V2	=	1.0 kt / 1000 kg
WIDTH = 45 m		(TVMC OAT C)	Tref (OAT)	=	45 c
CLRWDY = 60 m	SINGLE ENGINE PROCEDURE :	DW(1000kg) / DTFLEX	Tmax (OAT)	=	55 c
STPWWY = 60 m		DV1 / DVR / DV3 (kt)			
SLOPE = 0.10%		LIMIT CODES : 1=1st Seg 2=2nd Seg 3=Rwy Length 4=Obst			
		5=Tire Spd 6=Brake E. 7=Max Wt 8-Final T/O 9=VMU * =VMC			

RTOW CHARTS - COMPLEMENTARY INFORMATION

AIRPORT CHARACTERISTICS

WIND

AIRPORT IDENTIFICATION

RUNWAY CONDITION AND DERATE

OCTOPUS (TAKEOFF CHART PROGRAM) VERSION & COMPUTATION DATE

RUNWAY IDENTIFICATION

AXXXXXX	ENGINE	AIRPORT NAME				VERSION	DATE	TAKEOFF CONDITIONS		
QNH Air conditioning Anti-icing	1013 HPA AC OFF AI OFF	Elevation Isa temp Rwy slope	489 FT 14 C .08 %	TORA TODA ASDA	3000 M 3100 M 3000 M	15L	AXXXXXXX V8			

OAT °C	CONF 1 + F					CONF 2				
	TAILWIND - 10.0 KT	TAILWIND - 5.0 KT	WIND 0 KT	HEADWIND + 10.0 KT	HEADWIND + 20.0 KT	TAILWIND - 10.0 KT	TAILWIND - 5.0 KT	WIND 0 KT	HEADWIND + 10.0 KT	HEADWIND + 20.0 KT
-20	86.5 3/4 151/56/58	88.5 3/4 156/59/61	90.6 3/4 161/62/64	92.0 3/4 164/65/67	93.0 3/4 167/69/71	86.4 3/4 151/57/57	88.4 3/4 156/60/60	90.4 3/4 161/64/64	91.8 3/4 164/66/66	92.9 3/4 167/70/70
-10	85.8 3/4 149/55/57	87.8 3/4 154/57/59	89.8 3/4 159/60/62	91.2 3/4 162/63/65	92.3 3/4 165/67/68	85.7 3/4 149/55/55	87.7 3/4 154/59/59	89.7 3/4 159/62/62	91.1 3/4 162/64/64	92.3 3/4 165/67/67
0	85.0 3/4 147/54/56	87.0 3/4 152/56/58	89.1 3/4 157/58/61	90.5 3/4 160/61/63	91.6 3/4 163/65/66	85.0 3/4 147/54/54	87.0 3/4 152/57/57	88.9 3/4 157/60/60	90.3 3/4 160/62/62	91.6 3/4 163/65/65
10	84.2 3/4 145/53/56	86.3 3/4 150/55/58	88.3 3/4 155/57/59	89.7 3/4 158/59/61	90.9 3/4 161/63/64	84.3 3/4 145/52/52	86.3 3/4 150/56/56	88.2 3/4 155/58/58	89.6 3/4 158/61/61	91.0 3/4 161/63/63
20	83.3 3/4 144/53/55	85.4 3/4 149/55/57	87.4 3/4 153/57/59	88.8 3/4 156/58/60	90.1 3/4 160/61/62	83.5 3/4 144/51/51	85.5 3/4 149/54/54	87.4 3/4 153/57/57	88.8 3/4 156/59/59	90.1 3/4 159/61/61
30	82.1 3/4 143/52/54	84.2 3/4 147/54/56	86.2 3/4 152/56/57	87.5 3/4 155/57/59	88.9 3/4 158/59/60	82.4 3/4 142/50/50	84.3 3/4 147/53/53	86.2 3/4 152/55/55	87.5 3/4 155/57/57	88.9 3/4 158/59/59
46	72.8 3/4 141/45/47	74.3 3/4 145/48/49	75.9 3/4 150/50/51	76.9 3/4 153/53/54	78.0 3/4 154/54/55	72.6 3/4 141/46/46	74.2 3/4 145/49/49	75.7 3/4 150/51/51	76.9 3/4 153/53/53	77.9 3/4 155/55/55
48	71.4 3/4 141/45/46	73.0 3/4 145/47/48	74.5 3/4 149/50/51	DO NOT USE FOR OPERATIONAL PURPOSE			74.3 3/4 150/51/51	75.4 3/4 153/53/53	76.4 3/4 154/54/54	
50	70.1 3/4 140/44/46	71.6 3/4 145/47/48	73.1 3/4 149/49/50	DO NOT USE FOR OPERATIONAL PURPOSE			72.9 3/4 150/50/50	73.9 3/4 152/52/52	74.9 4/4 153/53/53	
*52	68.8 3/4 140/44/45	70.2 3/4 145/46/47	71.7 3/4 149/49/50	72.6 4/4 150/50/51	73.5 4/4 151/51/52	68.6 3/4 140/45/45	70.0 3/4 145/47/47	71.5 3/4 150/50/50	72.5 3/4 151/51/51	73.4 4/4 153/53/53
*54	67.4 3/4 140/43/44	68.9 3/4 145/46/47	70.2 3/4 148/48/49	71.1 4/4 149/49/50	72.0 4/4 150/50/51	67.3 3/4 140/44/44	68.7 3/4 145/47/47	70.1 3/4 149/49/49	71.0 4/4 151/51/51	71.9 4/4 152/52/52

INFLUENCE OF RUNWAY CONDITION											
WET	+0/+0 0/+0/+0 (+54)-4/-1 0/+0/+0	+0/+0 -1/+0/+0 (+54)-4/-1 -1/+0/+0	-0/-1 -1/+0/+0 (+54)-2/-1 -1/+0/+0	0/-1 0/+0/+0 (+54)-1,4/-3 0/+0/+0	-2/-1 -1/+0/+0 (+54)-1,0/-2 -1/+0/+0	+0/+0 -1/+0/+0 (+54)-2/-1 -1/+0/+0	+0/+0 0/+0/+0 (+54)-8/-2 0/+0/+0	+0/+0 0/+0/+0 (+54)-8/-2 0/+0/+0	+0/+0 0/+0/+0 (+54)-1,0/-2 0/+0/+0	+0/+0 0/+0/+0 (+54)-1,2/-2 0/+0/+0	-2/-1 -1/+0/+0 (+54)-1,1/-1 -1/+0/+0

INFLUENCE OF DELTA PRESSURE											
D QNH HPA	-10	-8/-2 0/-1/-1 (+54)-8/-2 0/+0/+0	-9/-2 0/-1/-1 (+54)-9/-2 0/+0/+0	-1,4/-3 0/-1/-1 (+54)-1,4/-3 0/+0/+0	-1,0/-2 -1/-1/-1 (+54)-1,0/-2 -1/+0/+0	-1,0/-2 -1/-1/-1 (+54)-1,0/-2 -1/+0/+0	-8/-2 0/-1/-1 (+54)-8/-2 0/+0/+0	-8/-2 0/-1/-1 (+54)-8/-2 0/+0/+0	-1,0/-2 0/0/0 (+54)-1,0/-2 0/+0/+0	-1,2/-2 +0/+0/+0 (+54)-1,2/-2 +0/+0/+0	-1,1/-2 -1/-1/-1 (+54)-1,1/-1 -1/+0/+0
	+10	+6/+0 +1/+0/+0 (+54)+2/+0 +1/+0/+0	+6/+0 +1/+0/+0 (+54)+2/+0 +1/+0/+0	+0/+0 +1/+1/+1 (+54)+0/+0 +1/+1/+1	+6/+0 +1/+1/+1 (+54)+2/+0 +1/+1/+1	+6/+0 +1/+1/+1 (+54)+2/+0 +1/+1/+1	+5/+0 +0/+0/+0 (+54)+3/+0 +0/+0/+0	+5/+0 +1/+0/+0 (+54)+1/+0 +1/+0/+0	+4/+0 +1/+1/+1 (+54)+2/+0 +1/+1/+1	+3/+0 +1/+1/+1 (+54)+1/+0 +1/+1/+1	+2/+0 +0/+1/+1 (+54)+0/+0 +0/+1/+1

LABEL FOR INFLUENCE DW (1000 KG) DTFLX DV1-DVR-DV2 (KT) (TVMC OAT C) DW (1000 KG) DTFLX DV1-DVR-DV2 (KT)	MTOW(1000 KG) codes V1min/VR/V2(KT)	*VMC *LIMITATION	Tref (OAT) =29 C Tmax (OAT) =50 C	Min acc height 784Ft Max acc height 1965Ft	Min QNH alt 1280Ft Max QNH alt 2461Ft	MINIMUM & MAXIMUM ACC. HEIGHT AND ALT.
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INFLUENCE CORRECTION ΔWEIGHT ΔTFLEX ΔV1/ΔVR/ΔV2 (TVMC) ΔWEIGHT ΔTFLEX ΔV1/ΔVR/ΔV2	TAKEOFF PARAMETERS <hr/> MAX WEIGHT (1000 KG) (72.0) LIMITATION CODE (4-4) V ₁ (KT IAS) - V _R (KT IAS) - V ₂ (KT IAS) (150) (150) (151)	MINIMUM VALUES OF V1/VR/V2 TO WHICH TAKEOFF SPEEDS MUST BE LIMITED WHEN DECREMENTS ARE APPLIED V1/VR/V2 DECREMENTS FOR WEIGHTS BELOW THE LOWEST WEIGHT OF A COLUMN
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