KneeBoard

VER. 22.12.10

by Flyingdeuk

GMP - CJU	CJU - GMP
CJU - KWJ	KWJ - CJU
CJU - CJJ	CJJ - CJU
GMP - PUS	PUS - GMP
CJU - TAE	TAE - CJU
CJU - PUS	PUS - CJU
ICN - PUS	PUS - ICN
ICN - KIX	KIX - ICN

Conversion Table	
Cold Temp Correction	
Meter/Feet Conversion	
Cold Wx Operation	
ENG ON Deicing	**ENG OFF Deicing**

RKSS(GMP) 59ft	RKPC(CJU) 119ft
KE GMP 131.15	KE CJU 129.4

Rwy 32R Takeoff
(06:00L~0900L / 12:00L~15:00L
/18:00L~21:00L)

GMP : SID (NADP 1)

32L/R	BULTI 1T	324	324	6000	324
	(BULTI 1Q)	324	324	5000	324
14L/R	BULTI 1U	144	144	6000	144
	(BULTI 1Z)	144	144	6000	144

KIP 113.6	32L 108.3 241	32R 110.7 242	14L 109.9 238	14R 108.7 234

32L/R : KIP324/5, R220 YJU R271	14L/R : KIP144/4, R220 T73 /2

HUD	32L(41')	10499'	14R(34')
	32R(42')	11811'	14L(38')

APRON(130.875) -> GND(121.9) -> TWR by ATC(TCP)

Back

CJU : STAR

ILS Z 07	DOTOL 2P	YUMIN	DOTOL 160
ILS Z 25	DOTOL 2T	DUKAL	DOTOL/-10 160

YDM 109.0	07 109.9	25 111.3

HUD	07(87')	10433'	25(76')

07 : P6(5176'), P5(5882'), P4(6840'-ATC HIRO)
25 : P7(5219'), P8(5882'), P10(7524'-ATC HIRO)

Entering Rapid TWY CTC GND 121.675 (STOP x)
HST 40KTS

RKPC(CJU) 119ft	RKSS(GMP) 59ft
KE CJU 129.4	KE GMP 131.15

Rwy 32L Landing
(06:00L~0900L / 12:00L~15:00L
/18:00L~21:00L)

CJU : SID (NADP 1)

07	KAMIT 2E	066	066	10000	066
25	KAMIT 1W	246	246	10000	246

YDM 109.0	07 109.9 287	25 111.3 276

07 : NONE	25 : YDM246/3, R290

HUD	07(87')	10433'	25(76')

07 : Passing G4 CTC TWR
25 : 31 Holding PSN on P, E1,2,3 CTC TWR

Back

GMP : STAR

32L/R	OLMEN 2T	BUMSI	OLMEN 160	
14L/R	OLMEN 2U	DOKDO	OLMEN 160	

KIP 113.6	32L 108.3	32R 110.7	14L 109.9	14R 108.7

HUD	32L(41')	10499'	14R(34')
	32R(42')	11811'	14L(38')

FIX	KIP /8(32L/R), YJU R271, T73 /2

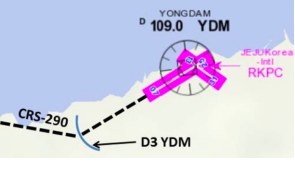
32L : D3(6532'), E2(9117'), 32R : E1(6614')
14L : C1(6578')

32L/R : 8 KIP L/G, 14R : LOC CAPT L/G
FAF : Final Flap
TWR -> GND -> APRON by ATC(TCP)
Except RWY14R Landing (Until R)

RKPC(CJU) 119ft	RKJJ(KWJ) 48ft
KE CJU 129.4	KE KWJ 129.4

CJU : SID (NADP 1)					
07	KAMIT 2E	066	066	10000	066
25	KAMIT 1W	246	246	10000	246
YDM 109.0		07 109.9 287		25 111.3 276	
07 : NONE			25 : YDM246/3, R290		
HUD	07(87')		10433'	25(76')	

07 : Passing G4 CTC TWR
25 : 31 Holding PSN on P, E1,2,3 CTC TWR



Back

KWJ : NO STAR (TL 140확인!)			
ILS 04R	no KOTTY	SAMUL/-15	CI04R
LOC 22L	SAMUL	D058Q	
VOR 22LR	SAMUL	D058Q	(PAR 6NM, 3)
KWA 114.4	04R 111.1		22L 108.5
HUD	04R(46')	9301'	22L(48')
	04L(46')	9301'	22R(48')
FIX	04R : SAMUL(CLR Limit)		

End of RWY Vacating 9301'

LOC 22L : 3.3도, VOR 22L/R : 3.29도(22R offset, PAR!!)
TAXI MAX 15 kts (Max 30kts by ATC)

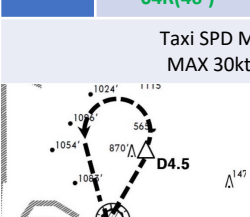
RKJJ(KWJ) 48ft	RKPC(CJU) 119ft
KE KWJ 129.4 NO DCL	KE CJU 129.4

KWJ : SID (NADP 1)					
ALL	KWA 5			8000	
04L	(GWJ 3)	038	038	ATC	038
22R	(GWJ 4)	218	218	ATC	218

KWA 114.4	04R 111.1 246	22L 108.5 610
04 : KWA /4.5, R225	22 : None	

HUD	04L(46’)	9301’	22R(48’)
	04R(46’)	9301’	22L(48’)

Taxi SPD MAX 15kts
MAX 30kts by ATC



Back

CJU : STAR			
07	DOTOL 2P	YUMIN	DOTOL 160
25	DOTOL 2T	DUKAL	DOTOL/-10 160

YDM 109.0	07 109.9	25 111.3

HUD	07(87’)	10433’	25(76’)

07 : P6(5176’), P5(5882’), P4(6840’-ATC HIRO)
25 : P7(5219’), P8(5882’), P10(7524’-ATC HIRO)

Entering Rapid TWY CTC GND 121.675 (STOP x)
HST 40KTS

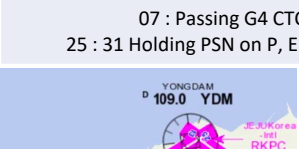
RKPC(CJU) 119ft	RKTU(CJJ) 192ft
KE CJU 129.4	KE CJJ 129.05 NO DCL, ATIS

CJU : SID (NADP 1)					
07	KAMIT 2E	066	066	10000	066
25	KAMIT 1W	246	246	10000	246

YDM 109.0	07 109.9 287	25 111.3 276
07 : NONE	25 : YDM246/3, R290	

HUD	07(87')	10433'	25(76')

07 : Passing G4 CTC TWR
25 : 31 Holding PSN on P, E1,2,3 CTC TWR



Back

CJJ : After OSPOT – RDR Vector			
ILS Z 06L	NO STAR (MATIZ 1)	OSPOT (JIKJI tx)	TU761 / BAKJO (STAR 안줌)
ILS Z 24R	NO STAR (MATIZ 1)	OSPOT (HYEIN tx)	HYEIN (STAR 안줌)

CHO 119.0	06L 110.3	24R 111.7

HUD	06L(166')	9003'	24R(182')
	06R(173')	9003'	24L(191')

FIX

06L : B3 (6443'), A3 (8786')
24R : C3 (6230'), D3 (8825')

Req full length Landing (Vacate End of RWY)
180 BACK LINE 주의
Entering TWY A3, B3, B4, C3, D3 change GND freq

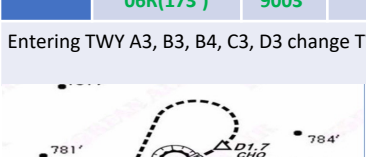
RKTU(CJJ) 192ft	RKPC(CJU) 119ft
KE CJJ 129.05 NO DCL, ATIS	KE CJU 129.4

CJJ : SID (NADP 1)					
06L	CJJ 1D	060	060	6000	060
24R	CJJ 1D	132	132	6000	132
(06L : BUKIL 1, 2 RNAV)			(24R : OLREG 1, UPTIL 1)		

CHO 109.0	06L 110.3 367	24R 111.7 387
06L/R : CHO /1.7, R235		24L/R : None

HUD	06L(166')	9003'	24R(182')
	06R(173')	9003'	24L(191')

Entering TWY A3, B3, B4, C3, D3 change TWR freq



Back

CJU : STAR			
ILS Z 07	DOTOL 2P	YUMIN	DOTOL /160
ILS Z 25	DOTOL 2T	DUKAL	DOTOL-10 160

YDM 109.0	07 109.9	25 111.3

HUD	07(87')	10433'	25(76')

07 : P6(5176'), P5(5882'), P4(6840'-ATC HIRO)
25 : P7(5219'), P8(5882'), P10(7524'-ATC HIRO)

Entering Rapid TWY CTC GND 121.675, STOP X HST 40KTS

RKSS(GMP) 59ft	RKPK(PUS) 13ft
KE GMP 131.15	KE Gimhae 129.2

Rwy 32R Takeoff
(06:00L~0900L / 12:00L~15:00L
/18:00L~21:00L)

GMP : SID (NADP 1)

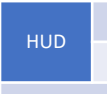
32L/R	OSPOT 1T	324	324	6000	324
	(OSPOT 1Q)	324	324	5000	324
14L/R	OSPOT 1U	144	144	6000	144
	(OSPOT 1Z)	144	144	6000	144

KIP 113.6	32L 108.3 241	32R 110.7 242	14L 109.9 238	14R 108.7 234

32L/R : KIP324/5, R220 YJU R271	14L/R : KIP144/4, R220 T73 /2

HUD	32L(41')	10499'	14R(34')
	32R(42')	11811'	14L(38')

APRON(130.875) -> GND(121.9) -> TWR by ATC(TCP)



Back

PUS : STAR (36R 136000lbs F40)

36	KEVOX 3	MASTA	9DME LG, 8DME FLAP
18	GAYHA 3	MASTA	Fix : KMH R283, R280

KMH 113.8	PSN 114.0	36L 108.5	36R 109.5

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'

36L : C4 (6299'), C2(7795') / 36R : E3(5866'), E2(7339')
18R : C6(5770'), C7 (6824') / 18L : E4(5882'), E5(8792')

Vacate C3,C4 by ATC only. Max Taxi SPD 20KTS
C2 HOLD SHORT 가까움(Vacate TaxiSPD)

RKPK(PUS) 13ft	RKSS(GMP) 59ft
KE Gimhae 129.2	KE GMP 131.15

Rwy 32L Landing
(06:00L~0900L / 12:00L~15:00L
/18:00L~21:00L)

PUS : SID (Mod NADP CLB2 1000, 14000 MAX)

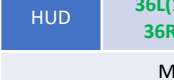
36	SOORO 2 KALOD tx	305	280	ATC	342
18	GIMHAE 2	182	182	5000	182

KMH 113.8	PSN 114.0	36L 108.5 213	36R 109.5 208

36 : KMH R091, R271, R185

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'

Max Taxi SPD 20KTS



Back

GMP : STAR

32L/R	GUKDO 1T	BUMSI	GUKDO 160	
14L/R	GUKDO 1U	DOKDO	GUKDO 160	

KIP 113.6	32L 108.3	32R 110.7	14L 109.9	14R 108.7

HUD	32L(41')	10499'	14R(34')
	32R(42')	11811'	14L(38')
FIX	KIP /8(32L/R), YJU R271, T73 /2		

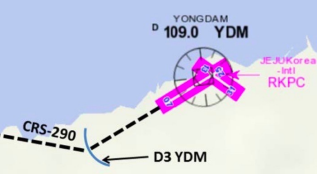
32L : D3(6532'), E2(9117'), 32R : E1(6614')
14L : C1(6578')

32L/R : 8 KIP L/G, 14R : LOC CAPT L/G
FAF : Final Flap
TWR -> GND -> APRON by ATC(TCP)
Except RWY14R Landing (Until R)

RKPC(CJU) 119ft	RKTN(TAE) 120ft
KE CJU 129.4	KE TAE 129.2

CJU : SID (NADP 1)					
07	MAKET 2E	066	066	9000	066
25	MAKET 2W	246	246	ATC	246
YDM 109.0		07 109.9 287		25 111.3 276	
07 : NONE			25 : YDM246/3, R290		
HUD	07(87')		10433'	25(77')	

07 : Passing G4 CTC TWR
25 : 31 Holding PSN on P, E1,2,3 CTC TWR



Back

TAE : NO STAR			
31	TGU/-10	CF31L222/7	CF31L
13	TGU/-10	YAWAN	
DOC 116.5	TGU 112.2	31L 108.7	13R 108.7
HUD	31L(118')	9039'	13R(111') 3.3
	31R(120')	8999'	13L(112')
FIX			

31L : D1(8848'), 13R : A1(8772')

13R ILS 3.3도 PAPI 3.3도 (산악지형 주의)
TAXI MAX 20kts (do not req) 최소 2000ft 간격

RKTN(TAE) 120ft	RKPC(CJU) 119ft
KE TAE 129.2	KE CJU 129.4

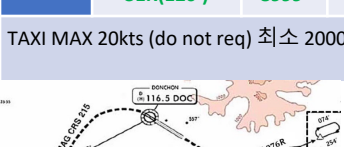
TAE : SID (NADP 1)					
31L/R	DAEGU 1D	312	312	8000	192
13L/R	DAEGU 1D	132	132	8000	192

DOC 116.5	TGU 112.2	31L 108.7 318	13R 108.7 657

31 : DOC 245/11 DOC R245	13 : TGU076/17 TGU R076

HUD	31L(118')	9039'	13R(112') 3.3
	31R(120')	8999'	13L(112')

TAXI MAX 20kts (do not req) 최소 2000ft 간격



Back

CJU : STAR			
ILS Z 07	UPGOS 1P	YUMIN	
ILS Z 25	UPGOS 1T	DUKAL	

YDM 109.0	07 109.9	25 111.3

HUD	07(87')	10433'	25(76')

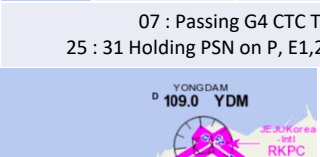
07 : P6(5176'), P5(5882'), P4(6840'-ATC HIRO)
25 : P7(5219'), P8(5882'), P10(7524'-ATC HIRO)

Entering Rapid TWY CTC GND 121.675, STOP X
HST 40KTS

RKPC(CJU) 119ft	RKPK(PUS) 13ft
KE CJU 129.4	KE Gimhae 129.2

CJU : SID (NADP 1)					
07	AKPON 1E	066	066	9000	066
25	AKPON 1W	246	246	ATC	246
YDM 109.0		07 109.9 287		25 111.3 276	
07 : NONE			25 : YDM246/3, R290		
HUD	07(87')		10433'	25(76')	

07 : Passing G4 CTC TWR
25 : 31 Holding PSN on P, E1,2,3 CTC TWR



Back

PUS : STAR (36R 136000lbs F40)				
36	KEVOX 3	ANROD	9DME LG, 8DME FLAP	
18	GAYHA 3	ANROD	Fix : KMH R283, R280	
KMH 113.8	PSN 114.0	36L 108.5	36R 109.5	
HUD	36L(12') 10499' 36R(8') 8999'		18R(13') 8530' 18L(10') 8999'	

36L : C4 (6299'), C2(7795') / 36R : E3(5866'), E2(7339')
18R : C6(5770'), C7 (6824') / 18L : E4(5882'), E5(8792')

Vacate C3,C4 by ATC only. Max Taxi SPD 20KTS
C2 HOLD SHORT 가까움(Vacate TaxiSPD)

RKPK(PUS) 13ft	RKPC(CJU) 119ft
KE Gimhae 129.2	KE CJU 129.4

PUS : SID (Mod NADP CLB2 1000, 14000 MAX)					
36	SOORO 2 TOPAX tx	305	280	ATC	278
18	BULIM 3 TOPAX tx	182	182	5000	182

KMH 113.8	PSN 114.0	36L 108.5 213	36R 109.5 208

36 : KMH R091, R271, R185

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'

Max Taxi SPD 20KTS

Back

CJU : STAR			
ILS Z 07	UPGOS 1P	YUMIN	
ILS Z 25	UPGOS 1T	DUKAL	

YDM 109.0	07 109.9	25 111.3

HUD	07(87')	10433'	25(76')

07 : P6(5176'), P5(5882'), P4(6840'-ATC)
25 : P7(5219'), P8(5882'), P10(7524'-ATC)

Entering Rapid TWY CTC GND 121.675, STOP X HST 40KTS

RKSI(ICN) 23ft	RKPK(PUS) 13ft
KE ICN 131.5	KE Gimhae 129.2

ICN : SID (33/34 NADP 1, 15/16 NADP 2)					
33L/R	OSPOT 1E/A	333	333	5500/ ATC	333
34L/R	OSPOT 1Y	333	333	ATC	333
15L/R	OSPOT 1C	153	153	5000	153
16L/R	OSPOT 1H	153	153	5000	153

NCN 113.8	33L 109.3	33R 108.9	15L 111.9	15R 109.1
WNG 112.9	34L 109.95	34R 108.1	16L 110.35	16R 108.55

33L/R : NC05L/R, R242 YJU R271	34L/R : WNG333/4.6, R242 YJU R271

HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R (23')	13123'	16L (23')

Parallel TWY 10KTS 이상(R17 MAX 15kts)

Back

PUS : STAR(36R 136000lbs F40)			
36	KEVOX 2	MASTA	9DME LG, 8DME FLAP
18	GAYHA 3	MASTA	Fix : KMH R283, R280

KMH 113.8	PSN 114.0	36L 108.5	36R 109.5

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'

36L : C4 (6299'), C2(7795') / 36R : E3(5866'), E2(7339')
18R : C6(5770'), C7 (6824') / 18L : E4(5882'), E5(8792')

Vacate C3,C4 by ATC only, Max Taxi SPD 20KTS
C2 HOLD SHORT 가까움(Vacate TaxiSPD)

RKPK(PUS) 13ft	RKSI(ICN) 23ft
KE Gimhae 129.2	KE ICN 131.5

PUS : SID (Mod NADP CLB2 1000, 14000 MAX)					
36	SOORO 2 KALOD tx	305	280	ATC	342
18	GIMHAE 2	182	182	5000	182

KMH 113.8	PSN 114.0	36L 108.5 213	36R 109.5 208

36 : KMH R091, R271, R185

HUD	36L(12') 10499' 36R(8') 8999'	18R(13') 8530' 18L(10') 8999'

Max Taxi SPD 20KTS

Back

ICN : STAR				
33/34	GUKDO 2E	ENPIL	GUKDO 180	
15/16	GUKDO 2H	MUNAN	GUKDO 180	
NCN 113.8	33L 109.3	33R 108.9	15L 111.9	15R 109.1
WNG 112.9	34L 109.95	34R 108.1	16L 110.35	16R 108.55

HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /6 , YJU R271		

33R : C4(7529'), C5(8513'), 33L : B5('), B6(')
15L : C2(7522'), C1(8536'), 15R : B3('), B2(')

34L : P8(6578'), P10(7362'),34R : N4(6876'), N5(8507')
16R : P5(6574'), P4(7362'), 16L : N3(7043'), N2(8444')

8NM 180kts, 6NM 160kts, Parr TAXI 10kts이상

RKSI(ICN) 23ft	RJBB(KIX) 17ft
KE ICN 131.5	KE KIX 130.95

ICN : SID (33/34 NADP 1, 15/16 NADP 2)					
33L/R	EGOBA 2E/A	333	333	5500/ ATC	333
34L/R	EGOBA 2Y	333	333	ATC	333
15L/R	EGOBA 2C	153	153	5000	153
16L/R	EGOBA 2H	153	153	5000	153

NCN 113.8	33L 109.3	33R 108.9	15L 111.9	15R 109.1
WNG 112.9	34L 109.95	34R 108.1	16L 110.35	16R 108.55

33L/R : NC05L/R, R242 YJU R271	34L/R : WNG333/4.6, R242 YJU R271

HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R (23')	13123'	16L (23')

Parallel TWY 10KTS 이상(R17 MAX 15kts)

Back

KIX : STAR (SAEKI 170, RANDY 150)			
06L	ALISA B	BERRY	ILS Y 06L
06R	ALISA A	ALLAN	ILS Y 06R
24L/R	ALISA C	MAYAH	ILS Z 24L/R

HUD	06L(15') 13123' 24R(23')
	06R(5') 11483' 24L(12')

06L : B8(5160'), B6(6751'), 24R : B7(5318'), B9(6751')
06R : A7(5137'), A6(6938'), 24L : A8(5269'), A9(6976')

After 2500ft L/G DN, After 1500ft L/D FLAP

RJBB(KIX) 17ft	RKSI(ICN) 23ft
KE KIX 130.95	KE ICN 131.5

KIX : SID – SOUJA tx (NADP 1)

06L/R	HELEN 2 - SOUJA tx	058	058	ATC (9000)	058
24L/R		238	238	ATC (9000)	238

KIE	06L	06R	24L	24R
111.6	108.7	108.1	110.7	108.5

HUD	06L(15')	13123'	24R(23')
	06R (5')	13123'	24L (12')

APU Start, TAXI RTE 1, 2

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ICN : STAR

33/34	GUKDO 2E		ENPIL	GUKDO 180
15/16	GUKDO 2H		MUNAN	GUKDO 180

NCN	33L	33R	15L	15R
113.8	109.3	108.9	111.9	109.1
WNG	34L	34R	16L	16R
112.9	109.95	108.1	110.35	108.55

HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /6 , YJU R271		

33R : C4(7529'), C5(8513'), 33L : B5('), B6(')
15L : C2(7522'), C1(8536'), 15R : B3('), B2(')

34L : P8(6578'), P10(7362'),34R : N4(6876'), N5(8507')
16R : P5(6574'), P4(7362'), 16L : N3(7043'), N2(8444')

8NM 180kts, 6NM 160kts, Parr TAXI 10kts이상

GS KTS	KM	MILES
300	560	350
310	570	360
320	590	370
330	610	380
340	630	390
350	650	400
360	670	410
370	690	430
380	710	440
390	720	450
400	740	460
410	760	470
420	780	480
430	800	500
440	820	510
450	830	520
460	850	530
470	870	540
480	890	550
490	910	560
500	930	580
510	950	590
520	960	600
530	980	610
540	1000	620
550	1020	630
560	1040	650
570	1060	660
580	1070	670
590	1090	680
600	1110	690
610	1130	700
620	1150	710
630	1170	730
640	1190	740
650	1200	750
660	1220	760
670	1240	770
680	1260	780
690	1280	800
700	1300	810

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GMP 32L (261') / 32R (262') / 14R (254')							
R32	8000	5500	4000	2800	2300	2000	4000
0	8450	5810	4230	2970	2440	2120	4230
-5	8620	5930	4310	3030	2490	2160	4310
-10	8780	6040	4390	3080	2530	2200	4390
R14	4000	2800	1400		4000		
0	4230	2970	1490		4230		
-5	4310	3030	1520		4310		
-10	4390	3080	1540		4390		

CJU 07 (307') / 25 (296')							
	4000	2900	1800	07	8000	25	6000
0	4220	3070	1900		8450		6340
-5	4300	3130	1940		8620		6460
-10	4380	3180	1970		8780		6590

CJJ 06L (387') / 24R (296')							
06L	4400	3900	3000	2100		7000	
0	4650	4110	3170	2210		7390	
-5	4740	4200	3230	2270		7540	
-10	4810	4260	3280	2290		7670	
24R	6000	3700	2500	2100		6000	
0	6330	3900	2640	2210		6330	
-5	6460	3980	2700	2270		6460	
-10	6570	4040	2730	2290		6570	

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Meter/Feet Conversion Table

❑ China, Mongolia & North Korea

■ **FL Conversion**

Westbound (180° ~ 359°)	
13100 M	**43000 FT**
12200 M	40100 FT
11600 M	**38100 FT**
11000 M	36100 FT
10400 M	**34100 FT**
9800 M	32100 FT
9200 M	**30100 FT**
8400 M	27600 FT
7800 M	**25600 FT**
7200 M	23600 FT
6600 M	**21700 FT**
6000 M	19700 FT
5400 M	**17700 FT**
4800 M	15700 FT
4200 M	**13800 FT**
3600 M	11800 FT
3000 M	**9800 FT**
2400 M	7900 FT
1800 M	**5900 FT**
1200 M	3900 FT

Eastbound (360° ~ 179°)	
13700 M	44900 FT
12500 M	**41100 FT**
11900 M	39100 FT
11300 M	**37100 FT**
10700 M	35100 FT
10100 M	**33100 FT**
9500 M	31100 FT
8900 M	**29100 FT**
8100 M	26600 FT
7500 M	**24600 FT**
6900 M	22600 FT
6300 M	**20700 FT**
5700 M	18700 FT
5100 M	**16700 FT**
4500 M	14800 FT
3900 M	**12800 FT**
3300 M	10800 FT
2700 M	**8900 FT**
2100 M	6900 FT
1500 M	**4900 FT**

■ **ALT / HEIGHT Conversion**

Meter	Feet	Meter	Feet
1000 M	3300 FT	500M	1600FT
900 M	**3000 FT**	**450M**	**1500FT**
800 M	2600 FT	400 M	1300 FT
700 M	**2300 FT**	**350 M**	**1100 FT**
600 M	2000 FT	300 M	1000 FT

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COLD Wx 1/2

OAT (GND) / TAT (TAT) is 10°C (50°F) or below :
• visible moisture (clouds, fog with VIS 1SM (1600 m) or rain, snow, sleet, ice crystals...)
• ice, snow, slush and standing water is present on the ramps, taxiways, or runways.

PREFLIGHT

- PROBE HEAT switches . . . . . ON

ENGINE START

(-35도 TH변경전 2분간 IDLE)
(Min Oil Press 까지 IDLE 유지 (수분간))
(Oil Temp – Nor 후 Oil Press High시 ShutDown)

ENGINE ANTI-ICE

- ENGINE START switches . . . . . .CONT
- ENGINE ANTI-ICE switches . . . . . .ON
(COWL V/V OPEN 지속 Bright시 APU Bleed OFF, ISO V/V AUTO, TH 서서히 Max 30%)

WING ANTI-ICE

- WING ANTI-ICE switch . . . . . .ON
(Type II or IV Deicing안할 거면 사용하라)

AFTER START

- GENERATOR 1 and 2 switches. . . . . ON
(IDG 1분이내 안정, 5분이내 Steady Power)
- FLIGHT controls . . . . . Check
(Deicing 할거면 Deicing 하고 한다.)
- FLAPS . . . . . Check
(Full Travel UP – 40 – UP, **FLAP UP** 고려)

TAXI OUT

(OAT 3도 이하 RUN UP : Behind CLR, 70% 허락하는한, 30초, 30분 간격) -8 : (50%-IDLE, 60분간격)
(Ice Shedding : freezing rain, freezing drizzle, freezing fog or heavy snow – 70%, 1초, 10분간격) -8 : 없음

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COLD Wx 2/2

BEFORE T/O
- FLAPS . . . . SET

TAKEOFF (-8 : Oil Temp 31도 이상)
- THRUST ... (min 70%(50%), 30초(5초))RUNUP
(ENG ANTI-ICE + OAT 3도이하)
NO RUNUP(OAT 3도이상) NG 70%, -8 : 50% 5초

ENGINE ANTI-ICE
- ENGINE START switches . . . . CONT
- ENGINE ANTI-ICE switches . . . . . .ON
(-40도 이하 금지, 강하중 가능)
(COWL V/V OPEN 지속 Bright시 APU Bleed OFF, ISO V/V AUTO, TH 서서히 Max 30%)

FAN ICE REMOVAL
(Moderate Severe 가능하면 회피하라 아니면..)
- ENGINE START switches (both) .. . . . . .FLT
- Autothrottle (if engaged) . . .. . . .Disengage
- THRUST . . . . (min 80%, 1 초) Increase
(15초이내 Vib 4.0이하 안정화 15분 간격 반복)
- Autothrottle (if needed) . . . . . .Engage
(4.0 보다 크면 Engine High Vibration Check List!!!)

WING ANTI-ICE
(Icing 보이면 Deicer로 사용, Anti-icer도 사용가능)
(FL350이상 사용금지 -> Emer Descend)
(Icing 지역 Holding – Flap 사용금지)
- WING ANTI-ICE switch . . . . .ON

APPROACH L/D
(FLAP 15 필수 조건일 경우만 VREF ICE 사용)

AFTER L/D, SHUTDOWN
(TAXI RUNUP, ICE SHEDDING 절차적용)
- FLAPS . . . . . 15 까지만
- ENG ANTI-ICE . . . . .ENG ShutDown전 OFF
- Stabilizer trim . . . . . Set 5 units
- ENGINE . . . . . ShutDown

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ENG ON Deicing in ICN

ICN Deicing "Deicing Required ENG On Deicing"
ICN Apron "Req Pushback Deicing Zone xxx"
Tx 2000 -> Pad Control -> Ice Man

PARKING BRAKE ---------- SET
Report Parking Brake SET - > Ice Man
B737-8 BROADBAND SYS s/w ------- OFF
FLAPS ---------- UP
THRUST LEVERS ----------IDLE
ENGINE BLEED AIR SWITCHES ----- OFF
APU BLEED air switch ---------- OFF

START DE/ANTI-ICING **REQ DCL**
항공기이동 및 Configuration 변경 금지

AFTER DE/ANTI-ICING IS COMPLETED
(TIME CHECK 1분)
용액과 마지막 용액 뿌린 시간 받고 적는다.
Holdover Time 결정!!!

TIME CHECK 1분후
APU BLEED air switch -------- As needed
Engine BLEED air switches ---------- ON
FLAP LEVER ------- Set for takeoff or UP
ice, snow, slush or standing water, 강수 지속시 – FLAP UP고려
Flight controls --------- Check, as needed

TAXI OUT
(OAT 3도 이하 RUN UP : Behind CLR, 70% 허락하는한, 30초, 30분 간격) -8 : (50%-IDLE, 60분간격)

BEFORE TAKEOFF
TAKEOFF SIGNAL -> FLAPS 5
FLAPS ---------- Set(for takeoff)

TAKEOFF (-8 : Oil Temp 31도 이상)
- THRUST ... (min 70%(50%), 30초(5초))RUNUP
(ENG ANTI-ICE + OAT 3도이하)
NO RUNUP(OAT 3도이상) NG 70%, -8 : 50% 5초

DECISION TREE next page
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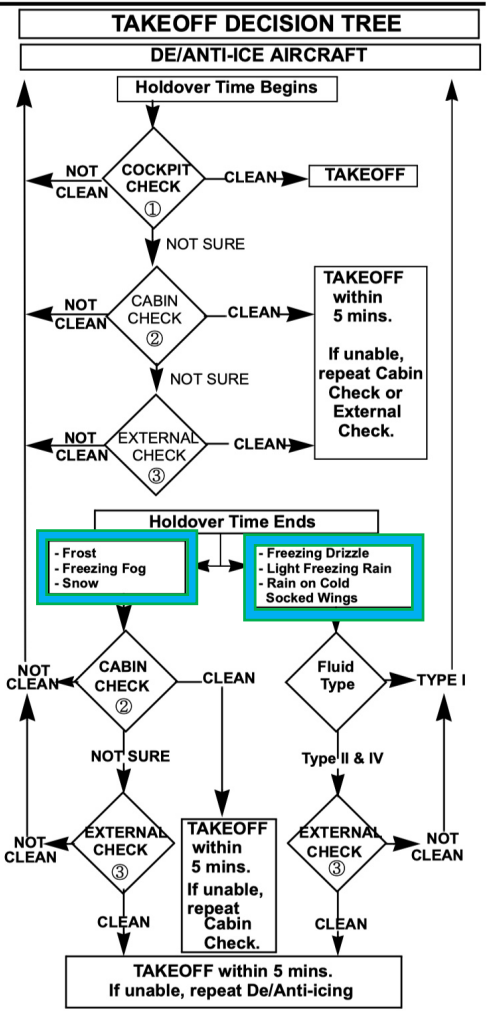
TAKEOFF DECISION TREE
DE/ANTI-ICE AIRCRAFT
Holdover Time Begins
COCKPIT CHECK ①
NOT CLEAN
CLEAN
TAKEOFF
NOT SURE
CABIN CHECK ②
NOT CLEAN
CLEAN
TAKEOFF within 5 mins.
If unable, repeat Cabin Check or External Check.
NOT SURE
EXTERNAL CHECK ③
NOT CLEAN
CLEAN
Holdover Time Ends
- Frost
- Freezing Fog
- Snow
- Freezing Drizzle
- Light Freezing Rain
- Rain on Cold Socked Wings
CABIN CHECK ②
NOT CLEAN
CLEAN
NOT SURE
EXTERNAL CHECK ③
NOT CLEAN
CLEAN
TAKEOFF within 5 mins.
If unable, repeat Cabin Check.
Fluid Type
TYPE I
Type II & IV
EXTERNAL CHECK ③
NOT CLEAN
CLEAN
TAKEOFF within 5 mins.
If unable, repeat De/Anti-icing

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ENG OFF Deicing in GMP...

KE GMP "Deicing Information" **REQ DCL**
Apron "Req Pushback Deicing Required PADxxx"

PARKING BRAKE ---------- SET
Establish communications with ground personnel.
B737-8 BROADBAND SYS s/w ------- OFF
FLAPS ---------- UP
THRUST LEVERS ----------IDLE
ENGINE BLEED AIR SWITCHES ----- OFF
APU BLEED air switch ---------- OFF

APU ---------- START
APU GENERATOR bus switches ------ ON
ENGINE ANTI-ICE switches---------- OFF
Engine Start levers ---------- CUTOFF
SHUTDOWN CHECKLIST

START DE/ANTI-ICING
항공기이동 및 Configuration 변경 금지

AFTER DE/ANTI-ICING IS COMPLETED
(TIME CHECK 1분)
용액과 마지막 용액 뿌린 시간 받고 적는다.
Holdover Time 결정!!!

TIME CHECK 1분후
APU BLEED air switch ---------- ON
PREFLT CHKlist -> Req STARTUP -> CHKlist

AFTER BOTH ENGINES ARE STARTED
ENGINE ANTI-ICE switches----As needed
B737-8 BROADBAND SYS s/w -------- ON
APU---------- As needed

Engine BLEED air switches ---------- ON
FLAP LEVER ------- Set for takeoff or UP
ice, snow, slush or standing water, 강수 지속시 – FLAP UP고려
Flight controls --------- Check, as needed
AFTER START CHKlist (ATC CLR Confirm)

TAXI, BEFORE TAKEOFF TAKEOFF
cold wx 참조!!! DECISION TREE next page

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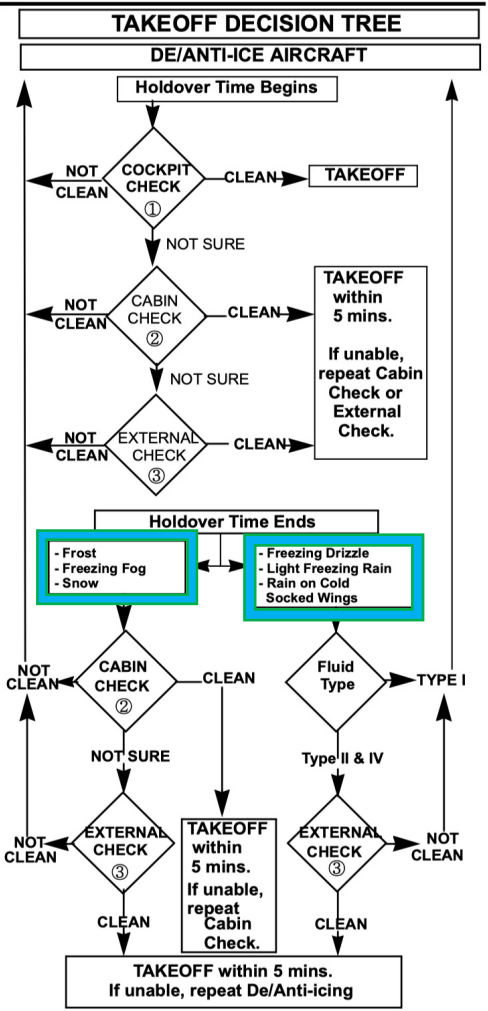
TAKEOFF DECISION TREE
DE/ANTI-ICE AIRCRAFT
Holdover Time Begins
COCKPIT CHECK ①
NOT CLEAN
CLEAN
TAKEOFF
NOT SURE
CABIN CHECK ②
NOT CLEAN
CLEAN
TAKEOFF within 5 mins.
If unable, repeat Cabin Check or External Check.
NOT SURE
EXTERNAL CHECK ③
NOT CLEAN
CLEAN
Holdover Time Ends
- Frost
- Freezing Fog
- Snow
- Freezing Drizzle
- Light Freezing Rain
- Rain on Cold Socked Wings
CABIN CHECK ②
NOT CLEAN
CLEAN
NOT SURE
EXTERNAL CHECK ③
NOT CLEAN
CLEAN
TAKEOFF within 5 mins.
If unable, repeat Cabin Check.
Fluid Type
TYPE I
Type II & IV
EXTERNAL CHECK ③
NOT CLEAN
CLEAN
TAKEOFF within 5 mins.
If unable, repeat De/Anti-icing

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