

KneeBoard

VER. 23.4.12



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by Flyingdeuk

GMP ↔ CJU	GMP ↔ SHA
GMP ↔ PUS	GMP ↔ KIX
CJU ↔ CJU	
CJU ↔ CJJ	
CJU ↔ TAE	
CJU ↔ PUS	
PUS ↔ NRT	
ICN ↔ PUS	
ICN ↔ KIX	
ICN ↔ NRT	
ICN ↔ CTS	
ICN ↔ HND	
ICN ↔ NGO	

Welcome PA

Meter/Feet Conversion

Cold Temp Correction

Cold Wx Operation

ENG ON Deicing

ENG OFF Deicing

RKSS(GMP) 59ft

RKPC(CJU) 119ft

KE GMP 131.15

DCL -15분 가능 TOBT 5분 차이
시 CTC Comm

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 xT	324	324	5000	324
	(BULTI xQ)	324	324	5000	324
14L/R	BULTI xU	144	144	6000	144
	(BULTI xZ)	144	144	6000	144
KIP 113.6	32L 108.3	32R 110.7	14L 109.9	14R 108.7	
32L/R : KIP324/5, R220 YJU R271			14L/R : KIP144/4, R220 P73 /2		

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

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



Home

CJU : STAR

AFT Merge PT(220kts) DCT IAF(210kts), FAF (160kts)

ILS Z 07	DOTOL xP	YUMIN	DOTOL 160
ILS Z 25	DOTOL xT	DUKAL	DOTOL/-10 160
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

DCL -10분

KE GMP 131.15

Rwy 32L **Landing**

(06:00L~0900L / 12:00L~15:00L

/18:00L~21:00L)



CJU : SID (NADP 1)

07	KAMIT xE	066	066	10000	066
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25	KAMIT xW	246	246	10000	246
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YDM 109.0	07 109.9	25 111.3
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07 : NONE

25 : YDM246/3, R290

HUD	07(87')	10433'	25(76')
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07 : Passing G4 CTC TWR

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

**Home**

GMP : STAR

32L/R	OLMEN xT	BUMSI	OLMEN 160
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14L/R	OLMEN xU	DOKDO	OLMEN 160
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HUD

32L(41')	10499'	14R(34')
----------	--------	----------

32R(42')	11811'	14L(38')
----------	--------	----------

FIX

KIP /8(RWY 32), YJU R271, P73 /2

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

14R : C1(6578')

32L/R : 8 KIP L/G, 14R : LOC CAPT L/G

FAF : Final Flap

TWR -> GND -> APRON (All by ATC)

Except RWY14R Landing (Until R)

RKSS(GMP) 59ft

RKPK(PUS) 13ft

KE GMP 131.15

DCL -15분 가능 TOBT 5분 차이
시 CTC Comm

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 xT	324	324	5000	324
	(OSPOT xQ)	324	324	5000	324
14L/R	OSPOT xU	144	144	6000	144
	(OSPOT xZ)	144	144	6000	144
KIP 113.6	32L 108.3	32R 110.7	14L 109.9	14R 108.7	

32L/R : KIP324/5, R220
YJU R271

14L/R : KIP144/4, R220
P73 /2

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

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



Home

PUS : STAR (Tail Wind 36R 136000lbs F40)

36	KEVOX x	MASTA	9DME LG, 8DME FLAP
18	GAYHA x	MASTA	VOR 18R-18R-GAYHA
HUD	36L(13') 10499' 36R(8') 8999'		18R(13') 8530' 18L(13') 8999'
FIX	36 : RW36 /9, /8		18 : KMH R283, R280

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

DCL -5분

KE GMP 131.15

Rwy 32L **Landing**

(06:00L~0900L / 12:00L~15:00L

/18:00L~21:00L)



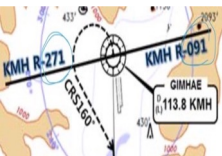
PUS : SID (Mod NADP CLB2 1000, 14000 MAX)

36	SOORO x KALOD tx	305	280	ATC	342
18	GIMHAE x	182	182	5000	182
KMH 113.8		PSN 114.0	36L 108.5	36R 109.5	

36 : KMH R091, R271, R185

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'
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RWY36 400ft Man L/H turn, Max Taxi SPD 20KTS



Home

GMP : STAR

32L/R	GUJKDO xT	BUMSI	GUJKDO 160
14L/R	GUJKDO xU	DOKDO	GUJKDO 160
HUD	32L(41')	10499'	14R(34')
	32R(42')	11811'	14L(38')
FIX	KIP /8(RWY 32), YJU R271, P73 /2		

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

14R : C1(6578')

32L/R : 8 KIP L/G, 14R : LOC CAPT L/G

FAF : Final Flap

TWR -> GND -> APRON (All by ATC)

Except RWY14R Landing (Until R)

RKPC(CJU) 119ft

KE CJU 129.4
DCL -10분

RKJJ(KWJ) 48ft

KE KWJ 129.4

CJU : SID (NADP 1)

07	KAMIT xE	066	066	10000	066
25	KAMIT xW	246	246	10000	246
YDM 109.0		07 109.9		25 111.3	
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					

YONGDAM
D 109.0 YDM
JEJU Korea - Intl
RKPC
CRS-290
D3 YDM

Home

KWJ : NO STAR (TL 140확인!)

ILS 04R	no KOTTY	SAMUL/-15	CI04R
LOC 22L	SAMUL	D058Q	
VOR 22LR	SAMUL	D058Q	(PAR 6NM, 3)
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!!) -> LOC/VOR LNAV Final Establish 이후 강하
TAXI MAX 15 kts (Max 30kts by ATC)

RKJJ(KWJ) 48ft

KE KWJ 129.4

NO DCL

RKPC(CJU) 119ft

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		22L 108.5	
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					

Home

CJU : STAR

AFT Merge PT(220kts) DCT IAF(210kts), FAF (160kts)

07	DOTOL xP	YUMIN	DOTOL 160
25	DOTOL xT	DUKAL	DOTOL/-10 160
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

KE CJU 129.4

DCL -10분


RKTU(CJJ) 192ft

KE CJJ 129.05

NO DCL, ATIS

CJU : SID (NADP 1)

07	KAMIT xE	066	066	10000	066
25	KAMIT xW	246	246	10000	246
YDM 109.0		07 109.9		25 111.3	
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					



CJJ : NO STAR

After OSPOT H/D060 – RDR Vector

Req ILS Z 24R via HYEIN

ILS Z 06L	NO STAR (MATIZ x)	OSPOT (JIKJI tx)	TU761 / BAKJO (STAR 안춤)
ILS Z 24R	NO STAR (MATIZ x)	OSPOT (HYEIN tx)	HYEIN (STAR 안춤)
HUD	06L(166')	9003'	24R(182')
	06R(173')	9003'	24L(191')
FIX			

06L : B3 (6443'), A3 (8786')

24R : C3 (6230'), D3 (8825')

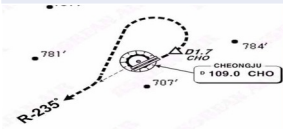
GS fluc' - A/P Dis' – Back to Normal – A/P Reengage

Req full length Landing (Vacate End of RWY)

180 BACK LINE 지나 Taxi Line 있음

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

Home

RKTU(CJJ) 192ft			RKPC(CJU) 119ft		
KE CJJ 129.05 NO DCL, ATIS			KE CJU 129.4		
CJJ : SID (NADP 1)					
06L	CJJ xD	060	060	6000	060
24R	CJJ xD	132	132	6000	132
(06L : BUKIL 1, 2 RNAV)			(24R : OLREG 1, UPTIL 1)		
CHO 109.0		06L 110.3		24R 111.7	
06L/R : CHO /1.7, R235			24L/R : None		
HUD	06L(166')		9003'		24R(182')
	06R(173')		9003'		24L(191')
Upslope from Apron to RWY					
Entering TWY A3, B3, B4, C3, D3 change TWR freq					
			<h1>Home</h1>		
CJU : STAR					
AFT Merge PT(220kts) DCT IAF(210kts), FAF (160kts)					
07	DOTOL xP	YUMIN	DOTOL 160		
25	DOTOL xT	DUKAL	DOTOL/-10 160		
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

KE CJU 129.4

DCL -10분

RKTN(TAE) 120ft

KE TAE 129.2

CJU : SID (NADP 1)

07	AKPON xE	066	066	9000	066
25	AKPON xW	246	246	ATC	246
YDM 109.0		07 109.9		25 111.3	
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					

YONGDAM
D 109.0 YDM
JEJU Korea - Intl
RKPC
CRS-290
D3 YDM

TAE : NO STAR (TL 140 확인)

31	TGU/-10	CF31L222/7	CF31L
13	TGU/-10	YAWAN	
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			

Home

RKTN(TAE) 120ft

RKPC(CJU) 119ft

KE TAE 129.2

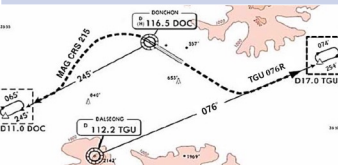
NO DCL

KE CJU 129.4

TAE : SID (NADP 1)

31L/R	DAEGU xD	312	312	8000	192
13L/R	DAEGU xD	132	132	8000	192
DOC 116.5		TGU 112.2	31L 108.7		13R 108.7
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



Home

CJU : STAR

AFT Merge PT(220kts) DCT IAF(210kts), FAF (160kts)

ILS Z 07	UPGOS xP	YUMIN	
ILS Z 25	UPGOS xT	DUKAL	
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

DCL -10분

KE Gimhae 129.2

CJU : SID (NADP 1)

07	AKPON xE	066	066	9000	066
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25	AKPON xW	246	246	ATC	246
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YDM 109.0	07 109.9	25 111.3
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07 : NONE

25 : YDM246/3, R290

HUD	07(87')	10433'	25(76')
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07 : Passing G4 CTC TWR

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



Home

PUS : STAR (Tail Wind 36R 136000lbs F40)

36	KEVOX x	MASTA	9DME LG, 8DME FLAP
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18	GAYHA x	MASTA	VOR 18R-18R-GAYHA
----	---------	-------	-------------------

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'
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FIX	36 : RW36 /9, /8	18 : KMH R283, R280
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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

DCL -5분

KE CJU 129.4

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

36	SOORO x TOPAX tx	305	280	ATC	278
18	BULIM x ENGOT tx	182	182	5000	182
KMH 113.8		PSN 114.0	36L 108.5	36R 109.5	

36 : KMH R091, R271, R185

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'
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RWY36 400ft Man L/H turn, Max Taxi SPD 20KTS



Home

CJU : STAR

AFT Merge PT(220kts) DCT IAF(210kts), FAF (160kts)

ILS Z 07	UPGOS xP	YUMIN	
ILS Z 25	UPGOS xT	DUKAL	
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

RKPK(PUS) 13ft

RJAA(NRT) 135ft

KE Gimhae 129.2

DCL -5분

KE Tokyo 131.7

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

36	SOORO x PSN tx	305	280	ATC	162
18	BULIM x PSN tx	182	182	5000	182
KMH 113.8		PSN 114.0	36L 108.5	36R 109.5	

36 : KMH R091, R271, R185

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'
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RWY 36 400ft Man L/H turn, Max Taxi SPD 20KTS



Home

Dep 125.5 – TGU 125.37

FUK 133.15 – TKO 133.8 – 133.02 – 132.45 – 124.1

TKO 128.2 – TKO APP 124.4

NRT HAKKA 330,YAGAN 240,LIVET 210,SWAMP 150

Prepare Holding or RWY CHG

34L/R	SWAMP E (SWAMP T)	ELGAR (TYLER)	ILS 34L/R(Z)
16L/R	SWAMP G (SWAMP N)	GEMIN (NORMA)	ILS Z 16L/R
HUD	16L(135')	8202'	34R(141')
	16R(130')	13123'	34L(139')
FIX	16L : ITM 4 / 34R : ITJ 14, 4 (DME) 16R : IKF 4 / 34L : IYQ 12, 4 (DME)		

16L : B6(6433'), B7(7017'), 34R : B4(5849'), B2(6778')

16R : A6(6076'), A7(7624'), 34L : A5(6167'), A4(7641')

L/D DOWN before 14/12 DME, L/D FLAP 4 DME

Arrival Taxi RTE in Jeppesen (No Numbering)

RJAA(NRT) 135ft	RKPK(PUS) 13ft
KE Tokyo 131.70 DCL -15분	KE Gimhae 129.2

KIX : SID – ENPAR tx (NADP 1)

16L/R	TETRA x ENPAR tx	157	157	ATC	157
34L/R		337	337	7000/ATC	337
NRE 117.9	16L 110.7	16R 111.5	34L 111.9	34R 110.9	
HUD	16L(135')	8202'	34R(141')		
	16R (130')	13123'	34L (139')		

34R : CLB 220/10000, A4R21/22/23 220KTS 확인
Verity ENPAR tx TETRA 12000A
 APU Start, TAXI RTE 1, 2, 3, 4 RWY 별 DEP RTE

DEP 124.2

TKO 120.5 – 133.45 – 133.02 – 133.8

FUK 133.15

TGU 125.37

APP 125.5

Home

PUS : STAR (Tail Wind 36R 136000lbs F40)

36	PEDLO x	KALEK	9DME LG, 8DME FLAP
18	GAYHA x	PSN	VOR 18R-18R-GAYHA
HUD	36L(13') 10499' 36R(8') 8999'		18R(13') 8530' 18L(13') 8999'
FIX	36 : RW36 /9, /8		18 : KMH R283, R280

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)

RKSI(ICN) 23ft

KE ICN 131.5

DCL -10분 TOBT 5분 차이시

CTC Comm

RKPK(PUS) 13ft

KE Gimhae 129.2

ICN : SID (33/34 NADP 1, 15/16 NADP 2)

33L/R	OSPOT xE/A	333	333	5500/ATC	333
34L/R	OSPOT xY	333	333	ATC	333
15L/R	OSPOT xC	153	153	5000	153
16L/R	OSPOT xH	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)

Home

PUS : STAR (Tail Wind 36R 136000lbs F40)

36	KEVOX x	MASTA	9DME LG, 8DME FLAP
18	GAYHA x	MASTA	VOR 18R-18R-GAYHA
HUD	36L(13') 10499' 36R(8') 8999'		18R(13') 8530' 18L(13') 8999'
FIX	36 : RW36 /9, /8		18 : KMH R283, R280

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 DCL -5분			KE ICN 131.5		
PUS : SID (Mod NADP CLB2 1000, 14000 MAX)					
36	SOORO x KALOD tx	305	280	ATC	342
18	GIMHAE x	182	182	5000	182
KMH 113.8		PSN 114.0	36L 108.5	36R 109.5	
36 : KMH R091, R271, R185					
HUD	36L(13') 10499' 36R(8') 8999'		18R(13') 8530' 18L(13') 8999'		
RWY 36 400ft Man L/H turn, Max Taxi SPD 20KTS					

Home

ICN : STAR			
33/34	GUKDO xE	ENPIL	GUKDO 180
15/16	GUKDO xH	MUNAN	GUKDO 180
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , YJU R271		
33R : C4(7529'), C5(8513'), 33L : B5('), B6(') 15L : C2(7522'), C1(8536'), 15R : B3('), B2(')			
34L : P7(5600'), P8(6578'), 34R : N4(6876'), N5(8507') 16R : P6(5597'), P5(6574'), 16L : N3(7043'), N2(8444')			
8NM 180kts, 5NM 160kts, Parr TAXI 10kts이상, HIRO			

RKSI(ICN) 23ft			RJBB(KIX) 17ft		
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm			KE KIX 130.95		
ICN : SID (33/34 NADP 1, 15/16 NADP 2)					
33L/R	EGOBA xE/A	333	333	5500/ATC	333
34L/R	EGOBA xY	333	333	ATC	333
15L/R	EGOBA xC	153	153	5000	153
16L/R	EGOBA xH	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)					
DEP 125.15 – TGU 134.17 – TKO 133.8					
KIX RDR 120.85				Home	
KIX APP 120.25					
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')					
RWY06 : After 2500ft L/G DN, After 1500ft L/D FLAP TAXI RTE 1, 2					

RJBB(KIX) 17ft			RKSI(ICN) 23ft			
KE KIX 130.95 DCL -15분			KE ICN 131.5			
KIX : SID – SOUJA tx (NADP 1)						
06L/R	HELEN x - SOUJA tx		058	058	ATC (9000)	058
24L/R			238	238	ATC (9000)	238
KIE 111.6		06L 108.7	06R 108.1	24L 110.7	24R 108.5	
HUD	06L(15')		13123'		24R(23')	
	06R (5')		13123'		24L (12')	
APU Start, TAXI RTE 1, 2						

[DEP 119.2](#)

[TKO 132.7 – 133.8](#)

[TGU 120.57](#)

[APP 119.75](#)

Home

ICN : STAR			
33/34	GUKDO xE	ENPIL	GUKDO 180
15/16	GUKDO xH	MUNAN	GUKDO 180
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , YJU R271		

33R : C4(7529'), C5(8513'), 33L : B5('), B6(')

15L : C2(7522'), C1(8536'), 15R : B3('), B2(')

34L : P7(5600'), P8(6578'), 34R : N4(6876'), N5(8507')

16R : P6(5597'), P5(6574'), 16L : N3(7043'), N2(8444')

8NM 180kts, 5NM 160kts, Parr TAXI 10kts이상, HIRO

RKSI(ICN) 23ft			RJAA(NRT) 135ft		
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm			KE Tokyo 131.70		
ICN : SID (33/34 NADP 1, 15/16 NADP 2)					
33L/R	EGOBA xE/A	333	333	5500/ ATC	333
34L/R	EGOBA xY	333	333	ATC	333
15L/R	EGOBA xC	153	153	5000	153
16L/R	EGOBA xH	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)					
DEP 125.15 – TGU 134.17 – TKO 133.8 – 133.02 TKO 132.45 –124.1– 128.2 – TKO APP 124.4					
Home					
NRT HAKKA 330,YAGAN 240,LIVET 210,SWAMP 150					
34L/R	SWAMP E (SWAMP T)	ELGAR (TYLER)		ILS 34L/R(Z)	
16L/R	SWAMP G (SWAMP N)	GEMIN (NORMA)		ILS Z 16L/R	
HUD	16L(135')		8202'	34R(141')	
	16R(130')		13123'	34L(139')	
FIX	16L : ITM 4 / 34R : ITJ 14, 4 (DME) 16R : IKF 4 / 34L : IYQ 12, 4 (DME)				
16L : B6(6433'), B7(7017'), 34R : B4(5849'), B2(6778') 16R : A6(6076'), A7(7624'), 34L : A5(6167'), A4(7641')					
L/D DOWN before 14/12 DME, L/D FLAP 4 DME Arrival Taxi RTE in Jeppesen (No Numbering)					

RJAA(NRT) 135ft	RKSI(ICN) 23ft
KE Tokyo 131.70 DCL -15분	KE ICN 131.5

KIX : SID – ENPAR tx (NADP 1)

16L/R	TETRA x ENPAR tx	157	157	ATC	157
34L/R		337	337	7000/ATC	337
NRE 117.9	16L 110.7	16R 111.5	34L 111.9	34R 110.9	
HUD	16L(135')	8202'	34R(141')		
	16R (130')	13123'	34L (139')		

34R : CLB 220/10000, A4R21/22/23 220KTS 확인
 Verity ENPAR tx TETRA 12000A
 APU Start, TAXI RTE 1, 2, 3, 4 RWY 별 DEP RTE

DEP 124.2

TKO 120.5 – 133.45 – 133.02 – 133.8

TGU 120.57

APP 119.75

Home

ICN : STAR

33/34	GUKDO xE	ENPIL	GUKDO 180
15/16	GUKDO xH	MUNAN	GUKDO 180
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , YJU R271		

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

34L : P7(5600'), P8(6578'), 34R : N4(6876'), N5(8507')
 16R : P6(5597'), P5(6574'), 16L : N3(7043'), N2(8444')

8NM 180kts, 5NM 160kts, Parr TAXI 10kts이상, **HIRO**

RKSI(ICN) 23ft			RJCC(CTS) 70ft		
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm			Chitose Oper 132.05		
ICN : SID (33/34 NADP 1, 15/16 NADP 2)					
33L/R	EGOBA xE/A	333	333	5500/ ATC	333
34L/R	EGOBA xY	333	333	ATC	333
15L/R	EGOBA xC	153	153	5000	153
16L/R	EGOBA xH	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)					
DEP 125.15 – TGU 134.17 – TKO 133.8 – 133.45 – 132.3					
SPR 133.3 –119.3					
CTS APP 120.1					
Home					
CTS : STAR (19R for CAT III)					
01R	YOTEI SOUTH (YUKII WEST)	YOTEI not YOSEI		ILS Y/Z 01R	
19L	NAVER(170) YUNEY SOUTH (KAORY A)	KAORY YUNEY (KAORY)		ILS Z 19L	
HUD	01R(57') 01L(62')		9843'	19L(77') 19R(82')	
01R : B4(5278'), B3(7047'), 19L : B8(5177'), B9(7119') 01L : A5(5538'), A4(6961'), 19R : A7(5390'), A8(6873')					
Do not Cross 01L/19R After L/D (No TWY) TAXI to Gate Via D(J) or G					

RJCC(CTS) 70ft	RKSI(ICN) 23ft
Chitose Oper 132.05 NO DCL -5분	KE ICN 131.5

CTS : SID (NADP 1)

ALL	DALBI x SUVIT x SOSHU x	002	002	ATC	002
		182	182	ATC	182
CHE 116.9	01R 110.75	19L 109.35	01L 110.9	19R 111.5	
HUD	01R(57') 01L(62')	9843'	19L(77') 19R(82')		

APU, Deicing at the Gate
R/H turn DCT to HWE -> Confirm R/H Turn ND

[DEP 124.7](#)

[SPR 119.3 – TKO 132.3 – 132.45 – 133.8](#)

[TGU 120.57](#)

[APP 119.75](#)

Home

ICN : STAR

33/34	GUKDO xE	ENPIL	GUKDO 180
15/16	GUKDO xH	MUNAN	GUKDO 180
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , YJU R271		

33R : C4(7529'), C5(8513'), 33L : B5('), B6(')
15L : C2(7522'), C1(8536'), 15R : B3('), B2(')
34L : P7(5600'), P8(6578'), 34R : N4(6876'), N5(8507')
16R : P6(5597'), P5(6574'), 16L : N3(7043'), N2(8444')

8NM 180kts, 5NM 160kts, Parr TAXI 10kts이상, HIRO

RKSI(ICN) 23ft			RJTT(HND) 21ft		
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm			Delta Oper 132.075		
ICN : SID (33/34 NADP 1, 15/16 NADP 2)					
33L/R	EGOBA xE/A	333	333	5500/ATC	333
34L/R	EGOBA xY	333	333	ATC	333
15L/R	EGOBA xC	153	153	5000	153
16L/R	EGOBA xH	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)					
DEP 125.15 – TGU 134.17 – TKO 133.8 – 133.55 – 123.9					
TKO 133.35					
TKO APP 119.1 – 119.65					
Home					
HND : SPENS 220 (Primary STAR, APP)					
34L	OSHIMA xK	KAIHO	ILS X		
22	OSHIMA xB	BACON	LDA W(RNVW 22)		
16R	OSHIMA R	NATTY	RNP (R16RT)		
23	-	DANON	LDA W(RNVW 23)		
HUD	34L(18') 9843'			16R(77') 8268'	
	34R(21') 9843'			16L(19') 9744'	
	22(35') 8202'			23(55') 8202'	
34L : L12(6515'), L13(7165'), 22 : B4(6207'), B3(6830')					
16R : L5(5147'), L3(6361'), 23 : D5(5072'), D3(6391')					
180kts, 160kts limit APP Chart, GND Freq 차트 있음					

RJTT(HND) 21ft

RKSI(ICN) 23ft

Delta Oper 132.075

DCL -15분

KE ICN 131.5

HND : SID – NADP 1

ALL	BEKLA x OPPAR x		RWY H/D	RWY CRS	ATC	RWY H/D
HME	34L	16R	34R	16L	22	23
112.2	111.7	111.55	108.9	111.95	108.1	110.5

HUD	34L(18') 9843'			16R(77') 8268'		
	34R(21') 9843'			16L(19') 9744'		
	22(35') 8202'			23(55') 8202'		

34L : HME 351/1.1, R095, 34R : HME R080, R095, 22 :
HME /2.2 R185

34R BEKLA : KAIJI 230kts, TORAM Flap5 SPD

16L : BEKLA : PLUTO 230kts

[DEP 120.8](#)[TKO 120.5 – 132.45 – 133.02 – 133.8](#)[TGU 120.57](#)[APP 119.75](#)**Home**

ICN : STAR

33/34	GUKDO xE	ENPIL	GUKDO 180
15/16	GUKDO xH	MUNAN	GUKDO 180
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , YJU R271		

33R : C4(7529'), C5(8513'), 33L : B5('), B6(')

15L : C2(7522'), C1(8536'), 15R : B3('), B2(')

34L : P7(5600'), P8(6578'), 34R : N4(6876'), N5(8507')

16R : P6(5597'), P5(6574'), 16L : N3(7043'), N2(8444')

8NM 180kts, 5NM 160kts, Parr TAXI 10kts이상, **HIRO**

RKSI(ICN) 23ft	RJGG(NGO) 12ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	SWISSPORT OPERATION 132.05

ICN : SID (33/34 NADP 1, 15/16 NADP 2)

33L/R	EGOBA xE/A	333	333	5500/ ATC	333
34L/R	EGOBA xY	333	333	ATC	333
15L/R	EGOBA xC	153	153	5000	153
16L/R	EGOBA xH	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)

[DEP 125.15](#)
[TGU 134.17 – TKO 133.8 – 133.02](#)
[센트레아 APP – 121.05](#)

Home

NGO : STAR (SAMON 290, MARIA 130)

36	CHESS(CARDS) SOUTH	PROBE	ILS Z 36
18	CHESS(CARDS) NORTH	QUEST	ILS Z 18
HUD	36(15')	11483'	18(15')

36 : A6(5213'), A7(6525'), A8(7837')
 18 : A5(5393'), A4(6528'), A3(7841')

RWY36 : After 1500ft L/D FLAP
 RWY 18 : After 3000ft L/G DN & L/D FLAP
 Caution Stop line, Yellow Ramp line, VDGS!!!

RJGG(NGO) 12ft			RKSI(ICN) 23ft		
SWISSPORT OPERATION 132.05 DCL -15분			KE ICN 131.5		
NGO : SID – TANGO tx (NADP 1)					
36	OUMI x - TANGO tx	356	356	ATC (7000)	356
18		176	176	ATC (7000)	176
CBE 117.8		36 109.7		18 111.9	
HUD	36(15')	11483'		18(15')	
APU Start 30min, Prepare Intersection T/O					

[DEP 120.0](#)

[TKO 133.55 – 133.8 – TGU 120.52](#)

[APP – 119.75](#)

Home

ICN : STAR			
33/34	GUKDO xE	ENPIL	GUKDO 180
15/16	GUKDO xH	MUNAN	GUKDO 180
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , YJU R271		
33R : C4(7529'), C5(8513'), 33L : B5('), B6(')			
15L : C2(7522'), C1(8536'), 15R : B3('), B2(')			
34L : P7(5600'), P8(6578'), 34R : N4(6876'), N5(8507')			
16R : P6(5597'), P5(6574'), 16L : N3(7043'), N2(8444')			
8NM 180kts, 5NM 160kts, Parr TAXI 10kts이상, HIRO			

RKSS(GMP) 59ft

ZSSS(SHA) 10ft

KE GMP 131.15

DCL -15분 가능 TOBT 5분 차이
시 CTC Comm

China Eastern 131.5

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

GMP : SID (NADP 1)

32L/R	BULTI xT	324	324	5000	324
	(BULTI xQ)	324	324	5000	324
14L/R	BULTI xU	144	144	6000	144
	(BULTI xZ)	144	144	6000	144
KIP 113.6	32L 108.3	32R 110.7	14L 109.9	14R 108.7	

32L/R : KIP324/5, R220
YJU R27114L/R : KIP144/4, R220
P73 /2

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

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

[CJU 124.52](#)[SHA 120.95](#)[SHA APP - 125.625 - 125.4 - 126.65](#)**Home**

SHA : STAR

SPD Rest From IAF(210kts), 180kts, 160kts

ILS Z 18L	PUD 61A	SS204	above 2960ft PUD QRH Below 2960ft SHA QRH
ILS Z 36R	PUD 71A	SS405	
HUD	18L(6')	10499'	36R(9')

18L: A3(6555'), A4(7578') 36R: A2(5738'), A1(7089')

Traffic PTN West of RWY, Landing East RWY Normally
Des 550m (1800ft)

L08, L09 not available B737

Shall CTC Apron Before Entering


ZSSS(SHA) 10ft

RKSS(GMP) 59ft

China Eastern 131.5
DCL -20분, READ BACK!

KE GMP 131.15

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



SHA : SID (NADP 1)
N DEP Freq : 126.65 South DEP : 121.10 (without ATC)

18R	LAMEN 61D	183	183	3000 (900m)	183
36L	LAMEN 73D	003	003	3000 (900m)	003
	LAMEN 71D	003	003	3000 or 4900	003
SHA 117.2		18L 111.3		36R 110.3	
HUD	18R (9')		10827'		36L (76')

RWY 36L LAMEN 71D : L/H Turn Below 200m(660ft) in DCL
DEP 121.1
SHA APP 125.4 – 125.625 – SHA 120.95
ICN 125.725 – 124.52
APP – 119.75

Home

GMP : STAR

32L/R	OLMEN xT	BUMSI	OLMEN 160
14L/R	OLMEN xU	DOKDO	OLMEN 160
HUD	32L(41')	10499'	14R(34')
	32R(42')	11811'	14L(38')
FIX	KIP /8(RWY 32), YJU R271, P73 /2		

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

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

RKSS(GMP) 59ft

RJBB(KIX) 17ft

KE GMP 131.15

DCL -15분 가능 TOBT 5분 차이
시 CTC Comm

KE KIX 130.95

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

GMP : SID (NADP 1)

32L/R	BULTI xT	324	324	5000	324
	(BULTI xQ)	324	324	5000	324
14L/R	BULTI xU	144	144	6000	144
	(BULTI xZ)	144	144	6000	144
KIP 113.6	32L 108.3	32R 110.7	14L 109.9	14R 108.7	

32L/R : KIP324/5, R220
YJU R27114L/R : KIP144/4, R220
P73 /2

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

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

DEP 125.15 – TGU 134.17 – TKO 133.8KIX RDR 120.85KIX APP 120.25**Home**

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')

RWY06 : After 2500ft L/G DN, After 1500ft L/D FLAP
TAXI RTE 1, 2


RJBB(KIX) 17ft

KE KIX 130.95
DCL -15분

RKSS(GMP) 59ft

KE GMP 131.15

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



KIX : SID – SOUJA tx (NADP 1)

06L/R	HELEN x - SOUJA tx	058	058	ATC (9000)	058
24L/R		238	238	ATC (9000)	238
KIE 111.6	06L 108.7	06R 108.1	24L 110.7	24R 108.5	
HUD	06L(15')	13123'	24R(23')		
	06R (5')	13123'	24L (12')		

APU Start, TAXI RTE 1, 2

[DEP 119.2](#)
[TKO 132.7 – 133.8](#)
[IGU 120.57](#)
[APP 119.75](#)

Home

GMP : STAR

32L/R	OLMEN xT	BUMSI	OLMEN 160
14L/R	OLMEN xU	DOKDO	OLMEN 160
HUD	32L(41')	10499'	14R(34')
	32R(42')	11811'	14L(38')
FIX	KIP /8(RWY 32), YJU R271, P73 /2		

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

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

WELCOME 방송

손님 여러분, 안녕하십니까?

저는 기장 _____입니다.

저희 대한항공을 이용해 주셔서 대단히
감사합니다.

여러분을 목적지 _____(국제)공항까지
안전하게 모시기 위해 최선을 다하겠습니다.

감사합니다.

Good morning (afternoon /evening),
ladies and gentlemen.

This is captain last name speaking.

Welcome aboard Korean Air. This flight is
bound for _____(international) airport.

Please enjoy the flight. Thank you.

RKSS	서울/김포국제	RJBB	오사카/간사이
RKSI	서울/인천국제	RJTT	도쿄/하네다
RKPC	제주국제	RJAA	도쿄/나리타
RKPK	부산/김해국제	RJCC	삿포로/신(뉴) 치토세
RKTU	청주국제	RJGG	나고야/주부(센트레아)
RKJJ	광주	ZSSS	상하이/홍차오
RKTN	대구국제		

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

550M

1800ft

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

Home

COLD TEMP CORRECTION 1/2

Min 은 반드시 수정 (중간 고도 CORRECTION은 PIC 결정)
Missed App 고도는 ATC 협조 필요

GMP 32L (261') / 32R (262') / 14R (254')

32L/R	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	

COLD TEMP CORRECTION 2/2							
ICN ALL RWY (243')							
33/34	7000	6000	5000	3600	2600	1600	
0	7400	6340	5290	3810	2760	1700	
-5	7520	6460	5390	3880	2810	1730	
-10	7680	6580	5490	3950	2860	1760	
15/16	3000	2600	1600		4000		3000
0	3170	2760	1700		4230		3170
-5	3230	2810	1730		4310		3230
-10	3290	2860	1760		4390		3290
KWJ 04R(266'),04L(610') / 22L(610')							
04L/R	4000	3000	2000				7000
0	4230	3170	2120	Home			7500
-5	4310	3230	2160				7590
-10	4390	3290	2200				7680
22L	5000	4100	3500	2900	2200		4000
0	4230	3170	2120	3070	2340		4230
-5	4310	3230	2160	3130	2430		4310
-10	4390	3290	2200	3190	2420		4390
PUS 36L(233'),36R(228') / 18L/R (see below)							
36L/R	6000	5000	3300	2100		6000	
0	6340	5290	3490	2210		6340	
-5	6460	5390	3560	2250		6460	
-10	6580	5490	3620	2290		6580	
18L/R	6000	5000	4000	2600	1700		6000
0	6340	5290	4230	2760	1800		6340
-5	6460	5390	4310	2810	1830		6460
-10	6580	5490	4390	2860	1870		6580

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 switchesCONT

- ENGINE ANTI-ICE switchesON

(COWL V/V OPEN 지속 Bright시 APU Bleed OFF,
ISO V/V AUTO, TH 서서히 Max 30%)

WING ANTI-ICE

- WING ANTI-ICE switchON

(Type II or IV Deicing안할 거면 사용하라)

AFTER START

- GENERATOR 1 and 2 switches. ON

(IDG 1분 이내 안정, 5분 이내 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% 허락
하는한, 30초, 30분 간격) -8 : (50%-IDLE, 60분간
격)

(Ice Shedding : freezing rain, freezing
drizzle, freezing fog or heavy snow – 70%, 1초,
10분간격) -8 : 없음

BEFORE T/O Takeoff Signal - FLAPS 5
- 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

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

After Start Checklist

TAXI OUT

(OAT 3도 이하 RUN UP : Behind CLR, 70% 허락
하는한, 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

Home

TAKEOFF DECISION TREE

DE/ANTI-ICE AIRCRAFT

Holdover Time Begins

NOT
CLEAN

COCKPIT
CHECK
①

CLEAN

TAKEOFF

NOT SURE

NOT
CLEAN

CABIN
CHECK
②

CLEAN

TAKEOFF
within
5 mins.

If unable,
repeat Cabin
Check or
External
Check.

NOT SURE

NOT
CLEAN

EXTERNAL
CHECK
③

CLEAN

Holdover Time Ends

- Frost
- Freezing Fog
- Snow

- Freezing Drizzle
- Light Freezing Rain
- Rain on Cold
Socked Wings

NOT
CLEAN

CABIN
CHECK
②

CLEAN

NOT SURE

NOT
CLEAN

EXTERNAL
CHECK
③

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

Home

ENG OFF Deicing in GMP...

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

PARKING BRAKE ----- SET

Establish communications with GND 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

Home

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**

TAKEOFF DECISION TREE

DE/ANTI-ICE AIRCRAFT

Holdover Time Begins

NOT
CLEAN

COCKPIT
CHECK
①

CLEAN

TAKEOFF

NOT SURE

NOT
CLEAN

CABIN
CHECK
②

CLEAN

TAKEOFF
within
5 mins.

If unable,
repeat Cabin
Check or
External
Check.

NOT SURE

NOT
CLEAN

EXTERNAL
CHECK
③

CLEAN

Holdover Time Ends

- Frost
- Freezing Fog
- Snow

- Freezing Drizzle
- Light Freezing Rain
- Rain on Cold
Socked Wings

NOT
CLEAN

CABIN
CHECK
②

CLEAN

NOT SURE

NOT
CLEAN

EXTERNAL
CHECK
③

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