

# KneeBoard

VER. 23.2.24

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
ICN - NRT	NRT - ICN
ICN - CTS	CTS - ICN
ICN - HND	HND - ICN

## Welcome PA

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

DCL -15분 가능 TOBT 5분  
차이시 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 108.3 241	32R 110.7 242	14L 109.9 238	14R 108.7 234	
32L/R : KIP324/5, R220 YJU R271		14L/R : KIP144/4, R220 P73 /2			
HUD	32L(41')	10499'	14R(34')		
	32R(42')	11811'	14L(38')		

APRON(130.875) -&gt; GND(121.9) -&gt; TWR (All by ATC)



Back

## CJU : STAR

ILS Z 07	DOTOL xP	YUMIN	DOTOL 160	
ILS Z 25	DOTOL xT	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

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

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 xT	BUMSI	OLMEN 160
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14L/R	OLMEN xU	DOKDO	OLMEN 160
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KIP	32L	32R	14L	14R
113.6	108.3	110.7	109.9	108.7

HUD

32L(41')

10499'

14R(34')

32R(42')

11811'

14L(38')

FIX

KIP /8(32L/R), YJU R271, P73 /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 -&gt; GND -&gt; APRON (All by ATC)

Except RWY14R Landing (Until R)

<b>RKPC(CJU) 119ft</b>	<b>RKJJ(KWJ) 48ft</b>
KE CJU 129.4 DCL -10분	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		07 109.9 287		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

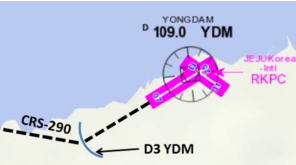
### KWJ : NO STAR (TL 140확인!)

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)



RKPC(CJU) 119ft			RKTU(CJJ) 192ft		
KE CJU 129.4 DCL -10분			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		07 109.9 287		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 x)	OSPOT (JIKJI tx)	TU761 / BAKJO (STAR 안춤)		
ILS Z 24R	NO STAR (MATIZ x)	OSPOT (HYEIN tx)	HYEIN (STAR 안춤)		
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)

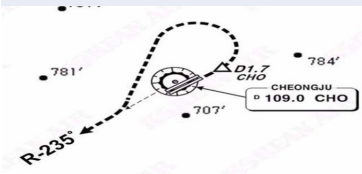
06L	CJJ xD	060	060	6000	060
24R	CJJ xD	132	132	6000	132
(06L : BUKIL 1, 2 RNAV)			(24R : OLREG 1, UPTIL 1)		

CHO 109.0	06L 110.3 367	24R 111.7 387
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06L/R : CHO /1.7, R235	24L/R : None
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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 xP	YUMIN	DOTOL /160
ILS Z 25	DOTOL xT	DUKAL	DOTOL-10 160

YDM 109.0	07 109.9	25 111.3
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HUD	07(87')	10433'	25(76')
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**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

DCL -15분 가능 TOBT 5분  
차이시 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 108.3 241	32R 110.7 242	14L 109.9 238	14R 108.7 234
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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) -&gt; GND(121.9) -&gt; TWR (All by ATC)



Back

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

36	KEVOX x	MASTA	9DME LG, 8DME FLAP
18	GAYHA x	MASTA	Fix : KMH R283, R280
KMH 113.8	PSN 114.0	36L 108.5	36R 109.5
HUD	36L(13') 10499'	18R(13') 8530'	
	36R(8') 8999'	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 108.5 213	36R 109.5 208		

36 : KMH R091, R271, R185

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'
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Max Taxi SPD 20KTS



Back

GMP : STAR

32L/R	GUKDO xT		BUMSI	GUKDO 160	
14L/R	GUKDO xU		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, P73 /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 -&gt; GND -&gt; APRON (All by ATC)

Except RWY14R Landing (Until R)

RKPC(CJU) 119ft

RKTN(TAE) 120ft

KE CJU 129.4

DCL -10분

KE TAE 129.2

## CJU : SID (NADP 1)

07	MAKET xE	066	066	9000	066
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25	MAKET xW	246	246	ATC	246
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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
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13	TGU/-10	YAWAN	
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DOC 116.5	TGU 112.2	31L 108.7	13R 108.7
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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

NO DCL

KE CJU 129.4

## TAE : SID (NADP 1)

31L/R	DAEGU xD	312	312	8000	192
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13L/R	DAEGU xD	132	132	8000	192
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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'

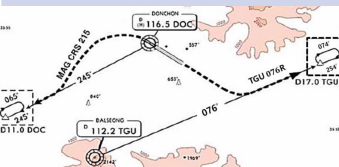
13R(112') 3.3

31R(120')

8999'

13L(112')

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



Back

## CJU : STAR

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

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  
28725 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 (Tail Wind 36R 136000lbs F40)

36	KEVOX x	ANROD	9DME LG, 8DME FLAP
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18	GAYHA x	ANROD	Fix : KMH R283, R280
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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'

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

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  
TOPAX tx

182

182

5000

182

KMH 113.8

PSN 114.0

36L 108.5  
21336R 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 xP

YUMIN

ILS Z 25

UPGOS xT

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

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)

Back

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

36	KEVOX x	MASTA	9DME LG, 8DME FLAP	
18	GAYHA x	MASTA	Fix : KMH R283, R280	
KMH 113.8		PSN 114.0	36L 108.5	36R 109.5
HUD	36L(13') 10499'			18R(13') 8530'
	36R(8') 8999'			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  
21336R 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

ICN : STAR

33/34

GUKDO xE

ENPIL

GUKDO 180

15/16

GUKDO xH

MUNAN

GUKDO 180

NCN  
113.833L  
109.333R  
108.915L  
111.915R  
109.1WNG  
112.934L  
109.9534R  
108.116L  
110.3516R  
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 : P7(5600'), P8(6578'), 34R : N4(6876'), N5(8507')

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

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

RKSI(ICN) 23ft

KE ICN 131.5

DCL -10분 TOBT 5분 차이시  
CTC Comm

RJBB(KIX) 17ft

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)

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')

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					
Back					
ICN : STAR					
33/34	GUKDO xE		ENPIL	GUKDO 180	
15/16	GUKDO xH		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 : P7(5600'), P8(6578'), 34R : N4(6876'), N5(8507') 16R : P6(5597'), P5(6574'), 16L : N3(7043'), N2(8444')					
8NM 180kts, 6NM 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)					
Back					
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					

<b>RJAA(NRT) 135ft</b>	<b>RKSI(ICN) 23ft</b>
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

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**ICN : STAR**

33/34	GUKDO xE	ENPIL	GUKDO 180
15/16	GUKDO xH	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 : P7(5600'), P8(6578'), 34R : N4(6876'), N5(8507')  
 16R : P6(5597'), P5(6574'), 16L : N3(7043'), N2(8444')

8NM 180kts, 6NM 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)					

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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

Back

### ICN : STAR

33/34	GUKDO xE	ENPIL	GUKDO 180
15/16	GUKDO xH	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'
	34R(23')		13123'
FIX	RWY /8, /6 , 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, 6NM 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)					
Back					
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



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ICN : STAR

33/34	GUKDO xE	ENPIL	GUKDO 180
15/16	GUKDO xH	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 : P7(5600'), P8(6578'), 34R : N4(6876'), N5(8507')

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

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

# WELCOME 방송 WELCOME ANNOUNCEMENT

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		
RKJJ	광주		
RKTN	대구국제		

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## 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				7500
-5	4310	3230	2160	Back			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

## Meter/Feet Conversion Table

☐ China, Mongolia & North Korea

### ■ FL Conversion

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

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

### ■ ALT / HEIGHT Conversion

Meter	Feet	Meter	Feet
1000 M	3300 FT	500M	1600FT
<b>900 M</b>	<b>3000 FT</b>	<b>450M</b>	<b>1500FT</b>
800 M	2600 FT	400 M	1300 FT
<b>700 M</b>	<b>2300 FT</b>	<b>350 M</b>	<b>1100 FT</b>
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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## 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%  
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

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

NOT  
CLEAN

EXTERNAL  
CHECK  
③

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)**

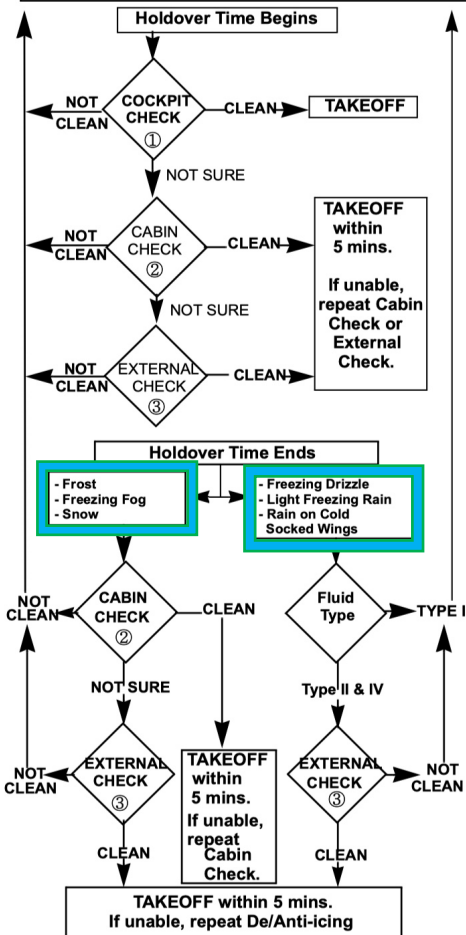
**TAXI, BEFORE TAKEOFF, TAKEOFF**  
cold wx 참조!!! **DECISION TREE next page**

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# TAKEOFF DECISION TREE

## DE/ANTI-ICE AIRCRAFT



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