KneeBoard

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VER. 24.8.7
by Flyingdeuk

Domestic

Japan

China

S.E Asia(GUM)

Supplement

FUEL Consumption

NO Engine Bleed

GND Air / Cross Bleed

Cold Temp Correction

Cold Wx Operation

ENG ON Deicing	ENG OFF Deicing

Domestic	
GMP	CJU
GMP	PUS
CJU	KWJ
CJU	CJJ
CJU	TAE
CJU	PUS
ICN	PUS
ICN	TAE

Welcome PA

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Home

WELCOME PA

손님 여러분, 안녕하십니까?
저는 여러분을 모시고 가는 기장 ___입니다.
저희 대한항공을 이용해 주셔서 대단히 고맙습니다.
___(국제)공항까지 비행시간은 ___시간 ___분
으로 예상됩니다.
비행 중에는 항공기가 갑자기 흔들릴 수도 있으니,
자리에 앉아 계실 때에는 항상 좌석벨트를
매주시기 바랍니다.
저는 여러분을 안전하게 모시기 위해 최선을
다하겠습니다. 고맙습니다.

Good morning (afternoon /evening), ladies and gentlemen.
This is captain last name speaking.
Welcome aboard Korean Air.
This flight is bound for ___(international) airport and our flight time is ___ hours(s) and minutes.
For your safety, keep your seatbelts fastened while you are seated.
Thank you for choosing Koreanair.
Please enjoy your flight.

Domestic	
GMP	서울/김포국제
ICN	서울/인천국제
CJU	제주국제
PUS	부산/김해국제
CJJ	청주국제
KWJ	광주
TAE	대구국제

도착 방송 (5시간이상, 40분전)
출발지 기준 2200-0800 Quiet Hour

손님 여러분, 저는 기장입니다.
우리 비행기는 앞으로 약 (40)분 후에
__국제공항에 착륙 예정입니다.
현재 공항의 날씨는 ◐___, 기온은 섭씨 __도 입니다.

◐ 맑으며	◐ 눈이 오고 있으며
◐ (다소)흐리며	◐ 안개가 끼어 있으며
◐ (이슬)비가 내리며/소나기가 내리며	◐ 황사가 있으며
◐ 바람이 불고 있으며	

지금 이곳의 시각은 __월 __일 __요일, 오전(오후)
__시 __분 입니다.
고맙습니다.

Ladies and gentlemen, this is the captain speaking.
We expect to land at __ international airport in about (40) minutes.
The current temperature at ___ is __ degrees Celsius, or __ degrees Fahrenheit (OPT 참고)
and it is ◐___.

◐ (mostly) clear	◐ snowing
◐ (partly) cloudy	◐ foggy
◐ drizzling / raining	◐ hazy or smoggy
◐ windy	

The current time is __ : __ a.m(p.m), on (day-of-the-week), (month)(date).
Thank you for flying with us today.

Domestic

Japan	
GMP	KIX
PUS	NRT
PUS	NGO
PUS	FUK
ICN	KIX
ICN	NRT
ICN	CTS
ICN	HND
ICN	NGO
ICN	FUK
ICN	AOJ
ICN	KIJ
CJU	NRT

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Japan	
KIX	오사카/간사이
HND	도쿄/하네다
NRT	도쿄/나리타
CTS	삿포로/신(NEW) 치토세
NGO	나고야/주부(Centera)
FUK	후쿠오카
AOJ	아오모리

Japan

China	
GMP	SHA
GMP	PEK
CJU	PEK
PUS	PVG
ICN	NKG
ICN	TAO
ICN	PEK
ICN	SHE
ICN	PVG
ICN	YNJ
ICN	HGH
ICN	WHE
ICN	XIY
ICN	CSX
ICN	HKG
ICN	TSN
ICN	CGO
ICN	DYG

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China	
SHA	상하이/홍차오
NKG	난징/루커우
TAO	칭다오/자오동
PEK	베이징/소우뚜(캐피털)
SHE	선양/타오쎈
PVG	상하이/푸동
YNJ	옌지/차오양촨
HGH	황저우/샤오산
WHE	웨이하이/따쉐이푸오
XIY	시안/시엔양
CSX	창사/후앙후아
HKG	홍콩
TSN	톈진/빈하이
CGO	정저우/신정
DYG	장자제/허화

China

S.E Asia	
ICN	CXR
ICN	SGN
ICN	PNH
ICN	MNL
ICN	RMQ
ICN	TPE
PUS	TPE
ICN	GUM
PUS	BKK

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S.E Asia	
CXR	베트남 나짱/깜라인
SGN	베트남 호찌민/탄소넛
PNH	캄보디아 프놈펜
MNL	필리핀 마닐라/니노이 아키노
TPE	타이완/타이페이 타오유엔
RMQ	타이완/타이중 칭찬강
PGUM	괌
BKK	방콕/수완나폼

SE Asia
도착 방송
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도착 방송 (5시간이상, 40분전)
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__시 __분 입니다.

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◐ (partly) cloudy	◐ foggy
◐ drizzling / raining	◐ hazy or smoggy
◐ windy	

The current time is __ : __ a.m(p.m), on (day-of-the-week), (month)(date).

Thank you for flying with us today.

SE Asia

RKSS(GMP) 59ft | RKPC(CJU) 119ft

KE GMP 131.15
DCL -15분 가능 TOBT 5분 차이 시 CTC Comm

PA

KE CJU 129.4

L R
R L

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

32L/R : EO32L/R, R225 YJU R271	14L/R : EO14L/R, R220 P73 /2

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

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

Domestic

CJU : STAR

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

ILS Z 07	DOTOL xP	YUMIN	DOTOL 160
ILS Z 25	DOTOL xT(xM)	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	**PA** KE GMP 131.15

Rwy 32L **Landing**
(06:00L~09:00L / 12:00L~15:00L
/18:00L~21:00L)

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

Domestic

GMP : STAR			
ILS 32L/R	OLMEN xT	BUMSI	OLMEN 160
ILS 14R	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	RKPK(PUS) 13ft
KE GMP 131.15 DCL -15분 가능 TOBT 5분 차이 시 CTC Comm	**PA** KE Gimhae 129.2

L R
R L

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

32L/R : EO32L/R, R225 YJU R271	14L/R : EO14L/R, R220 P73 /2

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

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

Domestic

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

ILS 36	KEVOX x	MASTA	9DME LG, 8DME FLAP
VOR 18	GAYHA x	MASTA	18 Circling Click!!
HUD	36L(13') 10499' 36R(8') 8999'		18R(13') 8530' 18L(13') 8999'
FIX	36 : IKMA/IKHE /9, /8		18 : KMH R284, 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 Taxi SPD)

RKPK(PUS) 13ft	RKSS(GMP) 59ft
KE Gimhae 129.2 DCL -5분	**PA** 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	306	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'

RWY36 400ft Man L/H turn, Max Taxi SPD 20KTS

Domestic

GMP : STAR

ILS 32L/R	GUKDO xT	BUMSI	GUKDO 160
ILS 14R	GUKDO xU	DOKDO	GUKDO 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	RKJJ(KWJ) 48ft
KE CJU 129.4 DCL -10분	**PA** 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

Domestic

KWJ : NO STAR (TL 140확인) – STAR RNP app Only!!			
ILS 04R	no KOTTY	SAMUL/-15	CI04R
RNP 22L	ORUSA x	ORUSA Tx	3.3도
LOC 22L	SAMUL	D058Q	No PAR 3.3도
VOR 22L/R	SAMUL	D058Q	Offset 3.29도
PAR	RWxx EXT 8NM, Do not Tune ILS		
HUD	04R(46')	9301'	22L(48')
	04L(46')	9301'	22R(48')
FIX	04R : SAMUL(For reference)		

End of RWY Vacating 9301'

LOC 22L, VOR 22L/R -> LOC/VOR LNAV 지시 고도 유지 후 Final Establish 이후 강하 (TERR !!)
PAR 04L/R, 22R 가능 : 강하각 3도 (6NM, 3도)
TAXI MAX 15 kts (Max 30kts by ATC)

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

KWJ : SID (NADP 1)
DALSU – Y711 – DOTOL Comm RTE(ATC CLR) 확인!
(Join Air Way - DCT DOTOL CRS 192- LNAV)

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

Domestic

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

ILS Z 07	DOTOL xP	YUMIN	DOTOL 160
ILS Z 25	DOTOL xT(xM)	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	RKTU(CJJ) 192ft
KE CJU 129.4 DCL -10분	**PA** 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

Domestic

CJJ : NO STAR Caution TCAS RA

PEBRI FL150, 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 안줌)
ILS Z 24R	NO STAR (MATIZ x)	OSPOT (HYEIN tx)	HYEIN (STAR 안줌)
PAR	RWxx EXT 8NM, Do not Tune ILS		
HUD	06L(166')	9003'	24R(182')
	06R(173')	9003'	24L(191')

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
Unless ATC, Taxi SPD less than 20KTS

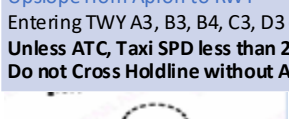
RKTU(CJJ) 192ft	RKPC(CJU) 119ft
KE CJJ 129.05 NO DCL, ATIS	**PA** KE CJU 129.4

CJJ : SID (NADP 1) Caution TCAS RA					
06L	CJJ xD	060	060	6000	060
24R	CJJ xD	240	240	6000	240

When ASR is out, RNAV SID		
(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
Unless ATC, Taxi SPD less than 20KTS
Do not Cross Holdline without ATC



Domestic

CJU : STAR AFT Merge PT(220kts) DCT IAF(210kts), FAF (160kts)			
ILS Z 07	DOTOL xP	YUMIN	DOTOL 160
ILS Z 25	DOTOL xT(xM)	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	RKTN(TAE) 120ft
KE CJU 129.4 DCL -10분	**PA** 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')

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

Domestic

TAE : NO STAR (TL 140 확인)			
ILS 31L	TGU/-10	CF31L222/7	CF31L
ILS 13R	TGU/-10	YAWAN	
PAR	RWxx EXT 8NM, Do not Tune ILS (13R Caution GPWS)		
HUD	31L(118')	9039'	13R(111') 3.3
	31R(120')	8999'	13L(112')

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

13R ILS 3.3도 PAPI 3.3도 (산악지형 주의)
TAXI MAX 20kts (do not req) 전방기 최소 2000ft 간격
Stand 6-9 Oversteering Needed

RKTN(TAE) 120ft	RKPC(CJU) 119ft
KE TAE 129.2 DCL Available	**PA** 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) 전방기 최소 2000ft 간격
1F, 2F New Holding Point

Domestic

CJU : STAR AFT Merge PT(220kts) DCT IAF(210kts), FAF (160kts)			
ILS Z 07	UPGOS xP	YUMIN	
ILS Z 25	UPGOS xT(xM)	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	PA KE Gimhae 129.2

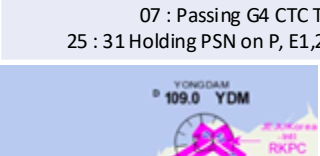
CJU : SID (NADP 1)					
07	AKPON xE	066	066	9000	066
25	AKPON xW	246	246	ATC	246

YDM 109.0	07 109.9	25 111.3

07 : NONE	25 : YDM246/3, R290

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

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



Domestic

PUS : STAR (Tail Wind 36R 136000lbs F40)			
ILS 36	KEVOX x	ANROD	9DME LG, 8DME FLAP
VOR 18	GAYHA x	ANROD	18 Circling Click!!

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'
FIX	36 : IKMA/IKHE /9, /8	18 : KMH R284, 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	**PA** KE CJU 129.4

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

36	SOORO x TOPAX tx	306	280	ATC	279
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'

RWY36 400ft Man L/H turn, Max Taxi SPD 20KTS

Domestic

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

ILS Z 07	UPGOS xP	YUMIN	
ILS Z 25	UPGOS xT(xM)	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

RKSI(ICN) 23ft	RKPK(PUS) 13ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA 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 : EO34L/R, 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)

ICN 국제선 이후 TRANSIT GD 필요(팀장님)
–> PUS PASSPORT Immigration 해야함.

Domestic

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

ILS 36	KEVOX x	MASTA	9DME LG, 8DME FLAP
VOR 18	GAYHA x	MASTA	18 Circling Click!!
HUD	36L(13') 10499' 36R(8') 8999'		18R(13') 8530' 18L(13') 8999'
FIX	36 : IKMA/IKHE /9, /8		18 : KMH R284, 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	**PA** KE ICN 131.5

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

36	SOORO x KALOD tx	306	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

Domestic

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7463'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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	RKTN(TAE)120ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	**PA** KE TAE 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 : EO34L/R, 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)

Domestic

TAE : NO STAR (TL 140 확인)

ILS 31L	**TGU/-10**	**CF31L222/7**	**CF31L**
ILS 13R	**TGU**	**YAWAN**	
PAR	**RWxx EXT 8NM, Do not Tune ILS (13R Caution GPWS)**		

HUD	**31L(118')**	**9039'**	**13R(111') 3.3**
	31R(120')	**8999'**	**13L(112')**

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

13R ILS 3.3도 PAPI 3.3도 (산악지형 주의)
TAXI MAX 20kts (do not req) 전방기 최소 2000ft 간격
Stand 6-9 Oversteering Needed

RKTN(TAE)120ft	RKSI(ICN) 23ft
KE TAE 129.2 NO DCL	**PA** KE ICN 131.5

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) 전방기 최소 2000ft 간격
1F, 2F New Holding Point

Domestic

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7463'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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

RKPK(PUS) 13ft	RJAA(NRT) 135ft
KE Gimhae 129.2 DCL -5분	PA KE Tokyo 131.7

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

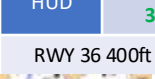
36	SOORO x PSN tx	306	280	ATC	162
18	BULIM x PSN tx	182	182	5000	182

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'

RWY 36 400ft Man L/H turn, Max Taxi SPD 20KTS



Japan

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	PA KE Gimhae 129.2

NRT : 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

Japan

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

ILS 36	PEDLO x	KALEK	9DME LG, 8DME FLAP
VOR 18	GAYHA x	PSN	18 Circling Click!!
HUD	36L(13') 10499' 36R(8') 8999'		18R(13') 8530' 18L(13') 8999'
FIX	36 : IKMA/IKHE /9, /8		18 : KMH R284, 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	RJGG(NGO) 12ft
KE Gimhae 129.2 DCL -5분	PA SWISSPORT OPERATION 132.05

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

36	SOORO x PSN tx	306	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'

RWY 36 400ft Man L/H turn, Max Taxi SPD 20KTS

Japan

DEP 125.5 – TGU 125.37
FUK 133.15 – TKO 133.8 – 133.02
센트레아 APP 121.05

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	RKPK(PUS) 13ft
SWISSPORT OPERATION 132.05 DCL -15분	PA KE Gimhae 129.2

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	18 109.7		36 111.9
HUD	36(15')	11483'	18(15')

APU Start 30min, Prepare Intersection T/O

DEP 120.0

TKO 133.45 – 133.02 – 133.8

FUK 133.15

TGU 125.37

APP 125.5

Japan

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

ILS 36	PEDLO x	KALEK	9DME LG, 8DME FLAP
VOR 18	GAYHA x	PSN	18 Circling Click!!
HUD	36L(13') 10499' 36R(8') 8999'		18R(13') 8530' 18L(13') 8999'
FIX	36 : IKMA/IKHE /9, /8		18 : KMH R284, 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	RJFF(FUK) 30ft
KE Gimhae 129.2 DCL -5분	PA KE FUK 132.05

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

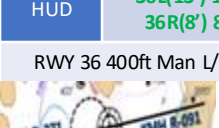
36	SOORO x PSN tx	306	280	ATC	162
18	BULIM x PSN tx	182	182	5000	182

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'

RWY 36 400ft Man L/H turn, Max Taxi SPD 20KTS



Japan

DEP 125.5 – TGU 125.37
KOB 118.9
FUK APP 119.65 – FUK RDR 121.125

FUK : RNAV STAR, RDR Vectoring from IKE (PAVGA 13000ft) Hold W of IKE published

16	SARUP	ENTIX	RNP, LOC 16
34	**V34** HAWKS WEST	**RWY34** HAWKS	VIS 34 RNP, LOC 34

HUD	16(15')	9186'	34(32')

16 : C6(5505'), C7(6407'), 34 : C4(5193'), C3(6354')

DGC VOR out of 6NM A/P
VIS 34 : After IKE – RDR Vector Downwind – 1800ft – RWY Insight 1500ft – Before L/D CHK Complete before base (Do not Extend Downwind due Terrain)

RJFF(FUK) 30ft	RKPK(PUS) 13ft
KE FUK 132.05 DCL -15min, Voice -5min	**PA** KE Gimhae 129.2

FUK : SID (Consider C2, C8 Intersection T/O)

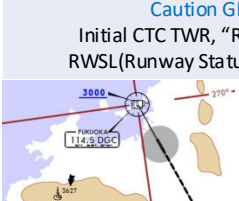
16	HAKATA xx	158	158	ATC (10000)	158
34		338	338	ATC (10000)	338

DGC 114.5	16 111.7	34 108.9

16 : DGC 156/20 R240 (DGC VOR out of 6NM A/P)

HUD	16(15')	9186'	34(32')

Caution GP HOLD LINE
Initial CTC TWR, "Ready for departure"
RWSL(Runway Status Lights) in operation



DEP 127.9
KOB 135.65
TGU 125.37
APP 125.5

Japan

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

ILS 36	PEDLO x	KALEK	9DME LG, 8DME FLAP
VOR 18	GAYHA x	PSN	18 Circling Click!!
HUD	36L(13') 10499' 36R(8') 8999'		18R(13') 8530' 18L(13') 8999'
FIX	36 : IKMA/IKHE /9, /8		18 : KMH R284, 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	RJBB(KIX) 17ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA 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 : EO34/R, 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 – FUK 124.15 – TKO 133.8

KIX RDR 120.85

KIX APP 120.25

Japan

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(via J4), 2(via J3)

RJBB(KIX) 17ft	RKSI(ICN) 23ft
KE KIX 130.95 DCL -15분	PA KE ICN 131.5

KIX : SID – SOUJA tx (NADP 1)

06L/R	HELEN x - SOUJA tx	059	059	ATC (9000)	059
24L/R		239	239	ATC (9000)	239

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(via J4), 2(via J3)

DEP 119.2
TKO 132.7 – 133.8
FUK 124.15
TGU 120.57
APP 119.75

Japan

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKSI(ICN) 23ft	RJAA(NRT) 135ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA 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 : EO34L/R, 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 124.15 – 132.02
TKO 124.1– 128.2 – TKO APP 124.4 – 120.2

Japan

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	PA KE ICN 131.5

NRT : SID – ENPAR tx (NADP 1)

16L/R	TETRA x ENPAR tx	157	157	ATC	157
34L/R		337	337	7000/ATC	337

NRE	16L	16R	34L	34R
117.9	110.7	111.5	111.9	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

Japan

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKSI(ICN) 23ft	RJCC(CTS) 70ft

KE ICN 131.5
DCL -10분 TOBT5분 차이시 CTC Comm

PA 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 : EO34L/R, 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 – FUK 124.15 – 133.02
TKO 132.3 – SPR 133.3 –119.3
CTS APP 120.1

Japan

CTS : STAR (01R : IDEMI FL150, 19L : NAVER FL170)

01R	**YOTEI SOUTH (YUKII WEST)**	**YOTEI not YOSEI**	**ILS Y/Z 01R 3000/2000**
19L 19R CAT III	**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 **PA**	KE ICN 131.5

CTS : SID (NADP 1)

ALL	DALBI x SUVIT x SOSHU x	002 182	002 182	ATC ATC	002 182

CHE	01R	19L	01L	19R
116.9	110.75	109.35	110.9	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 124.5 – 132.3

FUK 133.02 – 124.15

TGU 120.57

APP 119.75

Japan

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft | RJTT(HND) 21ft

KE ICN 131.5
DCL -10분 TOBT5분 차이시
CTC Comm

PA 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 : EO34L/R, 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 – FUK 133.02 – TKO 120.5

TKO 133.35

TKO APP 119.1 – 119.65

Japan

HND : STAR XAC Night– APP xxx Y 1400z~ SPENS 220

34L/R	**XAC xK**/H	**KAIHO**/CACAO	**ILS X** / VIS
22	**XAC xB**	**BACON**	**LDA W(RNVW 22)**
16R/L	**XAC R**	**NATTY**/SANDY	**RNP(R16RT**/R16LT**)**
23	-	**DANON**	**LDA W(RNVW 23)**
HUD	**34L(18') 9843'**		**16R(77') 8268' DIS**
	34R(21') 9843' DIS TH		**16L(19') 9744' DIS**
	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')

xxx Z : 180kts, 160kts limit APP Chart, xxx Y After 1400z

RJTT(HND) 21ft	RKSI(ICN) 23ft
Delta Oper 132.075 DCL -15분 **PA**	KE ICN 131.5

HND : SID (xx B/C 2200-0230z 0600-1000z) NADP 1

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

HUD	34L(18')	9843'	16R(77')
	34R(21')	11024'	16L(19')
	04(19')	8202'	05(46')

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
RWY05 RTE5 TAXI Chart

DEP ATIS
TKO 120.5 – FUK 133.02
TGU 120.57
APP 119.75

Japan

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKSI(ICN) 23ft	RJGG(NGO) 12ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA 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 : EO34L/R, 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

Japan

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	PA 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		18 109.7		36 111.9	
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

Japan

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKSI(ICN) 23ft	RJFF(FUK) 30ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA KE FUK 132.05

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 : EO34L/R, 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)

TGU 125.37
Kobe 118.9 – FUK APP 119.65
FUK RDR – 121.125

Japan

FUK : RNAV STAR, RDR Vectoring from IKE (PAVGA 13000ft) Hold W of IKE published

16	SARUP	ENTIX	RNP, LOC 16
34	**V34** HAWKS WEST	**RWY34** HAWKS	VIS 34 RNP, LOC 34
HUD	**16(15')**	**9186'**	**34(32')**

16 : C6(5505'), C7(6407'), 34 : C4(5193'), C3(6354')

DGC VOR out of 6NM A/P
VIS 34 : After IKE – RDR Vector Downwind – 1800ft – RWY Insight 1500ft – Before L/D CHK Complete before base (Do not Extend Downwind due Terrain)

RJFF(FUK) 30ft	RKSI(ICN) 23ft
KE FUK 132.05 DCL -15min, Voice -5min	PA KE ICN 131.5

FUK : SID (Consider C2, C8 Intersection T/O)

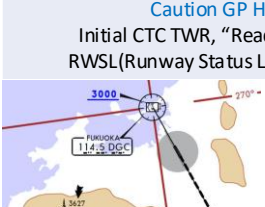
16	HAKATA	158	158	ATC (10000)	158
34	xx	338	338	ATC (10000)	338

DGC 114.5	16 111.7	34 108.9

16 : DGC 156/20 R240 (DGC VOR out of 6NM A/P)

HUD	16(15')	9186'	34(32')

Caution GP HOLD LINE
Initial CTC TWR, "Ready for departure"
RWSL(Runway Status Lights) in operation



DEP 127.9
Kobe 135.65
TGU 125.37

Japan

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7463'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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	RJSA(AOJ) 650ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA JPN AIR AOJ 130.17 NO ATIS

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 : EO34L/R, 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 – FUK 124.15
FUK 125.15 – 133.02 – 132.3
SPR 133.3 –127.57 – AOJ TWR 118.3

Japan

AOJ : Obstacle Around Airport (High FE, Cold Temp)
Hold over MRE, MELOS, YACHI Confirm CRS, EFC
CAT II,III Request Before 15min By Com

24	**NONE**	**MRE YACHI**	**ILS Y/Z 24 RNP Z 24 (AR)**
06	**MELOS SOUTH**	**YACHI** MELOS	**RNP Z 06 (AR)** VOR Z 06**(5도)**
HUD	**24(664')**	**9843'**	**06(647')**

24 : T2(5043'),T1(7043'), 06 : T3(5043'), T4(7043')

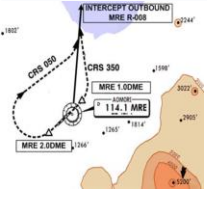
ILS Y 24 Turn SPD : Max 200kts, **CHK MRE D12 Turn 시작**
(선회 반경으로 선회 늦어짐 주의!, SPD Modify)
RWY, TWY color Yellow, GND by TWR

RJSA(AOJ) 650ft	RKSI(ICN) 23ft
JPN AIR AOJ 130.17 NO ATIS, TWR 118.3 Voice **PA**	KE ICN 131.5

AOJ : SID (NADP 1)

24	IWAKI xx	241	241	ATC	241
06		061	061	ATC	061
MRE 114.1			24 111.9		
HUD	24(664')	9843'		06(647')	
EO	24 : MRE 241/2, MRE R008 06 : MRE 061/1, R350, MRE R008				

ATC 순서 특이함. Deicing at the Gate



TWR 118.3
SPR 127.57 – 133.3
TKO 132.3 – 132.45 – 133.02
TKO 133.8
TGU 120.57
APP 119.75

Japan

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKSI(ICN) 23ft	RJSN(KIJ) 5ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm **PA**	JPN AIR Niigata 131.85

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 : EO34L/R, 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 – FUK 124.15

TKO 133.8 – 132.45 – 132.3

KIJ RDR 121.4

Japan

KIJ : GTC-50NM – TERAD (Modify!!)
At/Below 3000MSL : 200kts, Above 3000MSL : 250kts

28	**TERAD EAST**	**KYOGA**	**ILS Z 28**
10	**TERAD WEST (KAETSU)**	**RYUTO** INAHO	**RNP Z 10** RNP Y 10 (AR)
HUD	**28(10')**	**8202'**	**10(27')**

28 : B4(6167'),B5(7906'), 10 : P3(6292'), B1(8100')

LDC Data : RWY28+81ft, RWY10+274ft (Due PAPI PSN)
RWY 10 Downslope, Vacate RWY04/22 by ATC Only
GND by TWR

RJSN(KIJ) 5ft	RKSI(ICN) 23ft
JPN AIR KIJ 131.85 TWR Voice -5min	PA KE ICN 131.5

KIJ : SID (NADP 1)

28	MOKBA xx	281	281	ATC	281
10		101	101	ATC	101
GTC 115.5			28 109.3		
HUD	28(10')	8202'		10(27')	
EO	10 : GTC 101/2, R360				

Sometimes Cross 50NM SW GTC FL200

TWR 118.0
TKO 132.3 – 132.45
FUK 133.02 – 124.15
TGU 120.57
APP 119.75

Japan

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKPC(CJU) 119ft	RJAA(NRT) 135ft
KE CJU 129.4 DCL -10분	PA KE Tokyo 131.70

CJU : SID (NADP 1)

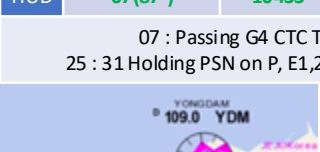
07	TAMNA xE	066	066	9000	066
25	TAMNA xW	246	246	ATC	246

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



DEP 121.2 – ICN 124.52 – KOB 118.9 – FUK 133.15 – 119.35
134.35 – TKO 125.9 – TKO APP 124.4 – 120.2 – ARR 121.27

Japan

NRT : MAMAS 240

34L/R	RUTAS E (RUTAS T)	ELGAR (TYLER)	ILS 34L/R(Z)
16L/R	RUTAS G (RUTAS 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	RKPC(CJU) 119ft
KE Tokyo 131.70 DCL -15분	PA KE CJU 129.4

NRT : SID – ENPAR tx (NADP 1)

16L/R	TETRA x ENPAR tx	157	157	ATC	157
34L/R		337	337	7000/ATC	337

NRE	16L	16R	34L	34R
117.9	110.7	111.5	111.9	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 – 128.12 – FUK 133.02 – KOB 133.55
132.7 – FUK 133.15 – KOB 118.9
ICN 124.52
APP 121.2

Japan

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

ILS Z 07	TAMNA xP	YUMIN	
ILS Z 25	TAMNA xT(xM)	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

RKSS(GMP) 59ft	ZSSS(SHA) 10ft
KE GMP 131.15 DCL -15분 가능 TOBT5분 차이 시 CTC Comm	PA China Eastern 131.5

L R
R L

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

32L/R : EO32L/R, R225 YJU R271	14L/R : EO14L/R, 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

China

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) "five five zero meters"
L08, L09 not available B737
Shall CTC Apron Before Entering

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

TL

TA

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

ZSSS(SHA) 10ft	RKSS(GMP) 59ft
China Eastern 131.5 DCL -20분, No READBACK	KE GMP 131.15

PA

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 (넘겨줌)

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 126.65(121.1)

SHA APP 125.4 – 125.625 – SHA 120.95

ICN 125.725 – 124.52

APP – 119.75

China

GMP : STAR

ILS 32L/R	OLMEN xT	BUMSI	OLMEN 160
ILS 14R	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	ZBAA(PEK) 116ft
KE GMP 131.15 DCL -15분 가능 TOBT5분 차이 시 CTC Comm	PA Air China Beijing 131.5

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

GMP : SID (NADP 1)

32L/R	**NOPIK xT**	**324**	**324**	**5000**	**324**
	(NOPIK xQ)	324	324	5000	324
14L/R	**NOPIK xU**	**144**	**144**	**6000**	**144**

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

32L/R : EO32L/R, R225 YJU R271	14L/R : EO14L/R, 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 132.8 – DLC 132.95
TAO 133.72 – 128.15 – PEK 125.6
PEK APP 120.6 – Final 119.0

China

PEK : STAR (RW01/19 main (RW36L/18R))

01(36L)	**DUMAP xZA**	**AA421**	**ILS Z 01**(Y 36L)
19(18R))	**DUMAP xZA**	**AA521**	**ILS Z 19**(Y 18R)

HUD				
	01(84')	12467'	19(94') 3.2도	
	36L(107')	10499'	18R(115')	

FIX : RWxx /8(180kts), /6(160kts) TMA Max 280kts

01 : Q5(5223'), Q6(7024'), 19 :Q4(5298'), Q3(7103')
36L : P6(6276'), P7(7719'), 18R : P3(6223'), P2(7552')

APU off Procedure (GND Air Cond' & GPU)
Standard TAXI RTE in Jeppesen Chart

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

TL

TA

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

ZBAA(PEK) 116ft | RKSS(GMP) 59ft

Air China Beijing 131.5
DCL -30분, Voice -10분
(COBT/STD 15분 차이 CTC Comm)

PA

KE GMP 131.15

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

PEK : SID (NADP 1) RW36R/18L Intersec T/O W2, W7

36R (01)	MUGLO xWD(xYD)	**359**	**359**	ATIS/DCL	**359**
18L (19)	MUGLO xZD(xYD)	**179**	**179**	ATIS/DCL	**179**

PEK	36R	18L	01	19
114.7	111.55	109.3	108.5	108.9

36R : PEK 325/11, 36L : PEK 326/13, 01 : PEK 323/9 R124

HUD			
	36R(98') 01(84')	12467'	18L(110') 19(94')

COBT from ATIS "Enroute", Bad Wx DOTRA SID

DEP 124.4

PEK APP 120.6 – PEK 125.6

DLC 123.2 – 132.95

ICN 132.8 – APP 119.75

China

GMP : STAR

ILS 32L/R	**REBIT xT(xQ)**	**BUMSI**	**REBIT 170**
ILS 14R	**REBIT xU**	**DOKDO**	

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	PA KE KIX 130.95

L R
R L

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

GMP : SID (NADP 1)

32L/R	EGOBA xT	324	324	5000	324
	(EGOBA xQ)	324	324	5000	324
14L/R	EGOBA xU	144	144	6000	144

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

32L/R : EO32L/R, R225 YJU R271	14L/R : EO14L/R, 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 133.8
KIX RDR 120.85
KIX APP 120.25

Japan

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	RKSS(GMP) 59ft
KE KIX 130.95 DCL -15분	PA 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	059	059	ATC (9000)	059
24L/R		239	239	ATC (9000)	239

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

Japan

GMP : STAR

ILS 32L/R	GUKDO xT	BUMSI	OLMEN 160
ILS 14R	GUKDO 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)

RKPC(CJU) 119ft	ZBAA(PEK) 116ft
KE CJU 129.4 DCL -10분	PA Air China Beijing 132.0

CJU : SID (NADP 1)

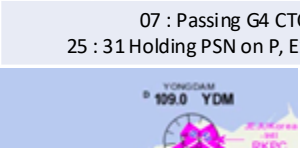
07	LIMDI xE	066	066	9000	066
25	KAMIT xW	246	246	ATC	246

YDM 109.0	07 109.9	25 111.3

07 : NONE	25 : YDM246/3, R290

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

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



China

DEP 121.2 – TGU 124.52 – 120.72 – 126.17 – 132.8
DLC 132.95 – TAO 133.72 – 128.15 – PEK 125.6
PEK APP 120.6 – Final 119.0

PEK : STAR (RW01/19 main (RW36L/18R))

01(36L)	DUMAP xZA	AA421	ILS Z 01(Y 36L)
19(18R))	DUMAP xZA	AA521	ILS Z 19(Y 18R)

HUD	01(84')	12467'	19(94') 3.2도
	36L(107')	10499'	18R(115')

FIX : RWxx /8(180kts), /6(160kts) TMA Max 280kts

01 : Q5(5223'), Q6(7024'), 19 :Q4(5298'), Q3(7103')
36L : P6(6276'), P7(7719'), 18R : P3(6223'), P2(7552')

APU off Procedure (GND Air Cond' & GPU)
Standard TAXI RTE in Jeppesen Chart

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

TL

TA

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

ZBAA(PEK) 116ft	RKPC(CJU) 119ft
Air China Beijing 132.0 PA DCL 30분전, Voice 10분전 (COBT/STD 15분 차이 CTC Comm)	KE CJU 129.4

PEK : SID (NADP 1) RW36R/18L Intersec T/O W2, W7

36R (01)	MUGLO xWD(xYD)	359	359	ATIS/DCL	359
18L (19)	MUGLO xZD(xYD)	179	179	ATIS/DCL	179

PEK	36R	18L	01	19
114.7	111.55	109.3	108.5	108.9

36R : PEK 325/11, 36L : PEK 326/13, 01 : PEK 323/9 R124

HUD	36R(98') 01(84')	12467'	18L(110') 19(94')

COBT from ATIS "Enroute", Bad Wx DOTRA SID

DEP 124.4
PEK APP 120.6 – PEK 125.6
DLC 123.2 – 132.95
ICN 132.8 – 126.17 – 120.72
124.52 – APP 119.75

China

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

ILS Z 07	LIMDI xP	YUMIN	
ILS Z 25	LIMDI xT(xM)	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	ZSPD(PVG) 13ft
KE Gimhae 129.2 DCL -5분	PA China Eastern 130.5

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

36	SOORO x TOPAX tx	306	280	ATC	279
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'

RWY36 400ft Man L/H turn, Max Taxi SPD 20KTS

DEP 125.5 – TGU 128.17 – 124.52(125.72)
SHA 120.95
SHA APP 125.62(119.975) – 125.4

China

PVG : STAR (North of 'PVGNB', R-276 Prohibited)

34R(L)/35L(R)	DUM 91A/92A	MP2	ILS Z xx
16L(R)/17R(L)	DUM 81A/82A	MP1	ILS Z xx

HUD			
	34R/L(11'/12')	12467'	16L/R(12'/11')
	35R(10')	13123'	17L10')
	35L(12')	11155'	17R(12')

34R : G4(5603'), G5(6896'), 16L : G3(5577'), G2(6909')
35L : D4(5636'), D5(6932'), 17R : D3(5626'), D2(6942')

Normally DUMET 6000m
Follow Me Car Insight – TAXI L/T off,APU off Procedure

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

TL

TA

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

ZSPD(PVG) 13ft	RKPK(PUS) 13ft
China Eastern 130.5 DCL 20분전, No READ BACK! **PA**	KE Gimhae 129.2

PVG : SID (NADP 1)
(ATC Hold Expected Fuel Add!!)

34L/R 35R/L	**LAM 92D** (LAM 91D)	**348**	**348**	**ATC (900m)**	**348**
16R/L 17L/R	**LAM 82D** (LAM 81D)	**168**	**168**	**ATC (900m)**	**168**

PUD 116.9	**34R 108.9**	**35L 108.1**	**34L 108.3**	**35R 111.9**
	16L 111.5	**17R 111.1**	**16R 108.7**	**17L 110.7**

HUD	**34R/L(11'/12') 35R(10') 35L(12')**	**12467' 13123' 11155'**	**16L/R(12'/11') 17L(10') 17R(12')**

APU Start, TUG Connect After Beacon L/T ON
Ready for Intersection T/O

SHA APP 125.4 (Without Instruction)
SHA APP 125.62(119.975)
SHA 120.95
ICN 125.725(124.52) – 128.17
APP – 125.5

China

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

ILS 36	**KEVOX x**	**ANROD**	9DME LG, 8DME FLAP
VOR 18	**GAYHA x**	**ANROD**	**18 Circling Click!!**

HUD	**36L(13') 10499' 36R(8') 8999'**	**18R(13') 8530' 18L(13') 8999'**
FIX	36 : IKMA/IKHE /9, /8	18 : KMH R284, 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	ZSNJ(NKG) 49ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm **PA**	None

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

33L/R	**BOPTA xA**	**333**	**333**	**ATC**	**333**
34L/R	BOPTA xY	333	333	ATC	333
15L/R	**BOPTA xC**	**153**	**153**	**5000**	**153**
16L/R	BOPTA 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 : EO34L/R, 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 126.17 – 120.72 – 124.52(125.72)
SHA 120.95 – 120.55 – 125.95 – 119.075
NKG APP 126.55 – 119.25

China

NKG : STAR ('D' N31 34.0 E118 42.1 – R101, R289)

07 (06)	**ESB 71F/21A** (ESB 61F/11A)	**SNQ**	**ILS Z 07** (ILS Z 06)
25 (24)	**ESB 52F/22A** (ESB 42F/12A)	**NJ210**	**ILS Z 25** (ILS Z 24)

HUD	**07(41')**	**11811'**	**25(39')**
	06(43')	**11811'**	**24(38')**

07 : D5(6499'), D6(7582'), 25 : D2(6505'), D1(7582')
06 : A5(6614'), A6(7860'), 24 : A3(6637'), A9(7864')

IAF, Missed App SPD APP : 210kts or 205kts
Follow Me Car on C 13, APU off Procedure

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

TL

TA

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

ZSNJ(NKG) 49ft	RKSI(ICN) 23ft
None DCL 가능, READ BACK!	**PA** KE ICN 131.5

NKG : SID (NADP 1)
(ATC Hold Expected Fuel Add!!)

06 (07)	ESB 61X/11D (ESB 71X/21D)	064	064	3000 (900m)	064
24 (25)	ESB 42X/12D (ESB 52X/22D)	244	244	3000 (900m)	244

NJL 113.6	07 108.7	25 111.3	06 110.3	24 110.9

HUD	06(43') 07(41')	11811'	24(38') 25(39')

APU Start, TUG Connect After Beacon L/T ON

DEP 119.25
NKG APP 126.55
SHA 119.075 – 125.95 – 120.55 – 120.95
ICN 125.725(124.52) – 120.72 – 126.17
APP – 119.75

China

ICN : STAR

ILS 33/34	OLMEN xE	ENPIL	OLMEN 180
ILS 15/16	OLMEN xH	MUNAN	OLMEN 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZSQD(TAO) 30ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA None

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

33L/R	**NOPIK xA**	**333**	**333**	**ATC**	**333**
34L/R	NOPIK xY	333	333	ATC	333
15L/R	**BINIL xC**	**153**	**153**	**5000**	**153**
16L/R	BINIL xH	153	153	5000	153

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

33L/R : NC05L/R, R242 P518 R068, R278	34L/R : EO34L/R, R242 P518 R068, R278

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 128.7 – DLC 132.95

TAO 128.55 – 134.85

TAO APP 119.77 – 119.4

China

TAO : STAR (AVBIK R014 - LAROP R159 동쪽 금지)

35(34)	**LAT 91A/01A**	**JD405**	**ILS Z 35**(34)
17(16)	**LAT 81A/11A**	**JD305**	**ILS Z 17**(16)

HUD	**35(27')**	**11811'**	**17(29')**
	34(27')	11811'	16(27')

FIX : AVBIK R014, LAROP R159, R183 (두점 연결)

35 : S2(5255'), S4(6624'), 17 : S1(5282'), S3(6604')
34 : R2(5278'), R4(6650'), 16 : R1(5318'), R3(6706')

위의 Point 불가시 TWR 보고, Apron CTC 주의

Follow Me Car on Lxx APU off Procedure

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

TL

TA

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

ZSQD(TAO) 30ft	RKSI(ICN) 23ft
None DCL 가능, No READ BACK! (Voice 10분전 부터)	**PA** KE ICN 131.5

TAO : SID (NADP 1) Walk Around Ramp Pass & PW

34 (35)	LAT 91D/01D	350	350	ATC 3000 (900m)	350
16 (17)	LAT 81D/11D	170	170	ATC 3000 (900m)	170

JDG	17	35	16	34
114.45	110.15	109.75	111.9	108.55

HUD	34(27’) 35(27’)	11811’	16(27’) 17(29’)

FIX : AVBIK R014, LAROP R159, R183 (두점 연결)

Heading 190, Join W209 -> DCT LATUX CRS 148

TAO APP 119.4
TAO 119.73
TAO 134.85 – DLC 132.95
ICN 128.7 – APP 119.75

China

ICN : STAR

ILS 33/34	**REBIT xA**	**PAMBI**	**REBIT 170**
ILS 15/16	**REBIT xH**	**MUNAN**	**REBIT 170**
HUD	33L/R 34L(23’)	12303’	15L/R 16R(23’)
	34R(23’)	13123’	16L(23’)
FIX	RWY /8, /5 , P518 R068, R278		

33R : C4(7529’), C5(8513’), 33L : B4(7563’), B5(8513‘)
15L : C2(7522’), C1(8536’), 15R : B3(7454‘), B2(8641‘)

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZBAA(PEK) 116ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA Air China Beijing 132.0

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

33L/R	**NOPIK xA**	**333**	**333**	**ATC**	**333**
34L/R	NOPIK xY	333	333	ATC	333
15L/R	**BINIL xC**	**153**	**153**	**5000**	**153**
16L/R	BINIL 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 P518 R068, R278	34L/R : EO34L/R, R242 P518 R068, R278

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 132.8 – DLC 132.95
TAO 133.72 – 128.15 – PEK 125.6
PEK APP 120.6 – Final 119.0

China

PEK : STAR (RW01/19 main (RW36L/18R))

01(36L)	**DUMAP xZA**	**AA421**	**ILS Z 01**(Y 36L)
19(18R))	**DUMAP xZA**	**AA521**	**ILS Z 19**(Y 18R)

HUD	**01(84')**	**12467'**	**19(94') 3.2도**	
	36L(107')	10499'	18R(115')	

FIX : RWxx /8(180kts), /6(160kts) TMA Max 280kts

01 : Q5(5223'), Q6(7024'), 19 :Q4(5298'), Q3(7103')
36L : P6(6276'), P7(7719'), 18R : P3(6223'), P2(7552')

APU off Procedure (GND Air Cond' & GPU)
Standard TAXI RTE in Jeppesen Chart

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

TL

TA

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

ZBAA(PEK) 116ft	RKSI(ICN) 23ft
Air China Beijing 132.0 DCL 30분전, Voice 10분전 (COBT/STD 15분 차이 CTC Comm)	**PA** KE ICN 131.5

PEK : SID (NADP 1) RW36R/18L Intersec T/O W2, W7

36R (01)	MUGLO xWD(xYD)	359	359	ATIS/DCL	359
18L (19)	MUGLO xZD(xYD)	179	179	ATIS/DCL	179

PEK	36R	18L	01	19
114.7	111.55	109.3	108.5	108.9

36R : PEK 325/11, 36L : PEK 326/13, 01 : PEK 323/9 R124

HUD	36R(98') 01(84')	12467'	18L(110') 19(94')

COBT from ATIS "Enroute", Bad Wx DOTRA SID

DEP 124.4

PEK APP 120.6 – PEK 125.6

DLC 123.2 – 132.95

ICN 132.8 – APP 119.75

China

ICN : STAR

ILS 33/34	REBIT xA	PAMBI	REBIT 170
ILS 15/16	REBIT xH	MUNAN	REBIT 170
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5, P518 R068, R278		

33R : C4(7529'), C5(8513'), 33L : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZYTX(SHE) 198ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA China Southern Dispatch 131.5

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

33L/R	**NOPIK xA**	**333**	**333**	**ATC**	**333**
34L/R	NOPIK xY	333	333	ATC	333
15L/R	**BINIL xC**	**153**	**153**	**5000**	**153**
16L/R	BINIL xH	153	153	5000	153

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

33L/R : NC05L/R, R242 P518 R068, R278	34L/R : EO34L/R, R242 P518 R068, R278

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 132.8 – DLC 132.95 – 135.65

DLC 134.325(128.775)

SHE APP 125.55 – 119.825

TWR 118.1

China

SHE : STAR (CLR Limit TOSID Late Handoff to SHE)

06	**TOSID 62A, 61A**	**TX504**	**ILS Z 06**
24	**TOSID 72A, 11A**	**TX662**	**ILS Z 24**
HUD	06(170')	10499'	24(198')

Around TOSID – Present TRK or HDG – CTC SHE CTL

06 : D(6210'), C(7854'), 24 : J(6227'), K(7864') - ATC

06 : HP06(03), 24 : HP06(03) Follow Me Car

Normally Remain Parking Brake SET!!

APU off Procedure (GND Air Cond' & GPU)

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

TL

TA

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

ZYTX(SHE) 198ft	RKSI(ICN) 23ft
China Southern Dispatch 131.5 DCL 가능, 5분전 READ BACK! (Voice 10분전)	PA KE ICN 131.5

SHE : SID (NADP 1) A2, A8 Intersec T/O by ATC

06	TOSID 61,62D	056	056	ATIS/DCL	056
24	TOSID 71,72D	236	236	ATIS/DCL	236

SEY 114.1	06 110.5	24 110.3

HUD	06(170')	10499'	24(198')

ADT = CTOT See Eroute ATIS
Follow FollowMe Car Until HPxx
Be Careful "Hold short CAT I Hold line"
Maintain Present TRK/HDG Join A588(CRS 217)
Offset R3 → Active Fix DCT and EXE again!!

CTC APP without TWR Instruction

APP 119.825 – 125.55

DLC 134.325 – 135.65

DLC 132.95

ICN 132.8 – APP 119.75

China

ICN : STAR

ILS 33/34	REBIT xA	PAMBI	REBIT 170
ILS 15/16	REBIT xH	MUNAN	REBIT 170
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , P518 R068, R278		

33R : C4(7529'), C5(8513'), 33L : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKSI(ICN) 23ft	ZSPD(PVG) 13ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA China Eastern 130.5

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

33L/R	**BOPTA xA**	**333**	**333**	**ATC**	**333**
34L/R	BOPTA xY	333	333	ATC	333
15L/R	**BOPTA xC**	**153**	**153**	**5000**	**153**
16L/R	BOPTA xH	153	153	5000	153

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

33L/R : NC05L/R, R242 YJU R271	34L/R : EO34L/R, 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 126.17 – 120.72 – 124.52(125.72)

SHA 120.95

SHA APP 125.62(119.975) – 125.4

China

PVG : STAR (North of 'PVGNB', R-276 Prohibited)

34R(L)/35L(R)	**DUM 91A/92A**	**MP2**	**ILS Z xx**
16L(R)/17R(L)	**DUM 81A/82A**	**MP1**	**ILS Z xx**

HUD				
	34R/L(11'/12')	12467'	16L/R(12'/11')	
	35R(10')	13123'	17L(10')	
	35L(12')	11155'	17R(12')	

34R : G4(5603'), G5(6896'), 16L : G3(5577'), G2(6909')
35L : D4(5636'), D5(6932'), 17R : D3(5626'), D2(6942')

Normally DUMET 6000m
Follow Me Car Insight – TAXI L/T off,APU off Procedure

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

TL

TA

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

ZSPD(PVG) 13ft	RKSI(ICN) 23ft
China Eastern 130.5 **PA** DCL 20분전, No READ BACK!	KE ICN 131.5

PVG : SID (NADP 1)
(ATC Hold Expected Fuel Add!!)

34L/R 35R/L	**LAM 92D** (LAM 91D)	**348**	**348**	**ATC** **(900m)**	**348**
16R/L 17L/R	**LAM 82D** (LAM 81D)	**168**	**168**	**ATC** **(900m)**	**168**

PUD 116.9	**34R** **108.9**	**35L 108.1**	**34L** **108.3**	**35R** **111.9**
	16L **111.5**	**17R** **111.1**	**16R** **108.7**	**17L** **110.7**

HUD	**34R/L(11'/12')** **35R(10')** **35L(12')**	**12467'** **13123'** **11155'**	**16L/R(12'/11')** **17L(10')** **17R(12')**

APU Start, TUG Connect After Beacon L/T ON
Ready for Intersection T/O

SHA APP 125.4 (Without Instruction)
SHA APP 125.62(119.975)
SHA 120.95
ICN 125.725(124.52) – 120.72 – 126.17
APP – 119.75

China

ICN : STAR

ILS 33/34	**OLMEN xE**	**ENPIL**	**OLMEN 180**
ILS 15/16	**OLMEN xH**	**MUNAN**	**OLMEN 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZYYJ(YNJ) 624ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA None No D-ATIS

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

33L/R	**NOPIK xA**	**333**	**333**	**ATC**	**333**
34L/R	NOPIK xY	333	333	ATC	333
15L/R	**BINIL xC**	**153**	**153**	**5000**	**153**
16L/R	BINIL xH	153	153	5000	153

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

33L/R : NC05L/R, R242 P518 R068, R278	34L/R : EO34L/R, R242 P518 R068, R278

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 132.8 – DLC 132.95 – 135.65

128.77 – SHE 119.3 – 118.9

YNJ TWR 118.75

China

YNJ : RNP STAR (RW09 main for L/D)

CHK NAV DATA for Holding Area(Expect Hold Mil Train)

09	**KAN/OMB 09A** (KAN/OMB 04(02)A)	**YJ504** (D267T)	**ILS Z 09** (VOR 4도 off)
27	**KAN/OMB 19**(18)**A** (KAN/OMB 11(12)A)	**YJ604** (D341N)	**ILS Z 27** (VOR 4도 off)
HUD	**09(621')** **8530'** **27(597') 3.3도**		
FIX	**DPRKK(N43 01.6/E129 52.0) R100, R200** RWY27 /12 **(Do not overshoot 12DME ARC)**		

09 : C(5330'),180 BACK(8530'), 27 : B(7400'),A (8350')

Expect Hold Due to MIL Train(ADD FUEL 30min)

PAX Window must closed Between APP and DEP.

Parking Brake Remain SET (Winter)

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

TL

TA

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

QFE Next Page

YNJ Altitude / Height Conversion Table

xxxx meters on STD 이후 적용
xxxx meters on QFE xxxx -> REQ QNH
-> QNH xxx SET후 Conversion Table 사용
YNJ A/P Elevation : 623ft = 22.5hPa

Height based on QFE (instructed by ATC)	Altitude base on QNH (Set Altitude : QFE + Elev SET)
xxx m on QFE	xxx m plus Elevation Set
3000 m	10500 ft
2700 m	9500 ft
2400 m	8500 ft
2100 m	7500 ft
1800 m	6500 ft
1500 m	5600 ft
1200 m	4600 ft
1100 m	4200 ft
1000 m	3900 ft
850 m	3400 ft
800 m	3200 ft
750 m	3100 ft
550 m	2400 ft
515 m	2300 ft
500 m	2300 ft
425 m	2000 ft
355 m	1800 ft
200 m	1300 ft
100 m	1000 ft
0 m	623 ft

ZYYJ(YNJ) 624ft	RKSI(ICN) 23ft

None
TWR 118.75 By Voice

PA

KE ICN 131.5

YNJ : RNP SID (NADP 1) RW27 Main
CTOT from GND Staff due to Mil Train (ADD Fuel)
Consider Improve C/B & NO Bleed T/O (in Summer)

27	KANVU 19D (11D)	271	271	ATC/6500ft (1800mQFE)	271
09	KANVU 09D (01D)	091	091	ATC/6500ft SPD 200kts	091

YNJ 113.1	09 108.7	27 109.3

FIX	27 : YNJ 271/3.6, YNJ 073/10 (MAX 162kts) 09 : YNJ 091/4.5, YNJ 287/11 (MAX 162kts)

HUD	27(597') 3.3도	8530'	09(621')

Must Check MTOW
RWY 27 180 Back(Clockwise)

YNJ 118.75
SHE 132.35 – 119.3
DLC 128.77 – 135.65
132.95 – ICN 132.8

China

ICN : STAR

ILS 33/34	REBIT xA	PAMBI	REBIT 170
ILS 15/16	REBIT xH	MUNAN	REBIT 170
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , P518 R068, R278		

33R : C4(7529'), C5(8513'), 33L : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZSHC(HGH) 22ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 PA CTC Comm	Hangzhou Reporting Office 130.65

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

33L/R	BOPTA xA	333	333	ATC	333
34L/R	BOPTA xY	333	333	ATC	333
15L/R	BOPTA xC	153	153	5000	153
16L/R	BOPTA xH	153	153	5000	153

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

33L/R : NC05L/R, R242 YJU R271	34L/R : EO34L/R, 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 126.17 – 120.72 – 124.52(125.72)

SHA 120.95 – 120.55 – SHA APP 125.62 – 119.7

HGH APP 119.82 – 120.4 – 125.55

China

HGH : STAR - STAR, APP, Missed APP Keep Track Cauton Military Traffic (Missed APP ALT In ATIS)

07/06	OKT, SUP 91A	HC410	ILS Z xx
25/24	OKT, SUP 81A	HC305	ILS Z xx

HUD			
	06(22')	11155'	24(22')
	07(22')	11811'	25(22')
FIX	APP SPD REST in APP Chart		

06 : C5(5613'), C6(6899'), 24 : C4(5613'), C3(6981')
07 : A5(6266'), A6(7565'), 25 : A4(6250'), A3(7555')
TWR Permisson Report RWY Vacated

TAXI RTE In Jeppesen Chart, Follow Me Car, APU off

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

TL

TA

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

ZSHC(HGH) 22ft	RKSI(ICN) 23ft
Hangzhou Reporting Office 130.65 DCL(NO Readback) Voice 10min전 **PA**	KE ICN 131.5

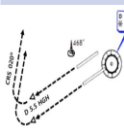
HGH: SID (NADP 1)

07/06	OKT, SUP 91D	069	069	3000 (900m)	069
25/24	SUP 81D	249	249	3000 (900m)	249

HGH 113.0	06 110.5	07 110.35	24 111.5	25 108.5

FIX	24/25 : HGH 249/5.5, R020		
HUD	06(22')	11155'	24(22')
	07(22')	11811'	25(22')

APU Start, TUG Connect After Beacon L/T ON
Red/Blue PushBack, Verify RWY & Direction
After T/O, Report T/O RWY



HGH APP 120.4 – 119.82
SHA APP 119.975
SHA 120.55 – 120.95
ICN 125.725(124.52) – 120.72 – 126.17

China

ICN : STAR

ILS 33/34	OLMEN xE	ENPIL	OLMEN 180
ILS 15/16	OLMEN xH	MUNAN	OLMEN 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZSWH(WEH)146ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA None No D-ATIS

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

33L/R	**NOPIK xA**	**333**	**333**	**ATC**	**333**
34L/R	NOPIK xY	333	333	ATC	333
15L/R	**BINIL xC**	**153**	**153**	**5000**	**153**
16L/R	BINIL xH	153	153	5000	153

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

33L/R : NC05L/R, R242 P518 R068, R278	34L/R : EO34L/R, R242 P518 R068, R278

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 132.8 – DLC 132.95

TAO 133.725

WHE TWR 118.65 (130.0)

China

WEH (TL 69) : RNAV STAR (QFE but QNH Operation)
Around AGAVO ATIS 126.25 get RWY, APP info

03	IKE xx F	WH106	RNP ILS Z 03
21	IKE xx F	WH206	RNP ILS Z 21

HUD	03(113')	8530'	21(146')

03 : B(6500'), C(5300'), 21 : D(7300') 90 Turn Vacate
180 Back No Terminal Side Turn
RWY 21 Short Track Miles -> Req one Orbit WH113
Watch MLDW Due to RWY 21 ShortCut
Descend Published Report Published = CLR APP
PAX Window must closed Between APP and DEP

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**

TL

TA

■ 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

QFE Next Page

WEH Altitude / Height Conversion Table

xxxx meters on STD 이후 적용
xxxx meters on QFE xxxx -> REQ QNH
-> QNH xxx SET후 Conversion Table 사용
03 Elev : 113ft = 4.0hPa, 21 Elev : 146ft = 5.2hPa

Height based on QFE (instructed by ATC)	Altitude base on QNH (Set Altitude : QFE + Elev SET)	
xxx m on QFE	xxx m plus Elevation Set	
2400 m	8000 ft	
2100 m	7000 ft	
1800 m	6000 ft	
1500 m	5100 ft	
1200 m	4100 ft	
1100 m	3700 ft	
1000 m	3400 ft	
900 m	3100 ft	
800 m	2700 ft	
700 m	2400 ft	
600 m	2100 ft	
550 m	1900 ft	
500 m	1800 ft	
400 m	1400 ft	
350 m	1300 ft	
300 m	1100 ft	
280 m	1000 ft	
200 m	800 ft	
100 m	400 ft	
0 m	03 : 113 ft	21 : 146 ft

ZSWH(WEH)146ft	RKSI(ICN) 23ft
None -5 Min, TWR 118.65 By Voice	PA KE ICN 131.5

WEH (TA 4930') : RNP SID (NADP 1)

03	IKE xx X	026	026	ATC 4500m(14800')	026
21	IKE xx X	206	206	ATC 4500m(14800')	206

WHE 115.8	03 110.1	21 110.7
HUD	03(113')	8530'	21(146')

RWY03/21 Expect C – Taxi down on RWY – 180 Back
Taxi to RWY21 via B -> Confirm 180 Back!!!
180 Back No Terminal Side Turn
PAX Window must closed Between APP and DEP

TWR 118.65
TAO 133.725
DLC 132.95
TGU 132.8

China

ICN : STAR

ILS 33/34	REBIT xA	PAMBI	REBIT 170
ILS 15/16	REBIT xH	MUNAN	REBIT 170
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , P518 R068, R278		

33R : C4(7529'), C5(8513'), 33L : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZLXY(XIY)1572ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA Airport Operation Center 132.0

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

33L/R	**NOPIK xA**	**333**	**333**	**ATC**	**333**
34L/R	NOPIK xY	333	333	ATC	333
15L/R	**BINIL xC**	**153**	**153**	**5000**	**153**
16L/R	BINIL xH	153	153	5000	153

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

33L/R : NC05L/R, R242 P518 R068, R278	34L/R : EO34L/R, R242 P518 R068, R278

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 132.8 – DLC 132.95

TAO 133.725 – 128.15

PEK 125.6 – 120.35 – 133.65 – 134.15 – 126.7

XIY 125.3 – 120.95

XIY APP 119.05 – 120.2 – 125.1

China

XIY (TL 118) : RNAV STAR (Spd Restriction at REF Page)

Req ILS APP instead of Visual APP

05L/R	**LOVRA xx W**	**XY906**	**RNAV ILS Z 05L/R**
23R/L	**LOVRA xx Y**	**XY801**	**RNAV ILS Z 23R/L**
HUD	05L(1562')	9843'	23R(1569')
	05R(1556')	12467'	23L(1538')

05L : A3(6778'), A2(9032'), 23R : A6(5544'), A7(6512')
05R : D4(5613'), D3(7322'), 23L : D5(5646'), D6(7408')

Follow Me Car, CTC Apron before Gate in
"Closing to xx TWY, apply to change to xx Freq"
Taxi RTE in Jeppesen Chart.

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

TL

TA

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

ZLXY(XIY) 1572ft	RKSI(ICN) 23ft
Airport Operation Center 132.0 DCL -30~10 Min, Read Back	PA KE ICN 131.5

XIY (TA 9850') : RNAV SID (NADP 1)

05L /R	WJC xx W/Z	052	052	ATC 1500m(4900')	052
23R /L	WJC xx X/Y	232	232	ATC 1500m(4900')	232

LCZ 109.0	05L 109.9	23R 110.3	05R 109.3	23L 111.1

FIX	23R/L : LCZ /18			
HUD	05L(1562')	9843'	23R(1569')	
	05R(1556')	12467'	23L(1538')	

NOTAM TO Perf, ADT = CTOT

DEP 119.9~ XIY 120.95 ~ 124.1
PEK 126.7 ~ 134.15 ~ 128.3 ~ 120.35
DLC 123.2 ~ 132.95
TAE 132.8

China

ICN : STAR

ILS 33/34	REBIT xA	PAMBI	REBIT 170
ILS 15/16	REBIT xH	MUNAN	REBIT 170
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , P518 R068, R278		

33R : C4(7529'), C5(8513'), 33L : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZGHA(CSX)220ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA Changsha Reporting Office 131.15

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

33L/R	**NOPIK xA**	**333**	**333**	**ATC**	**333**
34L/R	NOPIK xY	333	333	ATC	333
15L/R	**BINIL xC**	**153**	**153**	**5000**	**153**
16L/R	BINIL xH	153	153	5000	153

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

33L/R : NC05L/R, R242 P518 R068, R278	34L/R : EO34L/R, R242 P518 R068, R278

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 132.8 – DLC 132.95

TAO 133.725 – 128.15 – PEK 127.35 – 127.5

PEK 132.2 – SHA 118.9 – WUH 119.7 – 134.35

CSX 132.55 – 125.6 – 119.65

HUH TWR 118.55(118.175)

China

CSX (TL118) : RNAV STAR

After OLMIB 6600M, STAR or RDR Vec before GUSIV

18L/R	**PEX xx W**	**HA366**	**RNAV ILS Z 18L/R**
36R/L	**PEX xx X**	**HA383**	**RNAV ILS Z 36R/L**

HUD			
	18L(212')	**12467'**	**36R(188')**
	18R(219')	**10499'**	**36L(198')**

18L : C9(5629'),C7(6948'),36R : C11(5675'),C13(6961')

18R : B4(5167'), B3(6427'), 36L : B5(5206'), B6(6443')

Position Report to GND first CTC

TWY T9 less 29.2m , Follow Me Car

APU Procedure but APU available cabin 26도 이하시

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

TL

TA

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

ZGHA(CSX)220ft	RKSI(ICN) 23ft
Changsha Reporting Office 132.0 DCL -20m, Read Back	**PA** KE ICN 131.15

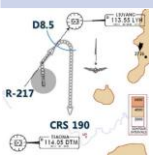
XIY (TA 9850') : RNAV SID (NADP 1)

18R/L	OPO xx W	181	181	ATC(900m)	181
36L/R	OPO xx X	001	001	ATC(900m)	001

18R 110.3	36L 109.9	18L 109.3	36R 111.1

FIX	36L/R : LYH217/8.5, R190 **(LYH 113.55 for EO)**
HUD	18R(219') 10499' 36L(198')
	18L(212') 12467' 36R(188')

CTC DEP 119.65 without TWR Instruction



DEP 119.65– CSX 132.55
WUH 134.35 – 120.975 – 135.65
125.775
SHA 132.4 – 125.325 – 120.55
120.95

China

ICN : STAR

ILS 33/34	REBIT xA	PAMBI	REBIT 170
ILS 15/16	REBIT xH	MUNAN	REBIT 170
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , P518 R068, R278		

33R : C4(7529'), C5(8513'), 33L : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	VHHH(HKG) 28ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA HAS FLT Dispatch 131.6

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

33L/R	BOPTA xA	333	333	ATC	333
34L/R	BOPTA xY	333	333	ATC	333
15L/R	BOPTA xC	153	153	5000	153
16L/R	BOPTA xH	153	153	5000	153

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

33L/R : NC05L/R, R242 YJU R271	34L/R : EO34L/R, 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)

ICN 124.52(125.72) – FUK 127.5 – TPE 125.5 – 126.7
129.1 – HKG RDR 121.3 – 126.5
DEP 122.0 – Final 119.1 – 119.35

China

HKG : Terminal Tx RTE + STAR Chart (TL110)

ENPET FL260, RWY25R After TOPUN - APP Mode

07L(R)	ABBEY xxA SIERA xxA/C	LIMES	ILS 07L(R)
25R(L)	ABBEY xxB SIERA xxB/D	TD	RNAV tx ILS 25R ILS 25L

HUD				
	07L(23')	11896' DIS TH	25R (23')	
	07R(27') 11942' DIS TH		12467'	25L(27')

07L : C7(5882'), C8(7194'), 25R : C6(5882'), C5(7211')
07R : J7(6916'), J8(7998'), 25L : J5(6916'), J4(8192')

Tx RTE - STAR - APP Chart Many SPD Restrictions
xxR Dash Line for B737, APU BAN off Procedure

VHHH(HKG) 28ft	RKSI(ICN) 23ft
HAS FLT Disp 131.6 DCL 20분전 5분 차이시 CTC Comm **PA**	KE ICN 131.5

HKG : SID + Terminal Tx RTE Chart TA 9000
NADP2 : 1000 SPD INTV (Vzf+10~20kts), 1500 CLB TH
(NADP 1/2 for 07L/R)

07L(R)	OCEAN xxE(A) (RASSE xxZ/X)	074	074	5000	074
25R(L)	OCEAN xxB/F	254	254	5000	254

SMT 114.8	07L 111.5	25R 108.75	07R 110.9	25L 110.9
HUD	07R/L(27'/23')	12467'	25L/R(27'/23')	
E. O	07L(R) : LKC R105(SMT /3), LKC105/9.5 R185 25R(L) : ITFR(ITFL)254/10, R156			

SID – Tx RTE Chart Many SPD Restriction

HKG DEP 123.8 – RDR 118.925
TPE 129.1 – 126.7 – 123.6 – 125.5
FUK 127.5 – ICN 125.725(124.52)
ICN – 120.72 – 126.17
APP – 119.75

China

ICN : STAR

ILS 33/34	OLMEN xE	ENPIL	OLMEN 180
ILS 15/16	OLMEN xH	MUNAN	OLMEN 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZBTJ(TSN) 6ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA Air China Tianjin 132.0

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

33L/R	**NOPIK xA**	**333**	**333**	**ATC**	**333**
34L/R	NOPIK xY	333	333	ATC	333
15L/R	**BINIL xC**	**153**	**153**	**5000**	**153**
16L/R	BINIL 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 P518 R068, R278	34L/R : EO34L/R, R242 P518 R068, R278

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 132.8 – DLC 132.95
TAO 133.72 – 128.15 – PEK 125.6
TSN APP 119.27 – TWR 118.425(130.0)

China

TSN : STAR (Missed App 1970' Initially)

16L/16R	**DUMAP xYA/ZA**	**TJ960 TJ919**	**ILS 16L**/16R
34R/34L	**DUMAP xZA**	**TJ840 TJ820**	**ILS 34R**/34L

HUD	**16L(4')**		**10499'**	**34R(5')**
	DIS TH 16R(5')	10499'/11811'		34L(6')

FIX : RWxx /8

16L :W3(6269'),W2(9809'), 34R :W7(6443'),W8(7591')
16R :B4(5177'),B3(7191'), 34L :B5(5183'),B6(7201')

Follow me car on D, TAXI SPD Max 27kts

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

TL

TA

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

ZBTJ(TSN) 6ft	RKSI(ICN) 23ft
Air China Tianjin 132.0 DCL 30분전, Voice 10분전 (Read Back!) **PA**	KE ICN 131.5

TSN : SID (NADP 1) Caution 600m Level Off – SPD Inc

16R /16L	MUGLO xZD	161	161	600m ATC	161
34L /34R	MUGLO xZD xYD	341	341	600m ATC	341

TAJ 112.1	16L 109.7	34R 111.5	16R 110.9	34L 110.5

HUD	16R(5') 16L(4')	11811' 10499	34L(6') 34R(5')

16R : Do not pass A11
Confirm Parking Brake Release before Push back

DEP 119.27
PEK 125.6
DLC 123.2 – 132.95
ICN 132.8 – APP 119.75

China

ICN : STAR

ILS 33/34	REBIT xA	PAMBI	REBIT 170
ILS 15/16	REBIT xH	MUNAN	REBIT 170
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , P518 R068, R278		

33R : C4(7529'), C5(8513'), 33L : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZHCC(CGO) 496ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA Zhengzhou AOC 132.0

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

33L/R	**NOPIK xA**	**333**	**333**	**ATC**	**333**
34L/R	NOPIK xY	333	333	ATC	333
15L/R	**BINIL xC**	**153**	**153**	**5000**	**153**
16L/R	BINIL xH	153	153	5000	153

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

33L/R : NC05L/R, R242 P518 R068, R278	34L/R : EO34L/R, R242 P518 R068, R278

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 128.7 – DLC 132.95– TAO 133.05
128.55 – 128.15 – PEK 127.35 – TAO 128.35
CGO 119.35 – 120.72 – APP 126.35

China

CGO : STAR xxL/R L/D RWY Freq CHG ATIS
(Caution 12R/30L LOC false Capture, Fluctuation)

12L/12R	**NOP xxU RNAV**	**DZY**	**ILS Z 12L**/12R
30R/30L	**NOP xxV RNAV**	**CC527**	**ILS Z 30R**/30L

HUD	12L(496')	11811'	30R(484')
	12R(494').	11155'	30L(484')

FIX : ILS Ident /8 (180kts) /6 (160kts) APP SPD in JEPP

12L : D7(5853'),D8(6955'), 30R :D6(5833'),D5(6935')
12R :H7(5702'),H8(6883'), 30L :H5(5672'),H4(6932')

Follow me car, APU Off But 26도 이하 사용가능

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

TL

TA

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

ZHCC(CGO) 496ft	RKSI(ICN) 23ft
Zhengzhou AOC 132.0 DCL (Read Back!)	**PA** KE ICN 131.5

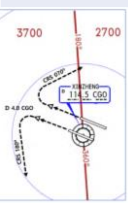
CGO : SID (NADP 1) Lower ALT – Consider Add Fuel

12R /12L	OKT xX RNAV	116	116	1200m ATC	116
30L /30R	OKT xY RNAV	296	296	1200m ATC	296

CGO 114.5	12L 108.5	30R 110.7	12R 110.3	30L 109.3

HUD	12R(494') 12L(496')	11155' 11811'	30L(484') 30R(484')
EO	30L : CGO 296/4, R180	30R : CGO 296/4, R070	

Req Pushback to Apron 121.7



DEP 126.35(AUTO or NOT)

CGO 124.2 – 119.35

TAO 128.35 – PEK 127.35 – 128.15

DLC 132.95 – ICN 128.7

China

ICN : STAR

ILS 33/34	REBIT xA	PAMBI	REBIT 170
ILS 15/16	REBIT xH	MUNAN	REBIT 170
HUD	33L/R 34L(23')	12303'	15L/R 16R(23')
	34R(23')	13123'	16L(23')
FIX	RWY /8, /5 , P518 R068, R278		

33R : C4(7529'), C5(8513'), 33L : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	ZGDY(DYG) 713ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA None

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

33L/R	**BOPTA xA**	**333**	**333**	**ATC**	**333**
34L/R	BOPTA xY	333	333	ATC	333
15L/R	**BOPTA xC**	**153**	**153**	**5000**	**153**
16L/R	BOPTA xH	153	153	5000	153

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

33L/R : NC05L/R, R242 YJU R271	34L/R : EO34L/R, 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 126.17 – 120.72 – 124.52(125.72)
SHA 120.95 – 120.55 – 125.32 – 132.32 – 120.1
GZU 124.9 – 133.5 – WUH 134.35
119.3 – CHS 123.9
DYG TWR 118.45

China

DYG : STAR High Terr, ATIS within 100NM
DYG TWR no RDR Service KEEP FLT PLAN RTE

08	LIN xxA RNP	JX001	ILS X 08
26	LIN xxA RNP	DG944	ILS X 26
HUD	08(713') 3.2도	8530'	26(665') 3.2도

08 : J(6530'), DownSlope 0.65% **26 : B(6530')**

Do not Intercept RWY08 inside DYG 11NM(FIX)
RWY Grooved (AIP), Follow Me Car on A

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

TL

TA

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

ZGDY(DYG) 713ft	RKSI(ICN) 23ft
None Voice TWR	PA KE ICN 131.5

DYG : SID (NADP 1)
(RWY Grooved AIP)

08	LIN xxD	079	079	ATC (2400m)	079
26	LIN xxD	259	259	ATC (2400m)	259

DYG 114.4	08 109.7	26 108.9

HUD	08(713')	8530'	24(665')
EO	08 : DYG 079/8, R055	26 : DYG, R250	

TWR 118.45
CHS 123.9
GZU 124.9 – 133.5 – 133.25 – SHA 120.1 – 132.32
128.12 – 125.32 – 126.17 – 120.55 – 120.95
ICN 125.725(124.52) – 120.72 – 126.17
APP – 119.75

China

ICN : STAR

ILS 33/34	OLMEN xE	ENPIL	OLMEN 180
ILS 15/16	OLMEN xH	MUNAN	OLMEN 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKSI(ICN) 23ft	VVCR(CXR) 46ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA None No D-ATIS

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

33L/R	BOPTA xA	333	333	ATC	333
34L/R	BOPTA xY	333	333	ATC	333
15L/R	BOPTA xC	153	153	5000	153
16L/R	BOPTA xH	153	153	5000	153

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

33L/R : NC05L/R, R242 YJU R271	34L/R : EO34L/R, 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)

FUK 127.5 – TPE 125.5 – 127.9 – 129.1 – MNL 119.3
MNL RDO 8942(5655) – HCM 120.7
132.35 – 134.05 – CXR APP 127.9

SE Asia

CXR : STAR (Wx, Using RWY from HoChiMinh CTL)
RWY20 Max Tail Wind 15kts, chk condition
CAAV STAR, APP not Authorized

20L/R	COTUN, BANKE, HUNTA, NHATA xx	CR xxx AFT IAF STEEP DES(3.8)	ILS Y 20L RNP 20R
02R/L			ILS X/Z 02L/R

HUD			
	02R(15') 3.5도	10000'	20L(34')
	02L(20') 3.5도	10010'	20R(46')

20L : G3(6735'), G1(9603'), 02R : G5(6528'), G7(9662')
20R : W4(5971'), W3(7680'),02L : W5(5606'), W6(7345')

FollowMe Car Service, **Sensitie VDGS Caution!!**

VVCR(CXR) 46ft	RKSI(ICN) 23ft
None TWR 118.2 By Voice	PA KE ICN 131.5

CNX : RNP SID (NADP 1)
Follow Restrictions due to Military Traffic

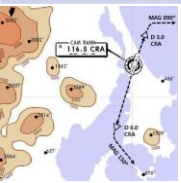
02L/R	NIHOA xxA	020	020	ATC/FL100	020
20R/L	NIHOA xxB	200	200	ATC/FL100	200

CRA 116.5	02R 111.9	02L 110.7	20L 110.3

02 : CRA 020/2, R090
20 : CRA 200/6, R150

HUD	02L(20') 3.5도	10010'	20R(46')
	02R(15') 3.5도	10000'	20L(34')

TWY Y5 only below wingspan 36m/118ft



DEP 127.9 – HCM 134.05
DAD 123.3 – SNY 122.6(-5min)
HKG 132.15 – 127.1 – TPE 129.1
125.5 – FUK 127.5(SENKA /20)

SE Asia

ICN : STAR

ILS 33/34	OLMEN xE	ENPIL	OLMEN 180
ILS 15/16	OLMEN xH	MUNAN	OLMEN 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKSI(ICN) 23ft	VVTS(SGN) 33ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA None No D-ATIS

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

33L/R	BOPTA xA	333	333	ATC	333
34L/R	BOPTA xY	333	333	ATC	333
15L/R	BOPTA xC	153	153	5000	153
16L/R	BOPTA xH	153	153	5000	153

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

33L/R : NC05L/R, R242 YJU R271	34L/R : EO34L/R, 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)

FUK 127.5(SENKA /20) – TPE 125.5 – 127.9 – 129.1
MNL 119.3 – MNL RDO 8942(5655) – HCM 120.7
132.35 – SGN APP 125.5

SE Asia

SGN : STAR (CPDLC : VVHM) TL 190

25R(L)	DALAP xxH	SOKAN	ILS W 25R/L
07R(L)	DALAP xxG	SAMDU	ILS W 07R, VOR 07L

HUD				
	25R(33')		10007'	07L(20')
	25L(32')	12559'	10036' (DISP TH)	07R(24')

25R:P4(6158'), P5(6991'),07R:S6(4412'),S5(6574',110도)
B737 P4, P5, S6, S5 Unable Tell ATC
25L : S7(6824'), S8(9671'), 07L : P3(6266'), P2(8907')

FollowMe Car Service in Ramp (Caution STOPBAR L/T)
Sensitie VDGS!!! (0.5m이내, 2m STOP시 바로 정지)

VVTS(SGN) 33ft	RKSI(ICN) 23ft
None -15min, DEL 121.8 By Voice	PA KE ICN 131.5

SGN : RNP SID (NADP 1) TA 18000'
Request RWY due to Performance

25L(R)	KADUM xxD	250	250	11000	250
07L(R)	KADUM xxE/A	070	070	ATC	070

TSH 116.8	25R 110.5	07R 111.7	25L 108.3

HUD	25R(33')	10007'	07L(20')
	25L(32')	12559'	07R(24')

Caution TSAT +- 5min
ATC CLR, RWY CHG After TAXI
Caution STOPBAR L/T, Follow Car Service

APP 125.5 – HCM 120.1 – 134.05
HNI 123.3 – SNY 122.6(–5min)
HKG 132.15 – 127.1 – TPE 129.1 – 127.9
126.7 – 123.6 – FUK 127.5(SENKA /20)

SE Asia

ICN : STAR

ILS 33/34	OLMEN xE	ENPIL	OLMEN 180
ILS 15/16	OLMEN xH	MUNAN	OLMEN 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	VDPP(PNH) 40ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA PNH DIS 129.0

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

33L/R	BOPTA xA	333	333	ATC	333
34L/R	BOPTA xY	333	333	ATC	333
15L/R	BOPTA xC	153	153	5000	153
16L/R	BOPTA xH	153	153	5000	153

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

33L/R : NC05L/R, R242 YJU R271	34L/R : EO34L/R, 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)

FUK 127.5(SENKA /20) – TPE 125.5 – 127.9 – 129.1
MNL 119.3 – MNL RDO 8942(5655)
HCM 120.7(MIGUG) – PNH 127.5
APP 123.8

SE Asia

PNH : RNAV STAR (TL ATC, ATIS)

Caution CLR Limit GONLY, Do not Confuse ANAT, ANAB

05	NANXY xxB	BOSET	RNP 05
23	DETMA xxA	KOSDA Del Holding Data	ILS 23

HUD	05(40') 9843'	9350' (DISP TH) 23(37')

05 : E(6240'), H(7148'), 23 : C(7004'), 180 Back
No Centerline L/T, No Vacate Lead L/T(Only Edge L/T)

APU Off after 5min after parking
Stand xx Yellow Lead-in Marking(xx A,B Blue Line!!)

VDPP(PNH) 40ft	RKSI(ICN) 23ft

PNH DIS 129.0
READY! TWR 118.0 By Voice

PA

KE ICN 131.5

PNH : RNAV SID (NADP 1) TA 10000'

RWY 23 SEYHA Watch Over Bank

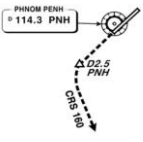
05	NANXY xx (SEYHA xx)	046	046	ATC (5000)	046
23		226	226	ATC	226

PNH 114.3	23 109.7

HUD	05(40')	9843'	23(37')
E.O	PNH 226/2.5, R160		

APU Start 10min Before DEP

Line up 180 Back follow Yellow Guide Line



APP 123.8 – PNH 127.5
HCM 134.05 – 120.7
MNL RDO 8942/5655(ARESI)
MNL 119.3(AKOTA)
TPE 127.9 – 125.5
FUK 127.5(SENKA /20)

SE Asia

ICN : STAR

ILS 33/34	OLMEN xE	ENPIL	OLMEN 180
ILS 15/16	OLMEN xH	MUNAN	OLMEN 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 :** B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), **15R :** B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKSI(ICN) 23ft	RPLL(MNL) 75ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 CTC Comm	PA PAGSS Oper 131.0 No D-ATIS

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

33L/R	**BOPTA xA**	**333**	**333**	**ATC**	**333**
34L/R	BOPTA xY	333	333	ATC	333
15L/R	**BOPTA xC**	**153**	**153**	**5000**	**153**
16L/R	BOPTA xH	153	153	5000	153

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

33L/R : NC05L/R, R242 YJU R271	34L/R : EO34L/R, 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)

FUK 133.6 – 127.5 – 123.2 – 123.9(BISIG ETA)

MNL RDO 8903(13300)

MNL 128.7(BEDIP) – APP 124.4

SE Asia

MNL : RNP STAR with RNP APP (CPDLC : RPHI) TL 130

3 STAR Difference Track Mile & IAF

06	**POLIO, NABAL (7,5,3)R/P**	**GONDO (DAGAT)**	**RNP 06 ILS 06**
24	**DCT MIA RDR Vec** (TMA 250, 20NM 210)	**MUTAN (MEDAM)**	**RNP 24 ILS 24**
HUD	**06 (16')**	11188'	**24 (75')**

06 : R2(6223'), R1(8221'), 24 : R4(6095'), R5(7746')

Unable advise ATC, Do not confuse R2, E2, RWY31

CTC Ramp before Entering apron, Report Chockin Time

Caution HotSpot RWY31

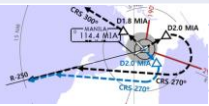
RPLL(MNL) 75ft	RKSI(ICN) 23ft
PAGSS Oper 131.0 -5min, CLR 125.1 By Voice Aircraft Type, Proposing ALT	**PA** KE ICN 131.5

MNL : RDR Vector to CAB (NADP 1) TA 11000'
Main RWY H/D Climb 7000ft, CLR for T/O

06	CAB xx R/A (Cabanatuan)	061	061	12000 ATC	061
24	CAB xx P/B (Cabanatuan)	241	241	9000 ATC	241

MIA 114.4	06 109.1	24 109.9
E.O	06 : MIA /2, R250	
HUD	06(16') 11188'	24(75')

Req **ENG Startup to GND** -> Req **Pushback to Ramp**



DEP 124.4(121.1)
MNL 128.7 – 119.3(LEBIX ETA)
TPE 127.9 – 125.5
FUK 127.5 – 133.6
ICN 125.72 – 124.52

SE Asia

ICN : STAR

ILS 33/34	OLMEN xE	ENPIL	OLMEN 180
ILS 15/16	OLMEN xH	MUNAN	OLMEN 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	RCMQ(RMQ)665ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA Mandarin Operation 131.85/95

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

33L/R	**BOPTA xA**	**333**	**333**	**ATC**	**333**
34L/R	BOPTA xY	333	333	ATC	333
15L/R	**BOPTA xC**	**153**	**153**	**5000**	**153**
16L/R	BOPTA 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 : EO34L/R, 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)

FUK 127.5(SENKA /20)

TPE 125.5

APP 128.5 – 119.7 – 130.1

SE Asia

RMQ : No STAR TL130 COPRA FL220
ILS Z 36 : HLG31 SPD Modify

18	**RDR Vector**	**HLG**	**ILS 18**
36		**FATAN (ARROZ)**	**ILS Z 36 (ILS Y 36)**
HUD	**18(653')**	**12005'**	**36(663')**
FIX	RWxx /8		

18 : EOR(12005'), 36 : W5(8500')

E1~4, W1 for Military
Follow Me Car on W, Report W3 Intersection

RCMQ(RMQ)665ft	RKSI(ICN) 23ft
Madarin Operation 131.85/95 Voice to GND	**PA** KE ICN 131.5

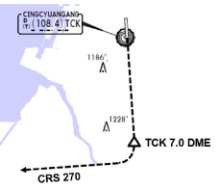
RMQ : SID (NADP 1) TA 11000

18	HLG xA (SPRAY xS)	181	181	ATC 7000	181
36	HLG xB (SPRAY xT)	001	001		001

18 111.7	36 111.5

HUD	18(653')	12005'	36(663')
EO	18 : TCK 181/7, R270		

ATC CLR after PushBack, Report W3 Intersection



TWR 118.75
TPE APP 130.1 – 119.7
TPE 125.5
FUK 127.5 (SENKA /20)

SE Asia

ICN : STAR

ILS 33/34	OLMEN xE	ENPIL	OLMEN 180
ILS 15/16	OLMEN xH	MUNAN	OLMEN 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, HIRO

RKSI(ICN) 23ft	RCTP(TPE)108ft
KE ICN 131.5 DCL -10분 TOBT5분 차이시 CTC Comm	PA Dynasty Operation 131.3

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

33L/R	BOPTA xA	333	333	ATC	333
34L/R	BOPTA xY	333	333	ATC	333
15L/R	BOPTA xC	153	153	5000	153
16L/R	BOPTA xH	153	153	5000	153

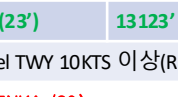
NCN	33L	33R	15L	15R
113.8	109.3	108.9	111.9	109.1
WNG	34L	34R	16L	16R
112.9	109.95	108.1	110.35	108.55

33L/R : NC05L/R, R242 YJU R271	34L/R : EO34L/R, 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)

FUK 127.5(SENKA /20)
TPE 125.5
APP 128.5
125.6



SE Asia

TPE : STAR TL130 COPRA FL200 (FL250-130 : 280kts, FL130-10000ft : Max 280kts, APP Chart Text)

05L/R	BAKER xx A	JAMMY	ILS 05L/R
23R/L	BAKER xx B	AUGUR	ILS 23R/L

HUD			
	05L(74')	12008'	23R(63')
	05R(107') DIS 12139'		23L(96') DIS 11319'

05L : N7(5787'), N6(6738'), 23R : N6(4468'), N4(6656')
05R : S6(5419'), S7(7244'), 23L : S5(5442'), S4(7470')

No VOR at TPE, A-VDGS see above

RCTP(TPE)108ft	RKSI(ICN) 23ft
Dynasty Operation 131.3 DCL, Voice -5min **PA**	KE ICN 131.5

TPE : RNAV SID (NADP 1) TA 11000
Be Ready Intersection T/O, A030 -> 3000ft

05R/L	PIANO xxA/C	054	054	ATC	054
23L/R	PIANO xxD/B	234	234	ATC	234

05L 111.1	23R 109.3	05R 110.7	23L 111.9

HUD	05L(74')	12008'	23R(63')
	05R(107')	12467'	23L(96')

"DCT PIANO then L3 RNAV Transition"

DEP 128.5
TPE 125.5
FUK 127.5 (SENKA /20)

SE Asia

ICN : STAR

ILS 33/34	OLMEN xE	ENPIL	OLMEN 180
ILS 15/16	OLMEN xH	MUNAN	OLMEN 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 : B4(7563'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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 10kts 이상, **HIRO**

RKSI(ICN) 23ft	PGUM(GUM) 305ft
KE ICN 131.5 DCL -10분 TOBT 5분 차이시 PA CTC Comm	Menzies Operations 129.4 No DATIS

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	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

33L/R : NC05L/R, R242 YJU R271	34L/R : EO34L/R, 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)

FUK 133.15 – 135.3 – 132.3

TKO RDO (BIXAK) 17904/8870

SFO RDO (PAKDO) 4666/8903

GUM (NATSS) 118.7

SE Asia

GUM : no STAR (UTC + 10, TL 180)
CPDLC BIXAK to NATSS : RJJJ to KZAK
CTC GUM CERAP 118.7 (SQ2100) Before 250NM

06L/R	**UNZ/-15, OBALE(MEMKE)**	ILS 6L/R (Upslope)
24L/R	**UNZ/-15, CIBOL(WABOX)**	RNAV Y 24L/R (Downslope)
HUD	**6L(256') 11014' DISTH** **6R(258') 10014'**	**24R(305') 12014'** **24L(293') 8710' DISTH**
FIX	UNZ /250 (UNZ VOR out of 3.3NM A/P)	

06L : E(6473'), F(6975'), 24R : D(6282'), C(8264')
06R : E(6502'), G(7808') , 24L : B(8254')

Prepare GS OUT, Vacate RWY CTC Ramp CTL

EDTO Procedure APU Remain ON

PREFLIGHT

Apply Alternate Airport IFR Wx Minima for Planning (Ops Pecs C055) -> EDTO ERA Only(ERA no Wx)

RVSM CHK : **CAPT/FO 50ft, PILOT/FE 75ft**

FUEL CROSS FEED V/V CHK : **On -> Off, V/V L/T CHK**

NAV DATA Input : **EEP, ETP1, ETP2, EXP**

HF SELCAL CHK : Jeppesen - ENT DATA Pacific

SEOUL RADIO : 8903(3004,6532,13300,13303,17904)

AFTER START

APU Remain **ON** Until Passing EXP

AFTER LEVEL OFF (CRZ CHK)

RVSM CHK : **CAPT/FO 200ft**

BEFORE EEP (Entry Point, ERA 기준)

60min 기준 : B737-900 398NM, Others 408NM (winthin MAX 120min 750NM)

1 ELEC SRC Fail Before EEP : **Reroute, Divert**

FIX 1 : **EEP**, FIX 2 : **ETP1**

FMS ALT A/P SET : **ALTN Page**

EDTO C/L : **Fuel, A/C, MSA, ALT Wx & NOTAM**

Review Contingency Procedure

- Drift Down 30도이상, 5NM, FL290이하, +-500ft

- Wx Dev 5NM 이상, +-300ft

EDTO Segment

1 ELEC SRC Fail After EEP : **Continue**

Apply Actual Wx for Actual Divert

ETP (Equal Time Point, EDTO ERA기준)

FIX, ALTN Page SET

EDTO C/L : **Fuel, A/C, MSA, ALT Wx & NOTAM**

Last ETP(Critical Point) Fuel less then PLAN – **Continue by PIC**

EXP (Exit Point)

APU - **OFF**

1 HR Before TOD

FUEL CROSS FEED V/V CHK : **On -> Off, V/V L/T CHK**

PGUM(GUM) 305ft	RKSI(ICN) 23ft
Menzies Operations 129.4 PA By Voice, No DATIS	KE ICN 131.5

PUS : no SID (RWY 06 LNAV not Arming on GND)

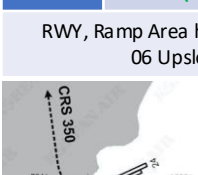
06L/R	RWY H/D	063	063	ATC (9000)	063
24L/R	RWY H/D	243	243	ATC (9000)	243

UNZ 115.8	06L 110.3	06R 110.9

24 : UNZ /2.5 (UNZ VOR out of 3.3NM A/P)

HUD	06L(256') 12014' 24R(305') 06R(258') 10014' 24L(293')

RWY, Ramp Area have lots of Slope, Be Caution
06 Upslope, 24 Downslope



DEP 118.7
SFO RDO (NATSS) 8870/6532
TKO RDO (PAKDO) 3455/8903
FUK 132.3 (HIDEK)
KOB 133.85 – 118.9
TAE 125.37

SE Asia

ICN : STAR

ILS 33/34	GUKDO xE	ENPIL	GUKDO 180
ILS 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 : B4(7463'), B5(8513')
15L : C2(7522'), C1(8536'), 15R : B3(7454'), B2(8641')

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

RKPK(PUS) 13ft	RCTP(TPE)108ft
KE Gimhae 129.2 DCL -5분	PA Dynasty Operation 131.3

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

36	SOORO x TOPAX tx	306	280	ATC	279
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'

RWY36 400ft Man L/H turn, Max Taxi SPD 20KTS

DEP 125.5 – TGU 128.17 – 124.52(125.72)

FUK 127.5(SENKA /20)

TPE 125.5

APP 128.5

125.6

SE Asia

TPE : STAR TL130 COPRA FL200 (FL250-130 : 280kts, FL130-10000ft : Max 280kts, APP Chart Text)

05L/R	BAKER xx A	JAMMY	ILS 05L/R
23R/L	BAKER xx B	AUGUR	ILS 23R/L

HUD	05L(74')	12008'	23R(63')
	05R(107') DIS 12139'	23L(96') DIS 11319'	

05L : N7(5787'), N6(6738'), 23R : N6(4468'), N4(6656')
05R : S6(5419'), S7(7244'), 23L : S5(5442'), S4(7470')

No VOR at TPE, A-VDGS see above

RCTP(TPE)108ft	RKPK(PUS) 13ft
Dynasty Operation 131.3 PA DCL, Voice -5min	KE Gimhae 129.2

TPE : RNAV SID (NADP 1) TA 11000
Be Ready Intersection T/O, A030 -> 3000ft

05R/L	PIANO xxA/C	054	054	ATC	054
23L/R	PIANO xxD/B	234	234	ATC	234

05L 111.1	23R 109.3	05R 110.7	23L 111.9

HUD	05L(74')	12008'	23R(63')
	05R(107')	12467'	23L(96')

"DCT PIANO then L3 RNAV Transition"

DEP 128.5
TPE 125.5
FUK 127.5 (SENKA /20)
ICN 125.725(124.52) – 128.17
APP – 125.5

SE Asia

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

ILS 36	KEVOX x	ANROD	9DME LG, 8DME FLAP
VOR 18	GAYHA x	ANROD	18 Circling Click!!
HUD	36L(13') 10499' 36R(8') 8999'		18R(13') 8530' 18L(13') 8999'
FIX	36 : IKMA/IKHE /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	VTBS(BKK) 4ft
KE Gimhae 129.2 DCL -5분 **PA**	KE Bangkok 131.25

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

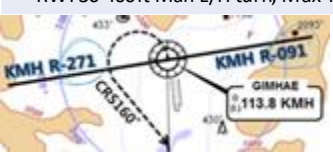
36	SOORO x TOPAX tx	306	280	ATC	279
18	BULIM x ENGOT tx	182	182	5000	182

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'

RWY36 400ft Man L/H turn, Max Taxi SPD 20KTS



DEP 125.5 – TGU 128.17 – 124.52(125.72)

FUK 127.5(SENKA /20)

TPE 125.5 – 129.1 – HKG 132.15 – 127.1

SNY 122.6 – HNI 123.3 – VTN 128.3

BKK 132.1 – 133.1 – APP 119.1

SE Asia

BKK : STAR TL130 UTC+7 (SPD CTL via STAR Chart)

19L/R	EASTE xxC	No tx Vector	ILS Z 19L/R
01L/R	EASTE xxD	No tx Vector	ILS Z 01L/R
HUD	19L(4')	13123' No Groov	01R(4')
	19R(4')	12139'	01L(4')
FIX	RWxx /8 (180tks), /5 (160-150kts)		

19L : B8(5567'), B10(6965'), 01R : B7(5964'), B5(7962')
19R : E9(5052'), E13(7139'), **01L : E12(4872'), E7(6958')**

HIRO, Standard Taxi Route, APU Off Procedure

VTBS(BKK) 4ft	RKPK(PUS) 13ft
KE Bangkok 131.25 DCL -20min, Voice 133.8	**PA** KE Gimhae 129.2

BKK : RNAV SID (NADP 1) TA 11000
A-CDM REQ Pushback +-5min of TSAT
TSAT/CTOT Inform to GND CTL

19R/L	UPKUP xxG/J	195	195	6000	195
01R/L	UPKUP xxK/H	015	015	6000	015

SVB 111.4	19L 110.5	01L 109.1	19R 109.5	01R 110.1

HUD	19R(4')	12139'	01L(4')
	19L (4')	13123' No Groov	01R(4')

APU Start within 10min, Standard TAXI Route
19R Do not Pass E1, D2

DEP 119.25 (AUTO) – BKK 133.1 – VIE 128.3
HNI 123.3 – SNY 122.6 – HKG 127.1 – 125.35
TPE 129.1(126.7, 127.9) – 125.5
FUK 127.5 (SENKA /20)
ICN 125.725(124.52) – 128.17
APP 125.5

SE Asia

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

ILS 36	KEVOX x	ANROD	9DME LG, 8DME FLAP
VOR 18	GAYHA x	ANROD	18 Circling Click!!

HUD	36L(13') 10499' 36R(8') 8999'	18R(13') 8530' 18L(13') 8999'
FIX	36 : IKMA/IKHE /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)

CRZ FUEL Penalty (Approximation)

ISA+10℃ : 1% increase trip fuel
2000ft above/below OPT ALT : 1~2% increase trip fuel

NG
4000ft below OPT ALT : 3~5% increase trip fuel
8000ft below OPT ALT : 8~14% increase trip fuel

-8
4000ft below OPT ALT : 2% increase in trip fuel
8000ft below OPT ALT : 7% increase in trip fuel
0.01M above LRC : 1~2% increase in trip fuel

FUEL Consumption

APU
GND : 270LBS/hr
IN FLT : 180LBS/hr

TAXI
2 ENG, no APU : 1500LBS/hr (400LBS 16분 연료)

CRZ
1시간당 750ft 상승가능

Holding
분당 100LBS (4000LBS는 40분 Holding가능)
Missed App & Landing
1200LBS (과거 EDTO자료) 1500LBS이상 적용

FUEL Loading

Center Tank 1000LBS 이상시 Main Tank FULL

FUEL Overfill : 1000LBS 기준

- 8 : CTR fuel 1000~2000LBS T/O시 Low Press L/T ON -> **CTR Fuel 필요시 2000LBS이상으로**

Dispatch

Home

NO ENGINE BLEED TAKEOFF AFTER START (APU ON)

Consideration

- Max Taxi Weight Check (MTOW+500lbs)
- Improved T/O < No Bleed T/O < Improved T/O + No Bleed T/O
- OPT TOW Blank -> MTOW Check
- ELEC : ENG GEN, BLEED : APU BLEED (Max 17000ft)

Anti-ice 필요시 이륙전 수행, 불필요시 시동후 수행

BLUE(S/W CHG), BLACK(S/W NO CHG)

Stabilized - AFTER START Flow

GENs on BUS, Prob Heats ON 이후 수행

Right PACK switch . . . . . AUTO

ISOLATION VALVE switch . . . . . CLOSE

Left PACK switch . . . . . AUTO

Engine No. 1 BLEED air switch . . . . . OFF

APU BLEED air switch . . . . . ON

Engine No. 2 BLEED air switch . . . . . OFF

Trim Air Switch . . . . . ON

WING ANTI-ICE switch . . . . . OFF

(ENG BLEED ON & ISOL V/V AUTO까지 OFF)

Bleed Air DUCT PRESS indicator . Check

Ensure that eng bleed air supplies the packs.

APU Remain – ON (OFF 주의)

RECALL CHK

AFTER START CHECK LIST

Home

Continue
Next Page

NO ENGINE BLEED AFTERTAKEOFF

ENG Fail시 FE+1500ft or Obstacle CLR후 수행하라.

N1, Climb Thrust (APU Bleed MAX 17000ft)

Engine No. 2 BLEED air switch . . . . . ON

APU BLEED air switch. . . . . OFF

CABIN rate of CLIMB indicator 안정되면

Engine No. 1 BLEED air switch . . . . . ON

ISOLATION VALVE switch . . . . . AUTO

APU switch . . . . . OFF (or ON for EDTO)

For EDTO flights, APU EXP까지 ON 유지하라

Bleed Air DUCT PRESS indicator . .Check

Ensure that eng bleed air supplies the packs.

NO ENGINE BLEED LANDING

GA Thrust 추가 필요시 **10000ft** 이하에서 수행

FL200 or TOD 이하 **APU switch . . . . START**

When below 10,000 ft:

WING ANTI-ICE switch . . . . . OFF

Right PACK switch . . . . . AUTO

ISOLATION VALVE switch . . .. . CLOSE

Left PACK switch . . . . . AUTO

Engine No. 1 BLEED air switch . . . . . OFF

APU BLEED air switch . . . . . ON

Engine No. 2 BLEED air switch . . . . . OFF

Bleed Air DUCT PRESS indicator . .Check

Ensure that APU bleed air supplies the packs.

Home

GND CONDITIONED AIR USE

공항 요구로 APU OFF후 기내 온도 조절을 위한 방법
Air Cart와는 다르며 단순 에어컨 기능만 함.

GPU Connect – GPU ONBUS – APU OFF

APU Bleed OFF (no POM)

(APU 시동후 2분뒤 APU Bleed ON을 위해서 OFF)

Ground conditioned air 연결 전

PACK switches . . . . . OFF

Packs의 damage를 방지하기 위함.

APU Start – APU ONBUS – GPU, GND Air 제거

PACK switches . . . . . .As needed

After 2min, APU Bleed ON (no POM)

GND AIR CART USE

APU 부작동시 AIR CART로 PACK과 시동을 위해 사용
AIR CART는 외부 BLEED AIR의 역할을 함.

APU BLEED air switch . . . . . OFF

ISOLATION VALVE switch . . . . . OPEN

RECIRC FAN switches . . . . . AUTO

Trim Air Switch . . . . . ON

PACK switches . . . . . AUTO or HIGH

Cabin temperature selectors . . . . . AUTO

Set for desired temperature.

Duct pressure . . . . . 20 psi minimum

20 psi이하고 APU 사용가능시

ISOLATION VALVE switch . . . . . AUTO

APU BLEED air switch. . . . . ON

APU - left pack, external air - right pack.

Home ENG START
Next Page

STARTING with GND AIR SOURCE

#1 ENG 먼저 (우측에 AIR CART, GPU 연결됨)

"Req Engine Start up Present Positon~~~"

Engine No. 1 must be started first.

When cleared to start: -> **Before Start CHKLIST**

APU BLEED air switch . . . . . OFF

Engine No. 1 start . . . . . .Accomplish

Use normal start procedures. -> **PACKS – OFF…**

Generator No. 1 switch . . . . . ON

Disconnect Air Cart & GPU

"Request Pushback" (if needed)

#2 시동전 Air Cart 제거 반드시 확인!!

ENG CROSSBLEED START

#1 ENGBLEED 로 #2 ENG START

PushBack 완료, #2 ENG Area CLR

Parking brake . . . . . SET

Engine BLEED air switches . . . . . .ON

APU BLEED air switch . . . . . OFF

PACK switches . . . . . OFF

ISOLATION VALVE switch . . . . . AUTO

ENG Bleed air 들어오는지 확인하라.

#1 thrust lever . . . . Advance thrust lever

Duct Press 30PSI까지 TH 증가(-8 : IDLE)

Starting ENG #2

Stabilized - #1 ENG IDLE – After START Flow

AFTER START CHKLIST

Home

COLD TEMP CORRECTION General

5도 간격은 보수적으로 보간법 적용 됨

Min 제외한 모든 고도 수정은 ATC 인가 필요
Mandatory, Missed App 고도 ATC 사전 인가 없이 금지

반드시 고도 – FE 후의 고도를 보정해야함.

Ex) FE 200ft 공항 : 5000ft는 4800ft만 보정해야함.

Height Above FE (Feet) 200-800ft

TEMP	200	300	400	500	600	700	800
0	20	20	30	30	40	40	50
-5	20	30	40	40	50	60	70
-10	20	30	40	50	60	70	80
-15	30	40	50	60	80	90	100
-20	30	50	60	70	90	100	120

Height Above FE (Feet) 900-5000ft

TEMP	900	1000	1500	2000	3000	4000	5000
0	50	60	90	120	170	230	280
-5	70	80	120	160	230	310	390
-10	90	100	150	200	290	390	490
-15	110	120	180	240	360	480	600
-20	130	140	210	280	420	570	710

Domestic

Japan

China

GMP, CJU, CJJ next page

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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	5300	4000	2800	2300	2000
0	8450	5810	5600	4230	2970	2440	2120
-5	8620	5930	5710	4310	3030	2490	2160
-10	8780	6040	5820	4390	3080	2530	2200
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	

ICN, KWJ, PUS next page

Home

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				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 Operation 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

NG : OAT -35°c TH변경전 2분간 IDLE, Min Oil Press 까지 IDLE 수분간 유지, 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 Bright : APU Bleed OFF - ISO V/V AUTO - TH 서서히 증가 (Max 30%)

WING ANTI-ICE

WING ANTI-ICE switch ---------- ON
Type II or IV로 Deicing 안할 거면 사용하라

AFTER START

GENERATOR 1 and 2 switches ---------- ON
IDG 1분이내 안정, 늦어도 5분이내 안정된다.
FLIGHT controls ---------- Check
Deicing 할거면 Deicing 하고 한다.
FLAPS ---------- Check
Full Travel UP – 40 – UP (Deicing시 하고 실시)
FLAP UP Taxi 고려

TAXI OUT

OAT 3°C 이하 RUN UP, Ice Shedding
- RUNUP : Behind CLR, Min 70% 30초, 30분간격 (-8 : 50%-IDLE, 60분 간격)
- Ice Shedding (FZRA, FZDZ, FZFG, +SN) : Min 70%, 1초, 10분간격 (-8 : 없음)

TWY 상태 고려 허용되는 만큼 N1 사용

Home

COLD Wx Operation 2/2

BEFORE T/O (Takeoff Signal - FLAPS 5)
FLAPS ---------- SET
-8 : Oil Temp 31°C 이상 확인

Standing TAKEOFF
THRUST with EAI ---------- 70%, -8 : 50%5초
RUNUP(OAT 3°C이하) NG 70%30초, -8 : 50% 5초

ENGINE ANTI-ICE
ENGINE START switches ---------- CONT
ENGINE ANTI-ICE switches ---------- ON
SAT -41°C 부터 OFF 가능
COWL V/V OPEN 지속 Bright : APU Bleed OFF, ISO V/V AUTO, TH 서서히 증가 (Max 30%)

FAN ICE REMOVAL one ENG at a time
Moderate Severe Icing 가능하면 회피하라. FAN ICE로 Vibration 발생 또는 예방을 위한 절차
ENGINE START switches (both) ---------- FLT
Autothrottle (if engaged) ---------- Disengage
THRUST ----- Increase(min 80%, 1초) & Adjust
15초이내 Vib 4.0이하 안정화(15분 간격 반복가능)
Autothrottle (if needed) ---------- Engage
4.0보다 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 사용 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

Home

ENG ON Deicing in ICN

TOBT- 40min CTC KE ICN (사전신청, 결과확인)

ICN Deicing "Deicing Required ENG On Deicing"
ICN Apron "Req Pushback Deicing Zone xxx" **SQ2000**
Pad Control Arrange Deicing Pad No.
Ice Man Manage Deicing Process

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

START DE/ANTI-ICING **REQ DCL(CTC DEL)**
항공기이동 및 Configuration 변경 금지

AFTER DE/ANTI-ICING IS COMPLETED
(TIME CHECK 1분)
용액과 마지막 용액 뿌린 시간 받고 적는다.
Holdover Time 결정!!!
B737-8 BROADBAND s/w ---------- ON

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 full travel check (FLAP UP TAXI 고려)
Flight controls ---------- Check
After Start Cheklist

TAXI, BEFORE T/O, T/O Procedure

Cold Wx

DECISION TREE next page

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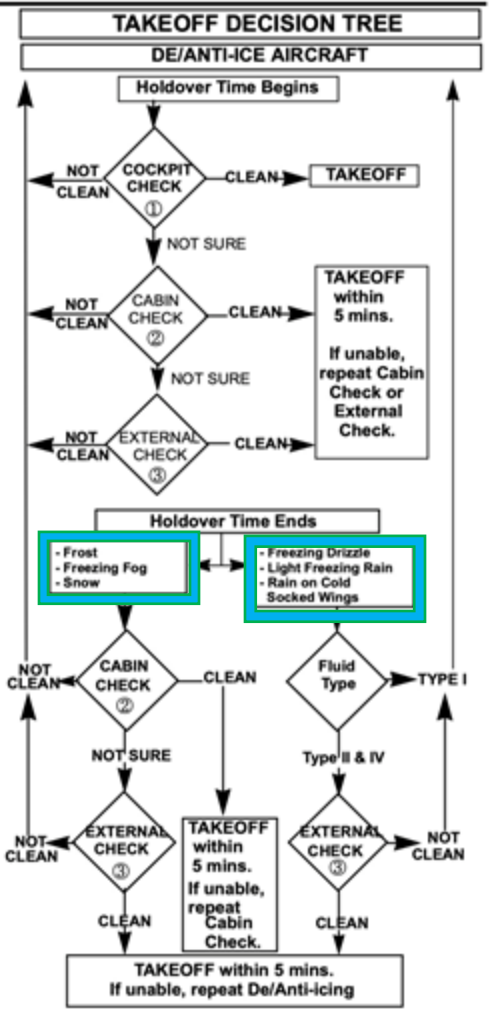

TAKEOFF DECISION TREE
DE/ANTI-ICE AIRCRAFT
Holdover Time Begins
COCKPIT CHECK ①
NOT CLEAN
CLEAN
TAKEOFF
NOT SURE
CABIN CHECK ②
NOT CLEAN
CLEAN
TAKEOFF within 5 mins.
If unable, repeat Cabin Check or External Check.
NOT SURE
EXTERNAL CHECK ③
NOT CLEAN
CLEAN
Holdover Time Ends
- Frost
- Freezing Fog
-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

Home

ENG OFF Deicing in GMP...

TOBT- 20min CTC KE GMP (PAD, New TOBT)

REQ DCL

Deicing "Deicing Required PADxxx" ±5min TOBT

Apron "Req Pushback Deicing PADxxx"

PARKING BRAKE ---------- SET

Establish communications with GND personnel.

B737-8 BROADBAND s/w ---------- OFF

FLAPS ---------- UP

THRUST LEVERS ----------IDLE

STABILIZER TRIM ---------- CHECK

ENGINE BLEED AIR SWITCHES ----- OFF

APU BLEED air switch ---------- OFF

APU ---------- START(시동후 ON 유지)

APU GENERATOR bus switches ------ ON

ENGINE ANTI-ICE switches---------- OFF

Engine Start levers ---------- CUTOFF

SHUTDOWN CHECKLIST

Home

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!!!

B737-8 BROADBAND s/w ---------- ON

TIME CHECK 1분후

APU BLEED air switch ---------- ON

Engine BLEED air switches ---------- ON

PREFLT CHKlist -> Req STARTUP -> CHKlist

AFTER BOTH ENGINES ARE STARTED

ENGINE ANTI-ICE switches----As needed

APU---------- As needed

FLAP LEVER --------- Set for takeoff or UP

ice, snow, slush or standing water, 강수 지속시 –

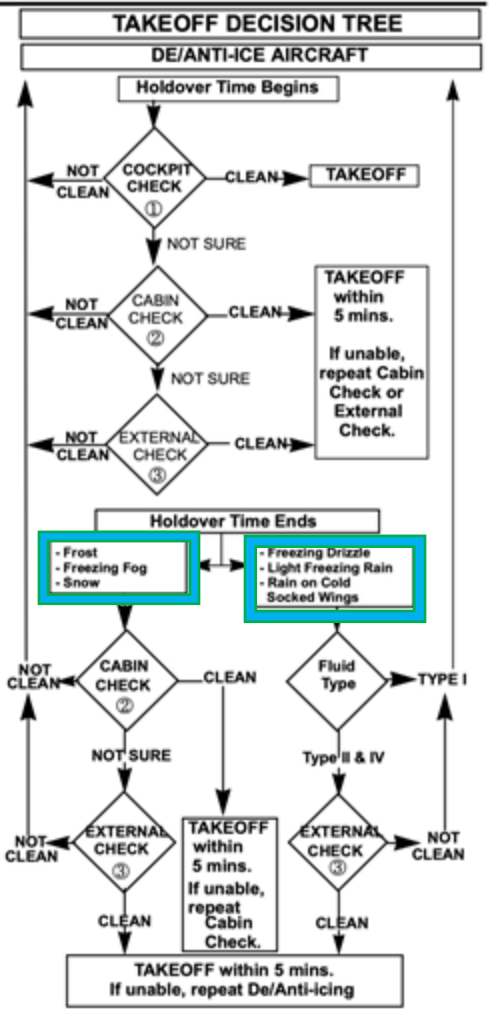
FLAP Full travel check (FLAP UP TAXI 고려)

Flight controls ---------- Check

AFTER START CHKlist (ATC CLR Confirm)

TAXI, BEFORE T/O, T/O Procedure

Cold Wx DECISION TREE next page


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
Fluid Type
TYPE I
Type II & IV
EXTERNAL CHECK ③
NOT CLEAN
TAKEOFF within 5 mins.
If unable, repeat Cabin Check.
EXTERNAL CHECK ③
NOT CLEAN
CLEAN
CLEAN
TAKEOFF within 5 mins.
If unable, repeat De/Anti-icing

Home

PUS VOR 18L/R

STARS	RUNWAYS
VOR18L/R	18L/R
TRANS.	KMH22 Vref+wind
GAYHA	(Modify Required)

FIX : KMH 280(Base Turn), 284(Missed App)

Missed App

Base Turn 이전 : L/H Turn **KMH 284** OUTBD
(SEL HDG SEL – INT H/D - VOR/LOC Engage)

Base Turn 이후 : Continue R/H Turn **KMH 284** OUTBD
(SEL HDG SEL – INT H/D - VOR/LOC Engage)

Domestic LOC 36 Circling

Next Page

PUS LOC 36L/R Circling 18L/R

STARS	RUNWAYS
36L18L/R	18L/R
TRANS.	KMH22 Vref+wind
GEOJE	(Modify Required)

CI36L(CF36R) 3500 FI36L(FF36R) 2100

FIX : KMH 280(Base Turn), 310(Missed App)

Missed App

Base Turn 이전 : L/H Turn **KMH 310** OUTBD
(SEL HDG SEL – INT H/D - VOR/LOC Engage)

Base Turn 이후 : Continue R/H Turn **KMH 310** OUTBD
(SEL HDG SEL – INT H/D - VOR/LOC Engage)

Domestic

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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