AD 2 AERODROMES

RJOA AD 2.1 AERODROME LOCATION INDICATOR AND NAME

RJOA - HIROSHIMA

RJOA AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	342610N/1325510E			
		097°/1.5km FM RWY 10 THR			
2	Direction and distance from (city)	50km E FM Hiroshima city			
3	Elevation/ Reference temperature	1086ft / 29.9°C(2001-2005)			
4	Geoid undulation at AD ELEV PSN	114ft			
5	MAG VAR/ Annual change	7°W(2008)/1.56'W			
6	AD Administration, address,	Hiroshima Airport Office(CIVIL AVIATION BUREAU)			
	telephone, telefax, telex, AFS,	64-34, Aza-Hiraiwa, Zennyuji, Hongocho, Mihara-city, Hiroshima Pref.			
	e-mail and/or Web-site addresses	Tel: 0848-86-8650 Fax:0848-86-8656			
		AFS: RJOAYFYX			
7	Types of traffic permitted(IFR/	IFR/VFR			
	VFR)				
8	Remarks	Nil			

RJOA AD 2.3 OPERATIONAL HOURS

1	AD Administration	2230 - 1330			
2	Customs and immigration	Customs: 2230-1230			
		Immigration: 2230-1250			
3	Health and sanitation	Quarantine(human): (SUN,MON,THU)2300-1215			
		(TUE,WED,FRI,SAT)2330-1215			
		Quarantine(animal): 2330-1230			
		Quarantine(plant): 2300-1250			
4	AIS Briefing Office	2230 - 1330			
5	ATS Reporting Office(ARO)	Nil			
6	MET Briefing Office	H24 (KANSAI)			
7	ATS	2230 - 1330			
8	Fuelling	2100 - 1330			
9	Handling	2100 - 1400			
10	Security	2115 - 1135			
11	De-icing	Nil			
12	Remarks	Nil			

RJOA AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	All the modern institutions that deal with the weight thing to a Boeing 747 type			
		freighter.			
2	Fuel/ oil types	Fuel grades : JET A-1			
3	Fuelling facilities/ capacity	Fuel truck / Ask AD administration			
4	De-icing facilities	Nil			
5	Hangar space for visiting aircraft	Nil			
6	Repair facilities for visiting aircraft	Nil			
7	Remarks	Nil			

RJOA AD 2.5 PASSENGER FACILITIES

1	Hotels	Not at Airport, but near Airport			
2	Restaurants	At Airport			
3	Transportation	Buses and Taxi			
4	Medical facilities	Not at Airport, but near Airport			
		Hospital in Mihara city 8km			
5	Bank and Post Office	At Airport			
6	Tourist Office	At Airport			
7	Remarks	Nil			

RJOA AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 9
2	Rescue equipment	Chemical fire fighting truck x 3 Water-supply truck Lighting power supply truck Emergency medical equipments conveyance truck
3	Capability for removal of disabled aircraft	Nil
4	Remarks	Nil

RJOA AD 2.7 SEASONAL AVAILABILITY-CLEARING

1	Types of clearing equipment	Snow remove equipments: Motor graders x 6-12, Wheel loader x 2			
2	Clearance priorities	(1) RWY 10/28, TWY T1, T6, P1 - P5 (2) SUB TWY, APRON, SUB APRON			
3	Remarks	Seasonal availability: DEC MID - MAR MID Snow removal will be commenced, if the runway and taxiways are covered with a depth of 3cm or more.			

RJOA AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron surface and strength	Spot NR 1 - 10 Surface: cement-concrete, Strength: PCN 74/R/B/X/T Sub apron Surface: asphalt-concrete, Strength: PCN 16/F/B/Y/T			
2	Taxiway width, surface and strength	TWY T2 - T5 Width: 34m, Surface: asphalt-concrete, Strength: PCN 72/F/A/X/T TWY T1,T6 Width: 32m, Surface: asphalt-concrete, Strength: PCN 72/F/A/X/T TWY P1 - P5 Width: 30m, Surface: asphalt-concrete, Strength: PCN 72/F/A/X/T SUB TWY Width: 18m, Surface: asphalt-concrete, Strength: PCN 16/F/B/Y/T			
3	ACL and elevation	Not available			
4	VOR checkpoints	Not available			
5	INS checkpoints	Spot NR 1: 342621.10N/1325517.84E 2: 342621.09N/1325515.09E 3: 342621.09N/1325512.35E 5: 342621.09N/1325509.61E 6: 342620.86N/1325506.74E 6R: 342621.13N/1325507.25E 6L: 342620.29N/1325505.47E 7: 342621.09N/1325503.83E 7L: 342621.09N/1325503.69E 8: 342621.09N/1325500.89E 9: 342621.11N/1325458.60E 10: 342621.08N/1325514.71E C: 342621.08N/1325516.47E R: 342621.08N/1325518.24E			
6	Remarks	Nil			

RJOA AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and Visual dock- ing/ parking guidance system of	Aircraft stand identification sign: Spot NR 2, 3, 5 - 8
	aircraft stands	
2	RWY and TWY markings and LGT	RWY:RWY 10/28 (Marking) RWY designation, RWY CL, RWY THR, RWY middle point, Aiming point, TDZ, RWY side stripe (LGT) RCLL, REDL, RTHL, RENL, RTZL(RWY10), WBAR(RWY10) TWY: TWY T1 - T6 (Marking): TWY CL, RWY HLDG PSN, TWY side stripe, Mandatory instruction marking (LGT) TWY edge LGT, TWY CL LGT, RWY guard LGT, Taxiing guidance sign Stop Bar LGT TWY: TWY P1 - P5 (Marking) TWY CL, TWY side stripe (LGT) TWY edge LGT, TWY CL LGT, Taxiing guidance sign
3	Stop bars	 Stop Bar LGT: T1-T6 Stop Bar System operations are as follows; 1) Stop bar system are installed at each taxi holding position associated with RWY 10/28. 2) Stop bar system will be operated when the visibility or the lowest RVR of RWY 10/28 is at or less than 600m. 3) Stop bar system on TWY T1 and T6 are controlled individually by ATC. 4) Stop bar system on TWY T2 through T5 are not controlled individually by ATC. 5) During the period stop bar system are operated, TWY T2 through T5 are not available for departing aircraft.
4	Remarks	(Marking): Overrun area, ACFT PRKG PSN, Apron TWY CL, ACFT stand taxi lane. (LGT): Apron flood LGT

RJOA AD 2.10 AERODROME OBSTACLES

See AD2.24 Aerodrome Obstacle Chart

In approach/TKOF areas

RWY/Area affected	Obstacle type	Coordinates	Elevation	Markings/LGT	Remarks
RWY 10	Tower	342604N/1325305E	1008ft	Marking / LIL	
RWY 10	Tower	342616N/1325304E	1160ft	Marking / LIL	
RWY 10	Tower	342626N/1325301E	1208ft	Marking / LIL	

In circling area and at AD

Obstacle type	Coordinates	Elevation	Markings/LGT	Remarks
Mountain	342644N1325451E	1475ft	- / LIM	above the horizontal surface
Mountain	342702N1325442E	1485ft	- / LIM	above the horizontal surface
Mountain	342722N1325354E	1659ft	- / LIM	above the horizontal surface
Mountain & Tower	342751N1325540E	1623ft	- / LIM	above the horizontal surface
Mountain	342802N1325628E	1390ft	- / LIM	above the horizontal surface
Mountain	342736N1325219E	1688ft	- / LIM	
Mountain	342728N1325317E	1585ft	- / LIM	above the horizontal surface
Mountain	342826N1325451E	1616ft	- / LIM	above the horizontal surface

RJOA AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	KANSAI
2	Hours of service MET Office outside hours	H24 (KANSAI)
3	Office responsible for TAF preparation Periods of validity	KANSAI 30 Hours
4	Trend forecast Interval of issuance	Nil
5	Briefing/ consultation provided	Briefing is available upon inquiry at KANSAI
6	Flight documentation Language(s) used	C En
7	Charts and other information available for briefing or consultation	$\begin{aligned} &S_{6},U_{85},U_{7},U_{5},U_{3},U_{25},U_{2}\!/T_{r},P_{s},P_{5},P_{3},P_{25},P_{SWE},P_{SWF},P_{SWG},P_{SWI},\\ &P_{SWM},P_{SW}(domestic),E,C,W_{E},W_{F},W_{G},W_{I},W,N \end{aligned}$
8	Supplementary equipment available for providing information	Nil
9	ATS units provided with information	TWR, APP, ATIS
10	Additional information(limitation of service, etc.)	Nil

RJOA AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength(PCN) and THR coordinates surface of RWY THR geoid undulation		THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
10	090.00°	3000×60	PCN72/F/A/X/T 342609.69N Asphalt Concrete 1325411.25E		THR ELEV:1071.7ft TDZ ELEV:1080.8ft
28	270.00°	3000×60	PCN72/F/A/X/T Asphalt Concrete		
Slope of	Slope of RWY		RESA (Overrun)) Dimensions(M)		Remarks
7		10	11		14
See below	figure	3120 × 300	240 × (MNM:167 MAX:300)*		RWY Grooving : 3000×40m
		3120 × 300	,	292 MAX:300)* airport administrator	
RWY10	RWY10		LONGITUDINAL PROFILE OF RUNWAY		RWY28
			1087. 7	'ft	
1071. 7ft		0.3%		0. 5%	1067. 2ft
—			1		
Öm			1680. 845m 3000m		

RJOA AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
10	3000	3000	3000	3000	Nil Nii
28	3000	3000	3000	3000	Nil

RJOA AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	RTHL Color WBAR	PAPI (VASIS) Angle DIST FM THR MEHT	RTZL LEN	RCLL LEN Spacing Color INTST	REDL LEN Spacing Color INTST	RENL Color WBAR	STWL LEN Color
1	2	3	4	5	6	7	8	9
10	PALS (CAT III) 900m LIH	Green Green	PAPI 3.0°/Left 397m 66ft	900m	3000m 15m Coded color (White/Red) LIH	3000m 60m Coded color (White/Yellow) LIH	Red	Nil (*1)
28	SALS 420m LIH	Green -	PAPI 3.0°/Left 416.3m 73.8ft		3000m 15m Coded color (White/Red) LIH	3000m 60m Coded color (White/Yellow) LIH	Red	Nil (*1)
Remarks								
	10							
CGL and Wide angle approach lights are installed for south side circling to RWY 28, ALB is not installed. Overrun area edge LGT(LEN:60m Color:Red)(*1)								

RJOA AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: 342631N/1325459E, White/Green EV4.3sec, HO
2	LDI location and LGT Anemometer location and LGT	LDI : Nil Anemometor : RWY10 : 360m from RWY10 THR, LGTD RWY28 : 330m from RWY28 THR, LGTD
3	TWY edge and centerline lighting	TWY edge and center line lights installed, see AD2.9
4	Secondary power supply/ switch- over time	Within 1 sec: PALS, SALS, REDL, RENL, RTHL, WBAR, RCLL, RTZL, Overrun area edge LGT, Stop bar LGT, RWY guard LGT and TWY CL LGT at TWY T1, T6, P1 - P5 Within 15 sec: Other LGT
6	Remarks	WDI LGT

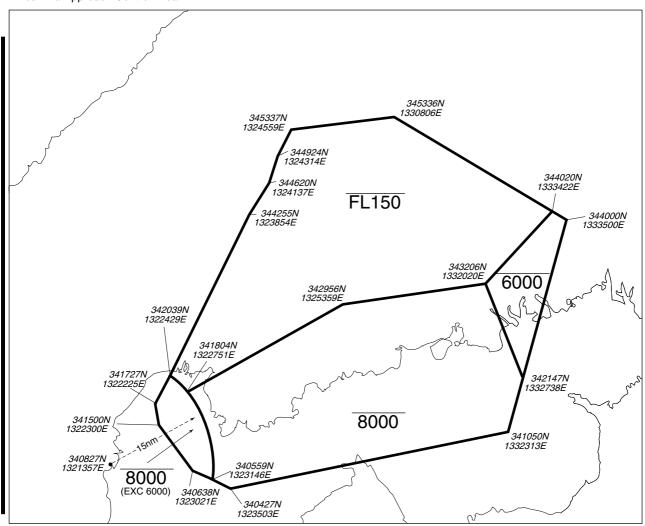
RJOA AD 2.16 HELICOPTER LANDING AREA

Nil	
INII	

RJOA AD 2.17 ATS AIRSPACE

Designation and lateral limits			Airspace classification	ATS unit call sign Language	Remarks
1			3	4	6
HIROSHIMA CTR	Area within a radius of 5NM of HIROSHIMA ARP(3426N/13255E).	4000 or below	D	HIROSHIMA TOWER En	
HIROSHIMA ACA	See below chart		E	HIROSHIMA APP HIROSHIMA DEP HIROSHIMA RADAR En	

広島進入管制区 Hiroshima Approach Control Area



RJOA AD 2.18 ATS COMMUNICATION FACILITIES

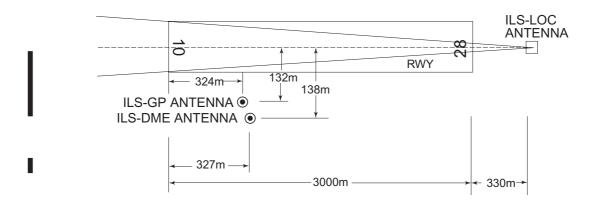
Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Hiroshima Approach	124.05MHz 119.9MHz 121.5MHz(E) 243.0MHz(E)	2230 - 1330	
ASR	Hiroshima Radar	119.9MHz 124.05MHz 125.15MHz 121.5MHz(E) 243.0MHz(E)	2230 - 1330	
DEP	Hiroshima Departure	119.9MHz 121.5MHz(E) 243.0MHz(E)	2230 - 1330	
TWR	Hiroshima Tower	118.6MHz 126.2MHz 121.5MHz(E) 243.0MHz(E)	2230 - 1330	
ATIS	Hiroshima Airport	127.25MHz	2230 - 1330	

RJOA AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid (VOR declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VOR (7°W /2008)	HGE	117.9MHz	H24	342601.59N/ 1325526.29E		
DME	HGE	1213MHz (CH-126X)	H24	342601.59N/ 1325526.29E	1119ft	
ILS-LOC 10 (CAT III)	IHG	108.7MHz	2230-1330	342609.69N/ 1325621.68E		LOC: 330m (1083ft) away FM RWY 28 THR. BRG (MAG) 098°
ILS-GP 10	-	330.5MHz	2230-1330	342605.40N/ 1325423.92E		GP: 324m (1063ft) inside FM RWY 10 THR, 132m (433ft) S of RCL GP angle 3.0° ILS REF datum 16.5m (54ft).
ILS-DME 10	IHG	985MHz (CH-24X)	2230-1330	342605.22N/ 1325424.03E	1088ft	DME: 327m (1073ft) inside FM RWY 10 THR, 138m (453ft) S of RCL.
MSAS		1575.42MHz	H24			Transmitting antennas are satellite based.

ILS for RWY 10

HIROSHIMA AP



REMARKS: 1.ILS-LOC beam BRG(MAG) 098°

2.HGT of ILS REF datum 16.5m(54ft)

3.GP Angle 3.0°

■ 4.ELEV of ILS-DME 331.5m(1088ft)

RJOA AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

1.1 定期便または緊急事態以外の航空機の取り扱い

当空港の使用について、航空機の運航者は、空港管理者の 許可を得ること

1.1 Aircraft operations other than scheduled flights or in an emergency

On use of this airport, aircraft operator is required to obtain the prior permission of the airport administrator.

1.2 管制方式

出発機は次に掲げる方式に従うこと。

1) 管制承認

出発機はエンジン始動5分前の通報に合わせて、次に掲げる項目を広島タワーに通報すること

- 航空機呼出符号
- 目的地
- ・要求高度(代替要求高度がある場合は、当該高度)
- ・駐機位置(スポット番号)
- 代替飛行経路がある場合は当該飛行経路
- 2) 管制承認はエンジン始動準備完了の通報を行った航空機から順に発出される。
- 3) パイロットはプッシュバック及び/またはエンジン始動時期が遅れることが予想される場合は、広島タワーに対しその旨通報すること。ただし、他の航空機の地上交通による遅延または出発制御時刻等が付加されたために生じる遅延を除く。
- 4) インターセクション・ディパーチャー 各インターセクション・ディパーチャーによる滑走 路残距離は次のとおり。

1.2 ATC Procedures

Departing aircraft shall comply with the following procedures

1) ATC clearance

Advise HIROSHIMA TOWER 5 minutes prior to starting engines with the following items

- call sign
- destination
- proposed flight level/altitude (alternative flight levels/ altitude, if any)
- parking position (spot number)
- · alternative flight routes, if any
- Clearance will be issued in the order of reporting ready to start engines.
- 3) Pilots shall advise HIROSHIMA TOWER if any delay in push-back and/or engine start-up is anticipated except when delay has been caused by other ground traffic or departure time restriction such as released time.
- 4) Intersection departure

The remaining runway length for intersection departures are as follows.

RWY	TWY	Remaining RWY length
28	T2 T3 T4 T5	2,310m (7,570ft) 1,690m (5,540ft) 1,060m (3,470ft) 450m (1,470ft)
10	T5 T4 T3 T2	2,420m (7,930ft) 1,810m (5,930ft) 1,190m (3,900ft) 560m (1,830ft)

^{*}誘導路中心線と滑走路中心線の交点から滑走路末端までの距離で10m(10ft)の端数を切り捨てた値

^{*} Rounded down to the nearest 10m (10ft) from the measurement between the point where TWY CL meets RCL and RWY THR.

2. Ta	xiing to and from stands	
		Nil
3. Pa	rking area for small aircraft(General aviation)	
		Nil
4. Pa	rking area for helicopters	
		Nil
5. Ap	ron - taxiing during winter conditions	
		Nil
6. Ta	xiing - limitations	
	6.1 誘導路交差地点の翼端クリアランス (AD1.1.6.8 参照)	6.1 Wing tip clearance at the TWY intersection (REF AD1.1.6.8)
	誘導路上の停止位置に待機中の航空機と後方の誘導路を 走行する航空機の翼端クリアランスは以下のとおりであ る。	
	誘導路 T2, T3, T4, T5 の停止位置標識で B773 型機が一時停止している場合、当該航空機の後方を通過しようとする航空機との間に必要最小限度の安全余裕が確保されていない。 その他の型式の航空機が停止位置標識で一時停止している場合は当該航空機の後方を通過しようとする航空機との間に十分な安全余裕がとれない可能性がある。	T4 and T5, there is no minimum safety buffer between the aircraft holding at the stop marking on the TWY and the aircraft passing behind it. When other aircraft holding at the stop marking on TWY
7. Sc	hool and training flights - technical test flights - use of runways	s
		Nil
8. He	licopter traffic - limitation	
		Nil
9. Re	moval of disabled aircraft from runways	
		Nil
10. R	emarks	
		Nil
	RJOA AD 2.21 NOISE AB	ATEMENT PROCEDURES
		Nil

RJOA AD 2.22 FLIGHT PROCEDURES

1.TAKE OFF MINIMA								
	RWY	ACFT CAT	REDL 8	& RCLL		or RCLL Marking		lil IE ONLY)
		CAI	RVR	VIS	RVR	VIS	RVR	VIS
Multi-Engine ACFT with 10/	10/28	A,B,C	400 *200 **150	400 *200	400 *250	400 *250	-	500
TKOF ALTN AP filed		D	400 *250 **200	400 *250	400 *300	400 *300	-	500
OTHER	10/28	A,B,C,D	AVBL LDG MINIMA					

^{*} Applicable when SSP IN FORCE

2. Lost communication procedures for arrival aircraft under radar navigational guidance

If radio communications with HIROSHIMA Approach/Radar are lost for 30 seconds, squawk Mode A/3 Code 7600 and;

- 1) 1. Contact HIROSHIMA Tower.
 - 2. If unable, proceed in accordance with visual flight rules.
 - 3. If unable, proceed to HONGO VOR/DME at last assigned altitude or 4,100 feet whichever is higher, and excute instrument approach.
- (II) Procedures other than above will be issued when situation required.

3.Trajectorized Airport Traffic Data Processing System (TAPS)

Aircraft flying under control of Hiroshima approach control in the approach control area will be instructed to reply with discrete code on Mode A/3 and Mode C.

If an aircraft with non-discrete capability be instructed to reply with the discrete code, it shall report a controller accordingly.

広島アプローチの指示のもとに、当該進入管制区を飛行する航空機は、モード A/3 の二次レーダー個別コード及びモード C による応答を指示される。

二次レーダー個別コードを搭載していない航空機が当該コードによる応答を指示された場合は、管制官に対しその旨通報すること。

^{**} Applicable when SSP IN FORCE and MULTIPLE RVRs AVAILABLE

4. Category III A / III B Operations at Hiroshima Airport 広島空港におけるカテゴリー皿 A / 皿 B 航行

4.1 Facilities

The following Categories are available: 2230-1330UTC(Daily)

Runway 10

- ILS Runway 10-CAT III
- Lighting system Runway 10-CAT III
- RVR by forward-scatter meters (the touchdown zone, the mid-point and stop-end of the runway)

4.2 Conditions

A. The following systems must be operative:

For ILS RWY 10 approach (CAT III A / III B)

- (1) ILS comprising;
 - ILS-LOC 10 with standby transmitter(including far field monitor)
 - ILS-GP 10 with standby transmitter (When any standby transmitters or far field monitor unserviceable, downgrade ILS-CAT I.)
 - ILS-DME 10
- (2) Lighting system comprising;
 - PALS 10 (including side row barrettes)
 - High INTST REDL
 - High INTST RTHL
 - RCLL and RTZL
- (3) Secondary power supply
- (4) RVR by forward-scatter meters at the touchdown zone, mid-point and stop-end of the runway.
- B. The following information must be currently available:
 - 1) Surface wind speed and direction
 - 2) RVR
- C. ITEM A and/or B are not met, the relevant information will be notified to the pilots as soon as practicable.
- 4.3 Precision Approach Terrain Chart

See RJOA AD2.24

4.4 Operating Minimum

Approach minima stated in AD2.24 (Instrument Approach Chart) are observed.

4.5 Special Safeguards and Procedures (SSP)

CAT III A /III B Operations are available when SSP are applied.

SSP will be applied when the following conditions are met:

- a) Ceiling is at or less than 200ft and/or RVR is at or less than 600m.
- b) Facilities listed 4.1 above are operational.
- c) ILS Critical Area is protected.

In order to protect ILS Critical Area for the succeeding arrival aircraft, an arrival aircraft may be given following instruction by ATC.

" REPORT OUT OF ILS CRITICAL AREA "

The exit taxiway centerline lights are fixed alternate green and yellow inside the ILS Critical Area. If an aircraft is given the above instruction, she is expected to advise the ATC when the taxiway centerline lights change from alternate green and yellow to steady green.

4.6 Approval for CAT III A / III B Operations

Operators must obtain operational approval from the State of Registry or the State of Operator, as appropriate, to conduct CAT III A / III B Operations. (See GEN1.5)

4.7 Taxiway available for CAT III A / III B Operations.

Taxiway available for CAT III A / III B Operations are T1, T6 and the parallel taxiway.

RJOA AD 2.23 ADDITIONAL INFORMATION

N	ш
1 1	

RJOA AD 2.24 CHARTS RELATED TO AN AERODROME

Aerodrome/Heliport Chart

Aerodrome Obstacle Chart type A (RWY10/28)

Aerodrome Obstacle Chart type B (RWY10/28)

Precision Approach Terrain Chart

Standard Departure Chart - Instrument (TOJYO, OPERA, BINGO, KINOE, HONGO)

Standard Departure Chart - Instrument (MARCO-RNAV) Standard Departure Chart - Instrument (KIJYY-RNAV)

Standard Departure Chart - Instrument (MOMOT-RNAV)

Standard Departure Chart - Instrument (SINFO-RNAV)

Standard Arrival Chart - Instrument (HONGO)

Standard Arrival Chart - Instrument (MISEN-RNAV)

Standard Arrival Chart - Instrument (AXELA-RNAV)

Standard Arrival Chart - Instrument (DEMIO-RNAV)

Standard Arrival Chart - Instrument (VISTA-RNAV)
Instrument Approach Chart (ILS or LOC RWY10 (CAT III))

Instrument Approach Chart (VOR RWY10)

Instrument Approach Chart (VOR Z RWY28)

Instrument Approach Chart (VOR Y RWY28)

Instrument Approach Chart (RNAV(GNSS) RWY28)

Instrument Approach Chart (RNAV(RNP) Z RWY10)

Instrument Approach Chart (RNAV(RNP) Y RWY10)

Other Chart (Visual REP)

Other Chart (LDG CHART)

Other Chart (MVA CHART)

