## **AD 2. AERODROMES**

# OIMM AD 2.1 AERODROME LOCATION INDICATOR AND NAME OIMM - MASHHAD / SHAHID HASHEMI NEJAD International

## OIMM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	361403N 0593842E
		312° MAG / 1562 M from THR RWY 31R
2	Direction and distance from ( city )	E, 1.6 NM from Mashhad
3	Elevation	3266 FT
	Reference mean high temperature	36.20°C
	Reference mean low temperature	- 0.98°C
4	Geoid undulation at AD ELEV PSN	-55 FT
5	MAG VAR / Annual change	4° E (2016)
6	AD Administration, address, telephone, telefax, telex, AFS	Iranian Airports & Air Navigation Company (IAC) Mashhad / Shahid Hashemi Nejad International Airport Postal code: 9165968844 Mashhad - Islamic Republic of Iran Tel: +9851 - 33100000, 33108000 Telefax: +9851 - 33400042 Telex: NIL AFS: OIMMYDYX http://mashhad.airport.ir
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	NIL

# **OIMM AD 2.3 OPERATIONAL HOURS**

1	AD Administration	AD administrative 0330 - 1200 (0230 - 1100) except Thursdays and Fridays and official holidays
2	Customs and immigration	H24
3	Health and sanitation	H24
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	H24
12	Remarks	NIL

# OIMM AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo - handling facilities	Available by main carrier, Saman air services and Hamrah Kousha Kish airport service	
2	Fuel / oil types	Jet A1 - 100LL	
3	Fuelling facilities/capacity	Jet A1: 4 trucks 20000 litres, 1 trucks 60000 litres, 25 litres/sec 2 trucks 45000 litres, 1 trucks 80000 litres, 45 litres/sec 1 truck 25000 litres, 18 litres/sec 100LL: Available in 200 litres barrel	
4	De - icing facilities	Available by Saman and Arman Air Services and Hamrah Kousha Kish airport services on TWY C and by IRAN AIR on parking stands	
5	Hanger space for visiting aircraft	Asseman, Taban, Mahan	
6	Repair facilities for visiting aircraft	Cessna aero club, MD 80 series, F100	
7	Remarks	NIL	

## **OIMM AD 2.5 PASSENGER FACILITIES**

1	Hotels	Hotels in vicinity	
2	Restaurants	Restaurant and buffet	
3	Transportation	Taxis and subway	
4	Medical facilities	First aid available. Doctors and ambulance at AD, Hospital in the city	
5	Bank and Post Office	bank at terminal 2 and post office are available	
6	Tourist Office	Available at AD	
7	Remarks	NIL	

# OIMM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 8	
2	Rescue equipment	Available in accordance with AD category for firefighting	
3	Capability for removal of disabled aircraft	Heavy duty crane and tow car/truck available	
		(suitable for B747)	
4	Remarks	NIL	

# OIMM AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	Types of clearing equipment	1 tractor, 6 blades fitted into trucks, 1 urea spreader combined with bladed truck, 2 snow blowers,2 graders,1 Surface Friction Tester (SFT)
2	Clearance priorities	1- RWY 13L/31R 2- TWY F and A 3- Apron 4- TWY C, C1, C2 and D 5- TWY J, G, B and E 6- RWY 13R/31L 7- TWY H, M, C3, and K
3	Remarks	NIL

# OIMM AD 2.8 APRONS, TAXIWAYS

1	designation, surface and strength of aprons	Surface: Concrete Strength: PCN 65/R/B/X/T
2	designation, width, surface and strength of taxiways	Width: All TWY 30 M except TWY K is 25 M, TWY G is 35 M and TWY H & D are 85 M.  Surface: Surface: TWYs A, C, C1, C2, C3, D, K and L asphalt and TWYs B, E, J, M, N, P and Q concrete.  Strength: TWY A, C, C1, C2, C3, D and K PCN: 60/F/B/X/T, And TWY B, E, J, Q PCN: 70/R/B/W/T.
3	location and elevation of altimeter checkpoints	NIL
4	location of VOR checkpoints	NIL
5	position of INS checkpoints	NIL
6	Remarks	TWY L, M, N and P AVBL for military necessity

## OIMM AD 2.9 SURFACE MOVEMENT GUIDANCE AND

## CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs,  TWY guide lines and parking guidance system of aircraft stands	Taxing guidance signs at all intersections with TWY and RWY and at all holding positions Guide lines at apron Nose-in guidance at aircraft stand
2	RWY and TWY markings and LGT	RWY marking: Designation, THR, TDZ, centre line, edge & RWY end at all holding positions RWY lighting: See OIMM AD 2.14 TWY marking: Centre line, edge, holding position at all TWY/RWY intersection marked TWY lighting: See OIMM AD 2.15
3	Stop bars	NIL
4	Remarks	NIL

# OIMM AD 2.10 AERODROME OBSTACLES

1	n approach / TKOF area	ts	In circling area and	l at AD	Remarks
	1		2		3
RWY/Area affected	Obstacle type Elevation/ HGT Markings/LGT	Coordinates	Obstacle type Elevation / HGT Markings/LGT	Coordinates	
a	b	С	a	b	
31R / APCH 13L / TKOF	GP antenna 49 FT AGL LGTD	361332N 0593912E	TWR building 131 FT AGL LGTD	361343N 0593831E	
13L / APCH 31R / TKOF	LLZ antenna 18 FT AGL LGTD	361501N 0593724E	Mast 137 FT AGL LGTD	361340N 0593740E	
13L/R / APCH 31R/L / TKOF	Grove 65 FT AGL NIL	beyond 400 M from THR RWY 13L/R	Mast (RVR sensor) 36 FT AGL NIL	361443N 0593741E	
13L/R / APCH 31R/L / TKOF	Building 3638 FT AMSL NIL	361659N 0593405E →	PAR antenna 3282 FT AMSL (33 FT AGL) NIL	361412N 0593836E →	140M left side of RWY 13L Centerline and 1981M
13L/R / APCH 31R/L / TKOF	Building 3715 FT AMSL NIL	361706N 0593342E	Tower Crane 3429 FT AMSL NIL	361648N 0593706E	from THR RWY 13L
			Building 3400 FT AMSL NIL	361630N 0593706E	
			Building 3445 FT AMSL NIL	361633N 0593637E	
			Tower Crane 3562 FT AMSL NIL	361651N 0593633E	
			Building 3465 FT AMSL NIL	361631N 0593621E	
			Building 3286 FT AMSL NIL	361427N 0593739E	
			Com Antenna 3395 FT AMSL NIL	361351N 0593816E	
			Mast (BTS) 3419 FT AMSL NIL	361256N 0593909E	
			Mast (BTS) 3398 FT AMSL NIL	361228N 0594006E	
Cont.					_

In approach / TKOF areas			In circling area and at AD		Remarks
	1			2	
RWY/Area affected	Obstacle type Elevation/ HGT Markings/LGT	Coordinates	Obstacle type Elevation / HGT Markings/LGT	Coordinates	
a	b	c	a	b	
			Water Tank 3326 FT AMSL NIL  Building 3490 FT AMSL NIL  Karavan 3262 FT AMSL NIL	361425N 0593738E 361635N 0593623E 361445N 0593753E	
			Building 3470 FT AMSL (271 FT AGL) NIL	361641N 0593638E	

# OIMM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Mashhad
2	Hours of service	H24
	MET Office outside hours	
3	Office responsible for TAF preparation Periods of validity	NIL
4	Type of landing forecast  Interval of issuance	NIL
5	Briefing/consultation provided	In person and by telephone: +9851 - 33400272, 33400405
6	Flight documentation  Language(s) used	NIL
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	NIL
9	ATS units provided with information	Mashhad TWR Mashhad APP
10	Additional information (limitation of service, etc.)	NIL

# **OIMM AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS**

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength(PCN) and surface of RWY and SWY	THR coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
13L	133.6°GEO	3810 x 45	60/F/B/X/T Asphalt	361451.71N 0593735.23E GUND –55FT	THR 3228 FT
31R	313.6°GEO	3810 x 45	60/F/B/X/T Asphalt	361326.45N THR 3260 FT 0593925.71E GUND –55FT	
13R	133.59°GEO	59°GEO 3920 x 45 60/F/B/X/T Asphalt		361448.01N 0593727.83E GUND -55FT	THR 3234 FT
31L	313.61°GEO	3920 x 45	60/F/B/X/T Asphalt	361320.29N 0593921.51E GUND –55FT	THR 3266 FT
Slope of RWY - SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
0.25 %	302 x 45	302 x 150	NIL	NIL	- Distance between parallel RWY centre
0.25 %	303 x 45	303 x 150	NIL	NIL	lines is 689 FT (210M) AD Code Letter / Number: 4E
0.25 %	300 x 45	300 x 150	NIL	NIL	
0.25 %	296 x 45	296 x 150	NIL	NIL	

# OIMM AD 2.13 DECLARED DISTANCES

RWY Designator	TORA(M)	TODA(M)	ASDA(M)	LDA(M)	Remarks
1	2	3	4	5	6
13L	3810	4112	4112	3810	NIL
31R	3810	4113	4113	3810	NIL
13R	3920	4220	4220	3920	NIL
31L	3920	4216	4216	3920	NIL

# OIMM AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ LGT LEN	RWY Centre Line LGT LEN, spacing, colour INTST	RWY edge LGT LEN, spacing colour, INTST	RWY End LGT colour WBAR	SWY LGT LEN colour	Remarks
1	2	3	4	5	6	7	8	9	10
13L	SALS 300M LIL	Green	PAPI Left /3.2° (20 M / 65.6 FT)	NIL	NIL	3810 M 60 M White, LIH	Red	302M RED	PAPI inoperative
31R	PALS CAT I 800M LIH	Green	PAPI Left /3 ° (20 M / 65.6 FT)	NIL	NIL	3810 M 60 M White, LIH	Red	303M RED	NIL
13R	SALS 300M LIL	Green	PAPI Left /3.2° (20 M / 61 FT)	NIL	NIL	3920 M 60 M White, LIH	Red	300M RED	PAPI inoperative
31L	SALS 420M LIH	Green	PAPI Left /3 ° (18.4 M / 60.3 FT)	NIL	NIL	3920 M 60 M White, LIH	Red	296M RED	NIL

# OIMM AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN location, characteristics and hours of operation	PSN: 361336N 0593835E HGT 40FT, FLG G and W, 20 flashes per minutes. HN and during low visibility
2	LDI location and LGT  Anemometer location and LGT	NIL
3	TWY edge and centre line lighting	Edge: All TWYs except TWYs C3, E, K, L, M, N, P Centre line: NIL
4	Secondary power supply/switch-over time	Available Switch-over time: 10-15 sec
5	Remarks	NIL

# OIMM AD 2.16 HELICOPTER LANDING AREA

NIL

## **OIMM AD 2.17 ATS AIRSPACE**

	airspace designation and	Mashhad CTR:	Mashhad ATZ:
1	geographical coordinates	A circle, radius 30 NM centred at	A circle, radius 7 NM centred
		361352.2N 0593901.9E (DVOR/DME)	at 361403N 0593842E (ARP)
2	Vertical limits	Lower limit: GND	Lower limit: GND
	vertical timus	Upper limit: FL 125	Upper limit: 6500 FT AMSL
3	Airspace classification	D	
4	ATS unit call sign	Mashhad Radar	Mashhad TWR
4	Language(s)	English / Persian	English / Persian
5	Transition altitude	8000 FT AMSL	
6	hour of applicability	H24	
7	Remarks	NIL	

## **OIMM AD 2.18 ATS COMMUNICATION FACILITIES**

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Mashhad Approach	127.300 MHZ	H24 →	Primary frequency
		121.500 MHZ	H24	Emergency frequency
		→119.500 MHZ	H24 →	Secondary frequency
		353.800 MHZ	H24	Military aircraft
RADAR	Mashhad Radar	127.300 MHZ	H24 →	Primary frequency
		121.500 MHZ	H24	Emergency frequency
		→119.500 MHZ	H24 →	Secondary frequency
		353.800 MHZ	H24	Military aircraft
TWR	Mashhad Tower	118.100 MHZ	H24	
		257.800 MHZ	H24	UDF, Military aircraft
		243.000 MHZ	H24	Military / Emergency
		121.900 MHZ	H24	For Ground Movement
		121.700 MHZ	03:30-20:30 (02:30-19:30)	
GND	Mashhad Ground	275.800 MHZ	03:30-20:30 (02:30-19:30)	Military aircraft
		2/3.800 NITL	03.30 20.30 (02.30 17.30)	winitary anciart
		126.400 MHZ	H24	
ATIS (INFO)	Mashhad Information	120.400 MINZ	1127	

#### OIMM AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, CAT of ILS (For VOR/ILS give VAR)	ID	Frequency	Hours of operation	Site of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
NDB	MSD	385 KHZ	H24	361342.7N 0593816.4E		
DVOR/DME (4° E/2016)	MSD	114.000 MHZ CH 87X	H24	361352.2N 0593902.0E	3251 FT	
TACAN	MSD	CH 56X	H24	361359.2N 0593854.6E	3246 FT	IRIAF
LOC 31R ILS CAT I (4° E/2016)	IMSD	109.900 MHZ	H24	361500.4N 0593723.9E		Remote indicator available for ILS.
ILS GP RWY 31R		333.800 MHZ	H24	361331.4N 0593912.0E		3° ,RDH 70 FT
ILS DME RWY 31R	IMSD	CH 36X	H24	361331.4N 0593912.0E	3261 FT	

TACAN unusable in the FLW area:

1- 200°- 240° beyond 10 NM, BLW 12000 FT AMSL

2- 240°- 280° beyond 20 NM, BLW 15000 FT AMSL

DVOR/DME unusable in counter clockwise direction beyond 40 DME in the FLW area:

- 360°- 310° BLW 12000 FT AMSL
- 310°- 290° BLW 13000 FT AMSL
- 290°- 260° BLW 16000 FT AMSL
- 260°- 200° BLW 17000 FT AMSL
- 200°- 170° BLW 13000 FT AMSL
- 170°- 140° BLW 9000 FT AMSL
- 140°- 100° BLW 7000 FT AMSL
- 100°- 060° BLW 10000 FT AMSL
- 060°- 360° BLW 12000 FT AMSL

#### **OIMM AD 2.20 LOCAL TRAFFIC REGULATIONS**

- **1-** The use of radar presentation system installed in control tower of Mashhad/Shahid Hashemi Nejad Airport is only authorized to perform the following functions:
  - a) Reducing verbal coordination between tower and approach.
  - b) Providing information to the tower controller about the sequencing of arriving and departing traffic.
- **2-** Pilots have to taxi with idle power in apron.
- 3- Ground Movement Control clears aircraft to the runway holding position of runway 13R/31L.

Pilots shall stop at all runway holding position.

#### **4- Start-up Procedures:**

- Start-up procedures refer to ENR 1.9 and ENR 1.10
- Pilots are to report their aircraft type, stand number, QNH and the identification letter of the received ATIS information on first contact with Ground movement control.

#### 5- Push back procedures:

- All parked aircraft at south stands of apron are required to be pushed back before start up.
- Pushback approval must be obtained from Ground movement control and the approval includes permission to start engines.
- Before flight crew calls for push-back, they must ensure that the tug driver is in the tug, ready to push, and able to listen to the communication with ATC.

#### 6- Aircraft de-icing/anti-icing procedures:

- a) De-icing/anti-icing is an off-stand service, except:
- Stands 101 and 103 which are provided by Iran air service provider;
- Stands 101 and 103 for heavy aircraft; and
- Elsewhere in case of approval by ATC unit.
- b) De-icing/anti- icing service will be done in the following areas and according to airliners service providers:

De-icing service provider	De-icing/anti-icing area
Saman air services	
Arman air service	TWY C and C1
Hamrah Kousha Kish airport service	

#### 7- Use of Runways

In weather conditions when the tail wind component is not greater than 8 knots on the main Runway 31R, this runway will normally be used in preference to Runway 13L.

## 8- Engine check (high power)

- In the apron areas minimum engine power shall be used as far as possible;
- For doing high engine check aircraft should be moved to TWY C3 headed toward TWY C

#### 9- Back up frequency

If the designated frequencies were unavailable, the following frequencies will be available instead:

Service designation	Call sign	channel(s)	Hours of operation	Back up channel(s)
1	2	3	4	5
APP	Mashhad Approach	127.300 MHZ → 119.500 MHZ 353.800 MHZ (CH6)	H24 H24 H24	118.100 MHZ 257.800 MHZ (CH2)
RADAR	Mashhad Radar	127.300 MHZ  → 119.500 MHZ  353.800 MHZ (CH6)	H24 H24 H24	118.100 MHZ 257.800 MHZ (CH2)
TWR	Mashhad Tower	118.100 MHZ 257.800 MHZ (CH2)	H24 H24	119.500 MHZ 353.800 MHZ (CH6)
GND	Mashhad Ground	121.700 MHZ	03:30-20:30 (02:30-19:30)	121.900 MHZ

#### 10- Isolated area

Isolated aircraft parking position located at Taxiway C1.

#### **OIMM AD 2.21 NOISE ABATEMENT PROCEDURES**

Due to close proximity to residential areas, intersection take off is not authorized for RWY 31R/L.

## **OIMM AD 2.22 FLIGHT PROCEDURES**

## **1- Traffic pattern** is defined as below:

- a) For fighter and heavy fix wing ACFT 5000 feet,
- b) For other fix wing ACFT 4500 feet and
- c) For helicopter 4000 feet.

VFR Traffics are not authorized to operate on right-hand pattern RWY 13L/R or left-hand pattern RWY 31L/R, except Air force JET ACFT and Aero club ACFT at or above 5500 ft.

## 2- Approach Procedures:

- I. Speed control: pilots should expect the following speed restrictions:
  - Between 60 NM and 30 NM from MSD DME and between FL245 and FL150 maximum IAS 280 KT;

- Within 30 NM from MSD DME and at or below FL150 maximum IAS 220 KT;
- 180 KT on base leg / closing heading to final approach;
- Between 180 KT and 160 KT when established on final approach and thereafter 160 KT to 4 NM to touchdown.

Note. These speeds are for ATC purposes and are mandatory and have to be flown as accurately as possible. If unable to comply inform ATC and state what speed to be used.

- II. Arriving traffic should expect the following IAP when vectored for approach:
  - If runway-in-use is 31R; ILS 2 (or in the event of ILS failure, for VOR/DME 3);
  - If runway-in-use is 31L; VOR/DME 3;
  - If runway-in-use is 13L/R; VOR/DME 6;
- III. Missed approach: flight crew must follow missed approach procedures which are detailed on the appropriate instrument approach charts except otherwise is instructed by ATC.

#### **OIMM AD 2.23 ADDITIONAL INFORMATION**

- 1- Intensive birds' accumulation exists in the vicinity and particularly in west of AD.
- 2- Strolling animals exist on the movement area.
- 3- Heavy aircraft is permitted to make 180° turn only at the end of RWY in use.
  - 4- Net barrier:

RWY 13L: PSN at SWY RWY 13L, 100 M before THR RWY 31R

RWY 13R: PSN at SWY RWY 13R, 91 M before THR RWY 31L

They will be engaged by prior arrangement and height are 20 FT.

#### 5- Hook barriers:

RWY 13L:

PSN at SWY RWY 13L, 88 M before THR RWY 31R, height is 0.4 FT AGL (already engaged).

Operational facilities are located both sides of RWY, 31 M from RWY C/L (height 1.4 FT AGL) and 46 M from RWY C/L (height 1.7 FT).

#### **RWY 13R:**

- a) PSN 820 M from THR RWY 13R. height is 0.4 FT AGL. It will be engaged by prior arrangement. Operational facilities are located both sides of RWY, 31 M from RWY C/L, height 1.4 FT and other equipment at 46 M from RWY C/L, height 3.3 FT;
- b) PSN at SWY RWY 13R, 80 M before THR RWY 31L, height 0.4 FT AGL (already engaged). Operational facilities are located both sides of RWY, 31 M from RWY C/L, height 1.4 FT and 46 M from RWY C/L (height 1.7 FT AGL);

# OIMM AD 2.24 CHARTS RELATED TO AN AERODROME

	Aerodrome Chart - ICAO	AD 2 OIMM	ADC
	Aircraft Parking / Docking Chart	AD 2 OIMM	APDC
	Aerodrome Obstacle Chart - ICAO Type A	AD 2 OIMM	AOC 1
		AD 2 OIMM	AOC 2
•	ATC Surveillance Minimum Altitude Chart – ICAO	AD 2 OIMM	ASMAC 1
	Standard Departure Chart - Instrument – ICAO	AD 2 OIMM	SID 1-1
		AD 2 OIMM	SID 1-2
		AD 2 OIMM	SID 1-3
		AD 2 OIMM	SID 1-4
		AD 2 OIMM	SID 1-5
		AD 2 OIMM	SID 2-1
		AD 2 OIMM	SID 2-2
		AD 2 OIMM	SID 2-3
	Standard Arrival Chart - Instrument – ICAO	AD 2 OIMM	STAR 1-1
		AD 2 OIMM	STAR 1-2
		AD 2 OIMM	STAR 1-3
		AD 2 OIMM	STAR 1-4
		AD 2 OIMM	STAR 1-5
		AD 2 OIMM	STAR 1-6
		AD 2 OIMM	STAR 1-7
		AD 2 OIMM	STAR 1-8
		AD 2 OIMM	STAR 2-1
	Instrument Approach Chart – ICAO	AD 2 OIMM	IAC 1-1
		AD 2 OIMM	IAC 1-2
		AD 2 OIMM	IAC 1-3
		AD 2 OIMM	IAC 2-1
		AD 2 OIMM	IAC 2-2
		AD 2 OIMM	IAC 2-3
		AD 2 OIMM	IAC 2-4
		AD 2 OIMM	IAC 2-5
		AD 2 OIMM	IAC 2-6
		AD 2 OIMM	IAC 4-1
		AD 2 OIMM	IAC 4-2