GEN 3.5 METEOROLOGICAL SERVICES

1. RESPONSIBLE SERVICE

The meteorological services for civil aviation at Jordan are provided by the Jordanian Meteorological Department.

Postal Address:	Director of meteorological department P.O.Box 341011 11134, Amman- Jordan
Fax:	++962 6 4894409
Telephone:	++962 6 4892408
AFS:	OJAMYMYX
E-mail:	mail@jometeo.gov.jo

Responsible Meteorological Offices

a) AMMAN/Marka Airport

Complete manned observing system for Temperature, wind Speed and direction, pressure, and humidity is located at the MET station 300M South of the Runway. Hourly weather reports are passed to the Aerodrome Control Tower.

Postal Address:	National forecasting center P.O.Box 341011 Amman-Jordan
Telephone:	+ +(962) 6 4894460
Fax:	++(962) 6 48929050
AFS:	OJAMYMYX
E-mail:	nfc@jometeo.gov.jo

RVR observations at AMMAN/Marka Airport are made by means of Transmissometer located at the middle of the Runway; One RVR readings are available.

Locations of RVRs:

RWY 06/24	
315818.611N 355929.952E Elevation 761M AMSL	315819.67N 355932.551E Elevation 760.1M AMSL

b) AMMAN/Queen Alia Airport

Complete manned observing system for Temperature, Wind speed and Direction, Pressure and Humidity is located at the MET station which is located at about 1KM North of THR of RWY 26L. An automated surface weather observing system at MET station is available for the measurement of wind, temperature, humidity, pressure, cloud height and RVR observations for each Runway.

Postal Address:	P.O.Box 341011 Amman-Jordan
Telephone:	++962 6 4452901 & ++962 6 4452904
AFS:	OJAIMETR

RVR observations at AMMAN/Queen Alia Airport are made by means of Transmissometer located at certain distances from ends and middle of Runways; Three RVR readings are available for each runway.

Locations of RVRs :

North RWY 08L/26R		
RVR 1 RWY 08L	RVR 2 MID RWY 08L/26R	RVR 3 RWY 26R
314542.055N 355823.057E Elevation 719.29M AMSL 314342.462N 355825.814E Elevation 719.38M AMSL	314350.742N 355920.724E Elevation 724.32M AMSL 314350.337N 355917.916E Elevation 723.82M AMSL	314358.675N 360007.884E Elevation 731.49M AMSL 314359.051N 360010.701E Elevation 730.94M AMSL
South RWY 26L/08R		
RVR 1 RWY 26L	RVR 2 MID RWY 26L/08R	RVR 3 RWY 08R
314305.362N 360052.239E Elevation 719.20M AMSL 314305.768N 360055.032E Elevation 719.25M AMSL	314257.461N 355959.219E Elevation 714.98M AMSL 314257.863N 360002.013E Elevation 715.06M AMSL	314248.122N 355901.156E Elevation 715.16M AMSL 314247.711N 355858.351E Elevation 715.16M AMSL

The MET Automatic station is connected to digital display units available at the aerodrome MET, and TWR offices for providing remote reading of the above mentioned measurements. Additional Information relating to clouds and present weather is provided by the aerodrome MET office to the control tower at hourly periods.

c) AQABA/King Hussein Airport

Complete manned observing system for Temperature, Wind speed and Direction, Pressure and Humidity is located at the MET station which is located at 323M East of center line of RWY 01. An automated surface weather observing system located at about (300M) West of touch down zone of Runway 01 is available for measurement of wind, temperature, dew point pressure, cloud base on final and RVR observations for Runway 01 are made by means of Transmissometer at the west side at a distance of (170M) from the shoulder of the Runway. The automated surface weather observing system is connected to digital display units available in control Tower and Equipment room.

Postal Address	P.O. Box 82 King Hussein Airport Aqaba 77110
Tele fax	++ 962 3 2013608
TEL	++ 962 3 2012111 ext. 244

RVR observations at Aqaba/King Hussien Airport are made by means of Transmissometer located at the middle of the Runway; One RVR readings are available.

Locations or RVRs:

RWY 01/19	
293609.600N 350048.917E	293607.274N 350048.078E
Elevation 47.93M AMSL	Elevation 48.55M AMSL

The service is provided with the provisions contained in the following ICAO documents

Annex 3	Meteorological Service for International Air Navigation
Doc 7030	Regional Supplementary Procedures
Doc 8700	Air Navigation Plan, MID/ASIA
Doc 9377	Co-ordination between ATS and the Meteorological services.

2. AREA OF RESPONSIBILITY

Area Meteorological watch is provided for Amman FIR.

3. METEOROLOGICAL OBSERVATIONS AND REPORTS

Table of Meteorological observations and reports

Name Of Station/ Location Indicator	*Frequency & type of Observation/Automatic Equipment*	*Types Of MET Reports & Supplementary Information Included*	*Observation System & Site(S)*	*Hours of Operation*
1	**2**	**3**	**4**	**5**
AMMAN/Marka * OJAM	Hourly plus special observation	METAR & SPECI & TREND TAF & Plain Language	Complete observing station 300M South of RWY.	H24
AMMAN/Queen Alia * OJAI	Hourly plus special observation	METAR & SPECI & TREND TAF & Plain Language	Complete observing station & automatic MET. station 1NM North of THR RWY 26L Transmissometer located at appropriate distance from THR & middle of RWYs.	H24
AQABA/King Hussein * OJAQ	Hourly plus special observation	METAR & SPECI & TREND TAF & Plain Language	An automated digital weather observation system is Located at 150M West of centerline of RWY 01. Transmissometer is located at 120M West of center line of RWY 01 . Observing station is located at 323M East of center line of RWY 01.	H24
JERUSALEM/Jerusalem * OJJR			In operative (UFN)	
* Climatological tables are available for each airport				

4. TYPES OF SERVICES PROVIDED

At Amman/Marka and Amman /Queen Alia aerodrome, a 24 hour personal briefing, consultation service, and flight documentation for flight crews is provided.

Oral briefing either in person or by telephone is provided for other aerodromes.

Flight documentation is normally provided for international flights comprising significant weather charts, upper winds and upper air temperature charts and the latest available aerodrome forecast for the destination and if required for its alternate aerodromes.

Flights of intermediate stops are provided with forecasts at 3 hours advance notice, otherwise, Oral briefing is provided covering the routes to the next aerodrome where briefing and flight documentation is available.

RVR observations are carried out at AMMAN/Queen Alia Airport, AMMAN/Marka Airport and AQABA/King Hussein Airport.

An automatic surface weather station is in operation only at AMMAN/Queen Alia Airport, AQABA/ King Hussein Airport and AMMAN/Marka Airport.

The station provides remote readings of the measurements of wind, temperature, and humidity, pressure, cloud heights and visual range for each runway. Digital display units connected to the station are available at the ME, AIS and TWR offices.

Climatological Summaries

Climatological Summaries for the stations indicated in an asterisk on page 3.5-3 are available from the Director of Meteorological Department, Ministry of Transport, AMMAN/Marka Airport, Jordan. Other stations for which Climatological Summaries are available are listed in GEN 3.5-6 till GEN 3.5-26

Regular monthly summaries of meteorological data are published for the following stations in Jordan:

AMMAN/Marka Airport
AMMAN/Queen Alia Airport
AQABA/ King Hussein Airport
RUWAISHED
SAFAWI
IRBID
MA'AN
MAFRAQ Airport
→ ZARQA

Basic data are available for other Climatological stations. Requests for meteorological and Climatological data should be addressed to:
The Hashemite kingdom of Jordan
Meteorological Department
P. O. Box 341011 11134, Amman
Phone: +(962) 6 4892408
Fax: +(962) 6 4894409
e-mail: mail@jometeo.gov.jo

5. NOTIFICATION REQUIRED FROM OPERATORS

Pursuant to ICAO Annex 3, chapter 2, paragraph 2.3, notification in respect of all flight documentation and briefing is normally required. Such notification should normally be received at least:

a) 3 Hours before the estimated of block time of flight for International scheduled flights; and
b) 6 hours before the estimated off block time of flight for non-scheduled international flights, however, oral MET briefing is available at any time without previous notice.

6. AIRCRAFT REPORTS REQUIRED FROM PILOTS

Post Flight

Pilots of commercial aircraft arriving at Jordanian Aerodromes in addition to handling of the AIREP form are required to report to the meteorological office on the meteorological conditions encountered in flight. Flights of duration of less than one and half-hour are exempted from these requirements unless an unusual or unexpected phenomena has been encountered. Such oral comments may be reserved for AMMAN/Queen Alia Meteorological office if this Airport is a point of landing of the same flight.

In accordance with Annex 3, chapter 5, paragraph 5.3.1, the making and transmission of aircraft reports (AIREP) is required at the Meteorological offices located at :

AMMAN/Queen Alia International aerodrome.
AMMAN/Marka International aerodrome .

Pilots are required to record and transmit special observations as follows:

a) Moderate or severe Icing and Turbulence encountered.
b) Meteorological conditions such as these comprising SIGMET information if in the opinion of the pilot-in-command these are likely to affect the safety of other aircraft and
c) Special observations that are requested by the Meteorological offices at AMMAN/Queen Alia and AMMAN/Marka airports, These special observations must be reported in flight, as soon as practicable after they have been recorded, by all pilots without exception.

7. VOLMET SERVICE

The VOLMET Broadcast could be received through air navigation assigned frequencies and its programs are specified by the Regional Navigation Agreement.

8. SIGMET SERVICE

Table of SIGMET Service

Name of MWO/ location Indicator	Hours	FIR Served	Type of SIGMET/ validity	Specific Procedures	ATS Unit served	Additional Information
Amman/Marka OJAM	H24	Amman FIR	TURB Cumulonimbus (CB) Hail (GR) Volcanic (VA)		FIC ACC RCC	Wind shear and Aerodrome warning. Tropical cyclone (TC), Thunderstorm (TS), Snow (SN), Freezing Rain (FZ), Frost Hoar, Dust storm (DS), Strong Surface Wind (GUST), Squall, Frost.

The period of validity of a SIGMET message: not more than 6 hours and preferably not more than 4 hours. An outlook should be included giving information for up to 12 hours. Beyond the period of validity specified concerning the trajectory of the volcanic ash and position of the tropical cyclone center.

STATION: ZARQA

Element / Month	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
	AIR TEMPERATURE ^{O}C											
Mean Monthly	27.8	27.3	25.5	22.6	16	10.9	9.6	10.5	14.3	18.2	22.5	25.2
Highest Maximum	41.8	40.6	39.5	39	32.5	25.6	21.6	28.4	32.4	35.2	38.2	41
lowest Minimum	17.4	17.8	15	9.8	3.1	0.2	0.8	0	1.7	5	9	13.6
Mean Maximum	34.4	34	32.3	29	21.3	15.4	13.7	15.1	19.9	24.4	29.3	31.9
Mean Minimum	21.1	20.5	18.6	16.3	10.7	6.4	5.4	5.8	8.6	11.9	15.8	18.5
	RELATIVE HUMIDITY %											
0600	61.3	68.7	69	70.3	72.7	81	84.7	81.6	71.1	62.7	54.4	58.8
1200	40.5	41	41.1	46.6	50	60.3	62.4	57.2	45.6	41.2	32.8	36.9
1800	56.6	61.6	61	64.9	66.1	74.7	76	69.7	63.4	57.3	50.2	53.4
	RAINFALL MM											
Mean Monthly	0.0	0.0	2.3	1.1	6.9	11.6	35.4	32.1	14.7	3.3	1.3	0.0
Highest amount in a day	0.0	0.0	9	3.4	9.8	16.2	14.3	14.6	10.5	12.3	3	0.0
	CLOUD											
Mean cloud Amount	0.1	0.2	0.4	1.2	2.3	2.9	3.2	3.5	2.7	2.6	1.3	0.2
No. of cloudy days	0.0	0.0	0.0	0.0	0.6	2	2	4.2	1.8	0.8	0.0	0.0
Mean No. of cloudy days	24.2	22.8	20.8	16.3	10.2	8.4	7.8	5.8	8.8	9.4	17.4	23.6
	PHENOMENA											
Snow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
Hail	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fog	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	0.0	0.0	0.0	0.0
	PRESSURE (QFE)											
0600	937	937.7	941.2	943.3	945.4	945.6	944.3	643.7	942.8	940.7	940.4	939
1200	935.9	936.5	939.8	996.2	943.7	944.3	934	942.5	941.4	939.6	939	937.8
1800	936.3	937.1	940.6	942.5	944.6	945.1	943.9	943.2	942.1	940.1	939.5	938.1

Notice:-

1- Temperature in Degrees Centigrade
2- Relative Humidity in Percentage
3- Rainfall in Millimeters
4- Clouds in Oktas
5- Phenomena in Times Per month
6- Pressure in Hecto Pascal
7- Gale means wind speed ≥ 34 KTs