

QATAR CIVIL AVIATION AUTHORITY

Weather Forecaster
Y MOHAMED HASSAN



الهيئة العامة للطيران المدني
CIVIL AVIATION AUTHORITY

إدارة الأرصاد الجوية Qatar Meteorology

SOFTWARE AND SATELLITE APPLICATIONS

- MESSIR-VISION
- SYNERGIE
- IBL

MESSIR - VISION

COROBOR systems support@corobor.com www.corobor.com V8.4.14.0 - J7U

QMD

Synergie 4.7.2 [SYAD0R03] In configuration FULL

Wed 09/11/22 9:40 GMT SYAD0R03

Programs



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Qatar Meteorology إدارة الأرصاد الجوية

SYNERGIE AND MESSIR VISION

- CHANNELS MOSTLY USED FROM (MSG AND IODC)
- MOST CHANNELS FROM MSG ARE RECEIVED EVERY 15 MINUTES, AND IODC DATA ARE RECEIVED EVERY



Satellite Images

MSG	FY2G	GOESE	METOP	MPEF	RGB	LSAF	MODIS	NOAA	IODC
Natural Color RGB 3,2,1			Day Conv. Storm RGB 5-6,4-9,3-1			HRV Cloud RGB 12,12,9			
Day Microphysics Summer RGB 1,-4,9			Night Microphysical RGB 10-9,9-4,9			HRV Fog RGB 3,12,12			
Day Microphysics Winter RGB 1,-4,9			H-24 Dust Microphysics RGB 10-9,9-7,9			HRV Severe Storm RGB 12,12,12			
Solar RGB 1,3,-4			Airmass RGB 5-6,8-9,5						

Time selection: 12h 00 15 30 45 13h 00 15 30 45 14h 00 15 30 45 15h 00 15 30 45 16h 00 15 30 45 17h 00 15 30 45 18h 00 15 30 45 19h 00 15 30 45

09/11/2022 19:45

Qatar_Small, Qatar_Medium, Qatar_Large, Globe

OK, Quit, Cancel, Help

Image selection

Area	Type	Source	Time
SigWx_AIRMET	RGB HRV Clouds	Meteosat-9	20:15 Wed 09
Qatar_Municipality	RGB HRV Severe Storms	Meteosat-9	19:45 Wed 09
Gulf	RGB Natural visible	Meteosat-9	19:30 Wed 09
ALL_GULF	RGB Night Fire	Meteosat-9	19:15 Wed 09
LAF Area	RGB Night Land Cloud & Fire	Meteosat-9	18:45 Wed 09
WRF 1.3KM	RGB Night Micro. High clouds	Meteosat-9	18:30 Wed 09
QATAR	RGB Night Micro. Low clouds	Meteosat-9	18:15 Wed 09
LOCAL PLOTTING	RGB Severe storms	Meteosat-9	16:45 Wed 09
asia_ameera	RGB Simple Water Vapor	Meteosat-9	16:30 Wed 09
Abu SaBER	RGB Tropical Airmass	Meteosat-9	16:15 Wed 09
Alshahaniya and abusamra	RGB Volcanic ash	Meteosat-9	16:00 Wed 09
QATARHIRES	Fires	Meteosat-9	15:45 Wed 09
Doha_FIR_AIRMET	Diff 11-9	Meteosat-9	15:30 Wed 09
HANSyn	Diff 3-1	Meteosat-9	15:15 Wed 09
BUNDUQ	Diff 4-9	Meteosat-9	14:45 Wed 09
QATAR GAS	Diff 5-6	Meteosat-9	14:30 Wed 09
Sea Height	Diff 5-9	Meteosat-9	14:15 Wed 09
All	Diff Vegetation	Meteosat-9	13:45 Wed 09
India			13:30 Wed 09
Meteosat-10			13:15 Wed 09
Meteosat-7			12:45 Wed 09
Aladin			12:30 Wed 09
Arpege0.5			12:15 Wed 09
Arpege 1			12:00 Wed 09

Filter: None

Archives: From daily folder, 11/ 9/2022

Delete image...

Display, Close

Satellite Images

MSG	FY2G	GOESE	METOP	MPEF	RGB	LSAF	MODIS	NOAA	IODC
VIS 1.6			IR 10.8			WV 6.2			
VIS 0.8			IR 9.7			HRV			
VIS 0.6			IR 8.7			Colour Composition			
IR 13.4			IR 3.9						
IR 12.0			WV 7.3						

Time selection: 12h 00 15 30 45 13h 00 15 30 45 14h 00 15 30 45 15h 00 15 30 45 16h 00 15 30 45 17h 00 15 30 45 18h 00 15 30 45 19h 00 15 30 45

09/11/2022 20:00

Qatar_Small, Qatar_Medium, Qatar_Large, Globe

OK, Quit, Cancel, Help

Satellite Images

MSG	FY2G	GOESE	METOP	MPEF	RGB	LSAF	MODIS	NOAA	IODC
VIS : 0.6			IR : 10.8			HRV			
VIS : 0.8			IR : 12.0			SST			
VIS : 1.6			IR : 13.4			TAMSAT Rainfall Estimate DE			
IR : 3.9			WV : 6.2			TAMSAT Rainfall Estimate ME			
IR : 8.7			WV : 7.3			TAMSAT Rainfall Estimate AN			
IR : 9.7			Color Composite			TAMSAT Rainfall Estimate AN			

Time selection: 12h 00 15 30 45 13h 00 15 30 45 14h 00 15 30 45 15h 00 15 30 45 16h 00 15 30 45 17h 00 15 30 45 18h 00 15 30 45 19h 00 15 30 45

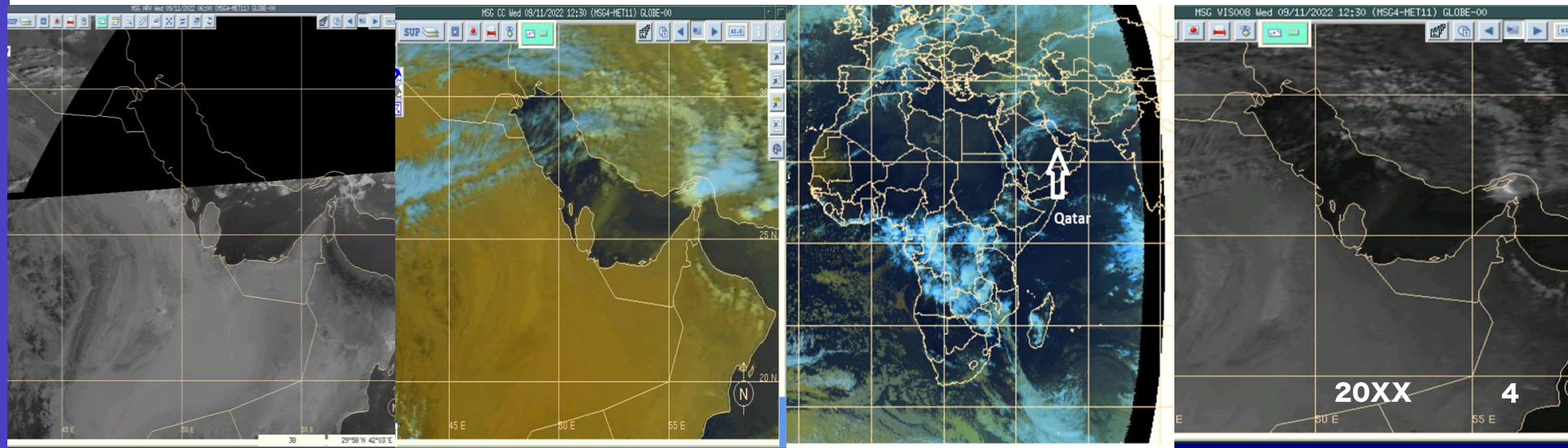
09/11/2022 12:00

Qatar_Small, Qatar_Medium, Qatar_Large, Globe

OK, Quit, Cancel, Help

MSG11 SATELLITE IMAGES

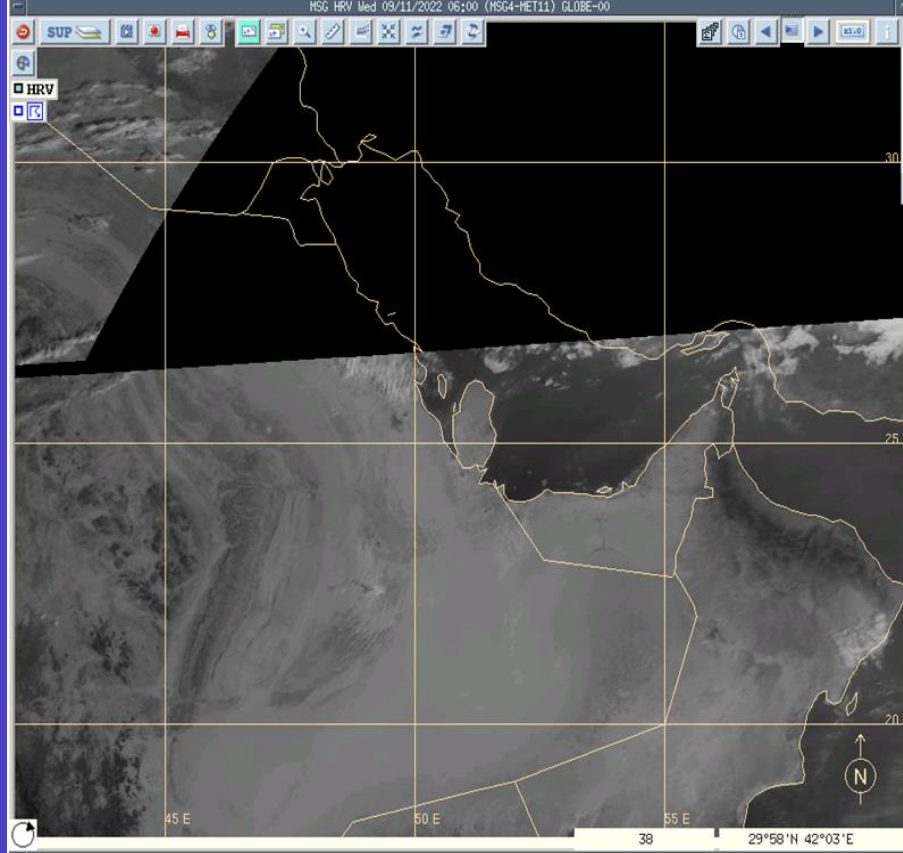
- **MSG11 IMAGES**
- **The Position of Qatar in satellite image is on the edge**
- **Images are not georeferenced accurately (eastward displacement 20 to 30 km) specially on local formation of clouds**



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IODC AND MSG1 1

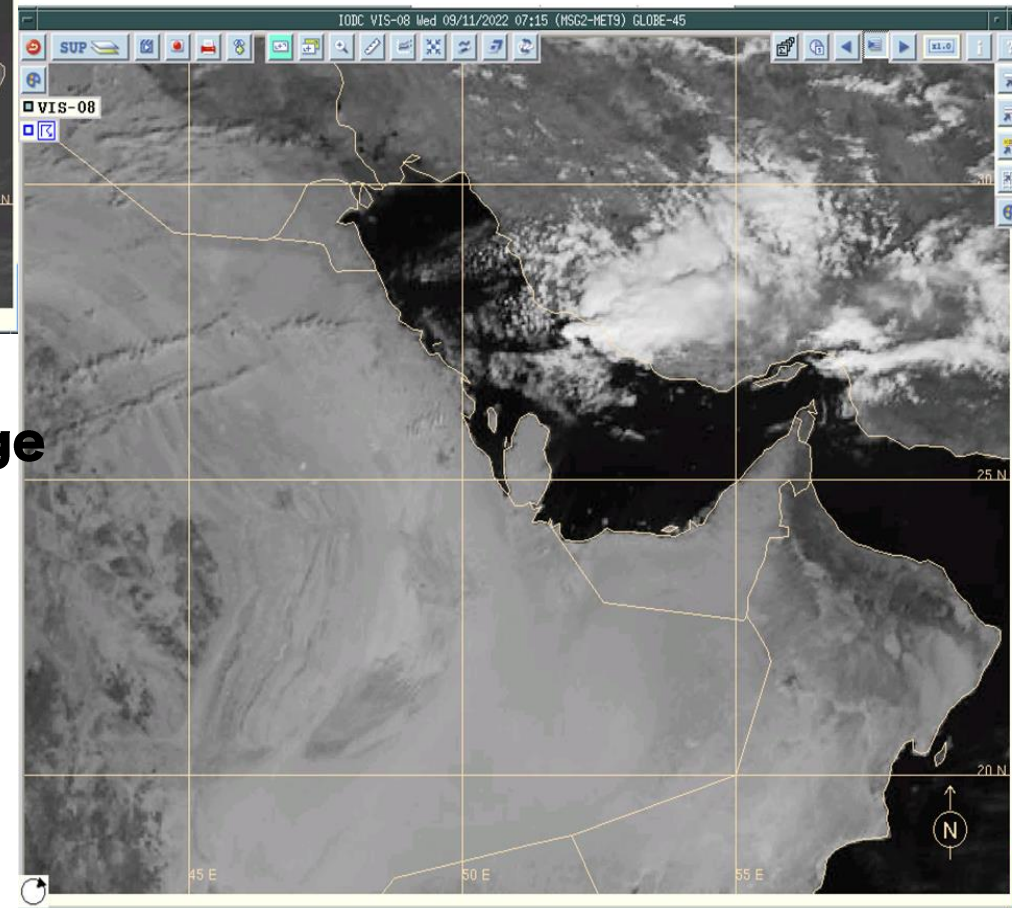


MSG11 HRV satellite image

- High resolution
- Missing data

IODC satellite image

- High resolution
- Better position
- More data



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Data requirements

- **MSG8 data:**
 - **Every 15 minutes**
 - **Higher accuracy of cloud location**
 - **More detailed cloud formation**
- **41.5° E Indian Ocean Data Coverage**
 - **IODC SEVIRI Level 1.5 Image Data**
 - **IODC Meteosat Meteorological Products**
- **Metop, SNPP and NOAA Global Data Services**
 - **GDS-Metop- B**
 - **IASI Sounding Product**
 - **GDS-Metop- C**
 - **IASI Sounding Product**
 - **GDS-NOAA-19**
 - **ATVOS Sounding Product**



**Mohamed
Hassan**

**Qatar Civil
Aviation
Authority**



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إدارة الأرصاد الجوية Qatar Meteorology

Thank you