

# OMAN

# NUMERICAL

# MODELLING

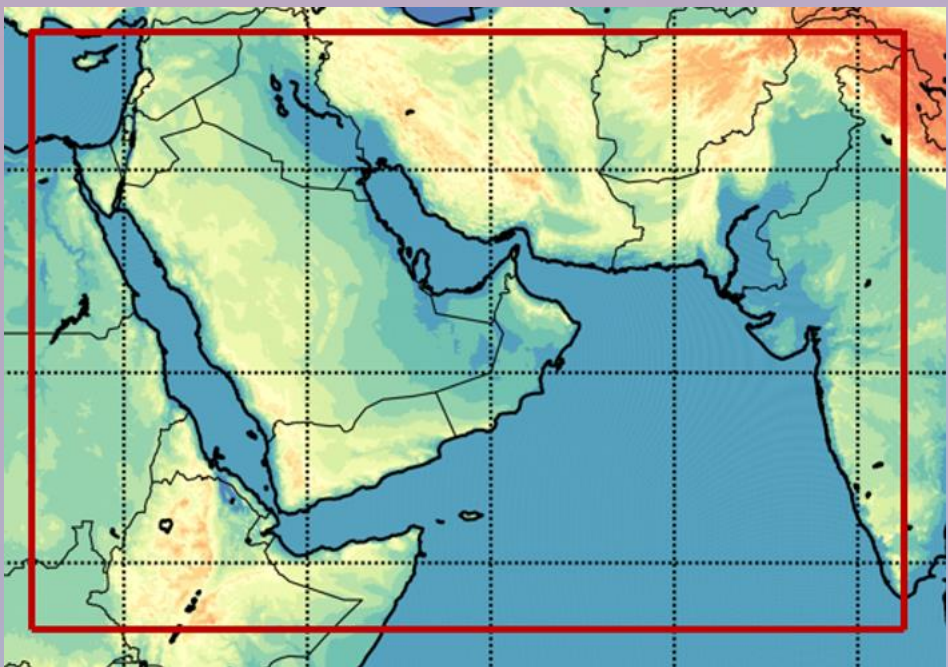
# NWP Models

Available in DGMet

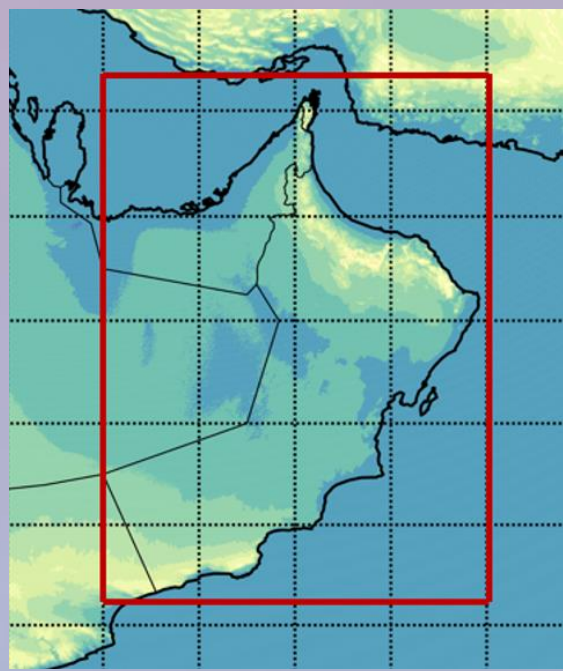


رؤية عمان 2040  
تتمدد بثقة  
Moving Forward  
with Confidence

Model	Resolution	Forecast Days	Run Time	Start (Local)	Finish (Local)
COSMO Regional	7 km	5 days	00 12	06:43 AM 06:43 PM	07:55 AM 07:55 PM
COSMO Local	2.8 km	3 days	00 12	07:56 AM 07:56 PM	08:30 AM 08:30 PM
WAM Regional	14 km	5 days	00 12	08:48 AM 08:48 PM	08:52 AM 08:52 PM
WAM Local	3.5 km	3 days	00 12	08:54 AM 08:54 PM	09:27 AM 09:27 PM
UAE COSMO	7 km	7 days 3 days	00 , 12 06 , 18	06:45 AM,PM 12:40 PM,AM	07:30 AM,PM 01:05 PM,AM
Wave WATCH III (US)	18 km	16 days	00	09:45 AM	10:15 AM
GFS (US)	25 km	10 days	00 12	07:28 AM 07:36 PM	08:34 AM 08:39 PM
ECMWF (EU)	50 km	7 days	00 12	09:45 AM 09:45 PM	12:01 PM 12:05 AM
ICON (GR)	25 km	6 days	00 12	08:30 AM 08:30 PM	9:30 AM 9:30 PM
EGRR (UK)	35 km	3 days	00 12	07:22 AM 07:22 PM	08:56 AM 08:56 PM
NEMO Ocean	10 km	10 days	00	10:00 AM	03:00 PM

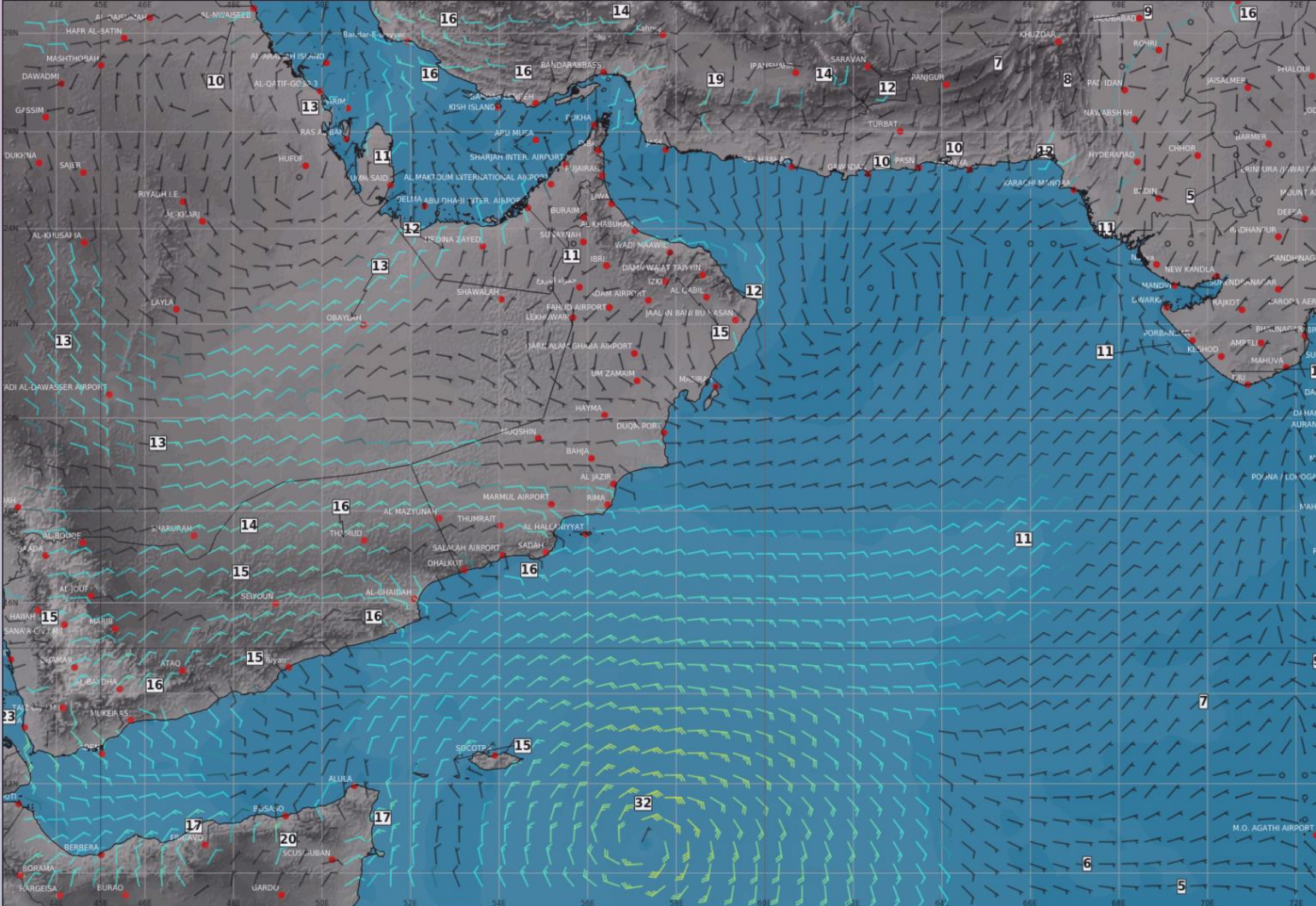


7 km



2.8 km

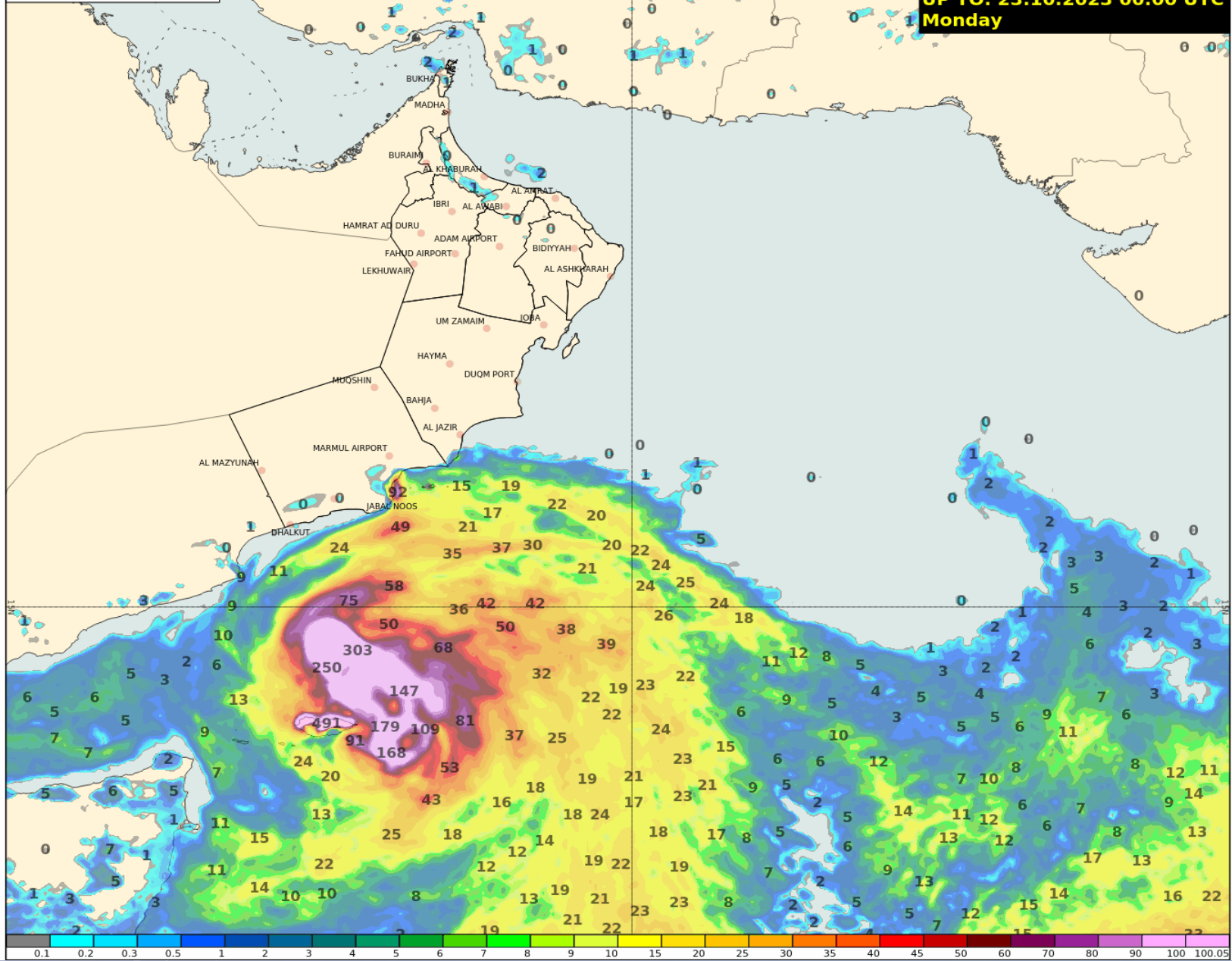
# WIND



# Rainfall

24 HOURS ACCUMILATION

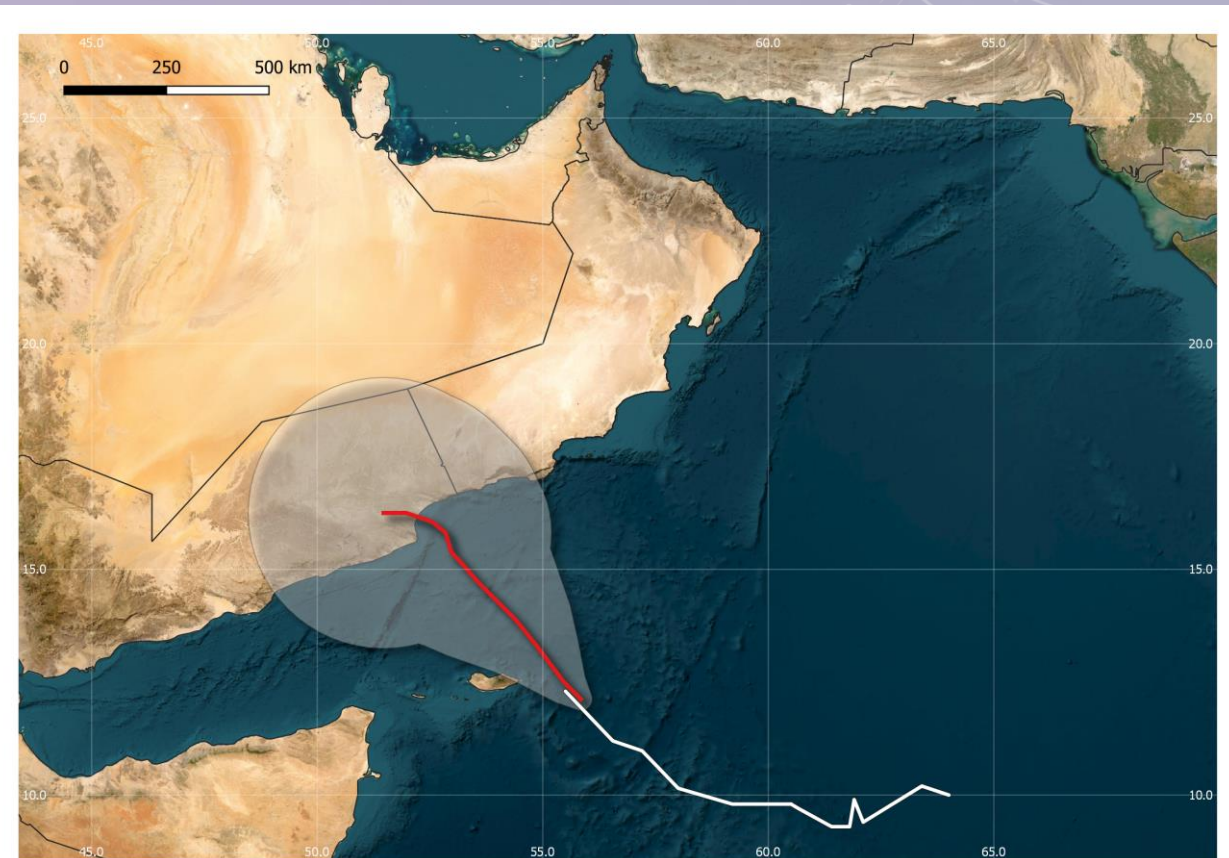
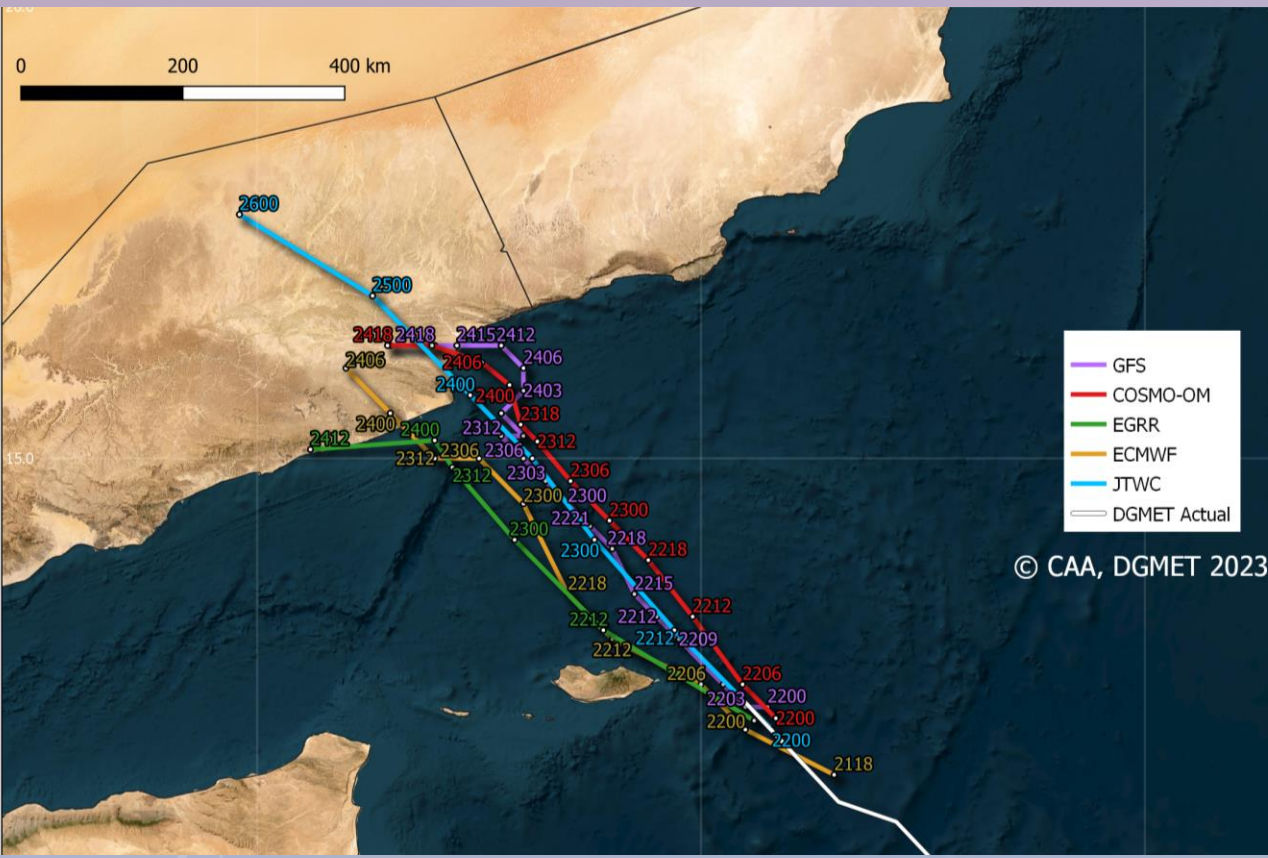
UP TO: 23.10.2023 00:00 UTC  
Monday



رؤية عمان 2040  
Moving Forward with Confidence

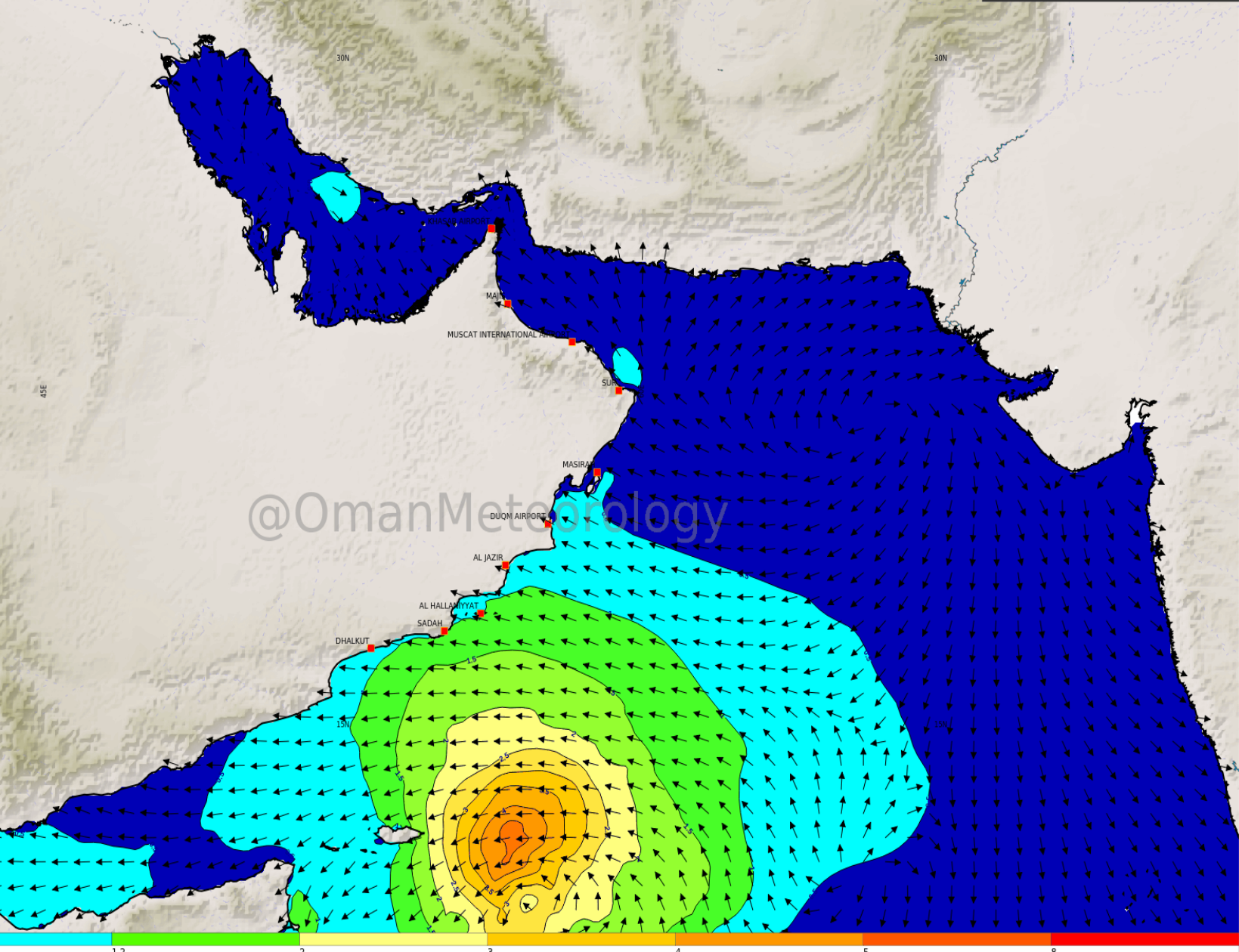


# TEG TRACKS FROM NWP MODELS



# Wave model

Meteorological office  
Total Wave (14km) chart for 21.10.2023 18:00 GMT

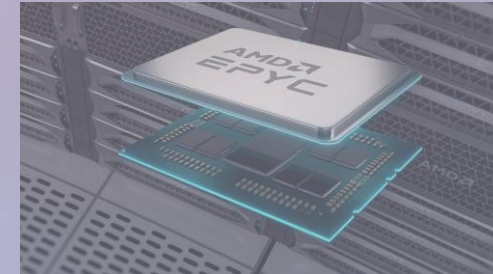


# NWP COOPERATION:

**Deutscher Wetterdienst**  
Wetter und Klima aus einer Hand



**Met Office**

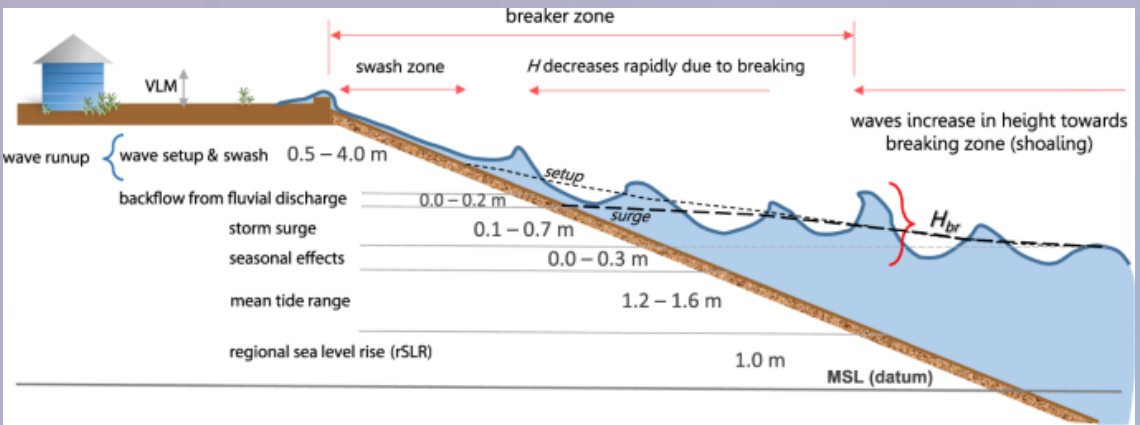


*NWP cloud computing*



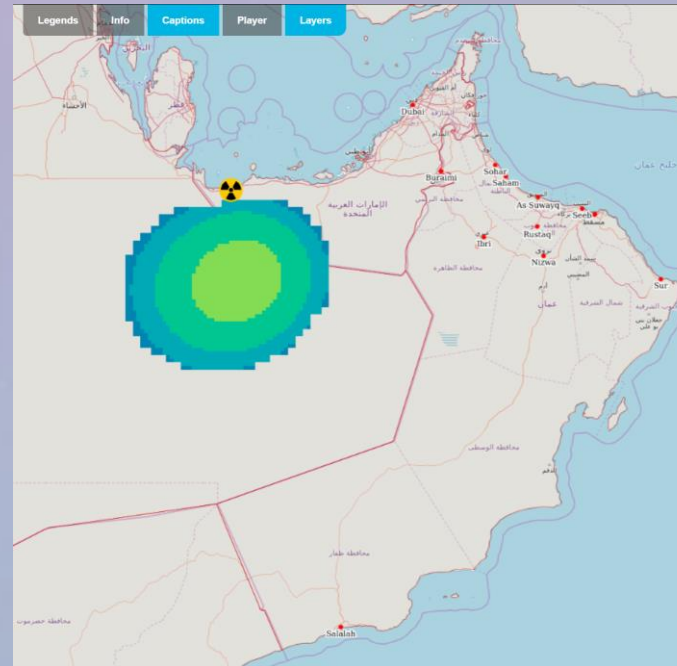
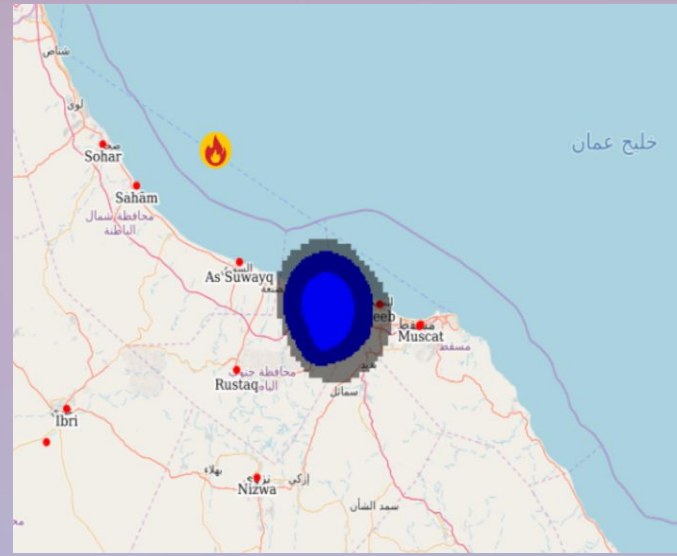
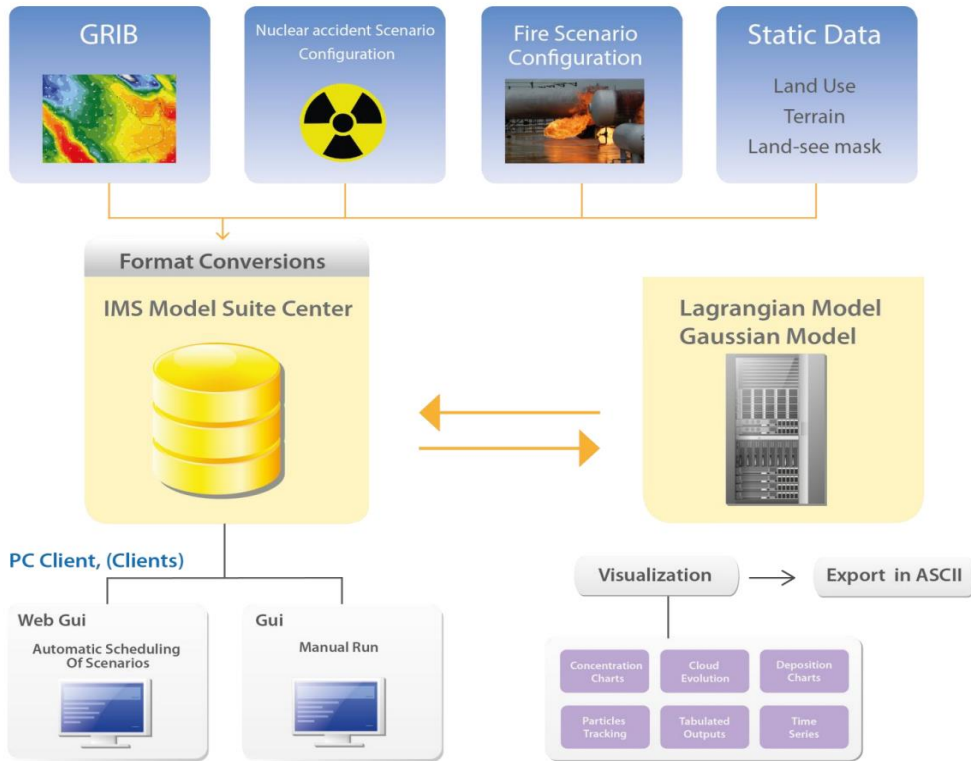


# COASTAL INUNDATION MODELLING



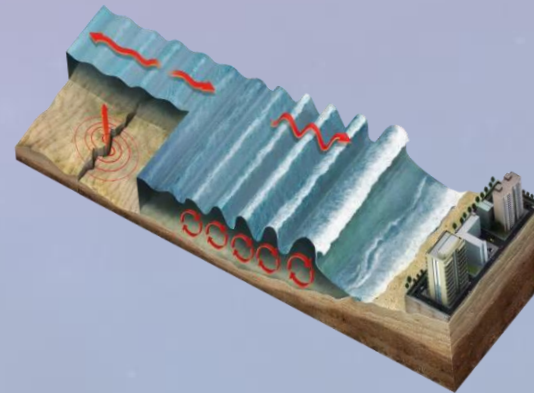
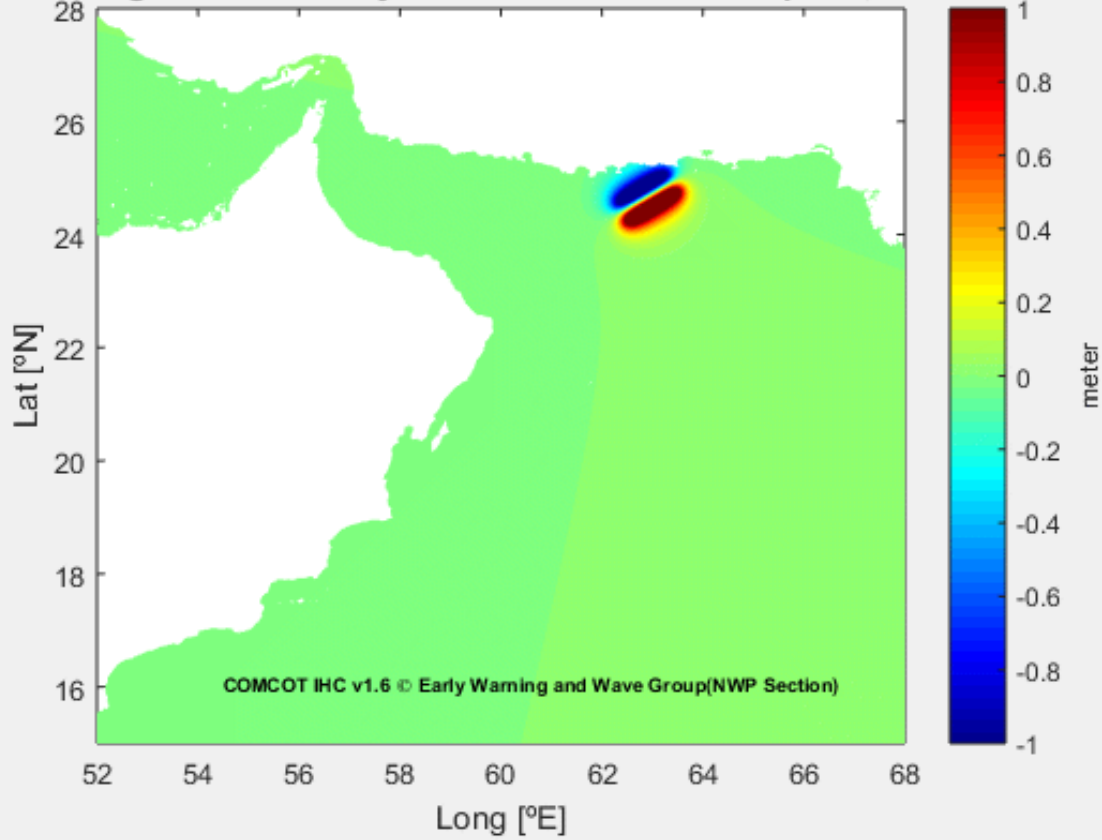
Total water level =  
 rSLR + tides + seasonal effects + storm surge + wave setup + wave  
 swash + fluvial discharge backflow

# FIRE PLUME AND RADIOACTIVITY DISPERSION MODELING

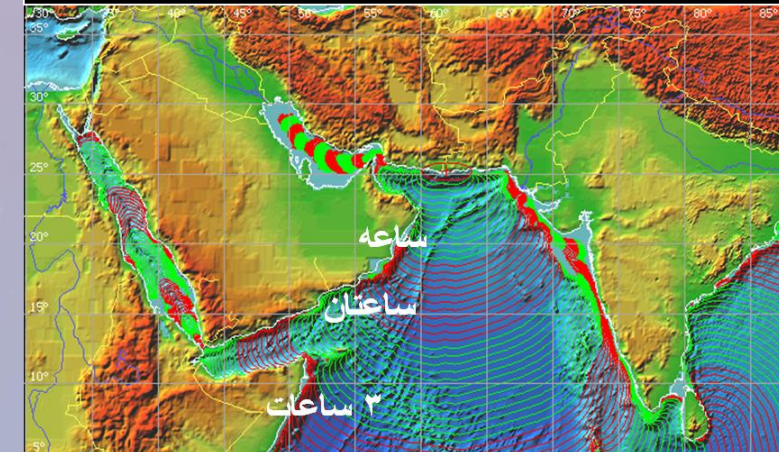


# TSUNAMI MODELLING

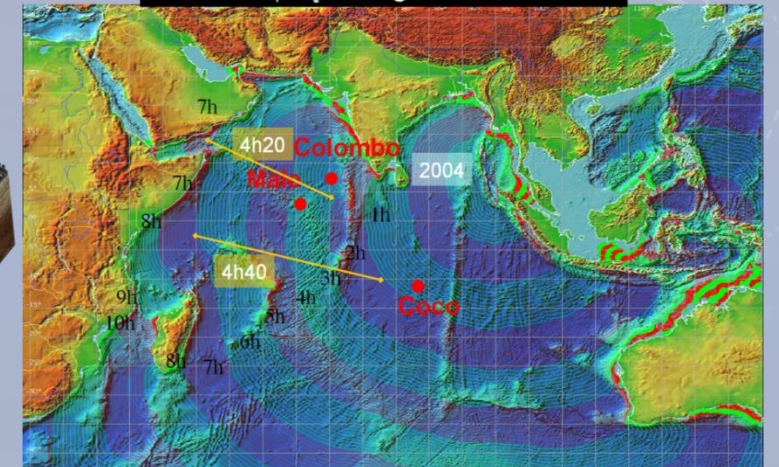
Sea Height Simulation by COMCOT for 1945 Earthquake, t= 0sec



زمن إنتقال الأمواج لتسونامي عام ١٩٤٥



زمن إنتقال الأمواج لتسونامي عام ٢٠٠٤



# OmanFFG - Oman Flash Flood Guidance System

Current Date: 2023-11-06 10:54 UTC

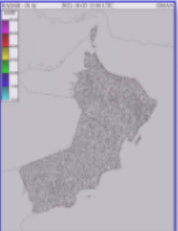
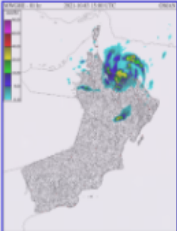
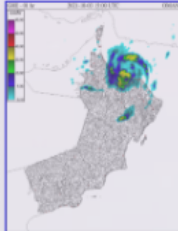
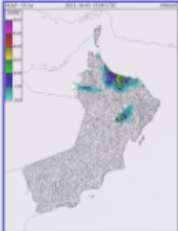
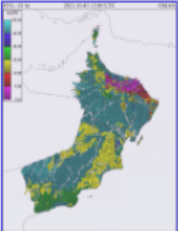
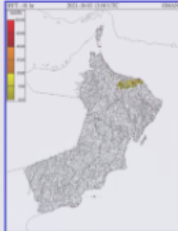
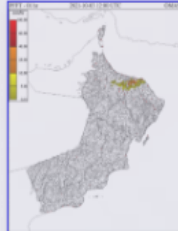
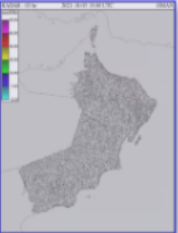
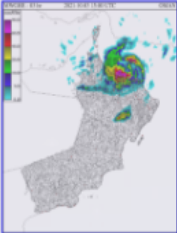
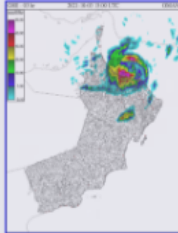
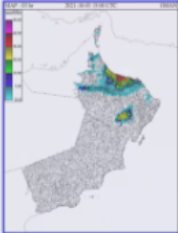
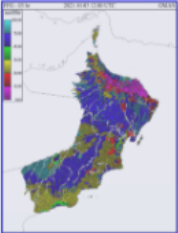
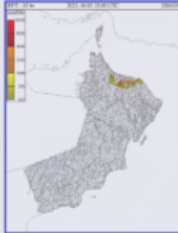
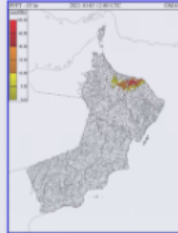

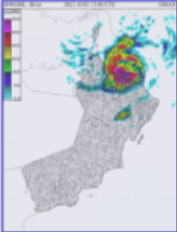
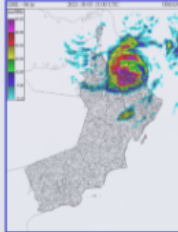
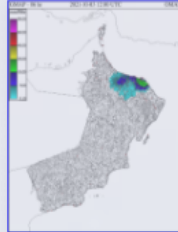
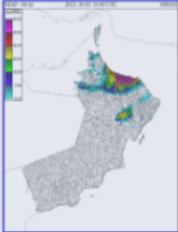
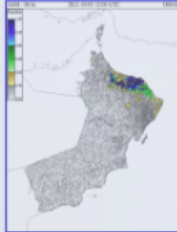
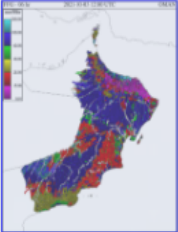
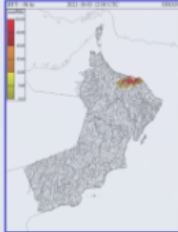
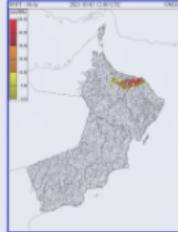
Product Date: 2021-10-03 15:00 UTC

Year: 2021 Month: 10 Day: 03 Hour: 15 Submit

-1 Month -1 Day -6 Hours -1 Hour +1 Hour +6 Hours +1 Day +1 Month

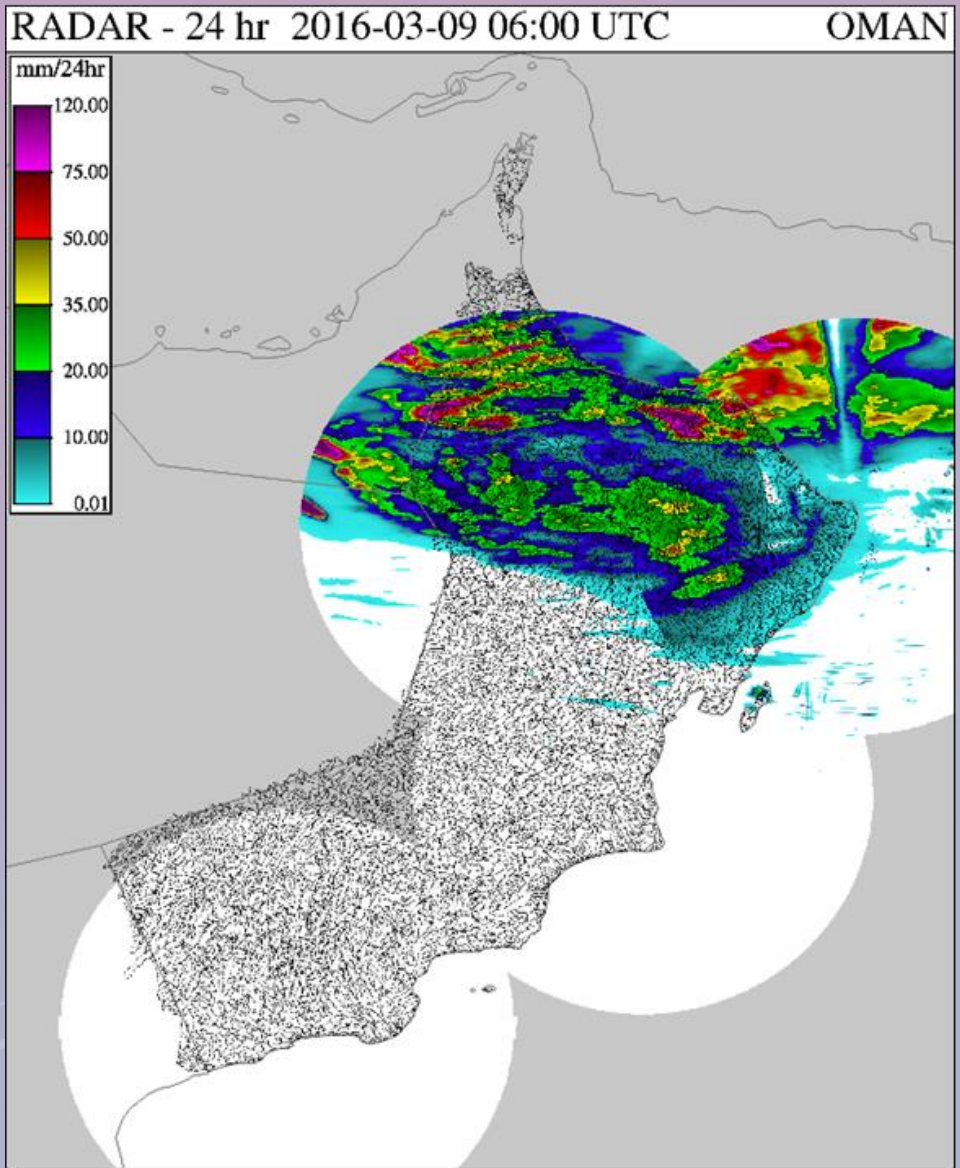
Prev 6-hr Interval (12 UTC) Reset to Current Next 6-hr Interval (18 UTC)

## Product Console - Main Table

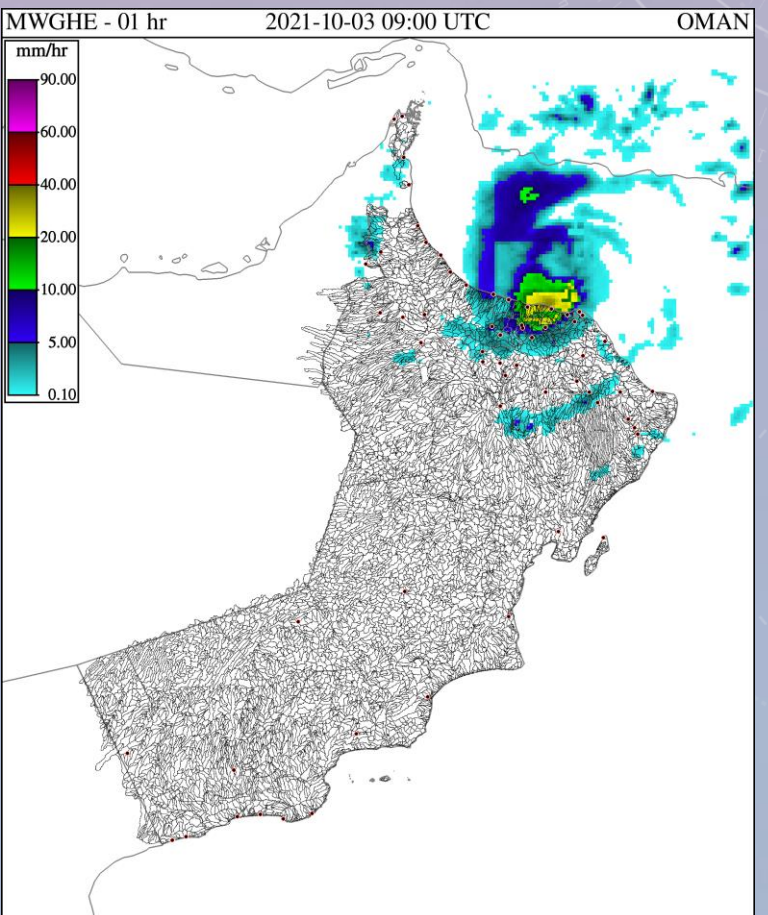
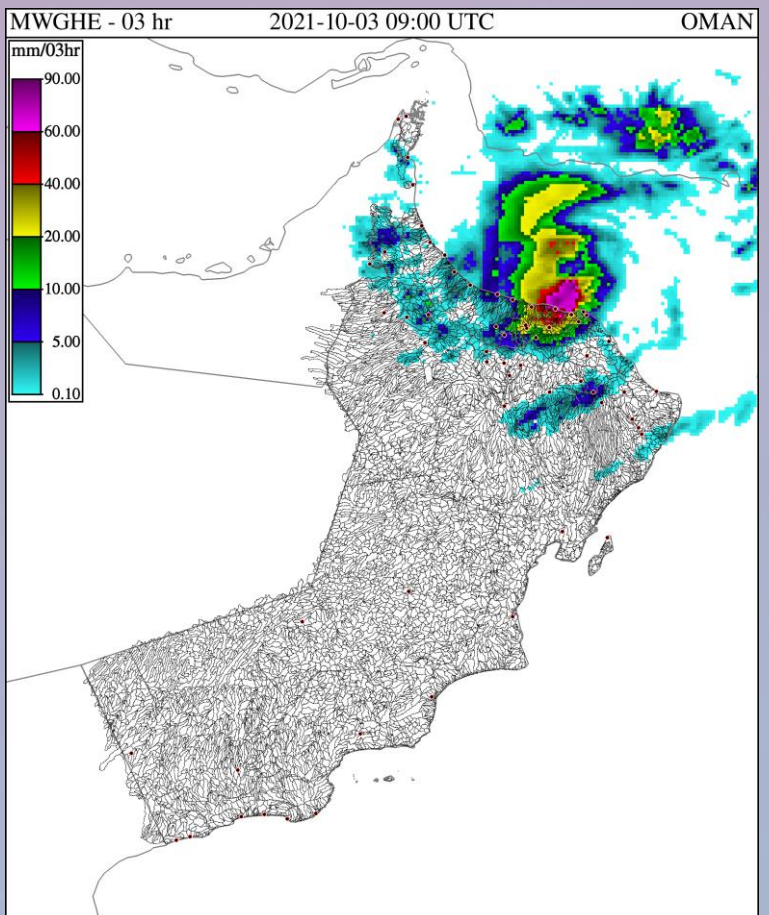
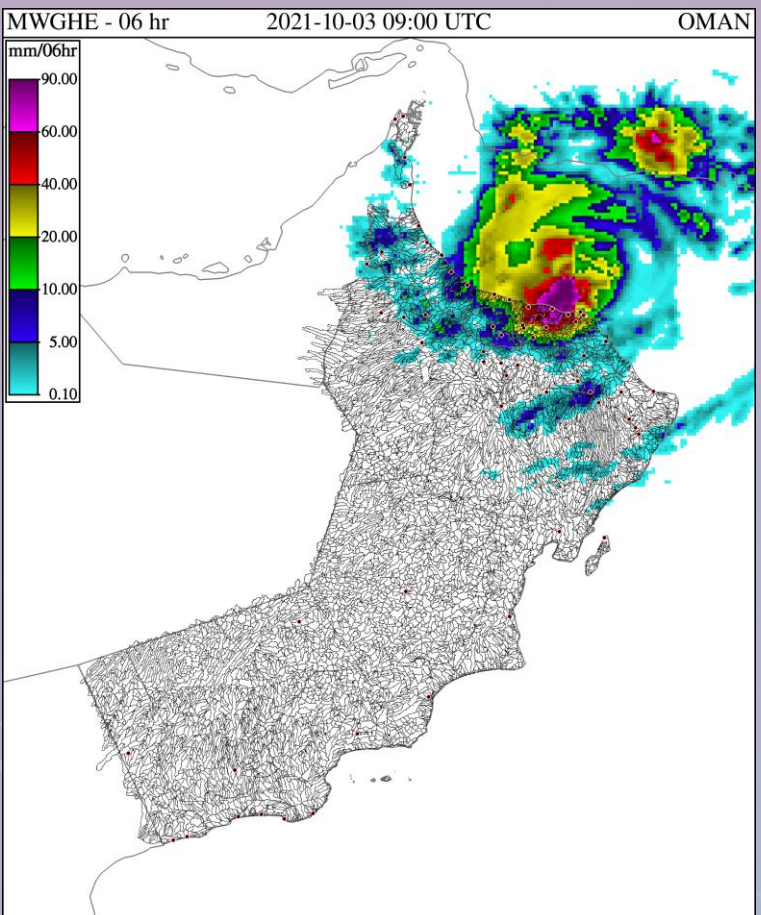
	RADAR Precipitation	MWGHE Precipitation	GHE Precipitation	Gauge MAP	Merged MAP	ASM	FFG	IFFT	PFPT
01-hr	 2021-10-03 15:00 UTC Text: <a href="#">view</a>	 2021-10-03 15:00 UTC Text: <a href="#">view</a>	 2021-10-03 15:00 UTC Text: <a href="#">view</a>		 2021-10-03 15:00 UTC Text: <a href="#">view</a>		 2021-10-03 12:00 UTC Text: <a href="#">view</a>	 2021-10-03 13:00 UTC Text: <a href="#">view</a>	 2021-10-03 12:00 UTC Text: <a href="#">view</a>
03-hr	 2021-10-03 15:00 UTC Text: <a href="#">view</a>	 2021-10-03 15:00 UTC Text: <a href="#">view</a>	 2021-10-03 15:00 UTC Text: <a href="#">view</a>		 2021-10-03 15:00 UTC Text: <a href="#">view</a>		 2021-10-03 12:00 UTC Text: <a href="#">view</a>	 2021-10-03 15:00 UTC Text: <a href="#">view</a>	 2021-10-03 12:00 UTC Text: <a href="#">view</a>
06-hr	 2021-10-03 15:00 UTC Text: <a href="#">view</a>	 2021-10-03 15:00 UTC Text: <a href="#">view</a>	 2021-10-03 15:00 UTC Text: <a href="#">view</a>	 2021-10-03 12:00 UTC Text: <a href="#">view</a>	 2021-10-03 15:00 UTC Text: <a href="#">view</a>	 2021-10-03 12:00 UTC Text: <a href="#">view</a>	 2021-10-03 12:00 UTC Text: <a href="#">view</a>	 2021-10-03 12:00 UTC Text: <a href="#">view</a>	 2021-10-03 12:00 UTC Text: <a href="#">view</a>

# Flash flood warning system

# Flash flood impact

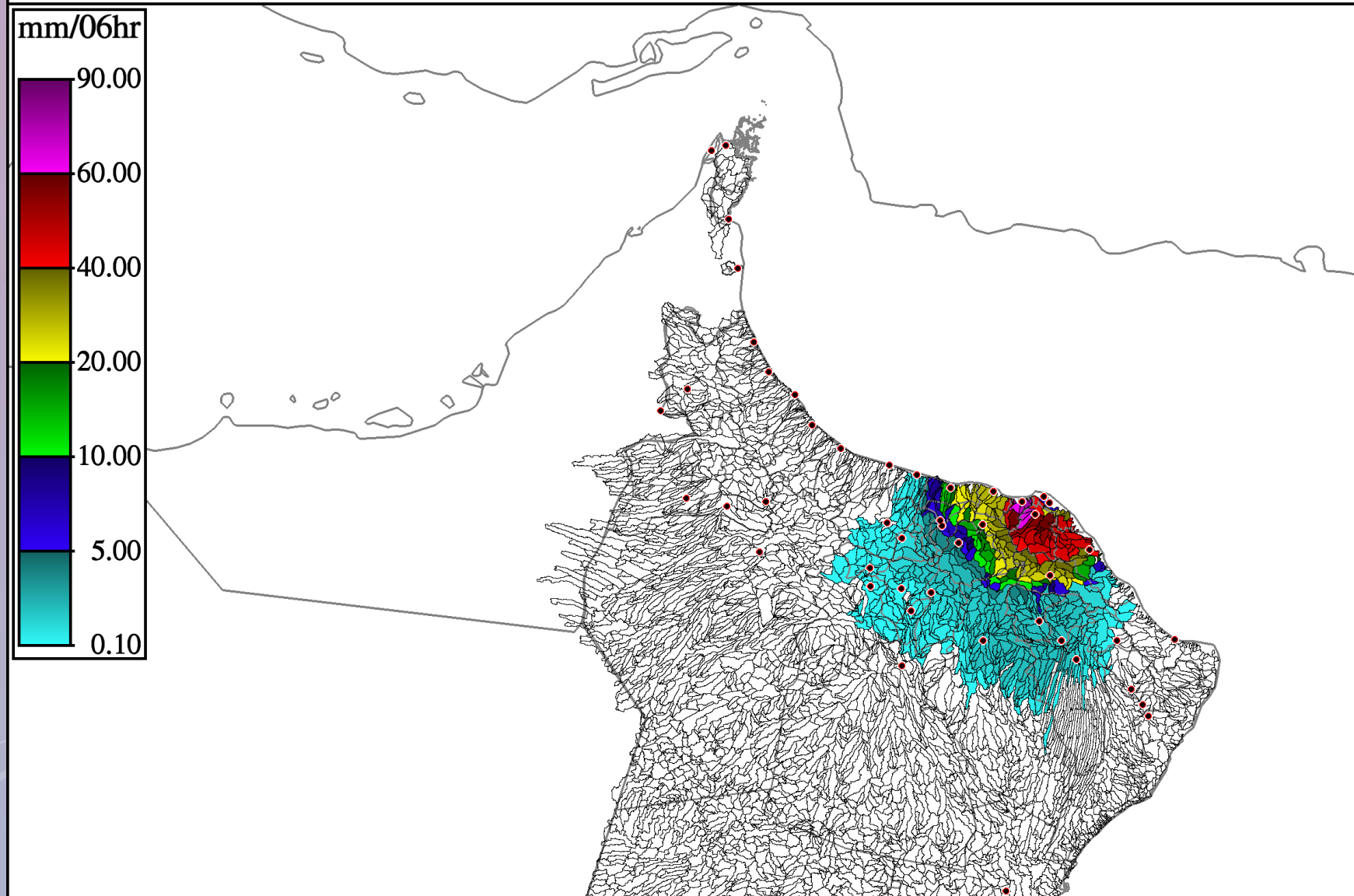


# SATELLITE



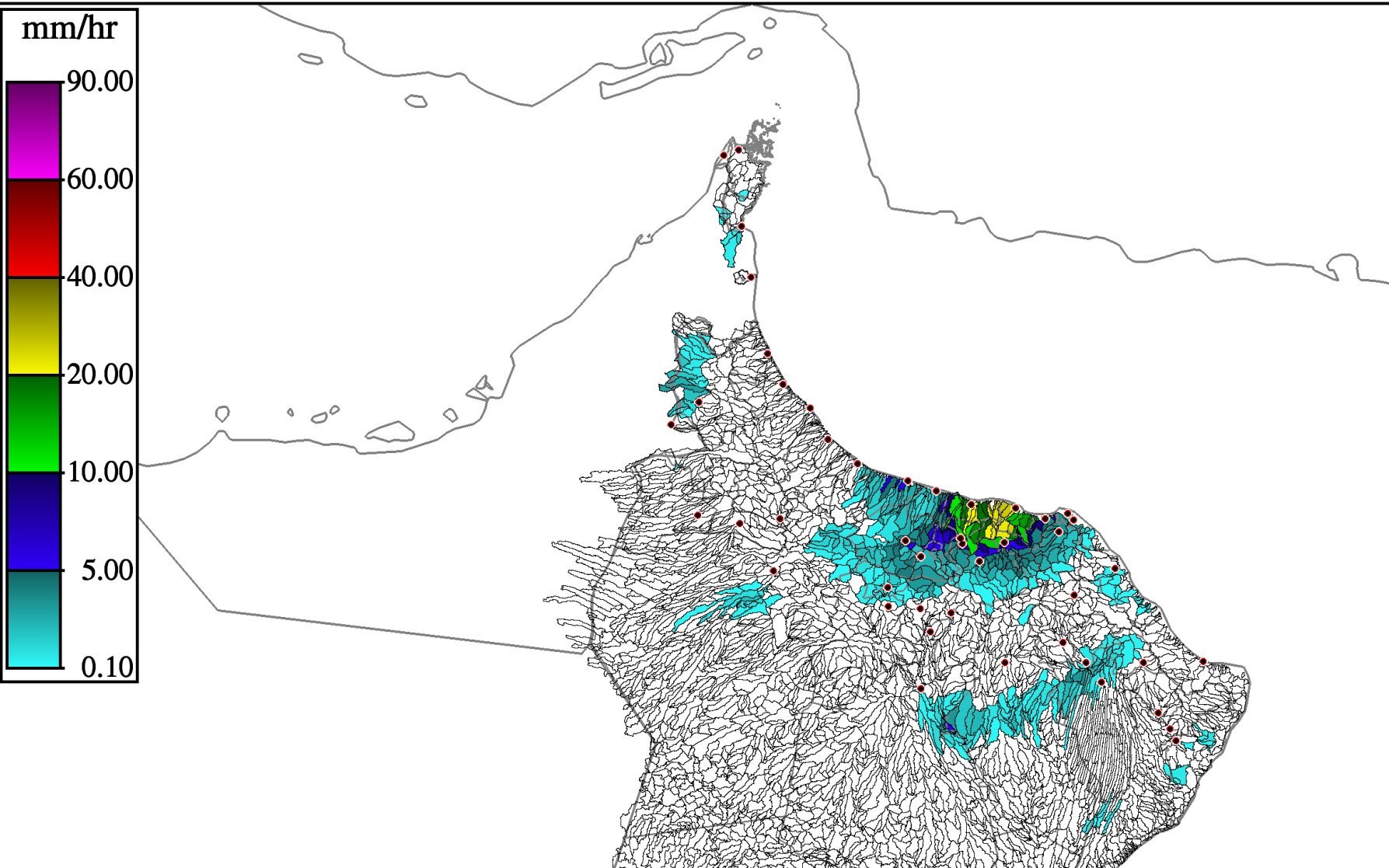
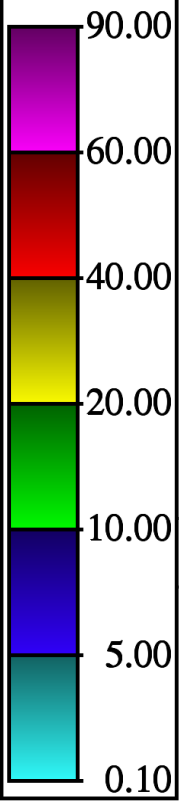
# RAIN GAUGE

GMAP - 06 hr                      2021-10-03 06:00 UTC                      OMAN



MAP - 01 hr 2021-10-03 09:00 UTC OMAN

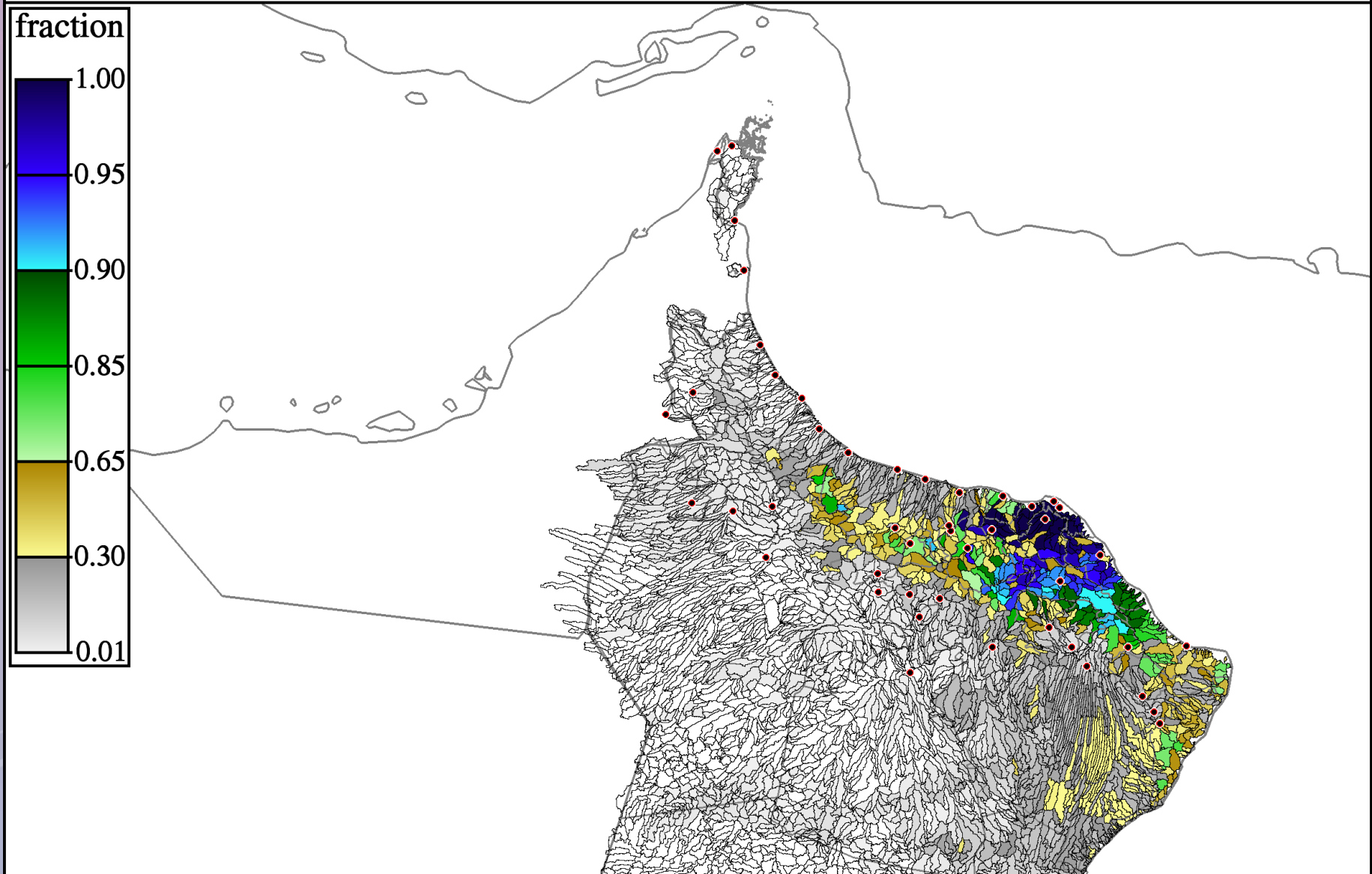
mm/hr





# SOIL MODEL

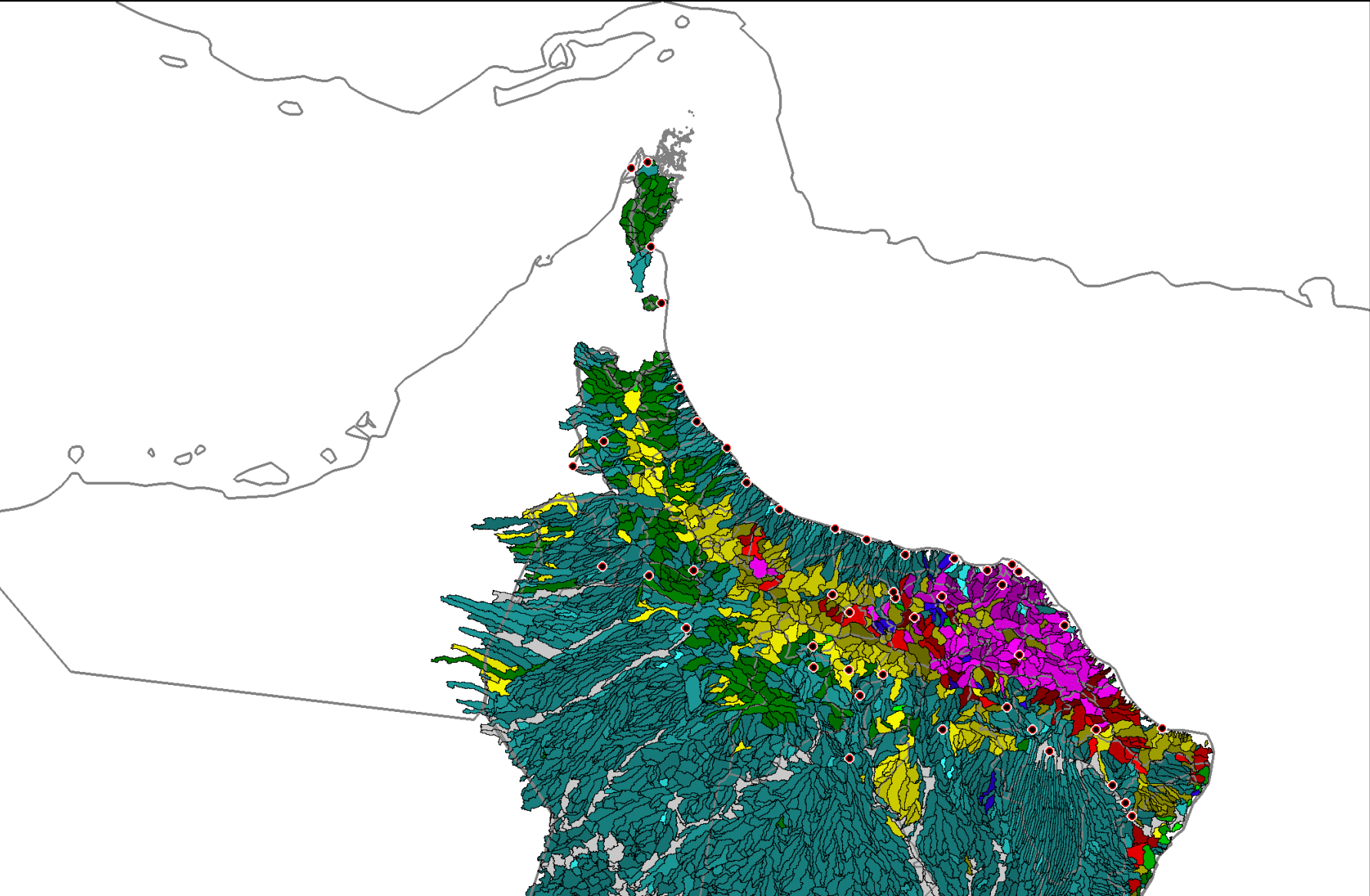
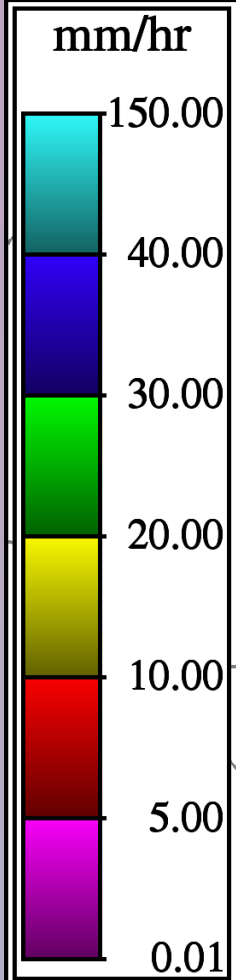
ASM - 06 hr                      2021-10-03 06:00 UTC                      OMAN



FFG - 01 hr

2021-10-03 06:00 UTC

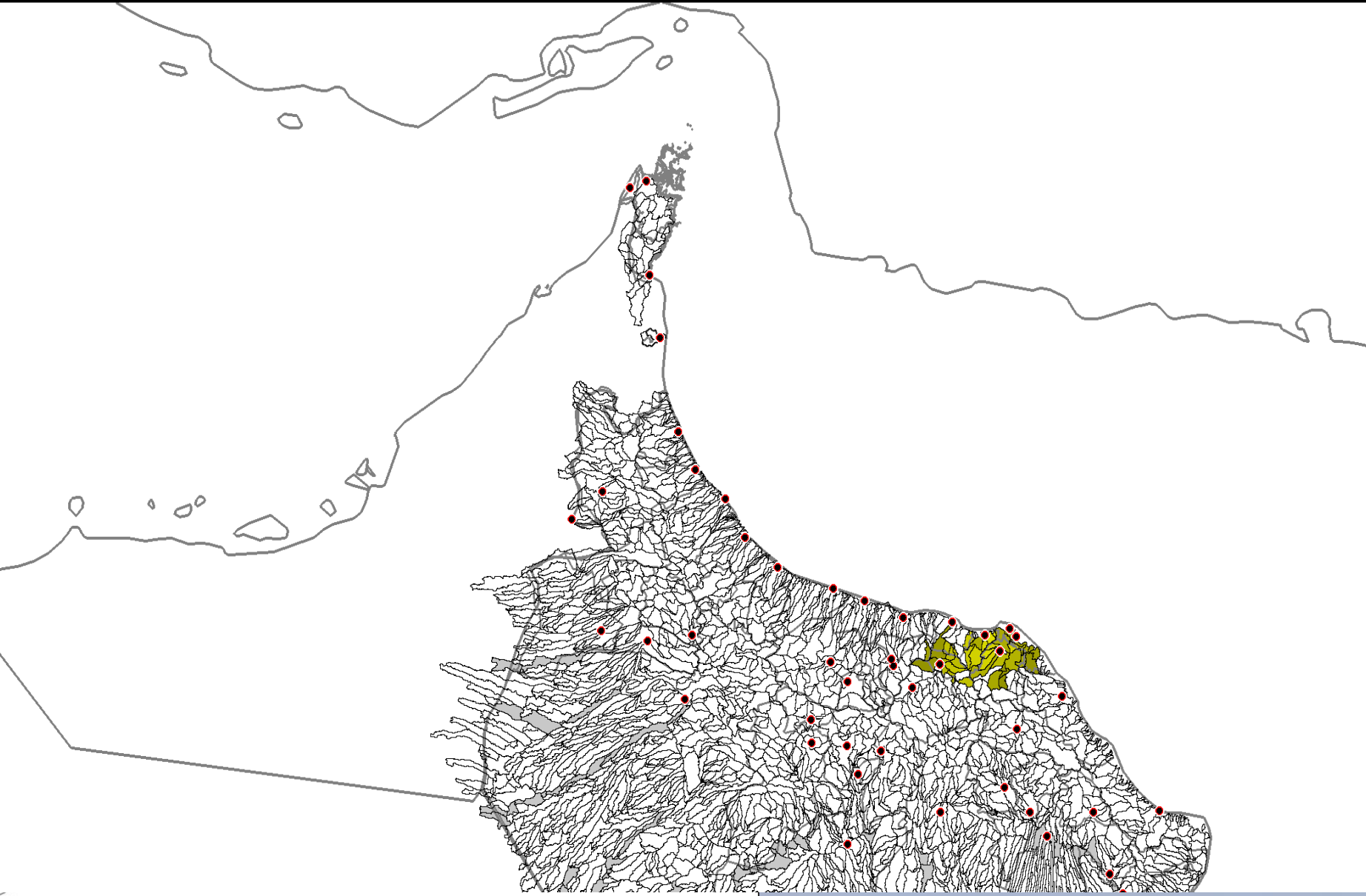
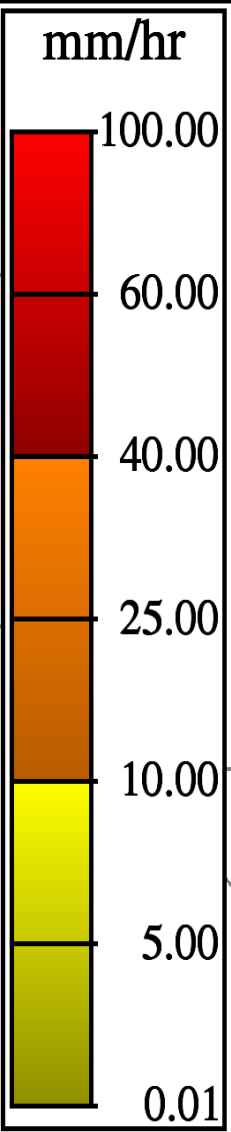
OMAN

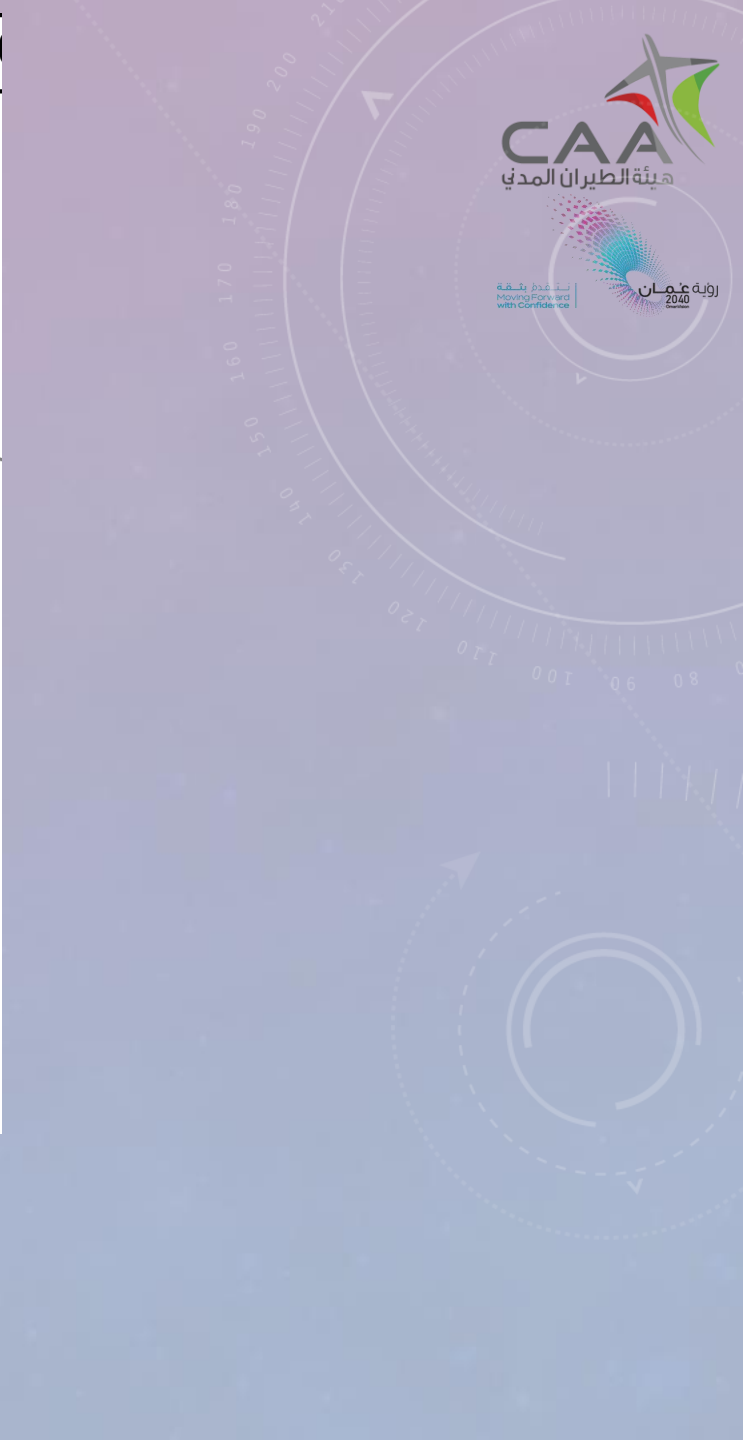
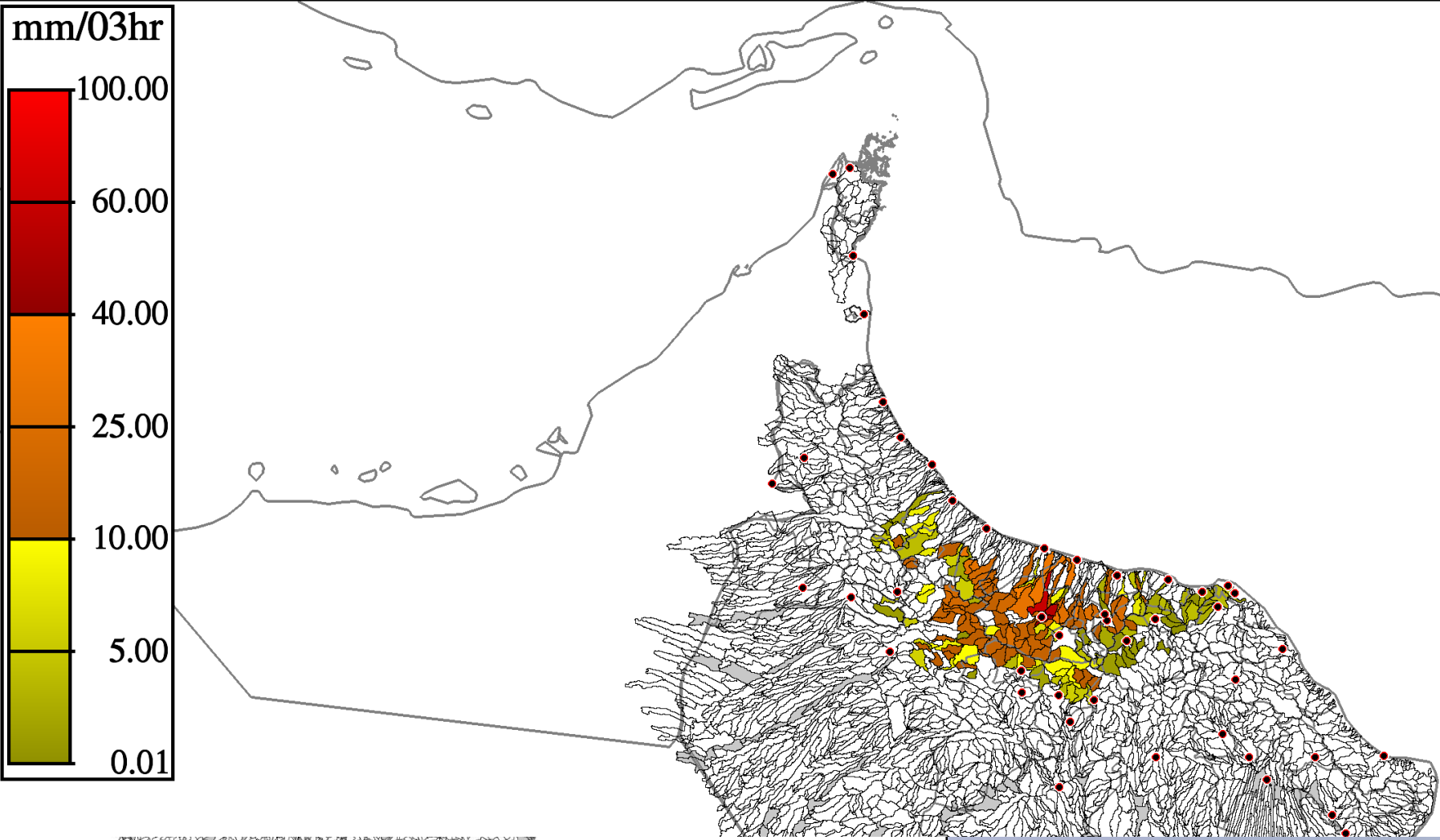


PFFT - 01 hr

2021-10-03 06:00 UTC

OMAN







**THANKS....**