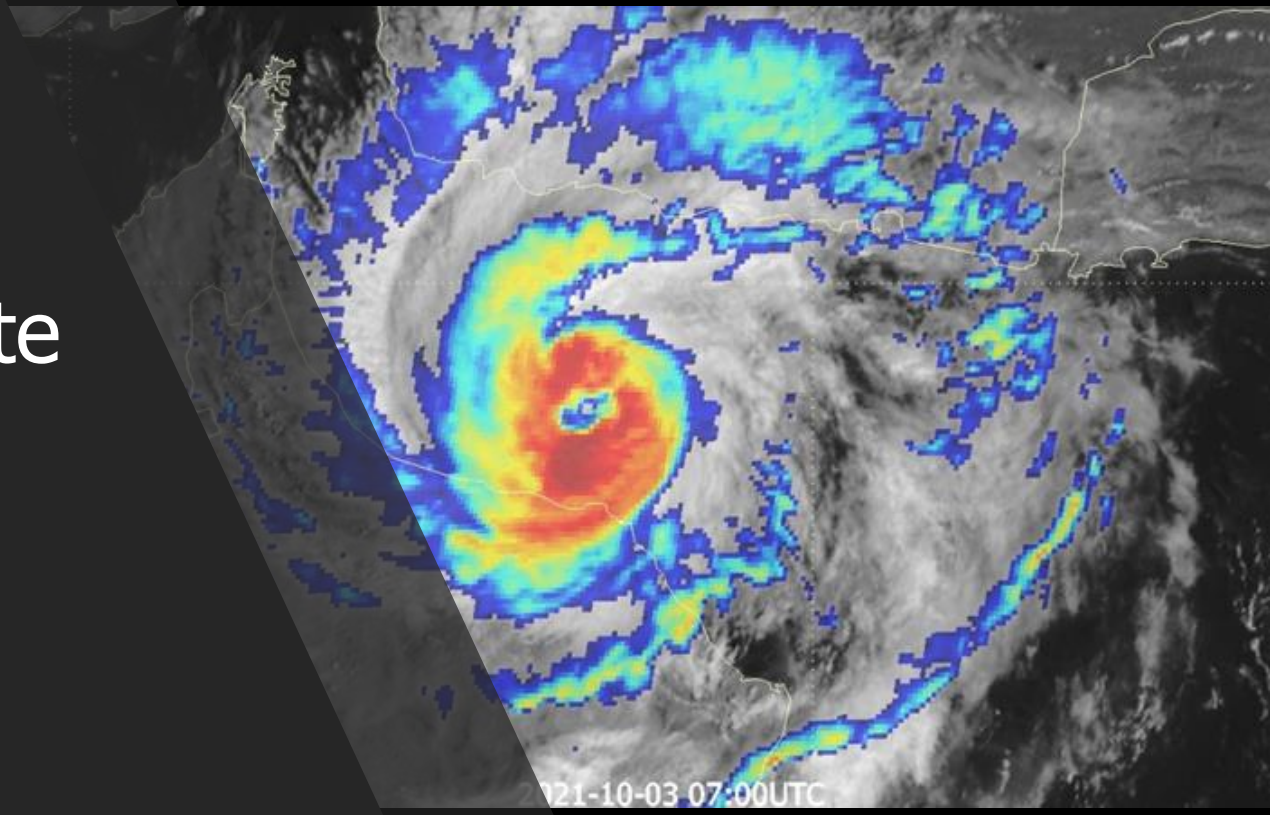
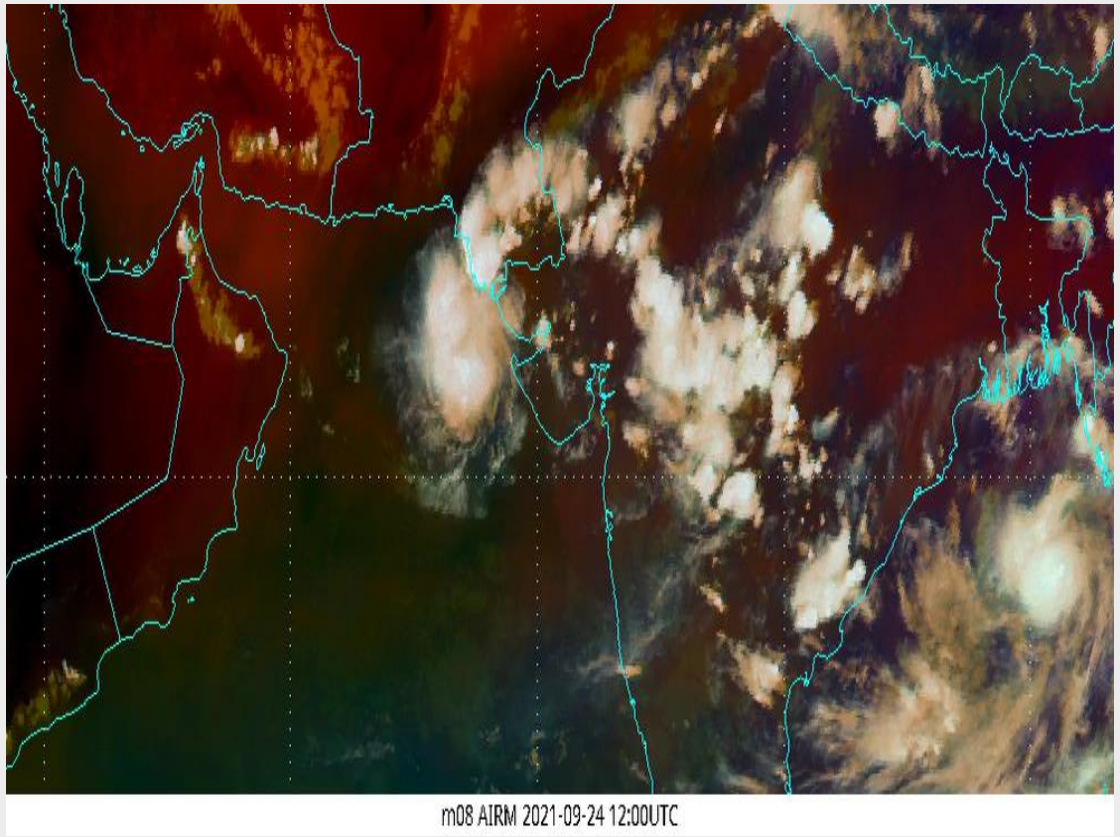
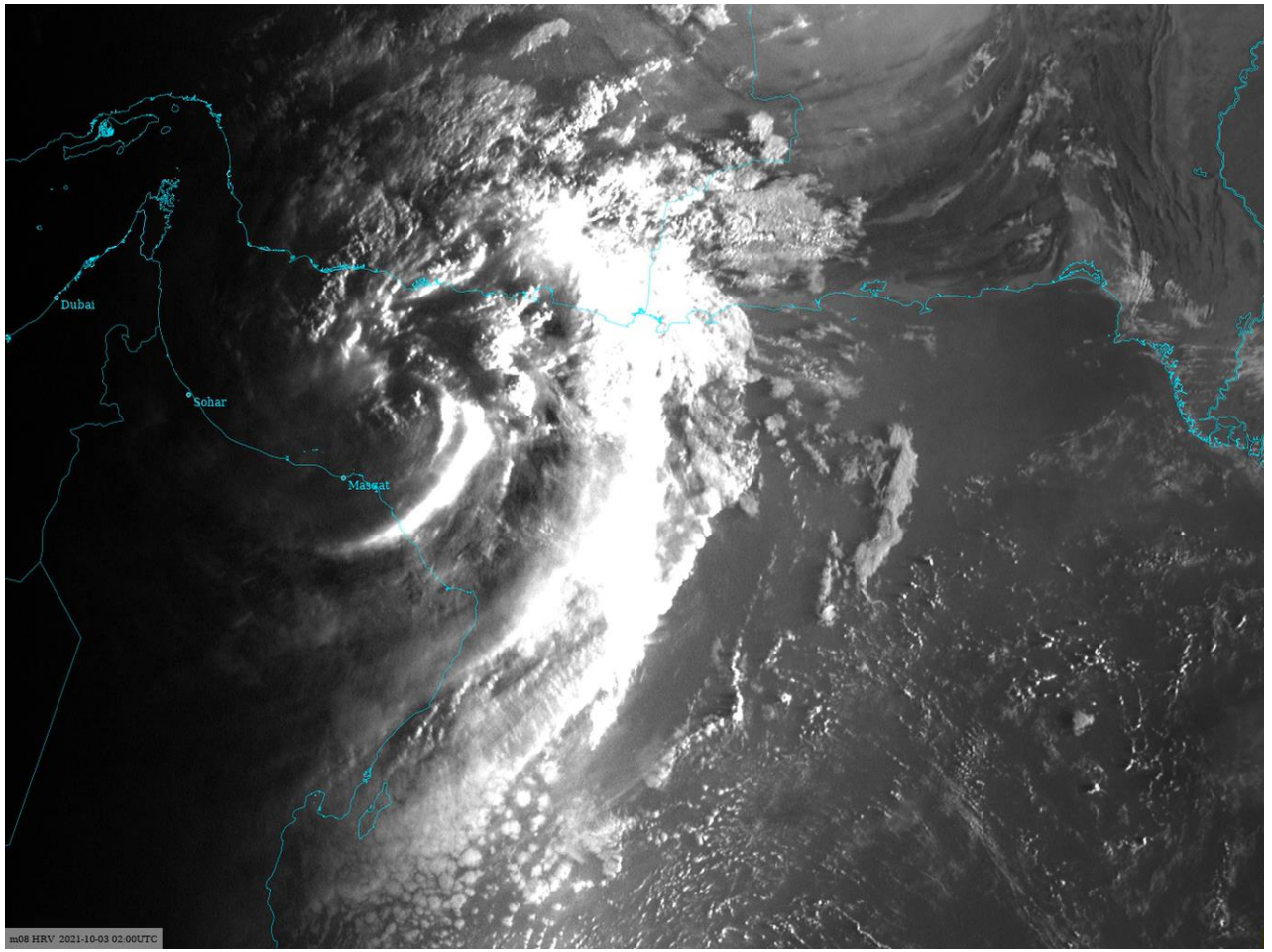
Tropical Cyclone By LEO Satellite
Shaheen Tropical Cyclone
(1- 4 Oct 2021)



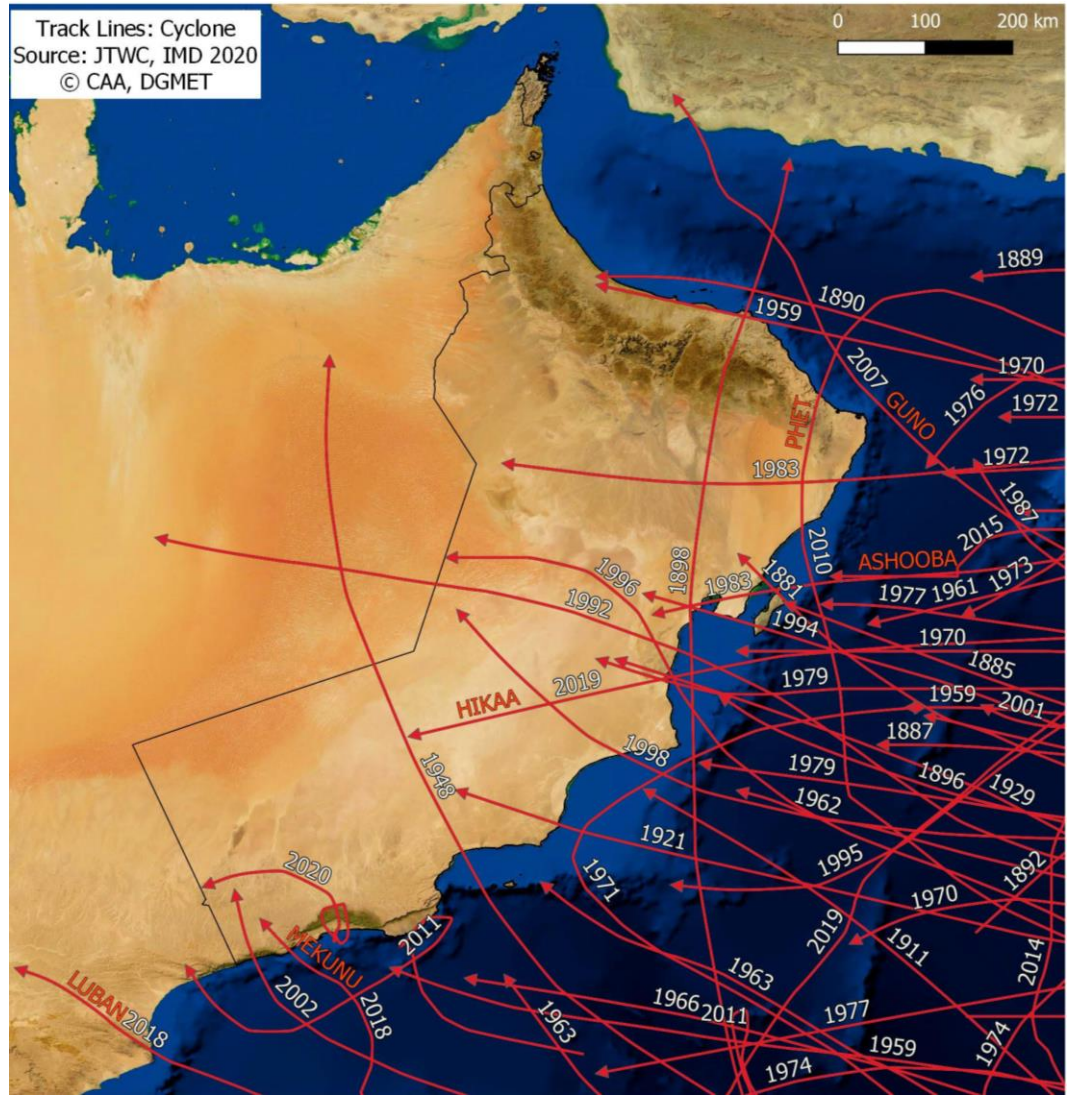
Zamzam AL-Rawahi



Source: Eumetsat



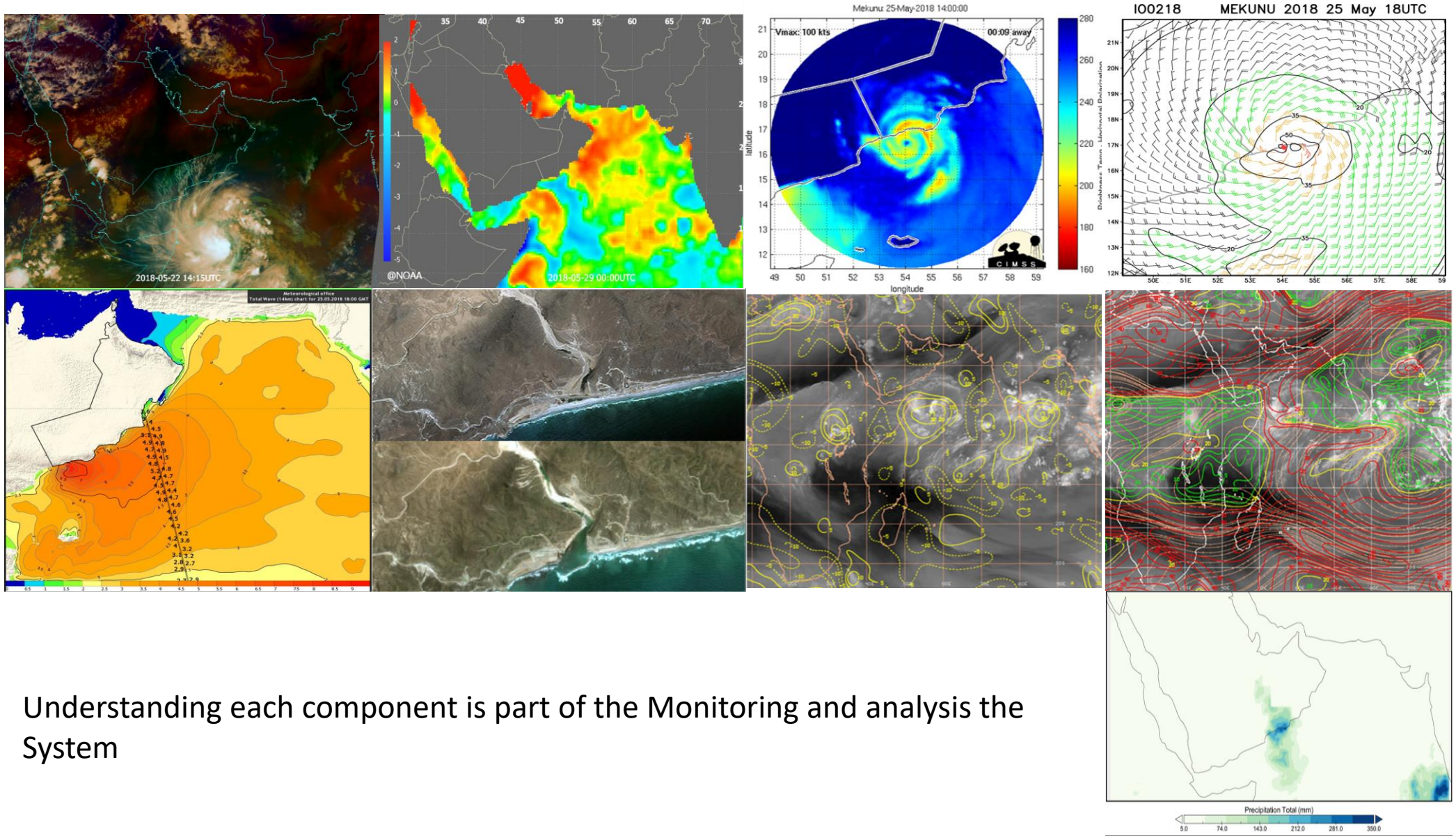
Meteosat-8 HRV, 3 October 02:00-13:30 UTC


Track Lines: Cyclone
Source: JTWC, IMD 2020
© CAA, DGMET
0
100
200 km
1889
1890
1959
2007
GUNO
1970
1976
1972
PHET
1983
1972
1987
2015
2010
ASHOOBA
1898
1996
1992
1983
1881
1977
1961
1973
1994
1970
1885
1979
1959
2001
HIKAA
2019
1887
1998
1948
1979
1896
1929
1962
1921
1995
1892
2020
1971
1970
2011
MEKUNU
2019
1911
1963
2014
2002
2018
1966
2011
1977
LUBAN
2018
1963
1959
1974
1974

Damage

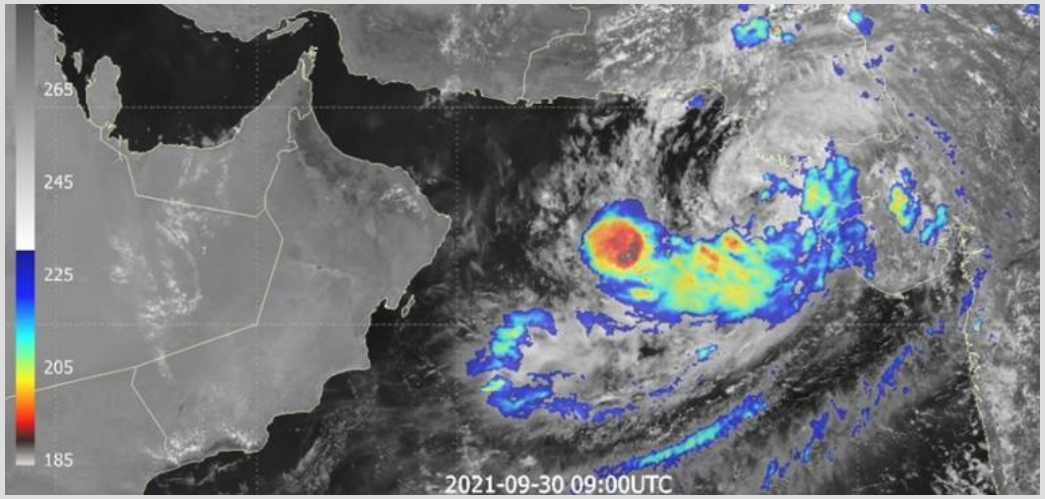
Flooded area of AlKhaburah - Wadi Shafan - North Al Batinah Governorate (Source: Photographer/ Bader Al Mamari)

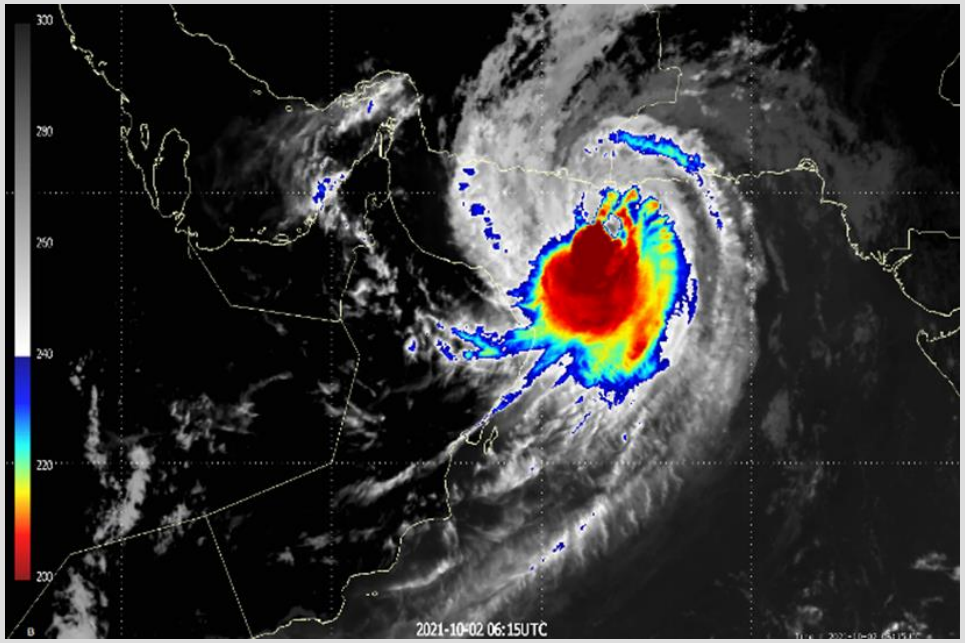
Monitoring, Analysis & Prediction of Tropical system

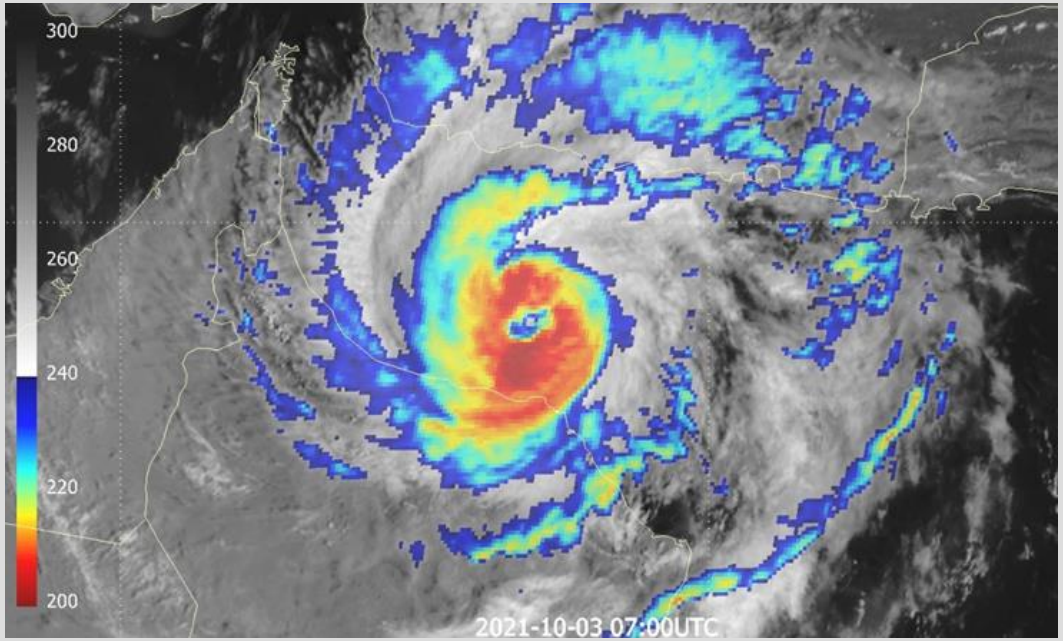


Understanding each component is part of the Monitoring and analysis the System

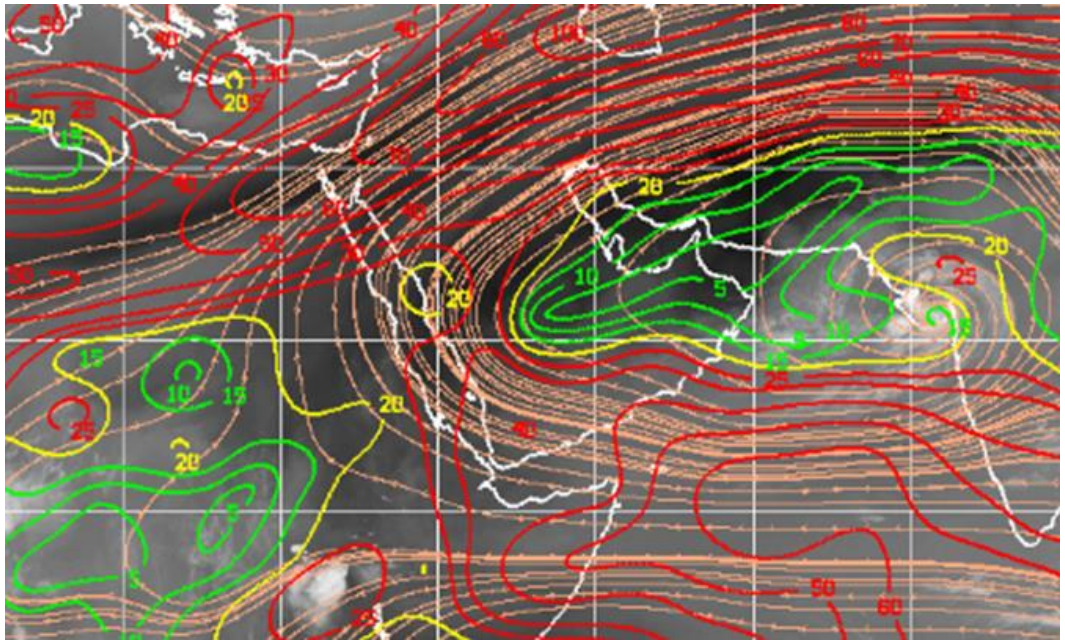
The Shap of the system



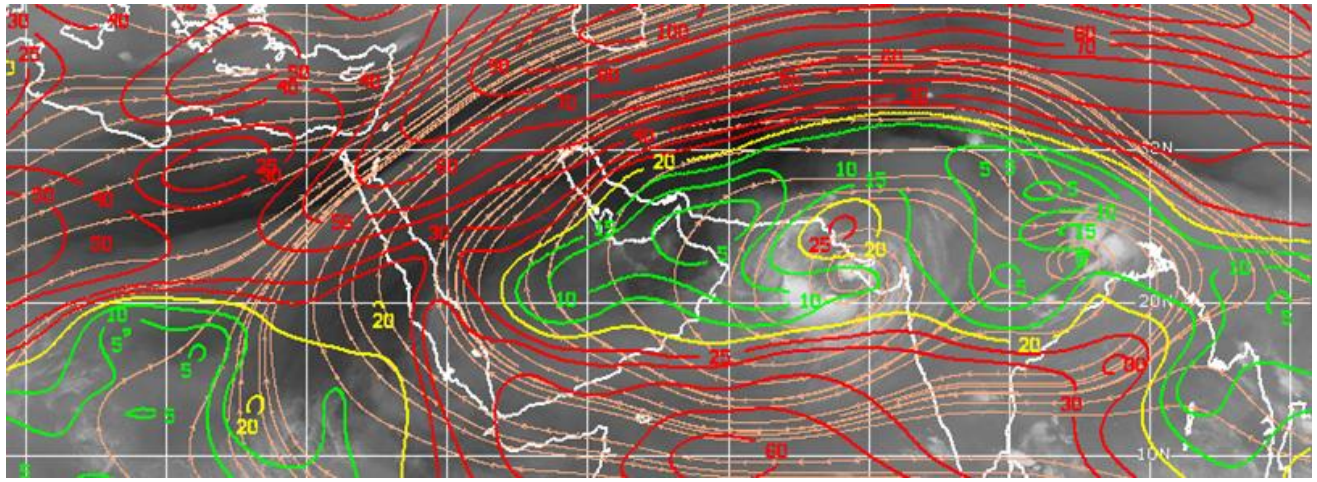




Low wind Shear

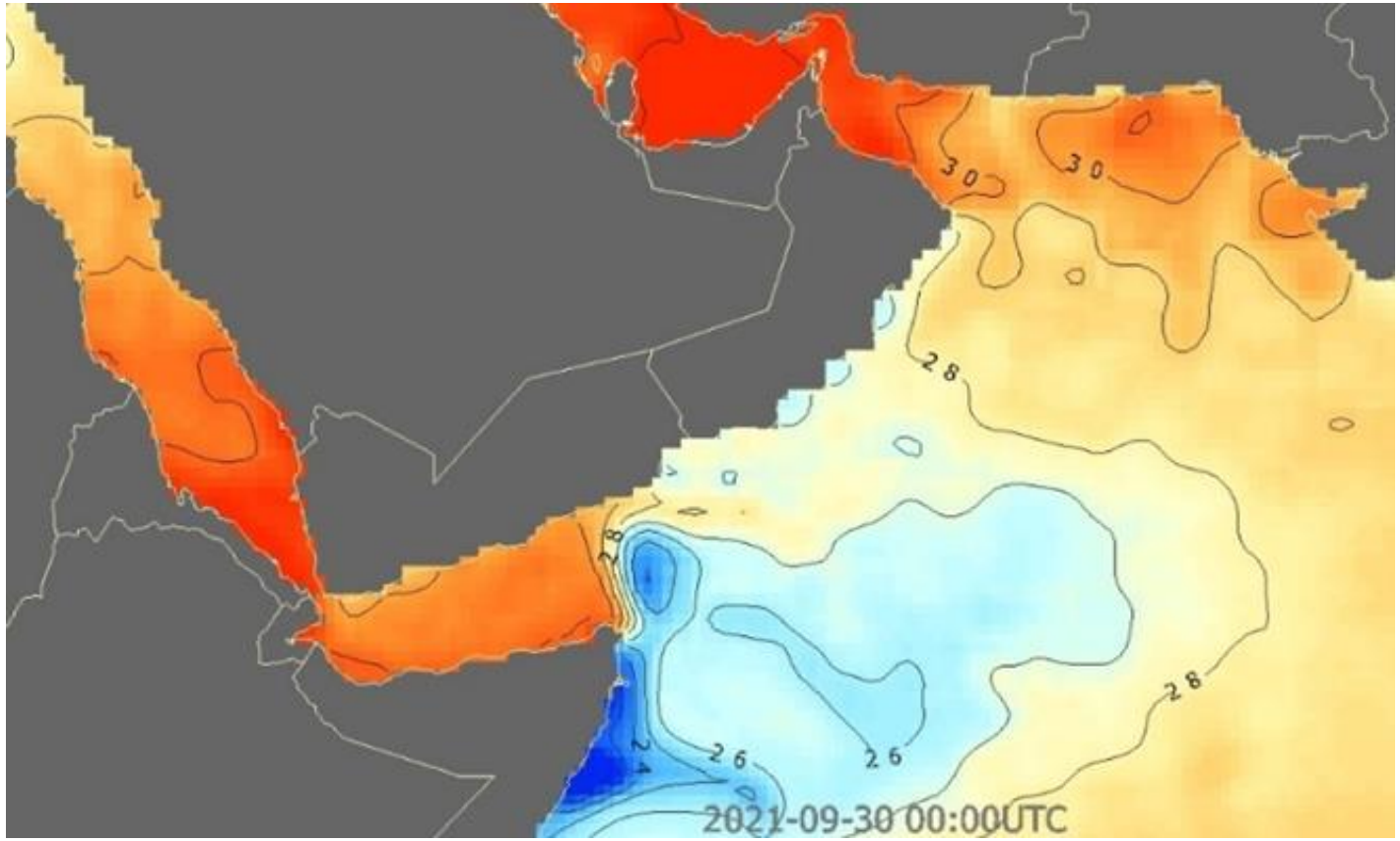


Meteosat-8 wind shear (kt) for 29.10.2021 12 UTC, (WISC-CIMSS, 2021).

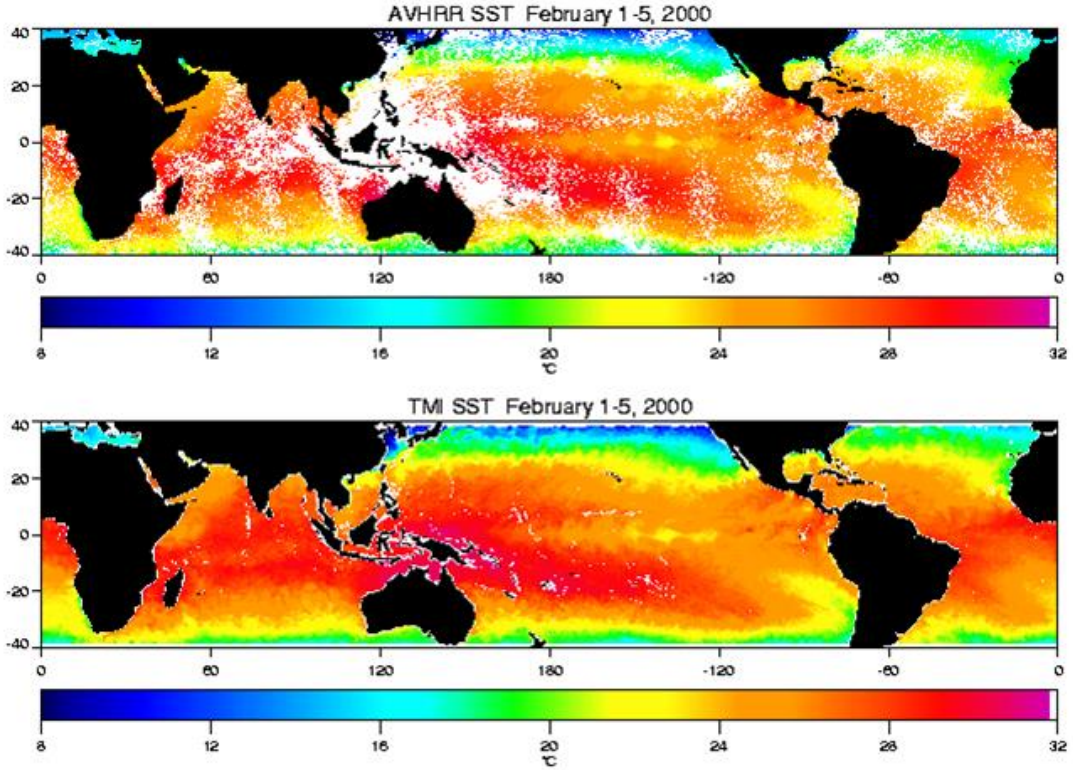


Meteosat-8 Wind Shear (Kt) for Sep 30 00 UTC. (WISC-CIMSS, 2021).

Sea surface Temperature



Sea surface Temperature



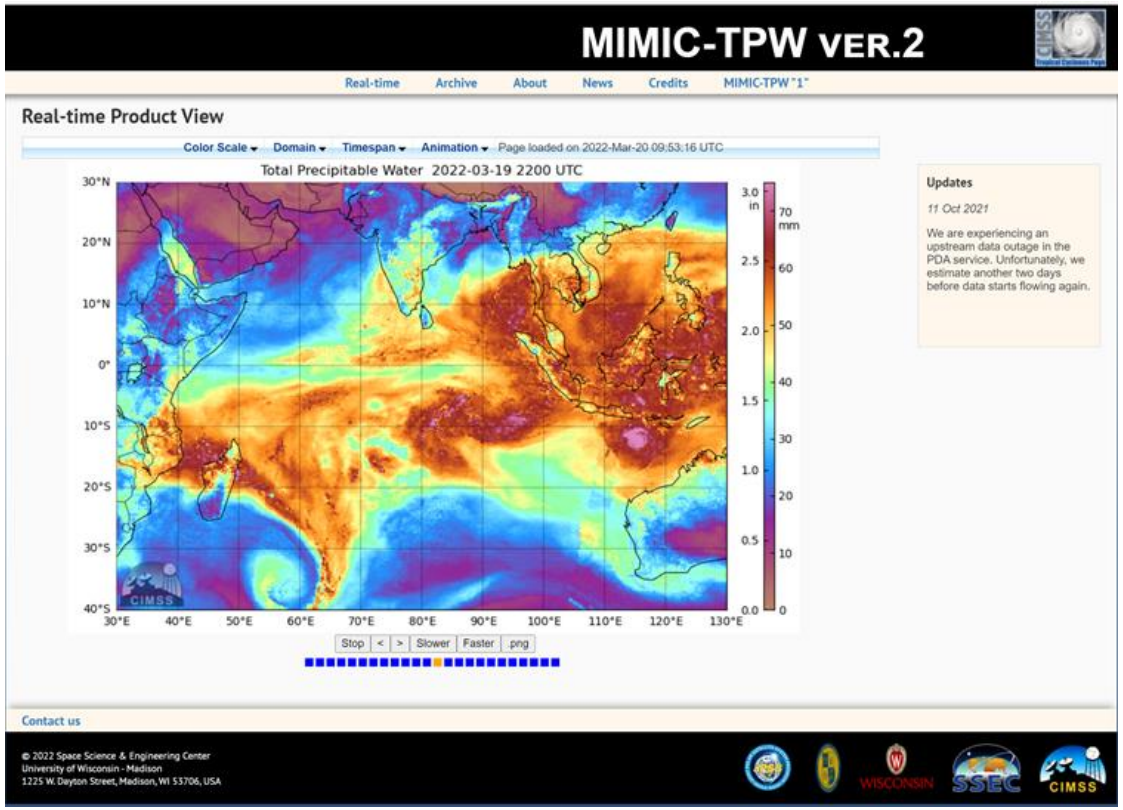
	IR	Microwave
Spatial resolution	250m - 4km	25km
Number of gaps in data	High, because clouds disable the retrieval	Low, because only sunglint, rain or proximity to land prevents the retrieval; microwaves penetrate the clouds.
Data longevity	Good heritage (observations began in the 1970s).	Available since 1998.

- SST from different satellites

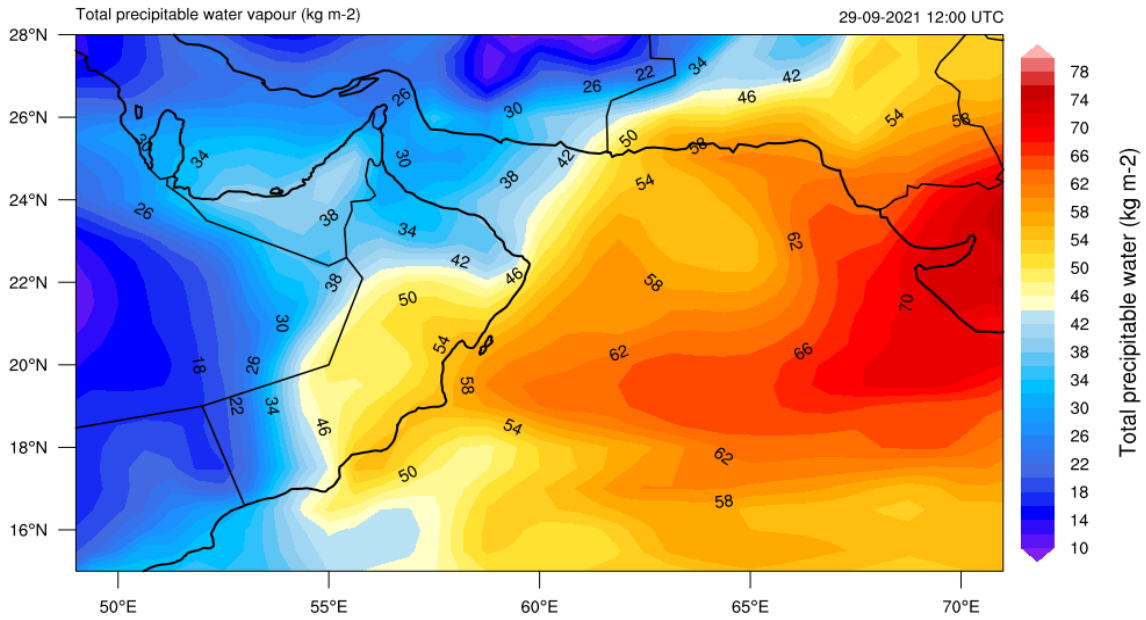
Total Precipitable Water

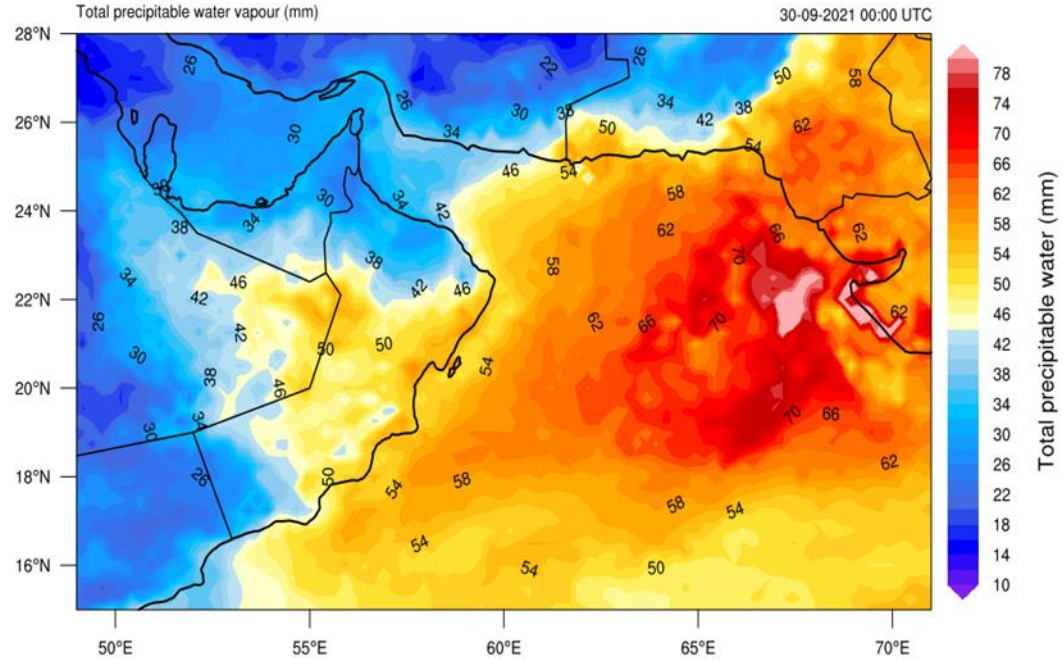
Estimating the amount of water vapour (water content) in the atmosphere

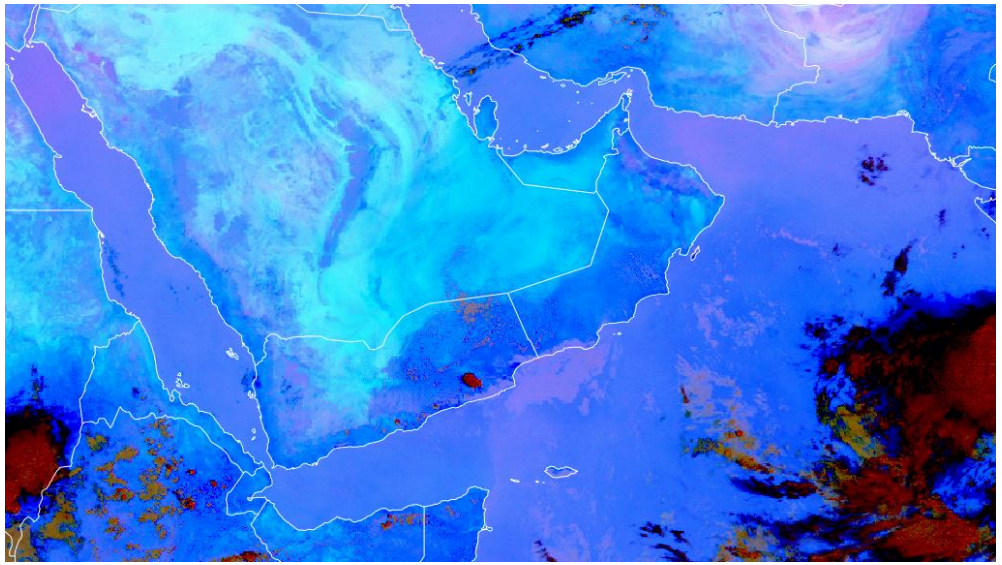
The composite product is made from retrievals using AMSU-B and MSU from NOAA-18, NOAA-19, Metop-A and Metop-B &ATMS from Suomi-NPP.



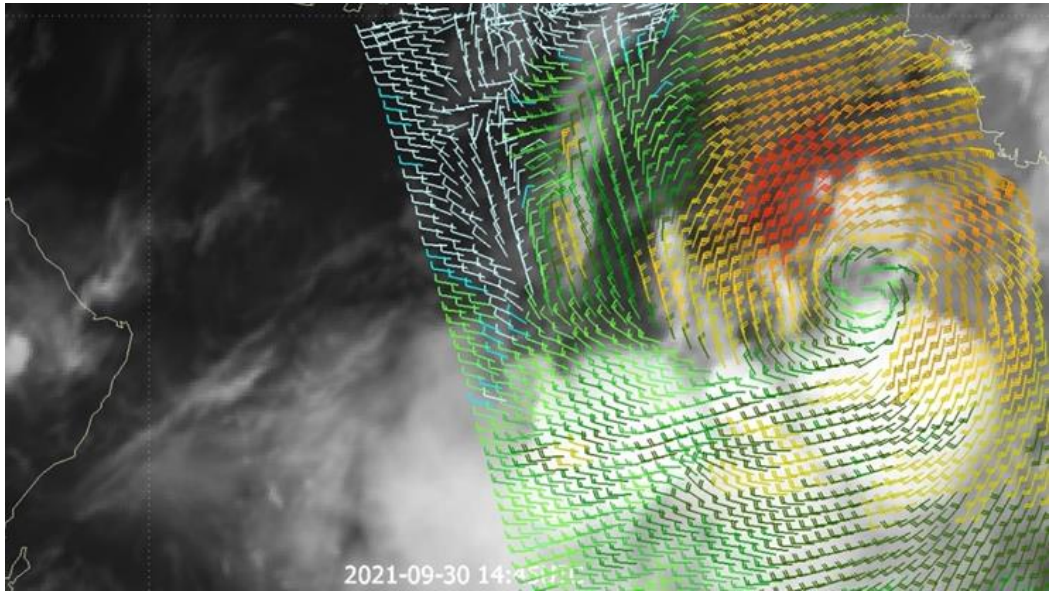
Total Precipitable Water





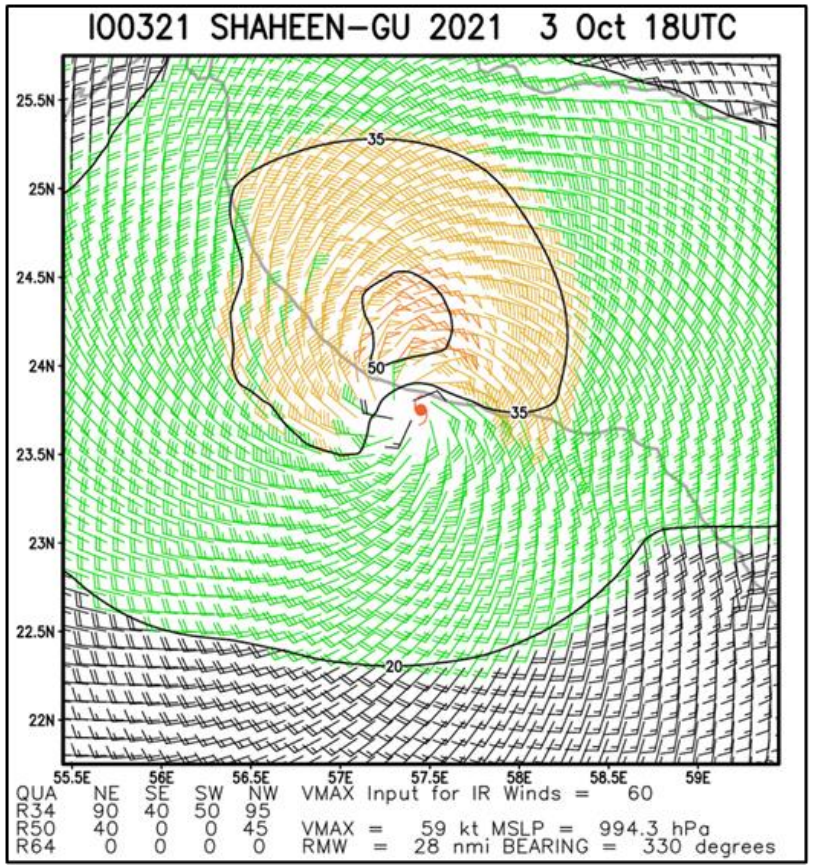


Wind Speed



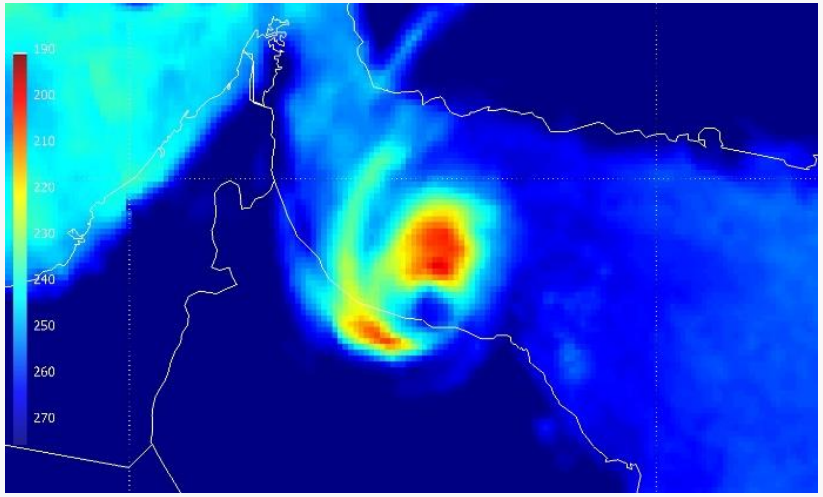
MetOP-A ASCAT pass from Sep 30 14:45 UTC overlayed on a Sep 30 14:45 UTC Meteosat-8 IR 10.8 µm image

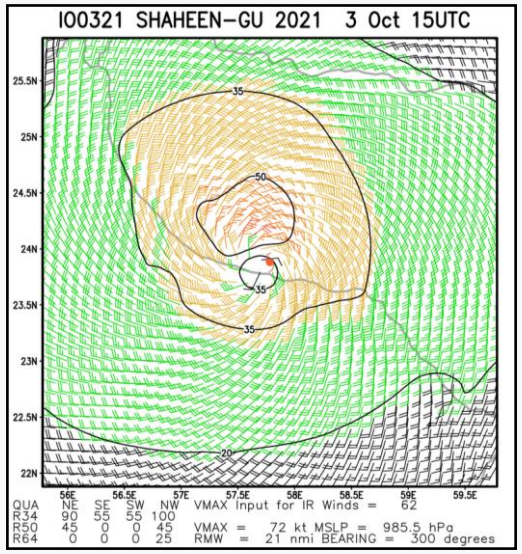
Multi-Platform Tropical Cyclone Surface Winds Analysis (MTC-SWA)

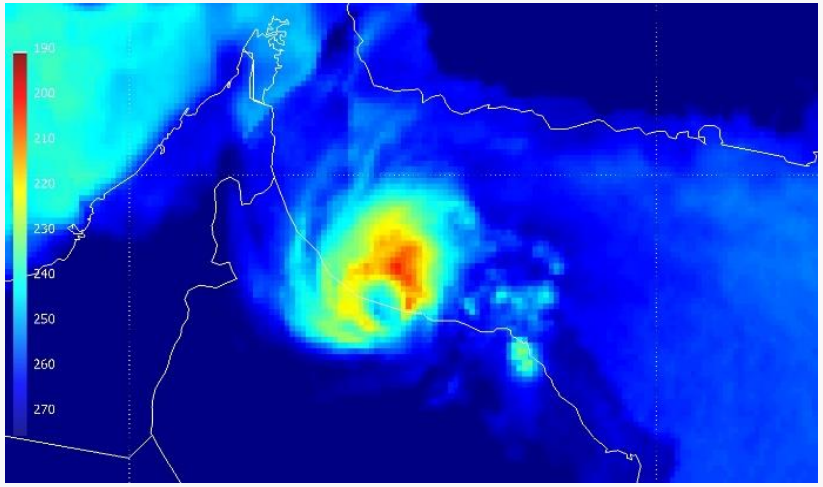


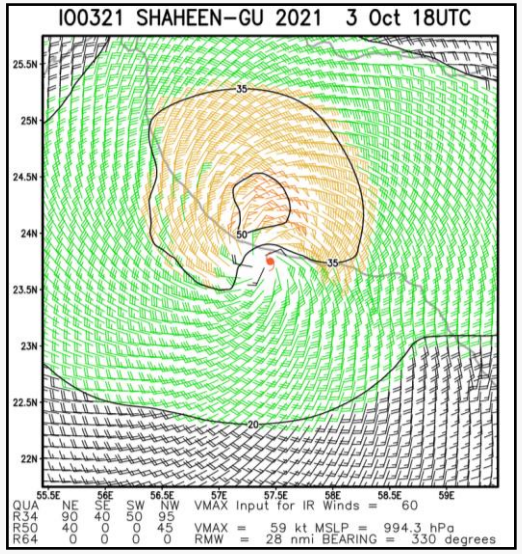
- ASCAT

Landfall & Eye





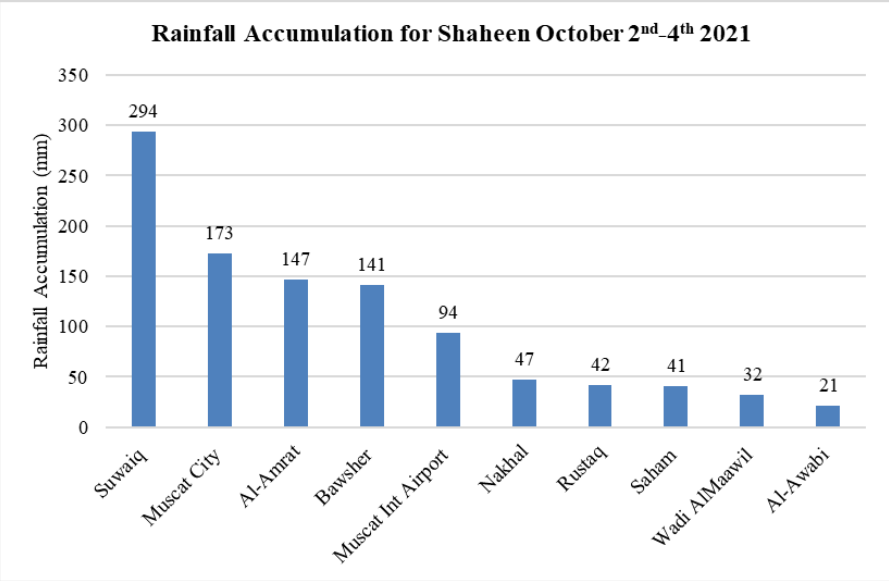


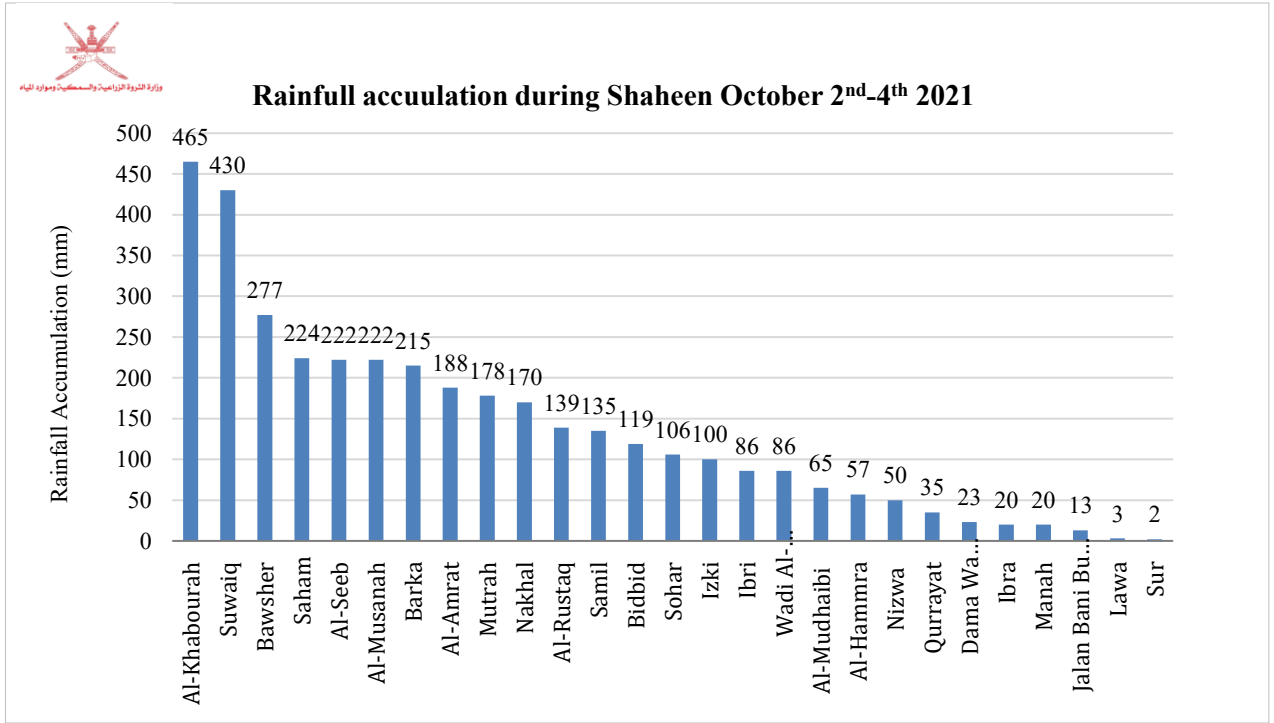


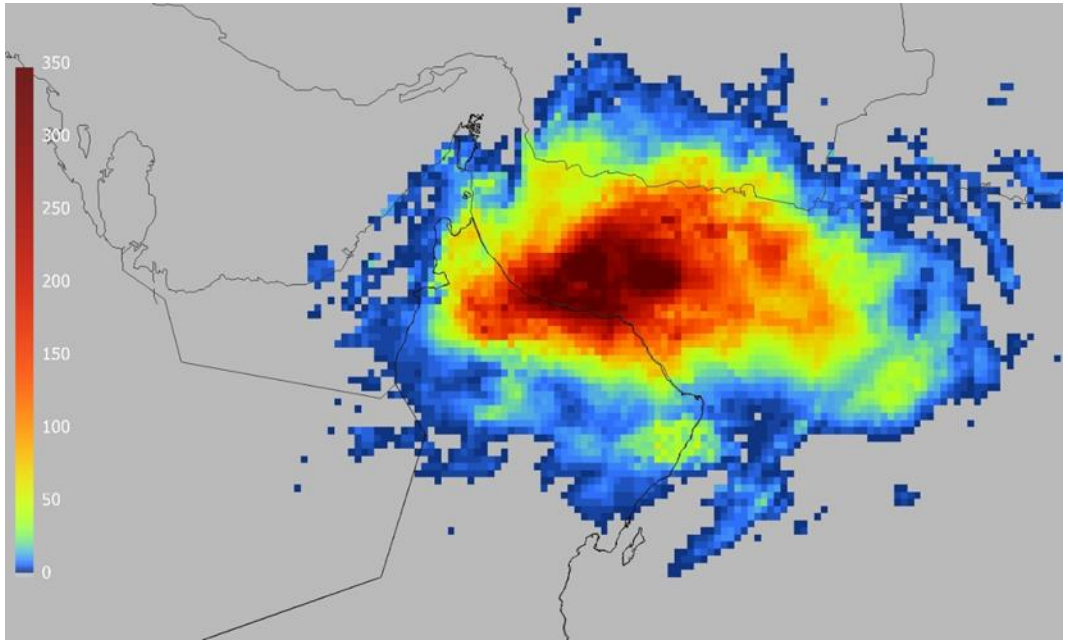
Blend of tropical cyclone imagery from five low-Earth orbiting satellite instruments: the DMSP-13/14/15 SSM/I (85 GHz channel), the TRMM TMI (89 GHz channel) and the Aqua AMSR-E (85 GHz (A) channel).

MIMIC Data

Precipitation

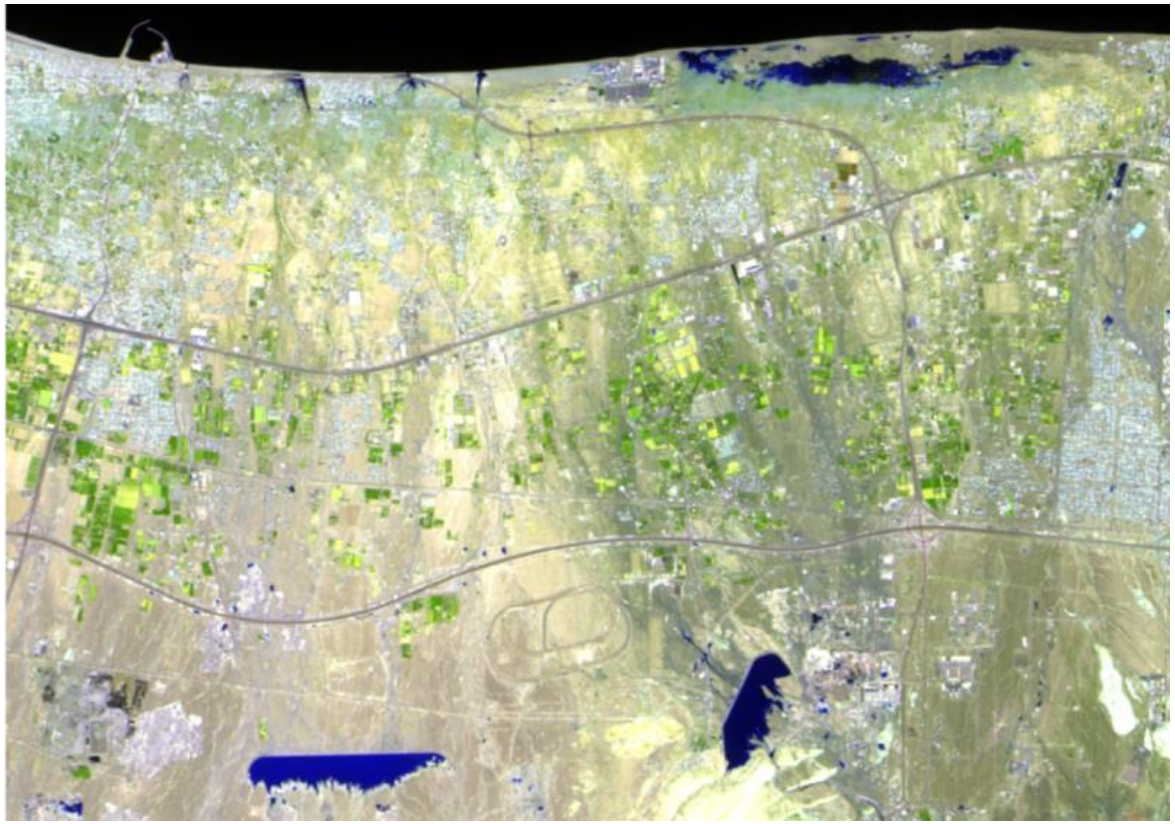


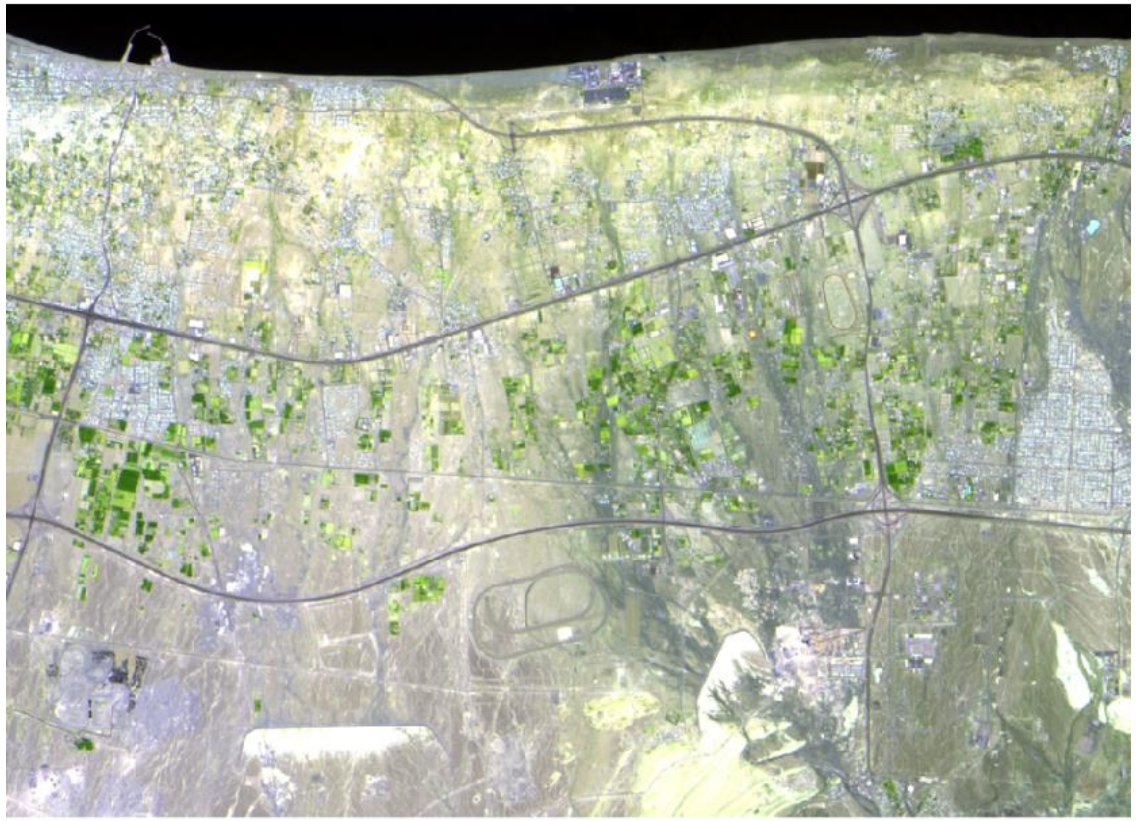




Multiplatform Satellite Accumulated rainfall for the period from 2nd to Oct 5, 2021, reprocessed

Flooding





Flooding

EO Browser

Thanks