



Oman Met Office

Current Status and Future Planning and Expectations

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Tokyo International Exchange Center/Plaza Heisei Meeting Facilities

Location of Oman



The National Multi- Hazard Warning Center



- Established: **March 2015**
- Deals with:
 - **Weather Hazards**
 - **Tsunami Threats**



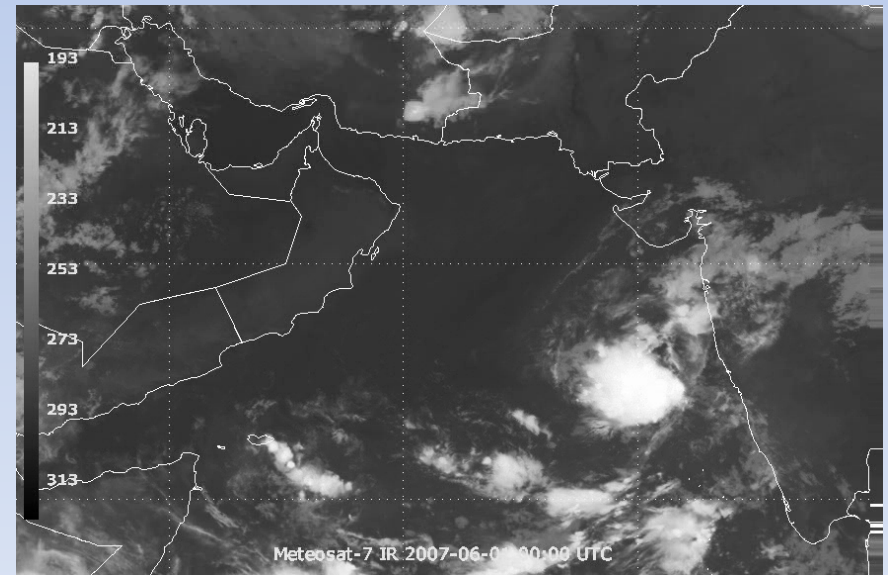
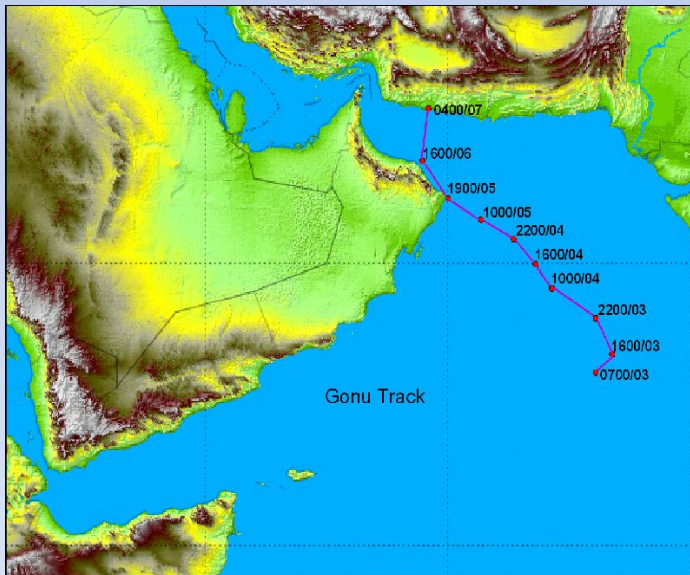
7th WMO Center of Excellence for **RA II**
Established 2006



Three Main Hazards

1. Tropical Cyclones:

In Recent years they became more Frequent.



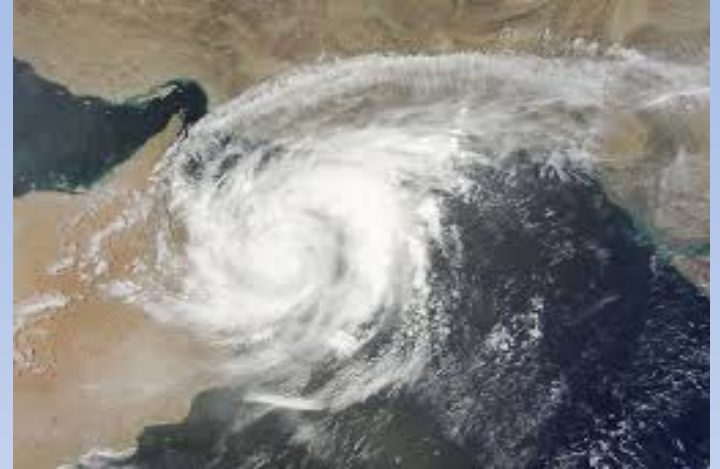
Tropical Cyclone **Gonu**, Jun 2007

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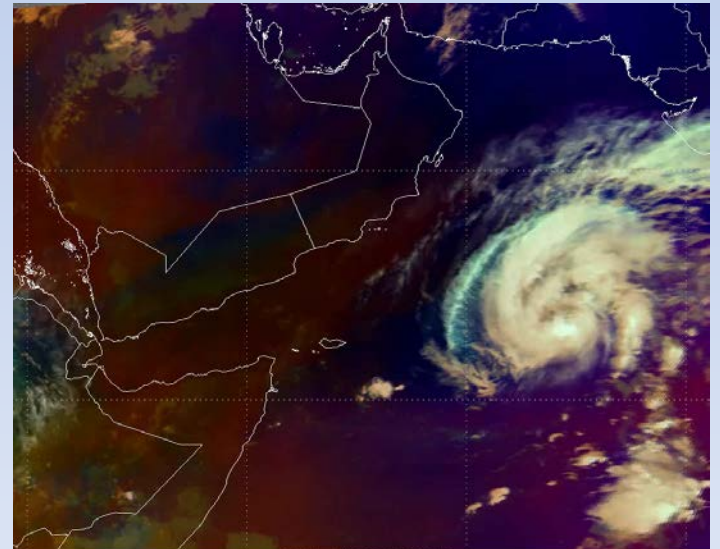
- Around 50 people lost their lives.
- Huge destruction in the infrastructure and properties of people.



- Tropical cyclone Phet in 2010
-it made a real landfall
With huge amount of Rainfall



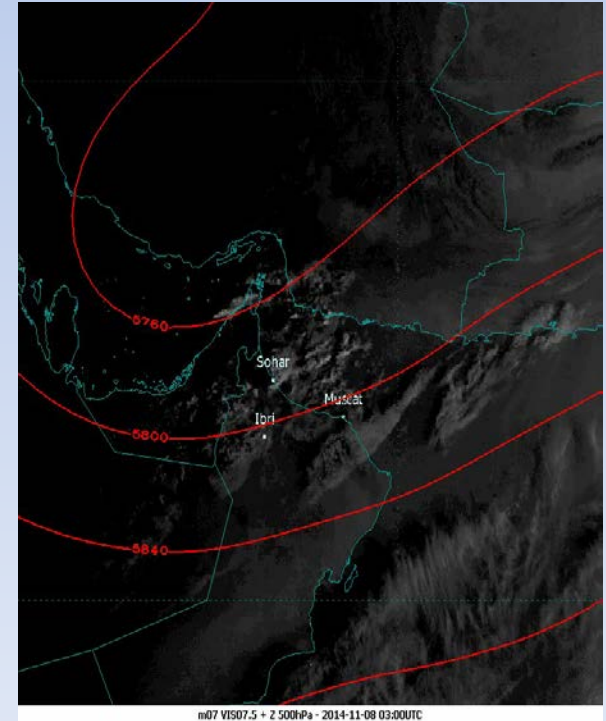
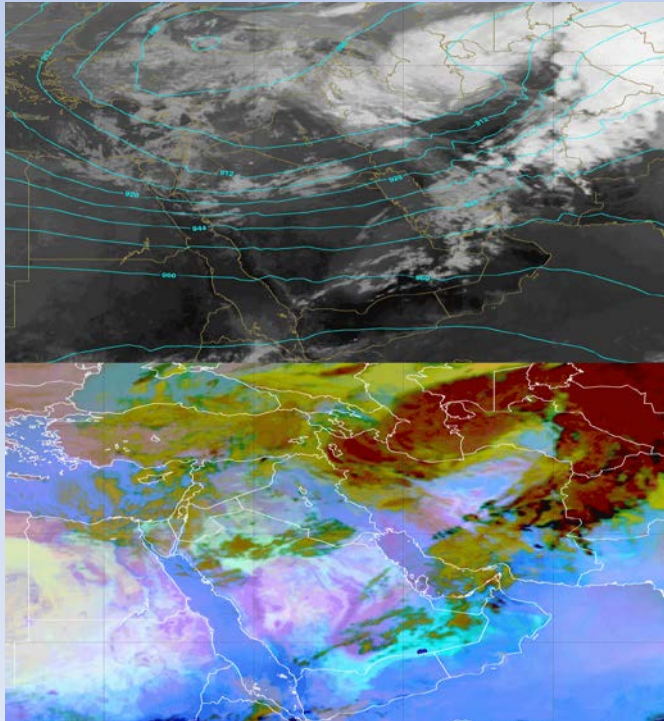
- TC Chapala Sep 2015:



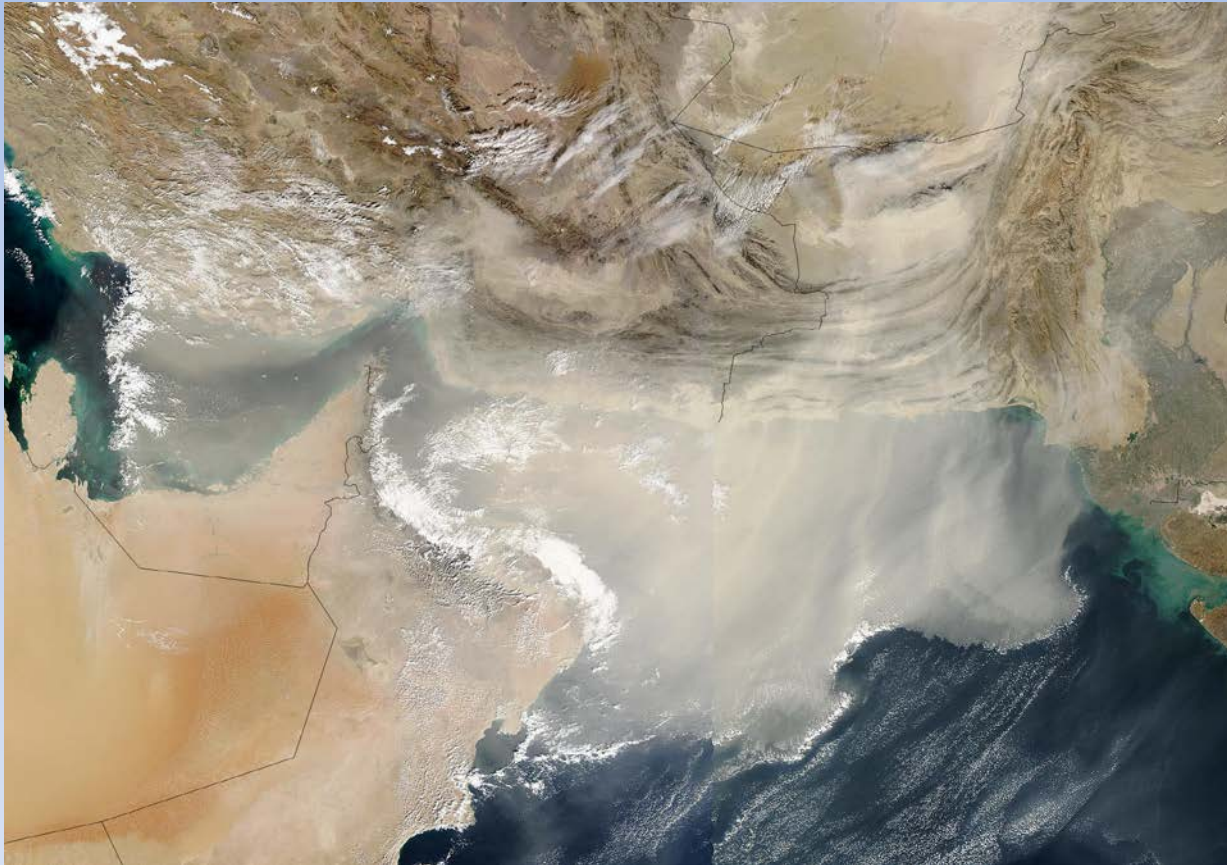
Second Hazard

2. Torrential Rain:

Troughs coming from Mediterranean sea can result in heavy vigorous rain associated with hail storm.



3. Third Hazard: Dust storms



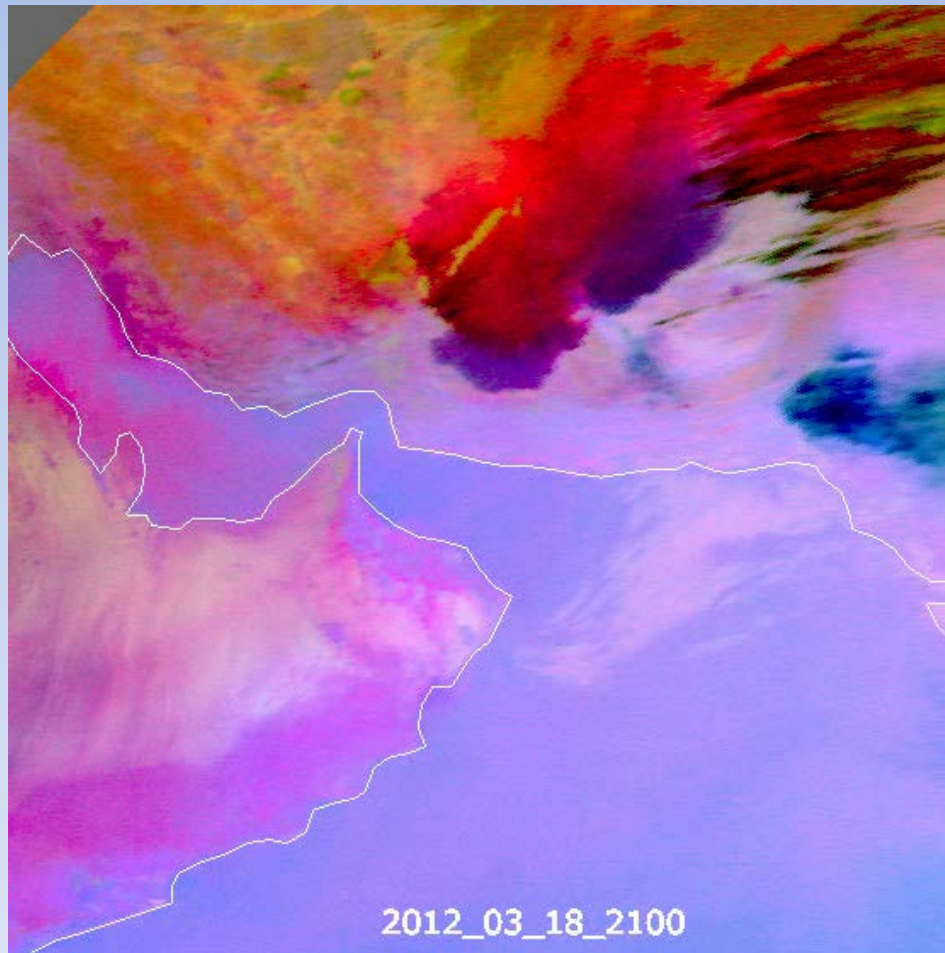
(December 2002) strong continuous surface to 850
northeasterly winds from Iranian and Pakistani desert.

Main dust storm sources

1. Local dust storms.
2. Tigris and Euphrates rivers basin.
3. Sistan Basin & Balouchistan



Dust RGB



Expectations of new series of satellites for hazard monitoring

Major hazard	Features of new generation GEO met. satellite
Hazard 1: tropical cyclones	Multi-spectral bands, Rapid Scanning etc.: Can help in better monitoring the systems in terms of intensity , position and estimation of winds speed.
Hazard 2: Torrential rain	Rapid scanning, Multi-spectral, advance sounding instruments: Better monitoring the convection (meso scale), now casting, sounding observation, expectation of flash floods.
Hazard 3: Dust storms:	Multi spectral bands, rapid scanning, etc: Better observation of dust storm development and movements, thickness and Vis, tracking movements.

New Sat generation can improve observation in this region: **Desert / Sea**
For better **NWP** performance.

Requirements to get desired benefits from the new generation of satellites

Major hazard	Features of new generation GEO met. satellite
Hazard 1: tropical cyclones	<p>Availability of products +Training in imagery analysis:</p> <p>Allow our forecasters and expert to better evaluate tropical cyclone wich will help forecasting track and intensity.</p>
Hazard 2: torrential rain	<p>Availability of products +Training in imagery analysis:</p> <p>The ability to analyze products in different ways will help better predicting the hazard of heavy rainfall and flash floods.</p>
Hazard 3: Dust storm	<p>Availability of products +Training in imagery analysis:</p> <p>Help in monitoring and forecasting the dust storm as well as get involvement in researches related dust predictions and observations.</p>

Future Plan

- Better qualifying our Staff especially in the main hazard areas.
- Increase number and quality of observation.
- Working in well defined standard operating procedures (SOP) during hazards such as TC.
- Involvement in researches especially over our areas.
- Local data assimilation and improving NWP utilizing Satellite products.

Thank youشكرا

HOW MANY ANIMALS CAN YOU SEE?

