

Earthquake Monitoring Center



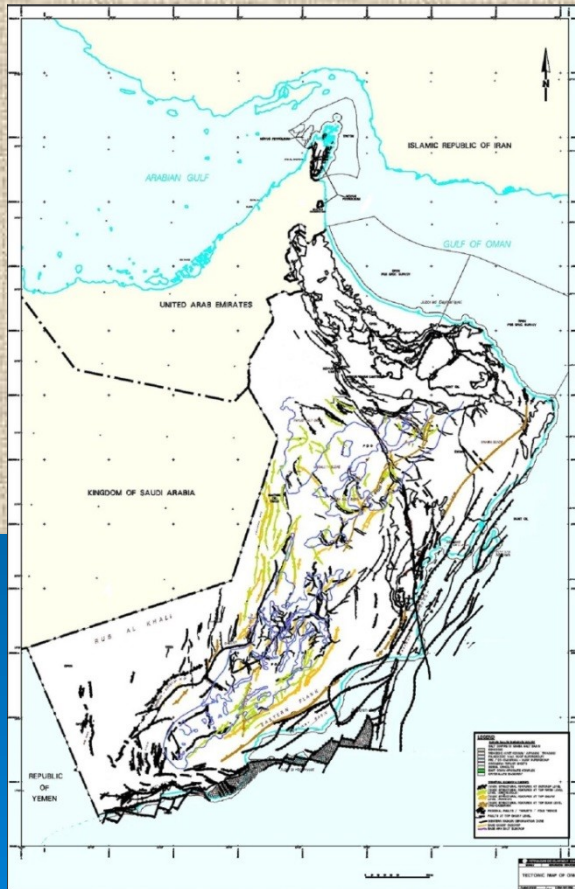
Sultan Qaboos University

مركز رصد الزلازل OMAN جامعة السلطان قابوس

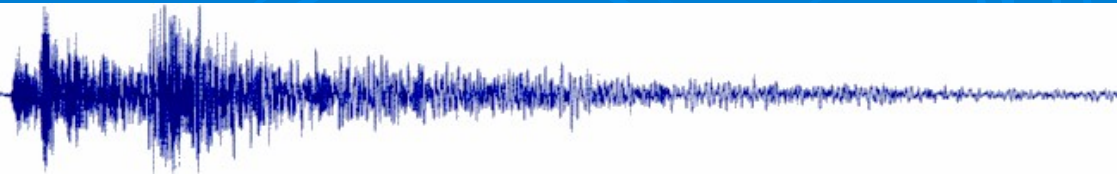
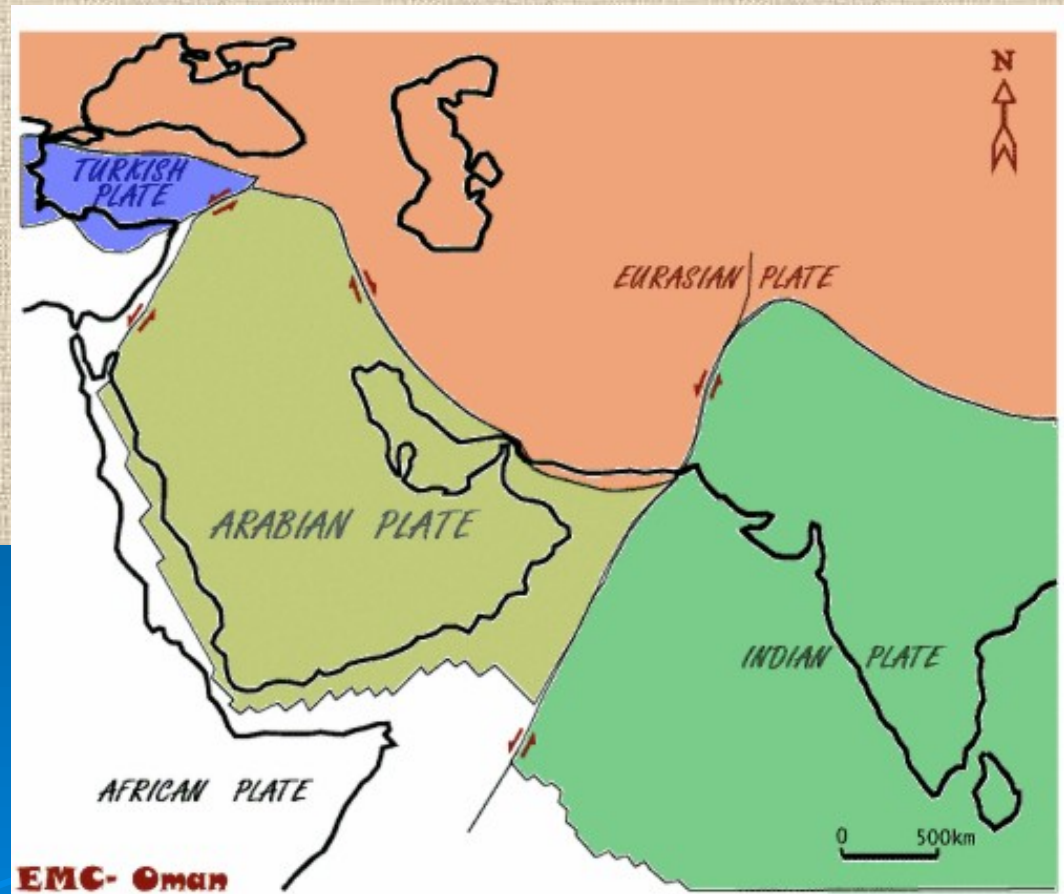
SEISMOLOGICAL NETWORK

Seismic Activity

Internal Structure



Regional Tectonics

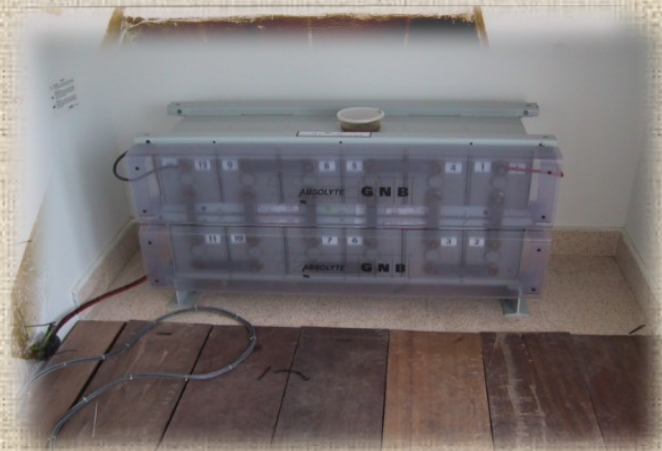


EMC

- ❖ (1) central data acquisition system (CDAS) at Sultan Qaboos Uni.
-2001
- ❖ Records eq, Research, seismic hazard, consultation, 24/7
- ❖ (21) stations with broadband sensors
10 in 2001, 3 in 2004, 7 in 2011 & 1 CTBTO

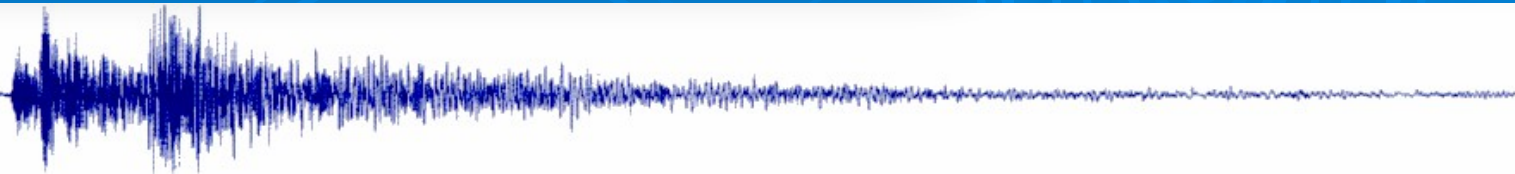
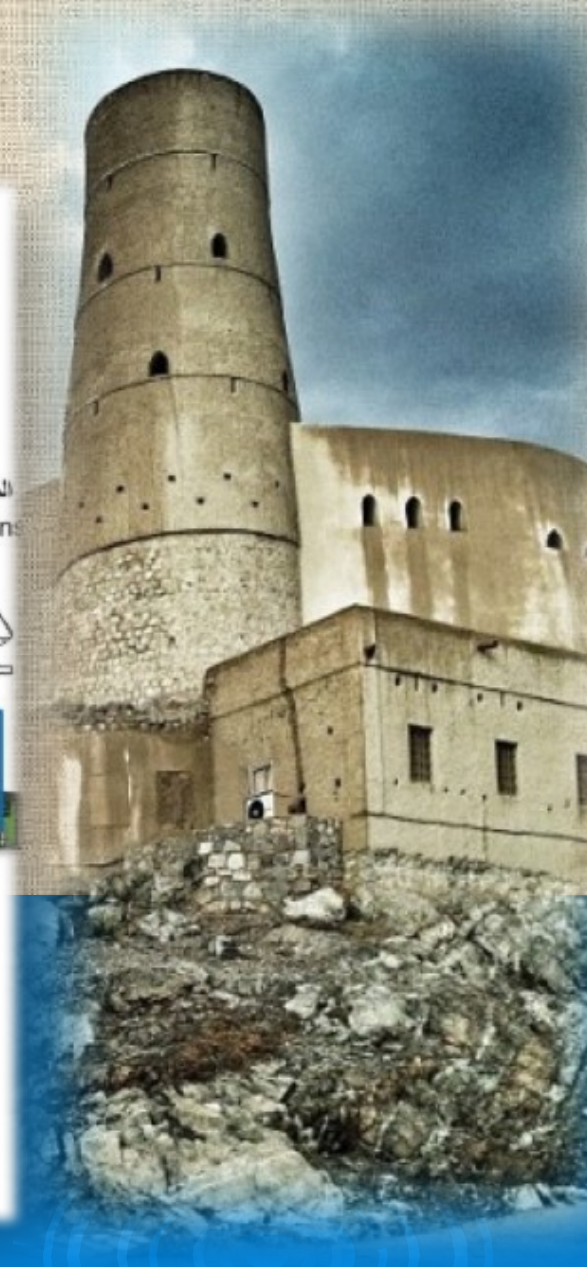
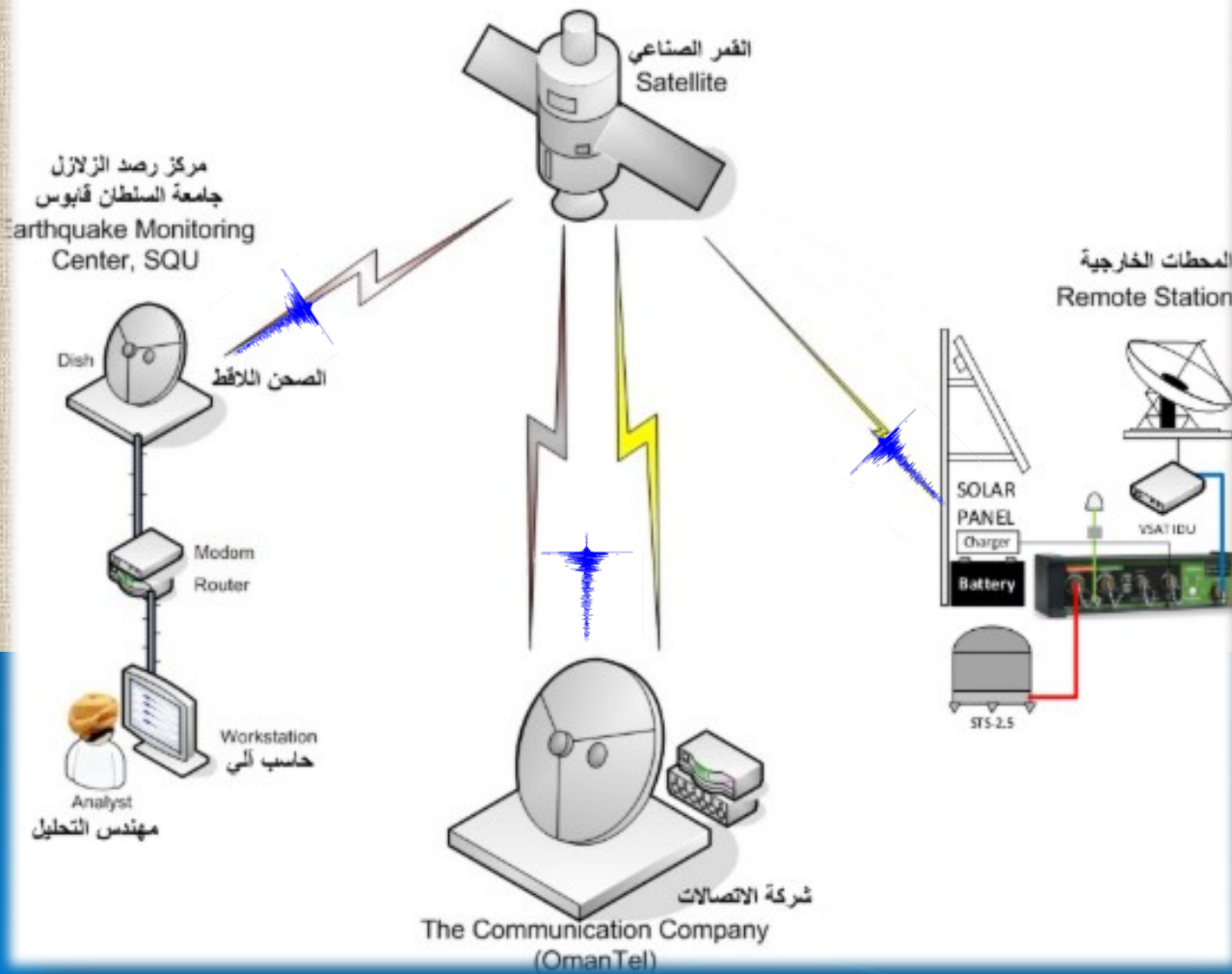


Remote Stations



Communication

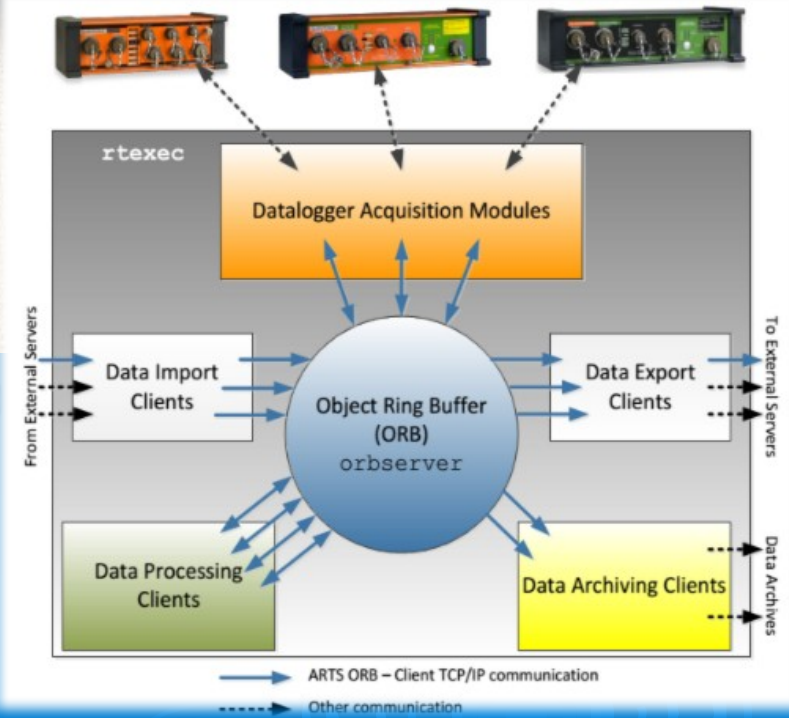
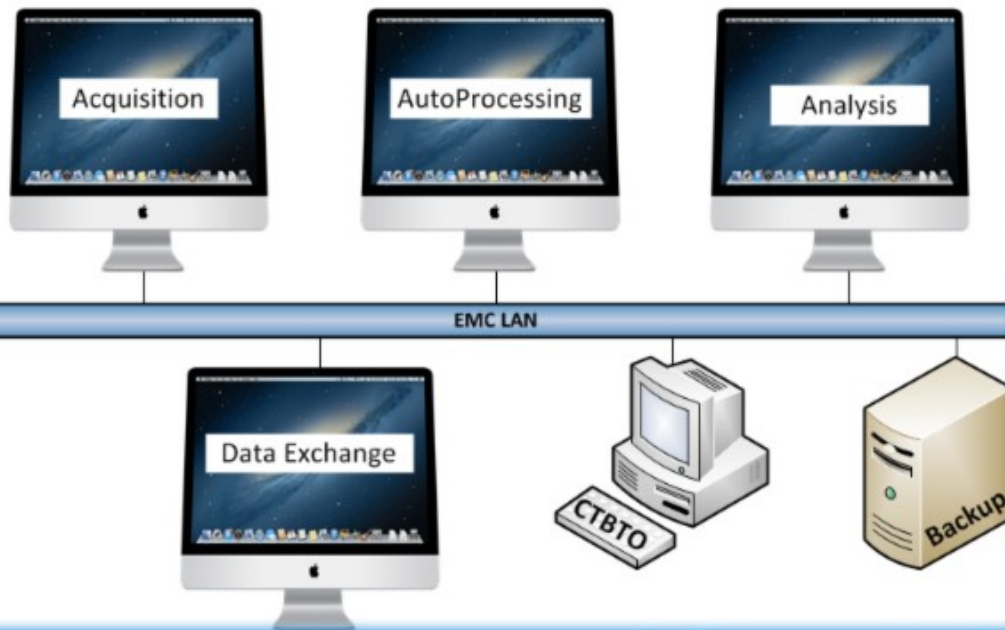
The Communication Link from Remote Stations to EMC



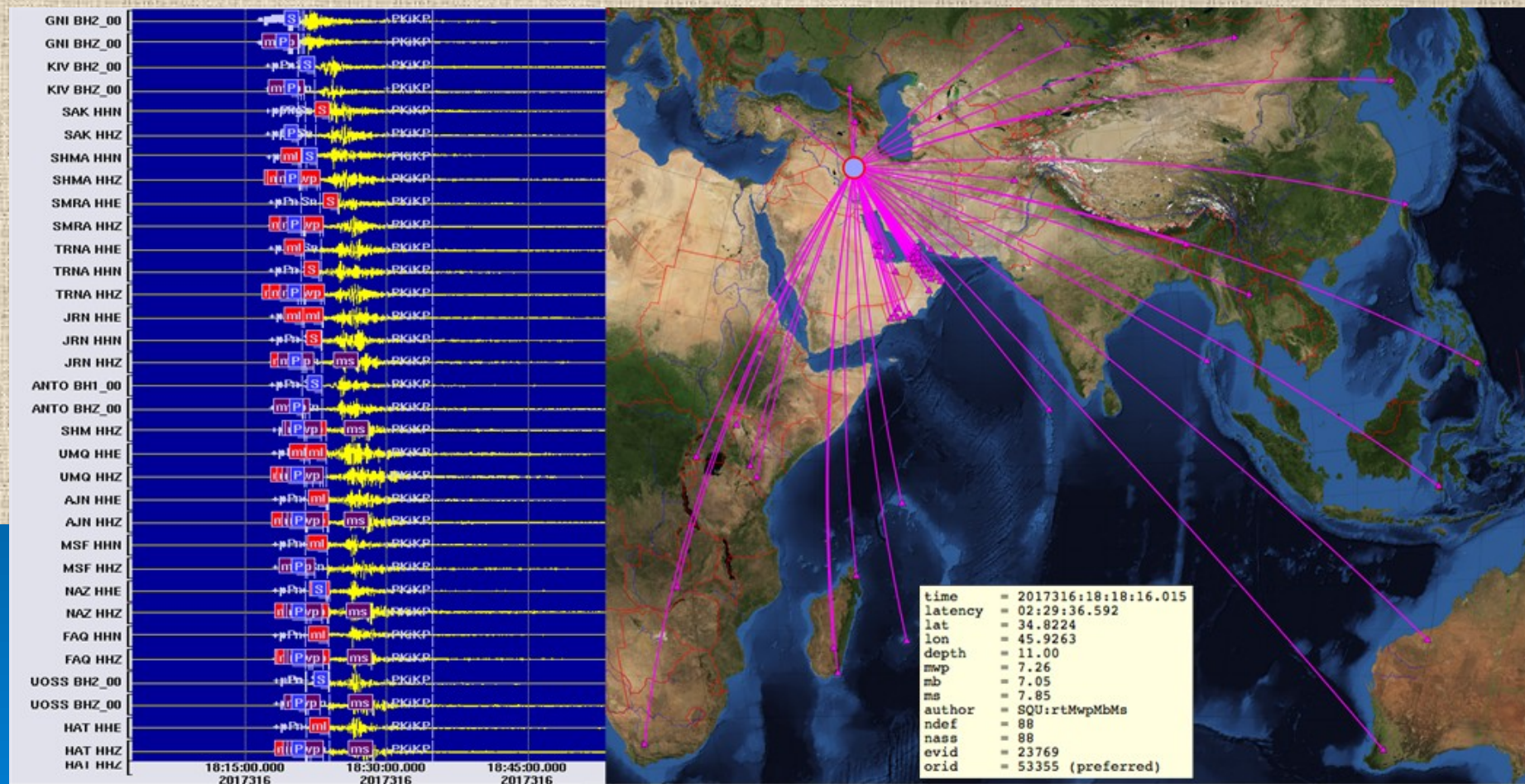
Data Center

Antelope since the start in 2001

Earthquake Monitoring Center workstations

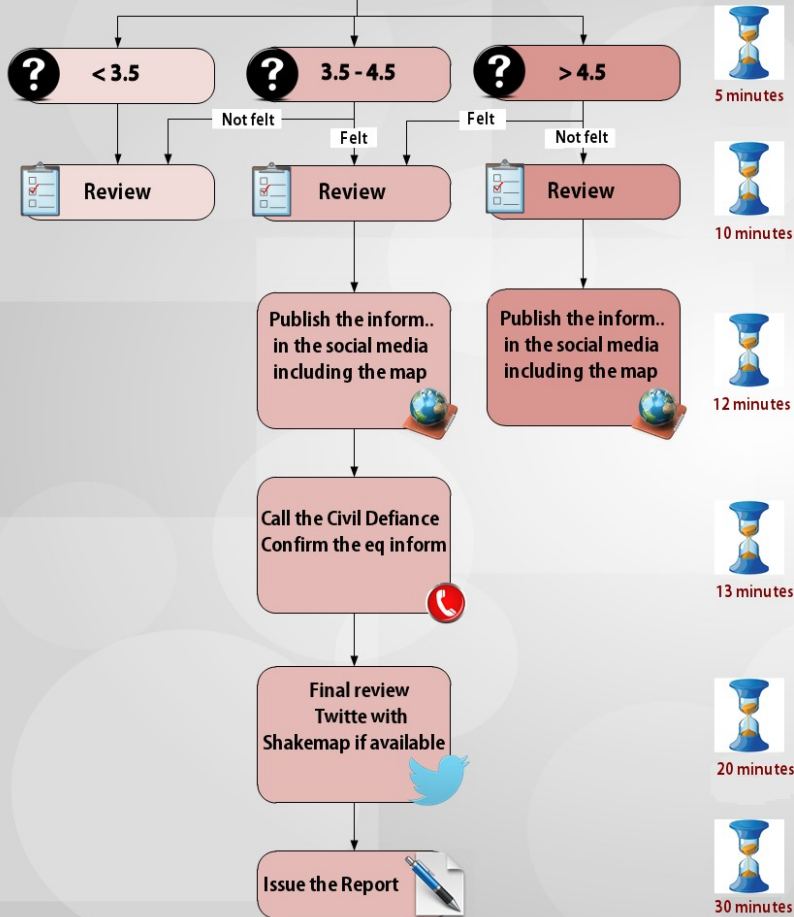


Recorded Events

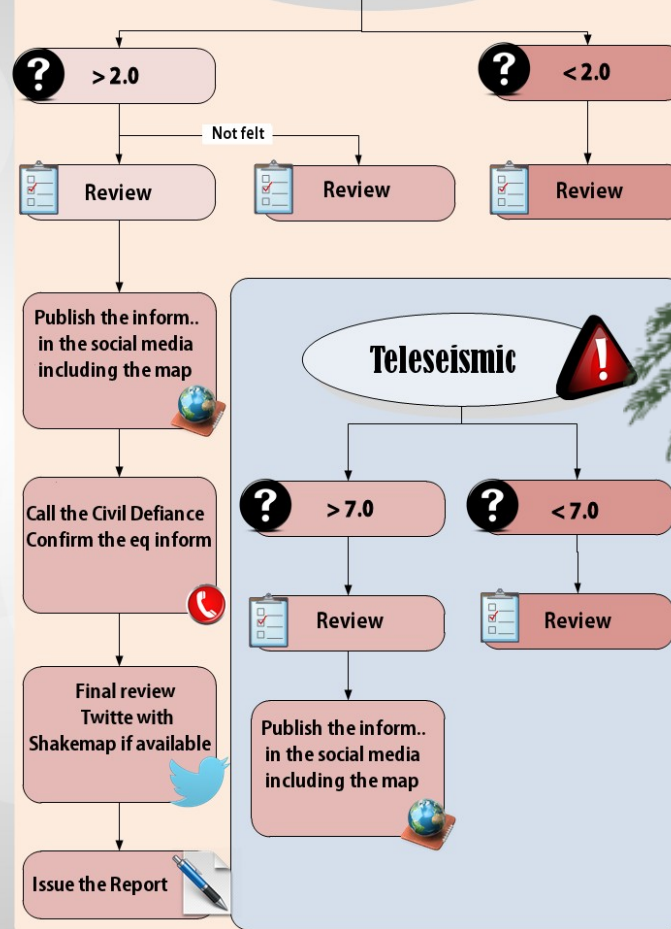


Standard Operation procedure

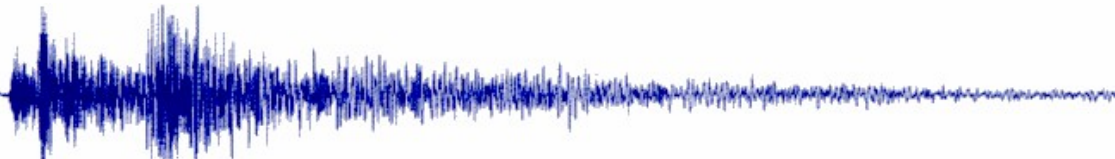
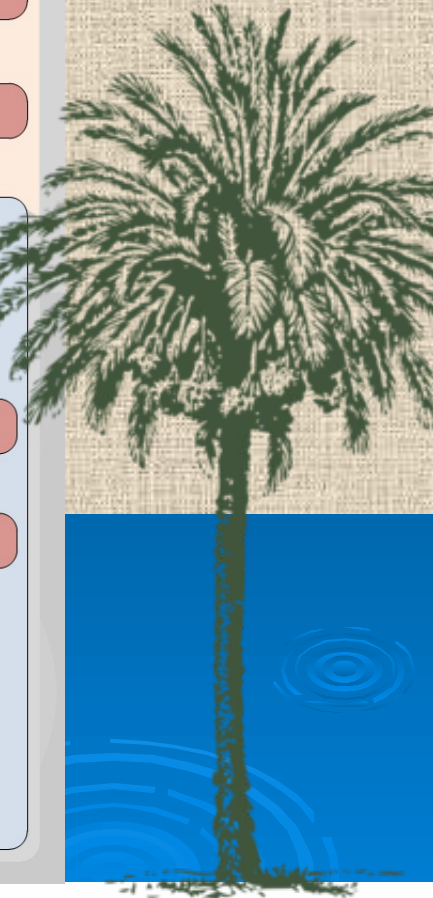
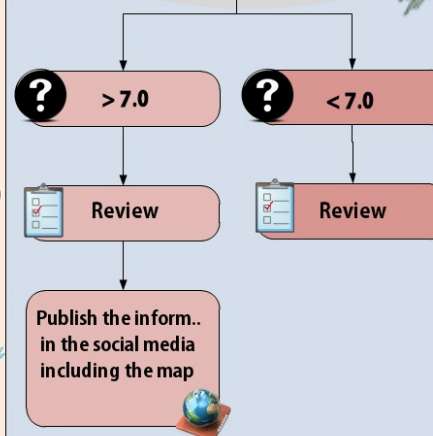
Regional Earthquake



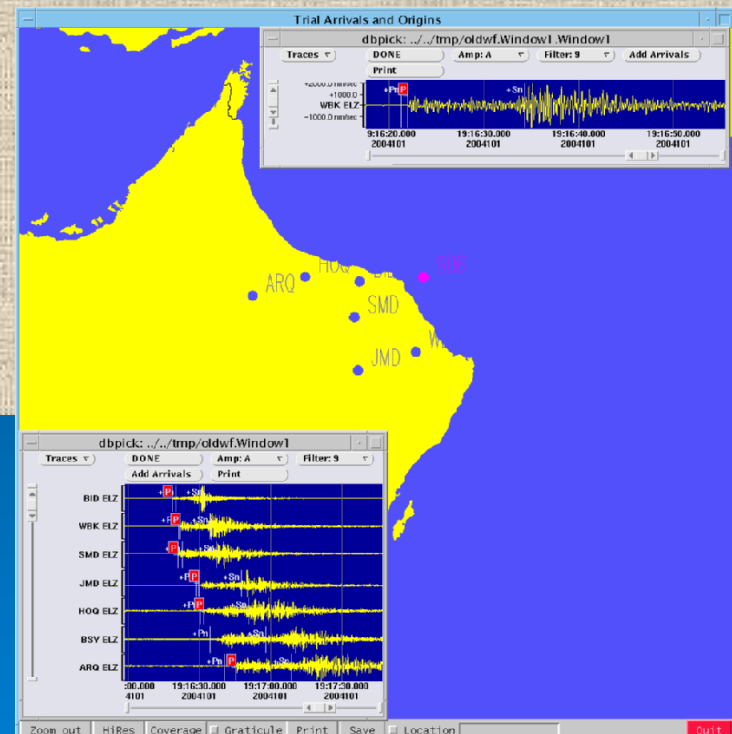
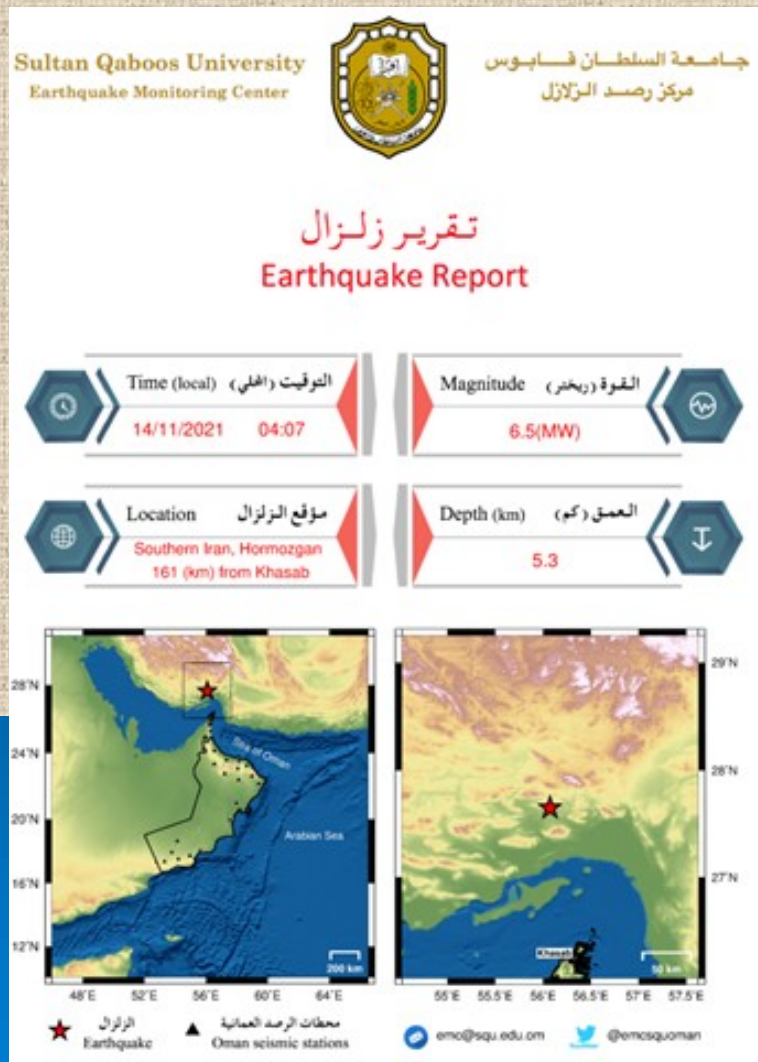
Local Earthquake



Teleseismic



Recorded Events



Shakemap

Sultan Qaboos University
Earthquake Monitoring Center



جامعة السلطان قابوس
مركز رصد الزلازل

Shakemap Report

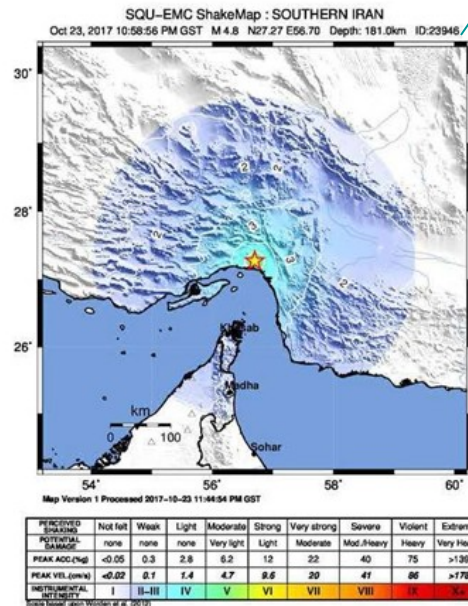
Earthquake on **23/10/2017** at **22:58:56** (Local Time) with Magnitude **4.8 (mwp)**

Alert Level in Muscat: **NO ALERT**
Alert Level in Sultanat Oman: **NO ALERT**
(Warning: Alert level maybe revised if necessary ...)

Event ID = 23946
Latitude = 27.2710
Longitude = 56.7010
Depth = 181.0km
Region: SOUTHERN IRAN
Magnitude: 4.8 (mwp)
Epicentral Intensity: VI

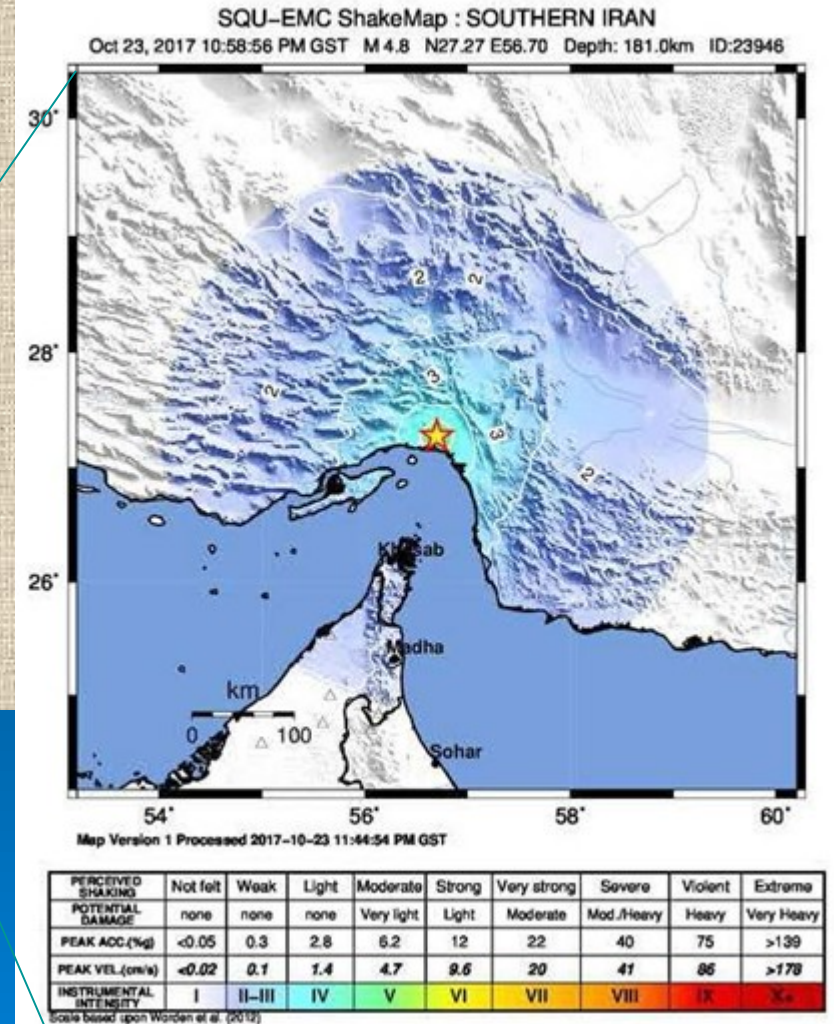
446km NW from Muscat
1170km NE from Salalah
129km NE from Khasab

Note: Intensity differs from site to site and building to building based on building type, height and site conditions.

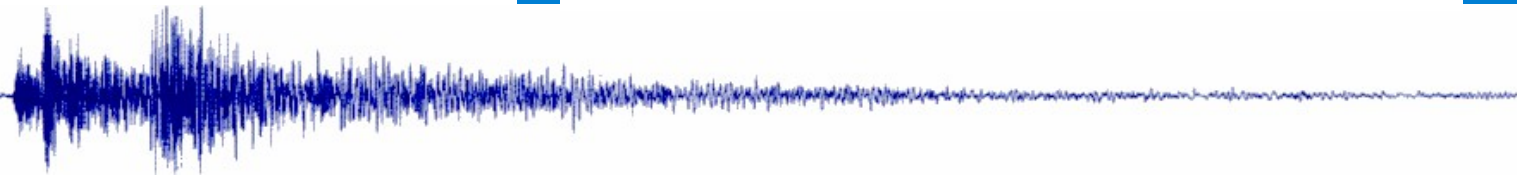
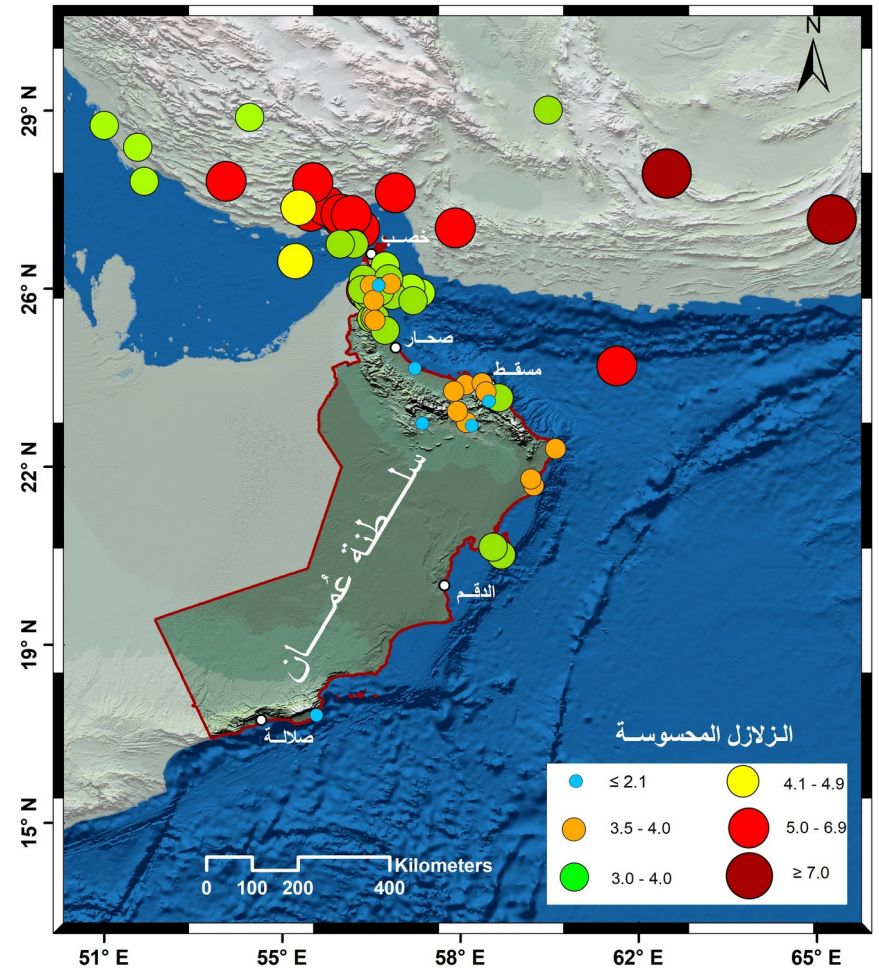
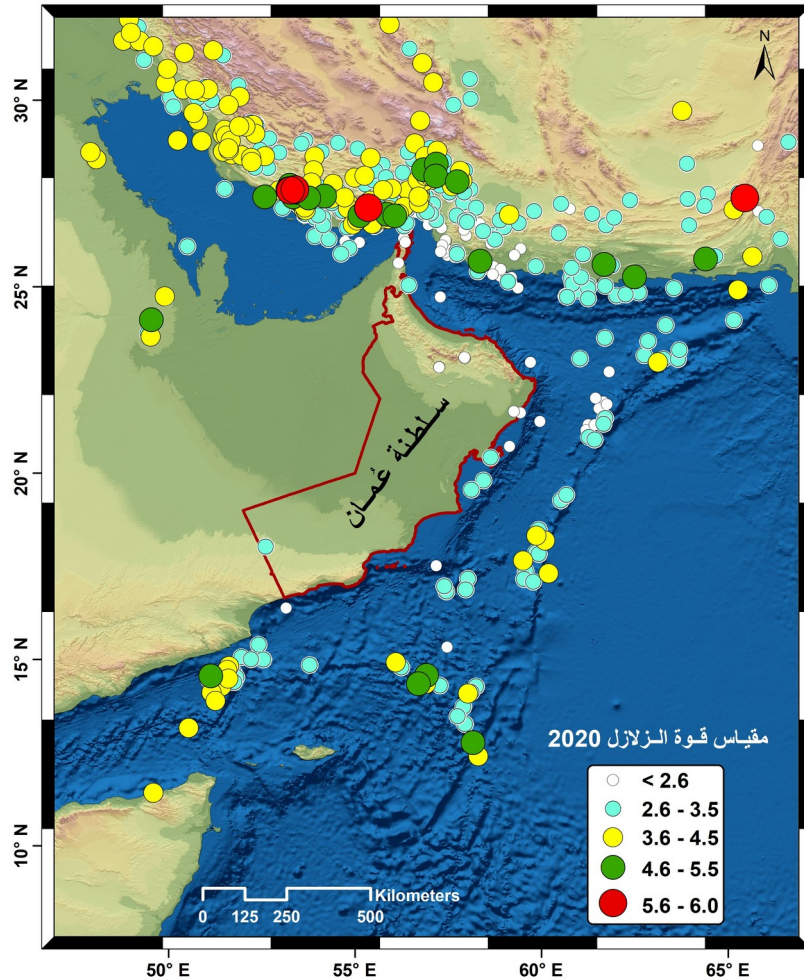


Intensity at Main Cities

City	Dist(km)	Intensity	Perceived Shaking	Potential Damage
Khasab	129	II	Weak	none
Diba	187	II	Weak	none
Madha	221	I	not felt	none
Sohar	320	I	not felt	none

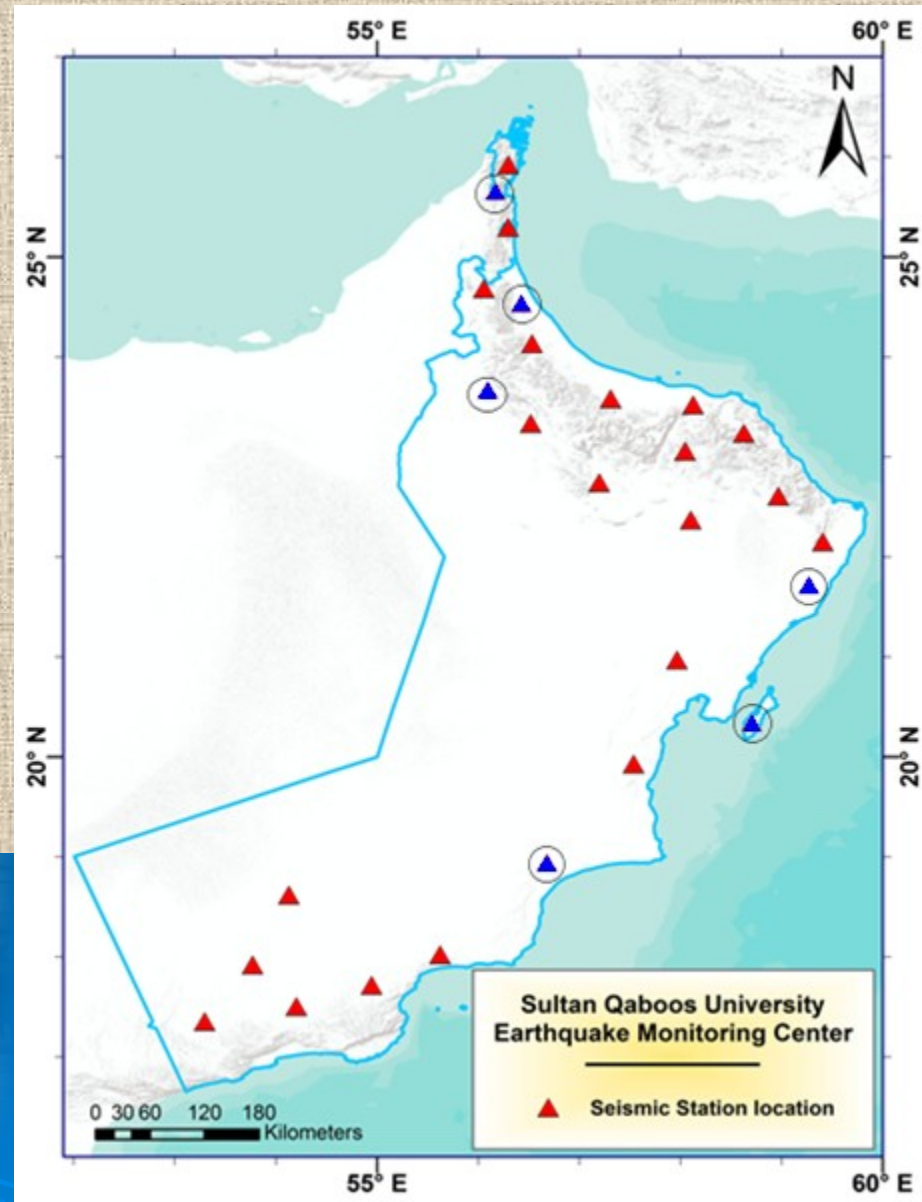


Seismic Activity



Network Expansion

- (6) new broadband stations
- 60 strong motion

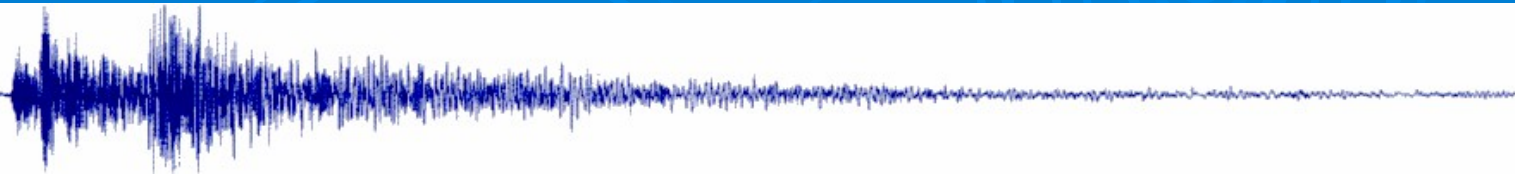


External Collaborations

- Lawrence Livermore National Laboratory, 2004
- Dubai Municipality, 2006
- KISR –Kuwait, 2008
- Qatar 2015
- MIT, 2009
- Iran 2016
- NCMS of UAE, 2010
- Kandilli Observatory, Turkey, 2012
- Lisbon, IPL, 2013
- Keil University, Germany, 2014
- MOU with CAA, Oman, 2017
- LOU with University of Hormozgan / Tsunami and Earthquake Research Center, Iran ,2018
- MOU, Pakistan Meteorological Department, Pakistan, 2021
- UNESCO chair on seismic and tsunami hazards studies ,2021



- June 8, 2023



Thank you

