

Earthquake Monitoring Center



Sultan Qaboos University

OMAN SEISMOLOGICAL NETWORK

**Done by
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Overview

- Objectives of EMC
 - Seismic network
 - Station civil work
 - Remote seismic station
 - Communication link to EMC
 - Seismic activity map
 - Network expansion
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Seismic network

1- Seismic network of Earthquake Monitoring Center of Oman consists of:

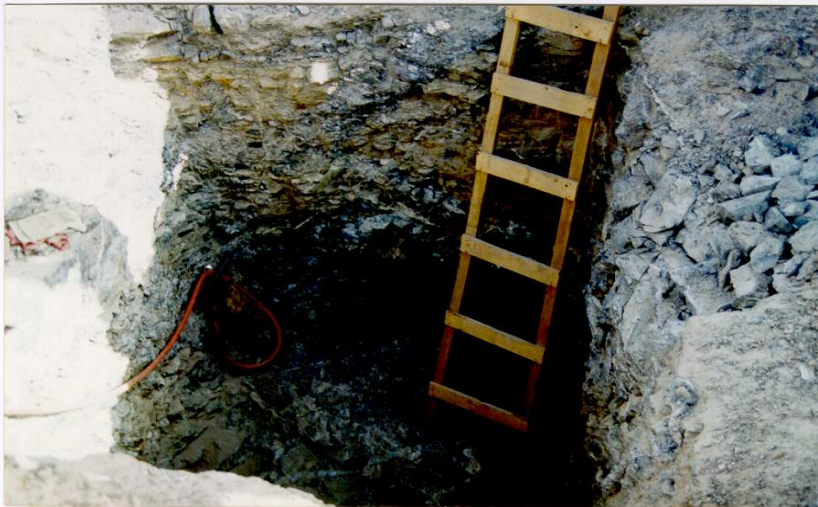
- (20) Remote seismic stations (RSS).
 - (1) Central Data Acquisition System (CDAS).and,
 - The communication link through Omantel's satellite hub
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Seismic network

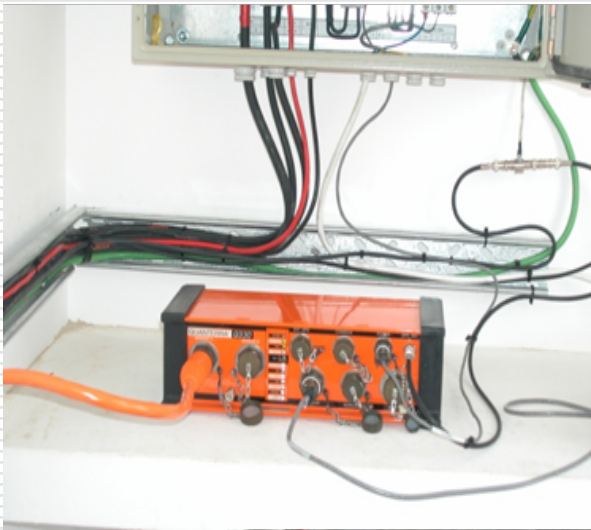
2- Factors considered in the selection of site for seismic stations are:

- Earthquake sources around Oman
 - Population and infrastructures
 - Station accessibility, hard-rock foundation, low seismic noise level etc.
 - Station distribution and Communication links
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Station civil work

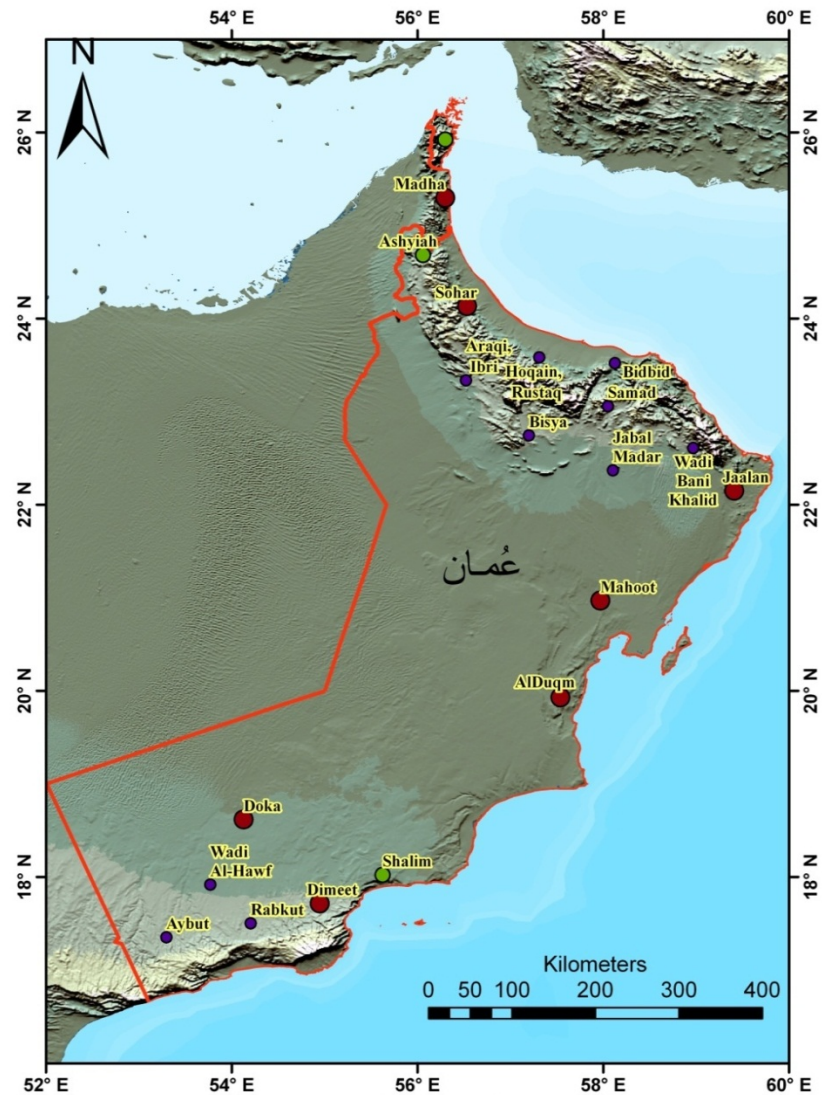


Remote seismic station



| Station Name | Code | Latitude [N] | Longitude [E] | Elev. [m] | Sensor Type |
|------------------|------|----------------|-----------------|-------------|--------------|
| Samad | SMD | 23° 03.5333' | 58° 02.9500' | 1000 | 3 x SS-1 |
| Jabal Madar | JMD | 22° 22.2083' | 58° 06.2083' | 350 | 3 x SS-1 |
| Wadi Bani Khalid | WBK | 22° 36.5983' | 58° 58.1983' | 450 | 3 x SS-1 |
| Araqi, Ibri | ARQ | 23° 20.1967' | 56° 31.3167' | 400 | 3 x SS-1 |
| Bidbid | BID | 23° 31.2667' | 58° 07.6150' | 200 | 3 x SS-1 |
| Bisya | BSY | 22° 44.6733' | 57° 11.9700' | 450 | 3 x SS-1 |
| Hoqain, Rustaq | HOQ | 23° 34.9417' | 57° 18.6533' | 350 | 3 x SS-1 |
| Wadi Al-Hawf | WHF | 17° 55.1400' | 53° 46.2350' | 550 | 3 x SS-1 |
| Rabkut | RBK | 17° 30.2100' | 54° 12.2317' | 550 | 3 x SS-1 |
| Aybut | ABT | 17° 21.2267' | 53° 17.7983' | 650 | 3 x SS-1 |
| Shalim | SHA | 18.0228 | 55.6251 | 292 | STS-2 |
| Ashyiah | ASH | 24.6839 | 56.0583 | 546 | STS-2 |
| Banah | BAN | 25.9233 | 56.2996 | 504 | STS-2 |
| Dimeet | DMT | 17.716 | 54.947 | 437 | Trillium-240 |
| Doka | DOK | 18.618 | 54.129 | 230 | Trillium-240 |
| AlDuqm | DQM | 19.929 | 57.539 | 151 | Trillium-240 |
| Jaalan | JLN | 22.148 | 59.411 | 281 | Trillium-240 |
| Madha | MDH | 25.298 | 56.299 | 170 | Trillium-240 |
| Mahoot | MHT | 20.937 | 58.008 | 97 | Trillium-240 |
| Sohar | SOH | 24.134 | 56.533 | 268 | Trillium-240 |

Lists of all stations with their respective station code, coordinates and sensor type

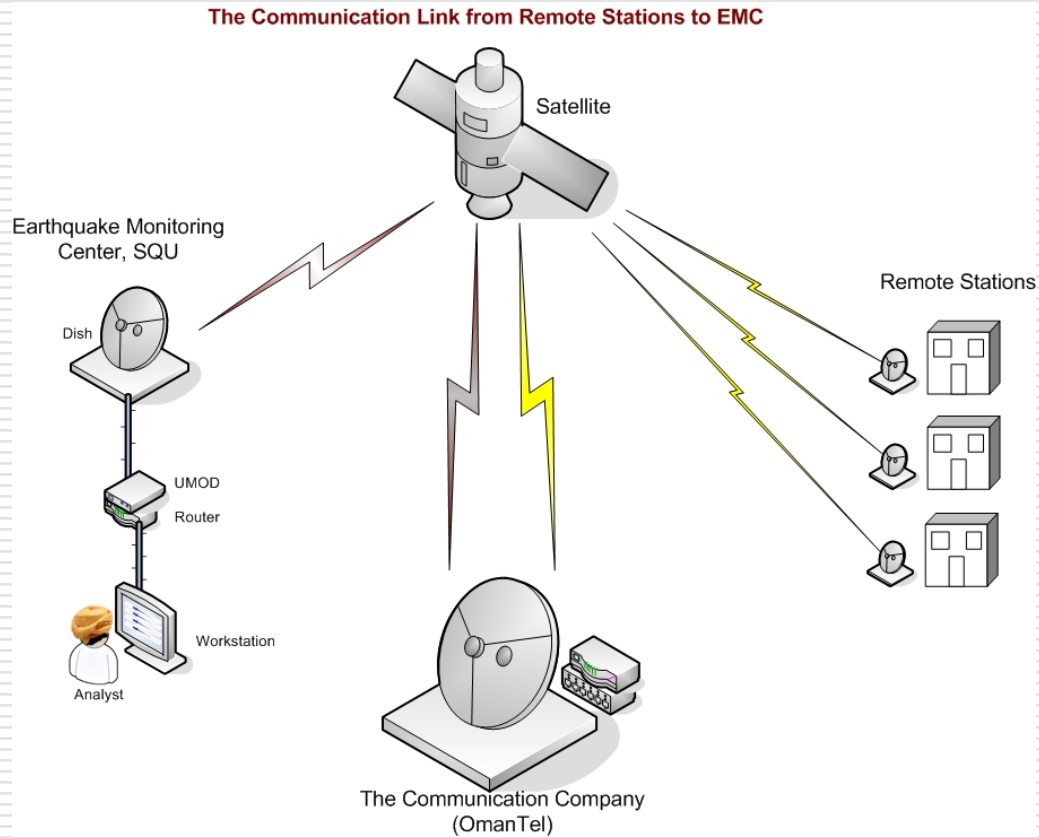


Legend

- Phase III stations
- Phase II stations
- Phase I stations

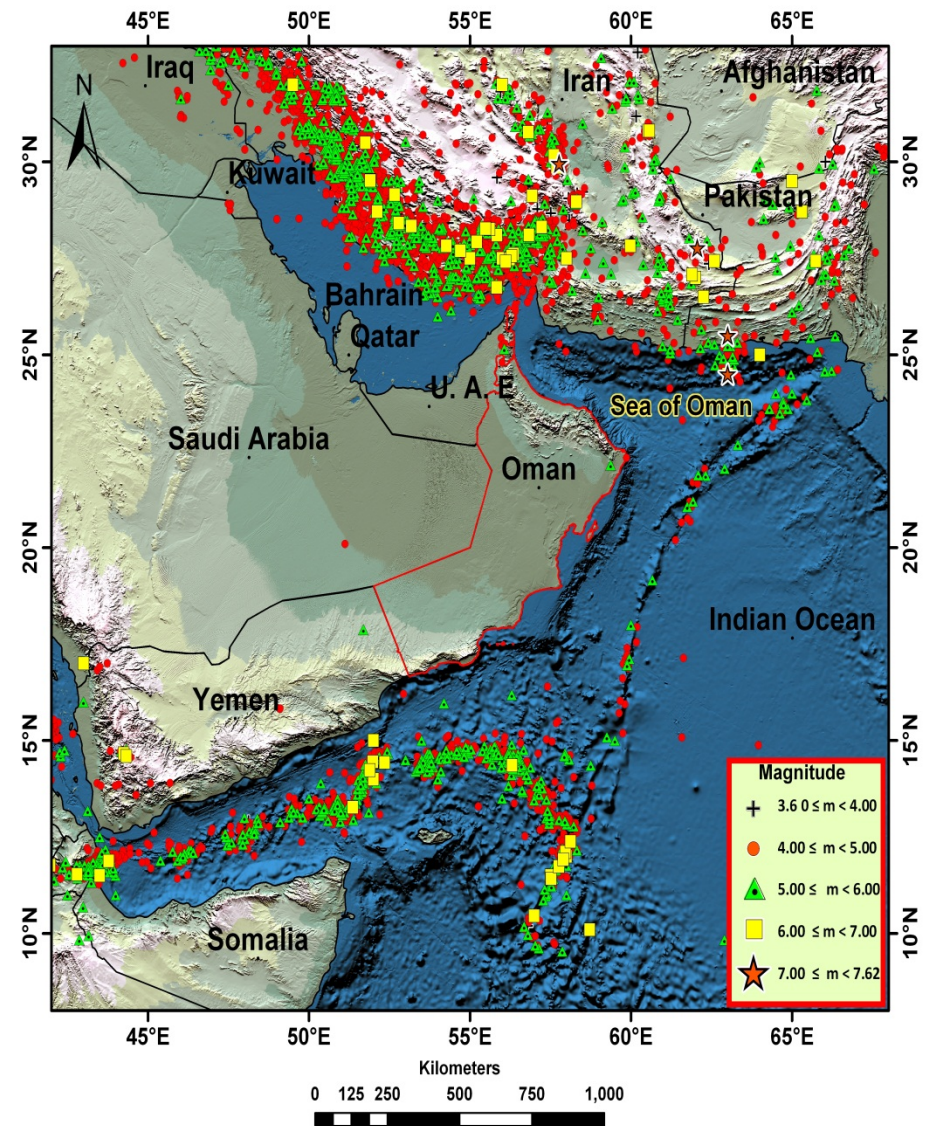
Location of all Stations

Communication link to EMC



Seismic Activity Map

This map shows the Seismicity of Oman and its surrounding in the period from 1904-2010



Network expansion

- **(6) new broadband stations**
 - **(62) strong motion stations**
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Questions

