Paper No. 1947. (quote when citing this article)
Eleventh World Conference on Earthquake Engineering
ISBN: 0 08 042822 3

PRELIMINARY RECONNAISSANCE REPORT ON THE 22 NOVEMBER, 1995 GULF OF AQABA EARTHQUAKE (SAUDI ARABIAN SIDE)

M.S. Al-Haddad*, M.A. Al-Dail, A.M. Al-Amri***
* King Saud University, P.O. Box 800, Riyadh, Saudi Arabia 11421
* * King Abdulaziz City for Science and Technology,
Riyadh, Saudi Arabia 11442

ABSTRACT

On Nov. 22nd, 1995, a swarm of earthquakes began in the northern portion of the Gulf of Aqaba with a maximum magnitude of $M_D = 5.8$ and focal depth < 10 km causing damage to some buildings and houses. According to official report, the deaths are 2 and the wounded are 29 persons. During the next 40 days of activity, more than 8000 after shocks were recorded. Nearly all of events occurred north of latitude 29°, close to the eastern bank of the Gulf of Aqaba. Information compiled on effects of the earthquake is reported. Observations related to damage and secondary geological effects are exhibited by photos and preliminary assessment of the intensity distribution is made. The intensive damage and total collapse were observed in engineered buildings rather than in non-engineered ones, and that may be attributed to random problems of construction and soil. The most intensive damage occurred in government structures in Ad Durrah customhouse neighboring Jordan. Three wide space reinforced concrete sheds were totally destroyed, a precast slab of wide-span was partially collapsed, and columns of three large warehouses were severely damaged. The important lesson learned from this earthquake is that, effective measures to reduce the seismic vulnerability at the Gulf of Aqaba region must be urgently undertaken.

KEYWORDS : Reconnaissance, Gulf of Aqaba; Modified Mercalli Intensity, Satellite, Precast Concrete, Bearing Walls; Foundation, Soil; Acceleration