

Earthquake Early Warning alert in Israel due to a 370 T explosion in southern Lebanon, October 26, 2024

L. Schardong*, I. Kurzon, R.N. Nof, H. Navon, N. Wetzler, M. Gorstein and V. Avirav
Geological Survey of Israel

- On October 26, 2024, at 7am, the **first alert** was sent by Israel's **Earthquake Early Warning (EEW)**, **Truua**
- It was caused by a **370-T explosion** detonated by the Israeli Defense Force (IDF) in **southern Lebanon**
- The event was misidentified as a **M5.2 earthquake located 22 km west** of the actual explosion
- The **magnitude overestimation** was caused by a) **very high accelerations** measured at nearby stations (3 closest stations 2-5 km away), and b) a **22 km mislocation** (due to the fixed depth approximation typically used for speeding the EEW solution), emphasizing that EEW systems are **designed for earthquakes** and not explosions

