

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. 208
TO BE ANSWERED ON MONDAY, FEBRUARY 05, 2018**

FORECASTING OF EARTHQUAKES AND CYCLONES

208. SHRI C.M. RAMESH:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the details of advancements made by Indian National Centre for Ocean Information Services in forecasting earthquakes, cyclones, etc. ;**
- (b) whether International Academy of Astronautics has recognized the efforts in the above areas; and**
- (c) if so, how the Ministry is planning to become the world leader in forecasting natural disasters?**

ANSWER

**MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(SHRI Y. S. CHOWDARY)**

- (a) The Indian National Centre for Ocean Information Services (INCOIS) has the mandate of detecting tsunamigenic earthquakes occurring in the Indian Ocean as well as in the Global Oceans within 10 minutes of the occurrence of the earthquake and disseminating the tsunami related advisories to the concerned authorities through email, fax, SMS, GTS and website.**

The India Tsunami Early Warning Centre (ITEWC) established at INCOIS, has the latest scientific techniques to provide early warnings for an impending tsunami to all countries in the Indian Ocean region.

Indian Tsunami Early Warning System comprises a real-time seismic monitoring network of broadband seismic stations. INCOIS also has a real-time sea-level network with 7 tsunami buoys in the open ocean and 35 tide gauges at different locations on the coast to monitor the tsunami waves. In addition, INCOIS also takes the help of numerical model to assess the tsunami potential at different locations on the coast. ITEWC is also receiving data in real time from 350 seismic stations, 50 tsunami buoys and 300 tide gauges established in the Indian as well as the other oceans by other countries and international agencies.

The operational forecasting of tropical cyclones is the mandate of the India Meteorological Department (IMD).

- (b) International Academy of Astronauts deals with Science and Technology of outer space and does not recognize the Scientific work in Tsunamis. Therefore, reorganization by them does not arise.**
- (c) Intergovernmental Oceanographic Commission (IOC) of UNESCO has designated ITEWC as the Tsunami Service Provider (TSP) for the entire Indian Ocean Region. Since 2012, ITEWC is providing tsunami advisories and related services to about 25 countries.**
