Radio-Hydro-Physics LLC

Personnel:

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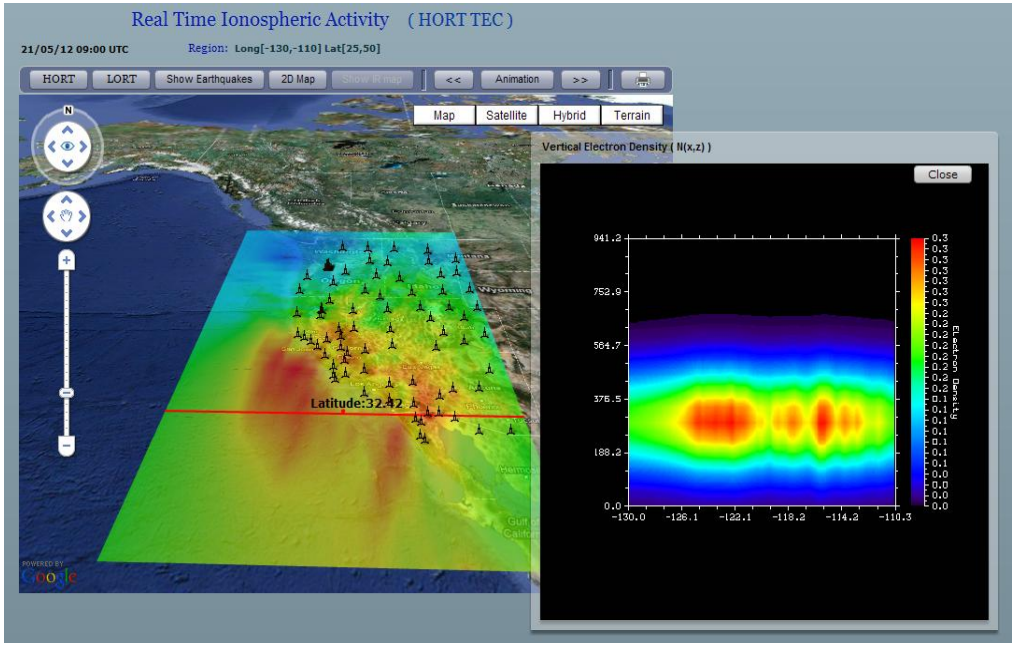
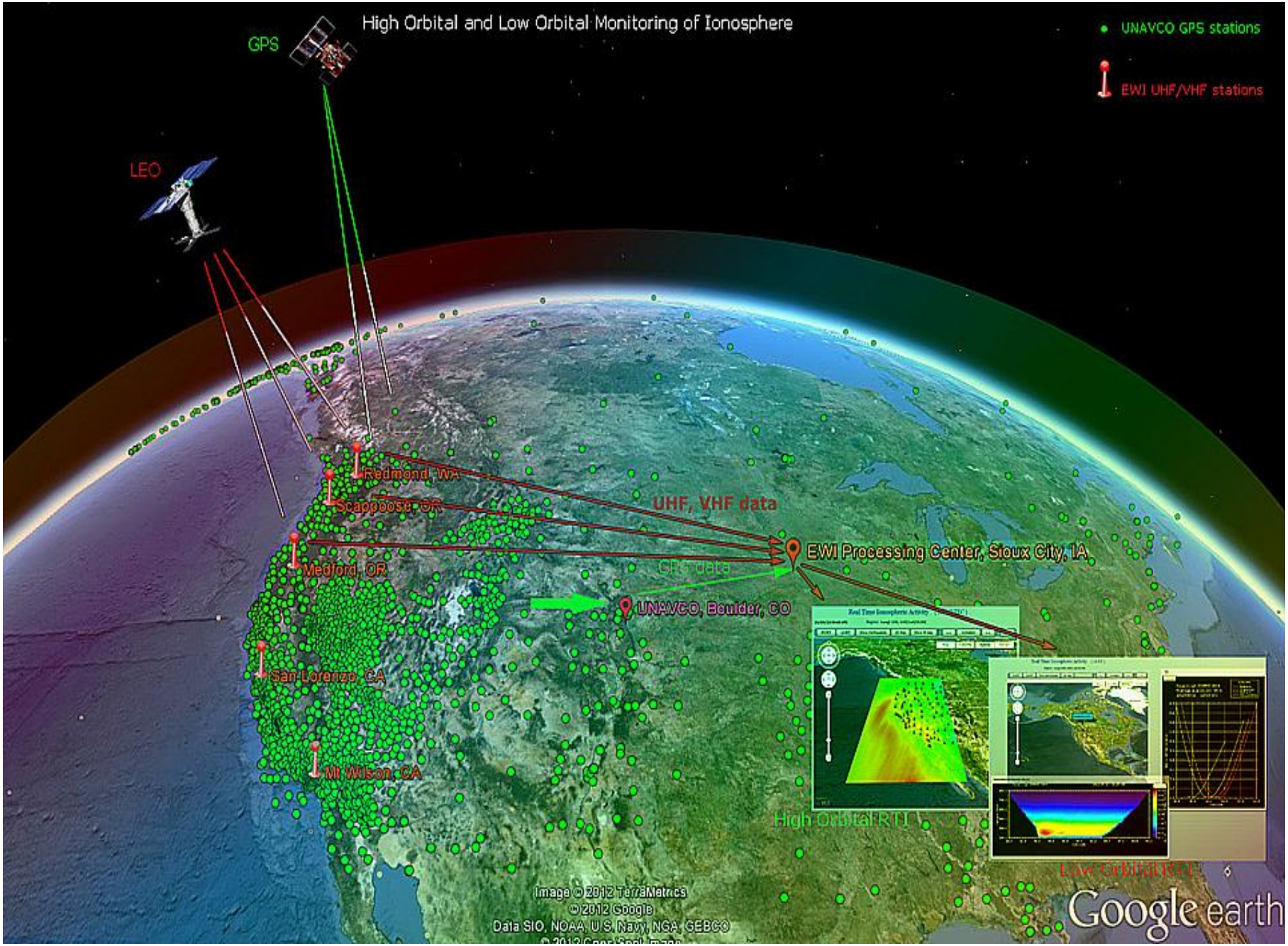
- *Dr. Dmitrii Gribkov*
- *Mr. Douglas A. Rekenthaler*
- *Prof. Vyacheslav Kunitsyn*
- *Dr. Elena Andreeva*
- *Mr. William O'Reilly*



- High orbital and low orbital radio tomography of the ionosphere;
- 2-d and 3-d ionospheric imaging;
- 24 hours per day monitoring;
- Ionosphere modeling;
- Exploitation of and Research of travelling ionospheric disturbances (TID);
- Registration and classification of TID with commercial applications to:
  - Earthquake forecasting; Tsunami early warning system.
  - Adaptable for defense and intel applications


High Orbital and Low Orbital Monitoring of Ionosphere
GPS
LEO
UNAVCO GPS stations
EWI UHF/VHF stations
Redmond, WA
Scappoose, OR
Medford, OR
San Lorenzo, CA
Mt Wilson, CA
UHF, VHF data
GPS data
EWI Processing Center, Sioux City, IA
UNAVCO, Boulder, CO
High Orbital RTI
Low Orbital RTI
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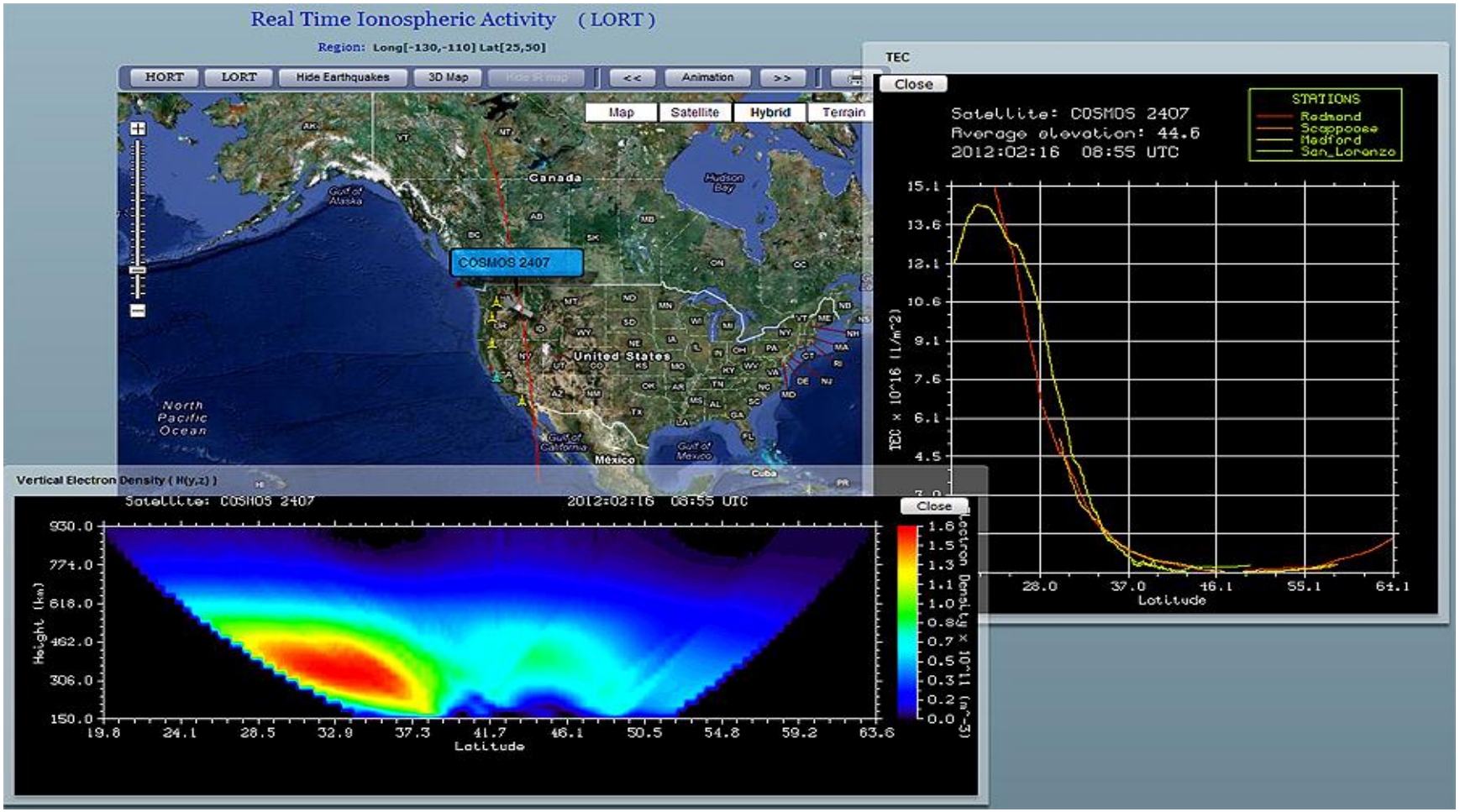
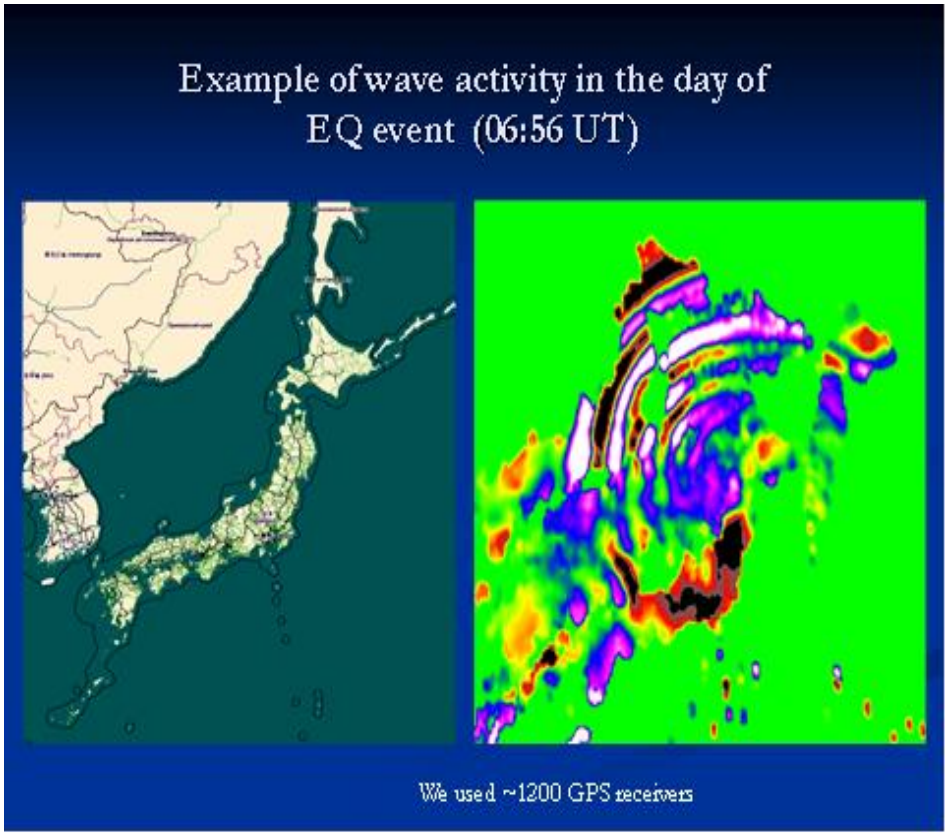
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Google earth



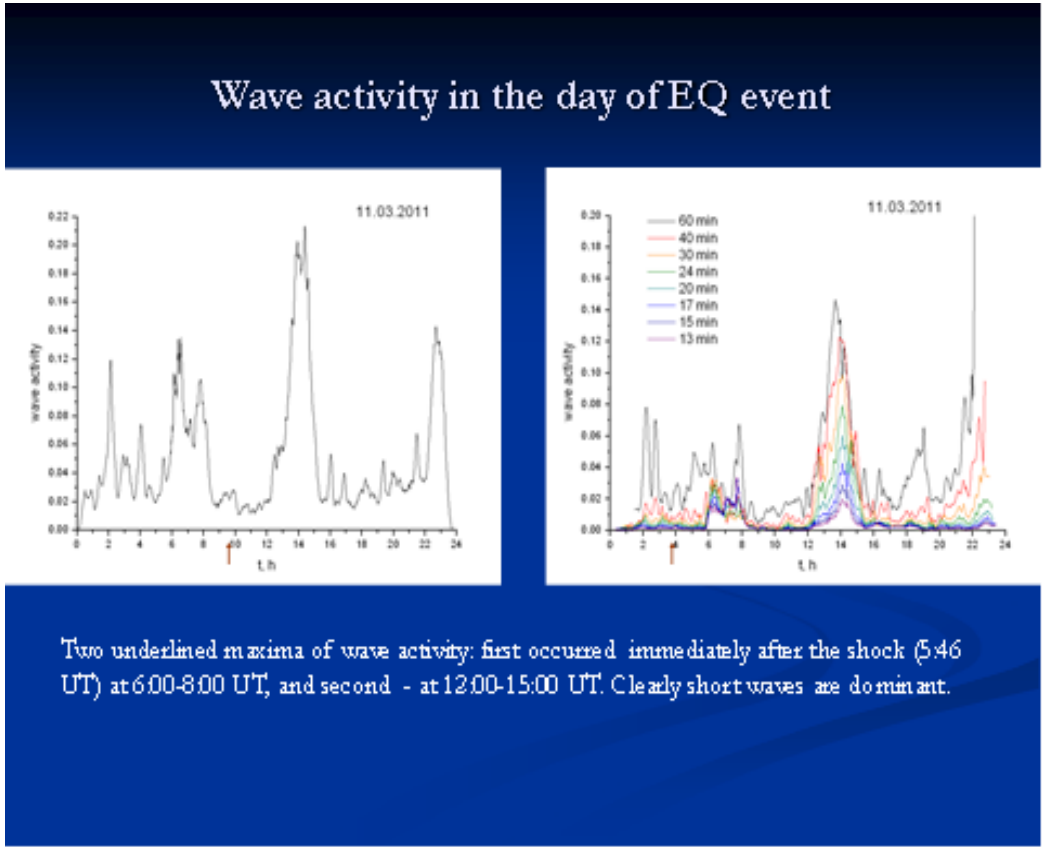
Our fully automated system generates radio-tomographic reconstructions of the ionosphere for earthquake and tsunami warnings for the US West Coast & Japan, 365/24/7. Our monitoring system currently uses both LEO (7satellites) and GPS/Glonass dual frequency satellite signals. We capture signals at five of our own UHF/VHF ground stations, from 350 GPS ground stations in the US, and 1200 GPS stations in Japan. Privately financed, methodologies patented (USPTO 7,277,797).

We can provide:



- Tomographic monitoring of the ionosphere utilizing both LEO and High Orbit satellites;
- Software, data, and services for tomographic reconstructions , TID detection and classification; correlations of satellite TLEs with satellite signals; correlations with Digisonde data.
- Models of the ionosphere;
- Accommodation of: magnetospheric influences, SIDs, CME's, acoustic gravity waves, anthropomorphic perturbations, high altitude weather/wind factors, Environments for HF emitters, HF radar, OTH, OTHR

- *We are interested in sub-contracting or acting as a prime for ionosphere-related research and applications*

Contact Information

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