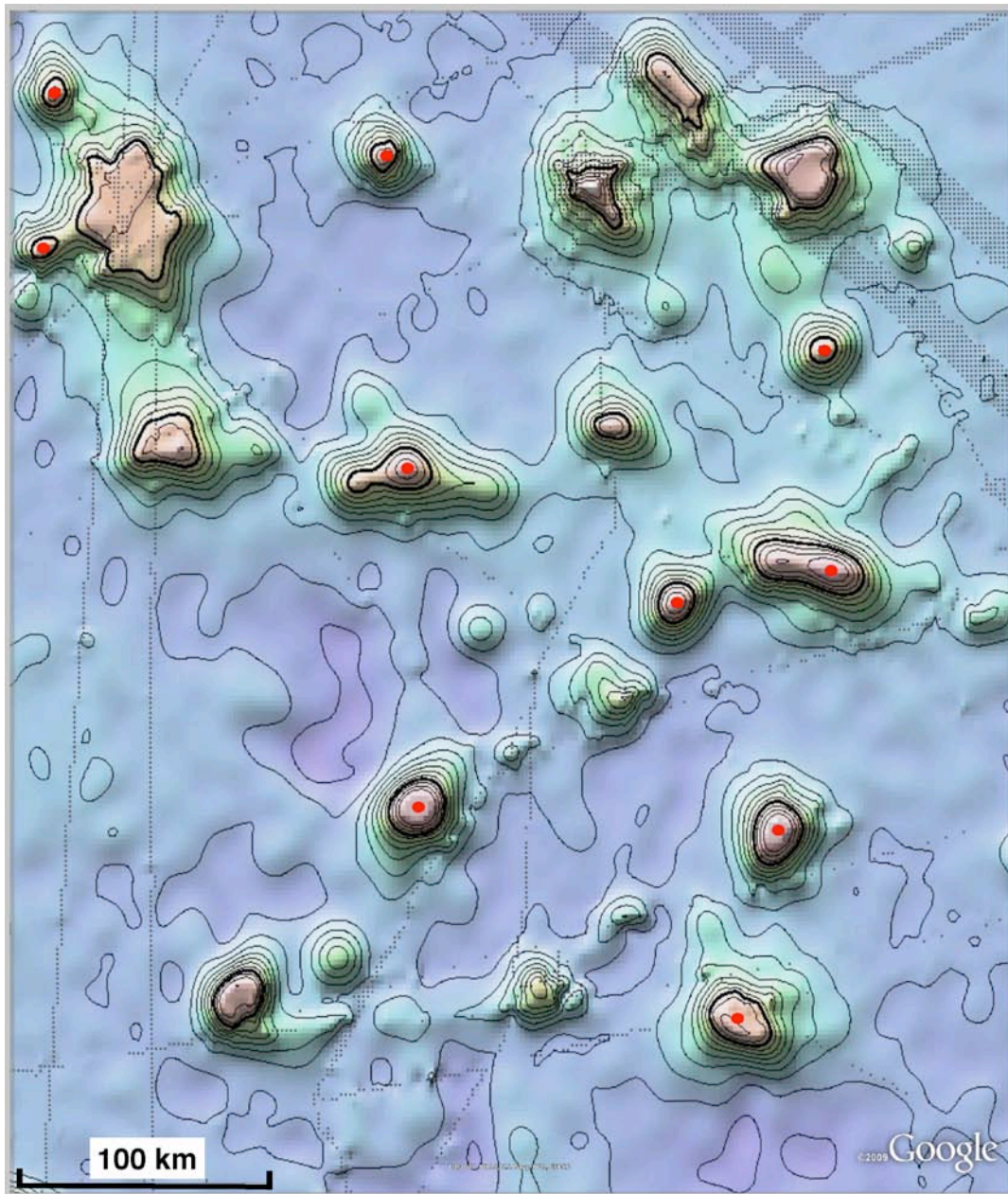


Seamount Discovery Tool

We propose a simple survey tool based on Google Earth software to be installed on all research and other vessels having deep water (> 4000 m) echo sounders. This tool will enable scientists and sailors to survey new uncharted seafloor and discover major undersea features. Below is an example screenshot of a large region in the Western Pacific. Contour interval is 500 m and thick contour is -2000 m. The small grey dots show locations of existing ship soundings. Note the 10 unsurveyed seamounts (red dots) predicted to be > 3000 m tall based on satellite gravity. These targets for exploration are very poorly sampled by existing ship soundings.



Setup real-time GPS with Google Earth Pro

Hardware

- 1) Computer (PC or Mac) with USB port
- 2) Garmin GPS Map 60 (\$249.99)(many makes/models also work)
- 3) USB Cable (\$14.99)
- 4) External antenna (\$31.49)

Software and Data

- 5) Google Earth Pro (V5.0) software (\$400)
- 6) Bathymetry overlays in kmz format (<http://topex.ucsd.edu>)
- 7) Start GE go to Tools > GPS
- 8) Realtime Garmin PVT, Trackpoint import limit 100, Polling interval 10 sec. (May need to cycle GPS power and trash the realtime entry in temporary places.)

Example screenshot

