



**Australian Government**

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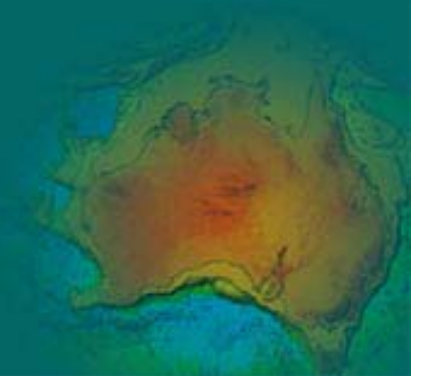
**Geoscience Australia**

# **South Pacific Regional GPS Network**

**Bob Twilley**

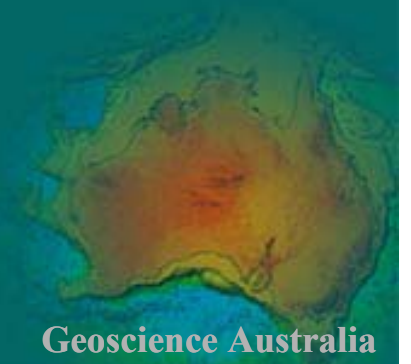
**10<sup>Th</sup> Anniversary IGS Workshop &  
Symposium 2004**

**Berne, Switzerland**



# South Pacific Regional GPS Network

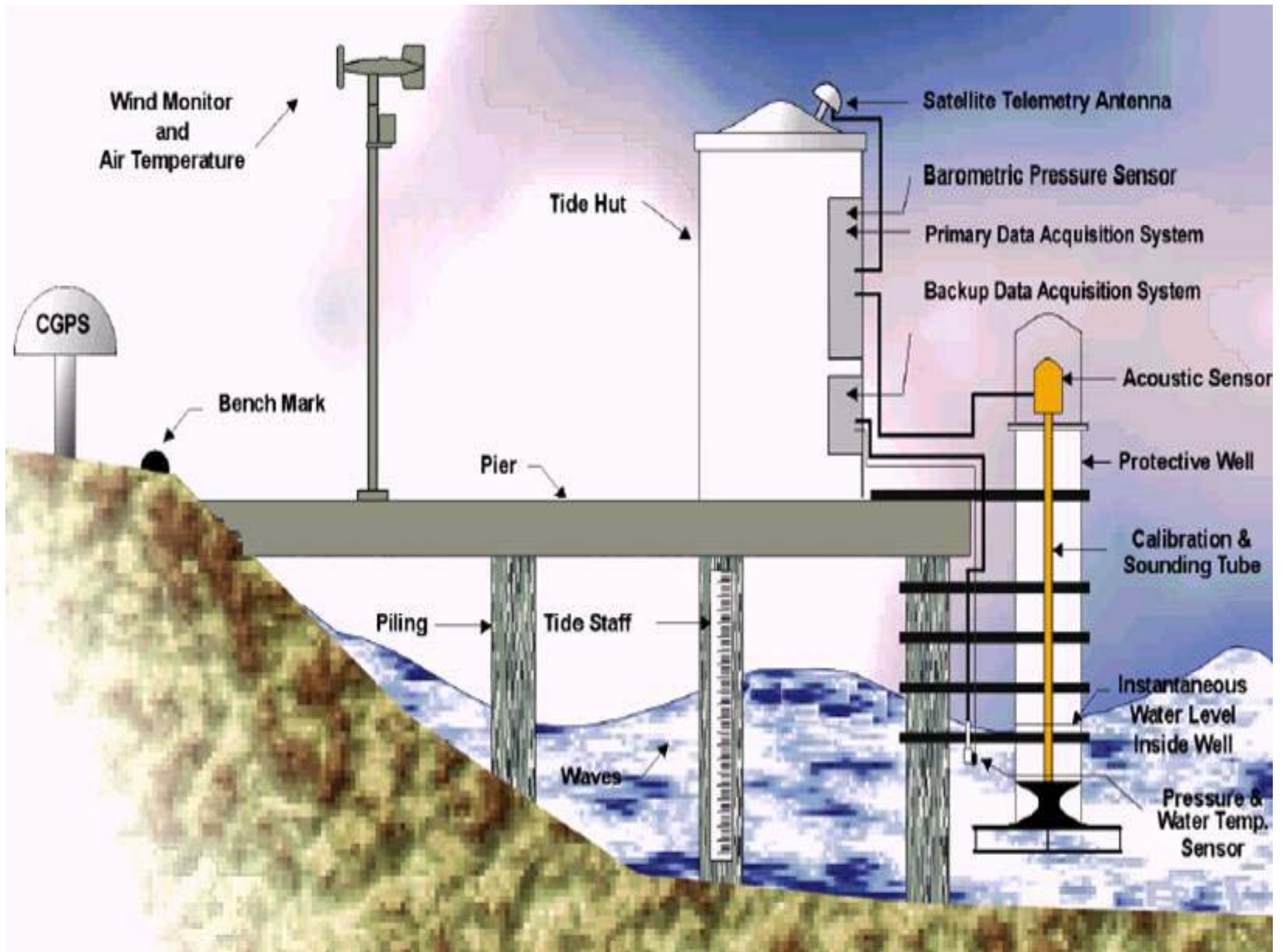
- **Background**
- **Site Selection**
- **Monumentation and Station Building**
- **Station Equipment**
- **Monitoring Surveys**
- **Training**
- **Data Transfer**
- **Future Direction**



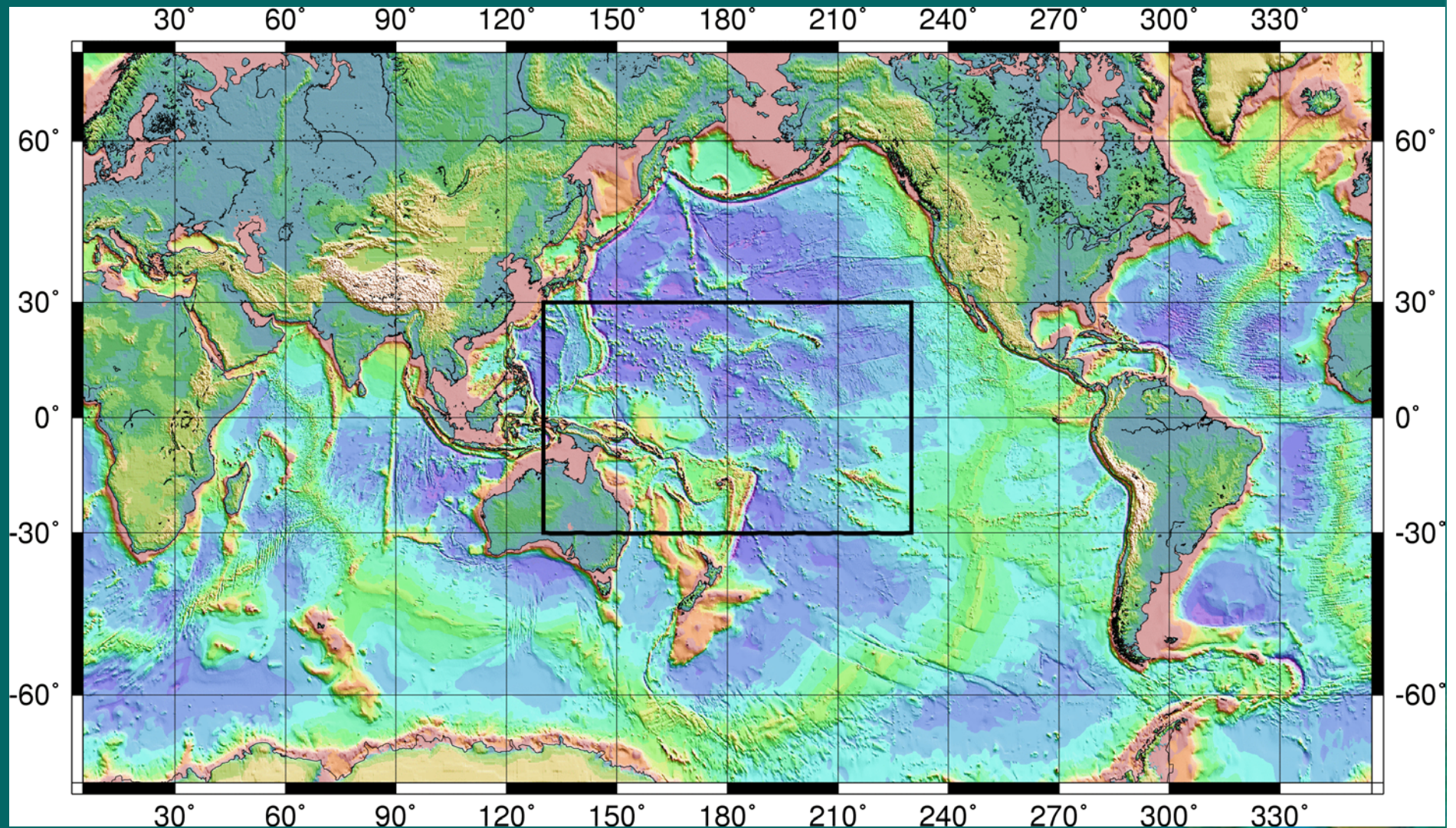


March 2004 – 10<sup>th</sup> Anniversary IGS Symposium and Workshop

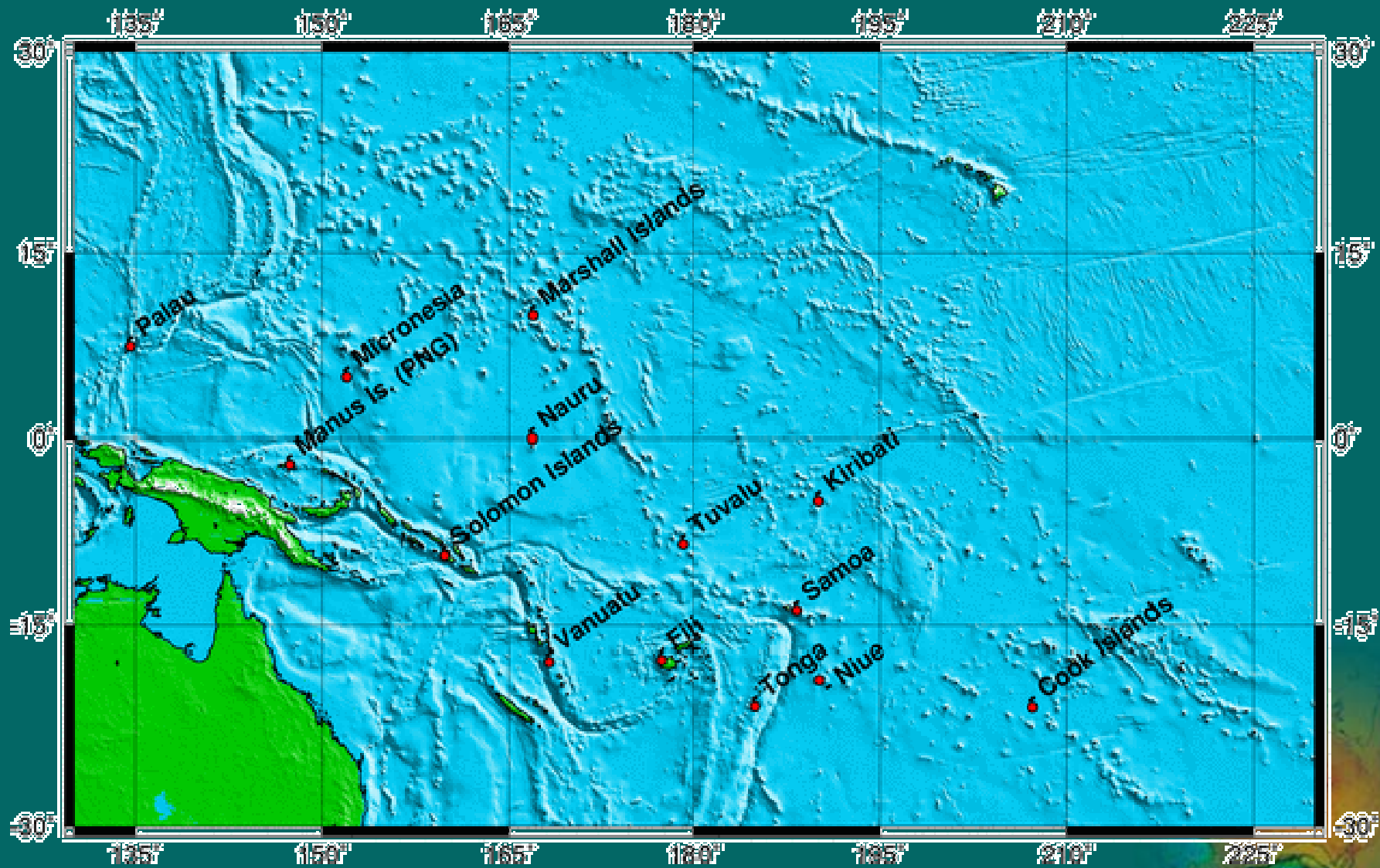
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# South Pacific Regional GPS Network



# South Pacific Regional GPS Network



# South Pacific Regional GPS Network

- **Site Selection Criteria**
  - Geological stable ground
  - Close as possible to the SEAFRAME tide Gauge
  - Clear 360° Horizon
  - Minimal Multipath
  - Mains Power
  - Communications, Phone/Internet
  - Security
  - Ownership
  - Authorised Access







# South Pacific Regional GPS Network

- **CGPS station equipment**
  - GPS receiver
  - Choke Ring Antenna
  - Personal Computer
  - Software
  - Modem
  - UPS
  - 12 Volt Batteries & Charger
  - Equipment rack
  - Air conditioner



# South Pacific Regional GPS Network

- **Monitoring Surveys**
  - Purpose
  - Reference Marks (RM's)



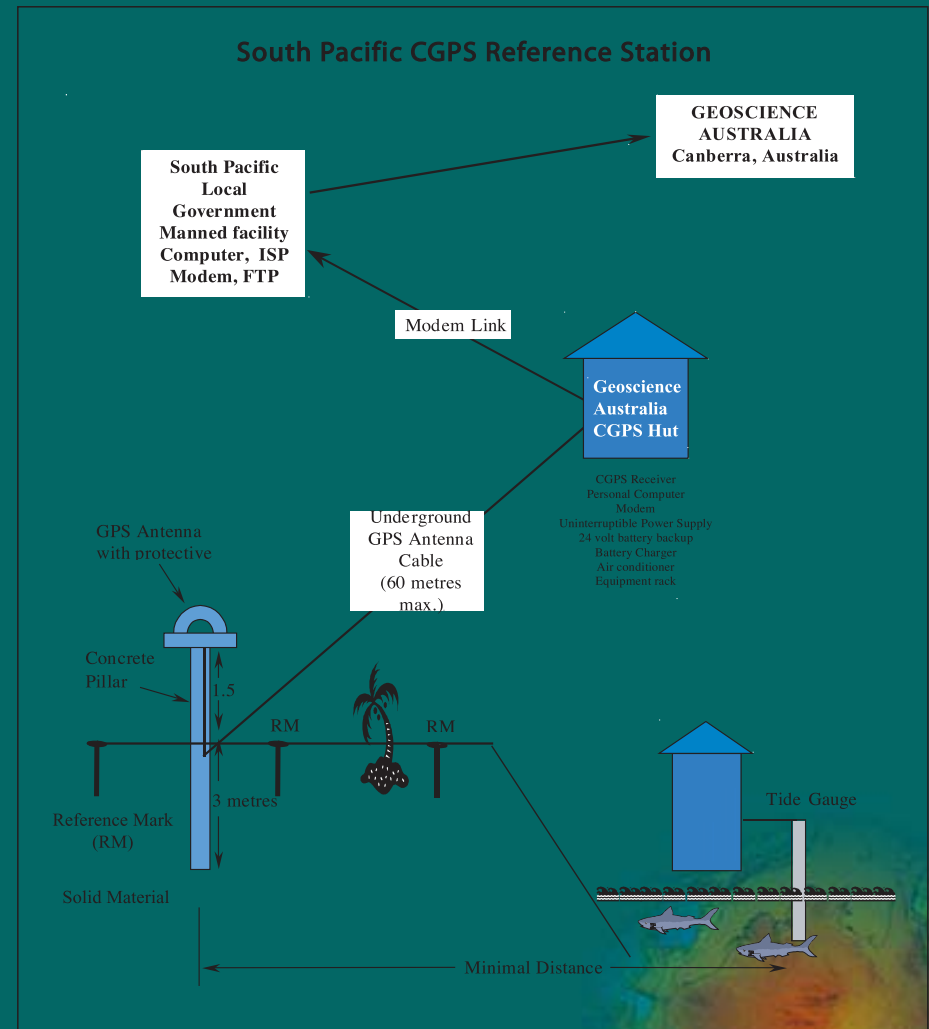
# South Pacific Regional GPS Network

- **Training**
  - CGPS station Operation
  - Basic Field Training on GPS receivers
  - “E” Learning CD
  - GA’s online positioning system - AUSPOS



# South Pacific Regional GPS Network

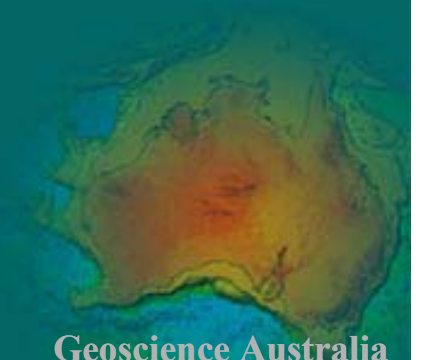
- **Data Transfer**
  - Requirements
    - Hatanaka compressed RINEX files
  - Remote Access Software
    - PcAnywhere
  - Equipment
    - Modems/Telephone line
  - Internet
  - Problems



# South Pacific Regional GPS Network

- **Future Directions**

- Possible inclusion into IGS
- Improved Communications (Satellite, SatWeb, Vsat)
- Provide in country ITRF Coordinate System
- Base Station Operations
  - RTK
  - Coordinated Cadastral System
  - GIS Coastal Management
  - Coastal Navigation & Surveillance
- Tanku Tumus (Thank You)



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