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# PROJECTS IN CLIMATE CHANGE AND THE MARINE ENVIRONMENT

Pacific Center for Environment and Sustainable Development  
PACE-SD, EU GCCA Project, USP 2011-2014

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# Seawater Temperature Monitoring Project (In collaboration with GOPS/SPC/SOPAC/PCDF)

Project coordinator: Dr. Antoine De Ramon N'Yeurt



SPC  
Secretariat  
of the Pacific  
Community



- **Funded by the Fonds Pacifique 6,900 €**
- **Funds have run out; now looking for other sources (USP) for continuity**



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- A total of 7 current sites monitored since November 2012
- All use high-precision SBE-56 T-loggers between -10 to -12 m





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- USP (with collaborators) in charge of logger deployment, rotation and data retrieval.
- Raw data sent to GOPS and uploaded to GOPS and USP data portals for free access. First 6-month block of data retrieval planned for July/August 2013
- Integration within ReefTEMPS project of GOPS
- Proposal submitted to USP Research Cluster for extension of project and addition of 4 more sites.
- Also proposal to extend vertically the monitoring of temperature (VERTEMP project) at -35, -57 and -90 m (internal waves and thermocline measurements)
- Currently looking for sponsors for VERTEMP.

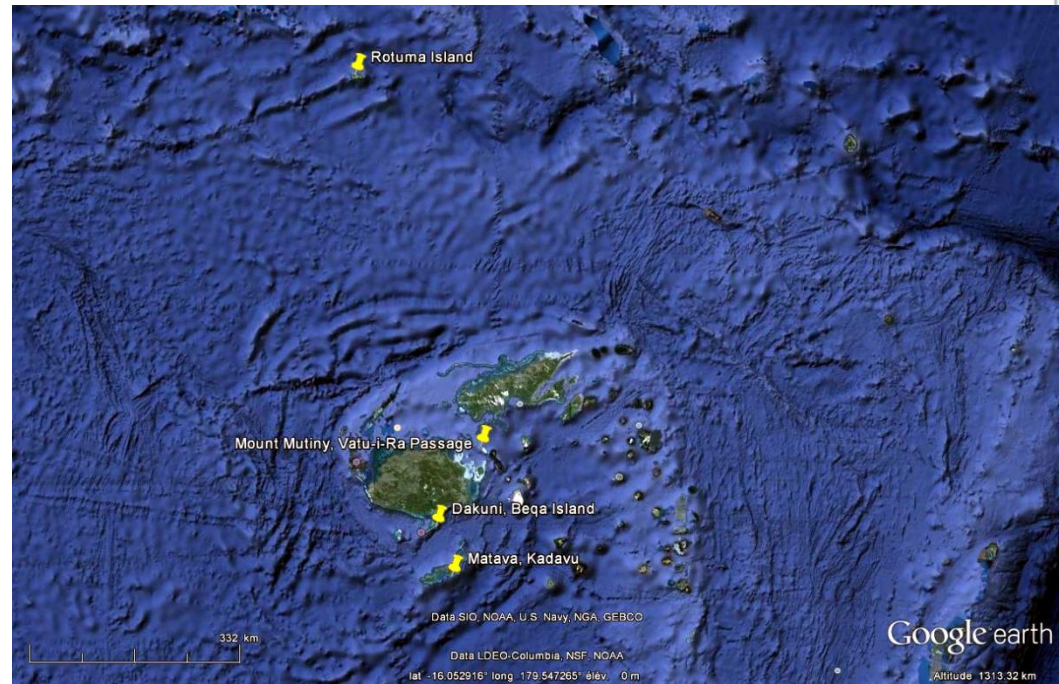




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Current  
Sites



Four additional sites  
planned for Fiji waters  
(Rotuma, Vatu-i-Ra,  
Beqa, Kadavu)

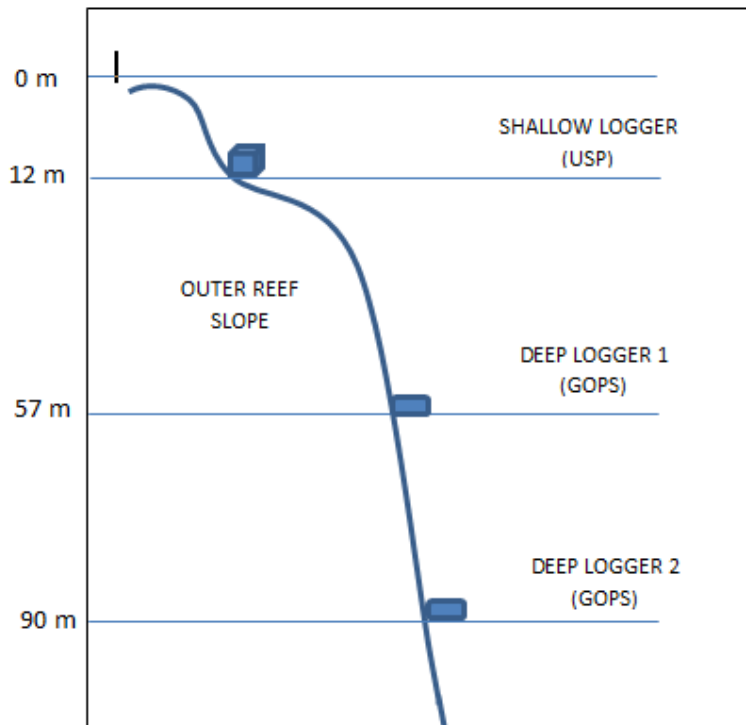




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## VERTICAL TEMPERATURE Profiles for Pacific Coastlines (VERTEMP) Project

Project coordinators: Dr. Hélène Jacot Des Combes, Dr. Antoine De Ramon N'Yeurt, Prof. Elisabeth Holland

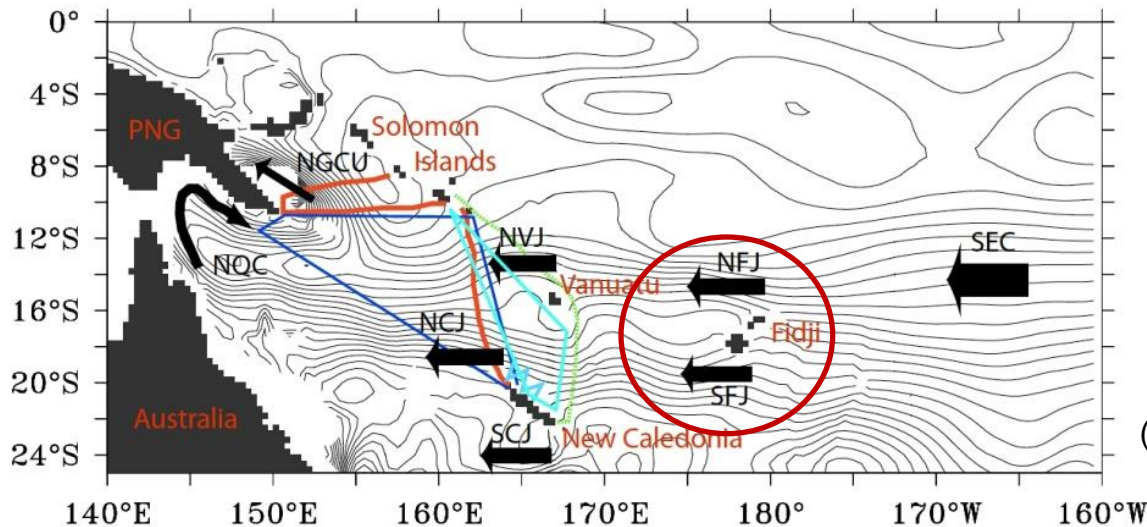


- Vertical series of SBE-56 loggers (at -35/57m, -90 m) to complement current shallow-water measurements.
- Also possibility of fixed buoy moorings for loggers (easier to deploy/rotate).
- Designed to complement and improve upon similar work done by Dr. Patrick Colin in Palau, northern hemisphere (there, using simpler HOBO loggers).
- Deep loggers will have acquisition rate of 1 minute (10 mins. for shallow ones).
- Data will be invaluable for study of internal waves and thermocline in Fiji.
- This project is at the proposal stage and looking for funding sources.



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# Integration of PACE-SD into existing IRD projects?



## SPICE Project

(From Cravatte *et al.* 2010)

- The Southern Equatorial Current (SEC) bisects into the North Fiji Jet (NFJ) and South Fiji Jet (SFJ) encountering the Fiji land mass (Figure above).
- Possibilities of jointly deploying / monitoring sensors / gliders in NFJ or SFJ?
- USP students and staff could help with project logistics / data modeling.





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## Exchange Visits IRD / USP in Climate Change



- Through various existing projects at USP (EU GCCA, PACE-SD, AusAID/CLP...) there are provisions for the mutual exchange of students and staff between USP and Centers of excellence worldwide, such as IRD.
- Fostering of South-South and Regional English speaking-French speaking research institutions collaboration.
- Could be in form of seminars, training workshops, internships, research visits, thesis supervision, field work using USP facilities...
- PACE-SD has the highest number of postgraduate students doing theses in areas of climate change, modeling, oceanography.



**THANK YOU VERY MUCH**  
**MERCI BEAUCOUP**  
*...hoping to see you at USP in Fiji!*

