

NOTES TECHNIQUES
SCIENCES DE LA TERRE
GÉOLOGIE-GÉOPHYSIQUE

N° 23

2002

GPS sites in Fiji

Coordinates in ITRF 2000 / WGS84

Pierre LEBELLEGARD
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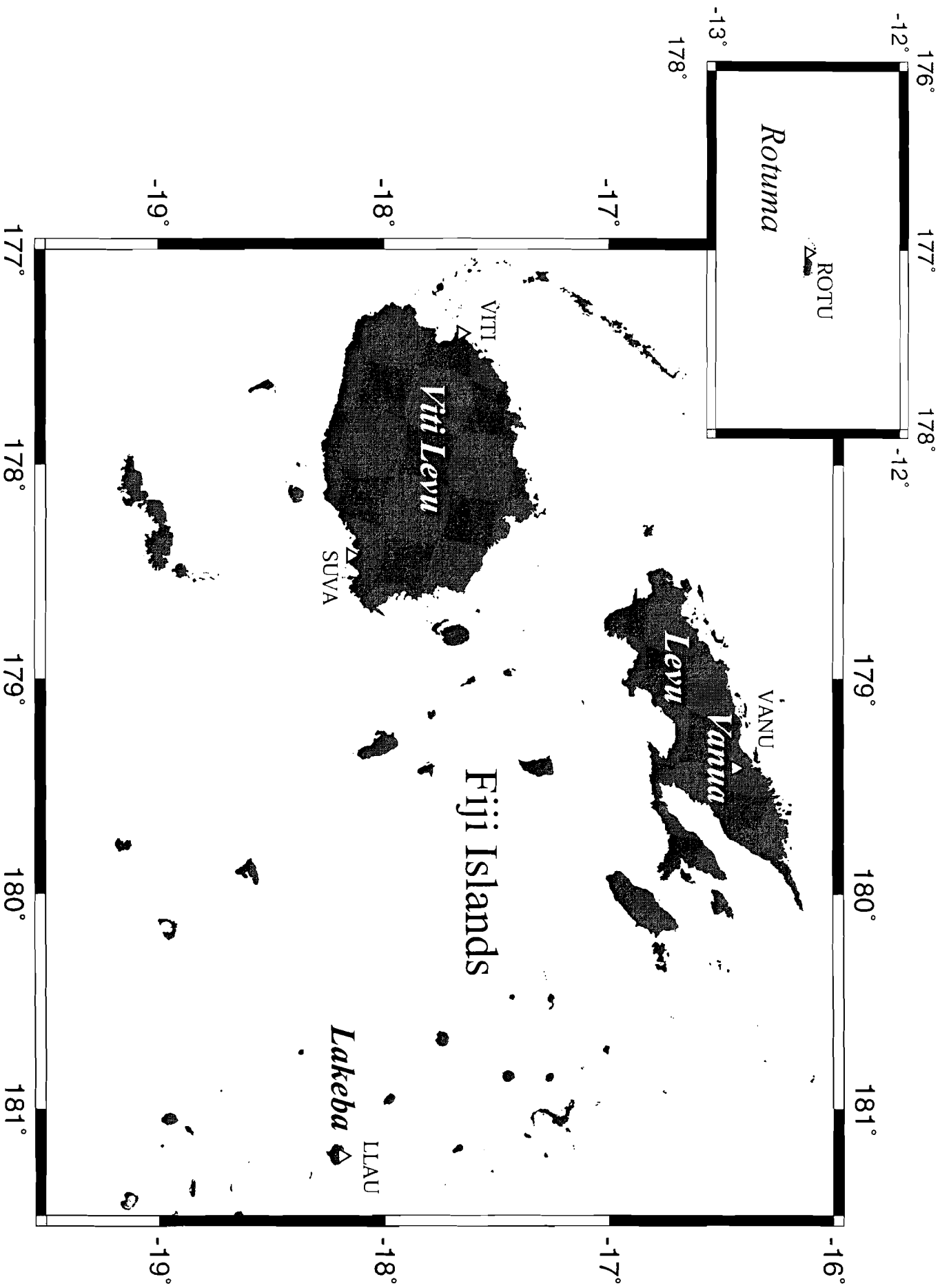
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COORDINATES IN ITRF 2000 / WGS84

Lebellegard Pierre¹
Calmant Stéphane¹

¹IRD, Nouméa, Nouvelle-Calédonie



LLAU

Location :Lau group islands

date	1999 : 200 (single campaign)		
X, Y, Z (m)	-6060202.06	-129071.03	-1978127.55
$\sigma_X, \sigma_Y, \sigma_Z$ (m)	0.276	0.291	0.229
Vx, Vy, Vz (m/an)	N/A	N/A	N/A
$\sigma_{Vx}, \sigma_{Vy}, \sigma_{Vz}$ (m/an)	N/A	N/A	N/A
Lat, Lon, H (m)	-18° 11' 14.363"	181° 13' 12.392"	112.61

ROTU

Location : Rotuma Island

date	1999 : 310 (single campaign)		
X, Y, Z (m)	-6219743.222	324285.096	-1371182.964
$\sigma_X, \sigma_Y, \sigma_Z$ (m)	0.042	0.013	0.011
V_x, V_y, V_z (m/an)	N/A	N/A	N/A
$\sigma_{V_x}, \sigma_{V_y}, \sigma_{V_z}$ (m/an)	N/A	N/A	N/A
Lat, Lon, H (m)	177° 00' 55.490"	-12° 29' 49.488"	199.782

As long as no additional measurement is available and velocity cannot be determined, it is suggested to use the velocity derived from the rotation pole published in ITRF2000 for the Pacific plate, namely:

$$V_x = -0.003$$

$$V_y = 0.063$$

$$V_z = 0.029$$

SUVA

Location : C-GPS in SUVA, Viti Levu Island

date	Extrapolated at 1997.0		
X, Y, Z (m)	-6060677.100	166617.378	-1973761.718
$\sigma_X, \sigma_Y, \sigma_Z$ (m)	0.023	0.012	0.011
Vx, Vy, Vz (m/yr)	-0.014	-0.019	0.034
$\sigma_{Vx}, \sigma_{Vy}, \sigma_{Vz}$ (m/yr)	0.009	0.005	0.004
Lat, Lon, H (m)	-18° 8' 45.3410''	178° 25' 30.8897''	72.668

VANU

Location : Vanua Levu island

Date	Extrapolated at 1997.0		
X, Y, Z (m)	-6119100.943	62728.338	-1792699.927
$\sigma_X, \sigma_Y, \sigma_Z$ (m)	0.037	0.014	0.016
Vx, Vy, Vz (m/an)	-0.013	-0.007	0.034
$\sigma_{Vx}, \sigma_{Vy}, \sigma_{Vz}$ (m/yr)	0.012	0.006	0.005
Lat, Lon, H (m)	-16° 25' 55.918"	179° 24' 45.605"	167.074

VITI

Location : Viti Levu Island.

Date	Extrapolated at 1997.0		
X, Y, Z (m)	-6073527.639	276502.071	-1921630.362
$\sigma_X, \sigma_Y, \sigma_Z$ (m)	0.049	0.010	0.022
Vx, Vy, Vz (m/yr)	-0.022	-0.011	0.028
$\sigma_{Vx}, \sigma_{Vy}, \sigma_{Vz}$ (m/yr)	0.017	0.004	0.008
Lat, Lon, H (m)	-17° 39' 3.323"	177° 23' 36.114"	86.967