

Gravity Tie Spreadsheet

**The fields outlined in BOLD MUST BE FILLED IN for this spreadsheet to operate properly.
The automatically calculated values show up in the shaded fields.**

Date: 7/30/2002
Location: Punta Arenas, Chile
Station: Harbour Admin. Bldg.
Latitude: 53 09 S
Longitude: 070 55 W
Elevation:
Gravity: 981320.82

Reference Code Numbers:
 Station no. 9337-50
 ISGN no. 51230N

	Value	Time (GMT)
Ship's meter before gravity tie (Digital Gravity)	8932.9	12:48
Ship's meter after gravity tie (Digital Gravity)	8935.6	14:10
Average	8934.3	
Ship Gravimeter's Calibration Constant	1.0046	
Corrected ship's meter (Digital Gravity)	8975.3	

	Value	Time (GMT)
Ship's meter before gravity tie (serial, RVDAS)	8974.0	12:48
Ship's meter after gravity tie (serial, RVDAS)	8976.7	14:10
Average (for comparison check only)	8975.4	

Portable Gravimeter Correction Divisor 1.007937

Station	Value	Time (GMT)	Temp	Date	
Pier measurement 1	4901.74	13:00	53	July 30, 2002	OBS mgal, averaged
Pier measurement 2	4901.45	13:15	53	July 30, 2002	4863.07
Pier measurement 3	4901.80	13:20	53	July 30, 2002	
Average	4901.66				
Station measurement 1	4902.36	13:40	53	July 30, 2002	OBS mgal, averaged
Station measurement 2	4902.44	13:50	53	July 30, 2002	4863.81
Station measurement 3	4902.45	13:55	53	July 30, 2002	
Average	4902.42				
Pier measurement 4	4901.69	14:00	53	July 30, 2002	OBS mgal, averaged
Pier measurement 5	4901.68	14:02	53	July 30, 2002	4863.08
Pier measurement 6	4901.67	14:05	53	July 30, 2002	
Average	4901.68				

Gravity offset from last tie 972331.58
 Drift since last tie 13.45

OBS Differences	
Station to Pier (1, 2, & 3 averaged)	-0.75
Station to Pier (4, 5, & 6 averaged)	-0.73
Averaged Differences	-0.74
Gravity at pier	981320.08
Elevation of pier above gravimeter, meters	1.0
Earth differential gravity, mgal/meter	0.3
Gravity at ship's gravimeter	981320.38
Gravity Offset	972345.03

Comments
Gravity tie done by Floyd, Todd, and Peter.