

Main Base station ST1084 contd.

DEPARTMENT OF PRIMARY INDUSTRIES, WATER AND ENVIRONMENT INFORMATION AND LAND SERVICES DIVISION

Survey Control Site Summary

Site	ST 1084				
<hr/>					
Horizontal Information for		ST 1084			
South Latitude	East Longitude	Zone	Easting	Northing	Convergence
42 10 09.5719	146 29 24.4778	55	457886.079	5331297.680	-0 20 32.2480
Datum		Geocentric Datum of Aust 1994			
Survey Class		Class A			
Order		First			
Job Details		DPIWE S527 S527			
<hr/>					
Vertical Information for		ST 1084			
Height		677.67			
Datum		Aust Height Datum (Tas) 1983			
Survey Class		Third order levelling			
Order		Third Order Differential			
Job Details		DPIWE L0975			
<hr/>					
Mark Details for		ST 1084			
Description		Stainless steel pin in rock with bronze GPS plaque. Replaces original brass Lands disc.			

ST1084 Coordinates: from above pages of survey notes

All current survey records are based on GDA94 datum that is the WGS84 GPS datum currently in world wide use.

GDA94	lat 42 10 09.5719S	long 146 29 24.4778E
MGA94 Zone 55	457886.079E	5331297.680N
Elevation	677.67m	

These controls were used for local grid bases establishment, and transformed to AGD66 AMG66 Zone 55 values using the Tasmanian AGD66 transformation.

Main Base station ST1084 contd.

Site	ST 1084				
<hr/>					
Horizontal Information for		ST 1084			
South Latitude	East Longitude	Zone	Easting	Northing	Convergence
42 10 14.9472	146 29 19.5594	55	457774.071	5331114.960	-0 20 35.5855
Datum		Australian Geodetic Datum 1966			
Survey Class		GPS			
Order		Third			
Job Details		DPIW S721T_66 S721T			
<hr/>					
Vertical Information for		ST 1084			
Height		677.67			
Datum		Aust Height Datum (Tas) 1983			
Survey Class		Third order levelling			
Order		Third Order Differential			
Job Details		DPIW L0975			

AGD66 lat 42 10 14.9472S long 146 29 19.5594E
AMG66 Zone 55 457774.071E 5331114.960N
Elevation 677.67m

The standard AUSLIG N separation tables were used with all RTK GPS calculations in this area in Tasmania. The geoid files were compiled by Leica proprietary software and installed in the base and roving GPS units to give real time ortho metric solutions (AHD) in the nominated AGD66 transformation.

RTK GPS CONTROL STATIONS contd.

Miena: SPM7607RM3

DEPARTMENT OF PRIMARY INDUSTRIES, WATER AND ENVIRONMENT INFORMATION AND LAND SERVICES DIVISION

Site		SPM 7607 RM3			
Horizontal Information for		SPM 7607 RM3			
South Latitude	East Longitude	Zone	Easting	Northing	Convergence
41 58 46.6131	146 40 36.3603	55	473222.033	5352436.599	-0 12 58.3239
Datum		Geocentric Datum of Aust 1994			
Survey Class		Class B			
Order		Second			
Job Details		DPIW S706BT94 S706BT			
Vertical Information for		SPM 7607 RM3			
Height		1059.167			
Datum		Aust Height Datum (Tas) 1983			
Survey Class		Third order levelling			
Order		Third Order Differential			
Job Details		LPW			
Mark Details for		SPM 7607 RM3			
Description		Brass Lands disc grouted in rock.			
Locality		On north side of Marlborough Road, adjacent to its junction with the Lake Highway and opposite the motel.			

Site		SPM 7607 RM3			
Horizontal Information for		SPM 7607 RM3			
South Latitude	East Longitude	Zone	Easting	Northing	Convergence
41 58 52.0020	146 40 31.4617	55	473109.837	5352253.788	-0 13 01.6231
Datum		Australian Geodetic Datum 1966			
Survey Class		GPS			
Order		Third			
Job Details		DPIW S706BT66 S706BT			
Vertical Information for		SPM 7607 RM3			
Height		1059.167			
Datum		Aust Height Datum (Tas) 1983			
Survey Class		Third order levelling			
Order		Third Order Differential			
Job Details		LPW			
Mark Details for		SPM 7607 RM3			
Description		Brass Lands disc grouted in rock.			
Locality		On north side of Marlborough Road, adjacent to its junction with the Lake Highway and opposite the motel.			

RTK GPS CONTROL STATIONS contd.**Liawanie: SPM700 survey control site summary****DEPARTMENT OF PRIMARY INDUSTRIES, WATER AND ENVIRONMENT INFORMATION
AND LAND SERVICES DIVISION**

Site		SPM 9700			
Horizontal Information for		SPM 9700			
South Latitude	East Longitude	Zone	Easting	Northing	Convergence
41 53 49.5241	146 40 16.4176	55	472727.968	5361597.396	-0 13 10.3950
Datum		Geocentric Datum of Aust 1994			
Survey Class		Class B			
Order		Second			
Job Details		DPIW S706BT94 S706BT			
Vertical Information for		SPM 9700			
Height		1058.425			
Datum		Aust Height Datum (Tas) 1983			
Survey Class		Satellite - GPS			
Order		Third			
Job Details		DPIW S706BT66 S706BT			
Mark Details for		SPM 9700			
Description		Bronze SPM disc in rock.			
Locality		Approximately 200m north of the junction of the road to Lake Augusta and the Lake Highway, Liawanee.			
Site		SPM 9700			
Horizontal Information for		SPM 9700			
South Latitude	East Longitude	Zone	Easting	Northing	Convergence
41 53 54.9154	146 40 11.5247	55	472615.767	5361414.540	-0 13 13.6856
Datum		Australian Geodetic Datum 1966			
Survey Class		GPS			
Order		Third			
Job Details		DPIW S706BT66 S706BT			
Vertical Information for		SPM 9700			
Height		1058.425			
Datum		Aust Height Datum (Tas) 1983			
Survey Class		Satellite - GPS			
Order		Third			
Job Details		DPIW S706BT66 S706BT			
Mark Details for		SPM 9700			
Description		Bronze SPM disc in rock.			
Locality		Approximately 200m north of the junction of the road to Lake Augusta and the Lake Highway, Liawanee.			

RTK GPS CONTROL STATIONS contd.
Waddamana: SPM10620

Site	SPM 10620				
<hr/>					
Horizontal Information for		SPM 10620			
South Latitude	East Longitude	Zone	Easting	Northing	Convergence
42 07 34.4357	146 44 47.1677	55	479041.936	5336177.104	-0 10 12.2993
Datum		Geocentric Datum of Aust 1994			
Survey Class		Class B			
Order		Second			
Job Details		DPIW S706BtM94 S706			
<hr/>					
Vertical Information for		SPM 10620			
Height		572.66			
Datum		Aust Height Datum (Tas) 1983			
Survey Class		Satellite - GPS			
Order		Third			
Job Details		DPIW S706BtM66 S706			
<hr/>					
Mark Details for		SPM 10620			
Description		Bronze SPM disc in concrete slab.			
Locality		At entrance gate to Waddamana Power Museum, Waddamana.			
<hr/>					
Site Access for		SPM 10620			
Access By		Two wheel drive			
<hr/>					
Site		SPM 10620			
<hr/>					
Horizontal Information for		SPM 10620			
South Latitude	East Longitude	Zone	Easting	Northing	Convergence
42 07 39.8213	146 44 42.2610	55	478929.700	5335994.424	-0 10 15.6084
Datum		Australian Geodetic Datum 1966			
Survey Class		GPS			
Order		Third			
Job Details		DPIW S706BtM66 S706			
<hr/>					
Vertical Information for		SPM 10620			
Height		572.66			
Datum		Aust Height Datum (Tas) 1983			
Survey Class		Satellite - GPS			
Order		Third			
Job Details		DPIW S706BtM66 S706			
<hr/>					
Mark Details for		SPM 10620			
Description		Bronze SPM disc in concrete slab.			
Locality		At entrance gate to Waddamana Power Museum, Waddamana.			

ADDITIONAL SOLO MAIN RTK GPS CONTROL SITES:

Bellevue Tier



GDA94 42 08 12.69336S 146 34 19.08544E Ell Ht. 1051.694m
MGA94 Zone55 464515.556E 5334756.949N Ortho Ht. 1052.105m
Local Grid: AGD66 42 08 18.07104S 146 34 14.18042E 1073.427 E Ht.
Control: RTK tie from ST1084 at 677.67m to gain radio link coverage over area.

Access: Turn off to site from Lyell Highway near Bronte Park via dirt Victoria Valley Road signposted. Take next T junction north on east side of London Lakes and follow signed forestry boards to Bellevue Tier and the radio tower on its summit. Marker is steel picket in ground and surrounded by ring of stones.

Brady's Sugarloaf GPS Base:



SoloBST:

AMG66 Zone55 462357.98E 5319897.27N 1007.401m (AHD83)
AGD66 42 16 19.48466S 146 32 36.72783E

Access via dirt track from west side of Dee village to summit of Brady's Sugarloaf and radio tower. Base on north side of track before towers, see photo.

ADDITIONAL SOLO SECONDARY RTK GPS CONTROL SITES:
(relocate by simple GPS as easily found.)

Liawanie area:

Sololw1:

WGS84 41 53 47.72371S 146 40 20.517N EHt. 1057.08
AMG66 Zone55 472710.284E 5361470.46N orth Ht 1056.58

Sololw2: west of main road, track access

WGS84 41 54 24.95786S 146 40 18.27078N El Ht 1052.21
AMG66 Zone55 472662.89E 360321.937N orth ht. 1051.74m

Lake Echo north: East side of Marlborough Highway, south Miena.

soloE3

WGS84 42 00 06.58679S 146 36 58.65149N El Ht. 1022.19m
AMG66 Zone55 468111.18E 5349766.67N orth Ht. 1021.695m

SoloE4: canal Macclesfield property, locked gate access.

WGS84 42 03 44.47175S 146 40 47.45921N El Ht. 916.56m
AMG66 Zone55 473399.855E 5343068.429N 916.57m

SoloE5: inside Macclesfield locked gate, and via Echo Lake locked gate.

WGS84 42 07 28.67117S 146 41 33.79026N El Ht. 924.82m
AMG66 Zone55 474489.51E 5336157.64N orth Ht. 925.114

Lake Echo: by Lake Echo boundary locked gate, jump fence OK to station.

WGS84 42 09 47.81072S 146 44 09.67078N El Ht.769.248m
AGD66 478081.77E 5331878.26N orth Ht. 769.75m

Arthurs Flume Rd.: via Poatina HEC locked gate, Todd canal.

Soloflm1

WGS84 41 59 36.48525S 146 49 22.03016N El Ht 1071.57
AMG66 Zone 55 485210.048E 5350751.06N ortho ht. 1071.35m

Poatina Highway:solophwy main road, west side clearing

WGS84 41 55 26.54386S 146 51 13.38015N El ht 1147.82m
AMG66 Zone55 487758.73E 5358464.33N ortho ht. 1147.47m

Arthur's Lake: (soloals) public access track, logging area

WGS84 42 03 10.71334S 146 54 53.48169N El Ht. 945.25m
AMG66 Zone55 492842.36E 5344155.66N 945.35m

Ripple: Great Lakes highway west side.

(GL902) WGS84 42 03 07.80252S 146 50 45.13004N E Ht. 888.648
AGD66 487133.67E 5344237.46N O Ht. 888.68

Bakers Tier: (bakt01) via locked gate and Forestry Tasmania master key.

WGS84 42 07 53.09591S 146 54 14.31348N EHt 933.251
AMG66 Zone 55 491951.846E 5335445.565N orth Ht. 933.662

Waddamana area:

ZigZag: Corner of steep zig-zag road section, inside fence line.

wadsol1:991000

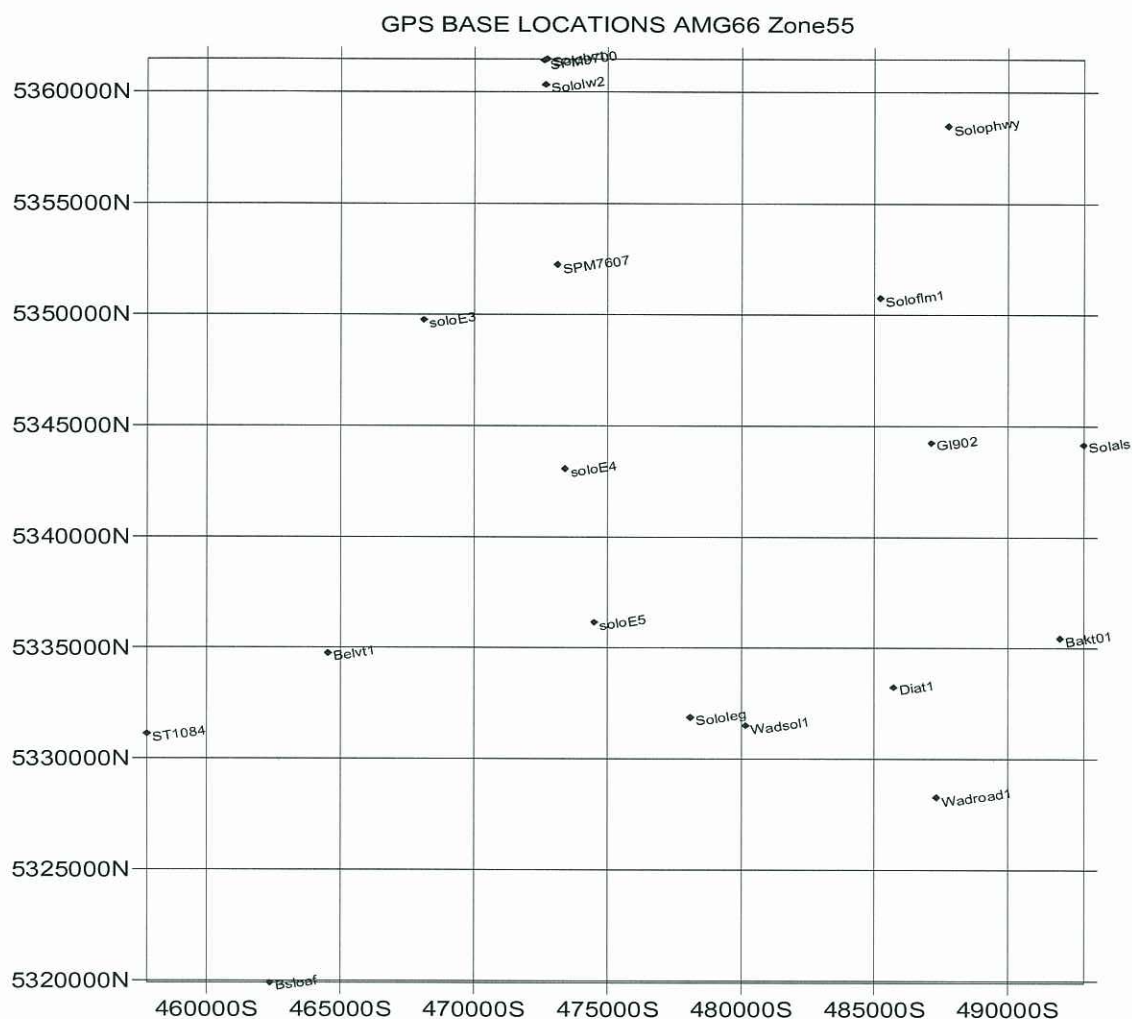
WGS84 42 09 59.92689S 146 45 39.66844N El Ht 696.449
AMG66 Zone 55 480147.89E 5331510.66N O ht. 696.99

Diatier1: via locked gate and Forestry Tasmania master key.

WGS84 42 09 04.24513S 146 49 42.78962N E Ht. 833.649
AMG66 Zone55 485722.77E 5333241.42N O Ht. 834.14m

WadRoad1: main dirt road, by fence.

WGS84 42 11 45.2394S 146 50 52.5375N E Ht. 638.420m
AMG66 Zone55 487332.353E 5328279.044m O Ht. 639.164m



Distribution of RTK-GPS control stations for this survey area to accommodate radio communications over high ground and river gorges.