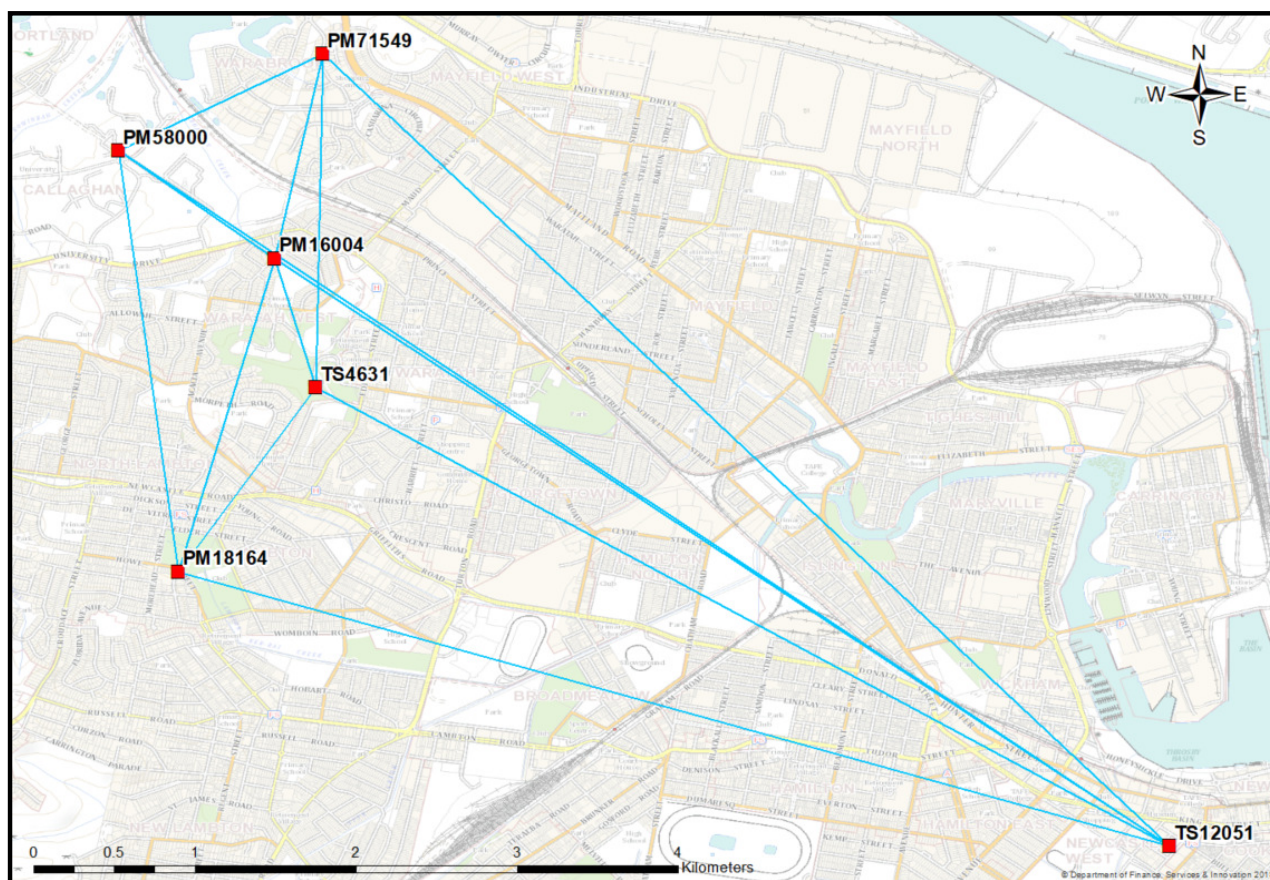


Newcastle



Station	MGA94 - Zone 56		Height		
	Easting (m)	Northing (m)	Ellipsoid (m)	Geoid (m)	Derived AHD (m)
PM16004	379846.127	6359441.682	47.669	25.923	21.746
PM18164	379365.585	6357488.186	42.477	25.871	16.606
PM58000	379021.332	6360100.236	52.385	25.948	26.437
PM71549	380082.676	6360716.425	50.270	25.958	24.312
TS12051 (Newcastle CORS)	384557.522	6355842.787	52.953	25.774	27.179
TS4631	380068.829	6358641.072	103.492	25.898	77.594

Warning!

- These coordinates are to be used for GNSS validation only, the values differ from those published in SCIMS.
- Please report any mark disturbance or significant differences in results.

NSW GNSS TEST NETWORK:

Newcastle

Network Information

The Newcastle GNSS Test Network has been derived through a Minimally Constrained adjustment. The only constrained (fixed) station is TS12051 Newcastle CORS.

Coordinates (Northing, Easting and Ellipsoid Height) have been sourced from GDA2020 Regulation 13 Certificate and transformed to GDA94 using conformal transformation.

GDA94

SCIMS ID & (Name)	Latitude	Longitude	Ellipsoid Height (m)
TS12051 (Newcastle CORS)	S 32° 55' 46.51116"	E 151° 45' 54.82069"	52.953

MGA94

SCIMS ID & (Name)	Easting (m)	Northing (m)	Ellipsoid Height (m)
TS12051 (Newcastle CORS)	384557.522	6355842.787	52.953

Adjustment Observation Weightings

Horizontal 5mm +0.7ppm 0.0015/0.0015 Centring

Vertical 15mm +2.0ppm 0.002/0.002 Up

Geoid / Ellipsoid Separation (N)

Source: AUSGEOID09

MGA94 (2010) Coordinates

Refer to front cover.

Notes

For an accurate comparison, observe the network shown and run the same minimally constrained as above holding fixed TS12051 Newcastle CORS coordinates (provided above).

Applicable adjustment constraints and observational weightings have also been provided.

AHD has been derived using the AUSGEOID09 model.

Contact a representative from Spatial Services if further information/clarification is required.


PM16004

Photos:



Sketch:

Survey Co-ordination Act, 1949.



PM No.
SSM No.
S.C.

LOCALITY SKETCH PLAN

(To be drawn in black waterproof ink, or HB pencil, not necessarily to scale.)

Parish Newcastle County Northumberland City or Town Wardle

Municipality or Shire Newcastle Survey Area WARDLE ADRIANS IS 16357 VIII

Zone.....8 Map Sheet NEWCASTLE 9232 Aerial Photograph N.S.W.

NOTE - Measurements are to be shown from the mark to as many nearby survey marks, buildings, fence posts, kerbs, etc., as practicable. Up to six measurements are desirable.

Measurements are in _____ feet

Water Board Easement for Pipeline

DELAUNT SQ.

Cove

36.2

20.3 m

13'

(7.6)

5.8

No Curve

No Curve

No Curve

Bldg at W.O.U.

Pavilion at W.O.U.

Mark last inspected

Placed in connection with (type of survey or work)

Co-ordinate values of mark

Projection Origin

Reduced level of mark feet (MSL) Datum Standard

Inspection Book No. Fol. 72

Site selected by A.R. Graham

Mark placed by F.S.M.B.G.I.V. Date 22/4/11

Locality sketch drawn by P.H. Graham Date 22/4/11

Locality sketch put into use by P.H. Graham Date 22/4/11

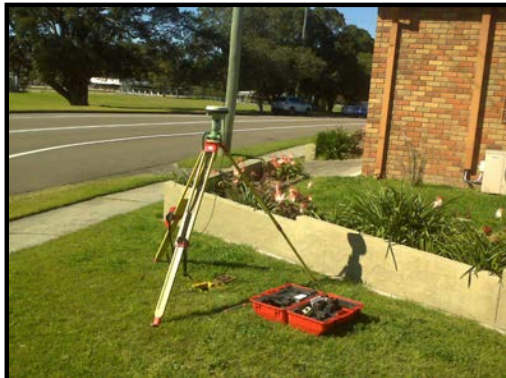
PROVISIONAL SKETCH ONLY

A. M. Lally
Official-in-Charge
Survey Co-ordination Branch
- 8 MAY 1972

PM No. 16004
SSM No.

PM18164

Photos:



Sketch:

LOCALITY SKETCH PLAN


Local Government Area NEWCASTLE

Town/Suburb/Locality LAMBTON


Approx MGA Coordinate: Zone 56

E: 379365

N: 6357488



New South Wales Government



PM18164

Description of Mark Pm 18164 Large Metal Box

S/S Pin set in grass

Please use black ink only

SURVEYING REGULATION			
MARK	AHD	SOURCE	DATE
HEIGHT DETERMINED BY (Specify) - DIFF. LEVELLING - TRIG HEIGHTING			
ADOPTED MARKS - GPS			

Measurements are in metres

PM 18164

SS

PM
Replaces **RS**

I certify that the mark has been placed/found and numbered as detailed herein.

Signed: A. Hall

Name: A. Hall

Organisation placing mark: L.P.I.

Date mark placed/found: 16/7/13


[Hand-drawn sketch plan showing Lambton Park, Howe Street, Church St, Brick Units N247, Garden, Cone Drive, and Bk & T.L. Res N243. Includes bearings like S.V. 295° 6.7' and angles like 88° 2.9'. The drawing is oriented with North at the top.]

PM58000

Photos:



Sketch:



PM 58000
SSM
M.M.

LOCALITY SKETCH PLAN

Parish NEWCASTLE County NEWCASTLE City or Town NEWCASTLE
Municipality or Shire NEWCASTLE CITY C.M.A. Map Sheet KORAGANG 1:50,000

Measurements are in metres Zone 56/1

THE UNIVERSITY OF NEWCASTLE
NEWCASTLE REGIONAL CENTRE
OVAL
WINRA
OVAL
RESOLVED DISTANCES BY CROWN LANDS OFFICE, MARCH 1983.
UNCERTAINTY LEVEL ± 2 mm.

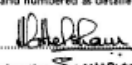
DISTANCES AT MEAN ELEVATION

FROM	TO	DISTANCE
PM 58000	PM 58001	42 - 188
PM 58000	PM 58002	385 - 306
PM 58000	PM 58003	611 - 091
PM 58001	PM 58002	343 - 118
PM 58001	PM 58003	568 - 903
PM 58002	PM 58003	225 - 785

ORIGINAL
4/84

Organization placing Marks S.C.B. Ref.
Mark placed / / 19
Note: Replaces PM
Locality Sketch Book No. Fol.
Plan Register noted / / 19

PM 58000
SSM
M.M.

I certify that the Mark or Marks have been placed and numbered as detailed hereon.

Designation S. J. J. J.
Date 26/1/1984

S.N. 2 010 D. West, Government Printer

PM71549

Photos:



Sketch:

LOCALITY SKETCH PLAN PM 71549
SSM

D.P. 806784 Description STEEL PIN

Parish NEWCASTLE County NORTHUMBERLAND Town/Suburb/Locality WARABOOK
Municipality or Shire NEWCASTLE C.M.A. Map Sheet KODJAKANG ISLAND VIII
U6351

ANGOPHORA DRIVE

LOT 26

LOT 29

LOT 25

VIOLA WAY

THRESHOLD

GULLY PIT

SMN

APPROX COORDS
367076.764
1359791.315

ORIGINAL

SURVEY PRACTICE REGULATION 1990

MARK	AND	SOURCE	DATE
PM 71549	24.282	BM 15.11.90	

HEIGHT DETERMINED BY DIFF. LEVELLING (specify)

ADOPTED MARKS
PM 14441 25.713 SCIMS 15.11.90
PM 16478 25.333 SCIMS 15.11.90

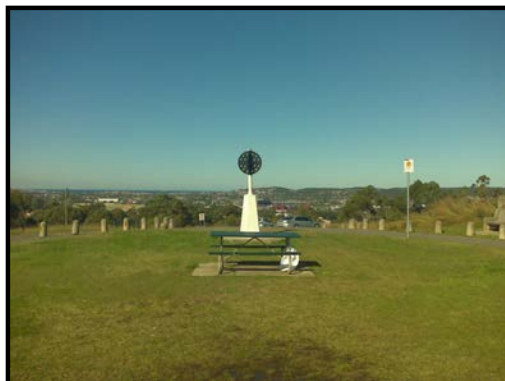
Measurements are in metres

I certify that the Mark or Marks have been placed and numbered as detailed hereon.

Signed *Jan D...*
Mark placed 21/11/1990

Replaces PM _____ Organization placing Marks PALMER BROWN +
SSM _____ Ref. S. 2246. 5/11/90 PARKER

Photos:



Sketch:

Department of Lands This Trig. Station has been -	Integration of U.S.R. RECONNAISSANCE AND MAINTENANCE REPORT	STATION W/ARATAH (P) TS 4631 Co. Warrumbungle Ph. Nandarella Map Sheet: Warrumbungle Island No. 6357 Inspected by: BE Graham Date: 22.10.28 Authority: J. S. D. Field Book: 200 ME Beacon Diagram Not to Scale
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1. Completely cleared to permit 360° vision to surrounding Trigs. ✓
2. Ground by lines bearing _____ from Trig. Mast _____
3. Trig. Mast & Vanes have been painted white & black respectively. ✓
4. The Trig. was ~~unpiled~~ uncompleted, dimensions now being:
 Description of mark: **Concrete Pillar** 1.55m should be realistic, e.g. Steel plug, Brass plug, Bolt, Concrete Pillar
 Height of mark: 1.32 m above base concrete 1.45 m above base G.L. 0.60
 Height of Top Vanes to top base Top pillar plate 1.45 m Diameter of Vanes (vertical). 0.60 m.
 Height of base 1.32 m. Diameter of base 0.55 m.
 Length of Mast 1.55 m. (uncompleted if not unpiled)

5. A RM 966 set in conc. rock has been placed 1.45 m. bearing 121.74° M from Trig. Mast/pillar
6. A R.T. set in conc. rock has been placed 1.45 m. bearing 210.79° M from Trig. Mast/pillar
7. A _____ set in conc./soil has been placed 1.45 m. bearing _____° M from Trig. Mast/pillar
8. A _____ set in conc./rock has been placed 1.45 m. bearing _____° M from Trig. Mast/pillar
9. Connection RM 966 to R.T. 1.45 m. bearing 121.74° M
10. Connection _____ to _____ m. bearing _____° M
11. Connection _____ to _____ m. bearing _____° M
12. Connection _____ to _____ m. bearing _____° M
13. Diff. Ht. Top of Base Plate is 1.785 m. above base RM 10444
14. Diff. Ht. Top of Base Plate is 1.789 m. above base RM 9188
15. Diff. Ht. Top of Base Plate is 1.66 m. above base R.T.
16. Diff. Ht. Top of Screen Plate is 1.746 m. above base RM 10444

Prepared by: BE Graham Checked: LANCENBY

[illegible]