

APRGP2016 GNSS OBSERVATION CAMPAIGN

SPECIFICATIONS FOR HIGH PRECISION STATIC GNSS OBSERVATIONS

- GNSS Campaign dates:
- * Start: 00:00:00 (UTC time) Sunday 18 September 2016.
 - * Finish: 00:00:00 (UTC time) Sunday 25 September 2016.
- Observation sessions:
- * 24 hour observation sessions commencing at zero hours GNSS time.
 - * Ideally, 7 sessions should be observed on continuous GNSS tracking sites.
 - * Ideally, a minimum of 5 sessions should be observed on national geodetic network and tide gauge stations.
- GNSS receiver type & settings:
- * Dual frequency geodetic GNSS receivers should be used with appropriate geodetic type antenna.
 - * The GNSS receiver should be set to operate in static survey mode to log phase and pseudorange observations on both GNSS frequencies from all GNSS satellites above the set elevation mask, including those satellites that are set as unhealthy.
 - * Set the GNSS receiver to log data as close as possible to integer seconds of GNSS time commencing at zero seconds.
 - * Set receiver to log data at 30 second epoch intervals.
 - * Set an elevation mask of 10°.
- GNSS antenna set-up:
- * Align GNSS antenna to true north. This is important for correct modelling of antenna phase centre variations during data processing.
 - * The height of the GNSS antenna should remain unchanged during the observation campaign. If the height of the antenna changes, include detailed notes in the field log sheets indicating the date, time and change in height of the antenna.
 - * The antenna height should be measured before, during and at the end of each observation session. Check the antenna height using an independent measuring method.
 - * Prepare a detailed sketch of the antenna set-up on the field log sheets showing where the heights were measured to on the antenna. Include the antenna dimensions necessary for reducing the antenna height measurement to a vertical height of the Antenna Reference Point (ARP) above the station mark.
- GNSS occupation report:
- * The GNSS occupation report form is attached to this document.
 - * The GNSS occupation report can be compiled from the information shown on the field log sheets. One report should be completed for each station occupied.
 - * The report should accurately describe the type and model of the GNSS receiver and antenna used.
 - * The antenna height shown on the report should be the vertical height from the station mark to the GNSS Antenna Reference Point (ARP).

Meteorological data:

- * Meteorological observations are not required during this campaign.

Supply of data files:

- * The agency observing the GNSS data is requested to convert the observed GNSS data to RINEX format files. Agencies requiring software and advice on this process should contact Guorong Hu at Geoscience Australia.
- * RINEX files should comply with the APRGP GNSS RINEX observation file standardisation specification.
- * A copy of the GNSS occupation reports and a copy of the RINEX files should be sent to Guorong Hu at Geoscience Australia, Canberra at the completion of the GNSS campaign by courier or by FTP.

FTP

host: ftp2.ga.gov.au
username: apref
directory: incoming/aprgp
password: 9EvRoRPeyW

Postal address

GPO Box 378
Canberra ACT 2601
Australia

Street address

Cnr Jerrabomberra Ave &
Hindmarsh Drive
Symonston ACT 2609
Australia

Telephone: +61 2 62499884 (W)

Facsimile: +61 2 62499969

Email: Guorong.hu@ga.gov.au

- * Distribution of the campaign data set to participating analysis centres will be arranged by Geoscience Australia.

Site identifier:

- * For APRGP2016 stations, the four character site identifier should be identical to that used for previous APRGP observation campaigns.
- * For new stations, choose a four character identifier that is unique and not known to be in use elsewhere.

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APRGP2016 GNSS OCCUPATION REPORT
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STATION NAME: _____

4 CHARACTER ID: _____

LOCATION: _____

COUNTRY: _____

TYPE OF SURVEY MARK: _____

ORTHOMETRIC HEIGHT OF SURVEY MARK: _____
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: _____

UTC TIME: _____

OBSERVATION END DATE/DAY: _____

UTC TIME: _____

GNSS RECEIVER TYPE: _____

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MODEL: _____

SERIAL NUMBER: _____

FIRMWARE VERSION: _____

GNSS ANTENNA TYPE: _____

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MODEL: _____

SERIAL NUMBER: _____

HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: _____
(VERTICAL MEASUREMENT)

DESCRIPTION OF THE POINT ON THE GNSS ANTENNA
THAT THE ANTENNA HEIGHT REFERS TO:

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFULL FOR
PERSONS PROCESSING THE DATA AND ANALYSING THE RESULTS.

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