

## News

# GA: update on geophysical survey progress from the Geological Surveys of Western Australia, South Australia, Northern Territory, Queensland, New South Wales, Victoria and Tasmania (information current on 13 January 2017)

Further information on these surveys is available from Murray Richardson at GA via email at [Murray.Richardson@ga.gov.au](mailto:Murray.Richardson@ga.gov.au) or telephone on (02) 6249 9229.

Table 1. Airborne magnetic and radiometric surveys

Survey name	Client	Project management	Contractor	Start flying	Line km	Spacing AGL Dir	Area (km <sup>2</sup> )	End flying	Final data to GA	Locality diagram (Preview)	GADDS release
Gawler Craton Oodnadatta	GSSA	GA	MAGSPEC Airborne Surveys	Estimated by the end of Jan 2017	240 240	200 m 60 m EW	43 680	TBA	TBA	183: Aug 2016 p. 34	TBA
Gawler Craton Ooldea	GSSA	GA	Thomson Aviation	Estimated by the end of Jan 2017	208 560	200 m 60 m EW	37 920	TBA	TBA	183: Aug 2016 p. 34	TBA
Gawler Craton Lake Torrens	GSSA	GA	Sander Geophysics	Estimated by the end of Jan 2017	161 386	200 m 60 m EW	29 360	TBA	TBA	183: Aug 2016 p. 34	TBA
Coonabarabran	GSNSW	GA	TBA	Estimated by mid-Mar 2017	~50 000	250 m 60 m EW	11 000	TBA	TBA	184: Oct 2016 p. 23	A contract is being drafted by GA
Tasmanian Tiers	MRT	GA	TBA	TBA	Up to an estimated 66 000	200 m 60 m NS or EW	11 000	TBA	TBA	TBA	National Collaborative Framework Agreement between GA and MRT was expected to be executed in Jan 2017
Isa Region	QSQ	GA	TBA	TBA	Estimated 120 000	100 m 50 m EW	11 000	TBA	TBA	TBA	National Collaborative Framework Agreement between GA and GSQ executed on 13 Dec 2016

TBA, to be advised.

Table 2. Gravity surveys

Survey name	Client	Project management	Contractor	Start survey	No. of stations	Station spacing (km)	Area (km <sup>2</sup> )	End survey	Final data to GA	Locality diagram (Preview)	GADDS release
Stavelly	GSV	GA	Atlas Geophysics	3 Dec 2016	Approx. 3465	200 m station interval along 14 traverses	TBA	Jan 2017	TBA	The proposed survey covers parts of the Horsham, Hamilton, Ballarat and Colac Standard 1:250 000 map sheets. The survey is to collect gravity stations spaced 200 m apart on 14 separate road traverses.	TBA
East Kimberley Airborne Gravity Survey	GSWA	GA	TBA	8 Oct 2016	38 000 line km	2500 m line spacing	82 690	3 Dec 2016	14 Jan 2017	184: Oct 2016 p. 24	The survey covers the Medusa Banks, Cambridge Gulf, Lissadell, Gordon Downs, Mount Ramsay and Lansdowne Standard 1:250 k map sheet areas
Coompana – PACE area	GSSA	GA	TBA	Est 18 Jan 2017	13 801	Regular grid of 2, 1 and 0.5 km	100 000	TBA	TBA	183: Aug 2016 p. 34	The contractor was expected to commence acquisition on 18 Jan 2017
Tanami-Kimberley	GSWA	GA	TBA	TBA	Up to 50 000	2500 m line spacing	110 000	TBA	TBA	TBA	The proposed survey area covers the Billiluna (all), and parts of the Lucas, Cornish, Mount Bannerman, Mount Ramsay, Noonkanbah, Lansdowne, Lennard River, Derby, Charnley and Yampi standard 1:250 k map sheet areas. The Quotation request closed on 31 Jan 2017
Kidson Sub-basin	GSWA	GA	TBA	TBA	Up to 70 000	2500 m line spacing	155 000	TBA	TBA	TBA	The proposed survey area covers the Anketell, Joanna Spring, Dummer, Paterson Range, Sahara, Percival, Helena, Rudall, Tabletop, Ural, Wilson, Runton, Morris and Ryan standard 1:250 k map sheet areas. The Quotation request closed on 31 Jan 2017

TBA, to be advised.

Table 3. AEM surveys

Survey name	Client	Project management	Contractor	Start flying	Line km	Spacing AGL Dir	Area (km <sup>2</sup> )	End flying	Final data to GA	Locality diagram (Preview)	GADDs release
Musgraves – PACE Area	GSSA	GA	CGG Aviation	18 Aug 2016	8489	2 km; E–W lines	16 371	The survey completed flying on 17 Sep 2016	Expected on 24 Nov 2016	179: Dec 2015 p.23	Preliminary final data were supplied to GA on 30 Dec 2017
Musgraves – CSIRO Area	GSSA	GA	SkyTEM Australia	15 Sep 2016	7182	2 km; E–W lines	14 320	The survey completed flying on 13 Oct 2016	Expected early Dec 2016	179: Dec 2015 p.23	Preliminary final data were supplied to GA in Jan 2017
Isa Region	GSQ	GA	Geotech Airborne	8 Aug 2016	15 692	2 km; E–W	33 200	The survey completed flying on 4 Nov 2016	TBA	182: Jun 2016 p.23	Preliminary final data were supplied to GA on 12 Jan 2017

TBA, to be advised.

## Exploring for the Future: North Australian Airborne Electromagnetic survey 2017

### Call for expressions of interest and subscribers

Geoscience Australia is planning a programme of regional airborne electromagnetic mapping between the Tennant Creek and Mount Isa regions of the Northern Territory and Queensland. Funded by the Australian Government's Exploring for the Future programme (<http://www.ga.gov.au/about/projects/priority-projects/exploring-for-the-future>), the survey will consist of 20 km spaced lines over parts of the Newcastle Waters, Alice Springs, Normanton and Cloncurry 1:1 000 000 standard map sheets, as shown in the diagram below. Companies are invited to register their interest in the project by submitting proposals to infill areas within the regional survey lines.

By subscribing to a large regional survey, companies will benefit through Geoscience Australia covering mobilisation and stand-by costs as well as an expected reduction in the per line kilometre charge. Subscribers will also benefit from Geoscience Australia's quality assurance and quality control procedures to ensure that the data released are fit-for-purpose. Due to the size of the survey over approximately 830 000 km<sup>2</sup>, it may take six to twelve months from the completion of data acquisition before data will be available to subscribers. Data acquired under company subscription will be subject to a 12 month confidentiality period from receipt of final data.

Successful proposals must adhere to the following criteria:

- the proposed boundary for the infill area is to be a simple polygonal shape
- the number of line kilometres for each infill area is to be no less than 200 in total
- before Geoscience Australia approaches the panel of AEM contractors, a signed agreement with each subscriber is required
- all infill data will be released at the same time. There will be no early supply of any data to subscribers.

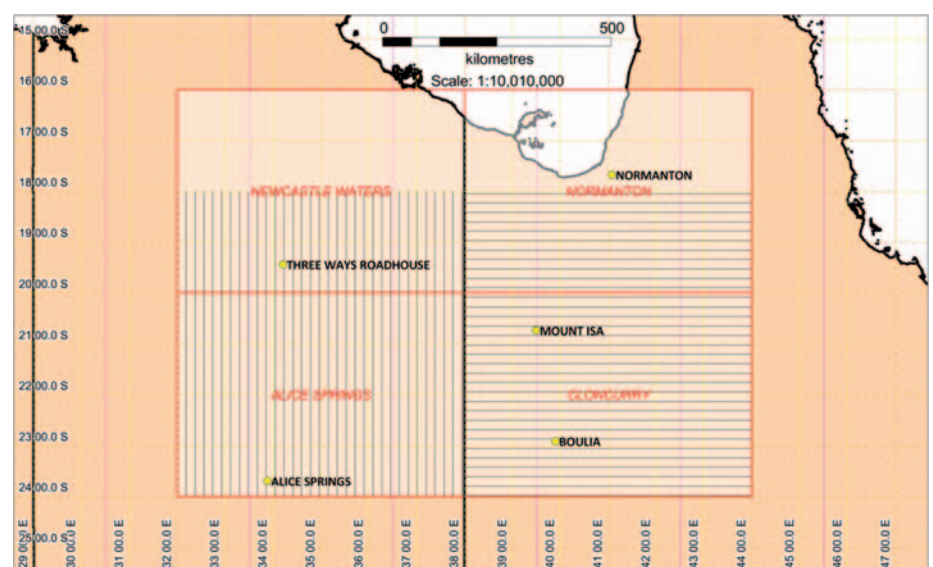
Geoscience Australia will select areas that complement the objectives of the survey from the company proposals received for infill/extension flying. Expressions of interest should be submitted by cob

AEDT **Friday 24 February 2017** and should include a regular shaped polygon of the desired infill/extension area with the corner coordinates listed in tabular form.

Geoscience Australia is also seeking assistance with borehole geophysical induction conductivity logging from tenement holders in the survey area.

For more information please contact:

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**Figure 1.** Exploring for the future: proposed survey area for year one of the AusEM Programme, 11 January 2017.

# Geological Survey of South Australia: a new website and plans for a microgravity survey

## Gawler survey webpage

The Geological Survey of South Australia (GSSA) has developed an information website containing up-to-date information on the Gawler Craton Airborne Survey. This major survey is being undertaken by the Department of State Development (DSD) in partnership with Geoscience Australia (GA) and is a key programme within the Plan for Accelerating Exploration (PACE) Copper Initiative, part of South Australia’s Copper Strategy.

As well as general information regarding the survey, the website contains a ‘live’ GIS map showing the positions of aircraft as the survey progresses. The first survey blocks to be acquired will be blocks 2, 3 and 4.

For more information regarding the survey, please visit the website: [http://minerals.statedevelopment.sa.gov.au/geoscience/pace\\_copper/gawler\\_craton\\_airborne\\_survey\\_community\\_information](http://minerals.statedevelopment.sa.gov.au/geoscience/pace_copper/gawler_craton_airborne_survey_community_information).

## Coompana microgravity plans

As part of the PACE Copper Coompana Drilling programme the GSSA geophysics team will be undertaking a series of microgravity surveys to detect underground cavities that could pose a risk to the drilling programme. At each drilling location, the team will acquire a regular grid of data. Stations will be spaced 10 metres apart, and each grid will be 210 m by 210 m in size. The mid-lines will extend a further 200 m to the north, south, east and west.

To ensure a high quality of data we anticipate taking 2 minute measurements at each station. We will use two Scintrex CG5 gravity meters and will bring base plates to ensure that base measurements are recorded at constant height. One leg on each of the CG5 tripods will be fixed in place to ensure that heights remain very similar. The distance from the ground surface to the sensor level will be

recorded at each station to the nearest centimeter.

The team will use a Sokkia GRX1 Differential GPS system in real time kinematic (RTK) mode for easting, northing, and elevation measurements. Readings will be recorded on a handheld unit and downloaded onto a processing computer at the end of each day.

Due to the close proximity of stations, the survey will be undertaken on foot. Safety being of prime concern, there will be three operators in the area at any time, all being equipped with appropriate safety gear and current first aid training.

Look out for the results of the survey in an upcoming edition of *Preview* or *Exploration Geophysics*!

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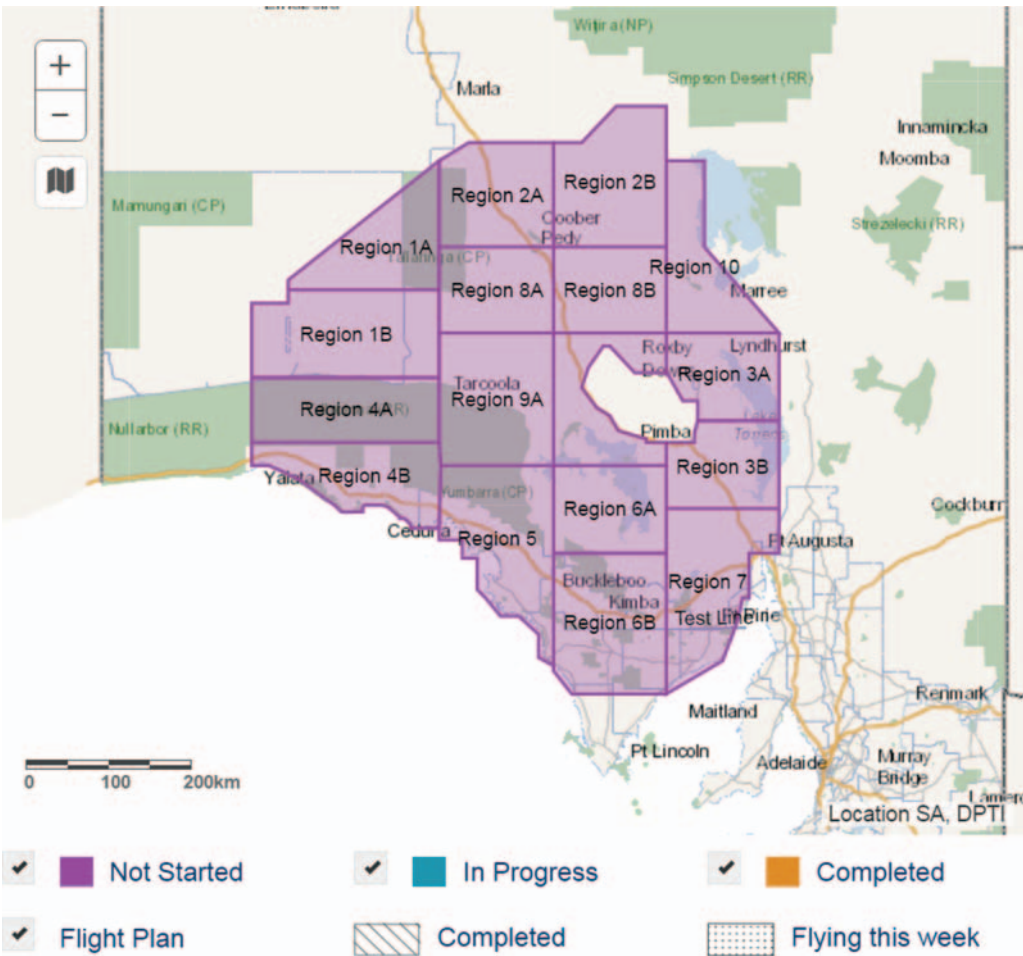


Figure 1. The webpage contains a map which will track the progress of the survey.