

## Capricorn Orogen

- Central WA
- Formation of the West Australian Craton
- Volcano-sedimentary Proterozoic basins
- Few mines and deposits
- Thick regolith/basin geology
- 2013 TEMPEST AEM survey
  - 5 km line spacing
- 1D AEM algorithms -> rapid interpretation
  - Geoscience Australia Layered Earth Inversion
  - Inherent limitations:
    - Thick regolith
    - Steep dipping geology



- Reliable interpretation where dip < 20 ° - 25 °</li>
- Assumption of a layered earth results in inaccurately defined steep contacts
- Where contacts are >20 % 25 ° a 2D or 3D algorithm may be more appropriate
- Flight direction plays an important role in complexity of the solution
- Artefact when approaching more conductive region
- Where regolith is present, resolve dips of <5 ° – 10 °</li>



		Previous MT Stations Proposed MT 11 Stations Proposed AMT 37 Stations M Stations M Stations M Stations M Stations M Stations M Stations M Stations
10 m's -> 100 m's	AEM	<ul> <li>Ground EM available from previous MT site soundings</li> <li>Strange early time responses</li> </ul>
100 m's -> km's	GEM	• Can still use this to understand the near surface cond/thick changes?
km's -> 10 km's	AMT/MT	<ul> <li>Extension of Johnson Cairn Formation</li> <li>Detection of Karalundi Formation</li> <li>Can the Karalundi be detected beneath regolith?</li> <li>Is this the same unit as the Johnson Cairn Formation?</li> </ul>

<sup>2017</sup> DISC Workshop Sasha Banaszczyk (UWA, CET) Supervisors: David Annetts (CSIRO), Mike Dentith (UWA, CET), Alan Aitken (UWA, CET)