MANAGING THE HUGE RANGE OF MAP SCALES IN THE PRACTICE OF THE QUEENSLAND GOVERNMENT

Rod Thompson (Delft University of Technology) Gary Isbel (Department of Natural Resources and Mines – Retired)

> 'Map generalization and multiple/vario-scale representations' 6th Dec 2017 Delft, The Netherlands

TOPOGRAPHIC MAP COVERAGE (AT 1991)



USAGE OF SCALES IN QUEENSLAND

1971 Australia went metric (completed in the mid 1980's)

Re-capture, re-draw or photo enlarge/reduce our existing maps?

Or work on new maps leaving "legacy" imperial maps?

In fact, we made different decisions in different places – as most appropriate.



40 CHAIN MAPS

So, in this rather attractive region of Queensland, the best available topographic maps would have been the 40chain to the inch version. (1n 1991)



2.40.0

1 17 19 10

QUEENSLAND 1 : 10 000 MAPPING

1:10 000 MAPPING

So, 1:10 000 mapping is only available in limited areas, but then in the sparsely populated western parts of the state, it is not really necessary



- Old 4 mile to the inch military mapping
- ► 1 inch : 4 miles
- ▶ 1:253 400



- Old Imperial Mapping 1:31 680
- (40 chains to the inch – or 2 inches to the mile)



In practice at about
1:200 000



► At about 1:40 000



- At about 1:25 000
- There isn't really much more to plot on a map this far west.



- Google imagery, at about 1:5 000
- I've added the yellow line – about 1km long



- Google Imagery at about 1:2 000
- We could certainly use topographic data at this scale



The Queensland
Globe at about
1:10 000

 We could certainly use a larger scale than this



- Queensland Globe at about 1:2 000
- We can really only get this detail from Cadastral data (in Queensland)
- Or in specially captured areas
- Now high resolution LIDAR is being flown by ROMES / FUGRO, but not right across the state



ISSUES: LIDAR DATA

- Fugro/Roames project Capturing high resolution LIDAR
- ► 1m contours, 1:1000 quality
- Only in specific captured areas, but a vast amount of data



ISSUES: LIDAR DATA

- The data is captured for the electricity distribution companies (In Queensland, mostly overhead power wires)
- Data just keeps coming new areas and recapture. Cost is justified by the reduction of maintenance costs of the power wires.
- How to match 1:1000 contours with adjacent 1:25000 or less areas?
- How to match 1:1000 contours with other data already captured at 1:25000 or less?



ISSUES: BRAIDED RIVERS

►On the Queensland Globe at about 1:25 000

At a more useful scale – note the rivers – named – water optional.



► Lots of rivers!

GENERALISING QUIRKS





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