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Geospatial Surveyors – What are they good for?

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FIG Working Week 2016

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Aim of this presentation

- ✗ Not to debate the name we should use for our profession
 - surveyors, geospatial scientists, GIS experts, geomatics
 - that is a different debate
- ✓ To clarify how we should think of the role of our profession
 - what we do (ie what we are good at) or
 - **what we are good for**



What do we want to be known for?

- Outcomes – **Why** we do it
- or
- Outputs – **What** we produce
- or
- Activities – **How** we go about it



What do we want to be known for?

- **Outcomes – the results we achieve for clients & communities**

or

- **Outputs – the products and services we generate**

or

- **Activities – the things we do**



What do our clients and communities care about?

- **Outcomes – mostly this**
- **Outputs – sometimes a bit of this**
- **Activities – not so much this**



How do we usually describe our profession?

- **Activities – measuring the land**
- **Outputs – survey observations, marks, pegs, coordinates, survey plans, maps**
- **Outcomes – Providing confidence in complex decisions derived from knowledge of the spatial relationships between objects (actual or proposed) in the world**



Let me repeat:

What do our clients and communities care about?

- **Outcomes – mostly this**
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Typical surveyors





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Typical surveyors?



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FIG – Definition of the Functions of the Surveyor

- FIG says these are all surveyors
 - to determine, measure and represent land, three-dimensional objects, point-fields and trajectories;
 - to assemble and interpret land and geographically related information
 - Etc
- Professions in Australia & NZ
 - Seem to have mixed views on which ones can be called surveyors



Where's the surveyor?

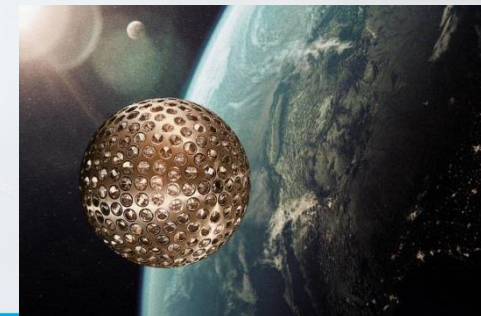
- Robotic total station
- Vehicle-based survey system
- Remotely piloted aircraft system





Where's the tripod?

- Backpack mounted survey system
- Handheld scanning system
- Well at least we know where the prisms are even if they're not on a tripod





Surveyor vs Geospatial Professional (traditional view)

Field \Leftrightarrow Office

Measure \Leftrightarrow Process

Boots \Leftrightarrow Shoes



Surveyor vs Geospatial Professional

- Are these distinctions useful to clients and communities?
- Are they sustainable as technology changes what we do?
- Shouldn't we define ourselves by what we are good **for** rather than good **at**?
- Then the distinctions melt away
- Just for the purpose of this discussion, lets combine these specializations as a **Geospatial surveyor**



So what are geospatial surveyors good for?

OUTCOME

- **Providing confidence in complex decisions derived from knowledge of the spatial relationships between objects (actual or proposed) in the world, eg**
 - Physical features
 - Boundaries
 - Buildings & structures
 - Proposed developments
 - etc



Some ways we might we do this

- **Collect evidence of the location of relevant objects**
 - find, assemble, analyse spatial datasets
 - design requirements for new measurements (only if required)
- **Visualize, describe, mark, etc, locations & relationship**
 - Choose how to representing spatial relationships to facilitate client or community understanding and decision making
- **Quantify or describe the confidence in this data**
 - match the quality to the decision risk



Remember

- **There is so much more value you can add than the technical, and increasingly automated, task of measurement**
- **Think about what you are good for**



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Questions



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