

## **Template for the Status of Geodetic / Geospatial Data Infrastructure or Systems**

The purpose of this template is to provide the author with a guide on what needs to be included so as to describe the status and the challenges associated with a country's geodetic or geospatial data infrastructure or systems.

The submitted description of the country's geodetic or geospatial data infrastructure or systems will be consolidated with others so as to provide an overview of the status of geodetic infrastructure in this region. It will also be used in the FIG / UN GGIM AP workshop / meeting to be held in Kuala Lumpur 16-17 October 2016 .

Your presentation should be sent (emailed) to the Co-Chairs of the FIG / UN GGIM AP Regional Capacity Development Network, Rob Sarib – [robert.sarib@nt.gov.au](mailto:robert.sarib@nt.gov.au) and Dr. John Dawson - [john.dawson@ga.gov.au](mailto:john.dawson@ga.gov.au)

### ***TITLE: Name of Country's Geodetic / Geospatial Data Infrastructure or Systems***

#### ***General description***

Content suggestions –

- Short history of the development of the country's geodetic infrastructure (such as a terrestrial and / or GNSS CORS network) or geospatial data infrastructure / system in the country
- Its primary purpose / function / role?
- What has been achieved or completed to date?
- What were the “driver(s)” to establish or maintain the infrastructure? What is the need? What is the business case? Is it linked to the UN Sustainable Development Goals? Is there a strategic plan?

#### ***Manager(s) / Organisation(s)***

Content suggestions –

- What organisation(s) is/are responsible for the geodetic / geospatial infrastructure or GNSS CORS network(s) in the country. Private market versus governmental agencies OR combination regarding building, running and maintaining the infrastructure.
- Who owns the geodetic or geospatial data infrastructure or systems?
- What is the geodetic / geospatial data or information distribution system? What is the data policy?
- If any, are there business / maintenance / operations / partnership models?
- Are there any “legal or statutory” obligations or requirements relating to geodetic / geospatial data or infrastructure?

#### ***Type and description of geodetic / geospatial infrastructure, equipment***

Content suggestions –

- Describe the country's geodetic / geospatial infrastructure?

- Does it consist of ground marks, passive or active network (such as a GNSS CORS network)?
- Describe a typical survey control mark or how a GNSS CORS is monumented.
- What type of geodetic or geospatial equipment or infrastructure (receiver, antenna, software, pillars / roof mounted)?
- Manufacturer(s)? Back-up system?
- Pictures and sketches are welcomed.
- Do they have a published specification?
- Information technology and communication set up for the infrastructure?

### **Description of Control or Data Centre**

Content suggestions –

- Does the geodetic / geospatial infrastructure have a control or data analysis centre?
- Type of software used?
- Are there adjusted network solutions?
- What type of communication has been set up between the various types of infrastructure i.e. how does the GNSS CORS and “data control” centre communicate, how is information disseminated?

### **Survey Control Marks or GNSS CORS Stations Network**

Content suggestions –

- Number? Different classes and order? Positional uncertainties?
- Average distance between survey control marks? Stations?
- Accessibility? Security? Stability?
- Digital map of distribution of survey control marks? stations?

### **Geodetic Services**

Content suggestions –

- Is it used to assist with maintenance of geodetic datum – both horizontal and vertical?
- Is it used to as the primary source for control surveys – cadastral, control, engineering, topographic, mapping, deformation?
- Is there an “on line” geodetic database?
- GNSS CORS services? Real time or Post-processing? DGPS? Network-RTK? Automatic Processing Services? What are the accuracy levels? How is the correction data acquired by users - by wireless, mobile phones, internet, etc network solution? Established by FKP, VRS or master-auxiliary concept?
- Services based on GPS only versus GPS/GLONASS / Beidou / multi GNSS?

### **Users**

Content suggestions –

- Who are the main users of geodetic / geospatial data? - Private sector/public sector/governmental agencies/local authorities etc; / academics? Percentage and absolute user numbers if available.
- What is the geodetic /geospatial infrastructure primary use? i.e. for tectonic plate monitoring (science) or datum maintenance or downstream positioning applications? Does it underpin or is it integrated with land administration or land titling systems?

## ***Issues to be Resolved***

Content suggestions –

- Problems or issues with the geodetic / geospatial infrastructure or GNSS CORS networks? Resourcing? Business / commercial? Soft or hard infrastructure? Political? Data sharing?
- Other technical issues – such as various horizontal / vertical or working surfaces or references? Communications?

## ***Future plans and APREF***

Content suggestions –

- What are the future plans for the geodetic / geospatial infrastructure or GNSS CORS networks?
- Is involvement in Asia Pacific Reference Frame (APREF) a possibility?
- Is sharing infrastructure / resources with neighbouring countries or agencies in the region an option?

## ***Contact information***

Content suggestions –

- Details of the organisation or person(s) involved with the geodetic / geospatial infrastructure or GNSS CORS networks