

# Mapping from Satellite Imagery

The emergence of new, low-cost, internet-based mapping tools like Google Earth, Google Maps, and NASA World Wind that make thousands of satellite images available to a wide audience has greatly influenced perception and awareness. This goes for both the general public and the scientific community, who now see the enormous potential of mapping from satellite imagery. Such tools highlight the crucial role of remote sensing in providing fast, up-to-date cartographic information for informed decision making, particularly for rapid mapping of pre- and post-disaster events, emergency planning, geomarketing, or even simpler activities like planning a holiday trip.

The ICA Commission on Mapping from Satellite Imagery was established in 1999 and its role in this new era of widely accessible public tools for the production of image maps for many applications should be more relevant than ever. The current terms of reference of the Commission are to:

- analyse the various types of existing and forthcoming satellite imagery and their potential input for producing and updating topographic and thematic maps and databases
- develop inventories and analyse the cartographic capabilities of different remote sensing systems
- research the state of the art of cartographic standards (e.g. legend, symbology etc) for remote-sensing-based mapping within domains such as urban areas, land cover, forestry, and the environment
- study and report on methods and techniques for satellite-based change detection and its cartographic representation (e.g. temporal cartography).

Activities of the Commission have included a joint international course with ESRI and the Land Department of Thailand, on "GIS and mapping for Agricultural Decision Support" (Bangkok 2003). As a result of the MOU signed between the United Nations Office for Outer Space Affairs (UNOOSA) and the ICA (see GIM International, April 2006), the Commission contributed to a workshop organised by the European Space Agency, UNOOSA and the Government of Zambia in June 2006. This, entitled "Applications of Global Navigation Satellite System Technologies in Sub-Saharan Africa", addressed the role of space-technology applications such as remote sensing in precision agriculture, environmental monitoring, natural-resource survey and landscape epidemiology.

A digital repository of all papers presented at the 21st and 22nd International Cartographic Conferences (years 2003 and 2005) on the theme "Cartography and satellite imagery for the management of natural resources and the environment, early warning and natural disasters mitigation" has been created at the commission website (<http://mailer.fsu.edu/~xyang/ica/index.html>). Commission members have expertise in the areas of satellite-based cartography of urban environments and urban change, land cover/land-use change, estuarine and coastal environments, topographic map updating, production of image maps, agricultural monitoring, and land degradation. To contribute to the Commission's workshop, conference or seminar activities contact the acting chair, Graciela Metternicht ([g.metternicht@curtin.edu.au](mailto:g.metternicht@curtin.edu.au)).

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