



# RADARSAT-2 Mapping the World



*False colour composite using three RADARSAT images of the Zhao Qing area in the Guangdong Province of China. (© CSA 1996. Received by CCRS. Processed and distributed by RSI.)*

## MAPPING LAND USE AND LAND COVER

Government agencies, multinational companies and small businesses routinely use information on spatial distribution and temporal evolution of land use and land cover.

RADARSAT-2 provides valuable new information for the production of national and regional maps. In addition, images produced by RADARSAT-2 may be combined with other sources of data for cartographic mapping, although in areas under frequent cloud cover, radar satellites provide the only source of information. Since many cartographic products are now analysed within geographic information systems (GIS), RADARSAT-2 will provide accurate georeferenced images that can be easily integrated in these mapping systems.

## RELIABLE DATA CONTINUITY

RADARSAT-2 will support all RADARSAT-1 imaging modes in addition to offering many new features. Not only this ensures reliable data continuity and enables users to transfer easily to RADARSAT-2 products, it will support the implementation of long-term multi-temporal programs.

## ENHANCED CAPABILITIES

The combination of various spatial resolutions, swath widths, incidence angles and polarizations provided by RADARSAT-2 will increase the range of applications to which it can contribute as compared to other commercial spaceborne SAR systems.

SAR is sensitive to moisture content, surface roughness and geometric shapes. Therefore, it provides unique and valuable data that cannot be obtained from any other source. Polarization diversity and high-resolution imaging will supply more complete information about the observed areas, reducing the ambiguity about the source of scattering. These new capabilities will also reduce the need for ancillary data and give access to a broader range of applications in many geographic areas.

In addition, RADARSAT-2 will be able to switch readily from left to right looking, allowing mapping agencies to respond faster to emergency situations.



*Wetland mapping using composite image of Mer Bleue using multi-polarization data. (© CCRS. Acquired by CV-580 C-band SAR. Processed and provided by CCRS.)*

### RADARSAT-2 Programme

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