

DEVELOPMENT OF SURVEYING AND MAPPING TECHNOLOGY IN VIETNAM

Dr. Sc. DANG Hung Vo and Dr. LE Quy Thuc, Vietnam

ABSTRACT

During the last decade, along with the renovation of the socio-economical management policy in Vietnam, the Vietnamese community of surveyors and cartographers experienced memorable challenges and opportunities as well. Since the beginning of the last decade of the 20th century, renovation and development in surveying and mapping technology had been undertaken, aiming at covering the increasing needs in surveying and mapping, involved with the economic evolution of the country.

This paper is focused on describing this technology development from 1990 to 2000 and sketching a prospect for the next future in Vietnam. The technical renovation and development benefited advantages of advanced space and information technology, from which the result is the setting-up of a production line of digital products in the following fields:

- Edification of the National control network, using precise GPS measurement techniques.
- Implementation of the GPS-navigation facilities and GPS-controlled techniques in aerial photography.
- Implementation of digital techniques in topographic mapping (Digital Stereoplotter), map compilation and map production.
- In cadastral mapping, RTK-GPS, Totalstation and Orthophoto techniques are used
- The hydrographic survey is performed by using digital echosounder and MSK-GPS.

In 2000, the Government of Vietnam decided to apply the new geodetic reference system VN-2000, based on the WGS84 ellipsoid and the UTM projection. In 2002 the 1/50 000 -scale basic topographic map system, covering the whole territory of Vietnam, had been planned to be completed, thus creating the base ground for the generation of a national geodata-base. In the same year, a modern satellite image receiving station, enabling the supply of Landsat, Spot, Radarsat, Quick Bird images to remote-sensing users, is expected to be established. Since 2005, the new digital cadastral map series and land record system will play an important role in real-estate management. The production of a sea bed topographic map series in 1/10 000 scale for the coastal zone and in 1/50 000 scale for the continental shelf of Vietnam is scheduled to be carried out in a time span of ten years, beginning at the year 2000.

CONTACT

Dr. Sc. DANG Hung Vo
General Department of Land Administration
Secretary-General of the Association of Geodesy, Cartography and Remote Sensing
71 Nguyen Chi Thanh St.
Hanoi
VIETNAM
Tel. + 84 4 766 4202
Fax + 84 4 823 6066

Dr. LE Quy Thuc
President
Association of Geodesy, Cartography and Remote Sensing
71 Nguyen Chi Thanh St.
Hanoi
VIETNAM
Tel. + 84 4 766 4202
Fax + 84 4 823 6066
E-mail: lequythuc@hn.vnn.vn