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Topography from Space
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PANEL DISCUSSION AND RESOLUTION

FULL PROGRAMME OF WORKSHOP

FOREWORD

This workshop was motivated by the fast developments in space techniques for generating digital relief maps or Digital Elevation Models (DEMs) of the Earth's surface. The SPOT technique has been used for some time with success and new optical methodology is under development. Recently, however, much interest has been focused on the interferometric synthetic aperture radar technique, presenting a new promising possibility from space.

The volume is introduced by an overview paper giving the developments of photogrammetry and topographic mapping, a survey of the techniques used and the needs for world topographic mapping. This is followed by a number of papers on the interferometric technique showing the possibilities and limitations. This new tool is very interesting and may be followed by special missions like the Global Topography Mission.

In parallel with the new interferometric technique we have developments of high resolution optical sensors as well as various techniques for the special application such as matching stereo pairs. Like other applications of remote sensing the combination of different sensors such as optical and interferometric observations may prove to be the best solution for a successful solution.

The workshop was concluded by a panel discussion which is summarized at the end of this volume. At the time of the conference the decisions on the ERS-1/ERS-2 tandem operation were to be discussed by the ESA Earth Observation Programme Board. The tandem operation was therefore one of the topics of the panel discussion, leading to a resolution of the workshop, which was sent to ESA. I think a very relevant point still to be stressed is that in order to evaluate the various techniques for DEM production, test sites should be selected and acquisitions made routinely.

At the time of publication the decisions have been taken and the tandem mission is ongoing. Already ESA has produced images and the scientific community faces the challenge to extract all the interesting information on height variations, surface shifts, and coherence properties of these images.

Göteborg, July 1995
Jan Askne

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