

FRONTIERS OF REMOTE SENSING OF THE OCEANS AND TROPOSPHERE FROM AIR AND SPACE PLATFORMS: MEETING AND WORKSHOP

I was asked by Dag Gjessing, International Chairman of Commission F (Remote Sensing and Wave Propagation—Neutral Atmosphere, Ocean, Land, Ice) of the International Union of Radio Science (URSI) to organize a meeting on “Frontiers of Remote Sensing of the Oceans and Troposphere from Air and Space Platforms.” The co-organizers were Isadore Katz, a retired supervisor of the Space Department’s Radar Atmospheric Physics Group at APL; David Atlas, former director of the Laboratory for Atmospheric Sciences, of the National Aeronautics and Space Administration’s (NASA’s) Goddard Space Flight Center; and Joseph Shapira, Chairman of URSI in Israel, who is affiliated with the Israeli Ministry of Defense.

The purpose of the meeting was to bring together atmospheric scientists, oceanographers, radio scientists, and engineers to identify new and emerging concepts dealing with technology, theories, and applications associated with remote sensing of the oceans and troposphere from satellites and aircraft. Emphasis was placed on how evolving ideas may affect the future by providing new and better techniques for obtaining information about the physical state of the areas being probed, with emphasis on electromagnetic methods.

Remote active and passive sensing at frequencies extending from radio frequency to the optical were considered. Approaches were explored for making measurements that provide new or more accurate determinations of physical parameters and for devising novel methods for synthesizing the data into geophysical models.

The session titles were

- Future Satellite Systems
- Air-Sea Interactions
- Ocean Waves and Spectra; Synthetic Aperture Radar
- Ocean Waves and Spectra; Other Remote Sensors
- Atmospheric Measurements; Particulates and Water Vapor Related

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- Atmospheric Measurements; Synoptic and Weather Forecasting
- Topography, Bathymetry, and Currents
- Sea Ice
- Impact of Remote Sensing on Synoptic Analysis; Forecasting

Fifty-four papers were presented in nine sessions during May 14-18, 1984, in Shoresh, Israel (in the Judean mountains about 20 kilometers north of Jerusalem). Seventy people from 10 countries participated, including one each from Sweden and the Netherlands; two each from Belgium and Canada; three each from France, West Germany, Norway, and the United Kingdom; 10 from Israel; and 42 from the United States.

Because there were no concurrent sessions, all participants were exposed to a variety of viewpoints in allied areas. NASA undertook the publication and mailing of a 620-page preprint volume (NASA Conference Publication 2303 (1984)). Copies were disseminated in advance of the meeting, providing participants with ample opportunity to peruse the papers and frame questions before the presentations were made.

A three-day workshop held in Hertzliya (along the Mediterranean north of Tel Aviv) summarized the salient results of the previous week and succinctly defined the state of the art, areas of remote sensing that require further attention, and the most promising areas for major advances in the near and more distant future. There were five workshop groups:

- Waves and Sea Spectra
- Ocean Surface Winds
- Currents, Sea Topography, Bathymetry
- Sea Ice
- Atmospheric Measurements

The *Journal of Geophysical Research—Oceans* invited authors of formal papers to resubmit their manuscripts for peer review and subsequent publication in a dedicated special issue of the journal, planned to appear in 1985. A workshop summary will also be submitted for publication as a special paper.