

SPECIAL ISSUE

SATELLITE REMOTE SENSING: MONITORING WATER, CARBON & GLOBAL CLIMATE CHANGE

Edited by L. Tsang and T. Jackson

- 649 SMOS: The Challenging Sea Surface Salinity Measurement From Space**
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 | INVITED PAPER | The European Space Agency Soil Moisture and Ocean Salinity mission will be the first to measure the salinity of the Earth's surface from a satellite in space.
- 666 The SMOS Mission: New Tool for Monitoring Key Elements of the Global Water Cycle**
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 | INVITED PAPER | This satellite mission will use new algorithms to try to forecast weather and estimate climate change from satellite measurements of the Earth's surface.
- 688 Aquarius and Remote Sensing of Sea Surface Salinity from Space**
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 | INVITED PAPER | This microwave instrument is designed to generate accurate monthly maps of Earth's ocean salinity from a space satellite that can sense areas of ice-free open water.
- 704 The Soil Moisture Active Passive (SMAP) Mission**
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 | INVITED PAPER | This paper describes an instrument designed to distinguish frozen from thawed land surfaces from an Earth satellite by bouncing signals back to earth from deployable mesh antennas.
- 717 Global Change Observation Mission (GCOM) for Monitoring Carbon, Water Cycles, and Climate Change**
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 | INVITED PAPER | Two series of Earth satellites are designed to measure global water and energy circulation, and climate changes, for a period of 10 to 15 years.
- 735 The ICESat-2 Laser Altimetry Mission**
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 | INVITED PAPER | A program for observing the Earth from satellites is expected to monitor water carbon and global climate change and to perform cartography, regional and disaster observations, and resource exploration.
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