

Foreword to the Special Issue on the 2013 IEEE International Geoscience and Remote Sensing Symposium

THE 33RD Annual IEEE International Geoscience and Remote Sensing Symposium (IGARSS 2013) was held July 21–26 at the Melbourne Convention and Exhibition Centre in Melbourne, Australia. With the theme of *Building a Sustainable Earth Through Remote Sensing*, this very successful conference attracted 1400 delegates from over 60 countries. IGARSS 2013 kicked off with 4 days of tutorials, meetings, and workshops, and these were followed by five days of 12 parallel sessions of oral paper presentations, with afternoon sessions for poster presentation.

An attractive, high-quality technical program covering some 110 distinct scientific topics was put together. The program achieved a good balance of technical papers between the IGARSS Standard and IGARSS2013 Special Themes, and also between the number of Invited and General Sessions, where the aim was to have an upper limit of 30% of oral presentations within invited sessions.

In response to the original Call for invited session proposals, we received 72 submissions; 50 of these, totaling 310 papers, were accepted. There were a further 1624 abstracts submitted in response to the General Call for papers, thus leading to a total number of submitted abstracts of 1934. Of these, 1080 were initially selected for presentation in the 216 5-paper oral sessions and 730 were assigned to poster sessions.

Unfortunately, shortly after the technical program was prepared at the Technical Program Committee (TPC) meeting in Los Angeles, the U.S. Government “Sequestration issue” hit home. There followed, over the period from April to mid-June 2013, a withdrawal of 337 papers or 19% of those originally accepted. It is estimated that about 300 of these were Sequester-related cancellations. The net effect was an ongoing endeavor to substitute the oral paper withdrawals with papers drawn from the poster sessions, and 203 such reassignments were made. This resulted in a final technical program that comprised 1023 oral and 450 poster papers, the percentage split being 70/30. All but a handful of oral sessions had five papers, though nine sessions needed to be canceled, eight of which were Sequester-impacted invited sessions. The invited session tally was 42, which represented 27% of oral presentations. The 450 posters were presented over four late afternoon sessions, with between 80 and 140 posters per session.

The TPC Co-Chairs were ably supported by the volunteer remote sensing specialists who attended the March 2013 TPC Meeting in Los Angeles, at which there was an initial

assignment of papers to the oral sessions and poster sessions. The work of the TPC was arguably more complex and difficult for IGARSS 2013 than it had been for the past few IGARSS meetings. This was as a direct consequence of the Sequestration process, which instituted conference travel bans for employees of IGARSS-supporting agencies such as NASA, NOAA, USGS, and JPL. The withdrawal of 300 already accepted technical papers necessitated extensive oral, poster, and invited paper reassignments. Nevertheless, from the standpoint of an IGARSS attendee, the technical program appeared “full and complete.” Although there were the inevitable “no shows,” these were pleasantly modest in number and there was no physical evidence of the negative impact caused by the Sequester-related travel bans.

We would like to thank the IGARSS 2013 team and acknowledge the General Chairs, Dr. P. Woodgate and Prof. S. Jones, for their enthusiasm, support, and general hard work in making the Melbourne conference a notable success.

For this special issue, we received an impressive 148 submissions, of which 27 accepted papers have been included here. Accepted papers that are not published in this issue will appear in upcoming regular issues of JSTARS. We would like to acknowledge the contributions of those colleagues who participated in the rigorous review process, and particular thanks go to Prof. J. Chanussot (Editor-in-Chief) for his tireless efforts in preparing this special issue.

May the reading of this special issue of IGARSS 2013 be both enjoyable and productive, and may it remind attendees of the wonderful Melbourne conference.

CLIVE FRASER, *Guest Editor*
Department of Infrastructure Engineering
University of Melbourne
Melbourne, VIC 3010, Australia

JEFFREY WALKER, *Guest Editor*
Department of Civil Engineering
Monash University
Clayton, VIC 3800, Australia

MARK L. WILLIAMS, *Guest Editor*
Horizon Geoscience Consulting
Belrose, NSW 2085, Australia



Clive Fraser received the Bachelor's and Master's degrees in Australia, and the Ph.D. degree in photogrammetry from the University of Washington, Seattle, WA, USA, in 1979.

Currently, he is a Program Science Director with the Cooperative Research Centre for Spatial Information, and a Professorial Fellow with the Department of Infrastructure Engineering, University of Melbourne, Melbourne, Australia, where prior to retirement in 2010 he had served as a Professor. He was the Head of the Department of Geomatics, from 1993 to 1998 and prior to that he was a Vice President of Geodetic Services, Inc., FL, USA, for 10 years. His research interests include digital close-range photogrammetry, including 3-D forensic analysis and accident reconstruction, industrial measurement systems, and the metric exploitation of high-resolution satellite imagery.

Prof. Fraser is a Fellow of both the Australian Academy of Technological Sciences and Engineering and the American Society of Photogrammetry and Remote Sensing, and he is an Honorary Member of the Remote Sensing and Photogrammetric Society, Nottingham, U.K. In

recognition of his academic and professional works, which include authorship of more than 300 scientific publications, he has earned numerous international awards.



Jeffrey Walker received the B.E. degree in civil (Hons 1) and B.Surveying degree (Hons 1) from the University of Newcastle, Callaghan, Australia, in 1995, and the Ph.D. degree in water resources engineering from the same university in 1999.

He joined NASA Goddard Space Flight Centre, Greenbelt, MD, USA, to implement his soil moisture work globally. In 2001, he joined the Department of Civil and Environmental Engineering, University of Melbourne as a Lecturer, where he continued his soil moisture work, including the development of the only Australian airborne capability for simulating new satellite missions for soil moisture. In 2010, he was appointed as a Professor with the Department of Civil Engineering, Monash University, Melbourne, Australia, where he is continuing this research. He is contributing to the soil moisture satellite missions at NASA, ESA, and JAXA, as a Science Team Member for the Soil Moisture Active Passive (SMAP) mission and Cal/val Team Member for the Soil Moisture and Ocean Salinity (SMOS) and Global Change Observation Mission—Water (GCOM-W), respectively.



Mark L. Williams received the B.Sc. degree in physics with computing and the Ph.D. degree in physics from the University of Kent at Canterbury (UKC), Kent, U.K., in 1983 and 1987, respectively.

He worked as a Research Fellow with the Theoretical Physics at UKC and as a Lecturer in Physics with SE Asia before returning to the U.K., where his first remote sensing position was as a Research Associate with the University of Sheffield, South Yorkshire, U.K., in 1994. He joined DRA Malvern in 1996 and DSTO Edinburgh, Australia, in 2003, during which he worked predominantly on airborne Synthetic Aperture Radar (SAR). In 2006, he left DSTO to become an Independent Scientific Consultant and wrote a coherent forest SAR simulator for the European Space Agency (<http://earth.esa.int/polsarpro>). In 2010, he joined Horizon Geoscience Consulting as Co-Director, where he continues to conduct research in remote sensing for private companies and government agencies.