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The IAG Newsletter is under the editorial responsibility of the Communication and Outreach Branch (COB) of the IAG.

It is an open forum and contributors are welcome to send material (preferably in electronic form) to the IAG COB (newsletter@iag-aig.org). These contributions should complement information sent by IAG officials or by IAG symposia organizers (reports and announcements). The IAG Newsletter is published monthly. It is available in different formats from the IAG new internet site: http://www.iag-aig.org

Each IAG Newsletter includes several of the following topics:

- I. news from the Bureau Members
II. general information
III. reports of IAG symposia
IV. reports by commissions, special commissions or study groups
V. symposia announcements
VI. book reviews
VII. fast bibliography

Books for review are the responsibility of:

C.C Tscherning
University of Copenhagen
Dept. of Geophysics
Copenhagen, Denmark
Fax: +45 35365357
E-mail: cct@gfy.ku.dk

General Announcements

Publication of the IUGG Melbourne proceedings in the IAG Symposia series

Following the IUGG General Assembly in Melbourne, a volume of peer-reviewed proceedings will be published by Springer in the IAG Symposia series. This time, all submissions and all reviews will be handled electronically through the following Web site: <http://iags.edmgr.com/>

Deadline for submission is: **January 31, 2012**

Articles related to an oral or a poster presentation in any of the following symposia in Melbourne can be submitted and the peer-reviewed process will be handled by their respective editors:

- JG01: Space Geodesy-based Atmospheric Remote Sensing as a Synergistic Link between Geodesy and Meteorology
Marcelo Santos <msantos@unb.ca>, Jens Wickert <wickert@gfz-potsdam.de>
- JG02: Application of Geodetic Techniques in Cryospheric Studies
Reinhard Dietrich <dietrich@ipg.geo.tu-dresden.de>, Matt King <M.A.King@newcastle.ac.uk>
- JG03: History of Geosciences from Terrestrial to Spaceborne Observations
Jozsef Adam <jadam@sci.fgt.bme.hu>
- JG04: Structure and Deformation of Plate Interiors
John Dawson <john.dawson@ga.gov.au>
- JG05: Integrated Earth Observing Systems
Markus Rothacher <markus.rothacher@ethz.ch>
- JG06: Tectonic Geodesy and Earthquakes
Jeff Freymueller <jeff.freymueller@gi.alaska.edu>
- G01: Reference Frames from Regional to Global Scales
Zuheir Altamimi <zuheir.altamimi@ign.fr>, Athanasios Dermanis <dermanis@topo.auth.gr>, Joao Agria Torres <jatorres@iol.pt>
- G02: Monitoring and Modelling of Mass Distribution and Mass Displacements by Geodetic Methods
Yoichi Fukuda <fukuda@kugi.kyoto-u.ac.jp>, Richard Gross <richard.gross@jpl.nasa.gov>, Frank Lemoine <Frank.G.Lemoine@nasa.gov>, Nico Sneeuw <sneeuw@gis.uni-stuttgart.de>, Herbert Wilmes <herbert.wilmes@bkg.bund.de>
- G03: Monitoring and Modelling Earth Rotation
Richard Gross <richard.gross@jpl.nasa.gov>, Harald Schuh <harald.schuh@tuwien.ac.at>, Oleg Titov <oleg.titov@ga.gov.au>
- G04: Multisensor Systems for Engineering Geodesy
Dorota Brzezinska <dbrzezinska@osu.edu>, Hansjörg Kutterer <hansjoerg.kutterer@bkg.bund.de>
- G05: Geodetic Imaging Techniques
Sandra Verhagen <a.a.verhagen@tudelft.nl>, Xiaoli Ding <lsxlding@polyu.edu.hk>
- G06: Towards a Unified World Height System
Johannes Ihde <johannes.ihde@bkg.bund.de>, Matt Higgins <matt.higgins@derm.qld.gov.au>, Laura Sanchez <sanchez@dgfi.badw.de>
- G07: High Precision GNSS
Ruth Neilan <ruth.e.neilan@jpl.nasa.gov>, Urs Hugentobler <urs.hugentobler@bv.tu-muenchen.de>, Mikael Lilje <mikael.lilje@lm.se>



Specifications to authors are provided on the submission Web site. In particular :

- LATEX and Word submissions are accepted, as well as several other formats.
- manuscripts do not need to be submitted in the final format for publication.
- general contributions are limited to 6 pages, while invited abstracts in Melbourne are limited to 8 pages (a specific formula to estimate the length of the manuscript is provided on the Web site).

Accepted manuscripts will appear online on the Springer Web site for the IAG Symp. series (<http://www.springer.com/series/1345>) and will be published in print in a single volume related to the Melbourne presentations.

Authors are encouraged to contact their respective editor before submission and will be regularly informed on the review and publication process.

CHRIS RIZOS (Editor)
PASCAL WILLIS (assistant Editor-in-Chief)

Levallois Medal Citation for Ruth Edwards Neilan IUGG General Assembly 2011, Melbourne, Australia

The Levallois Medal was established in 1979 to honor Jean-Jacques Levallois for his long service from 1960 to 1975 as General Secretary of the International Association of Geodesy (IAG). It is usually awarded at four year intervals on the occasions of the IAG General Assemblies and is presented "in recognition of distinguished service to the association and/or to the science of geodesy in general".

The past presidents of the IAG, forming a committee, recommended to award the Medal at the General Assembly in 2011 to Ruth Neilan, for her international service related to the geodetic and geophysical applications of the Global Positioning System (GPS). I have the honor to present the citation, unfortunately in absentia.

Proposals for permanent international GPS tracking networks floated around as early as the mid-nineteen eighties, but the vision of organizing such a service within the realm of the IAG was borne in March 1990 at a small gathering at The Ohio State University (OSU). The participants were Gerald Mader, President of IAG's GPS subcommission, J. Bernard Minster, Chairman of the National Research Council Panel on International Network of Fiducial Stations, William G. Melbourne of Jet Propulsion Laboratory (JPL) - GPS Coordinator of the International Earth Rotation Service, and myself as host (the four "M"-s, as the group became to be known later).

It was fortunate that Bill Melbourne, at the time the JPL "mentor" of Ruth Neilan, had the additional vision, of great consequence later, to invite also Ruth to the meeting. As a result of this meeting a recommendation was submitted to the IAG that the next General Assembly in Vienna in August 1991 (almost exactly twenty years ago) develop specific plans for a service, which would promote GPS in the long term interests of the geodetic and geophysical communities. After many conferences and several years of test campaigns and pilot projects the International GPS Service – IGS (now Global Navigation Satellite System - GNSS) - became operational on January 1, 1994 and the rest is history!

As far as I know, the meeting at OSU in March 1990 was Ruth Neilan's first direct involvement in IAG affairs. Since then, and later as the Director of the IGS Central Bureau, she has become the strong thread that kept the Service together and functioning. I believe that she is one of the few persons, possibly the only one, who served the IGS from its conception and birth until this day.

This accomplishment, considering that IGS has some 200 participating organizations - mostly public, government, and university research groups - with upwards of 400 permanent ground stations and data and analysis centers in more than 80 countries, needs a person of special qualities. Dealing with government bureaucracies, funding agencies and the many times idiosyncratic egos of scientist, requires tenacity personal skills, wisdom, diplomacy and charm. Ruth is blessed with all!

Neilan is an engineer by education, but never wanted to be such. After realizing that her high school plans to major in Asian studies would probably not result in a fulfilling exciting life of travel with a decent paying job, she enrolled in an Associate Degree in Engineering Technology at Penn State University. Upon completion she worked for a number of years as a land surveyor in Pennsylvania. After an extended trip around the world, she turned to the University of Wisconsin-Madison and completed a BSc and MSc in Civil and Environmental Engineering (rumor has it that, prior to Wisconsin, she considered OSU, but her impression (of me?) was not favorable). She minored in Asian studies and speaks Mandarin Chinese.

Ruth was employed by JPL in 1984. Since 1993 she has been the International GNSS Service - IGS Central Bureau Director. In addition to the IGS she has or had been involved in more organizations that even she must have difficulty keeping track of. Here are a few probably more than one wants to know:

- Defense Science Board
- IAG Executive Committee
- IAG Global Geodetic Observing System (GGOS)
- Institute of Navigation Council
- Interagency GPS Executive Board
- International Committee on GNSS (ICG)
- International Council of Science (ICSU), Committee on Information and Data
- United Nations Office of Outer Space Affairs
- U.S. Presidential Committee on Positioning, Navigation, and Timing
- World Climate Research program
- American Youth Soccer Organization
- Child Education Center, La Canada, CA

Ruth Neilan has been married to Chad Edwards – “her brilliant jazz pianist” – who as Chief Telecommunications Engineer for the JPL Mars Exploration Program, is figuring out how to talk to spacecraft at Mars and beyond. They have two children Kyle and Drew. Ruth loves soccer, cooking, walking, biking, reading, gardening, sending birthday messages, and still manages to keep her sanity!

I have the great pleasure and honor to present to my friend and former colleague Ruth Edwards Neilan the Levallois Medal in recognition of her distinguished service to the association, geodesy, geophysics and to the public in general.

IVAN I MUELLER

IGS M-GEX – Web submission forms available

Dear Colleagues

Please note that the responses to the IGS M-GEX (Multi-GNSS Global Experiment) Call for Participation is now available via a web application form – look at the 'What's New' box at our website, where you can see the Call for Participation and instructions for responding: <http://www.igs.org/>. This is directly linked to our external IGS server and the response forms at: <http://igs.geolinks.org/>

We look forward to your participation in M-GEX - a next step for global, high precision use of GNSS!

Kind regards

RUTH NEILAN
IGS CB

Call for Participation for the "Global Geodetic Core Network: Foundation for Monitoring Earth System"

Dear Colleagues:

The Call for Participation for the "Global Geodetic Core Network: Foundation for Monitoring Earth System" is available [here](#).

The Global Geodetic Observing System (GGOS) is soliciting proposals for the Core Network Sites to define and improve the Terrestrial Reference Frame and provide essential data for other space geodesy requirements.

We seek proposals from organizations that would participate in the development, implementation and maintenance of the GGOS Global Geodetic Core Network. We seek proposals from:

1. Organizations that currently operate a space geodetic site and would implement and operate one or more core sites including:
 - a. existing sites that already have the four techniques implemented and plan for upgrade to the next generation systems;
 - b. existing sites that have one or more techniques operational and are planning for upgrade to the next generation systems and for the implementation of additional techniques;

2. Organizations that would actively participate with the GGOS Bureau for Networks and Communications in the network design and planning activity with analysis, simulations, and site research (geology, weather, logistics, personnel, etc);
3. Organization that would help design and develop the inter-technique vector systems and operational procedures;
4. Organizations that have no operational space geodetic systems, but would implement and operate core sites;
5. Organizations that have space geodetic instruments or are developing space geodetic instruments which they are willing to relocate to a GGOS Global Geodetic Core Site in cooperation with a local organization.

Many of the sites will require cooperative arrangements to fulfill the core network site requirements (site, logistics, communications, full systems, hardware components, etc.). We encourage preformed teams to propose to implement/upgrade and operate these sites.

The implementation of this network will be very challenging. We encourage as many organizations as possible to participate.

Proposals are short and are due by **November 15, 2011**.

If you have any questions, please contact me at mpearlman@cfa.harvard.edu

With best regards,

MIKE PEARLMAN
Director, GGOS Bureau for Networks and Communications

Meeting Announcements

IAG Sponsored Meetings

Joint International Symposium on Deformation Monitoring

November 2-4, 2011, Hong Kong, China

URL: <http://dma.lsgj.polyu.edu.hk/>

IAG Related Meetings

ACM SIGSPATIAL GIS 2011

November 1-4, 2011, Chicago, IL, USA

URL: <http://acmgis2011.cs.umn.edu/>

Modern Technologies, Education & Professional Practice in Geodesy and Related Fields

November 10-11, 2011, Sofia, Bulgaria

Contact: milev@bas.bg

10th International E-VLBI Workshop

November 13-16, 2011, Broederstroom, South Africa

URL: <http://www.hartrao.ac.za/e-vlbi2011/e-vlbi2011.html>

UGI 2011 Regional Geographic Conference

November 14-18, 2011, Santiago, Chile

URL: <http://www.ugi2011.cl/>

POSNAV ITS Navigations Symposium

November 22-23, 2011, Darmstadt, Germany

URL: http://dgon.de/content/posnav_its_2011_p.php

Growth and competitiveness using satellite applications – practical approaches for non-space SMEs

November 23, 2011, Warsaw, Poland

This conference will inform SMEs from sectors other than space of how using satellite applications helps innovate in business practices and gain a competitive advantage.

URL: <http://www.eurisy.org/index.php/activities/sme/event/item/129-eurisy-conference.html>

AGU Fall Meeting

December 5-9, 2011, San Francisco, USA

URL: <http://www.agu.org/meetings/>

2nd International School on Least Squares Approach to Modeling the Geoid

February 27- March 2, 2012, Johor Bahru, Malaysia

Theoretical lectures in the mornings are followed by practical computer exercises in the afternoons.

URL: <http://www.infra.kth.se/geo/events/IGS-2012.pdf>

Munich Satellite Navigation Summit 2012

March 13-15, 2011, Munich, Germany

URL: <http://www.munich-satellite-navigation-summit.org>

European Geosciences Union General Assembly 2012

April 22-27, 2012, Vienna, Austria

URL: <http://meetings.copernicus.org/egu2012/>

10th International Conference on Southern Hemisphere Meteorology and Oceanography

April 23-27, 2012, Noumea, New-Caledonia

URL: <http://www.colloque.ird.fr/icshmo-2012>

4th International Conference on Cartography and GIS

June 18-22, 2012, Albena Summer Resort, Bulgaria

URL: <http://www.cartography-gis.com/4thConference/Index.html>

20 Years of Progress in Radar Altimetry

September 24-29, 2012, Venice, Italy

URL: <http://www.altimetry2012.org/>

IGAG Sister Societies' Meetings

ESC 2012

August 19-24, 2012, Moscow, Russia

European Seismological Commission 33rd General Assembly

URL: www.esc2012-moscow.org

Joint IAMAS-IACS Assembly

July 8-12, 2013, Davos, Switzerland

Davos Atmosphere and Cryosphere Assembly 2013, Ice & Air – Process Interactions

URL: www.daca-13.org

Joint IAHS-IAPSO-IASPEI Scientific Assembly

July 22-26, 2013, Gothenburg, Sweden

URL: <http://www.iaspei.org/meetings/forthcoming.html#iaspei2013>

Obituary

Andrey M. Finkelstein (1942-2011)



The Institute of Applied Astronomy of the Russian Academy of Sciences has suffered a grievous loss: the Institute Director, Honored Scientist of the Russian Federation, professor, Corresponding Member of RAS Andrey M. Finkelstein passed away on September 18, 2011 at the age of 69.

Andrey Finkelstein was widely known in Russia and abroad as one of the leading specialists in the fields of relativistic celestial mechanics, radio astrometry, space geodesy, and very long baseline interferometry. He is one of the founders of a new scientific field—the fundamental positioning, navigation and timing support—which arose in the early 1980s at the junction of astrometry, geodynamics, celestial mechanics, astronomy, and radio engineering.

Andrey Finkelstein's scientific activities began in 1968. After graduating from the Leningrad State University as a specialist in "Theoretical Physics", he joined the Academy of Sciences of the USSR, where he rose from Laboratory Assistant to Director of an academic institution.

In 1986, according to a decree of the USSR Presidium of the Academy of Sciences, Andrey was appointed head of the "Quasar" project and, from 1988, Director of the newly established Institute of Applied Astronomy of the Academy of Sciences of the USSR (now Russian Academy of Sciences).

Andrey Finkelstein was a prominent scholar with a wide profile. His research interests ranged from theoretical aspects of relativistic physics and astrometry, to space geodesy and celestial mechanics, to methodological and instrumental problems of very long baseline interferometry. He is the author of 268 scientific papers, five monographs, and fifteen patents.

The main scientific achievements of Andrey Finkelstein are:

- validation of relativistic theories with high-precision measurements;
- relativistic theory for the reduction of VLBI observations; a new method of construction of the celestial coordinate system;
- theory of the influence of the turbulent troposphere on VLBI measurements;
- establishing the "Quasar" VLBI Network at the core of the Russian positioning, navigation, and timing system, providing in excess of 12% of the global amount of radio astrometry and space geodesy data;
- setting up a system for high-precision determination of universal time providing data to various users including GLONASS;
- co-locating the "Quasar" VLBI observatories with various other high-precision space geodetic instruments such as satellite laser ranging (SLR), GNSS systems (GLONASS, GPS, GALILEO), and DORIS;
- pioneering research on the refinement of the international terrestrial and celestial coordinate systems, the determination of the Earth's rotation parameters, the study of the effects of global tectonics, the study of radio propagation, and mapping of the geodetic radio sources.

For his work on the creation of the "Quasar" network, Andrey Finkelstein was given an award for science and technology by the Government of the Russian Federation. In 1999 he was awarded the honorary title "Honored Scientist of the Russian Federation".

In 2003 Andrey Finkelstein was elected as a Corresponding Member of RAS in the specialty "Astronomy". He was a foreign member of the Royal Swedish Academy of Engineering Science, a member of the Observing Program Committee of the International VLBI Service for Geodesy and Astrometry (IVS), a member of the Directing Board of the European VLBI Network (EVN), a member of the Directing Board of the European Astronomical Society (EAS), and a member the International Astronomical Union (IAU) as well as other international scientific organizations.

Andrey Finkelstein was a member of the editorial boards of domestic and foreign publications, Deputy Chairman of the Scientific Council of RAS on “Positioning Timing, and Navigation Support”, Chairman of Section No. 9 “Astrometry, Celestial Mechanics and Applied Astronomy” of the RAS Scientific Council on Astronomy, and a member of the Presidium of the St. Petersburg Scientific Center of RAS.

Andrey Finkelstein was a member of the Chief Designers Board of the GLONASS system and chief designer of the GLONASS fundamental support area.

Andrey Finkelstein paid much attention to training students as head of the Department of Radio Astronomy of Saint Petersburg State Electro-Technical University and as head of the Branch of the Radio Physics Department of Saint Petersburg State Polytechnic University. From his students, twelve – four of which were foreigners – obtained Doktor Nauk (Dr. Hab.) or Kandidat Nauk (PhD) degrees.

The staff members of the Institute of Applied Astronomy RAS express their deepest sympathy to the family and friends of Andrey Finkelstein. His name will live forever in the hearts of his colleagues, students, staff members of the Institute, and all who had contact with this bright, extraordinary, and talented man.

A. V. IPATOV
Deputy Director,
Dr. Hab. in engineering science, Full Professor

S. G. SMOLENTSEV
Deputy Director,
PhD in engineering science

N. V. SHUYGINA
Scientific Secretary,
PhD in physics and mathematics