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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

General Announcements

Journal of Geodesy celebrates 90th volume anniversary

In 2016, the Journal of Geodesy issues its Volume 90. As the merger and continuation of Bulletin Géodésique and Manuscripta Geodaetica, JG represents the oldest and most venerable international geodesy journal. It has published many articles by the most respected geodesists and, as we hope, has influenced the reputation of geodesy for the better. Today, JG is abstracted/indexed in the Science Citation Index (SCI) and many other data bases, and it continues to have the highest impact factor of the geodetic journals listed in the SCI.

In 1995, JG replaced the IAG journals Bulletin Géodésique and Manuscripta Geodaetica, continuing as the IAG's official journal. Its volume numbering scheme picked up where BG's numbering scheme left off.

At the meeting of the Section of Geodesy during the first IUGG General Assembly in Rome, 2-10 May 1922, it was discussed to have a journal devoted exclusively to geodetic science and connected to the Section (it appears the name Journal of Geodesy was suggested by William Bowie in the run-up to the meeting). Organizational issues, statutes and summaries from the meeting were later collected in volumes 1 (published under the title *Conseil International de Recherches, Union Geodesique et Geophysique internationale, Section de Geodesie, Premiere Assemblee Generale, Rome, Mai 1922*) and 2 (already with a number of science articles included as Annexes) of Bulletin Géodésique. Beginning with 1924 (renumbered to volume 1), BG then took off quarter-annually, with the exception of WWII years 1943, 1944, and 1945. Then in 1976, the first issue of Manuscripta Geodaetica appeared, dedicated to publishing papers of more theoretical or computational nature that were considered too long for BG. Like BG, MG became an IAG journal. Finally, in 1995 chief editors Christian Tscherning and Petr Vanicek closed the era of these 'friendly rivals', which had become difficult to distinguish in their vision and scope, in their farewell editorial and introduction to new Journal of Geodesy in BG.

Today, an ever growing community of scientists from all countries in the world is publishing exciting new results in the Journal of Geodesy. The current editorial board, elected in 2015, hopes that the Journal will continue to grow and publish high quality theoretical and modelling research as well as results of experiments and interpretation.



JÜRGEN KUSCHE

University of Bonn
Editor-in-Chief, Journal of Geodesy

Milestone for global geodesy

The UN calls for enhanced cooperation on global geodesy. At the UN-GGIM sixth session in New York in August, the UN Committee of Experts on Global Geospatial Information Management endorsed the GGRF Roadmap and decided to establish a permanent Sub-Committee on Geodesy.

"This is a significant milestone for global geodesy. It sends a very clear message to member states, and other global geodetic entities, that the focus on enhancement of geodetic reference frames should be a long term strategic priority for governments," says Gary Johnston, co-chair of the UN-GGIM Working Group on the Global Geodetic Reference Frame (GGRF).

The suggestion to elevate the Working Group's mandate through the establishment of a UN-GGIM Sub-Committee on Geodesy was put forward by New Zealand at the UN-GGIM sixth session. The proposal was supported by the Member States.

The UN-GGIM Working Group on the GGRF consists today of 32 Member States and two organisations; the World Health Organisation (WHO) and the International Association of Geodesy (IAG).

IAG welcomes the Sub-Committee

"The International Association of Geodesy (IAG) welcomes and unreservedly appreciates the establishment of a United Nations Sub-Committee on Geodesy. This advancement will augment the impacts of geodesy on the political level as well as its visibility in society. IAG and its Global Geodetic Observing System (GGOS) as promoting geodetic science and coordinating the international geodetic services will strongly support the new Sub-Committee whenever necessary and wherever possible," says prof. Dr. Dr. h.c. Harald Schuh, president of the IAG.

At the UN-GGIM sixth session in New York, the member states did also endorse the Roadmap for the Global Geodetic Reference Frame as a principle based briefing document for national governments. The Roadmap aims to enhance the GGRF and make it more sustainable.

Geodesy has top priority

The global geodetic reference frame was among the highlights at the UN-GGIM session where 260 delegates from 86 Member States participated.

The Fijian Minister for Land and Mineral Resources, Mereseini Vuniwaqa, was key note speaker at a UN-GGIM Side Event on the Global Geodetic Reference Frame. Fiji led the adoption on the UN resolution on GGRF at the General Assembly, 26 February 2015.

"This resolution calls for more cooperation, and we are pleased to see that the Working Group has come up with the Roadmap on GGRF so quickly. The implementation of the Roadmap has top priority", said the Minister.

Close cooperation

The engagement from the Fijian minister was welcomed by co-chair Gary Johnston:

"The development of the implementation plan will require close cooperation between National Mapping Agencies, Space Agencies, IAG, FIG and other interested research institutions. Collectively we have an opportunity to utilise the momentum that has been created within UN-GGIM to establish a better future for the global geodetic community, and for our society which relies on our products and services," said Johnston.



The UN has decided to establish a permanent sub-committee on geodesy to provide stability and longer-term planning for the GGRF. Photo: Anne Jørgensen



UNGGRF @UNGGRF · 5. aug.

Important step for #GGRF & #geodesy!
#GGIM6 decided on @UNGGIM sub-
committee on geodesy & endorsed the
roadmap.



Follow the UN-GGIM work on GGRF on twitter; @unggrf - and check out www.unggrf.org

ANNE JØRGENSEN

Open-access article on ITRF2014

A full and open-access article on ITRF2014 is now available at:
<http://onlinelibrary.wiley.com/doi/10.1002/2016JB013098/full>

ZUHEIR ALTAMIMI

New edition of "Geometric Reference Systems in Geodesy"

Please note that a new edition of my "Geometric Reference Systems in Geodesy" is now available at
<http://hdl.handle.net/1811/77986> .

CHRISTOPHER JEKELI

Meeting Announcements

Meetings Calendar

IAG Commission 4 „Positioning and Applications“ Symposium

September 4-7, 2016, Wroclaw, Poland

URL: <http://www.igig.up.wroc.pl/IAG2016/>

18th General Assembly of WEGENER

September 12-15, 2016, Azores, Portugal

WEGENER 2016: Understanding earth deformation at plate boundaries

URL: <http://wegener.segal.ubi.pt>

ION GNSS+ 2016

September 12-16, 2016, Portland, USA

URL: <http://www.ion.org/gnss/index.cfm>

16th International Mine Surveying Congress

September 12-16, 2016, Brisbane, Australia

URL: <http://www.ism2016.com/>

GGHS2016

September 19-23, 2016, Thessaloniki, Greece

URL: <http://www.gghs2016.com>

13th European VLBI Network (EVN) Symposium

September 20-23, 2016, St. Petersburg, Russia

URL: <http://www.ipa.nw.ru/EVN2016/>

4th International School on "The KTH Approach to Modelling the Geoid"

September 25-29, 2016, Johor Bahru, Malaysia

URL: <https://www.kth.se/en/abe/inst/som/avdelningar/geo/geodesi/handelser-1.78120>

First International Workshop on VLBI Observations of Near-field Targets

October 5 – 6, 2016, Bonn, Germany

URL: <http://ivscc.gsfc.nasa.gov/meetings/index.html>

20th International Workshop on Laser Ranging

October 9 – 14, 2016, Potsdam, Germany

URL: <http://iwslr2016.gfz-potsdam.de/international-workshop-on-laser-ranging>

ICTRS 2016

October 10 – 11, 2016, Milan, Italy

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

INTERGEO, Geodätische Woche

October 11 – 13, 2016, Hamburg, Germany

URL: <http://www.intergeo.de/>

5th International VLBI Technology Workshop

October 12 – 14, 2016, Haystack Observatory, Westford, MA, USA

URL: <http://www.haystack.mit.edu/workshop/ivtw2016/Index.htm>

RFI 2016: Coexisting with Radio Frequency Interference

October 17 – 20, 2016, Socorro, NM, USA

URL: <http://go.nrao.edu/rfi2016>

GGOS Days

October 24 – 28, 2016, Cambridge, MA, USA

URL: <http://www.iers.org/ IERS/EN/NewsMeetings/ForthcomingMeetings/forthcoming.html>

IDS Workshop

October 31 – November 1, 2016, La Rochelle, France

URL: <http://ids-doris.org/meetings/ids-meetings.html>

SAR Altimetry Workshop

October 31 2016, La Rochelle, France

URL: <http://www.aviso.altimetry.fr/en/news/events-calendar.html>

OSTST 2016

November 1 – 4, 2016, La Rochelle, France

URL: <http://ids-doris.org/meetings/ids-meetings.html>

SIRGAS Symposium 2016

November 16 – 18, 2016, Quito, Ecuador

URL: <http://www.igm.gob.ec/sirgas/>

SIRGAS School on Vertical Reference Systems

November 21 – 25, 2016, Quito, Ecuador

URL: <http://www.igm.gob.ec/sirgas/>

IGNSS 2016

December 6 - 8, 2016, Sydney, Australia

International Global Navigation Satellite Systems 2016 Conference

URL: <http://www.ignss2016.unsw.edu.au>

AGU 2016 Fall Meeting

December 12 – 16, 2016, San Francisco, California, USA

URL: <http://meetings.agu.org/upcoming-meetings/>

Fourth SWARM Science Meeting and Geodetic Missions Workshop

March 20-24, 2017, Banff, Alberta, Canada

URL: <http://www.swarm2017.org/>

North-American CryoSat Science Meeting and Geodetic Missions Workshop

March 20-24 , 2017, Banff, Alberta, Canada

URL: <http://www.cryosat2017.org/>

EGU General Assembly 2017

April 23-28 , 2017, Vienna, Austria

URL: <http://www.egu2017.eu/>

IAU Symposium 330

April 24-28 , 2017, Nice, France

URL: <http://iaus330.sciencesconf.org/>

23rd Working Meeting of the European VLBI Group for Geodesy and Astrometry (EVGA)

May 15-19 , 2017, Gothenburg, Sweden

URL: <http://iag.dgfi.tum.de/index.php?id=291>

EUREF 2017 Symposium

May 24 – 26, 2017, Wroclaw, Poland

URL: http://www.euref.eu/euref_symposia.html

FIG Working Week 2017

May 29 – June 2, 2017, Helsinki, Finland

URL: <http://www.fig.net/fig2017/>

TransNav 2017

June 21 – 23, 2017, Gdynia, Poland

URL: <http://transnav2017.am.gdynia.pl>

IGAG and IASPEI Joint Scientific Assembly

July 30 – August 4, 2017, Kobe, Japan

URL: <http://iag.dgfi.tum.de/index.php?id=291>

AOGS 14th Annual Meeting

August 6-11, 2017, Singapore, Singapore

URL: http://www.asiaoceania.org/society/public.asp?view=up_coming

Workshop on Glacial Isostatic Adjustment and Elastic Deformation

September 5-7, 2017, Reykjavik, Iceland

URL: <http://www.polar.dtu.dk/english/Workshop-on-Glacial-isostatic-adjustment-and-elastic-deformation-2017>

AGU 2017 Fall Meeting

December 11-15, 2017, New Orleans, LA, USA

URL: <https://meetings.agu.org/>

EGU General Assembly 2018

April 8-13 , 2018, Vienna, Austria

URL: <http://www.egu2018.eu/>

AOGS 15th Annual Meeting

June 3-8, 2018, Hawaii, USA

URL: http://www.asiaoceania.org/society/public.asp?view=up_coming

10th IVS General Meeting

June 3-8, 2018, Longyearbyen, Spitsbergen, Norway

URL: <http://www.iers.org/IERS/EN/NewsMeetings/ForthcomingMeetings/forthcoming.html>

42nd COSPAR Scientific Assembly

July 14-22, 2018, Pasadena, CA, USA

URL: <https://cosparhq.cnes.fr/events/scientific-assemblies>

IAU XXXth General Assembly

August 20-31, 2018, Vienna, Austria

URL: <http://astronomy2018.univie.ac.at/>

21st International Workshop on Laser Ranging

October 27-31, 2018, Canberra, Australia

URL: <http://www.iers.org/ IERS/EN/NewsMeetings/ForthcomingMeetings/forthcoming.html>

AGU 2018 Fall Meeting

December 10-14, 2018, Washington, D.C., USA

URL: <https://meetings.agu.org/>

EGU General Assembly 2019

April 7-12, 2019, Vienna, Austria

URL: <http://www.egu2019.eu/>

27th IUGG General Assembly

July 8 – 17, 2019, Montreal, Canada

URL: <http://www.iugg.org/assemblies/>

AOGS 16th Annual Meeting

July 28 – August 2, 2019, Singapore, Singapore

URL: http://www.asiaoceania.org/society/public.asp?view=up_coming

Reports

IAG/CPGPS International Conference on GNSS+ (ICG+ 2016)

Nowadays, multi-Global Navigation Satellite Systems (GNSS) have been developed and widely used, including US's GPS, Russia's GLONASS, China's BeiDou and EU's Galileo as well as regional systems, such as Japan's QZSS and India's IRNSS. The IAG/CPGPS International Conference on GNSS+ (ICG+2016) was held at the Shanghai Astronomical Observatory, CAS, July 27-30, 2016, Shanghai, China. The recent advances, opportunities and challenges on GNSS were presented and discussed, including GNSS constellations, signals, orbit, receiver, positioning/navigation/timing theory, algorithms, models and applications in engineering and Earth science as well as using combined multi-sensors.

The ICG+2016 was jointly sponsored by the International Association of Geodesy (IAG) and International Association of Chinese Professionals in Global Positioning Systems (CPGPS), which provided a platform for GNSS scientists and engineers to communicate and exchange in theory, methods, technologies, applications and future challenges. About 260 participants from over 20 countries/regions attended the ICG+2016 with about 100 oral talks and 100 posters. More information can be found at <http://202.127.29.4/meetings/icg2016>





SHUANGGEN JIN