



International Workshop

# Height Systems, Geoid and Gravity of the Asia-Pacific

June 6-8, 2006  
Ulaanbaatar, Mongolia

International Association of Geodesy  
International Gravity Field Service  
[www.igfs.net](http://www.igfs.net)

**Organized by:**

Monmap Engineering Services ([www.monmap.mn](http://www.monmap.mn))  
Mongolian Administration of Land Affairs, Geodesy and Cartography  
Mongolian Academy of Science ([www.mas.ac.mn](http://www.mas.ac.mn))

**Sponsored by:**

International Association of Geodesy  
Danish National Space Center  
National Land Survey of Sweden / Swedesurvey  
National Geospatial-Intelligence Agency, USA

**Scientific Committee:**

S. H. Abu, Department of Survey and Mapping, Malaysia  
J. Y. Chen, Chinese Bureau of Surveying and Mapping  
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J. Li, Wuhan University, China  
J. Segawa, Tokyo Univ. of Marine Science  
and Technology, Japan

**Local Organizing Committee:**

M. Saandar, Monmap Engineering  
B. Chinzorig, ALAGaC  
S. Demberel, Research Center for Astronomy  
and Geophysics, MAS

**Deadlines:**

Apr 15: Abstract submission  
May 5: Registration/housing

**Information and contact:**

[msaandar@mongol.net](mailto:msaandar@mongol.net)



## Call for papers – Height systems, Geoid and Gravity of the Asia-Pacific

With the developments of precise national fundamental GPS networks, many countries in the Asia-Pacific and elsewhere have a need to redevelop national height systems and geoid models to fully utilize the potential of height determination with satellite methods. Improved gravity field data from satellite, airborne and surface measurements are needed together with GPS data on benchmarks to allow determination of sufficiently accurate geoid models, potentially allowing GPS to replace traditional leveling. Airborne gravity has a special role to play in the geoid determination over much of the region, with major projects ongoing or completed in countries such as Malaysia, Mongolia, Japan, Taiwan and China.

The International Gravity Field Service (International Association of Geodesy) is the host organization for the “Height Systems, Geoid and Gravity” Workshop, June 6-8, 2006. The aim of the workshop is to bring together geodesists and geophysicists from the region working in the gravity field and height determination fields. The workshop will be arranged around the following topics:

- Height systems and national leveling networks
- Regional and local geoid modeling
- Airborne gravity survey
- Satellite gravity and new earth gravity field models
- Different vertical datums and dynamic reference systems

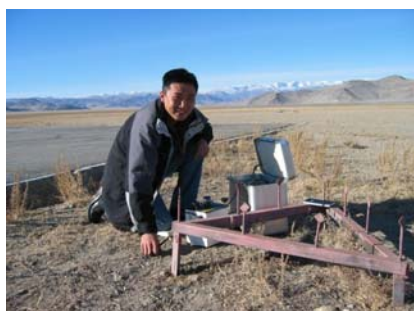
Papers for oral or poster presentations are solicited in the above areas. We also encourage presentations of ongoing and future international or national projects.

### Venue

The workshop will be held at the conference center of the Bayangol Hotel ([www.bayangolhotel.mn](http://www.bayangolhotel.mn)), Ulaanbaatar, June 6-8. A block of rooms will be reserved for the participants, with additional lower-cost lodging alternatives arranged at other hotels nearby. The attendance will be limited to approx. 50 participants on a first come-first serve basis. The Bayangol Hotel is situated in the heart of Ulaanbaatar, the capital of Mongolia with nearly 1 million inhabitants. The climate of Ulaanbaatar is pleasant in June (average high temperatures above 20°C) with plenty of sunshine (Mongolia is the “land of the Blue Sky”).

### Travelling to Mongolia

There are daily flights from Beijing and several weekly flights from Seoul, Tokyo, Berlin and Moscow to Ulaanbaatar. The national airline is MIAT ([www.miat.com](http://www.miat.com)). It is also possible to travel from Europe or Beijing by train. Note that travelers from most countries need a visa to visit Mongolia. Invitations are provided by the local organizers on request. **Please register early to allow time for getting a visa!**



## Proceedings and presentations

It is not planned to publish proceedings, but a CD will be compiled with all abstracts and presentations in pdf format. The authors are therefore encouraged to bring presentations as powerpoint-, doc- or pdf-files.

## Deadlines

Apr 15: Abstract submission deadline and deadline for travel support grants

May 5: Deadline for registration/visa invitations and housing requests

## Local organization committee (LOC):

M. Saandar, MonMap Engineering Services ([msaandar@mongol.net](mailto:msaandar@mongol.net))

B. Chinzorig, Administration of Land Affairs, Geodesy and Carthography ([sws.ub@mongolnet.mn](mailto:sws.ub@mongolnet.mn))

S. Demberel, Research Centre for Astronomy and Geophysics, Mongolian Academy of Science ([demberel@rcag.url.mn](mailto:demberel@rcag.url.mn))

## Submission of abstracts, registration and housing requests

For abstract submission, registration and housing contact M. Saandar, MonMap Engineering, email: [msaandar@mongol.net](mailto:msaandar@mongol.net), tel. +976-11-327-824, mobile +976-99-113-261, fax +976-11-327-824, website [www.mongol.mn](http://www.mongol.mn).

Chairman of the Scientific Committee and liason to the LOC:

Rene Forsberg (chairman of IGFS), Danish National Space Center, email: [rf@dncs.dk](mailto:rf@dncs.dk), tel. +45-3532-5719, fax +45-3536-2475.

Bank account for wire transfer (registration fee and possible housing deposit):

MonMap Ltd account 11 0211 2210, Golomt Bank (Branch 1), Ulaanbaatar, Mongolia, SWIFT code GLMTMNUB.

## Costs

Registration fee: 150 USD.

The registration fee includes lunch, coffee breaks, the abstract volume, CD with presentations, limited local transportation assistance and a tour to the Hurel Togoot (Bogd Mountain) astronomic observatory and IGS station.

## Travel support and registration fee waivers

A limited number of travel assistance grants will be available for young scientists from developing countries. These grants will be paid in cash during the workshop. Travel support will only be provided to presenters at the workshop. In addition indirect support may be provided by lower registration fee. For applications and details contact M. Saandar ([msaandar@mongol.net](mailto:msaandar@mongol.net))



**International Symposium**  
**Height Systems, Geoid and Gravity of the Asia-Pacific**  
Ulaanbaatar, Mongolia, June 6-8, 2006

**Registration**

Please submit the information below by email to the LOC ([msaandar@mongol.net](mailto:msaandar@mongol.net))  
*no later than May 5, 2006 (but preferably earlier).*

Name:

Organization:

Address:

Telephone/fax:

Email:

**Hotel accommodation**

The Bayangol hotel is selected for the June Workshop as main hotel for the workshop. A block of rooms have been reserved for the workshop.  
The workshop room rates for the Bayangol hotel:

Room Type	Single Occupancy	Double Occupancy
Standard twin	US \$ 76.00	
Standard double		US \$ 97.00
Business Room	US \$ 87.00	US \$ 108.00
Deluxe twin	US \$ 142.00	US \$ 174.00
Executive suite	US \$ 252.00	US \$ 295.00

Rates are subject to 15 % value additional tax and all rates are included breakfast.

Local contact persons at the Bayangol hotel is

Ms. Zolzaya, Sales Manager

e-mail: [info@bayangolhotel.mn](mailto:info@bayangolhotel.mn)

web site: [www.bayangolhotel.mn](http://www.bayangolhotel.mn) ( the web site is under renovation for one week )

Tel: (976) 11 328 869

Fax: (976) 11 326 794

Mobile: ( 976) 99 11 5851

The hotel location address is:

5 Chinggis Khaan Avenue, Ulaanbaatar , P.O. B-43, Mongolia

*Please make bookings directly to the hotel, but inform the workshop organizers.  
For lower-priced alternatives please contact ([msaandar@mongol.net](mailto:msaandar@mongol.net)) directly.*

## Abstract submission

Please email a 1-page abstract with your contribution(s) in a format similar to below as (preferably) a .doc-file to [msaandar@mongol.net](mailto:msaandar@mongol.net), with a copy to [rf@dnsc.dk](mailto:rf@dnsc.dk), *no later than April 15*. The Scientific Committee will approve submitted abstracts on a frequent basis, so early submission is encouraged.

### Sample abstract:

#### Gravity field determination by combination of satellite, airborne and surface gravity data

Rene Forsberg, Arne V. Olesen  
Geodynamics Dept.  
Danish National Space Center  
Juliane Maries Vej 30, DK-2100 Copenhagen Oe, Denmark  
[rf@spacecenter.dk](mailto:rf@spacecenter.dk)

With the increased accuracy and resolution of satellite gravity data, the combination with airborne gravity, surface gravity data, and digital elevation models (SRTM), provide the possibility for reliable gravity field models on a broad band of spectral ranges.

When properly processed, airborne gravimetry provides an accurate and bias-free extension of satellite gravity data at the 5-500 km resolution scales, and thus an ideal base for accurate regional geoid models. Over mountainous regions airborne gravity needs to be downward continued, in practice typically be least-squares collocation to allow inclusion of existing surface gravimetry; over near-costal marine regions low-level airborne gravimetry is most useful in bridging between land gravimetry and reliable satellite altimetric gravity, and for detecting error and outliers in older marine gravity data.

In the paper we outline some recent cases of gravity field determination projects for geoid applications in marine areas (Arctic and North Atlantic), as well as recent major projects in continental regions (Malaysia and Mongolia).