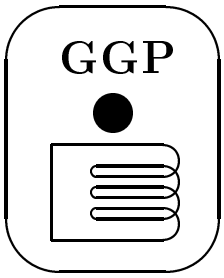
NEWSLETTER #8



24 August 1999

Contents

Prepared by David Crossley, August 1999.

1 GGP Business Meeting - Minutes

A GGP Business Meeting was held during the recent IUGG General Assembly in Birmingham, England. It took place in the High Casson Room, Staff House, from 12:45 - 14:00.

1.1 Participants

T. Baker (Bidstone Observatory, England) tfb@pol.ac.uk,
G. Casula (ING Bologna, Italy) casula@ibogfs.df.unibo.it,
D. Crossley (Saint Louis U), USA crossley@eas.slu.edu,
S. de Freitas (u Parana, Brazil) sfreitas@cce.ufpr.br
B. Ducarme (ORB Brussels, Belgium),bernard.ducarme@ksb-orb.oma.be,
Y. Fukuda (Kyoto U, Japan) fukuda@kugi.kyoto-u.ac.jp,
P. Gegout (EOST, Strasbourg, France) pascal.gegout@eost.u-strasbg.fr,
K. Lambeck (ANU, Canberra, Australia) kurt.lambeck@anu.edu.au,
O. Jensen (McGill U, Montreal, Canada) olivia@transsexy.geophys.mcgill.ca,
G. Jentzsch (FSU Hena, Germany) jentzsch@geo.u-jna.de,
K. Kaminuma (NIPR, Japan) kaminuma@nipr.ac.jp,
C. Kroner (FSU Jena, Germany) kroner@alfven.geo.uni-jena.de
P. Paquet (ROB, Belgium) paquet@oma.be
S. Pagiatakis (NRCan, Geodetic Survey, Canada), pagiatakis@geod.nrcan.gc.ca
H.-P. Plag (NMA, Honefoss, Norway) plag@gdiv.statkart.no
B. Richter (IFAG, Germany) richter@ifag.de
B. Ritschel (GFZ, Potsdam) rit@gfz-potsdam.de
T. Sato (NAO, Mizusawa, Japan) tsato@miz.nao.ac.jp
H.-P. Sun (IGG, Wuhan, China) heping@asch.whigg.ac.cn,
S. Takemoto (Kyoto U.) takemoto@kugi.kyoto-u.ac.jp,
R. Warburton, GWR Instruments, USA) gwrinst@delphi.com

1.2 Comments on Newsletter #7

The Chair asked for comments on the previous Newsletter in the areas of

(a) Data Authorisation
(b) Data Formats / Requirements, and
(c) Loss of Data Rights.

There were no specific comments on item (a) so it is assumed that GGP Members running the stations are in agreement with the existing requirements.

Concerning item (b), again there were no specific comments on format. *Bernard Ducarme*, however, made some remarks concerning the loss of Olivier Francis from ICET, at least for the current year and the impossibility of hiring a replacement. He stated that ICET would be extremely short staffed for processing the GGP data and requested members to send data to ICET only via the Web-based software and exactly in the correct format. If groups still did not have the right headers they could copy it from an existing header and patch it into their own processing programs.[1].

[1]Subsequently it was agreed that ICET would coninue to receive GGP data by FTP and issues of data formatting etc. would be dealt with directly by David Crossley

If there are any members not at the meeting who wish to raise points on Data Authorisation or Formats, please do so through myself or Jacques Hinderer.

Concerning the Loss of Data Rights, we have agreed that stations which have not sent any data will not be eligible to receive data. There are some stations for which this is still true. *Ducarme* suggested that it is the duty of the GGP Chairman, not ICET, to issue such letters. I will therefore be writing to those individuals concerned indicating the temporary loss of rights until data is supplied by their station.

1.3 Auxiliary and Log Data

The issue of the lack of hydrological data (groundwater, rainfall and soil moisture) was once again raised and briefly discussed. *Ducarme* reported that ICET had received some auxiliary data but that problems with the ICET software also need to be fixed. The biggest issue is the lack of this type of data being recorded at the stations. Note that **hydrology data is as important for long term gravity variations as atmospheric pressure data is for tidal analysis!**.

Also, most GGP Groups are not sending us the station log files; please send these immediately for the months that are outstanding!

1.4 First Annual CD-ROM

ICET is at present collecting the final data for the First Annual CD-ROM. The data to be included are the individual monthly files for July 1997 - June 1998:

(a) 1 minute GGP data, untreated but decimated,
(b) auxilary data, and
(c) log data

If space permits, ICET will also include 'fixed' or 'corrected' 1 minute files in which the 1 minute GGP files have been processed to remove major gaps, spikes and offsets either by the user or by ICET.

Action

FINAL DATE FOR ICET TO RECEIVE THIS DATA IS 1 OCTOBER 1999
- no extension will be permitted.

Note we have allowed extra time for GGP Groups to prepare and send the data so that ALL OF IT CAN BE INCLUDED!

1.5 Station / Instrument News and Problems

Corinna Kroner reported that although Moxa is currently recording data with their new dual sphere instrument, the data acquisition system is not adequate and it will be replaced in September. We look forward to receiving the Moxa data when the exchange has been completed. *Kroner* indicated that Moxa would send data as soon as they had it ready.

Bernd Richter commented on the problem with loss of helium at Wettzell. He also discussed the issue of the moving of the instrument to Wettzell while still maintaining levitation. *Richard Warburton* suggested that a re-magnetisation of the instrument prior to transportation might have reduced the subsequent drift. He commented that several attempts were needed to magnetise / levitate the new Strasbourg compact instrument but the end result is an instrument with very low drift.

Warburton also commented on the development of the new GWR compact remote controlled gravimeter, particularly the reduction in power available with new compressor designs. In response to a question, he

indicated that some retro-fitting of existing instruments may be possible to take advantages of the recent advances.

The issue of instrument / site noise was raised (unfortunatley I cannot recall by who!) and the use of the method suggested by Banka and Crossley to measure the Seismic Noise Magnitude. *Crossley* offered to make this procedure available on the GGP Website so all groups could do the analysis for themselves.

Hans-Peter Plag spoke about the imminent installation of an SG at the geodetic station at Ny Aslund, operated by the Norweigan Mapping Authority. The gravimeter is due to arrive this coming September.

Ducarme indicated that the original SG installed in Brussels in 1982 is approaching its 18th birthday. After this significant milestone is achieved, 'she' (someone suggested the name 'The Old Lady') will be retired from use and a new SG purchased by ROB for installation in a mine site near Brussels.

1.6 Regular Absolute Gravity Measurements

We have repeatedly urged SG groups to make regular measurements of absolute gravity at SG sites. It is essential that such measurements are carried out, not only to calibrate the SGs and to check the SG instrument drift, but also as an essential verification of any inferences to be made about secular changes at the site. A maximum time interval of 6 months is considered suitable between AG measurements.

Katsu Kaminua and *Tadahiro Sato* commented that this was not possible for Syowa station due to the problem of access to the Antarctic in the winter. Other groups indicated they would try to maintain this 6-month schedule.

1.7 Absolute Gravity Data to be Collected for GGP?

The final topic was the question of whether GGP, having more or less successfully organised the collection of relative gravity data at SG sites, could be extended to include absolute gravity measurements at those same sites.

Crossley argued that there would be 2 advantages:

(1) All GGP members could have ready access to single AG measurements for the purpose of checking SG drift and secular changes

(2) A regular program of reporting such measurements to ICET would preserve the work that had been done in making the measurements, there being no other AG database yet available.

Ducarme endorsed the idea and offered ICET as a repository for such data as part of the GGP database, even though AG data is directly related to Earth Tides. He cautioned, however, that data should be submitted only when processed by experienced people who understood the handling and corrections necessary to the data.

In consultation with *Trevor Baker*, we suggest the following possible data organisation for AG measurements within GGP:

AG Measurements as GGP Data

		value
Location	latitude	lat (°N)
	longitude	long(°E)
	elevation (above mean sea level)	elev (m)
	site code if at a GGP station	e.g. WU
Instrument Designation	type (e.g. FG5)	FG5
	serial number	SN
Measurement Details	effective date and time of measurement	yy/mm/dd 16:45
	number of data sets	ndet
	number of drops per set	ndrop
Values Measured	gravity value with standard error	g$\pm$ δg)
	corrections made (e.g. T = tides,	TAP
	A = atmospheric pressure, P = polar motion)	
Other Variables	vertical gravity gradient	dgdr (μ gal/h)
	height of instrument above the reference point	h (m)