



Economic and Social Council

Distr.
LIMITED

E/CONF.92/L.11a
10 April 2000

ORIGINAL: ENGLISH

FIFTEENTH UNITED NATIONS REGIONAL
CARTOGRAPHIC CONFERENCE FOR ASIA
AND THE PACIFIC

Kuala Lumpur, 11-14 April 2000
Item 5 of the provisional agenda*

WORKING GROUP 1 REPORT - REGIONAL GEODETIC NETWORK
STATUS REPORT

* E/CONF.92/INF/1

REPORT FROM WORKING GROUP I

“Regional Geodetic Network”

Rudolf Matindas, Chairman

Working Group Report - Kuala Lumpur, 2000



Objectives

- To assist the Permanent Committee in the development of a regional geodetic infrastructure as the basis for a regional GIS

Working Group Report - Kuala Lumpur, 2000



Activities since Beijing meeting

- Work Plan revised at Beijing and 3 major projects endorsed by Executive Board
 - Regional Geodetic Network: Co-ordination Australia
 - Local to regional linkages : Co-ordination Australia
 - Regional vertical datum : Co ordinator Japan

Working Group Report - Kuala Lumpur, 2000



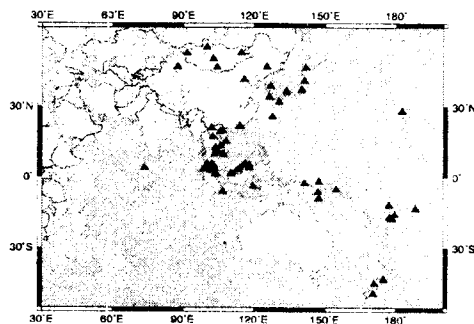
WG1 Activities

- APRGP97 Campaign
- 1st Regional Workshop July 1998
- APRGP98 Campaign
- 2nd Regional Workshop July 1999
- APRGP99 Campaign
- 3rd Regional Workshop planned August 2000

Working Group Report - Kuala Lumpur, 2000



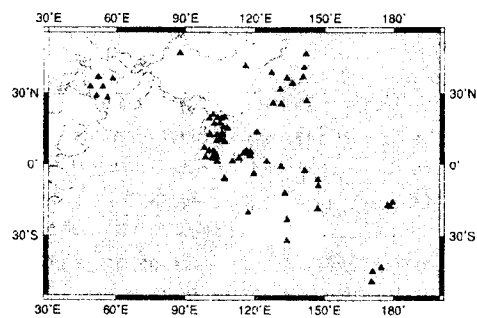
APRGP99 - Non IGS Sites



Working Group Report - Kuala Lumpur, 2000

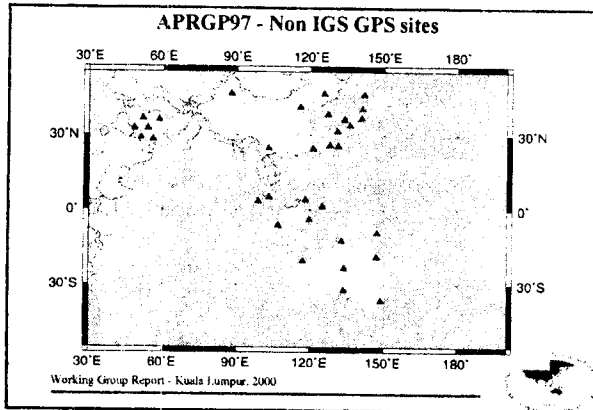


APRGP98 - Non IGS GPS sites



Working Group Report - Kuala Lumpur, 2000





APRGP97

- Successful multi technique project involving
 - VLBI
 - Satellite ranging
 - GPS
 - DORIS
- Workshop held July 1998 hosted by AUSLIG

Working Group Report - Kuala Lumpur, 2000

APRGP 98

- Successful multi technique campaign
- 17 nations participated in data acquisition
- 92 GPS sites in addition to IGS sites
- Workshop hosted by Vietnam 12-13th July
- Six independent GPS solutions presented

Working Group Report - Kuala Lumpur, 2000

APRGP99

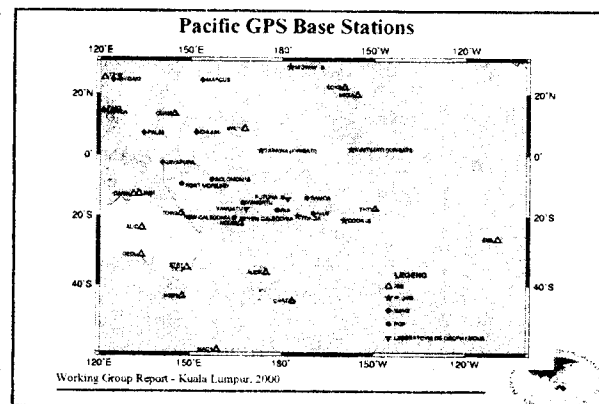
- Multi technique campaign
- 21 nations participated
- Limited Pacific component
- 90 non IGS sites received so far
- Awaiting data from 10 sites before distribution
- A number of connections to sea level
- Workshop to be hosted by Mongolia

Working Group Report - Kuala Lumpur, 2000

APRGP99 cont'd

- Difficult to get involvement in Pacific region
- lack of available GPS equipment
- travel costs and transportation time
- however there are other GPS base stations gathering data for science purposes
- some data accessed during campaign but more coordination is required

Working Group Report - Kuala Lumpur, 2000



Project 1 Regional Geodetic Framework

Workplan summary

Item	Responsibility	1999 Target Date	Status	Comments
1. Finalise APRGPS	Australia	30 April	Completed	Data collated and distributed on CD-ROM
2. Individual Countries present results for combined solution	AIF members	12/13 th July	Completed	Five GPS solutions presented at regional workshop
3. Arrange APRGPS Technical Workshop	Vietnam	12/13 th July	Completed	Very successful workshop hosted by Vietnam
4. Prepare strategies to maintain precise reference framework	Australia	12/13 th July	Started not completed	Pacific region will be addressed during Cook Islands regional conference 3-7 April 2000
5. Publish proceedings of Technical workshop	Australia, Vietnam	September	Completed	Proceedings published by Vietnam in conjunction with Australia and available from the PCGIAP web site.
6. Develop GLONASS strategy	Russia	12/13 th July	Not Started	No activity reported from Russia
7. Develop VLBI regional capability	Japan	12/13 th July 1999	Completed	Japan, China and Australia have completed three VLBI campaigns in conjunction with USA

Working Group Report - Kuala Lumpur, 2000



Project 2 : Local to Regional Linkages

Workplan summary

Item	Responsibility	Target	Status	Comments
1. Develop Observation campaign strategy and workplan for APRGPS	Australia	August 1999	Completed	Observation campaign implemented with GPS, VLBI, SLR, DORIS through newsletters
2. Arrange workshop Campaign to link with international projects in the region	Australia	October 1999	Completed	Good participation by 15 countries
3. Undertake processing of APRGPS observation campaign	Australia, in parallel with other countries	Sequentially from April 1999	Completed	Results delivered to IERS for inclusion in ITRF 2000
4. Prepare papers on strategy for computation of transformation parameters	Australia, China, Iran	12/13 July 1999	Completed	Papers presented by Iran and AUSTRALIA published in proceedings of second workshop. Implementation of options remains with individual countries
5. Individual countries readjust geodetic network to regional points	Individual countries	UNRCCAP 2000	Started not completed	Implementation timetable varies with individual countries
6. Individual countries publish results, post to WWW	Individual countries	UNRCCAP 2000	Started not completed	Implementation varies with individual countries

Working Group Report - Kuala Lumpur, 2000



Project 3 : Regional Vertical datum

Workplan summary

Item	Responsibility	Target	Status	Comments
1. Prepare discussion papers on aspects of vertical datum for consideration as possible approaches for establishing a regional vertical datum	Japan, Australia, China	12/13 th July 1999	Completed	Paper presented by Iran at the Vietnam workshop, highlighting the need for a new project and the inclusion of GPS observations at a number of sea level tide gauges for inclusion in Year 2000 regional campaign
2. Represent the WG on IAG Special Study Groups on sea level. Prepare progress reports to WG	Vietnam	Ongoing	Completed	Ongoing communication from IAGS groups are being reorganised in 2000. Commission X sub commission on Asia and the Pacific reform. Report presented to IAG July 1999

Working Group Report - Kuala Lumpur, 2000



Outcomes arising from Workshop in Vietnam

Workplan summary

Item	Responsibility	1999 Target Date	Status	Comments
1. Finalise APRGPS	Australia	30 April	Completed	Data collated and distributed on CD-ROM
2. Individual countries present results for combined solution	AIF members	12/13 th July	Completed	Five GPS solutions presented at regional workshop
3. Arrange APRGPS Technical Workshop	Vietnam	12/13 th July	Completed	Very successful workshop hosted by Vietnam
4. Prepare strategies to maintain precise reference framework	Australia	12/13 th July	Started not completed	Pacific region will be addressed during Cook Islands regional conference 3-7 April 2000
5. Publish proceedings of Technical workshop	Australia, Vietnam	September	Completed	Proceedings published by Vietnam in conjunction with Australia and available from the PCGIAP web site.
6. Develop GLONASS strategy	Russia	12/13 th July	Not Started	No activity reported from Russia
7. Develop VLBI regional capability	Japan	12/13 th July 1999	Completed	Japan, China and Australia have completed three VLBI campaigns in conjunction with USA

Working Group Report - Kuala Lumpur, 2000



Summary of Achievements

- Regional horizontal datum established (ITRF)
- Connections to local geodetic networks
- Technology transfer by regional workshops
- Strong working level relationships established
- Web site established with geodetic meta data

Working Group Report - Kuala Lumpur, 2000



Future work required

- Establish guidelines for transformation parameters
- Extend local to regional connections with GPS
- Access to resources for participation of more Pacific Island nations
- Regional height datum and improved geoid
- Regional absolute gravity strategy
- Gain IERS accreditation of regional results

Working Group Report - Kuala Lumpur, 2000

