Annex 1  
Programme of the Workshop

THURSDAY - OCTOBER 23:

08:45 - 09:00  Welcome and Introduction  
(G. Bianco, and B. Richter or M. Rothacher)

09:00 - 10:30  Session 1: Co-location sites in ITRF  
chair: Z. Altamimi, with contribution from the IERS Technique Centers  
- A. Moore: IGS  
- A. Nothnagel: IVS  
- V. Husson: ILRS  
- H. Fagard: IDS  

The session will address the following subjects:  
- Use and importance of co-location site survey in the ITRF  
- Definition of a co-location site in terms of accuracy and distance between co-located stations  
- Requirements of the IERS combination centers concerning local ties: SINEX files, accuracy  
- Current status of local ties in co-location sites:  
  - distribution of currently operating stations of the 4 techniques  
  - quality of the currently available local ties  
  - list of missing local ties  
  - priority list of problematic sites  
  - local tie information available at Techniques Centers (provided by a representative from each Service)

Presentations:

C. Boucher: Overview of ITRF combination and co-locations  
Z. Altamimi: Position paper  
A. Moore: IGS  
V. Husson: ILRS (not presented)  
A. Nothnagel: IVS  
H. Fagard: IDS  
M. Rothacher: Assessment of local ties and systematic biases between techniques from the CONT'02 Campaign processing  
M. Krügel, D. Angermann: Analysis of local ties from multi-years solutions of different techniques

Discussion

10:30 - 11:00  Morning break

11:00 - 12:30  Session 2: Site Surveys  
chair: C. Steinforth  
co-chairs: H. Fagard
Programme of the Workshop

Presentations:

A. Nothnagel: Introduction to Site Surveys for co-location
- planning and strategies
- site monumentation and local control networks
- monitoring local site stability and footprint network
- reference point on space geodesy instruments
- methods and equipment
- preliminary computations

Presentations of Examples for Completed Site Surveys:
L. Vittuari: Station Medicina
J. Dawson: Examples from Australia

12:30 - 13:30 Lunch

13:30 - 15:00 Session 2: (continued)
R. Haas: The 2002 local tie survey at the Onsala Space Observatory
W. Schlüter/Lechner: Station Wettzell (site survey, footprint measurements and antenna monitoring)
C. Steinforth: Station Ny-Alesund
V. Michel: Station Hartebeesthoek

Discussion

15:00 - 15:30 Afternoon break

15:30 - 17:30 Session 2: (continued)
A. Nothnagel: Some do's and don't's in terrestrial surveying of site eccentricities
J. Long: Present Draft Site Survey Standards Document
- Review, Discussions and Recommendations
  (Comments and detailed discussion on site survey presentations)
  Goal of this session is to reach agreement on Site Survey Standards
  (presented by A. Nothnagel)

Contribution without presentation:
S. Matsuzaka et al.: Co-location Surveys & Results in GSI's Space Geodetic Network

20:30 Dinner

FRIDAY - OCTOBER 24:
09:00 - 11:00  
Session 3: *Analysis and SINEX*

chair: P. Sarti  
co-chair: D. Angermann

*The session aims are the following:*

This session will focus on the procedures used for estimating the eccentricity vectors between different co-located space geodesy techniques using terrestrial data. The problems that relate to the definition of immaterialized Reference Points using terrestrial observations will be addressed: the different softwares used for data processing along with the geometrical constraints that have been applied within the softwares will be discussed. The tight connection between the estimation model and the surveying procedure will be highlighted. The generation of SINEX files from terrestrial data will be discussed: it is the final step of an efficient and complete local survey.

*Presentations:*

P. Sarti,  
D. Angermann: Position Paper (presentation)  
- Survey analysis strategies and software  
- Generation of co-location SINEX files

Examples of computation methods:  
J. Dawson: An approach to the determination of the precise terrestrial connections at multi-technique geodetic observatories  
V. Michel: Latest results from Hartebeesthoek  
P. Sillard: Local tie adjustment: from principle to implementation  
M. Rothacher, W. Schlüter: Steps to generate SINEX files from the Wettzell local surveys

*Discussion*

11:00 - 11:30  
Morning break

11:30 - 12:30  
Session 4: *Reporting*

chair: A. Nothnagel  
co-chairs: B. Richter

The first part of Session 4 is concerned with the survey reporting document, the report content, the level of detail, the organization and the format. Alex Nothnagel, John Dawson, Michel Valerie, and Wolfgang Schlueter will present examples of survey reports already produced. A strawman report template for the standard report will be presented for discussion. In this part of Session 4, we will try to come to closure on a standardized report content and structure. If we cannot come to closure, we will identify the issues of disagreement and a path toward resolution.

*Presentations of Example of survey reports*  
- J. Dawson: Geoscience Australia  
- V. Michel: IGN

12:30 - 13:30  
Lunch
13:30 - 15:00  Session 4: (continued)

Survey report template and survey data reporting:

A. Nothnagel: Report Template

This section of the session will discuss the content, level of detail, and format of a survey report, with the goal of agreement on a standard report.

Angelyn Moore: Proposal for site documentation

Z. Altamimi, B. Richter: Site survey database

In continuation of the previous discussion this part of the session will address the following subjects:
- Review of existing information available at different WEB/ftp areas related to Local Survey in co-location sites
- IERS database concept and realization
- Proposal for an IERS Local Survey database, including survey data, reports, SINEX files and description of markers and instrument reference points in the co-location sites.

15:00 - 15:30  Afternoon break

15:30 - 17:30  Session 5: Planning for 2004

Chair: C. Ma
Co-chair: M. Rothacher

- Survey capability and availability for co-location
- Survey planning for 2004
- Workshop summary (all session chair, IERS CB)
  - list of agreed-upon standards, methods, formats, etc.
  - list of items needing further discussion

M. Rothacher: Status and organization of site survey activity within IAG, IAG Commission 1 and IERS Working Groups

- planning of next meeting
- RECOMMENDATIONS