

## Outcome of the group discussions to the following five topics:

### Astronomy

What astronomy expects:

- Stable reference frame in multiple wavelengths appropriately updated
- Close cooperation of IERS in establishing policy
- Dynamical reference frame including tie to bary center
- Improved flow of information

What IERS provides:

- Radio reference frame
- IERS conventions

Deficiencies:

- Policy for updating and procedure
- Reference frame at other wavelength [Input to IAU]
- Representation of Almanac in IERS conventions [Conventions Editorial Board]
- Continuity of dynamic reference frame [Input IAU]
- FAQ's, bibliographical information [IERS CB]
- Continuity of LLR observation [requirement for IERS products, responsible ILRS]

### Technique Centres

Analyses Topics:

- Ocean loading:  
TC expect IERS recommends 1 model, TC should apply this model.
- Atmospheric pressure loading:  
TC expect:  
science (final): deformation values,  $\Delta t = 6$  h, time delay = max. 7 days, ideally for each station,  
(alternative) : grid + interpolation tool, backwards to old datasets,  
operational (rapid): regression formulation + reference pressure + pressure reading
- Updated IERS conventions where needed (chapterwise)

Products:

- Geocentre offered by TCs [[R. Noomen](#), M. Feissel, R. Ferland via ftp]  
[SB Geocentre: M. Watkins (T. Gruber), B. Chao GGFC] TC define interest and requirements.

Network:

- TC expect:  
IERS recommendations to stimulated co-location GPS @ SLR, VLBI, DORIS,  
Co-located sites consult IGS,  
explore DORIS coll. @ VLBI, SLR,  
barometer comparison,  
need for ITRF 2000 A – new data after 12/99

### Gravity & Geophysical Fluids

- Closer contact to missions (in advance)
- Reference System  
POD (precise orbit determination): CRF, TRF 4 D, EOP all consistent,  
Geocentre Variability (  $l=1$  term) (not sensitive for rotation but stations & GPS)

position solution),  
Static gravity field: improved SLR – altimeter satellite orbits,  
State of the art conventions (update + consistency + long term variability).

- Temporal gravity field variations
  - combination of CHAMP / GRACE with SLR requirements,
  - time series of  $l=1$ ,  $l=2$  terms rel. to reference frame,
  - geophysical fluids: de-aliasing (gravity, altimeter),
  - forward modelling (validation, understanding),

Goal: assimilation of gravity results, tie and connection with Conventions
- IERS – IGFS ( ICGG) representative at the IERS DB to ensure compatibility, consistency (standards) of used models,
- Co-location in space, combined high / low satellite processing (flying station).

### Combination

- Organization + structure

Creation of WG on Combination

Chair: AC

Members: 1 reps. PC (EOP, Rapid, ICRF, ITRF, Conventions), 1 reps. of each TC, 1 rep. CRC, 1 rep. Collocation Site information WG,

- Task of WG
  - Coordination
  - Guidelines / Definition for rigorous combination document
  - Input for combination
  - Product specification (routine + past (old) data sets)
  - Prepare call for participation
  - Handling / guidelines of site problems
  - Validation issues
- Schedule
  - Constitution of WG till May 01, 2003
  - Call for Participation, end of June
  - Response: Sept. 15, 2003
  - Evaluation: Begin of October
  - Start of pilot project: January 2004

### IGGOS

- IERS agrees and approves the visions, goals, missions of IGGOS,
- IERS should take an active , even leading role in IGGOS,
- IERS presently (already) offers / contributes as level 2 service (dealing with at least 2 pillars of IGGOS [reference systems, Earth rotation] + conventions + consistencies + geophysical fluids + IERS CB (data base, management, ....))
- IERS contribution:
  - Reference frames
  - Conventions
  - Co-location
  - GGFC
  - Cooperation with IGFS (ICGG)