Status of the ITRF2005
(March 10, 2006)

Zuheir Altamimi
Institut Géographique National, France
SUMMARY

• ITRF2005 vs. previous ITRFs
• Submissions to ITRF2005
• DORIS preliminary results
• ITRF2005 origin and scale
• Plans for final ITRF2005 computation
ITRF2005 Derivation

VLBI  W1  W2  ...  Wn  TRF (X, V) + EOP  (SINEX)

SLR   TRF (X, V) + EOP  (SINEX)

GPS   TRF (X, V) + EOP  (SINEX)

DORIS TRF (X, V) + EOP  (SINEX)

Stacking

Local Ties

Combination

ITRF2005

TRF (X, V) + EOP  (SINEX)
ITRF2005: Co-locations
Status of IVS submission

• Last version submitted March 1, 2006:
  – Data span 1979.x – 2006.0
  – ~3600 Sessions/SINEX files
  – Current analysis seems OK
Status of ILRS submission

• Last version submitted January 2006:
  – Data span 1993.0 – 2006.0
  – 641 Weeks/SINEX files
  – Current analysis stabilized
Status of IGS submission

• 3rd version submitted in August 2005:
  – Data span 1996.1 – 2005.6
  – EOPs start 1999.2
  – 497 weeks/SINEX files
  – Long-term solution by time-series stacking is ready
Status of IDS submission

• 3 solutions
  – LCA: 1993.0 – 2005.0 (resubmission on January 2006)
  – INASAN: 1993.0 – 2004.4 (early submission)
DORIS WRMS: IGN & LCA

Comparaison to IGS:
Indicative WRMS

<table>
<thead>
<tr>
<th></th>
<th>2-D</th>
<th>UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGN</td>
<td>6.5</td>
<td>6.7</td>
</tr>
<tr>
<td>LCA</td>
<td>6.6</td>
<td>9.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2-D</th>
<th>UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGN</td>
<td>1.7</td>
<td>1.6</td>
</tr>
<tr>
<td>LCA</td>
<td>1.6</td>
<td>2.3</td>
</tr>
</tbody>
</table>
IGS – DORIS Polar Motion Differences

Xpole

Ypole

IGN

Xpole

Ypole

LCA
SLR Origin and Scale Variations w.r.t. ITRF2000

- ILRS
- TX (mm)
- TZ (mm)
- TY (mm)
- Scale (mm)
SLR Origin and Scale Variations \textit{wrt} ITRF2000
VLBI and SLR Scale wrt ITRF2000

Scale (mm)

I VS  ILRS

VLBI and SLR Scale wrt ITRF2000: Annual Amplitude & Phase

Scale Amplitude and Phase

IVS

ILRS

DORIS Origin and Scale Variations WRT ITRF2000

- IGN
- LCA
- TX (mm)
- TZ (mm)
- TY (mm)
- Scale (mm)
Internal Quality Evaluation: Weekly WRMS

- **DORIS**
  - DORIS/IGN Weekly WRMS
  - UP-WRMS (mm)

- **VLBI**
  - VLBI/IVS session WRMS
  - UP-WRMS (mm)

- **SLR**
  - ILRS Weekly WRMS
  - UP-WRMS (mm)

- **GPS**
  - IGS Weekly WRMS
  - UP-WRMS (mm)
ITRF2005 Final

Target: End of April - Early May 2006

Thank you!