

IERS WG on local ties and co-location sites

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Goals and Objectives

- **Site surveys standards:**
 - Revise the local tie surveying activity developed so far. Identify open issues and promote research and discussion.
 - Set guidelines related to in field operations.
 - Spread the know how among the community and the national agencies in charge of co-located sites maintenance.
- **Tie vector estimation:**
 - Set guidelines on tie vectors computational standards and their transformation into global frame.
 - Provide local tie vectors with full variance-covariance information in SINEX format.
 - Develop a concrete action plan to improve local ties for future ITRF realizations.
- **Site surveys activities:**
 - Promote local tie surveying wherever needed.
 - Remotely assist site surveying activities.
 - Provide computational support.
- **Coordination and research:**
 - Liaise with technique combination centres.
 - Liaise with technique services.

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- Composition
 - Extremely heterogeneous
 - Experties are profusely available
 - SG techniques
 - Terrestrial surveyors
- Technical discussion might be promoted among smaller subset of members

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- **Site Survey standards:**
 - Revised main methods
 - Indirect as the most flexible approach for all techniques
 - Open issues:
 - PCV files for all techniques: issue to be handled by the Services
 - Terminology
 - Documentation
 - Preliminary draft to be prepared for EGU2010

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- **Coordination and research**
 - Combination residuals
 - Available from the CC when ITRF2008 is finalized
 - Alignment
 - Critical issue to be investigated further
 - Save and store topocentric as well as global information
 - Possibly obtain local geoid undulation

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- **Site survey activities**
 - Three new ties from Australia in 2009
 - Mt. Stromlo (SLR-DORIS-2 GNSS); Parkes (VLBI-GPS); Hobart (Patriot VLBI-VLBI-GNSS)
 - Cooperation with NGS for future surveys
 - Next crucial surveys to be identified in the near future (after ITRF2008)

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- **Tie vector estimation**
 - Exchange post-processing software for indirect methods
 - Promote further data exchange and test of existing software (e.g. INAF - IGN)

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Next meeting in Vienna,
EGU May 2010