3.7 IERS Working Groups

3.7.1 Working Group on Site Survey and Co-location

The IERS Working Group on Site Survey and Co-location (jointly with IAG Sub-Commission 1.2 – WG 2, SC1.2-WG2) was established in February 2004. The major goals and objectives of the WG are:

- **Site Survey and Standards**
  - Develop, test, compare and set standards on site survey methods, including observational techniques, network design, classical adjustment, geometrical modelling and/or direct measurement techniques for invariant point determination, reference frame alignment, software implementation and SINEX generation. This will include the development of a standards document for undertaking site surveys;
  - Preparation and coordination of a Pilot Project (PP) on site survey. The PP will include a test campaign(s) to be used for the comparison of different approaches to local tie surveys addressing each of the technical elements;
  - Develop standards for the documentation of site surveys, including survey report content and format; and
  - Suggest a pool of expertise to provide advice to survey teams, as required, on standards for site surveys.

- **Coordination**
  - Liaise with local and international survey teams undertaking site surveys at important co-location sites;
  - Liaise with the technique combination groups to ensure WG site survey products meet user requirements;
  - Coordinate as required and make recommendations to observatories as to survey scheduling and re-survey frequency;
  - Develop and distribute software tools to the community to assist in the generation of site survey products, including SINEX generation software; and
  - Provide a forum to raise the profile of site survey as a critically important independent geodetic technique.

- **Site Survey Research**
  - Investigate new site survey methodologies, including observational techniques, observational modelling, invariant point definition, geometrical modelling and/or direct measurement techniques for invariant point determination, ref-
Meetings

The IERS Working Group on Site Survey and Co-location met twice in 2005: in April 2005 at the EGU in Vienna and also at the IAG General Assembly, Cairns, Australia (August 2005).

At the IAG General Assembly, in Cairns, activity reports were provided by a number of institutions from Australia, Italy, Sweden and France. Recent surveys have been performed at Parkes, Hobart and Mount Stromlo (Australia); Noto and Medicina (Italy). Additional surveys will be undertaken in Tidbinbilla, Yarragadee (Australia).

Research

The WG continued research associated with Gravitational Sag and thermal Modelling of Antennas.

Further Information

Three detailed reports in the IERS recommended local survey format have been prepared for general access. These are Yarragadee Mobile SLR system, Hobart X-Y System VLBI antenna and Mt. Stromlo SLR System. These reports can be accessed from <http://www.ga.gov.au/geodesy/reports/localties>.

A summary report of the Site Survey and Co-location Pilot Project (SSCPP) is in preparation.

John Dawson is unable to continue to chair the WG. Gary Johnston from Geoscience Australia has replaced him.

John Dawson