Session Summary Report

Session Name Laser Time Transfer
Chairs Stanislaw Schillak (SRC) & Ivan Prochazka (CTU)
5 presentations in total

Recognition of current situation

1. Time Transfer by Laser Link (T2L2) and European Laser Timing (ELT). T2L2 is used for time comparison between Time Laboratories is operational now, 100 ps accuracy demonstrated
2. European Laser Timing (ELT) - time comparison between clock on board International Space Station in the frame of ESA project Atomic Clock Ensemble in Space (ACES) and ground Time Laboratories.

Topics

1. Estimation of possibility to use laser time transfer and related synergies.
2. Method of delay determination between clock and SLR reference point
   – the most important task of laser time transfer

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3. Description of ELT project, laser safety for ISS (go/nogo mode)
4. SLR Wettzell hardware and software changes, also for possibility of laser time transfer
5. The local geodetic ties within Wettzell Observatory were performed.

Issues

- Calibration of systematic errors from present hundreds of ps down to 10 ps level.
- The correct sync. of station clock and SLR time scale.
- New clocks will be placed on ISS board in 2016
- Necessity of calibration of each participating SLR before the mission will start.

Takeover items to next meeting

- More T2L2 results from more SLR are expected
- First ELT delays calibration results