2015 ILRS Technical Workshop

4.2 Why Geodesy Needs Time!

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Four points are addressed for the discussion why geodesy and especially SLR would benefit from a stable time bases.

1. If we have a possibility to synchronize clocks between GNSS satellites and GGOS stations we get the troposphere. As we can transfer pseudo-ranges into biased ranges and the highly correlated parameters clock and troposphere are separated.

2. If we contribute to time transfer we gain a "new" ranging technique, the microwave link.

3. If we have a stable time we can go beyond the moon.

4. If we have a stable time bases we gain precision in multistatic space debris tracking.