Modeling Revisions for Improved Reprocessing for ITRF2020

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The development of the new realization of the ITRF—"ITRF2020", is an excellent opportunity for a revision of the ASC internal standards and procedures. This will ensure an improved combined contribution from all Analysis Centers. Over the past few years the ASC focused on an improved product unaffected by systematic errors in the SLR data with very impressive results. Recent improvements in various areas though require that we re-evaluate the geophysical models we use in our analysis and if needed, adopt new, improved releases. The current approach is based primarily on the outdated IERS Conventions 2010 and our internal ILRS standards, with a few documented deviations that we deem necessary to keep our products at a high standard. The IERS does not foresee the release of new Conventions prior to 2020. There are however incremental changes to the 2010 Conventions and numerous ongoing evaluation projects for new models that can make a significant contribution to the improvement of the quality of our products. For example, improved tidal models, models of tidal effects for the correction of EOP and the center of mass at high frequencies, improved gravitational models, etc. to name a few. This presentation will give an overview of new models to be considered, along with examples from tests at our AC and a measure of their effectiveness in improving the ILRS products.