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VLBI2010 and the next generation of Earth orientation observations

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During the last decade, the International VLBI Service for Geodesy and Astrometry (IVS) and its components have gone through a stage of conceptual planning and concrete testing for the next generation of Earth orientation observations. Two aspects have been in the focus of the developments: (a) a better accuracy through wide band receiving capabilities and faster antenna slewing and (b) continuous observations through more and smaller telescopes, possibly realized in twin configurations. The first aspect is closely linked to improve the observing accuracy through employing phase delay observations in addition to group delays. Continuous observations can be realised through alternating observations with two telescopes at each site where time for observations and maintenance can be shared between the two telescopes. In the meantime, the usage of twin telescopes has been extended to a simultaneous observing plan where simultaneous dual direction observations can help to improve the accuracy of the daily single-baseline, short-duration UT1 observations (Intensive sessions). In this presentation we report on recent developments within various IVS development projects.