



VLBI Intensive observations for UT1: accuracy and usability

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Starting from April 1984, single-baseline hourly VLBI experiments for determination of UT1 are carried out 5-7 times per week. In 2004-2006 several dedicated 24-hour experiments were made in order to evaluate an accuracy of UT1 from single-baseline experiments. The accuracy of the UT1 from an individual 24-hour experiment is by a factor of 3-5 better than the accuracy of UT1 from hourly single-baseline experiments, but since the hourly experiments are observed 2-5 times more often their relative weight to the final empirical mathematical model of the Earth's axial rotation is comparable. The impact of hourly VLBI experiments on scientific analysis of UT1, on the geophysical interpretation of the Earth's axial rotation, and on prediction of the UT1 for real-time applications is discussed. The assessment of errors of the UT1 prediction to the current epoch is presented and approaches to reducing these errors are discussed.