Time transfer through GLONASS:
motivation, goals and technical implementation


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Abstract

The paper reviews the current status of activities on establishment of a system for precision
time transfer through the navigation system GLONASS using laser measurements, including those
from the State standard of time, frequency and national time scale.

The authors explain why it is necessary to establish such a system and give estimations of
achievable accuracy of measurement of divergence between time scales and other parameters of
highly stable time and frequency standards.

The paper also reviews the requirements for the time transfer equipment included into SLR
stations and intended for operation in laser time transfer mode.

The paper gives a description of the time transfer equipment from the Tochka laser station kit
and the results of evaluation of its technical capabilities.

The paper represents a description and technical characteristics of photoreceiving units in-
stalled aboard the SC «Glonass» to measure the moments of arrival of laser pulses in the onboard
clock time scale.

REFERENCES

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