



Open Joint-stock Company “Research-and-Production  
Corporation “Precision Systems and Instruments”  
(OJC “RPC “PSI”)

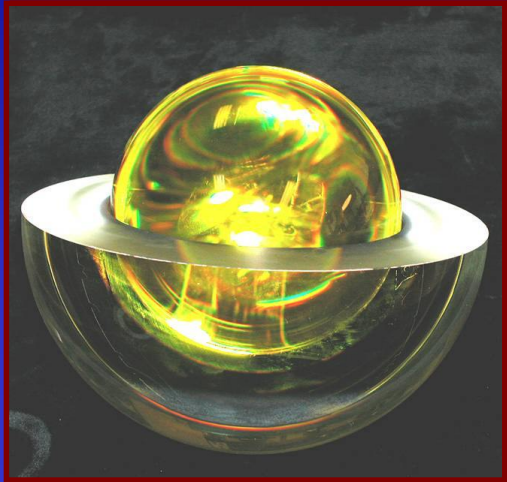
*BLITS:*

*The first autonomous zero-signature satellite in orbit*

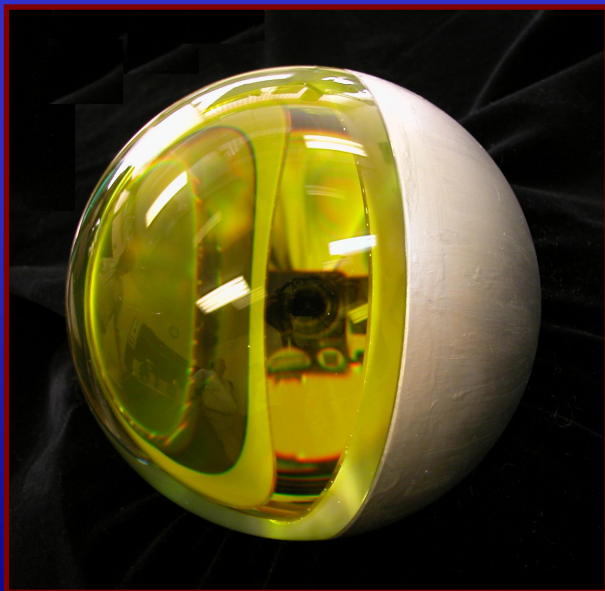
*V.D. Shargorodsky, V.P. Vasiliev, N.N. Parkhomenko*



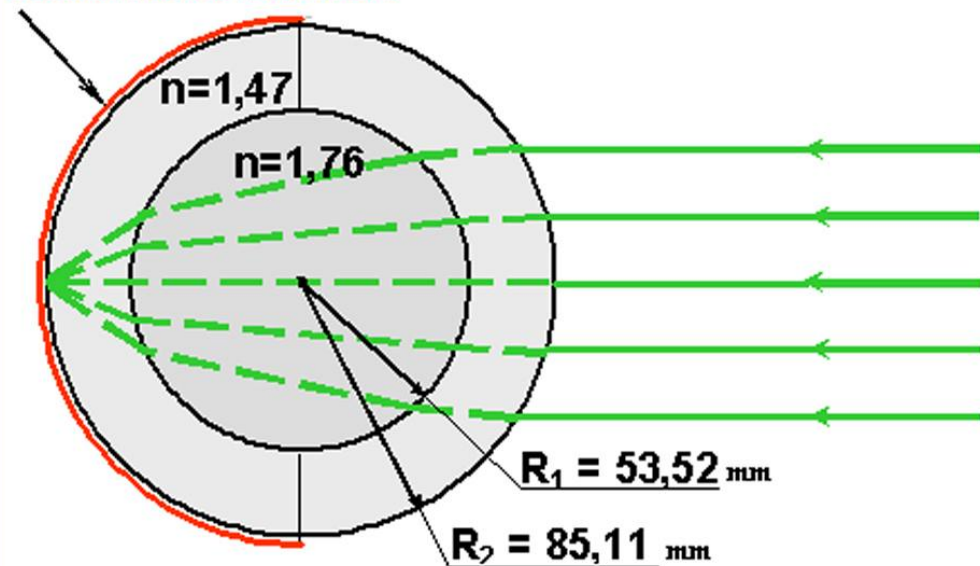
**Mass 7.5kg, Diameter 170.32 mm, S.P. – 5.6 s.  
Launched September 21, 2009**



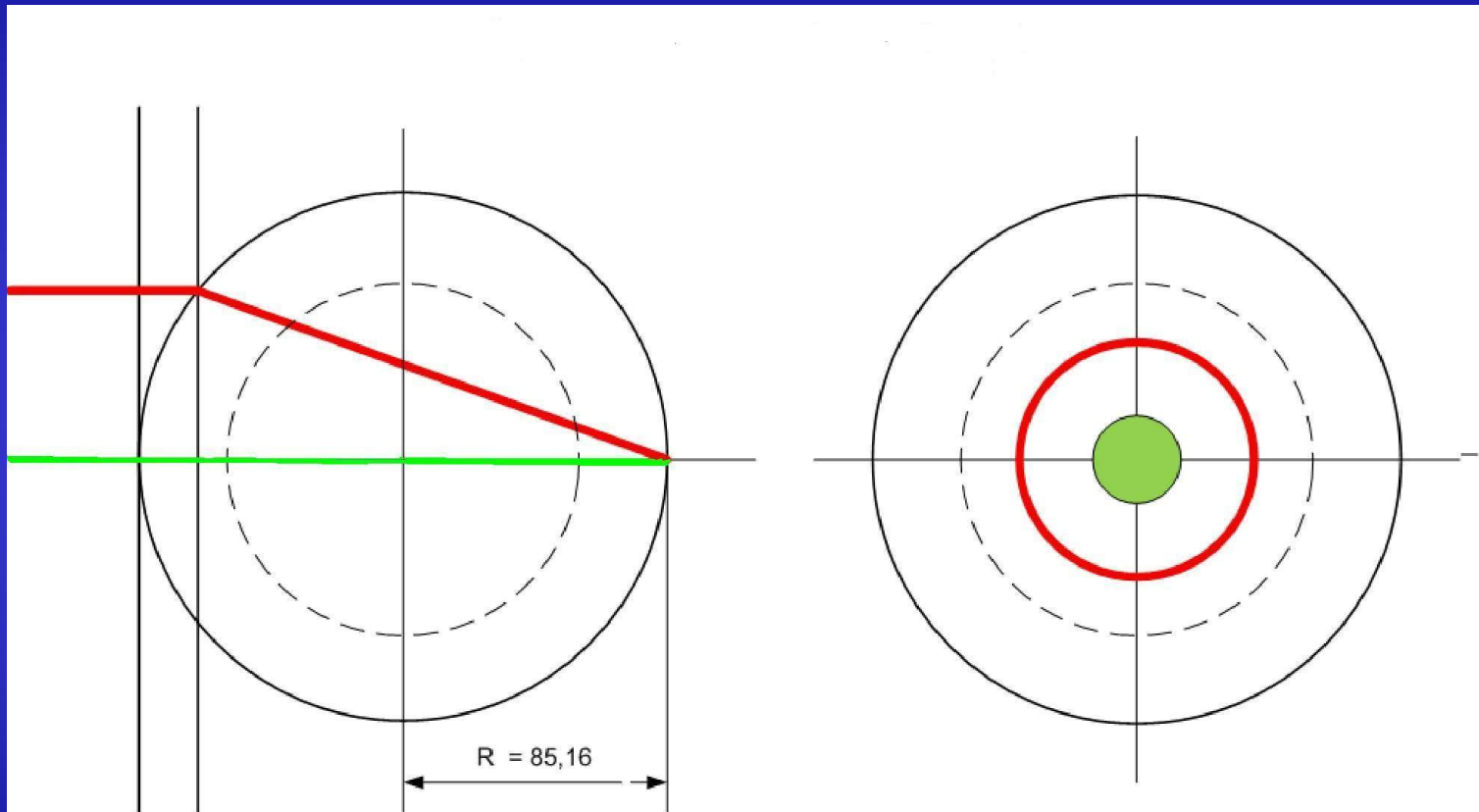
*Dissembled*



**REFLECTIVE COATING**



# BLITS ray traces and input/output apertures at 847 nm (red) and 532 nm (green)



**Range correction values:**

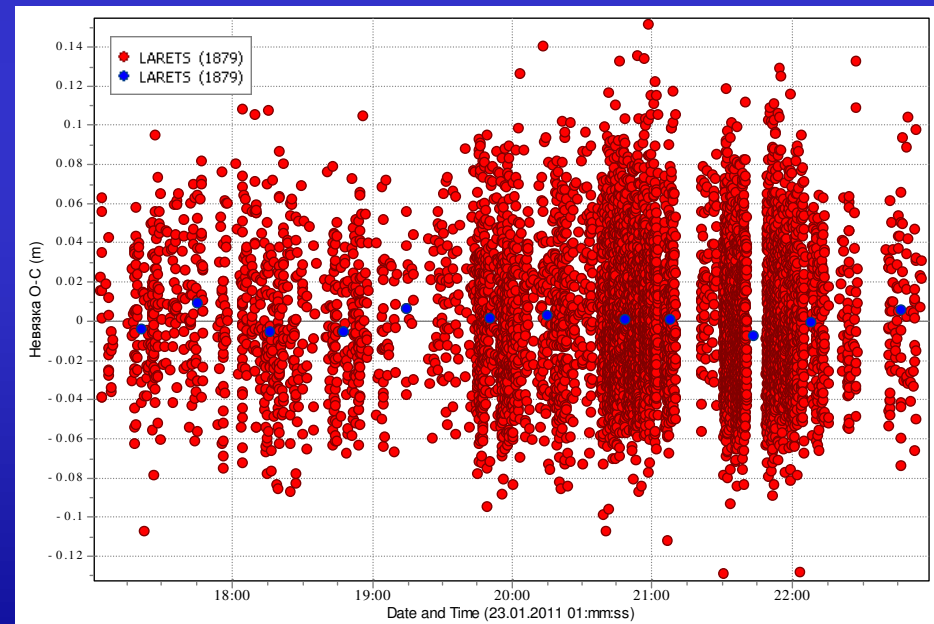
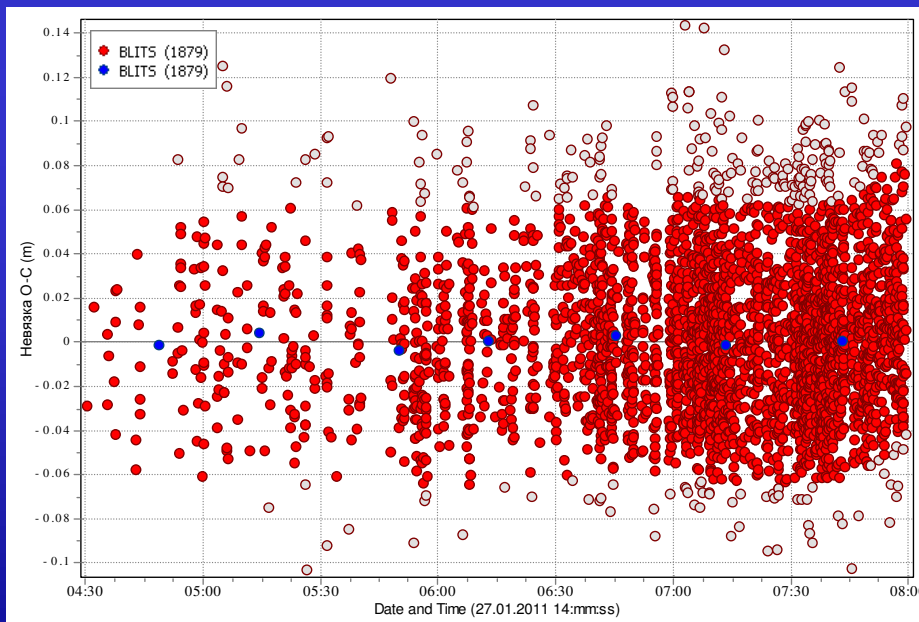
$$\Delta = 193,31 \quad \lambda = 0,847$$

$$\Delta = 196,94 \quad \lambda = 0,532$$

# SLR Station: Altay (1879)

BLITS: NP RMS=2,6 mm

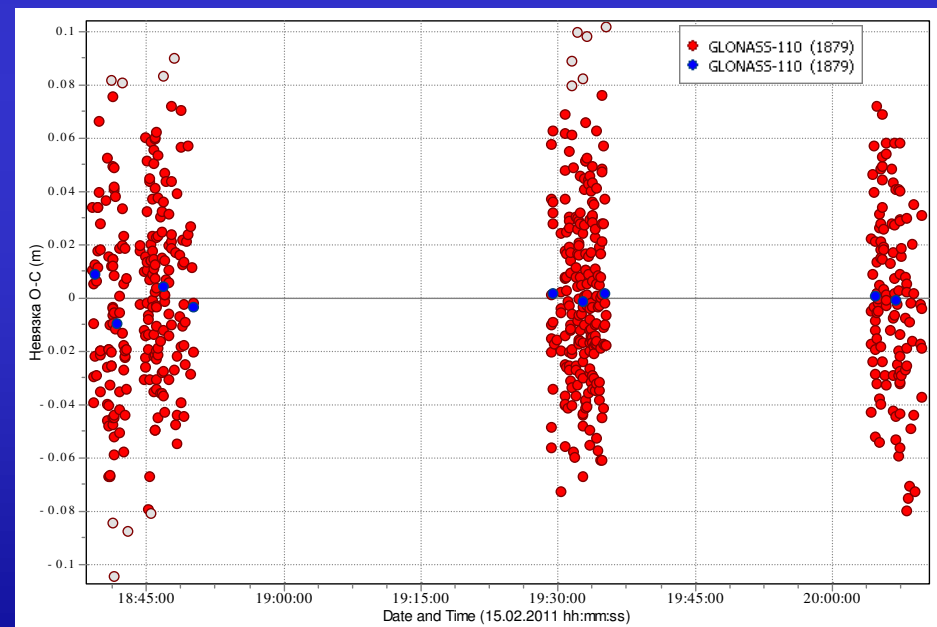
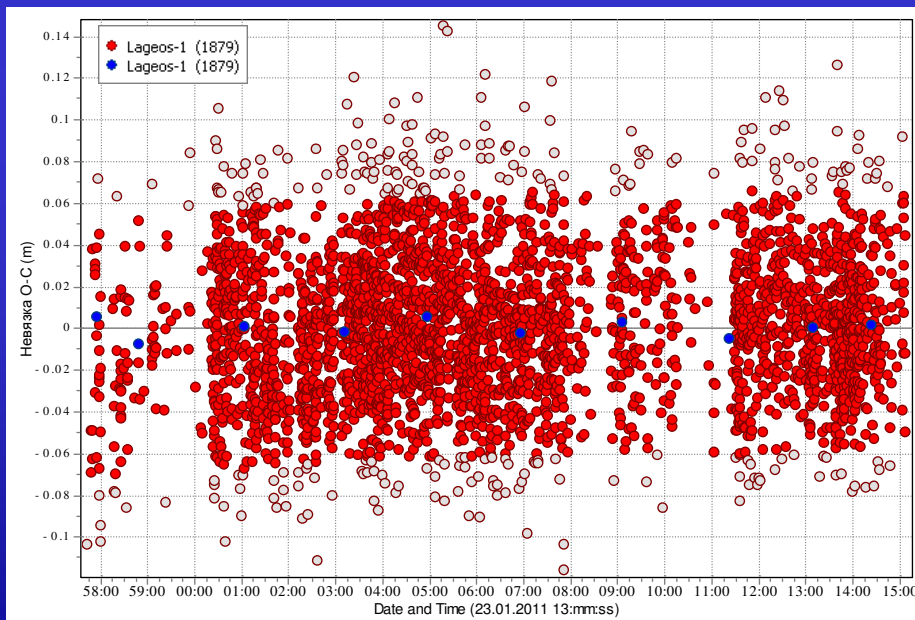
LARETS:NP RMS=4,9 mm



# SLR Station: Altay (1879)

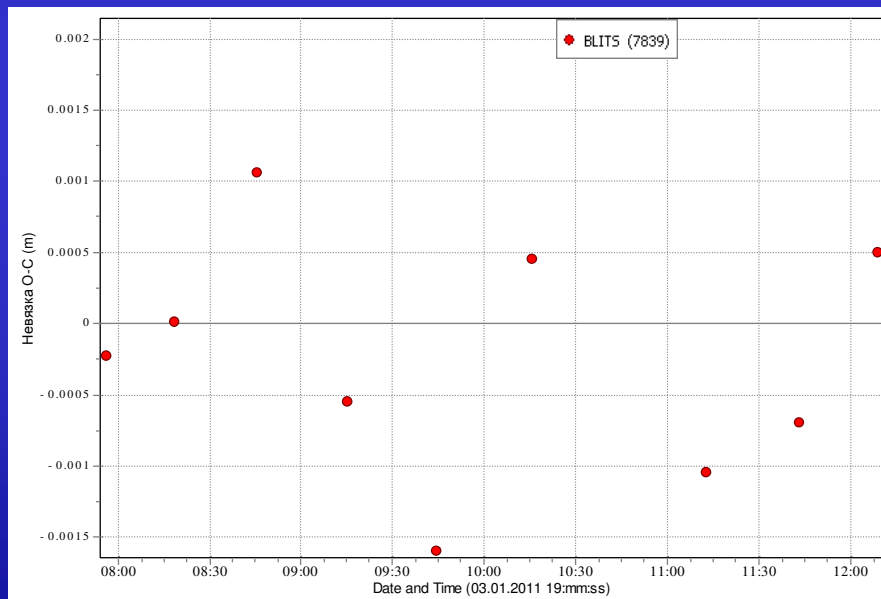
Lageos-1: NP RMS=3,9 mm

GLONASS-110: NP RMS=4,9 mm

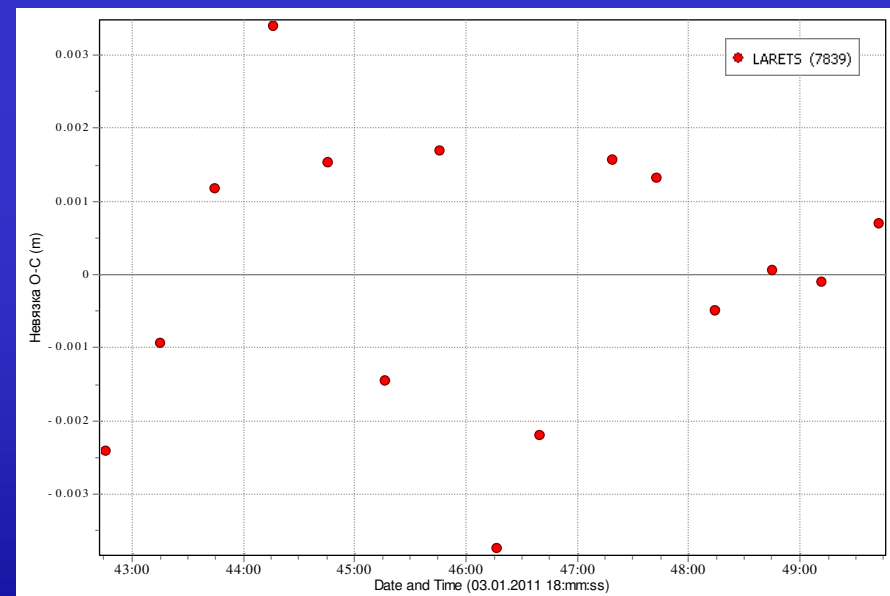


# SLR Station: Graz (7839)

BLITS: NP RMS=0,8 mm



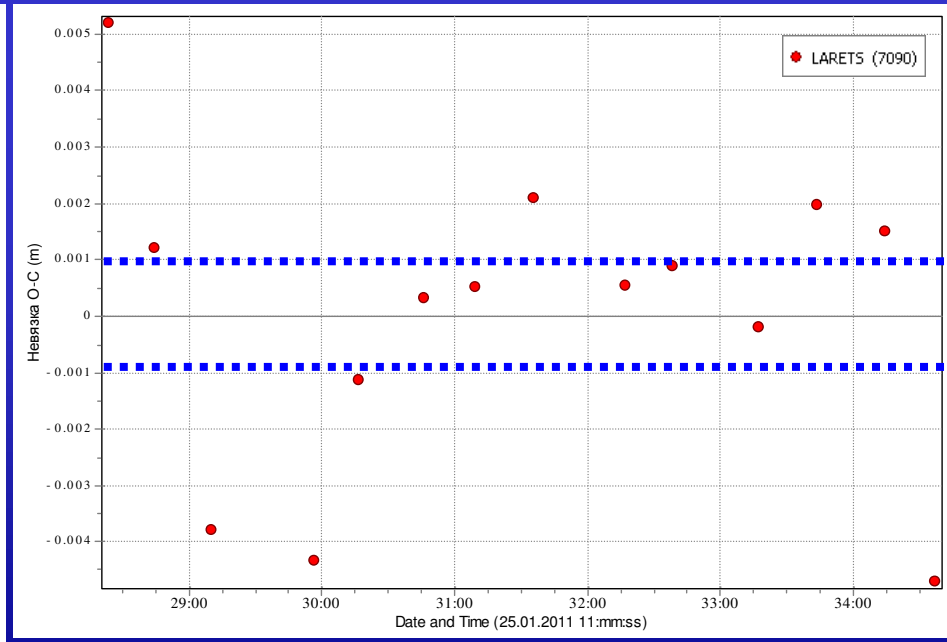
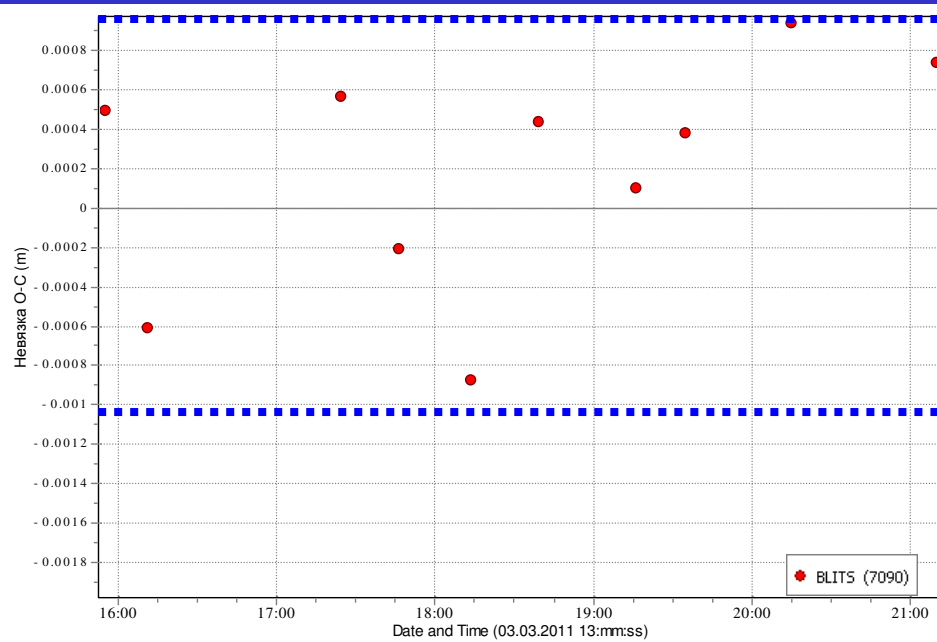
LARETS: NP RMS=1,8 mm



# SLR Station: Yaragadee (7090)

BLITS: NP RMS=0,6 mm

LARETS: NP RMS=2,6 mm





BLITS possesses:

1. Zero signature
2. Target error – less than 0.1 mm (RMS)
3. Dielectric material – constant spin

parameters guaranteed

4. Ideal spherical shape – predicted ballistic characteristics

5. Reasonable cost (incl. launching) and manufacturing period

Conclusion:

BLITS became an ideal space-based object for testing of SLR system precision