

Borowiec SLR systems (1976-2010)

1. Intercosmos No.1 SLR system (1976-1983)
four axes mount, receiving telescope aperture: 34 cm,
rubidium laser (694 nm), pulse: 1 J, 30 ns, 0.1 Hz, 3 mrad,
laser on the mount
PMT: EMI-9558B, TIC: FL-102 \pm 4 ns
low satellites, single shot RMS: 1 m
two operators
First satellite pass: 10.04.1976 Geos-A
Last satellite pass: 13.11.1983 Geos-C
194 passes
2. Borowiec 2nd generation system (1987-1991)
Az/El mount, receiving telescope aperture: 65 cm,
neodymium laser (532 nm), pulse: 250 mJ, 4 ns, 1 Hz, 0.8 mrad
laser in Coude
PMT: FEU-87, TIC: PS-500 \pm 160 ps
LAGEOS, low satellites, single shot RMS: 20 cm
two operators
First satellite pass: 26.08.1987 Ajisai
Last satellite pass: 18.08.1991 ERS-1
342 passes
3. Borowiec 3rd generation system (1991-2010)
Az/El mount, receiving telescope aperture: 65 cm,
neodymium laser (532 nm), pulse: 50 mJ, 100 ps/ 40 ps (2000), 10 Hz, 0.4 mrad
laser in Coude
PMT: RCA-8852 (1991)/ Hamamatsu H5023 (1997)/ Hamamatsu MCP R5916-64-3MCP (2008)
TIC: PS-500 \pm 100 ps (1991)/ PS-500 \pm 80 ps (1997)/ Stanford SR620 \pm 25 ps (2002)
LAGEOS, high satellites (1997), low satellites
single shot RMS: 4.4 cm (1997)/ 3.1 cm (2002)/ 2.5 cm (2010)
two operators/ one operator (1998)
First satellite pass: 28.09.1991 Ajisai
Last satellite pass: 24.03.2010 Ajisai
11625 passes
4. Borowiec-2 SLR system (1994-1995) (tests of Tunisian system)
Az/El mount, receiving telescope aperture: 65 cm,
neodymium laser (532 nm), pulse: 250 mJ, 4 ns, 1 Hz, 0.8 mrad
laser in Coude
PMT: FEU-87
TIC: PS-500 \pm 100 ps
LAGEOS, low satellites, single shot RMS: 20 cm
two operators
First satellite pass: 25.03.1994 Topex
Last satellite pass: 8.07.1995 Lageos-2
60 passes