Main astronomical observatory of NAS of Ukraine

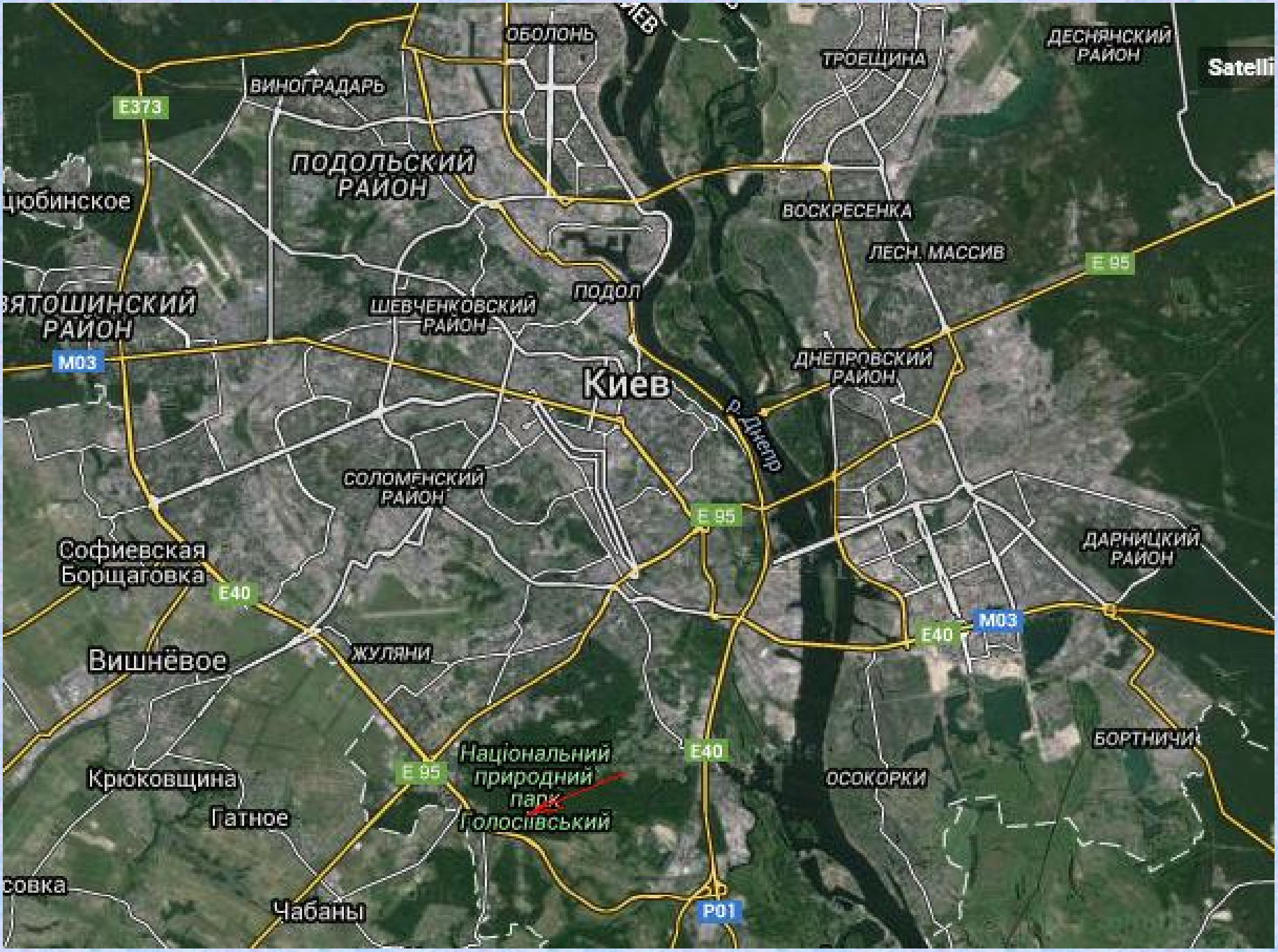
Kiev, Golosiiv

science

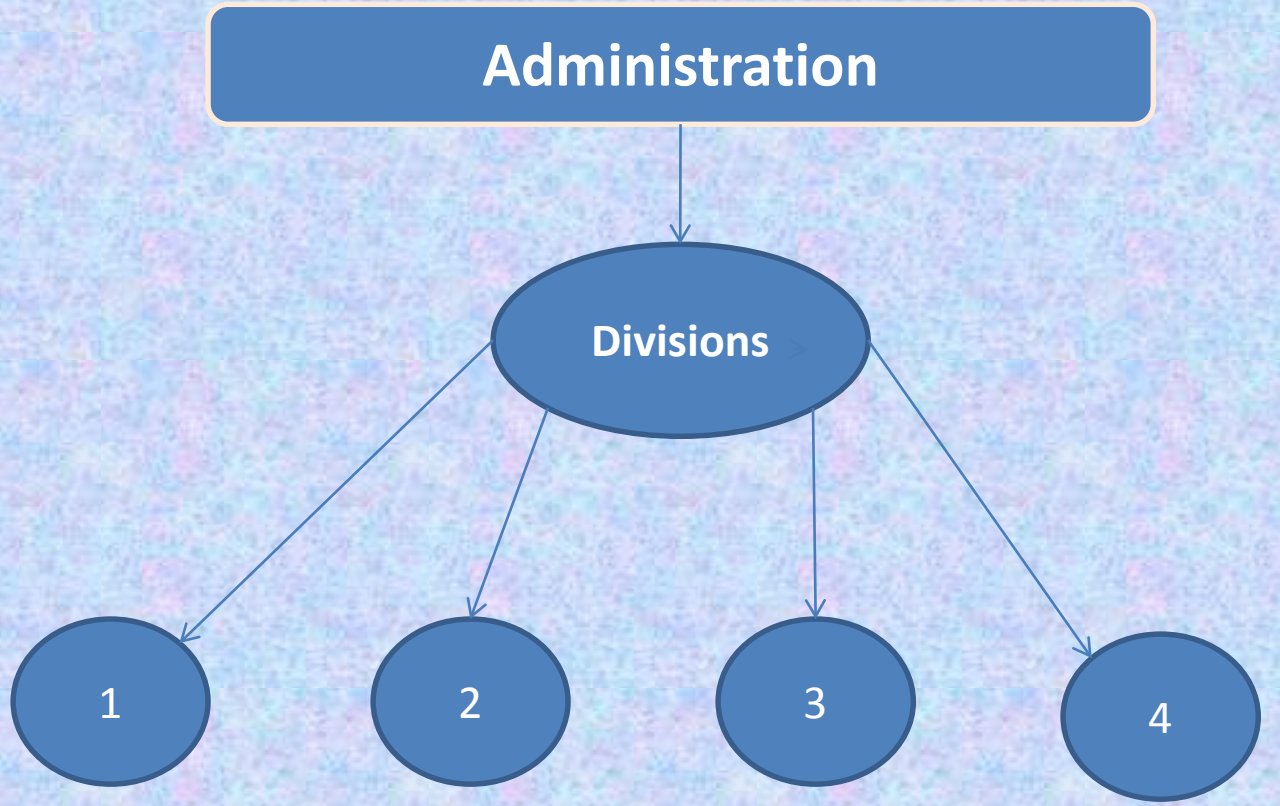
- modeling the chemical evolution of irregular and disk galaxies of late types, processes of origin and evolution of giant shells of neutral hydrogen in galaxies of different types of the formation and evolution of galaxies, the analysis of stellar spectra considering deviations from LTE and determining the evolutionary changes of the chemical composition of stars of late spectral classes, study evolution and physical characteristics of stars of different types;
- photographic astrometry and stellar astronomy, fundamental astrometry, astrometry of the solar system, the Moon selenodeziya and dynamics;
- study the theory of Earth's rotation; create Earth and celestial reference systems;
- study of physical and evolutionary properties of blue dwarf galaxies according to observations at the best astronomical instruments in the world: BTA (SAO RAS), a space telescope named. Hubble, NMT-telescope in Arizona (USA), etc .;
- rapid small-scale study of the variability of stars, according to the particular parallel observations with the help of spaced optical telescopes;

science

- the study of physics and optical properties of the atmospheres and surfaces of planets and their satellites, radiation transfer theory and astronomical instrumentation;
- development of equipment and methods of optical monitoring planetary atmospheres, including the Earth atmosphere.
- research on the physics of cosmic rays and their interaction with interplanetary environment;
- creating new models of the impulsive energy release and transformation in solar flares; construction of the theory of generation of electromagnetic radiation in the solar atmosphere and magnetosphere of the Earth; study of plasma instabilities on the Sun, the solar wind and the magnetosphere of the Earth;
- physics of comets and infrared astronomy;
- study of active solar formations (prominences, flares etc.) and quiet photosphere;


Оболонь
Троещина
Деснянский район
Satelli
Виноградарь
E373
Подольский район
Воскресенка
Лесн. массив
E 95
Шевченковский район
Подол
M03
Киев
Днепровский район
р. Днепр
Соломенский район
Софиевская Борщаговка
E40
Дарницкий район
Вишнёвое
Жуляни
Бортничи
Осокорки
Крюковщина
Гатное
Національний природний парк Голосіївський
Чабаны
P01

The structure



Division 1

Dept. for Astrometry & Space Geodynamics
Dept. for Physics of Stars&Galaxies
Dept. for Space Plasma Physics
Dept. for Physics of Minor Celestial Bodies
Dept. for Physics of Planetary Systems
Dept. for Solar Physics

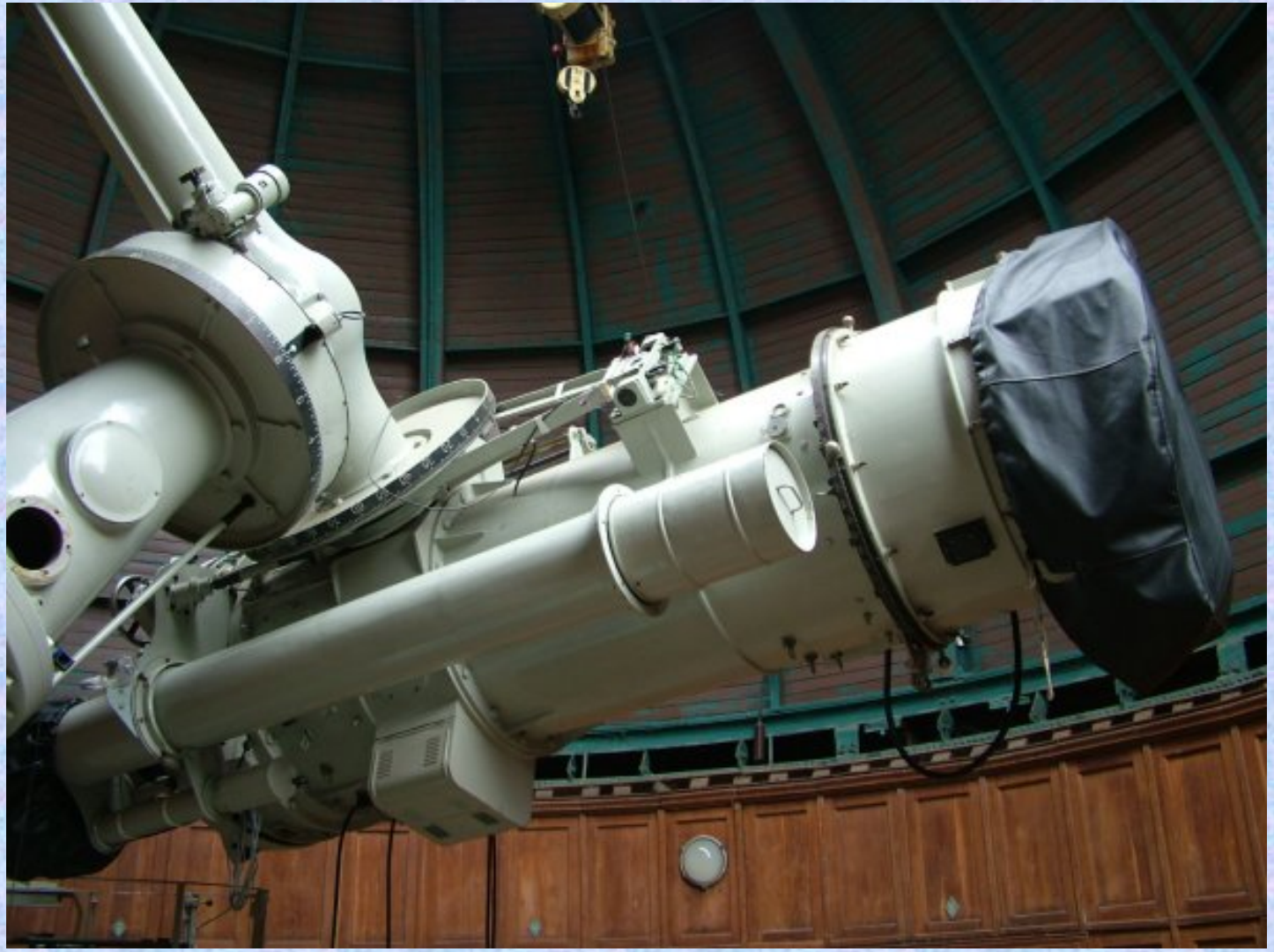
Division 2

LABORATORY FOR TRANSIENT PHENOMENA IN VARIABLE STARS

Laboratory for atmosphere optics

Laboratory for Instrumentation

Instruments



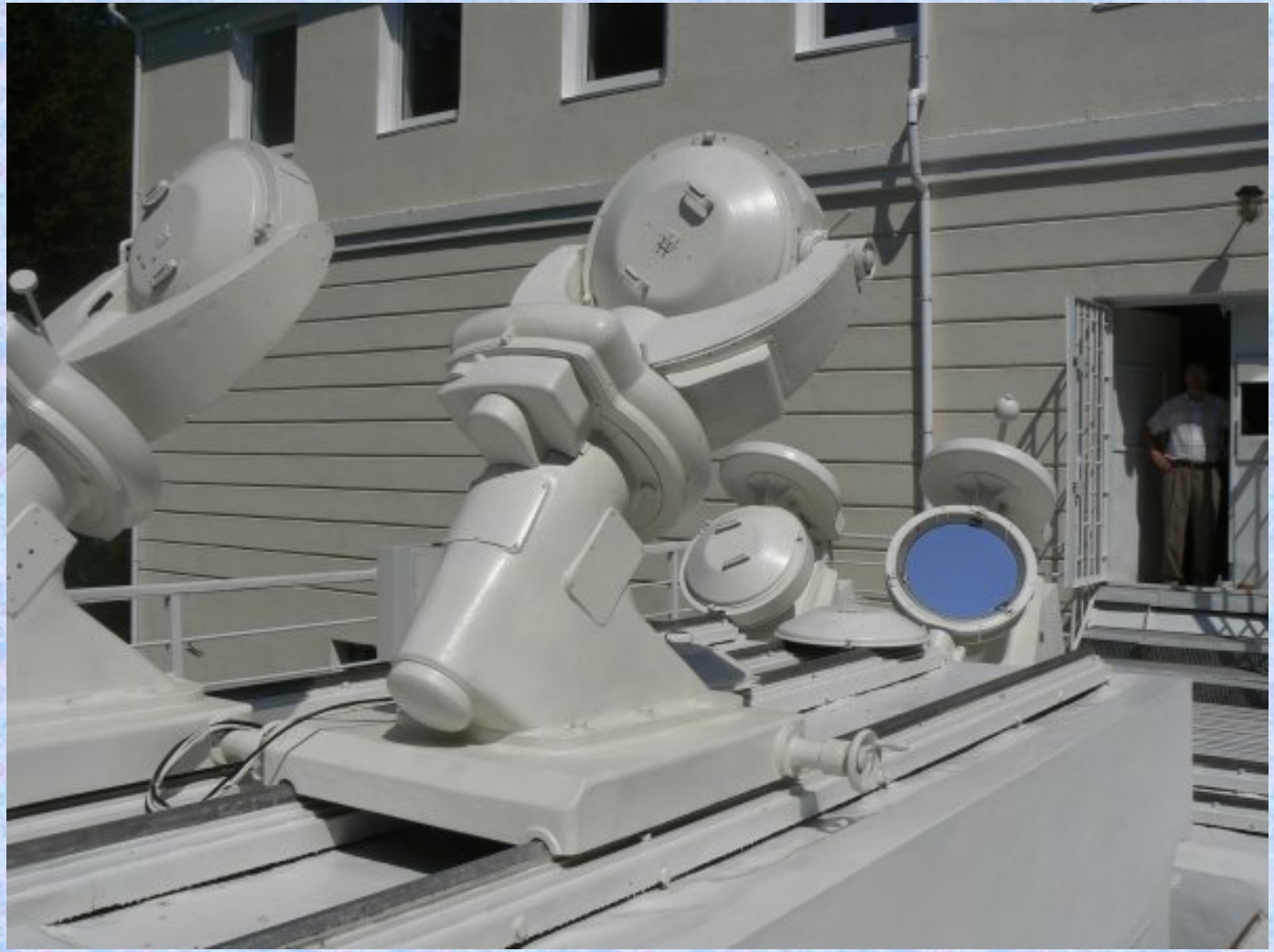
AZT-2

Celestron 1400 XLT

MAC

TPL-1

ACU-5



Dept. for Astrometry & Space Geodynamics

science

theoretical and methodological problems of global geodynamics research and construction of reference frame (terrestrial & celestial);

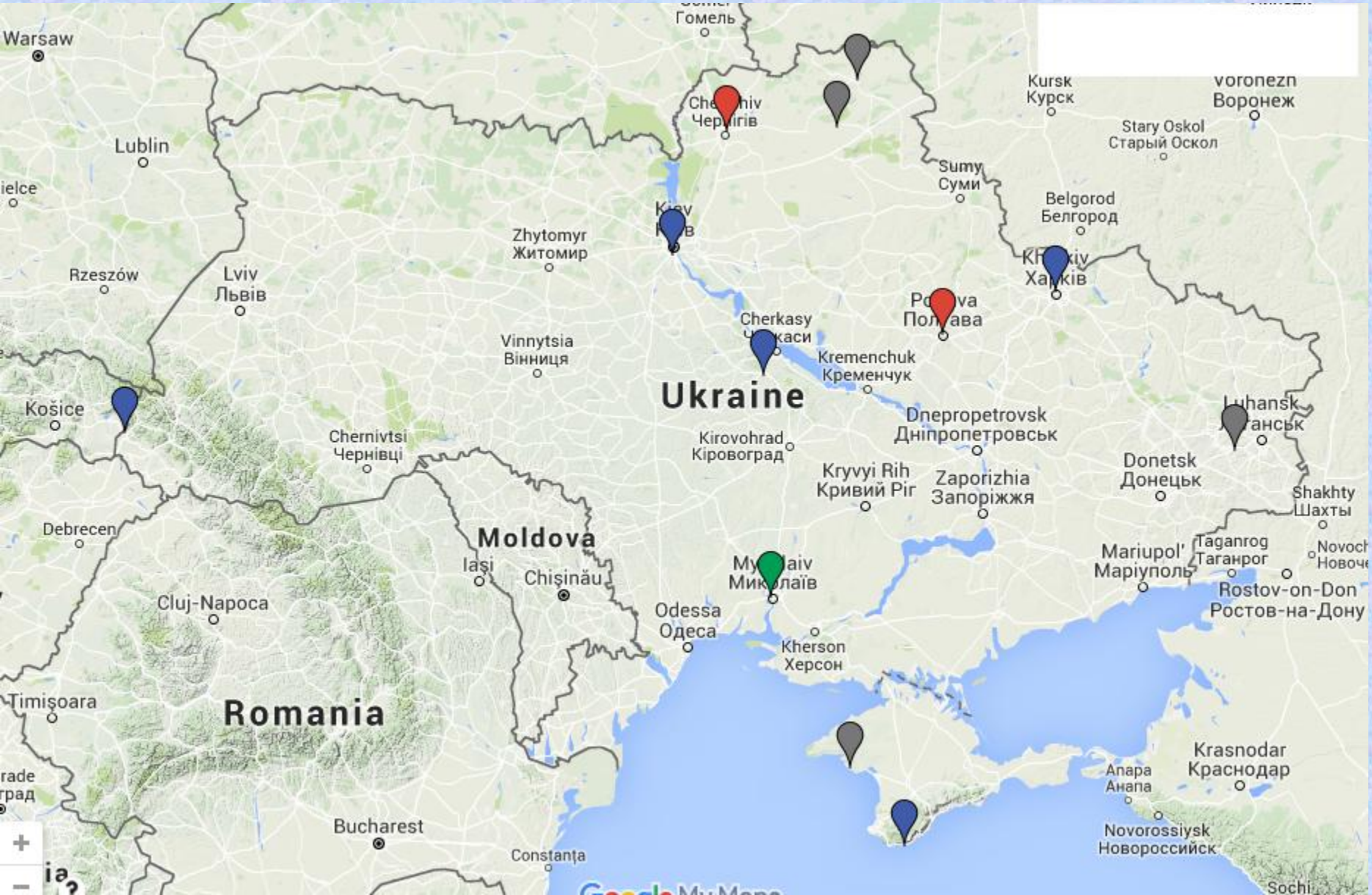
determining the parameters of the Earth's rotation and the creation of coordinate systems by VLBI , GNSS and SLR observations;

Coordination of the participation of institutions of Ukraine in international programs to study the Earth's rotation and the construction of the reference systems;

The coordination of the network stations Ukrainian space geodesy and geodynamics (GNSS & SLR).

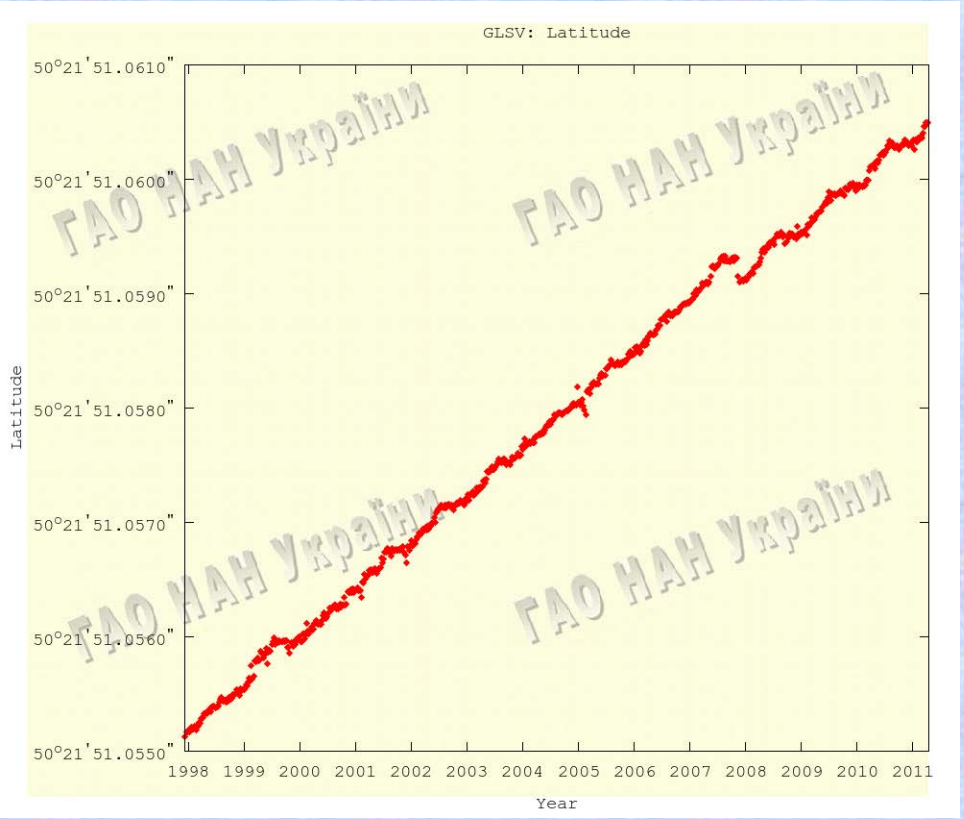
Catalogues of the stars, planets, asteroids and satellites of the planets

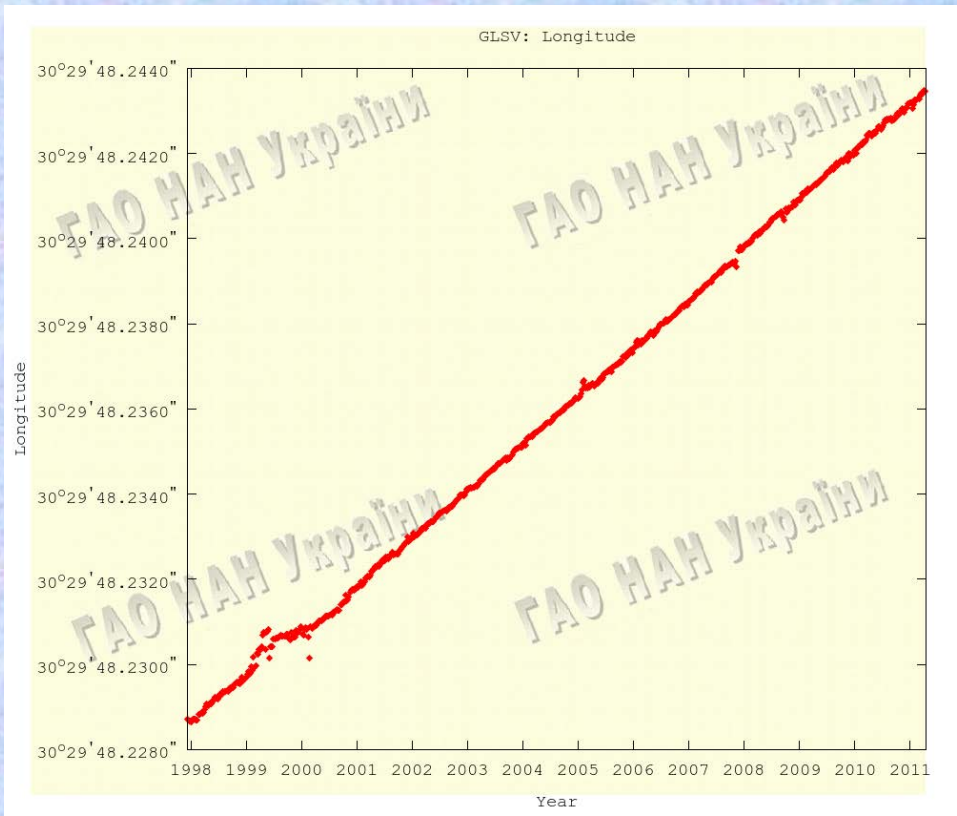
GNSS network

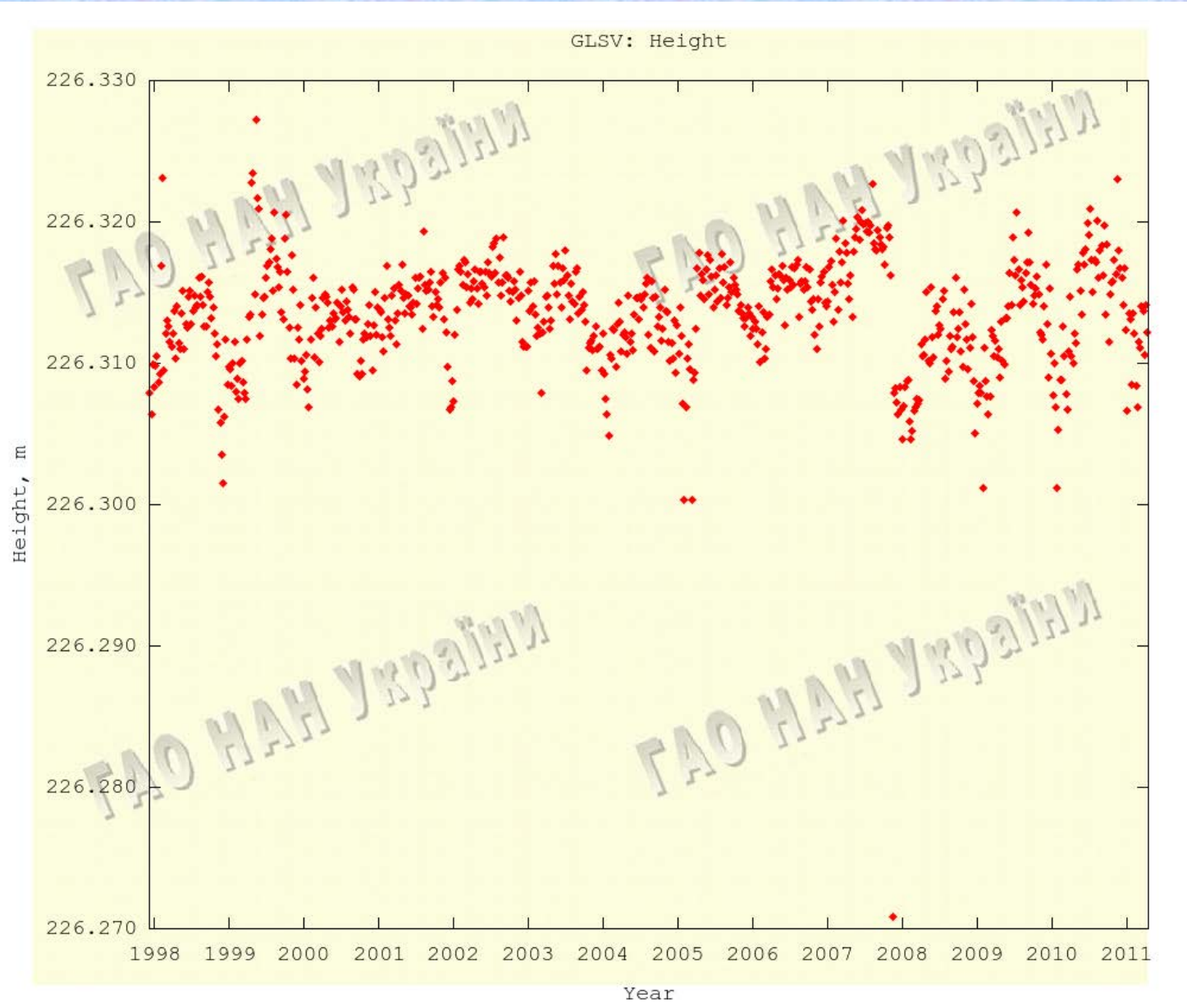


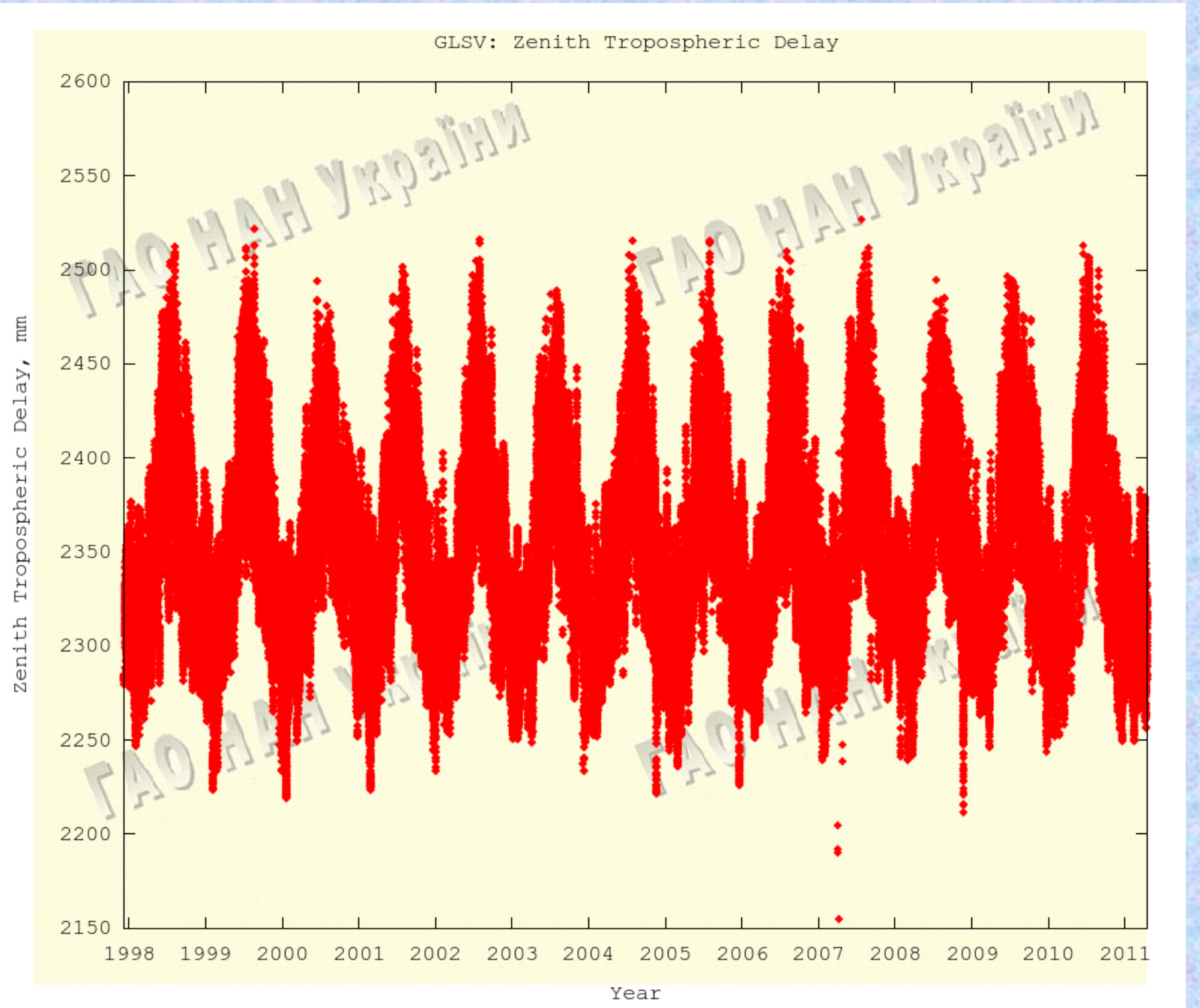
«Київ/Голосіїв» (GLSV)

Results

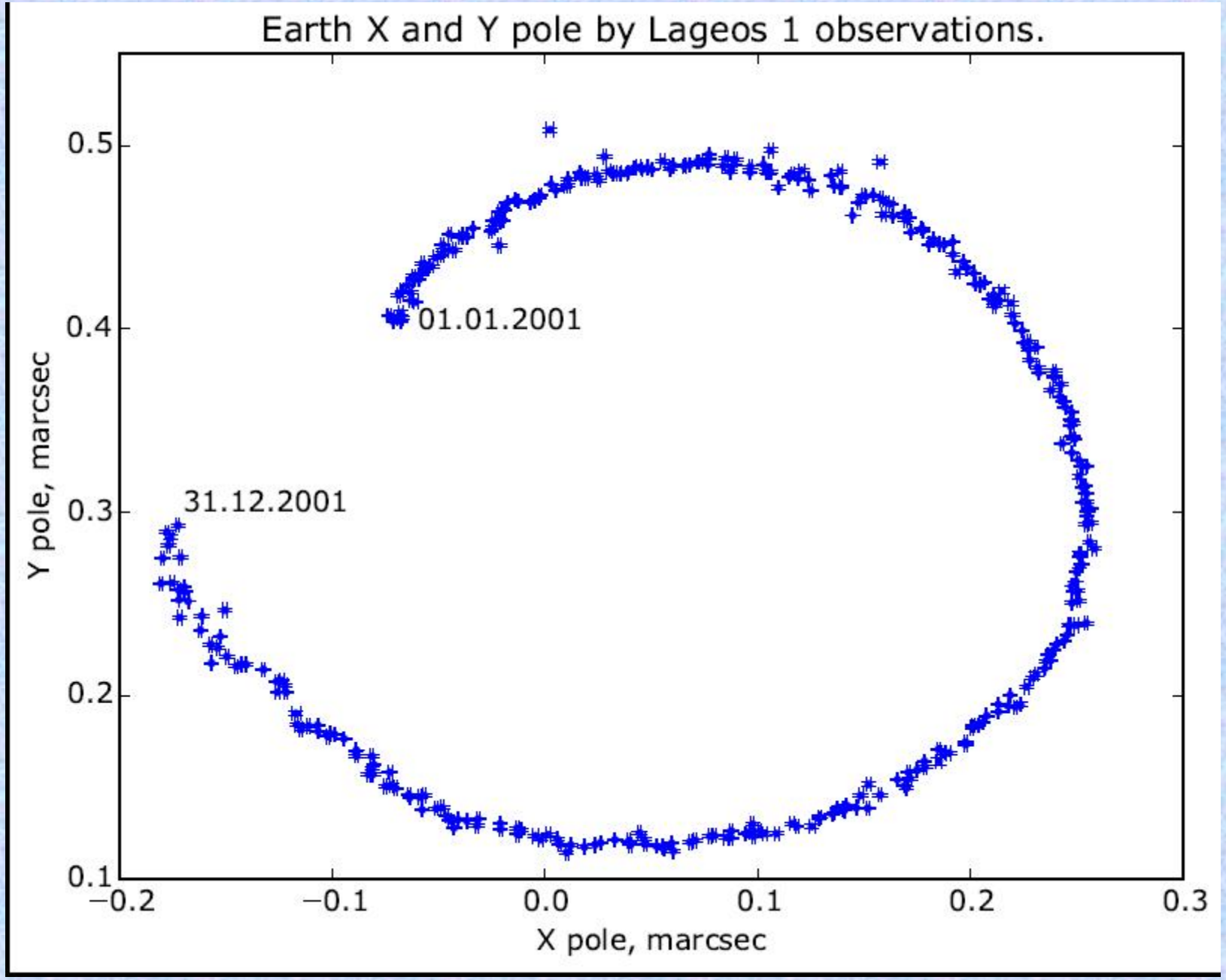

GLSV: Latitude
50°21'51.0610"
50°21'51.0600"
50°21'51.0590"
50°21'51.0580"
50°21'51.0570"
50°21'51.0560"
50°21'51.0550"
Latitude
1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011
Year
ГАО НАН України


GLSV: Longitude
30°29'48.2440"
30°29'48.2420"
30°29'48.2400"
30°29'48.2380"
30°29'48.2360"
30°29'48.2340"
30°29'48.2320"
30°29'48.2300"
30°29'48.2280"
Longitude
1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011
Year
ГАО НАН України


GLSV: Height
226.330
226.320
226.310
226.300
226.290
226.280
226.270
Height, m
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Year
ГАО НАН України
ГАО НАН України
ГАО НАН України
ГАО НАН України

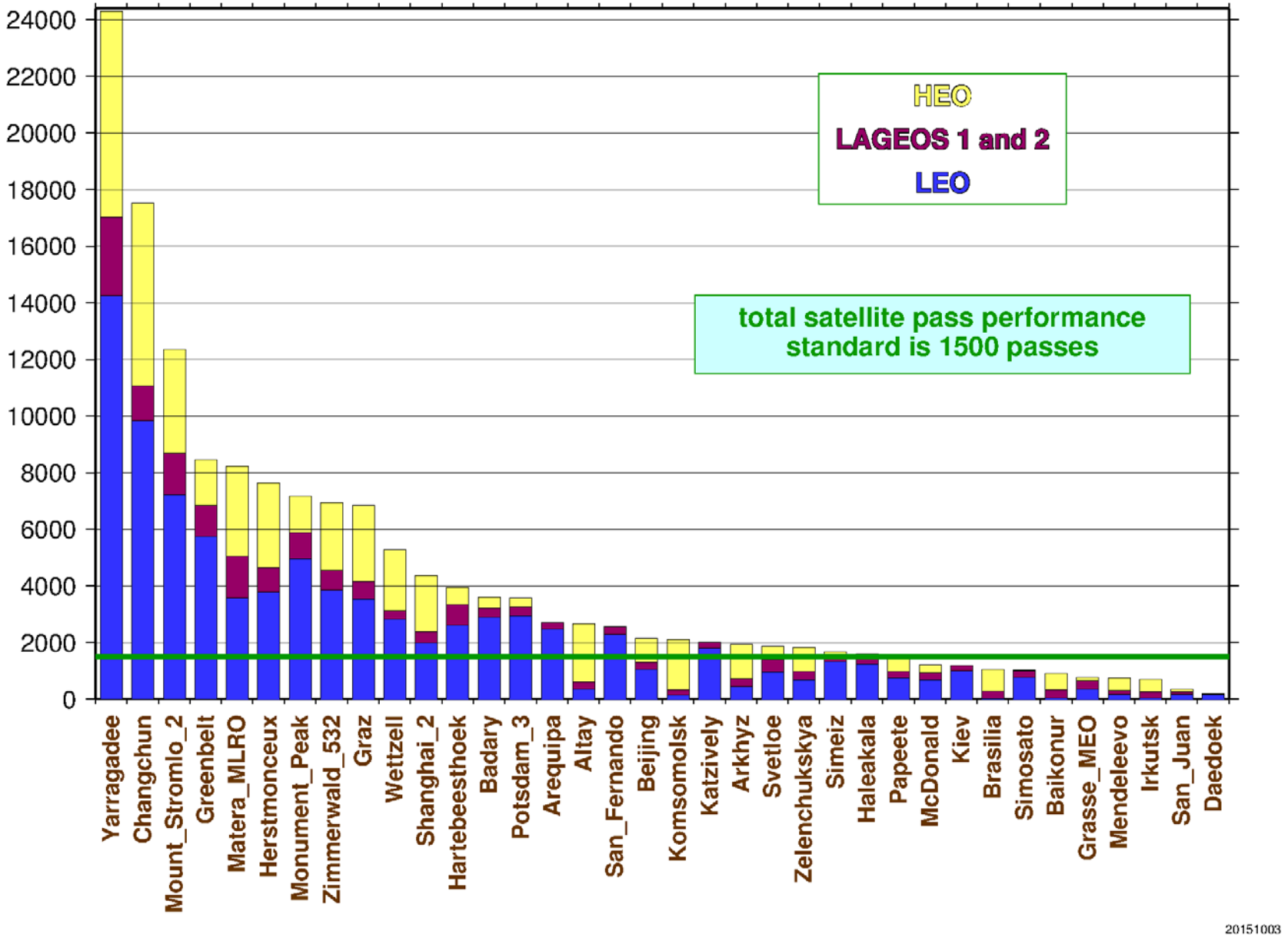

GLSV: Zenith Tropospheric Delay
Zenith Tropospheric Delay, mm
2600
2550
2500
2450
2400
2350
2300
2250
2200
2150
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Year
ГАО НАН України
ГАО НАН України

SLR

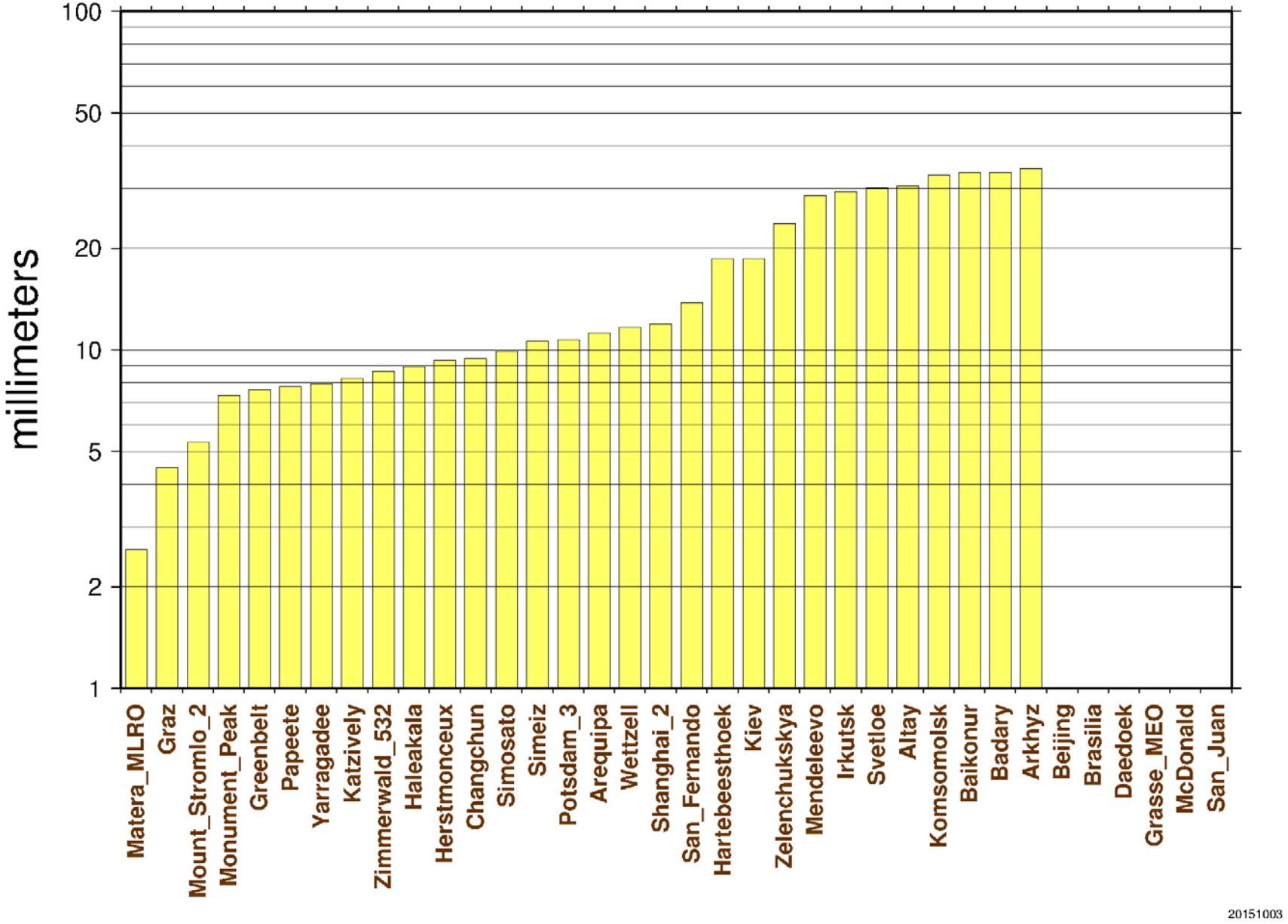

Earth X and Y pole by Lageos 1 observations.
01.01.2001
31.12.2001
Y pole, marcsec
X pole, marcsec
0.5
0.4
0.3
0.2
0.1
−0.2
−0.1
0.0
0.1
0.2
0.3

LS2151

total passes
from October 1, 2014 through September 30, 2015

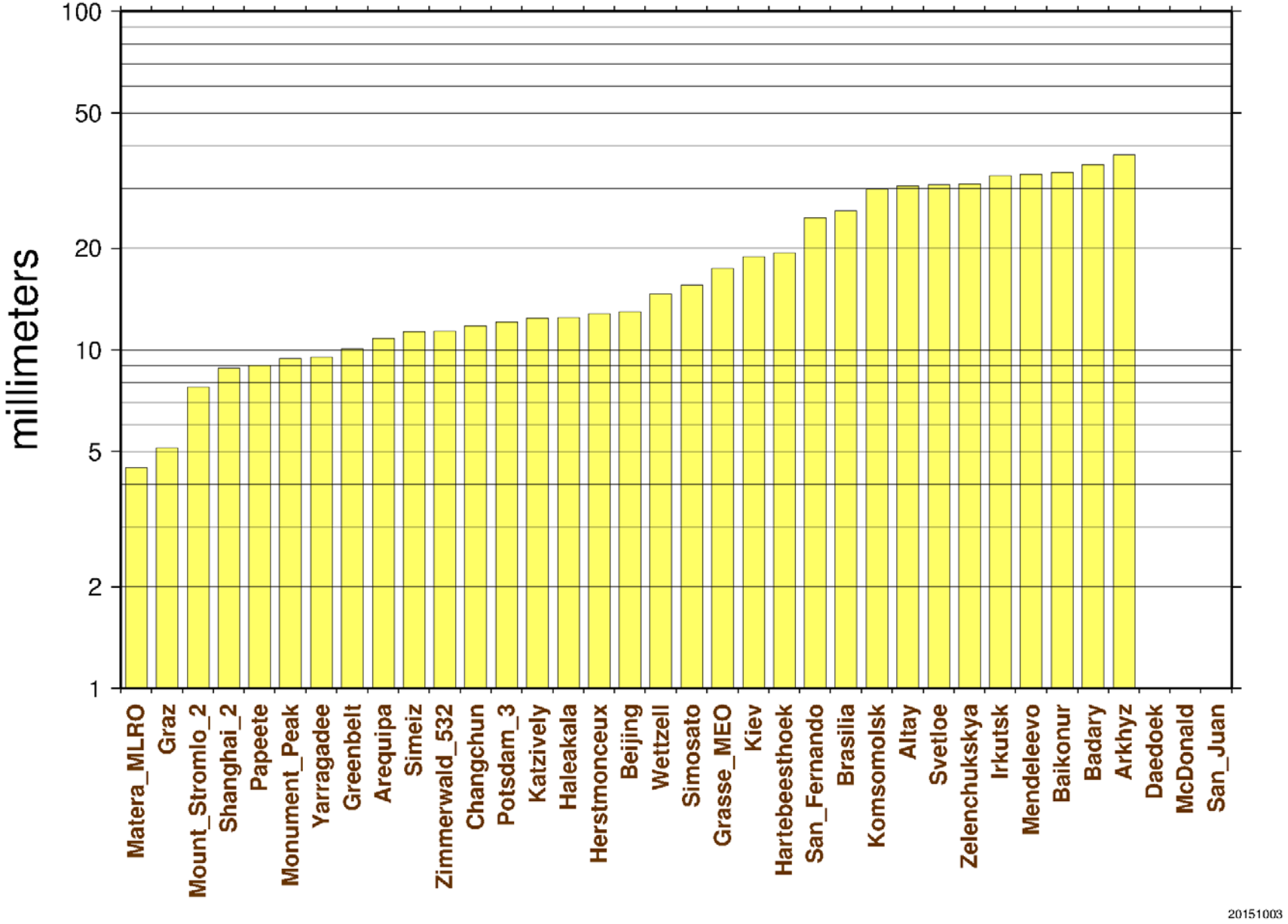


Starlette RMS
from July 1, 2015 through September 30, 2015



LAGEOS RMS

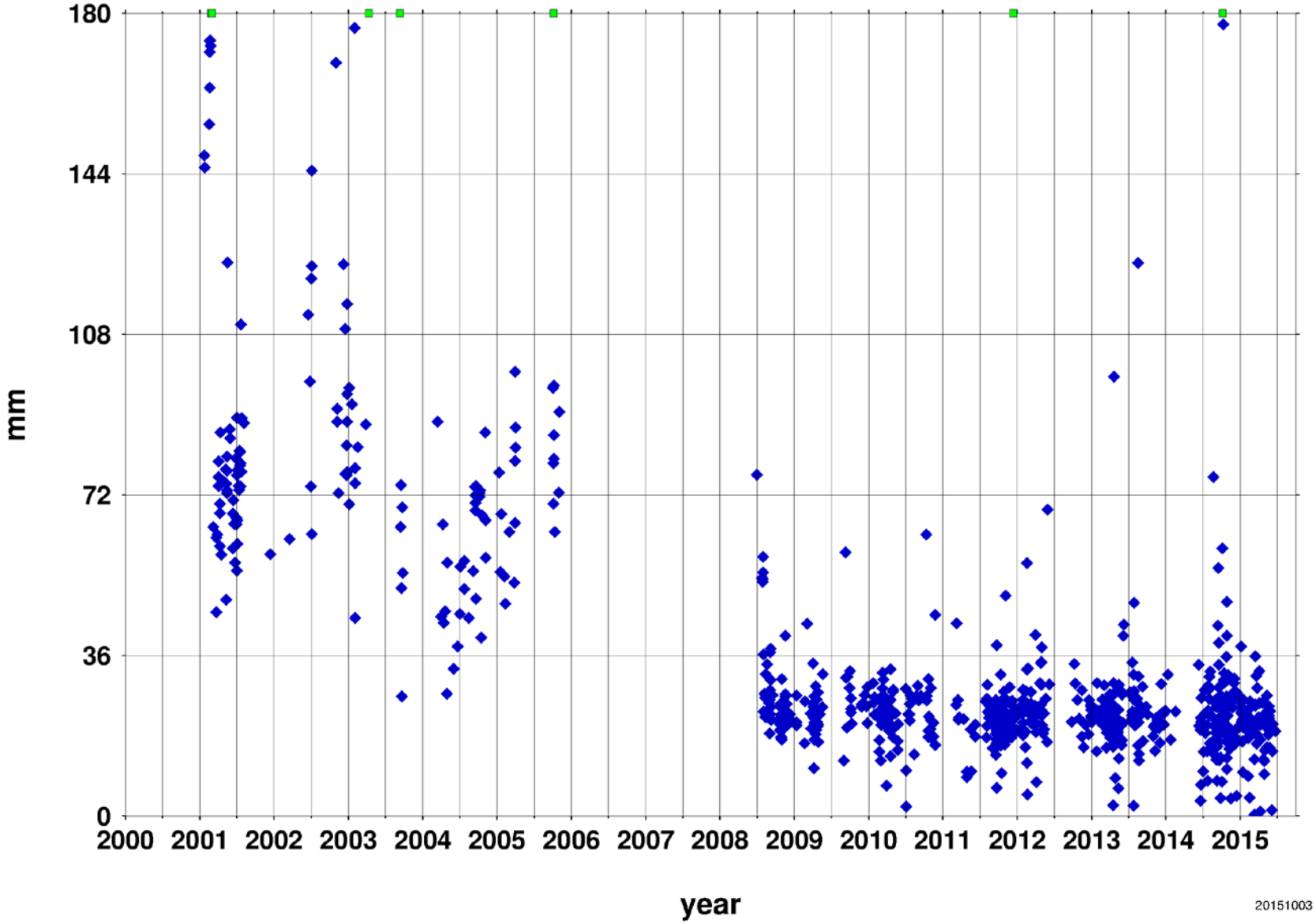
from July 1, 2015 through September 30, 2015



Golosiiv, Ukraine 1824

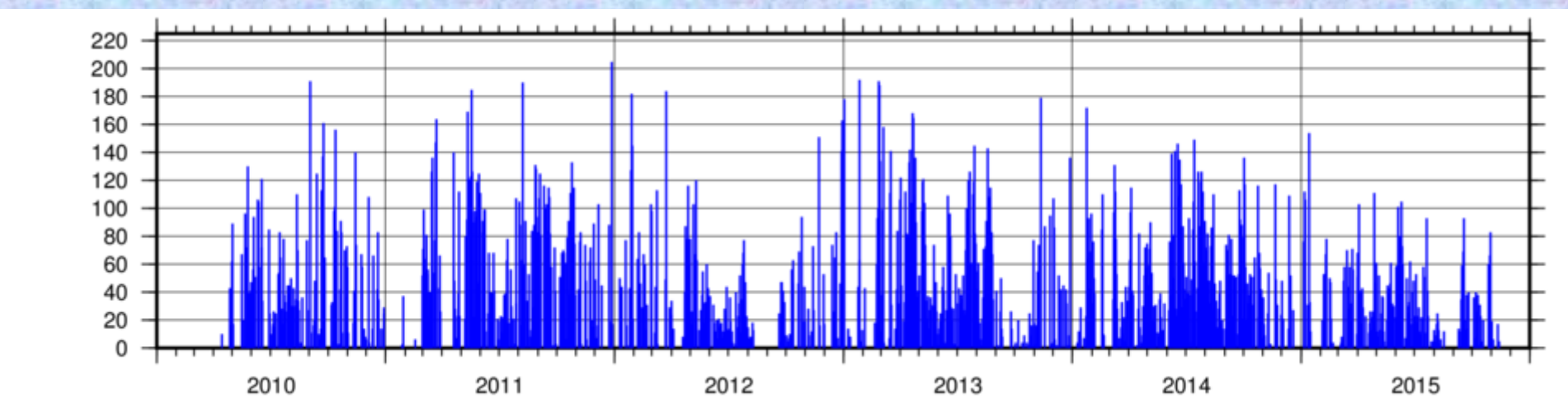
pass average LAGEOS normal point rms

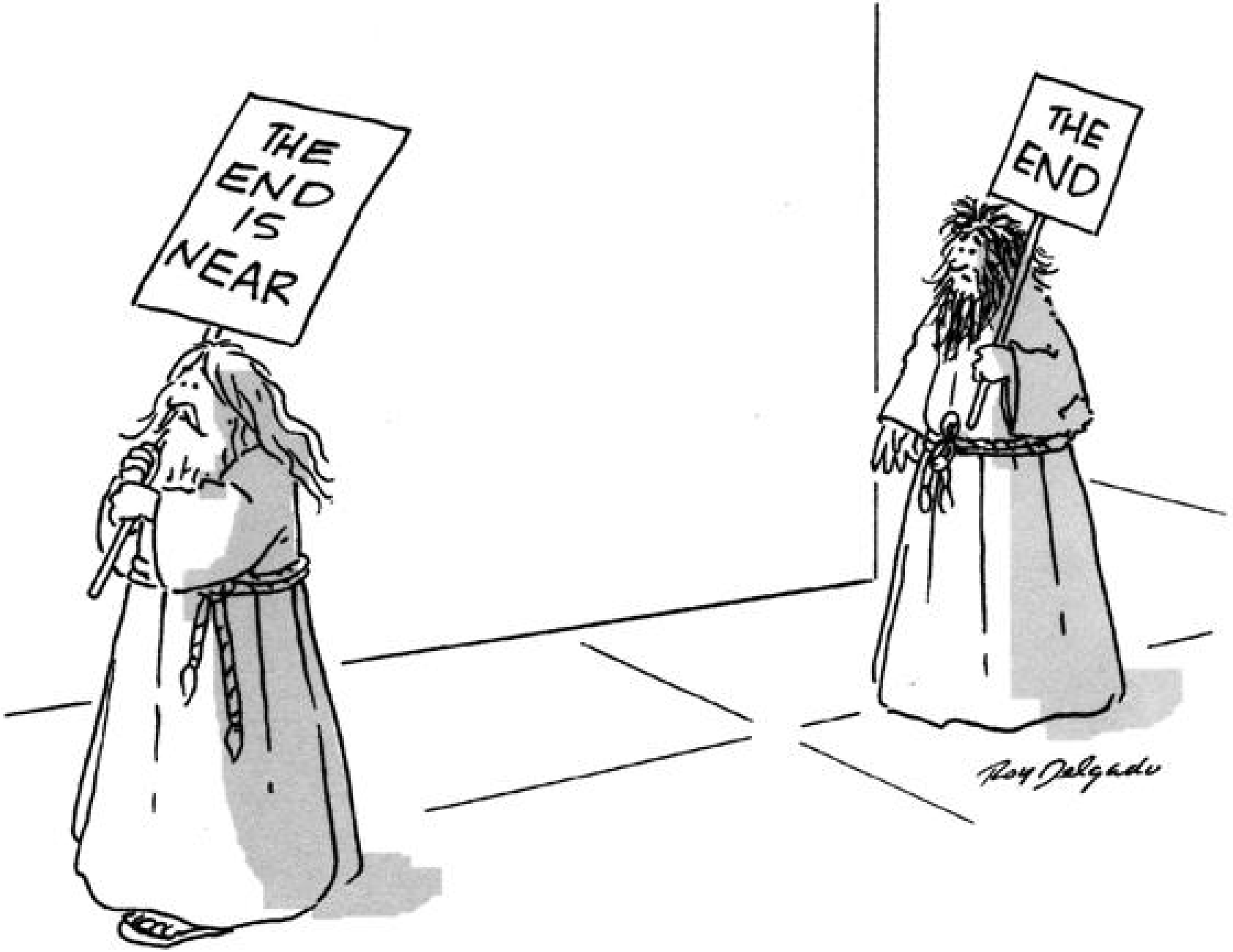
ave 35.90 ± 44.99 max 725.65 min 0.30 for 878 data points



20151003 09:52

Statistics for 6 years




THE END IS NEAR
THE END
Roy Delgado