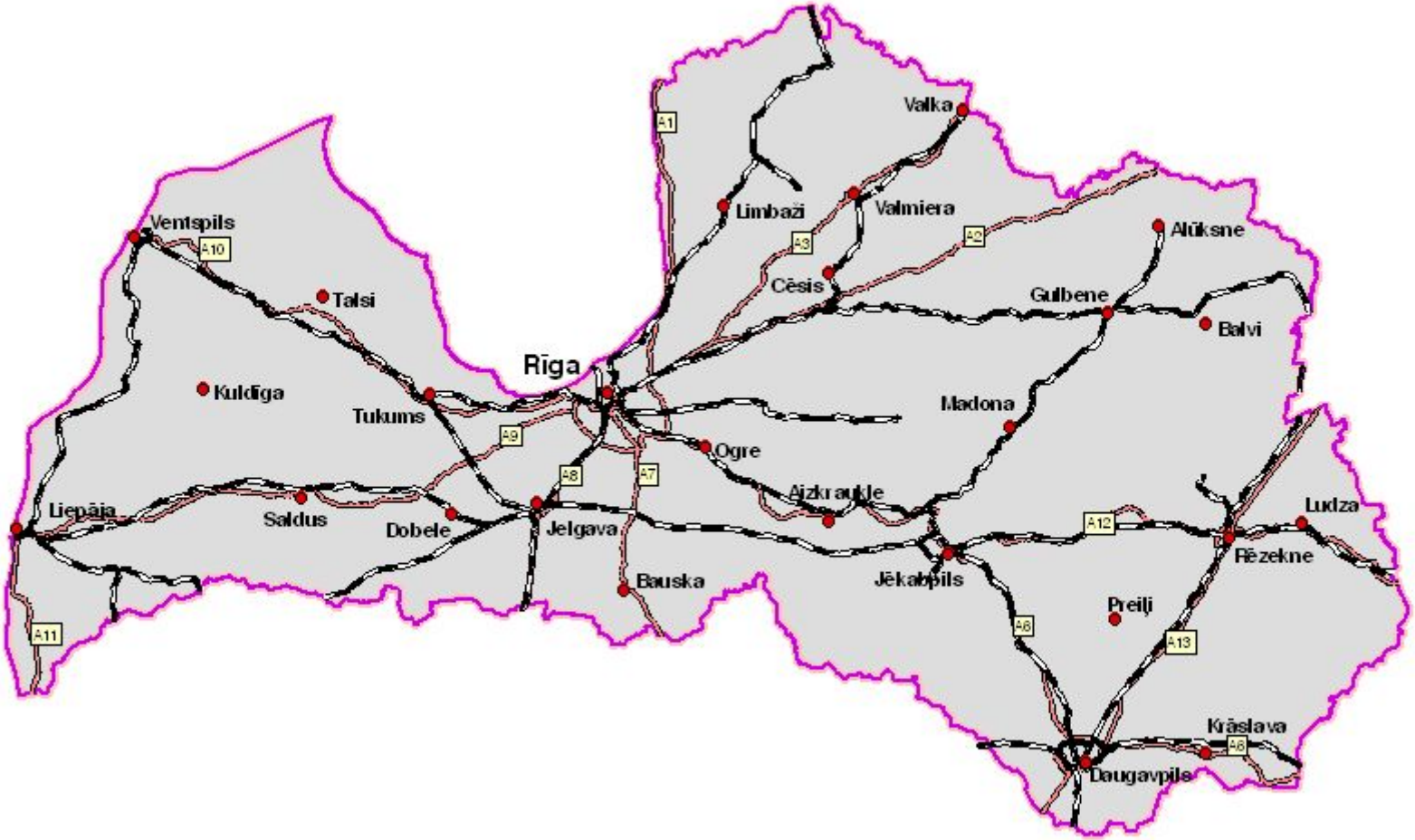
Riga Multifunctional RTK Network – Subset of UPOS®.

G.Silabriedis1, [1],

G.Silabriedis – Rigas GeoMetrs SIA
J.Balodis – University of Latvia


Valka
A1
Limbaži
Valmiera
A3
A2
Alūksne
Cēsis
Gulbene
Balvi
Ventspils
A10
Talsi
Rīga
Kuldīga
Tukums
Madona
A9
Ogre
A8
A7
Aizkraukle
Liepāja
Saldus
Dobele
Jelgava
A12
Ludza
Rēzekne
Jēkabpils
Bauska
Preiļi
A11
A6
A13
Krāslava
A6
Daugavpils


VENTSPILS
TALSI
KULDĪGA
TUKUMS
LIEPĀJA
SALDUS
DOBELE
JELGAVA
BAUSKA
RĪGA
LIMBAŽI
VALMIERA
CĒSIS
VALKA
ALŪKSNE
GULBENE
BALVI
MADONA
OGRE
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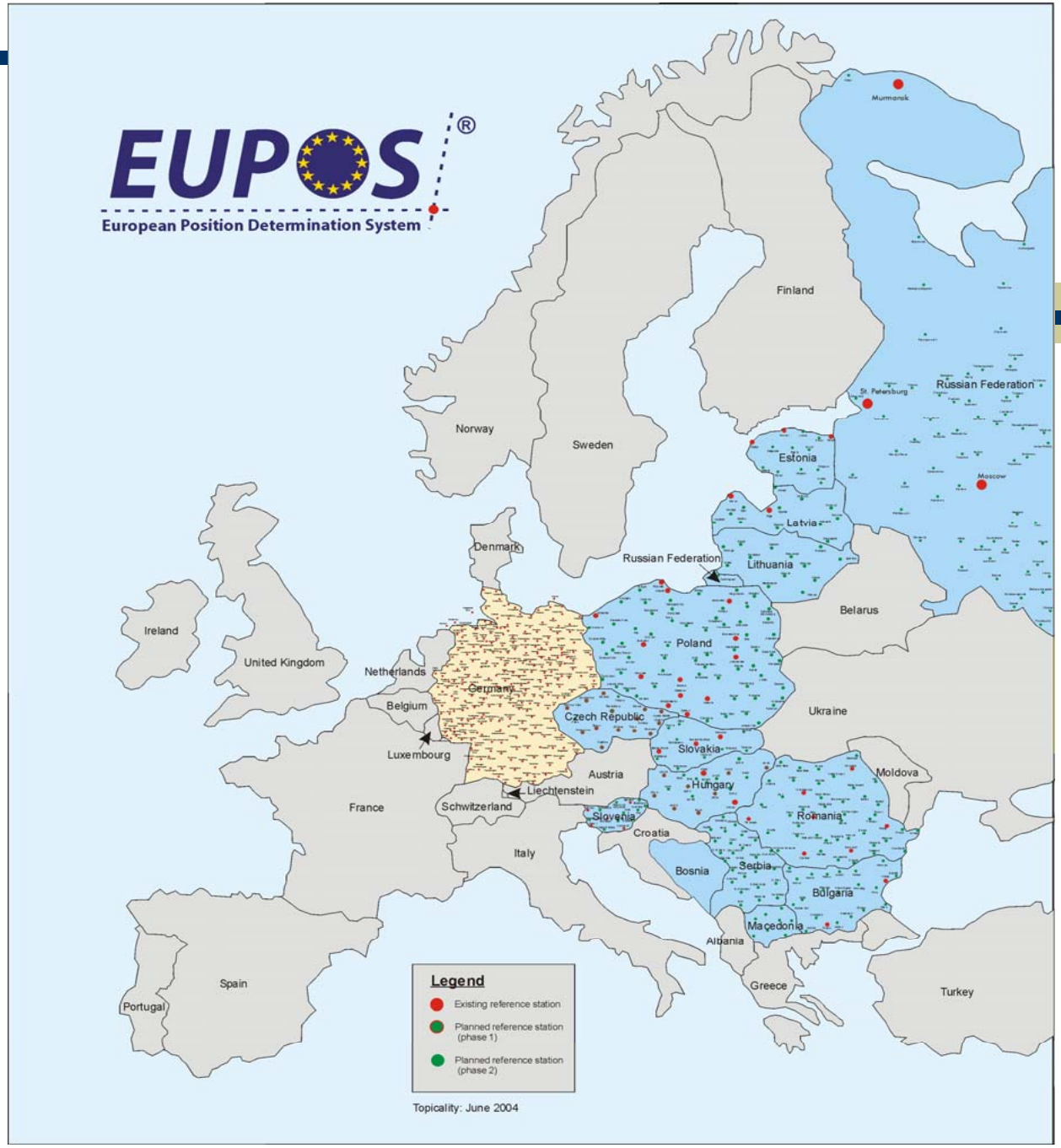
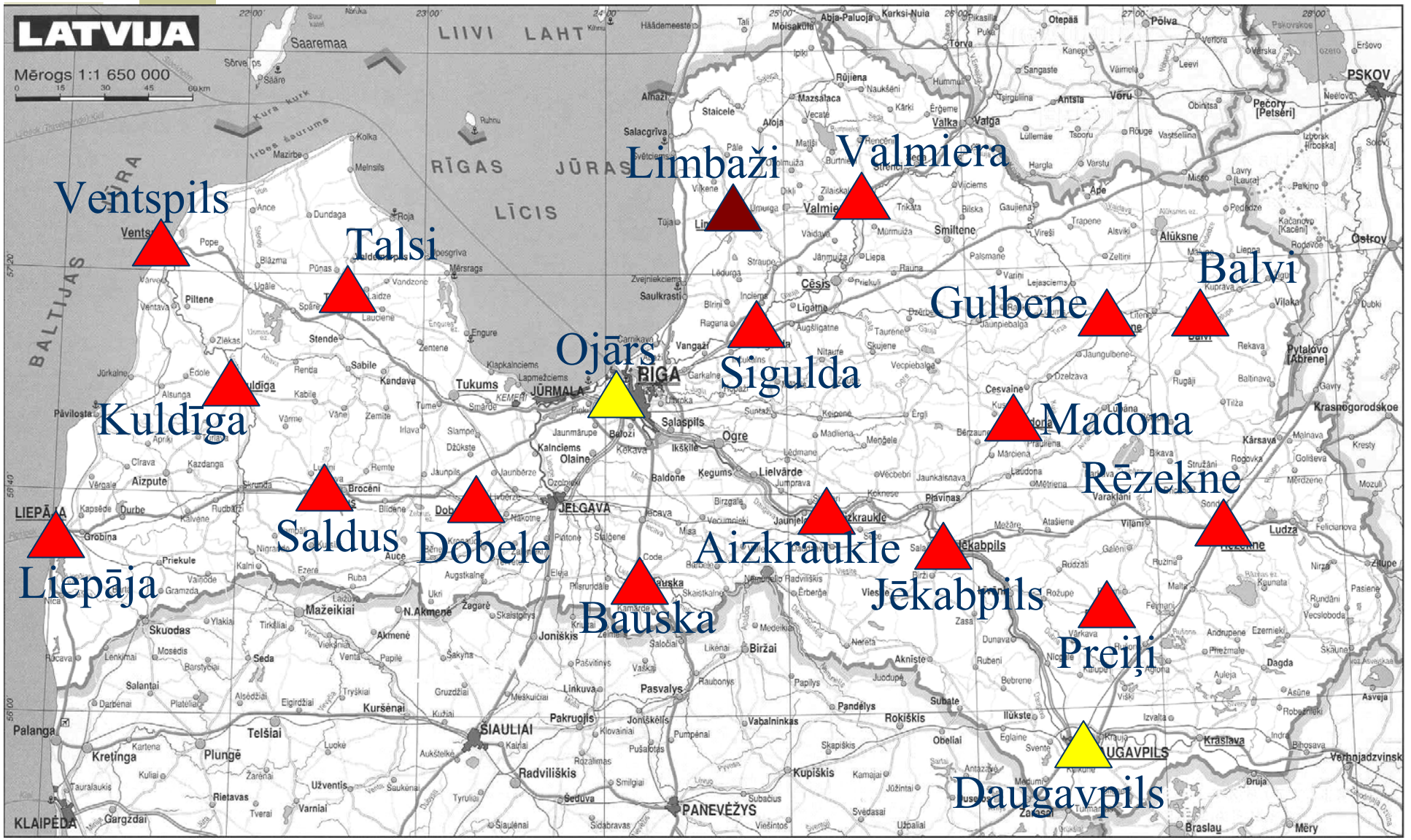
JĒKABPILS
PREIĻI
RĒZEKNE
LUDZA
DAUGAVPILS
KRĀSLAVA


EUPOS®
European Position Determination System
Murmansk
Finland
Russian Federation
St. Petersburg
Norway
Sweden
Estonia
Moscow
Latvia
Denmark
Russian Federation
Lithuania
Belarus
Ireland
Poland
United Kingdom
Netherlands
Germany
Belgium
Czech Republic
Ukraine
Luxembourg
Slovakia
Austria
Moldova
Hungary
Liechtenstein
France
Schwitzerland
Slovenia
Romania
Croatia
Italy
Bosnia
Serbia
Bulgaria
Macedonia
Albania
Spain
Greece
Turkey
Portugal
Legend
Existing reference station
Planned reference station (phase 1)
Planned reference station (phase 2)
Topicality: June 2004

LATPOS

Uztver: NAVSTAR (ASV)

GPS stacijas: Leica Trimble plānota

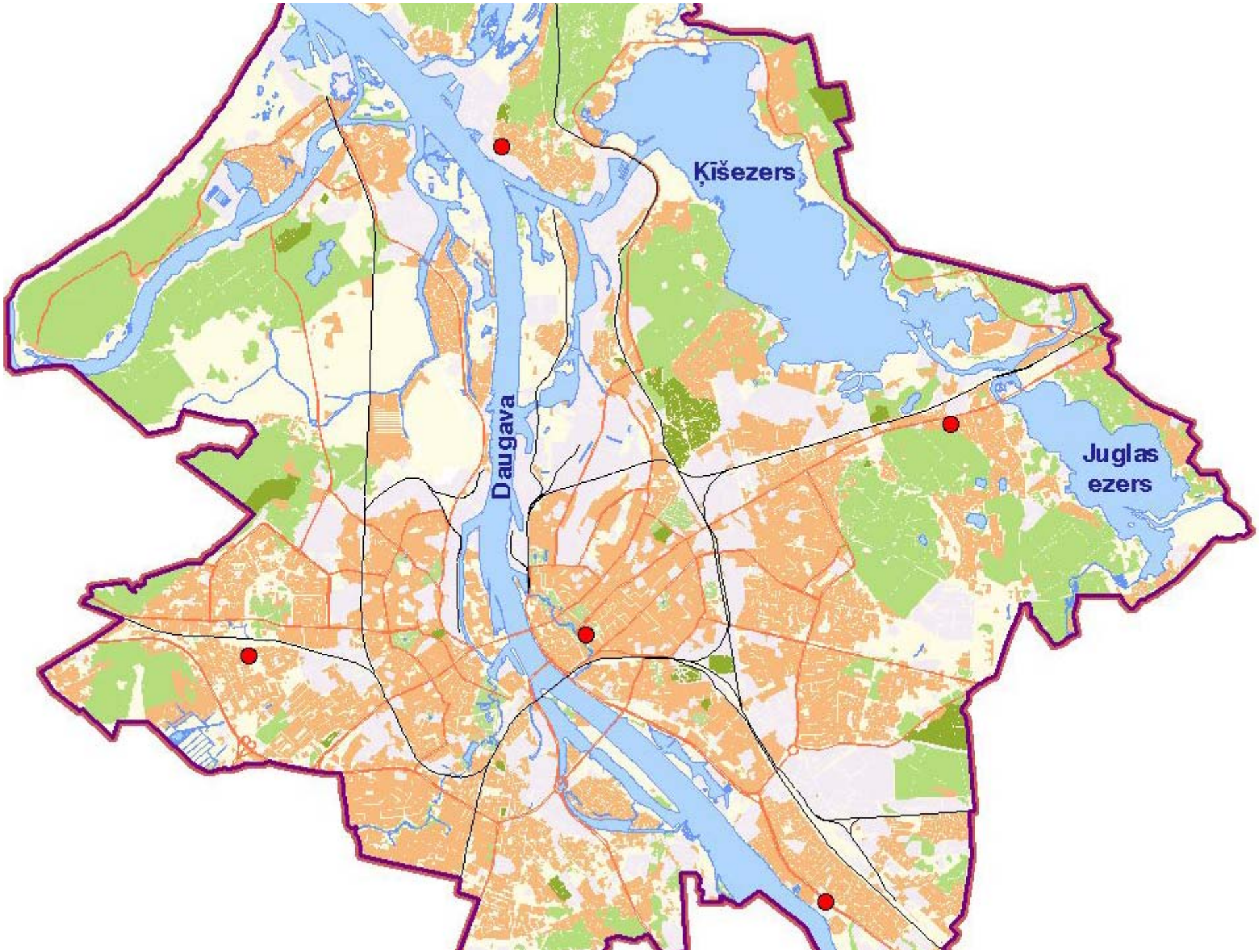


Riga city

Gunārs Silabriedis,
RD PAD
Ģeomātikas pārvalde

Rīgas ĢeoMetrs main tasks

- to perform the historic map data for land reform and land privatization;
- to manage the Address Register;
- to perform land use planning and cadastral surveying in Riga city; to perform land use planning;
- responsible for the geodetic infrastructure to perform surveying and mapping in Riga city;
- regularly update and monitor fhe large scale maps of Riga city ,
- participation in the project *EUPOS*® with Riga multifunctional GNSS positioning system.


Ķīšezers
Daugava
Juglas
ezers

Riga-1884 laser telescope with operating staff from left to right Kazimirs Lapushka,Igors Abakumovs, Valdis Laposhka.

Institute of Geodesy and Geoinformation

- 1. Satellite Laser Ranging Systems:
- PSLR
- SLR for LEO satellites
- Capabilities for Galileo
- Zenith telescope
- 2. Network RTK - EUPOS®
- 3. Geo-information

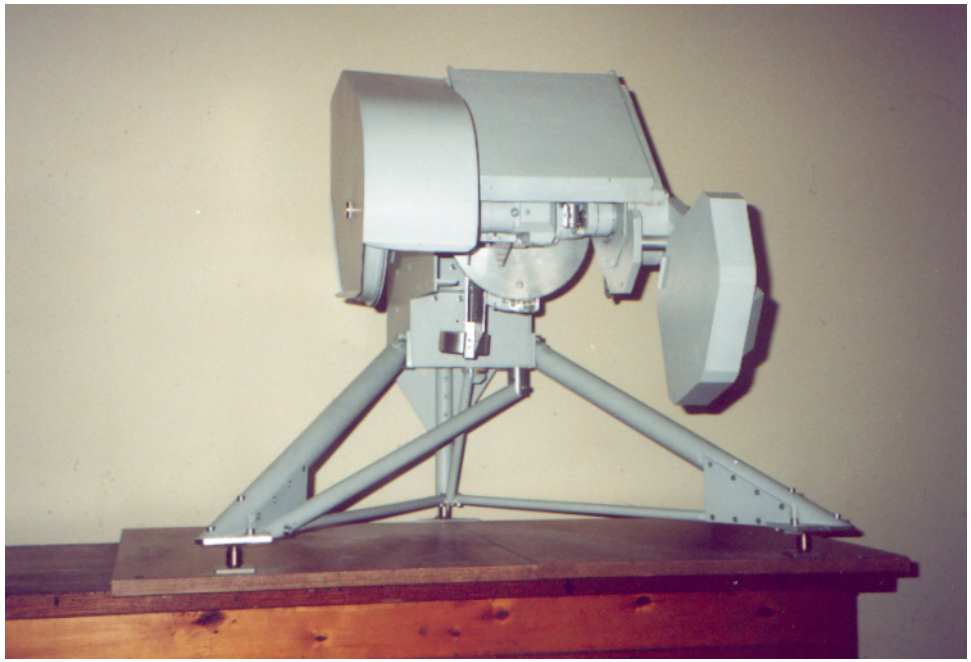
PSLR

PSLR

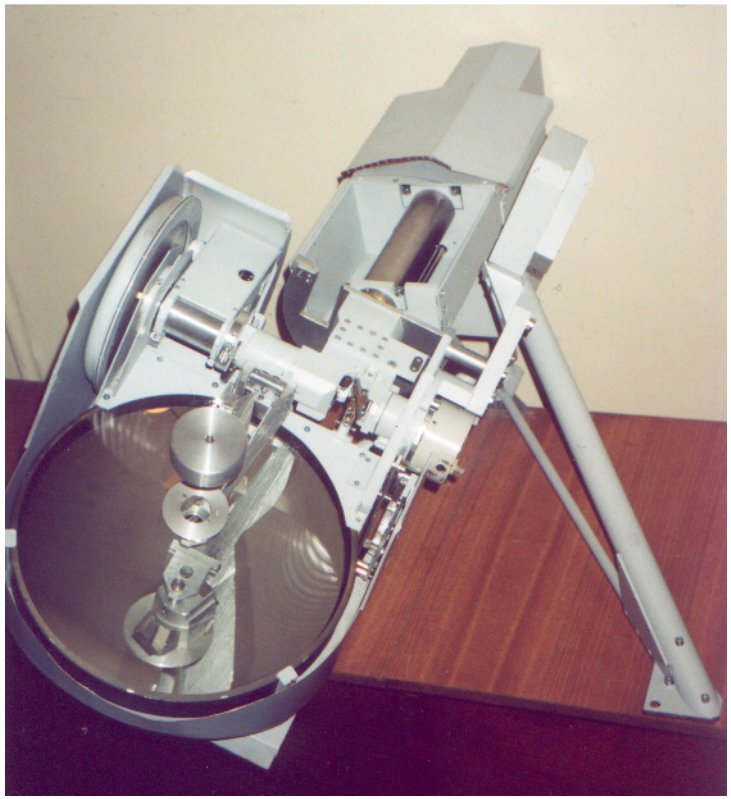
PSLR

SLR for LEO Satellites

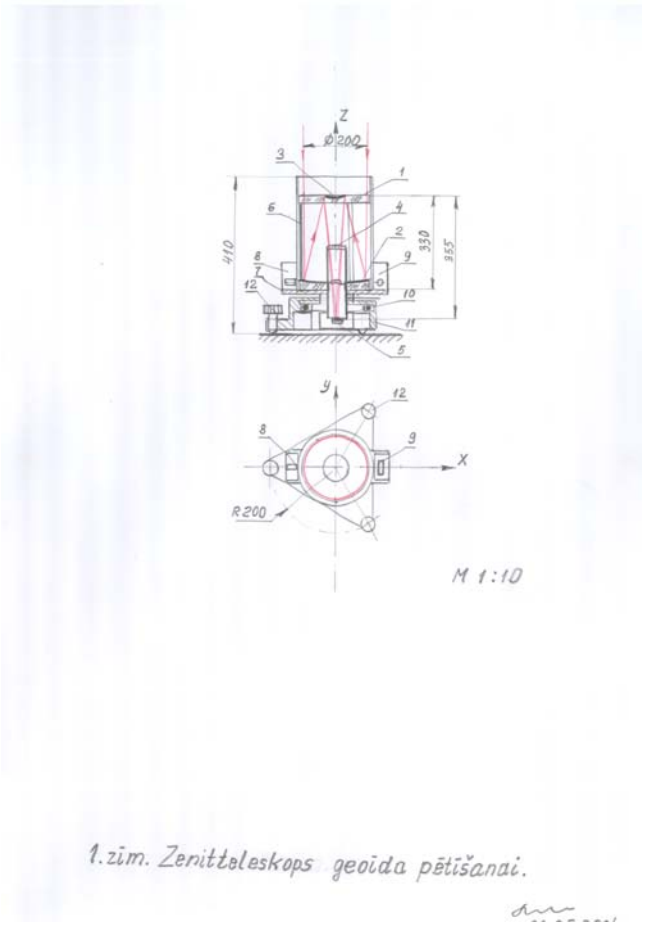
SLR for LEO Satellites



SLR for LEO Satellites



Zenith telescope



Geo-information

2D geographical databases

digital overview map of Latvia – database with 11 thematic layers, scale 1: 200 000

geographical database of Riga city – database with 6 thematic layers, scale 1: 5 000

3D geographical databases

digital terrain model of Latvia

(raster size – 500 m, 200 m, 100m, 50m, 25m)

digital elevation models of Riga and other cities: terrain, buildings, vegetation

(raster size – 10m or 5m)

RIGA TECHNICAL UNIVERSITY

Department of Geomatics

Prof. J.Strauhmanis