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GEOID MODEL FOR SURVEYING IN LATVIA

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MODELLING AREA
East longitude
20 - 30
North latitudes
55 - 59


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Cooperation needed
for gravity DATA

The diagram features a central circle labeled "LATVIA". Surrounding it is a larger circle with five smaller circles connected by a thick grey line. Clockwise from the top, these smaller circles are labeled: "Estonia", "Russia", "Belarus", "Lithuania", and "Baltic Sea".




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TACKLE AND DATA FOR GEOID
MODELLING:

- ✓GRAVSOFT
- ✓EGM 1996 or newer
- ✓Terrestrial gravity data, etc.
- ✓DGPS/DGNSS or network LATPOS
- ✓Levelling data
- ✓Adjustment / fitting to geodetic points

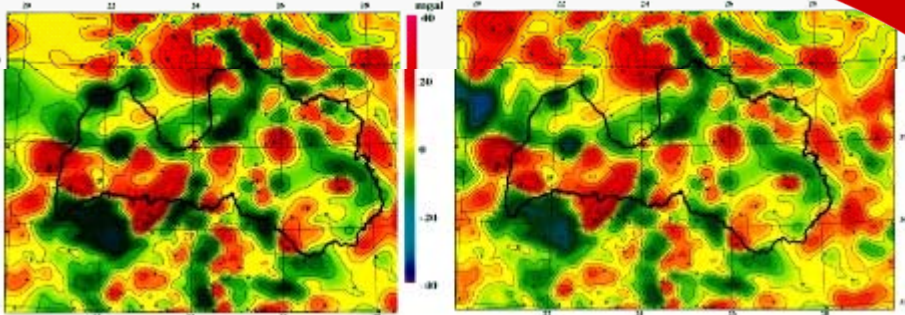
$$h - H - N = 0$$



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On Baltic Sea

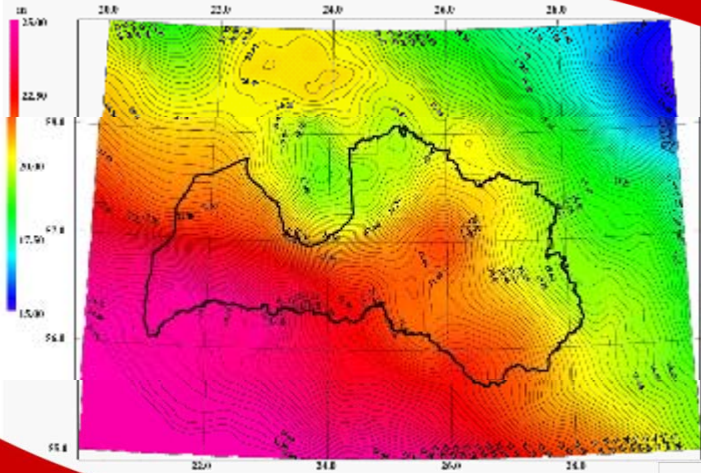


First with success satellite altimetry from ERS-1 already in 1995 was used
Now we go for better fitting points!

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Accuracy
6 cm

Gradient up to 20 mm/km

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FUTURE TASKS

- Territory of LV ~ 64 000 km²
- Complete levelling ~ 3 000 km
- Connect to first and second DGPS network
- Evaluate EGM start 1996 up to 2008 ...
- Obtain more precise geoid model 1 -2 cm

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COOPERATION FOR FUTURE

- Within Baltic countries and Nordic Commission of Geodesy – NKG
- Within IAG sub-commission EUREF
- Practical and theoretical implementation of geoid models together with FIG WG
- To solve global questions and give feedback on demands of society

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Thank You !



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