Status of legal and practical implementation in Russian Federation

Inland ENC Harmonization Group

29 September 2010

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Inland ENC Harmonization Group

According to Federal Task Program on implementation of GLONASS on transport, 26 000 km of inland waterways were surveyed, equipped and covered with Inland ENCs.

Complex of works for every waterway included:

-Riverbed hydrographic surveys
-Geodetic and topographic surveys
- Inland ENC creation
-Inland ENC validation
-Inland ENC data trial

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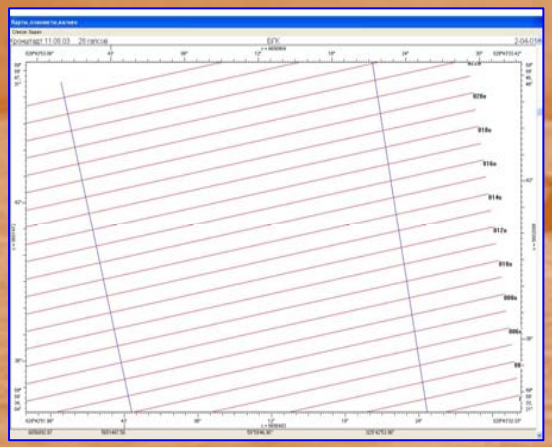
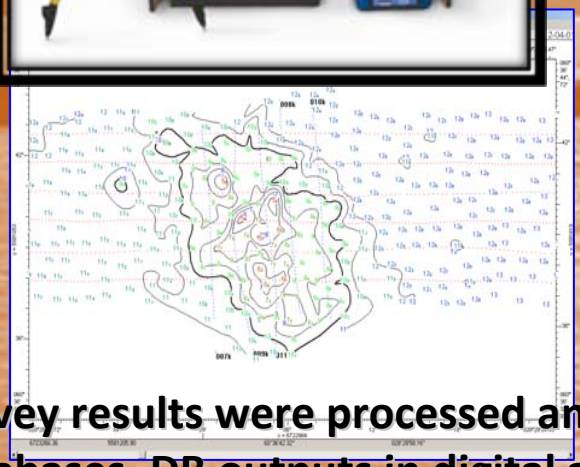
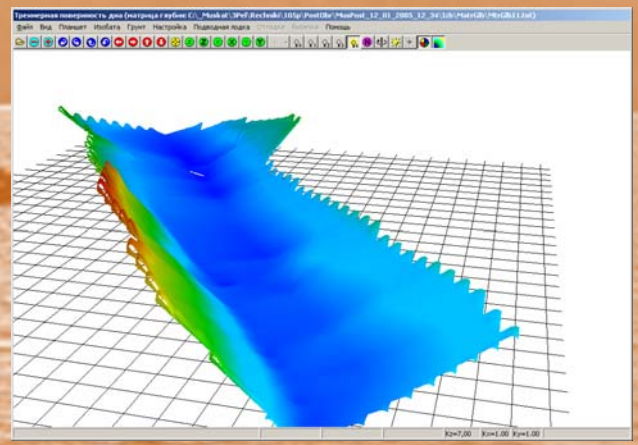
Riverbed hydrographic surveys were conducted by State Basin Departments with use of Automated Survey System equipped with GPS/GLONASS and single beam echosounder







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Survey results were processed and stored in digital survey databases. DB outputs in digital and raster forms were transferred to chart production center in St. Petersburg

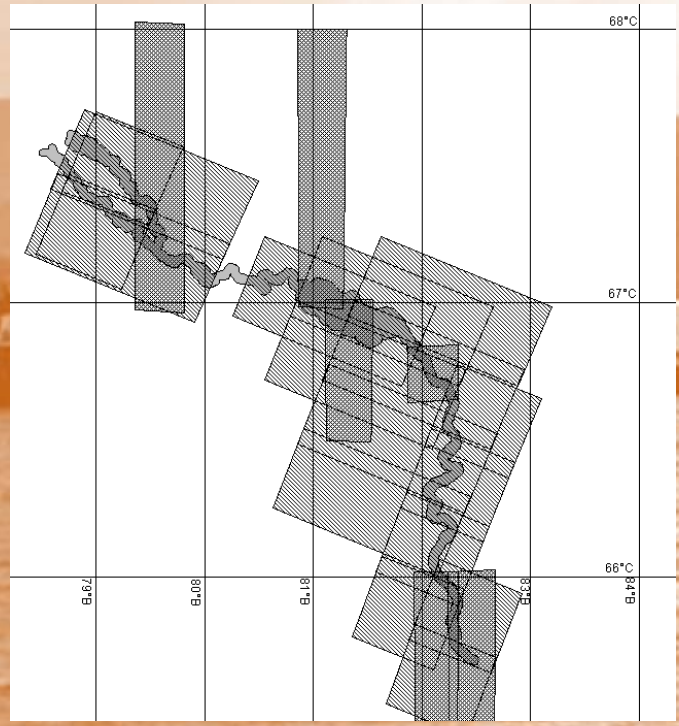
Geodetic and topographic surveys included:

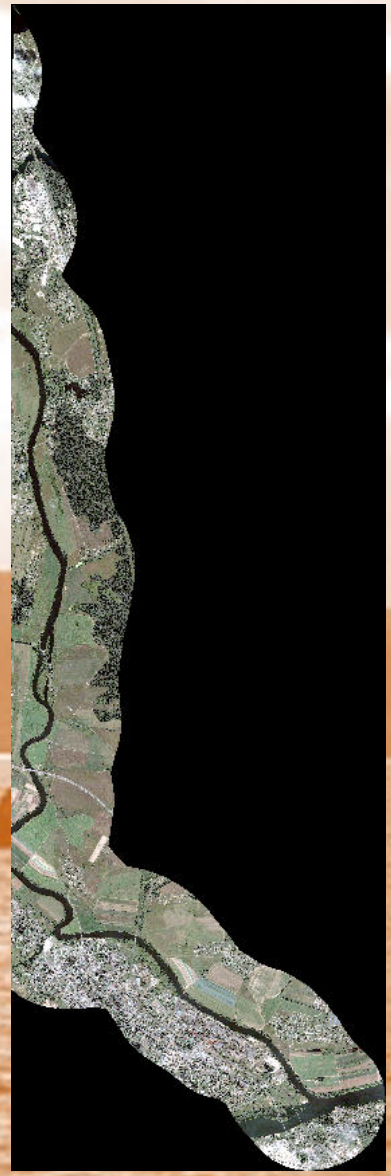
-Hight control

-Horizontal control

-Satellite-borne photography

-Orthophotograph processing and digitizing





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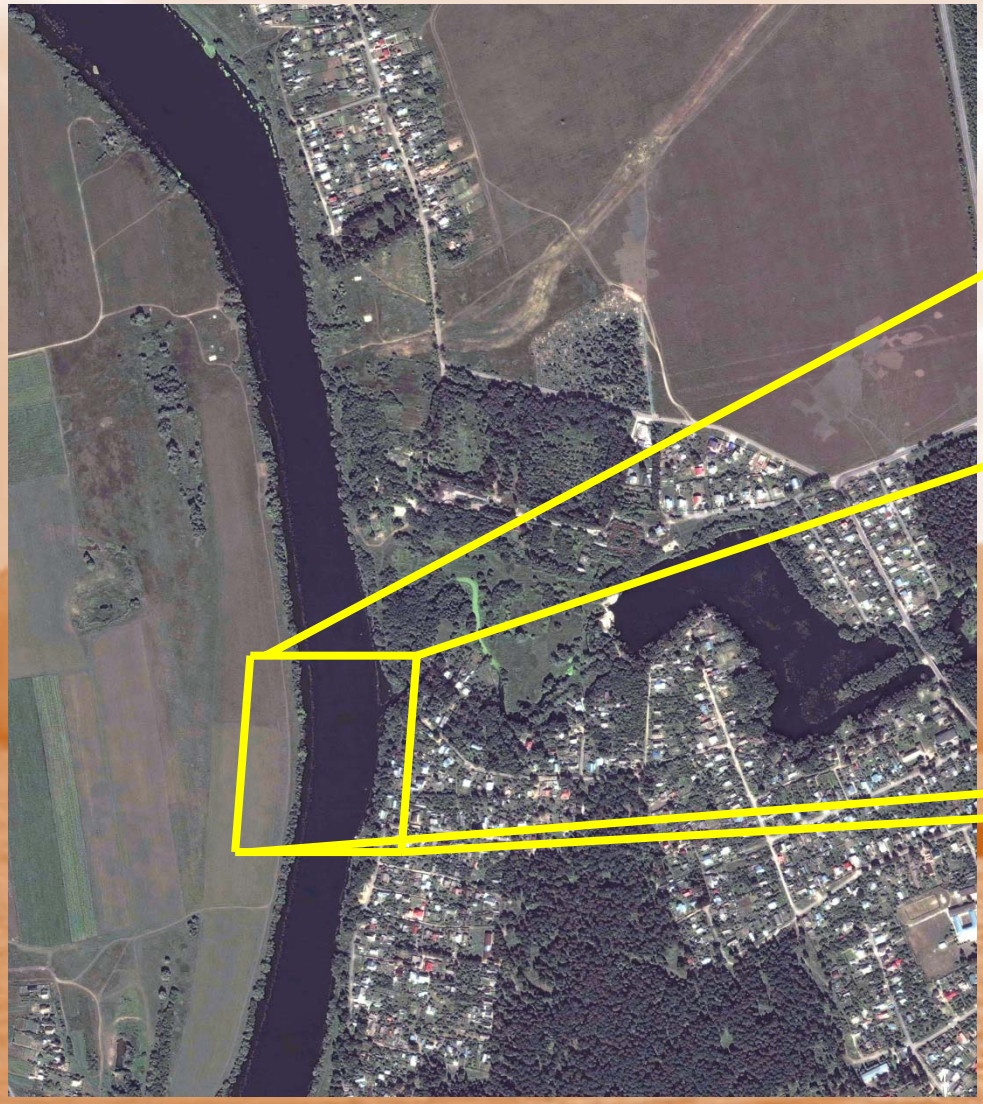
Qwickbird
Worldview - 1
Worldview – 2
Geoeye



High resolution satellite images were transformed into S-57 by GIS application. Image resolution did not exceed ± 4 meters.

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Generally images were used to digitize coastline, bridges, overheads and some fixed features definitely identified

Survey data

Geodetic/Topo/Space data

Inland paper charts data

Descriptive data

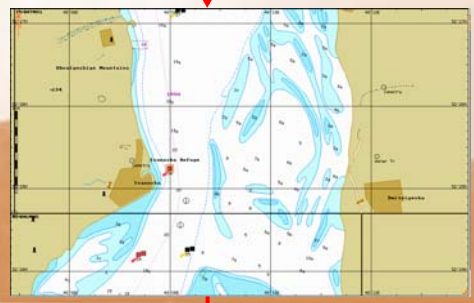
Digital DB

Inland ENC creation\update

Inland ENC validation

Digital cartography center

Inland ENC



Inland ENC trial

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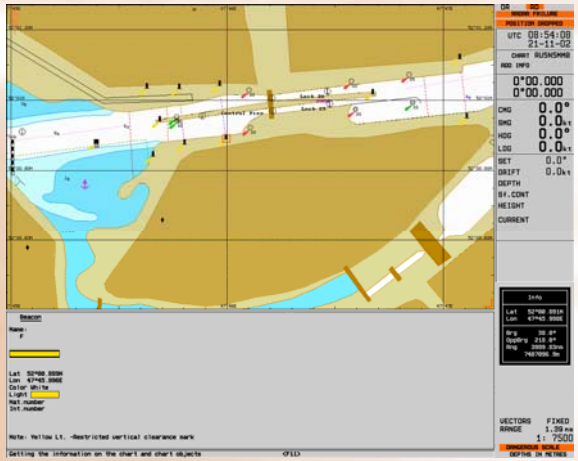
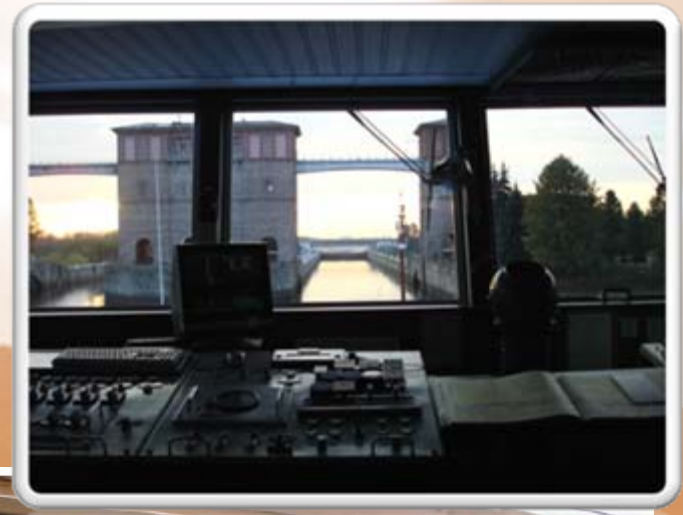
Inland ENC validation



Inland ENC trial



Inland ENC distribution

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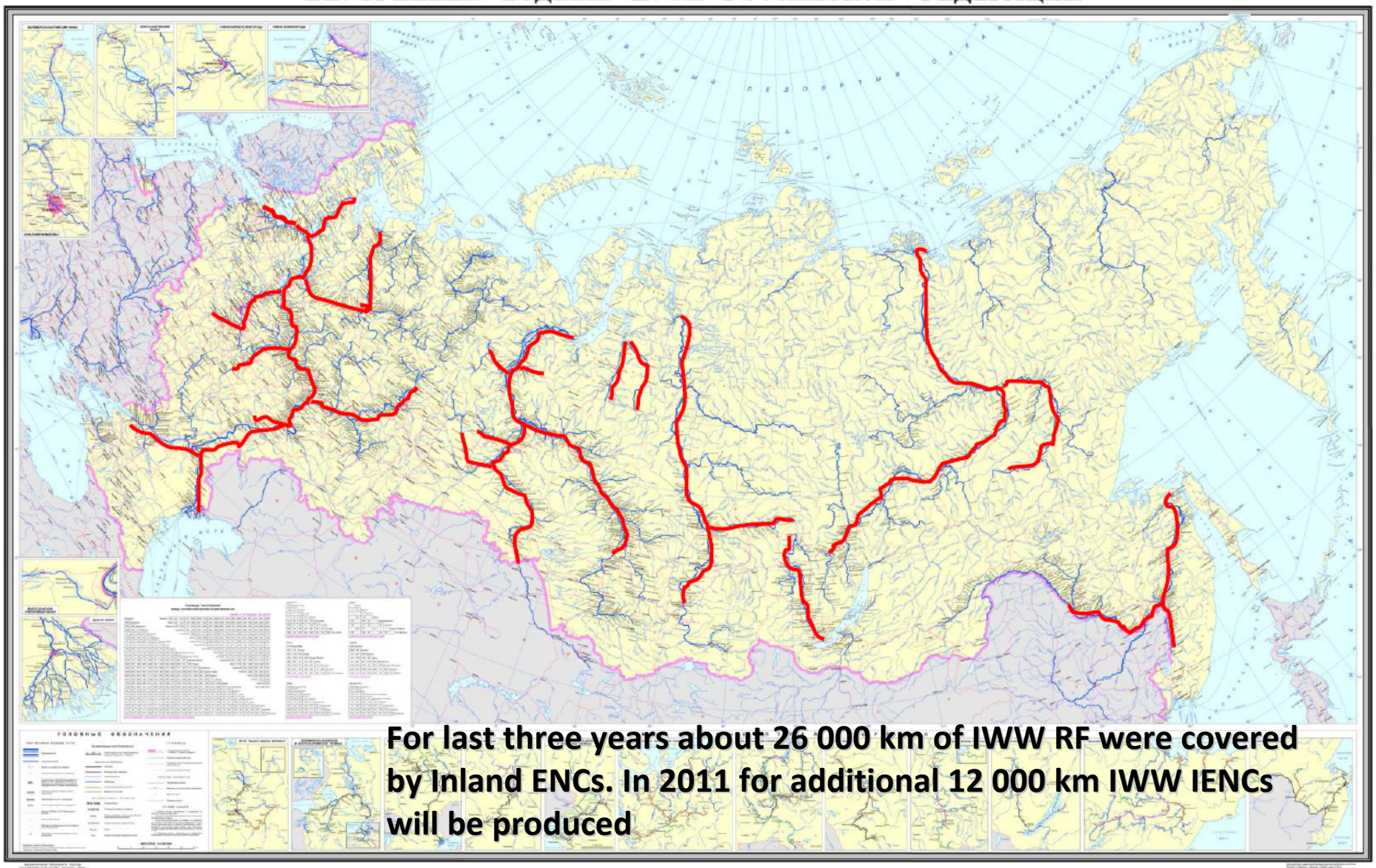

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Thank you
for your attention
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