

# Marine aggregate dredging

## in Kollafjörður, Iceland. Multibeam survey 2002 – a basis for comparison

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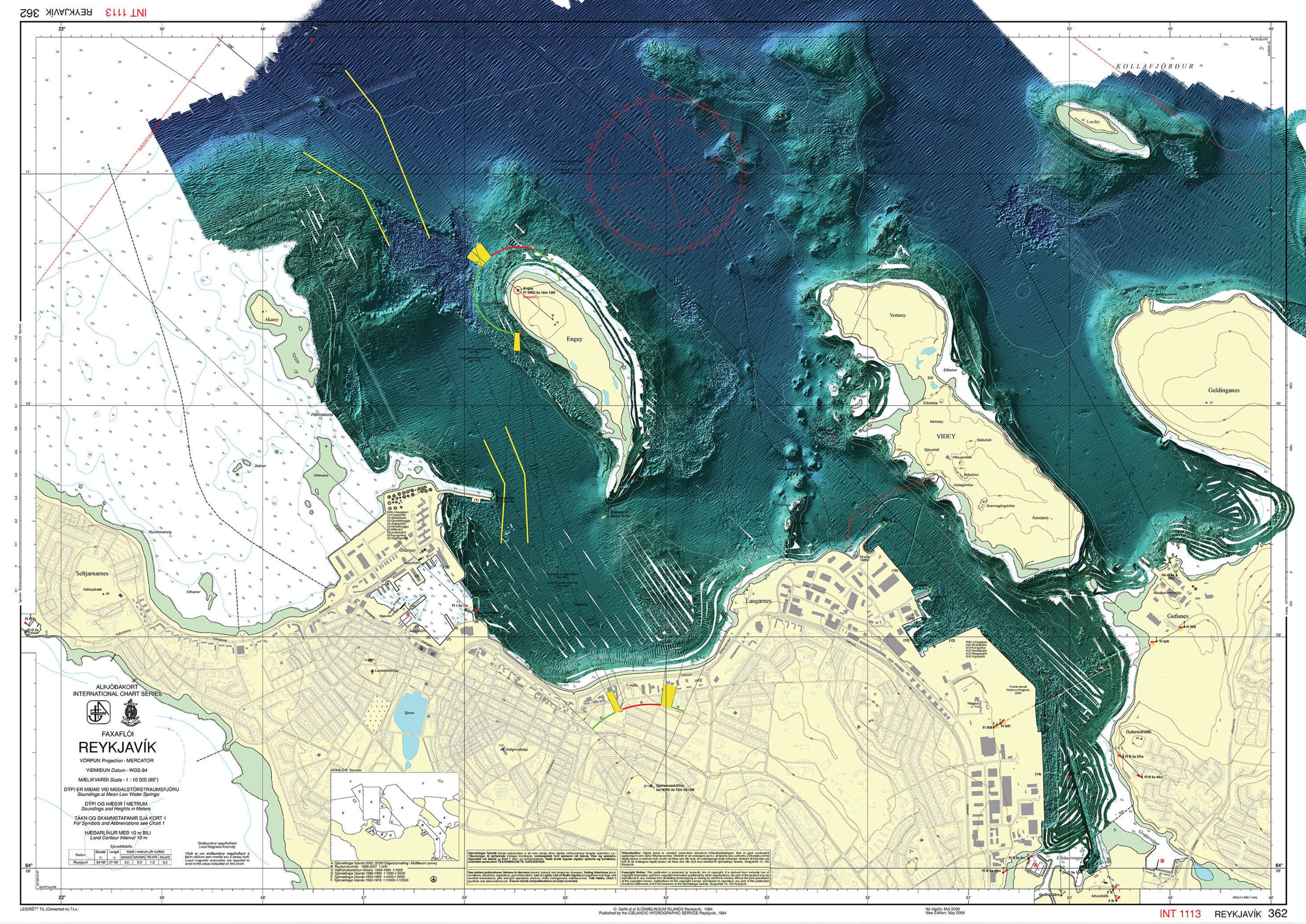
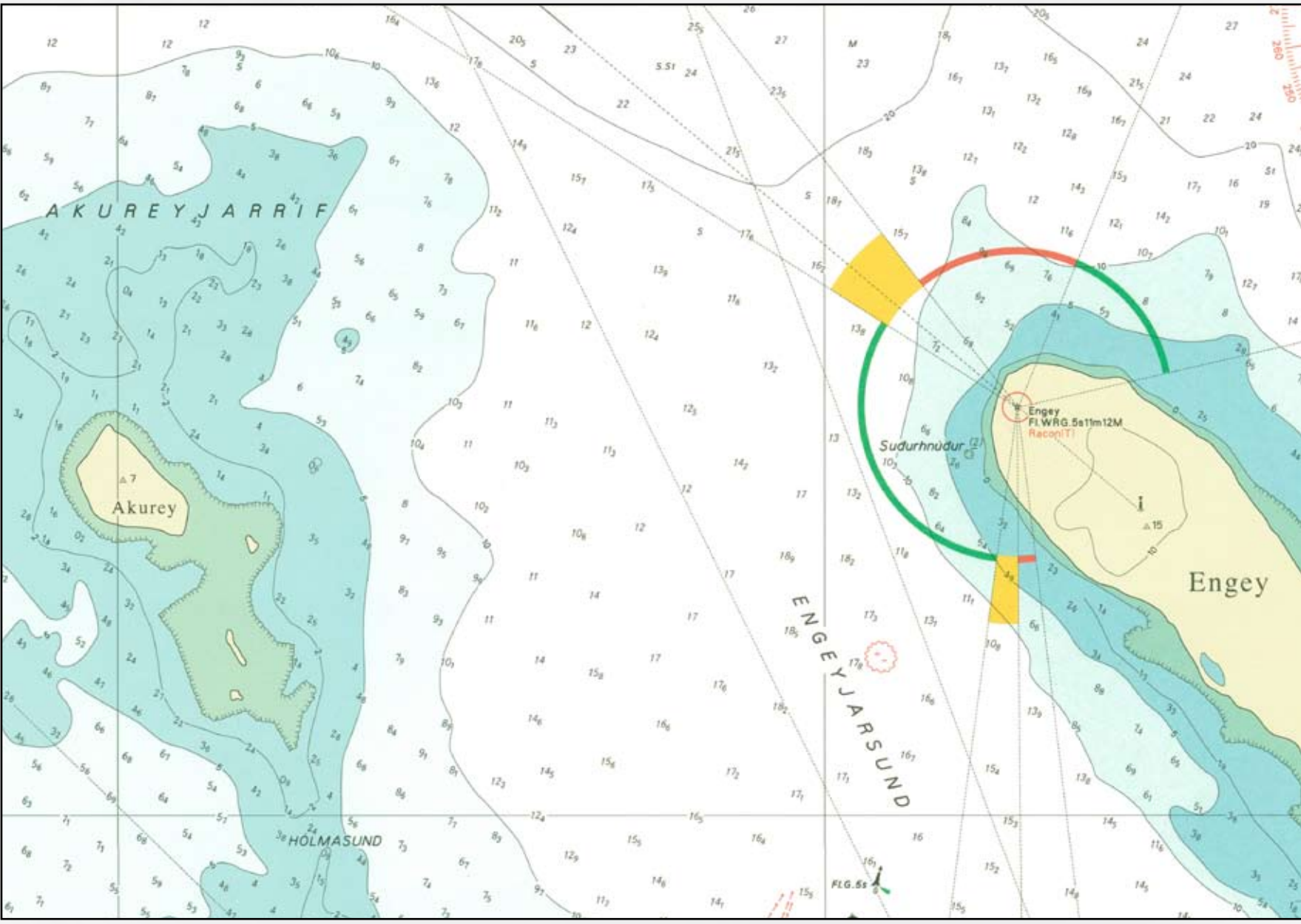
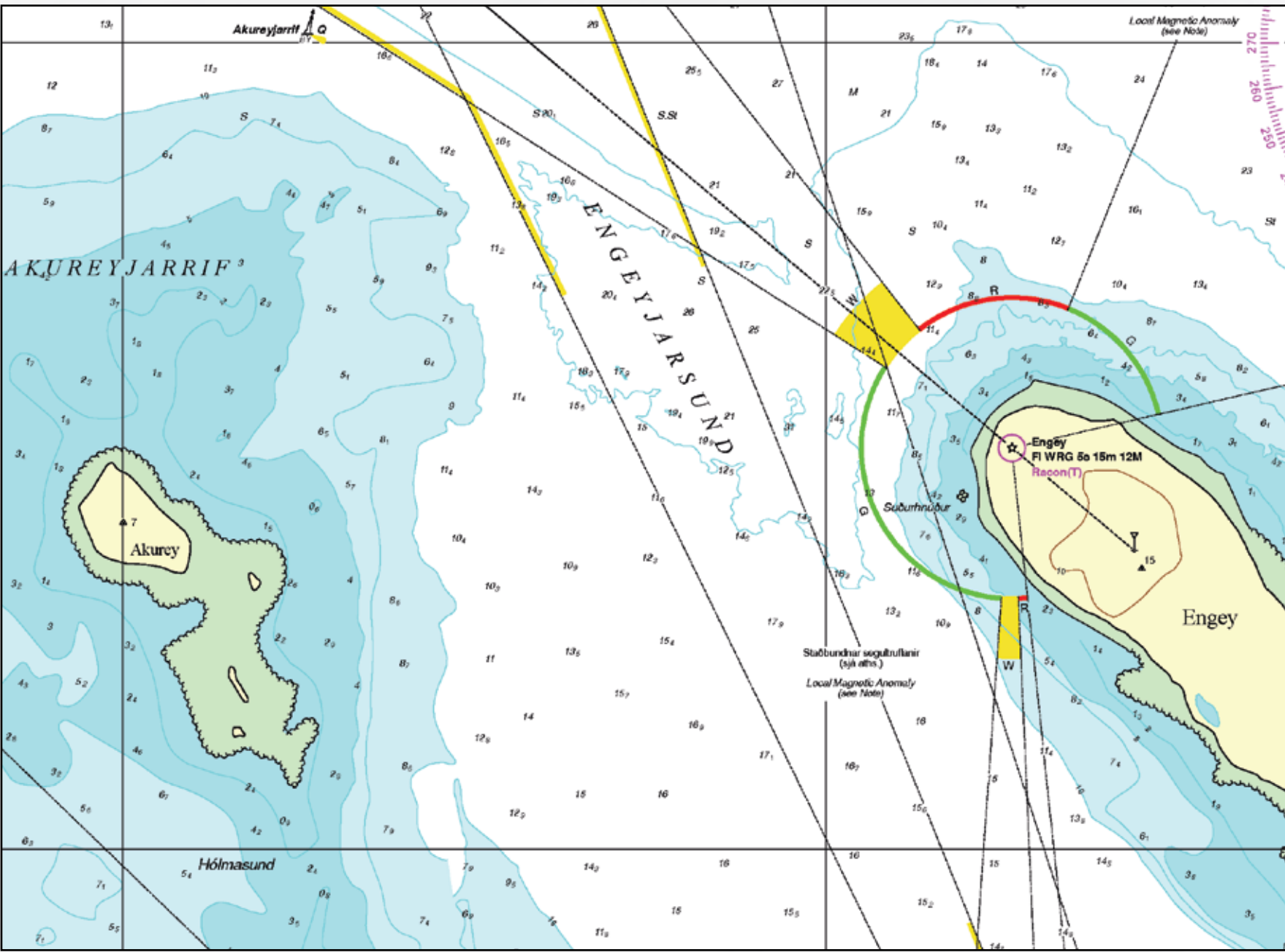


Chart No. 362 (INT 1113) Reykjavík, overlaid on Kollafjörður seafloor image generated from multibeam survey by the Icelandic Coast Guard – Hydrographic Department



The Akurey aggregate dredging site. From chart No. 362 (INT 1113) Reykjavík, Engeyarsund - the entry to Reykjavík harbour in 1996. Depths in meters and decimeters.



The Akurey aggregate dredging site after dredging was abandoned. From chart No. 362 (INT 1113) Reykjavík, Engeyarsund – the entry to Reykjavík harbour in 2009. Depths in meters and decimeters.

### ICELANDIC COAST GUARD

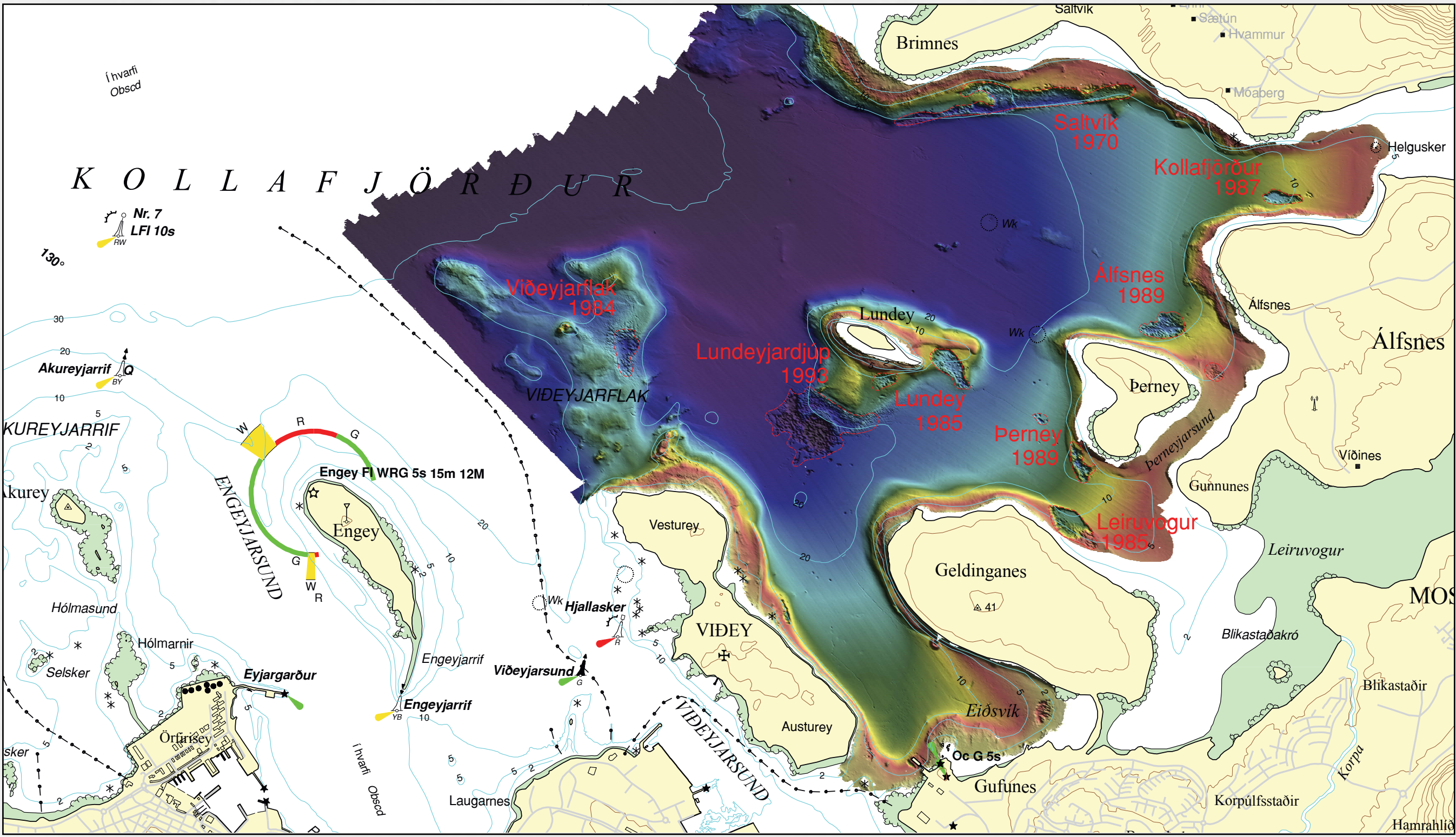
– Hydrographic Department

In 2002 Kollafjörður to the north and east of Reykjavík was surveyed. A number of hydrographic surveys have been carried out in the fjord over the course of some fifty to sixty years especially on its south side where marine traffic enters Reykjavík harbour. The surveying has not been on regular basis and the fjord has never been surveyed in one go as was done in 2002.

Marine aggregate extraction has been considerable in Kollafjörður for decades. More than 20 sites of aggregate dredging are known and the 2002 survey includes them all. By far the largest and the one that led to the publication of two new editions of Reykjavík harbour chart No. 362 is the Akurey aggregate dredging site. The second new edition published in 2003, a result of the 2002 multibeam survey, revealed increased depth in the outer part of Engeyarsund, the entrance to Reykjavík harbour, of some 12 to 15 meters. Research by the Icelandic Maritime Administration showed increased waves and was one of the factors contributing to the abandonment of the Akurey aggregate dredging site.

The aggregate extraction sites in Kollafjörður were surveyed in 2005, in relation with an environmental impact assessment with modern single beam equipment by Jarðfræðistofa Kjartans Thors. The 2002 and 2005 surveys have not been compared.

- The National Energy Authority has suggested to the Hydrographic Department of the Icelandic Coast Guard that a resurvey would be ideal in 2012. If these intentions will be carried out it will be possible to compare the two data sets and document changes over the past 10 years.



From chart No. 365 Hafnarfjörður - Akranes, with Kollafjörður seafloor image generated from multibeam survey by the Icelandic Coast Guard – Hydrographic Department. Dredging areas outlined in red, year indicates beginning of extraction

