



## **Recalculated Areas for Maximum Ice Extents of the Baltic Sea During Winters 1971-2008**

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Publication of operational ice charts in Finland was started from the Baltic Sea in a year 1915. Until year 1993 all ice charts were hand drawn paper copies but in the year 1993 ice charting software IceMap was introduced. Since then all ice charts were produced digitally.

Since the year 1996 IceMap has had an option that user can calculate areas of single ice area polygons in the chart. Using this option the area of the maximum ice extent can be easily solved fully automatically. Before this option was introduced (and in full operation) all maximum extent areas were calculated manually by a planimeter.

During recent years it has become clear that some areas calculated before 1996 don't give the same result as IceMap. Differences can come from for example inaccuracy of old coastlines, map projections, the calibration of the planimeter or interpretation of old ice area symbols.

Old ice charts since winter 1970-71 have now been scanned, rectified and re-drawn. New maximum ice extent areas for Baltic Sea have now been re-calculated. By these new technological tools it can be concluded that in some cases clear differences can be found.