



DGPS/GPRS/EGNOS navigation monitoring system for safety sailing in Great Mazurian Lakes in Poland

S. Oszczak, D. Popielarczyk, B. Oszczak

Chair of Satellite Geodesy and Navigation, University of Warmia and Mazury in Olsztyn,
(oszczak@uni.olsztyn.pl / Phone: 48895233481)

Warmia and Mazury region is frequently called the Land of a Thousand Lakes. It is the center of recreation for tourists from all over Poland and from abroad. There is an amazing opportunity for sailors and fishermen too.

Almost all of lakes don't have up-to-date digital charts. The most part of them have been measured almost 50 years go. Existing analogue maps don't present the real and accurate bottom surface. Therefore it is very important to ensure the global safety which could be reached by creating digital, bathymetric charts, marking the inland waterways and dangerous places.

Bathymetric maps should present the real and accurate bottom surface and should include information about dangerous shallow reservoirs with stones and rocks.

The paper presents application of DGPS/GPRS and EGNOS satellite navigation systems in monitoring and safety sailing in Great Mazurian Lakes in Poland. Further will be presented first results of the experiments carried out on the biggest lakes using GPS receivers working in DGPS or EGNOS mode. Differential GPS satellite measurements were based on the GPRS data transmission technique.