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SEA LEVEL CHANGES INVESTIGATION IN FARADAY/VERNADSKY STATION AREA

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It is well known from many sources that level of World ocean is rising over a last half of the 20 century. This process is linked with global warming of the Earth's climate. In particular, they believed that intensity melting of Antarctic Peninsula and Argentina Islands ice shelves and glaciers are caused by global warming climate. These processes should cause the sea level rising at that region. But analysis of sea level changes that determined from Faraday/Vernadsky tide gauge measurement over a last 20 years of time (1984 – 2004) showed that the sea level near Argentina Islands increased during 1984 – 1995 in rate about 2 mm/year, and during 1996 – 2000 period it decreased in rate approximately 5 mm/y, and during 2000 – 2004 period it decreased in rate approximately 9 mm/y. There are many reasons that result the sea level change at this region. Particularly vertical motion of the Earth crust as effect of glacial isostatic adjustment is one of reasons of relative sea level rising. Prof. Peltier's estimation of sea level change for Argentina Islands is approximately from –2.3 mm/y to –2.4 mm/y (decreasing!) on present-day. Because the permanent GPS-measurements started at Faraday/Vernadsky station last year we expect to determine realistic rate of sea level change using GPS-measurements of vertical crustal motion in this region.