

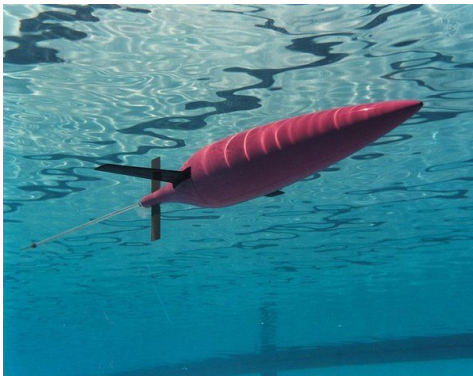
# Glider Operation Center



The Glider Operation Center is being developed by OPTIMARE.

At the beginning the Glider Operation Center is build for piloting Seagliders from APL. Gliders from other manufacturers will be integrated as needed.

The main goal is to develop improved processing tools for glider operation under ice together with RAFOS and to get optimal observation track lines in the most efficient and safest way to obtain an optimal data set for assimilation. Taking into account the complicated current system and ice distribution in Arctic regions.



Seaglider (APL UW, Washington)

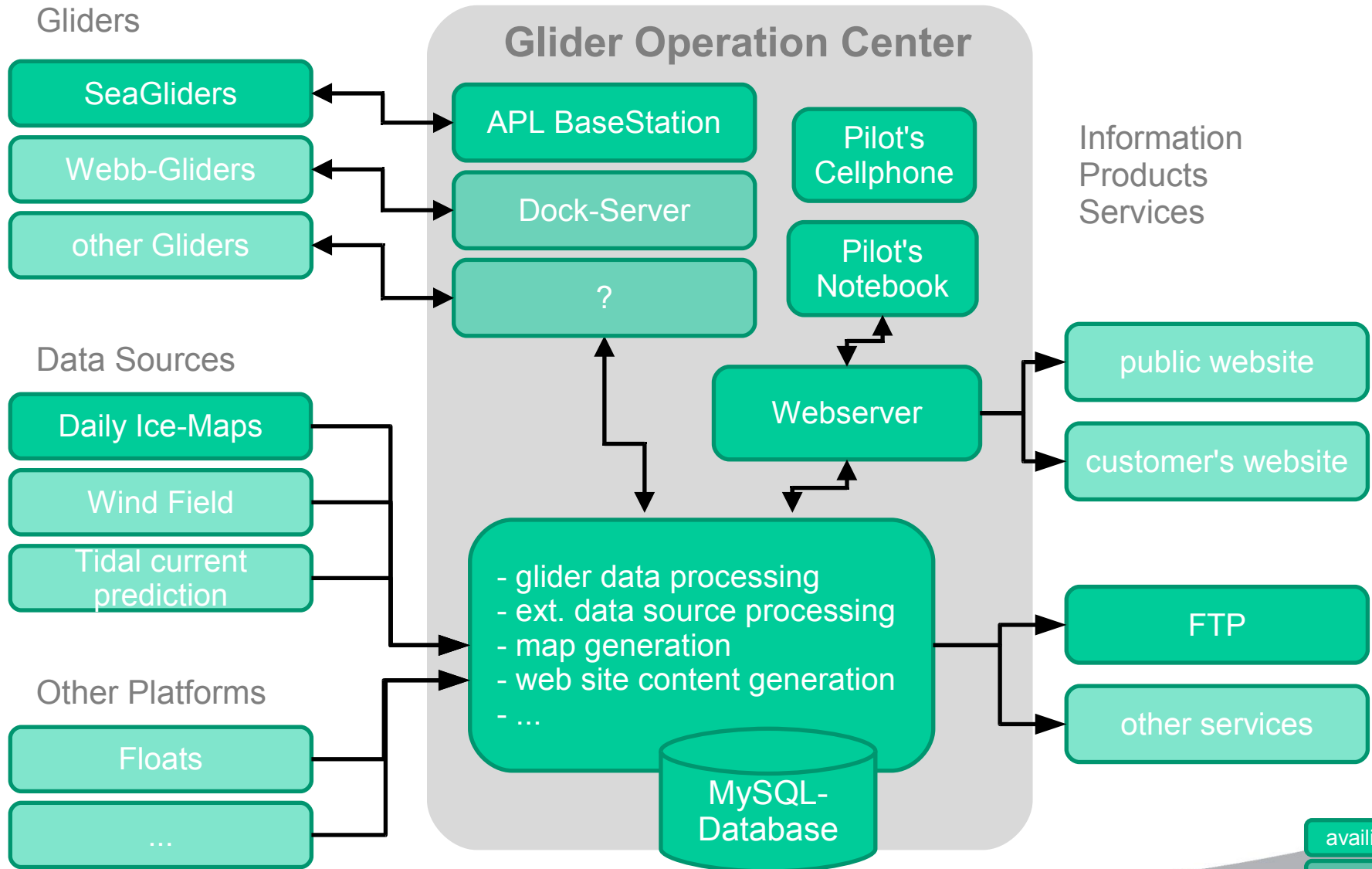


Recovery of Seaglider sg127 in Sognefjord in February 2008

OPTIMARE was piloting Seagliders in three missions 2008 and 2009, using their web based visualization tools.

New missions in Fram Strait are planned for Spring and Fall 2010 .

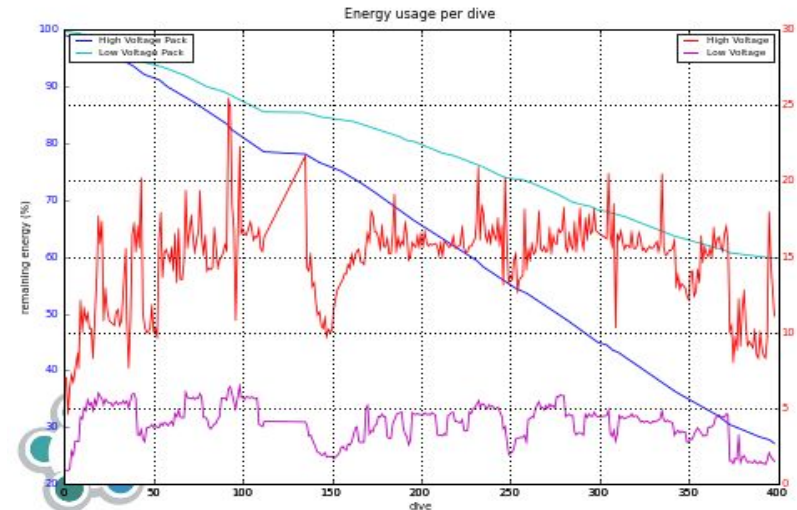
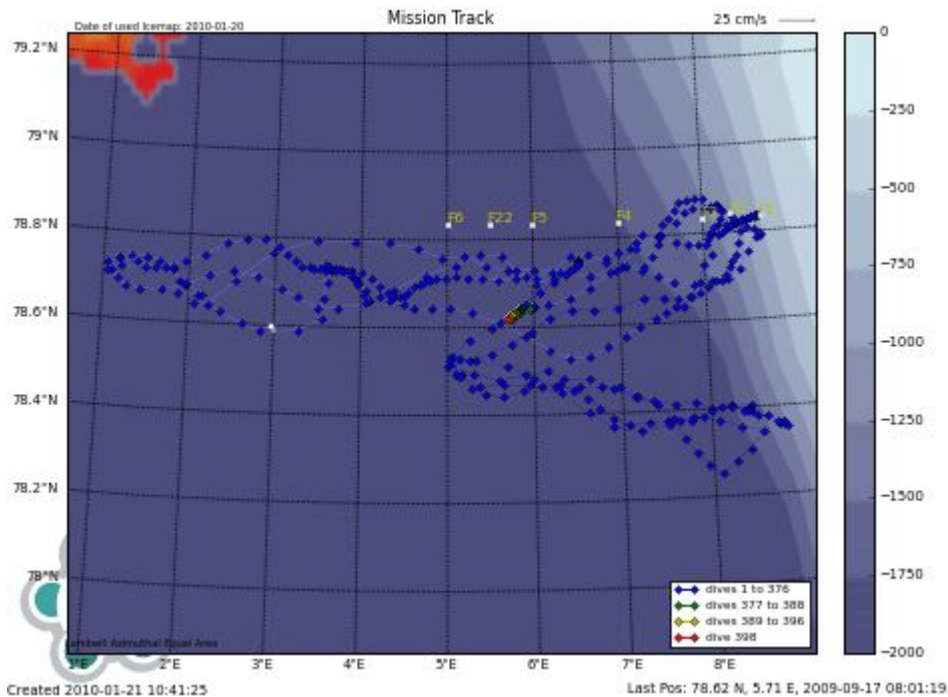
# Glider Operation Center - Basic concept





## Fram Strait mission in Summer 2009

Seaglider SG127 was deployed from RV Polarstern in Summer 2009 near Spitzbergen. Piloting was done by OPTIMARE. Recovery after successful mission 11 week later with KV Svalbard.



The chart shows the remaining energy as a function of the dive number (blue and cyan) and the energy consumption of each dive (red and magenta).

## Setup

- Base station at OPTIMARE, Bremerhaven
  - connection to Glider: RUDICS
  - backup connection IRIDIUM-modem
- AWI-Seaglider SG127

## Result

- 398 dives in 75 days (4.7.2009-17.9.2009)
- 80 % energy used (high voltage pack)
- RUDICS connection worked very robust