

Franck Delbart, IPEV, Technopole Brest Iroise 29280 Plouzané, [fdelbart@ipev.fr](mailto:fdelbart@ipev.fr)  
Roland Neuber, AWI, Telegrafenberg, A43, D-14473 Potsdam, [Roland.Neuber@awi.de](mailto:Roland.Neuber@awi.de)

## FUTURE FACILITIES DEVELOPMENTS

### REMOTE OPERATED VEHICLE – ONE CAMPAIGN SUMMER 2009



Depending of the interests, the ROV use could be planned on a 5 years basis.

#### **Description:**

- 1 front colour High Digital Video, 2 halogen light (2\*250W)
- 1 sonar (distance to sea-bed)
- 1 pressure sensor for depth monitoring, 1 fluxgate (magnetic) for head monitoring
- 1 built-in navigation sonar (range 0 – 25m or 0 – 50m)
- 2 thrusters for horizontal driving (forward/backward)
- 1 thruster for vertical motion, 1 thruster for lateral motion
- 1 0.5 meters length 3-axis manipulator (possibility of taking loads of 4 kg )
- 1 Umbilical (between the control console and the vehicle): standard length 300m
- 1 Power generator 4 KW

#### **Capabilities:**

- Maximum diving depth 300 m, Underwater video recording HDV
- Acoustic positioning, Surface video recording miniDV
- Surface diving parameters recording (text file)
- Using from small boat or vessel , from bank or from Ice hole

#### **Methodology:**

- Transect above the sea-bed, Vertical or horizontal submarines observations

#### **Service:**

- Two pilots
- Video HD assembly like your choice on numerical storage

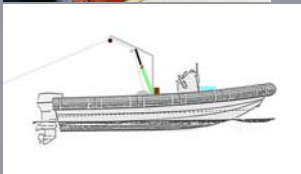
### NEW DIVING BOAT – IN USE IN SPRING 2010



**POLAR CIRKEL** – size 6.60 meters with 150 HP, 4 strokes.  
Dedicated at first to the diving projects, with a maximum of 12 Persons or 1.25 Tons.

The Polar Cirkel will get his standard equipment base, plus additions for a better use for diving activities.

### RESHAPE OF THE GFK BOAT – IN USE IN SPRING 2010



**GFK BOAT** – size 6 metres, 2.20 m wide, with 150 HP, 4 strokes.  
Speed 50km/h per hour. 6 persons, 1 ton total load.

**Project for 2010 :** Installation of a small crane with 500 m cable , hydraulic winch, For small oceanography purposes (vertical net, transects, water sampling, CTD use). Lateral or 'in-axis' work, counting pulley.

### CLEAN ENERGY and RE-BUILDINGS AT CORBEL STATION - 2010



**CORBEL STATION** – 4 buildings located at 6 km from Ny-Ålesund (150 sq meters).

The final project is to set-up a 'clean station', considered as a remote site for notably atmospheric chemistry during spring time. In summer, the station could be used for campaigns on glaciers.

Project from 2008 to 2010 : Installation of 80 sq meters of solar panels ( 10 Kwc), and 3 windmills (4.5 Kwc).

The reshaping project has started in spring 2008, process will go on in 2009, including a wifi system installation, for a remote control of the scientific measurements, directly from Ny-Ålesund. .