Surface Velocity Profiler (SVP)

Surface Velocity Profilers (SVPs) are designed to observe sea ice drift through GPS position measurements. The term “SVP” is used in various ways for many similar types of sensors utilized in ocean sciences, including a drogue to make the surface unit drift with the ocean currents and less with the wind. Our main application is to place the SVPs on sea ice to track the movement of a floe, but they may continue drifting in the ocean even after the floe has melted in summer.

Buoy description
Manufacturer: MetOcean, Halifax, Canada
Manufacturer's name: iSVP
Data provider: JouBeh Technologies, Halifax, Canada
Weight: approx. 11 kg
Deployment type: Placement or drop on sea ice

Technical Details
Measured parameters
- Body temperature (°C)
- Barometric pressure (hPa)
- GPS position

Sensor
- Ultra Precision Thermistor (US Sensor) (accuracy: ± 0.5°C)
- PTB110 (Vaisala) (accuracy: ± 1 hPa)
- Jupiter JF2 (Telit) (accuracy: ± 2.5 m)

Measurement interval: MET data hourly, GPS updated every 3h
Data transmission: Hourly transmit
Data transmitter: Iridium 9602 SBD Transceiver
Power supply: Alkaline batteries (life time >1 year)