

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	Sensor
- Body temperature (°C)	Ultra Precision Thermistor (US Sensor) (accuracy $\pm 0.5^{\circ}\text{C}$)
- Barometric pressure (hPa)	PTB110 (Vaisala) (accuracy: ± 1 hPa)
- GPS position	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)