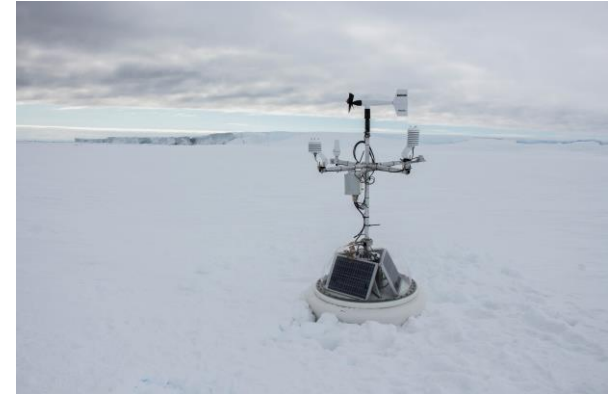


Automatic Weather Station (BAS)



The *automatic* weather station is designed to be installed on an ice floe, measuring air temperature, barometric pressure, relative humidity, short and long wave radiation as well as wind speed and direction at approx. 2m height. The platform reports GPS position and atmospheric data via iridium.



Buoy description

Manufacturer:	British Antarctic Survey
Manufacturer's name:	
Data provider	AST
Weight	approx. 100 kg
Deployment type	Installation on sea ice through 25 cm hole

Technical Details

Measured parameters	Sensor
- Air temp. (° C)	PT100/3 (Campbell Scientific) (accuracy $\pm 0.1^\circ$ C)
- Wind speed (m/s)	RM Young #05103AP anemometer (accuracy ± 0.3 m/s)
- Wind direction (deg)	RM Young #05103AP anemometer and PNI TCM2.5 compass (accuracy ± 3 deg)
- Relative humidity (%RH)	CS215 (Campbell Scientific) (accuracy: ± 2 %RH)
- Barometric pressure (hPa)	CS106 (Campbell Scientific) (accuracy: ± 1 hPa (-20 degC to + 45 deg C)
- GPS position	GPS16X-HVS (Campbell Scientific) (accuracy: ± 3 m)
- Pyranometer	CS300 (Apogee) (accuracy $\pm 5\%$ for daily total radiation)
- Pyrgeometer	IR02 (Hukseflux) (accuracy 15×10^{-6} W/(m ²))
Measurement interval	Hourly
Data transmission	Hourly transmit
Data transmitter	Iridium 9602 SBD transceiver
Power supply	Rechargeable lead acid batteries