

CAD

COMPACT ARCTIC DRIFTER

Optional Instrumental Packages Available

Bi-directional Communication

Rugged Design



METOCEAN developed the CAD in order to provide polar research scientists with a cost-effective system that also supplies near real-time environmental information.

The CAD reports meteorological and oceanographic data via satellite. The system consists of four major elements: underwater sensors, meteorological sensors, a system controller and a data telemetry system, complete with internal data logger.

The underwater sensors communicate with the main system controller via inductive coupling telemetry on the underwater strain member. The system controller is microprocessor-based and controls each of the sensor data acquisition and processing modes.

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CAD

COMPACT ARCTIC DRIFTER

Barometric Pressure

Type	Paroscientific Model 216B
Range	950 to 1060 mB
Accuracy	± .08 mB

Propeller Anemometer

Type	RM Young 05103AP
Range	0 to 60 m/s
Accuracy	±3% m/s

Internal Compass Engine and Tilt Sensor

Type	Precision Navigation TCM-2
Range	0 to 360 degrees
Accuracy	±5 degrees
Tilt Accuracy	±1 degrees

Air Temperature Thermistor

Type	YS1 44032
Range	-50° C to +75° C
Accuracy	±0.1° C

Sea Surface Temperature Thermistor

Type	YS1 44032
Range	-20° C to +75° C
Accuracy	±0.1° C

Underwater Acoustic Doppler Current Profilers

Type	RD Instruments ADCP WorkHorse WHM300
Profiling Range	130 to 250 m
Current Reporting Range	-100 to 99.29 m/s
Accuracy	±0.50 cm/s or ±1%
Direction Reporting Range	0 to 360 degrees
Accuracy	±2.0 degrees

Underwater CT & CTD Sensors

Type	Sea-Bird SBE37 MicroCat
Conductivity Range	0 to 7 S/m
Accuracy	±0.0003 S/m
Temperature Range	-5.0° C to +35° C
Accuracy	±0.002° C
Depth Ranges	350 meters
Accuracy	±0.1% of full scale

Battery Voltage

Range	9 to 18.45 V
Sensor Accuracy	±0.1 V

Data Logger

128-megabyte PCMCIA card controlled by a Persistor CF2

Telemetry

ORBCOMM
ARGOS
Iridium (Optional)

Optional Sensors

Type	Watson SHR-360 Strapdown Heading Reference
Range	0 to 360°
Accuracy (magnetic heading)	Absolute error <0.5° (Dip Angle 45° or less, Pitch + Roll <10°)



Data collection and communication experts

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