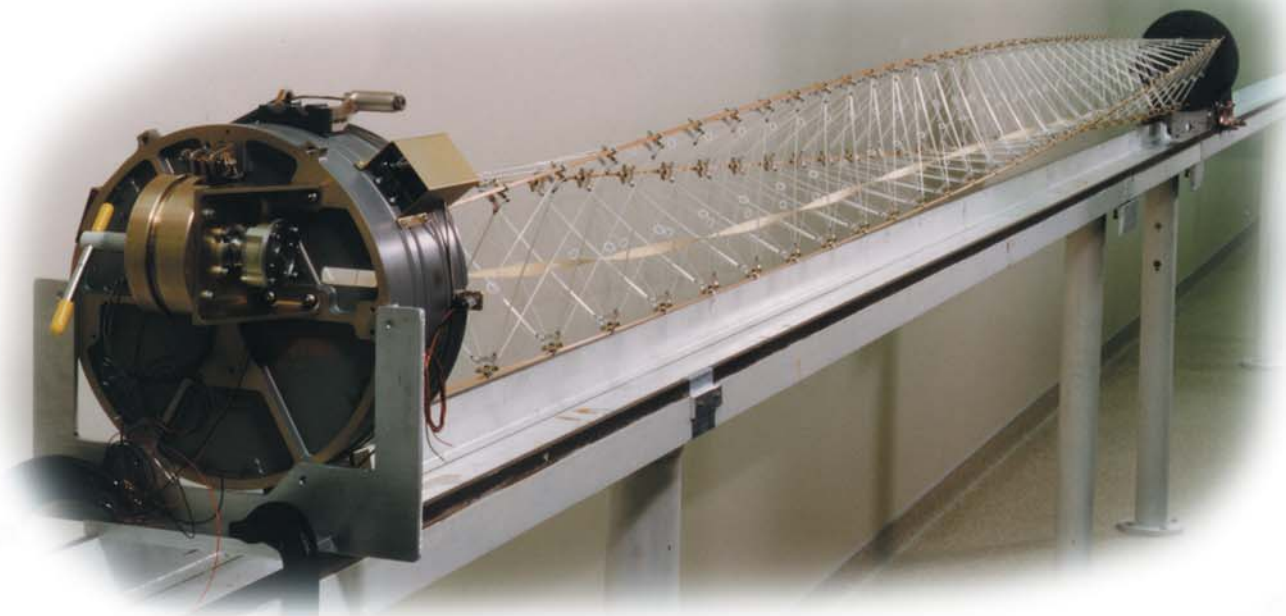
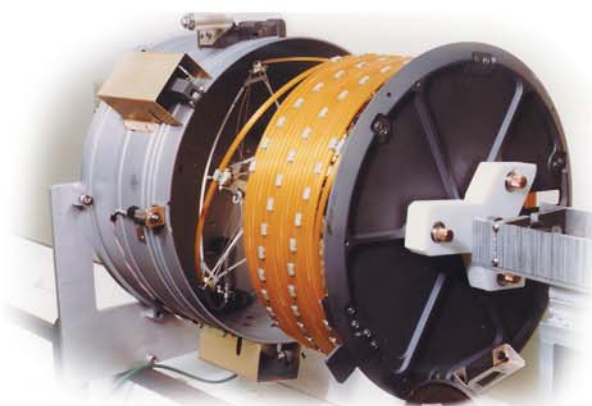
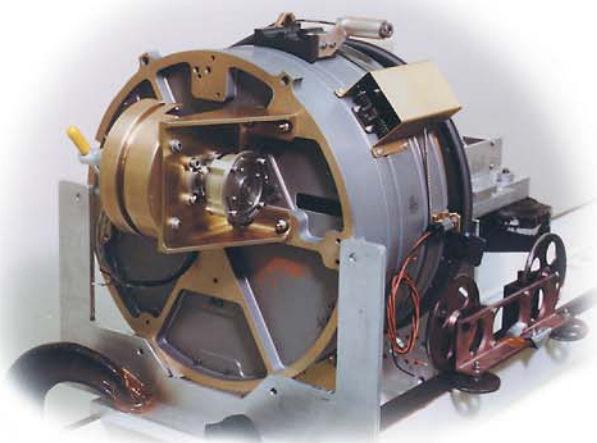


SELF-DEPLOYED ASTROMAST®



SELF-DEPLOYED ASTROMAST®

The self-deployed AstroMast® can be stowed within 2 percent of its deployed length and deploys using its own stored strain energy. The mast is ideally suited for instrument deployment applications such as magnetometers. Cable feeds to tip-plate-mounted instruments are laced to the mast longerons for direct connection without the use of slip rings. After release by redundant NSI cable cutters, the mast deployment is controlled by a center-fed lanyard and a passive eddy current damper rate limiter. The Model 1324 also includes an analog output indication of deployed length and also full-length deployment telemetry switches.

- 10-Inch-Diameter AstroMast®
- Lanyard Deployed
- 5.1-Meter Length
- Eddy Current Damper Controlled

PERFORMANCE

Parameters

Mass

Overall	14.7 lb (6.67 kg)
Mast Only	0.014 lb/in (0.25 kg/m)
Diameter	10 in (0.25 m)
Deployed Length	200 in (5.1 m)
Configuration	120 degree twist
Material	“S” Glass/Epoxy
Bending Strength	305 in-lb (34.5 n-m)
Bending Stiffness	5.2E+06 lb-in ² (14,900 n-m ²)
Torsional Strength	39 in-lb (4.4 n-m)
Torsional Stiffness	130E+03 lb-in ² (373 n-m ²)
Deployed Tip Alignment	±0.1 degrees

Mast and Instrument Caging

Type	Redundant cable cutter with NSI
Voltage	28 V DC

Deployment Control

Type	Passive eddy current damper
Rate (Nominal)	1 inch per second

Telemetry

Length Readout	Redundant analog output potentiometers
Full-Length Indication	Limit switches

Temperature Limits

Deployment	-56°C to +61°C
Survival	-75°C to +113°C



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