



COBHAM

**SAILOR 800 VSAT Ku
High Power**

Same Size but more than
times the power

Tuesday, 11 June 2019

SAILOR VSAT Platform

Success

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HIGH PERFORMANCE

Ku- & Ka-band antenna systems



10+ YEARS LIFETIME

Without scheduled service



MATURE PLATFORM >11,000

SAILOR VSAT units shipped



SAILOR QUALITY #1 choice

for maritime professionals



Lots of **UNIQUE**
features & benefits



SAILOR 800 VSAT Ku High Power

The Platform

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HIGH POWER

- 20W BUC

UNIVERSAL ACU

- Ku, Ka and GX

ANTENNA CABLE

- One Cable Solution



GLOBAL RF

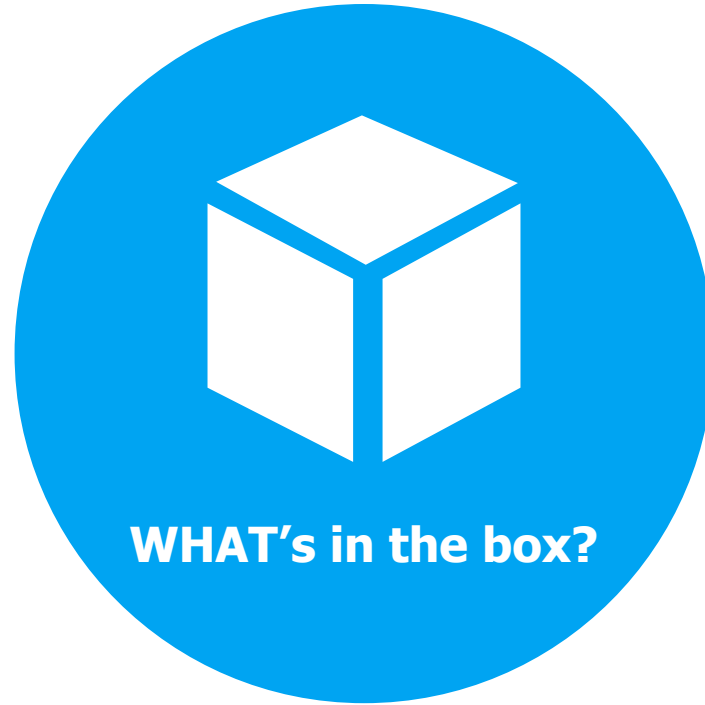
- Co-Pol & X-Pol LNBS

SHARE HARDWARE

- Modules, Motors etc.

MODEM INTEGRATION

- All Major Modems



SAILOR 800 VSAT Ku High Power

407080B-00500 (Expected availability Mid 2019)

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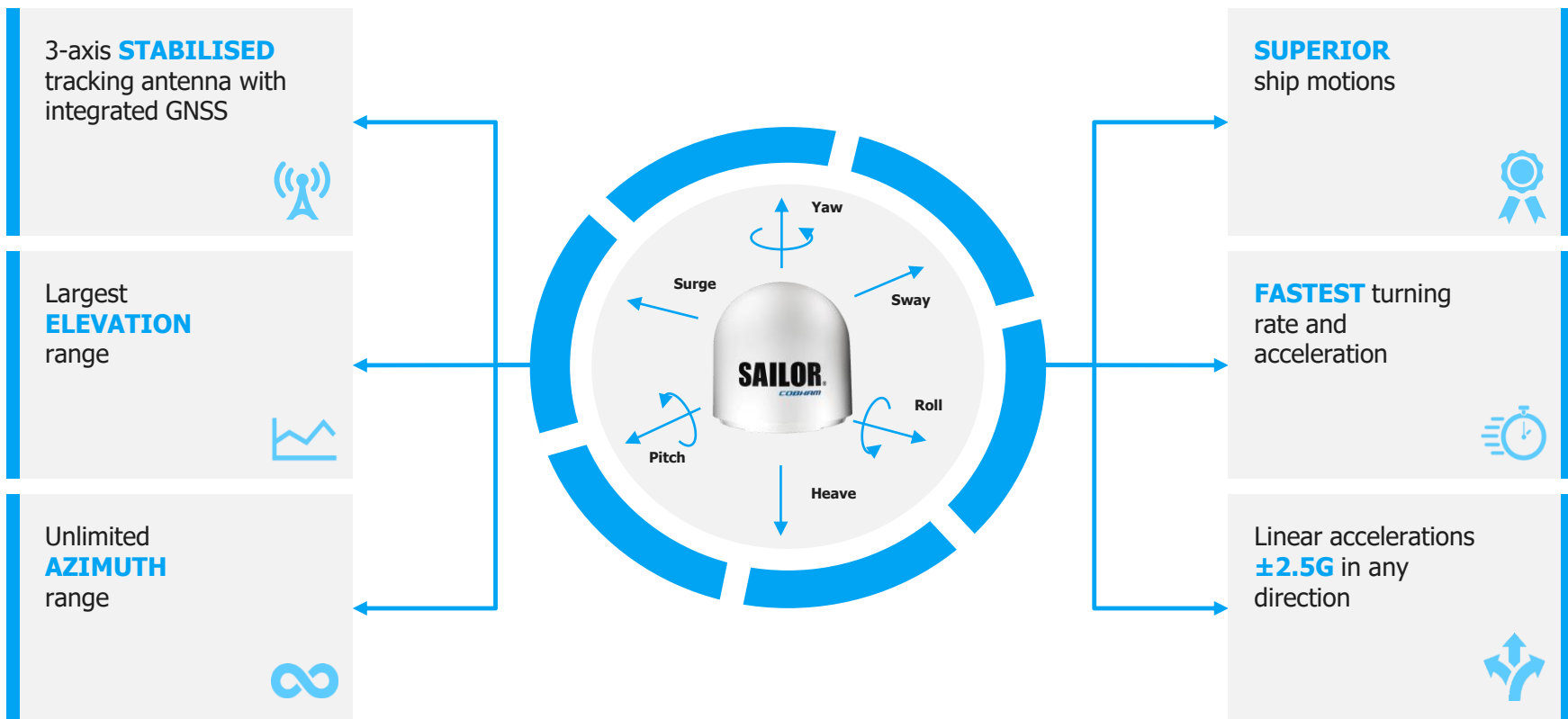
Above Deck Unit (ADU)	Mounting accessories
	Lifting brackets pre-mounted
	20W Ku-BUC and 2x linear LNBS for co-pol/x-pol
	Built-in GNSS module (GPS, Glonass, BeiDou)
Antenna Control Unit (ACU)	AC Power cord
	NMEA multi-connector for heading/gyro input
	Ethernet cable for configuration
	Modem RF cables (Rx & Tx)
	Installation Manual in hardcopy





SAILOR VSAT - Performance

Superior dynamics through all axes



SAILOR 800 VSAT in extreme conditions

Generates the most stable and precise signal in all conditions

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	SAILOR 800 VSAT Ku High Power
G/T	18.2 dB/K
EIRP	<u>53.3 dBW</u>
Elevation	-25° to +125°
Cross Elevation	±42°
Roll	±30° @ 6 sec.
Pitch	±15° @ 5 sec.
Yaw	±10° @ 8 sec.
Turning rate	15°/s and 15°/s ²



CONCLUSION

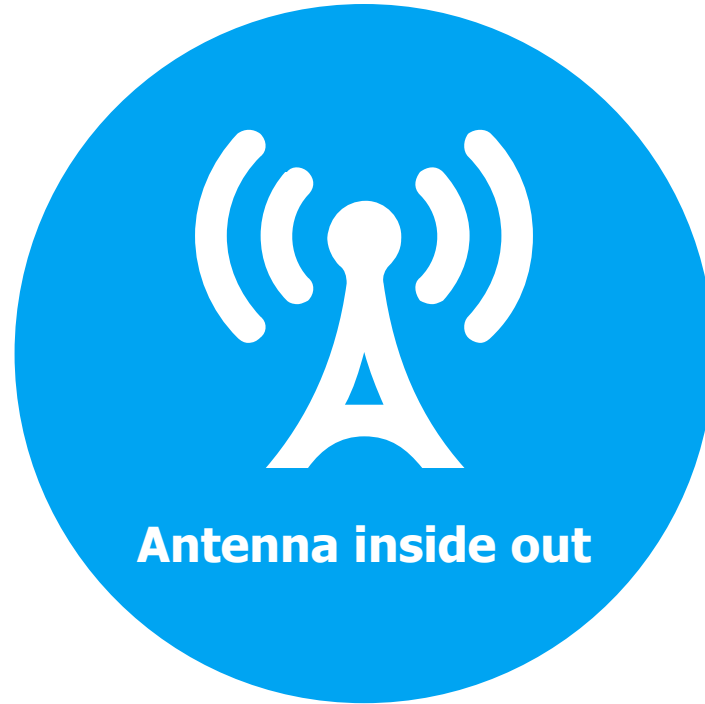
By having superior RF and dynamics a SAILOR VSAT antenna does not lose signal in even the toughest sea conditions, even on smaller vessels.

This is thoroughly tested at our best-in-class testing facilities and on real vessels in the North Sea.



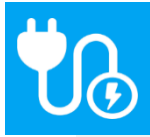
	SAILOR 600 VSAT Ku	SAILOR 800 VSAT Ku	SAILOR 800 VSAT Ku High Power	SAILOR 900 VSAT Ku	SAILOR 900 VSAT Ku High Power
Reflector	65 cm	83 cm	83 cm	103 cm	103 cm
Weight	35 kg	125 kg	125 kg	127 kg	127 kg
LNB	co- + x-pol	co- + x-pol	co- + x-pol	co- + x-pol	co- + x-pol
G/T	15.9 dB/K	18.2 dB/K	18.2 dB/K	19.9 dB/K	19.9 dB/K
BUC Size	6W	6W	20W	8W	20W
EIRP	45.5 dBW	48.1 dBW	53.3 dBW	50.1 dBW	54.3 dBW

← Always global – across all apertures and power levels →



Simplified design saves time and money

...and increases reliability for customer



ONE CABLE SOLUTION

- Single RF cable
- Less cable work
- 50Ω N-connector
- Connector on the outside for easy access
- Simplifies installation



COST BENEFITS:

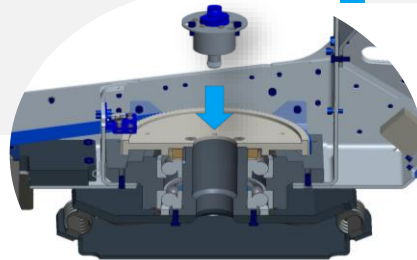
- Easy to install
- Saves money on materials and labour
- Relevant for retrofit/upgrade
- Supports standard cables up to 300m
- No need for expensive optical solutions
- Simplifies dual antenna installation

ROTARY JOINT

- Rotary joint in-house development
- Single coax cable
- No cable on-wrap
- No vulnerable slip rings
- Rx, Tx and DC Power
- Self lubricating material
- Very reliable with high MTBF

SPECIFICATIONS

- 100 million rounds @ 50 RPM
- Frequency range: DC – 5450 MHz
- DC resistance: 10 mΩ DC
- Insertion loss: 0.10 dB @ L-Band
0.20 dB @ 5.45 GHz
- Lifetime: +10 years





ANTENNA CABLES

- Same antenna cables for all SAILOR VSAT and FleetBroadband
- Connector type: N-male.
- Supported cables:



Cable Type	Diameter	Length (m)	Length (feet)
RG-214	3/8"	50	150
LMR-400	0.405"	85	250
LMR-600	1/2"	150	450
Andrew LDF4.5-50	5/8"	300	900

BENEFITS

- Standard RF cable.
- Long cable runs.
- Easy to retrofit/upgrade
- No expensive optical solutions.

Installs on the smallest vessels

Highlights: Gyro free operation

GYRO FREE OPERATION

- No gyro available on-board
- 360° initial scan @ power up
- Automatic fall-back to gyro free operation
 - Gyro service
 - Gyro failure

PERFORMANCE

- Same performance when tracking
- Inclined orbit satellites harder to find
- Limits with satellite elevation $>75^\circ$

NAVIGATION

Heading (Compass direction)

Mode ▾

Value °



Why choose SAILOR 800 VSAT Ku High Power

SAILOR 800 VSAT Ku High Power

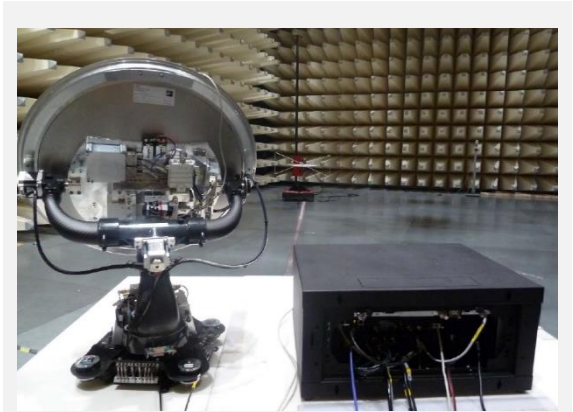
Why choose SAILOR VSAT?

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SUPERIOR RF PERFORMANCE

- Optimized for HTS Ku-band networks
- Compact low loss design
- Superior RF performance G/T: 18.2 dB/K
- Better uplink performance: 20W BUC
- Larger footprints
- Higher Internet speeds
- Less rain fade



SAILOR 800 VSAT Ku High Power

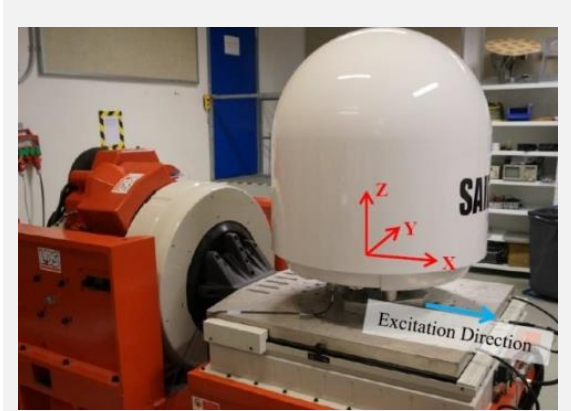
Why choose SAILOR VSAT?

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HIGHEST QUALITY

- Mature platform, thousands of installations
- SAILOR quality product
- 16 hours burn-in @ production
- Factory live test of Rx and Tx
- Components rated to +75°C
- IEC EN 60721 shock and vibration
- Superior dynamics, super fast
- Small vessels, roughest sea conditions
- Approved by all major satellite providers



SAILOR 800 VSAT Ku High Power

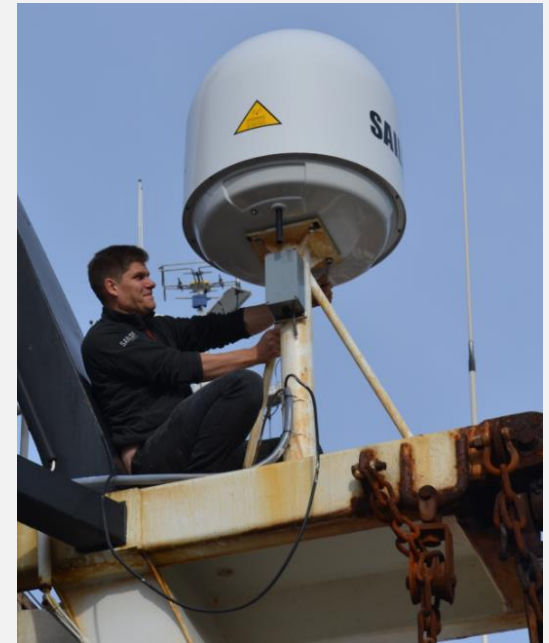
Why choose SAILOR VSAT?

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SIMPLE & EASY INSTALLATION

- Single antenna cable
- Standard cables up to 300 meter
- External antenna connector
- No cable work or brackets to remove
- Automatic Azimuth Calibration
- Easy Commissioning
- Configured in minutes, intuitive GUI
- Dual antenna operation
- Gyro free operation



SAILOR 800 VSAT Ku High Power

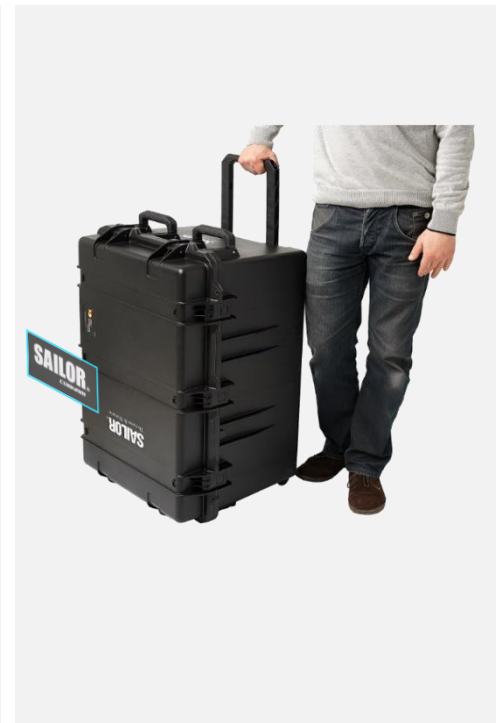
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SERVICE & SUPPORT

- Power On Self Test
- Built-in test tools: BUC, LNB, cable & connectors
- Built-in e-mail client
- Diagnostic reporting
- Statistic reporting
- G-force monitoring
- Temperature logging
- Remote management: SNMP traps, CLI, SSH, HTTPS and Syslog
- Manual GPS
- Fixed heading input
- Service friendly
- Global service
- 2Y + 6M warranty



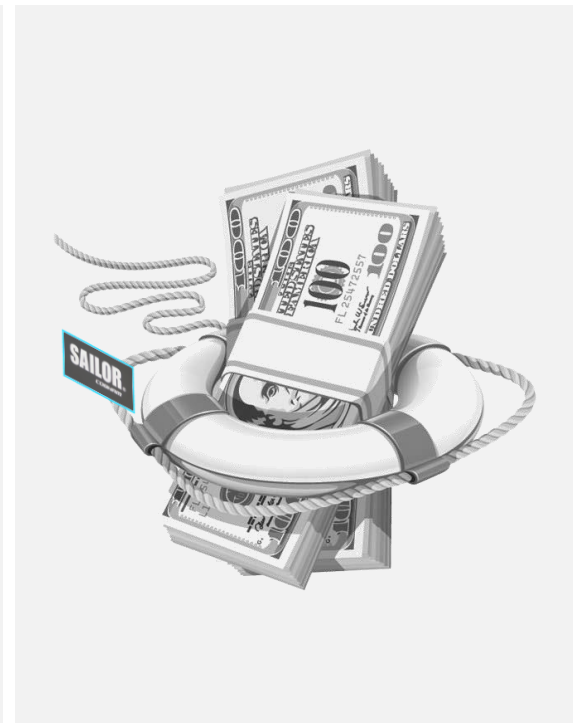
SAILOR 800 VSAT Ku High Power

Why choose SAILOR VSAT?



UNIQUE SELLING POINTS

- Quick, simple and easy installation
- Single cable solution
- Less workmanship
- Best-in-class RF performance
- Automatic Line-up
- Gyro free operation
- Dual antenna support
- Supports Chinese and Russian market with BeiDou / GLONASS.



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The most important thing we build is trust