

RVTEC October 2018 - FBB

- Program established 1 January 2010
- Current contract extended through 2019 Dec
- FBB allowance up to 100 platforms
 - Presently 80 (31 vessels, 49 OOI Moorings)
- Rate has been steady at \$0.70/MB
- Monthly FBB pool size w/Fx Phase in:
 - Presently 150 GB with 10 Fx System online

RVTEC October 2018 - FBB

- Unused balance carries-forward month to month within annual period
- If user pool exceeds allowance, use rate continues at \$0.70/MB
- Port Office processes invoices for distribution to users / vessels

Upcoming Vessel Layups

- Revelle MidLife – April 2019
- Atlantis Midlife – April 2020
- Layups will suspend communication connections and no charges will be incurred this is being negotiated for next contract
- Securing Fx system for 1 year = \$51,000
- Other UNOLS vessel to report if layup coming up for drydock or other reason.

RVTEC October 2018 - Fx

- Commissioned Fx units (10) include:

Revelle	Palmer	Atlantic Explorer	
Sikuliaq	Armstrong	Oceanus	Gould
Thompson	Sproul	Savannah	

- Systems are available for Installation
 - Install Fx systems to lower FBB Pool data use
 - Antennas arranged via WHOI Sat comm
 - Project Manager: Pam Clark pclark@whoi.edu

PRESENT Fx CONTRACT:

- Service Plan is a \$4,250 flat monthly rate for unlimited data using a Ka-Band (Gx) with automatic L-Band (FBB) backup.

PRESENT Fx service data rates

- 2 Mbps/1 Mbps MIR (Max Information Rate)
- 512 Kbps/256 Kbps CIR (Committed information Rate)
 - Max throughput of an FBB-500 will not exceed 432Kbps
6000 mb = 1 month KA cost 1 day at full data flow = \$26k
37324 Mb
- Example of recent high FBB users:
 - September: Hugh Sharp 151,135.32 MB \$105,094.72
- Aspects of Installation:
 - Antenna location
 - Commissioning process with World Link/Inmarsat
 - Network Service Device (NSD) Installation & Function within the shipboard network

Enhanced Speed Options

- When need arises Fx systems can be put on short term higher speed sat link.
 - Notification Requirement: 7 day notice
 - Minimum timeframe: 7 days
- Pricing depends on selected speed requirements
 - Can be budgeted ahead of science project
- Example – Increase to 6,144 Kbps down 3,072 Kbps up = \$ 35,100.00 = \$8190 / 7 days

Enhanced Speed Options

Subscriber Plan	MIR FWD (down) kbps	MIR RTN (up) kbps	CIR FWD (down) kbps	CIR RTN (up) kbps	Monthly Recurring Charge
FX-100 4096/2048 MIR 512/256CIR (1)	4,096	2,048	512	256	\$ 4,250.00
FX-100 8192/4096 MIR 512/512CIR(2)	8,192	4,096	512	512	\$ 5,200.00
FX-100 8192/4096 MIR 1024/512CIR(2)	8,192	4,096	1,024	512	\$ 6,354.00
FX-100 8192/4096 MIR 1024/1024CIR(2)	8,192	4,096	1,024	1,024	\$ 9,600.00
FX-100 8192/4096 MIR 2048/1024CIR(2)	8,192	4,096	2,048	1,024	\$ 16,120.00
FX-100 8192/4096 MIR 2048/2048CIR(2)	8,192	4,096	2,048	2,048	\$ 19,925.00
FX-100 8192/4096 MIR 3072/1536CIR (3)	8,192	4,096	3,072	1,536	\$ 21,585.00
FX-100 8192/4096 MIR 3072/3072CIR (3)	8,192	4,096	3,072	3,072	\$ 23,057.00
FX-100 8192/4096 MIR 4096/2048CIR (3)	8,192	4,096	4,096	2,048	\$ 21,995.00
FX-100 8192/4096 MIR 6144/3072CIR (3)	8,192	4,096	6,144	3,072	\$ 35,100.00

NOTES:

- (1) Current Plan implemented on Fleet Xpress vessels.
- (2) Pricing is for short term subscription of a minimum of 7 days.
- (3) This plan is subject to capacity approval by Inmarsat prior to provisioning for every individual Service Order.

Recent test on Armstrong using data rate of 8 / 4, 2 / 1, CIR plan above, yielded positive results. Live video conferencing was tested on 12 Oct. Tests continuing this week.

Antenna locations





C - BAND

Fx Antenna

FBB BK UP

ROGER REVELLE
SAN DIEGO

UNTED
RED

RELOCATE AIRCRAFT WARNING
LIGHT TO TOP OF RADOME

NEW TOGA RADAR UNIT
(SEE NOTE 1)

NEW RADAR PLATFORM
(SEE SHEET 3)

Y PLATFORM EXTENSION
(SEE REF 1, PLAN 43-E)

EXISTING INMARSAT B
ANTENNA RELOCATED
(P&S, SEE SHEET 4)

RELOCATED AFT MASHEAD
LIGHT (SEE DETAIL 4-2B)

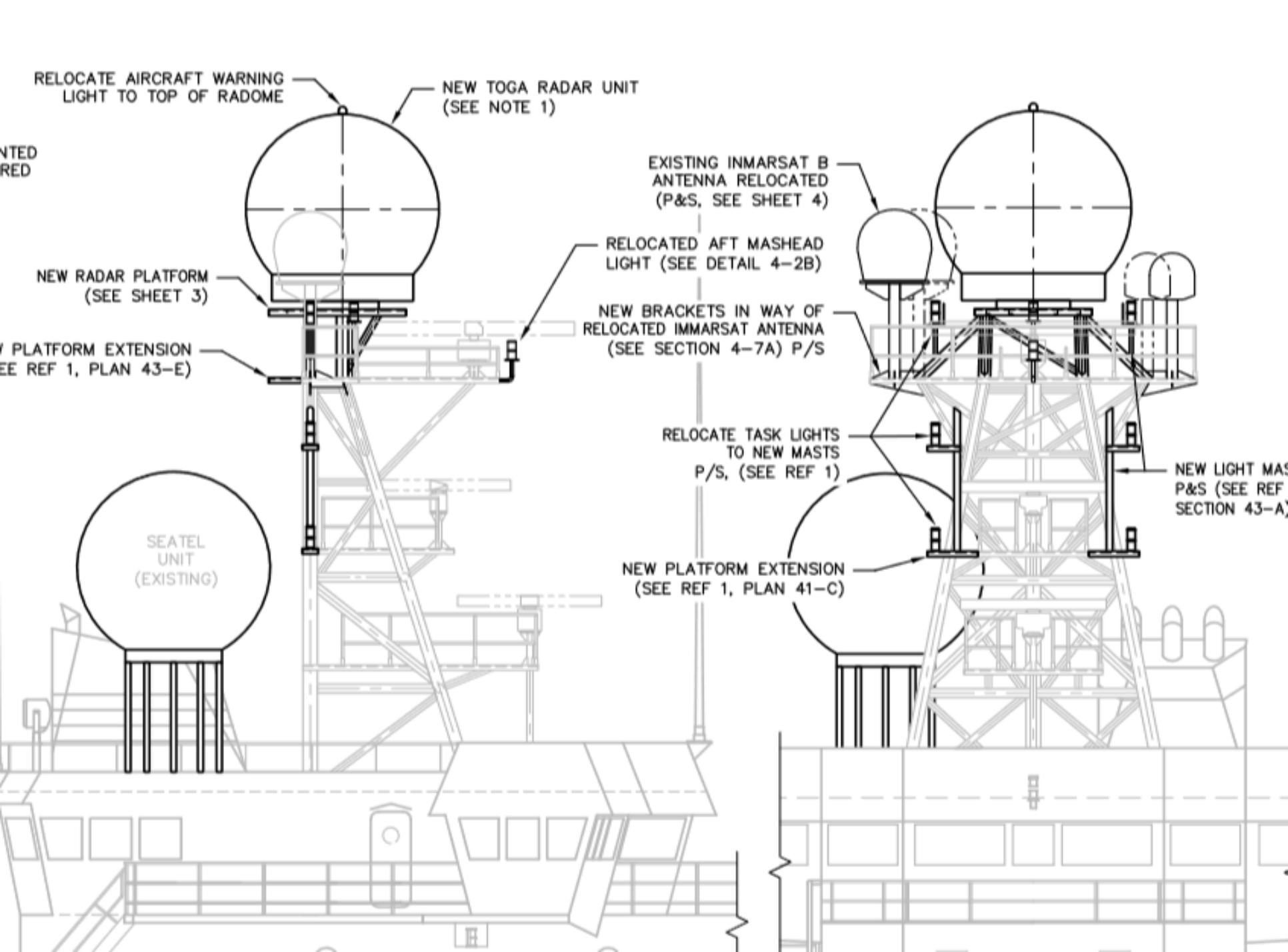
NEW BRACKETS IN WAY OF
RELOCATED IMMARSAT ANTENNA
(SEE SECTION 4-7A) P/S

RELOCATE TASK LIGHTS
TO NEW MASTS
P/S, (SEE REF 1)

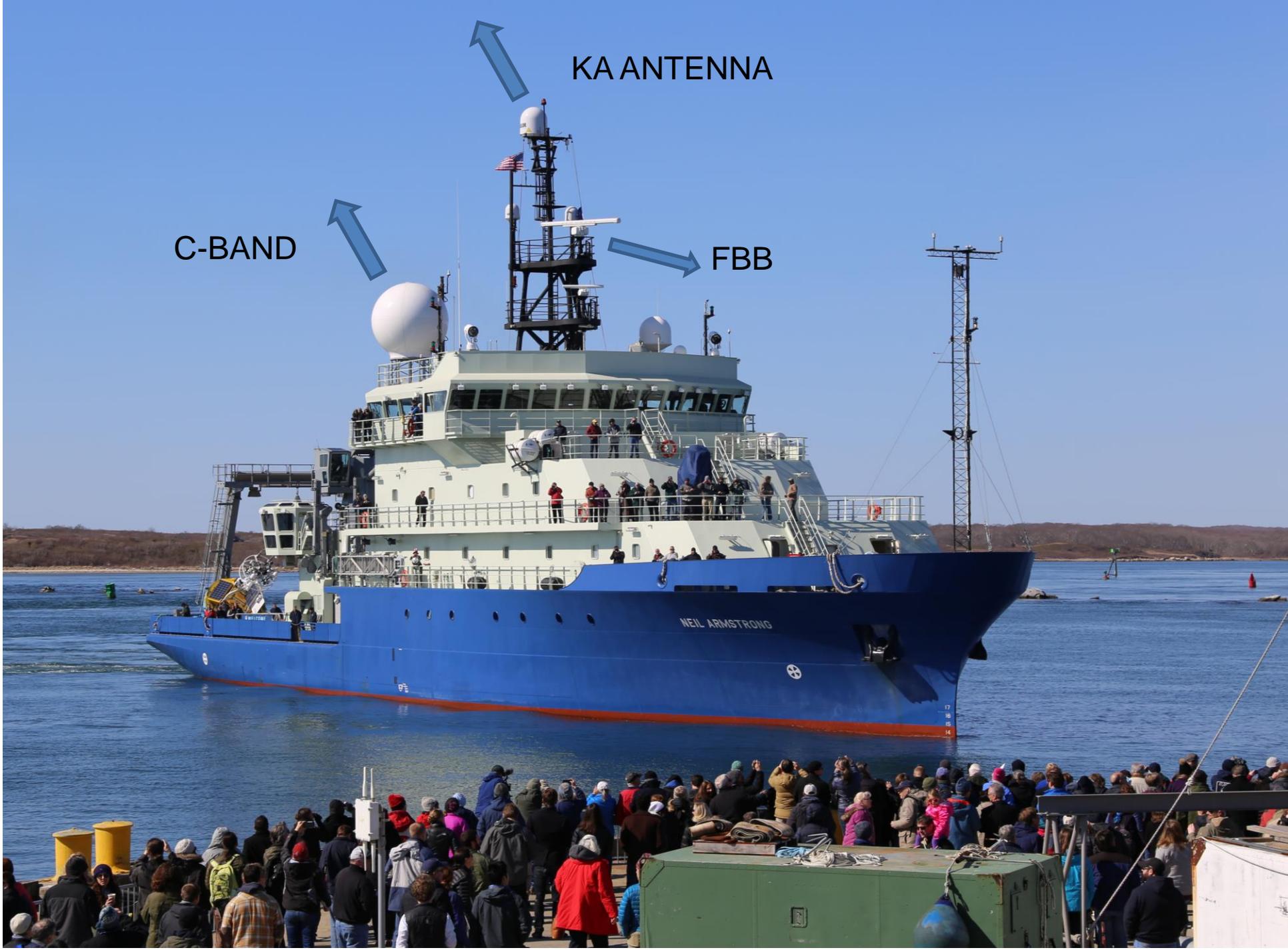
NEW PLATFORM EXTENSION
(SEE REF 1, PLAN 41-C)

NEW LIGHT MAST
P&S (SEE REF
SECTION 43-A)

SEATEL
UNIT
(EXISTING)







KA ANTENNA

C-BAND

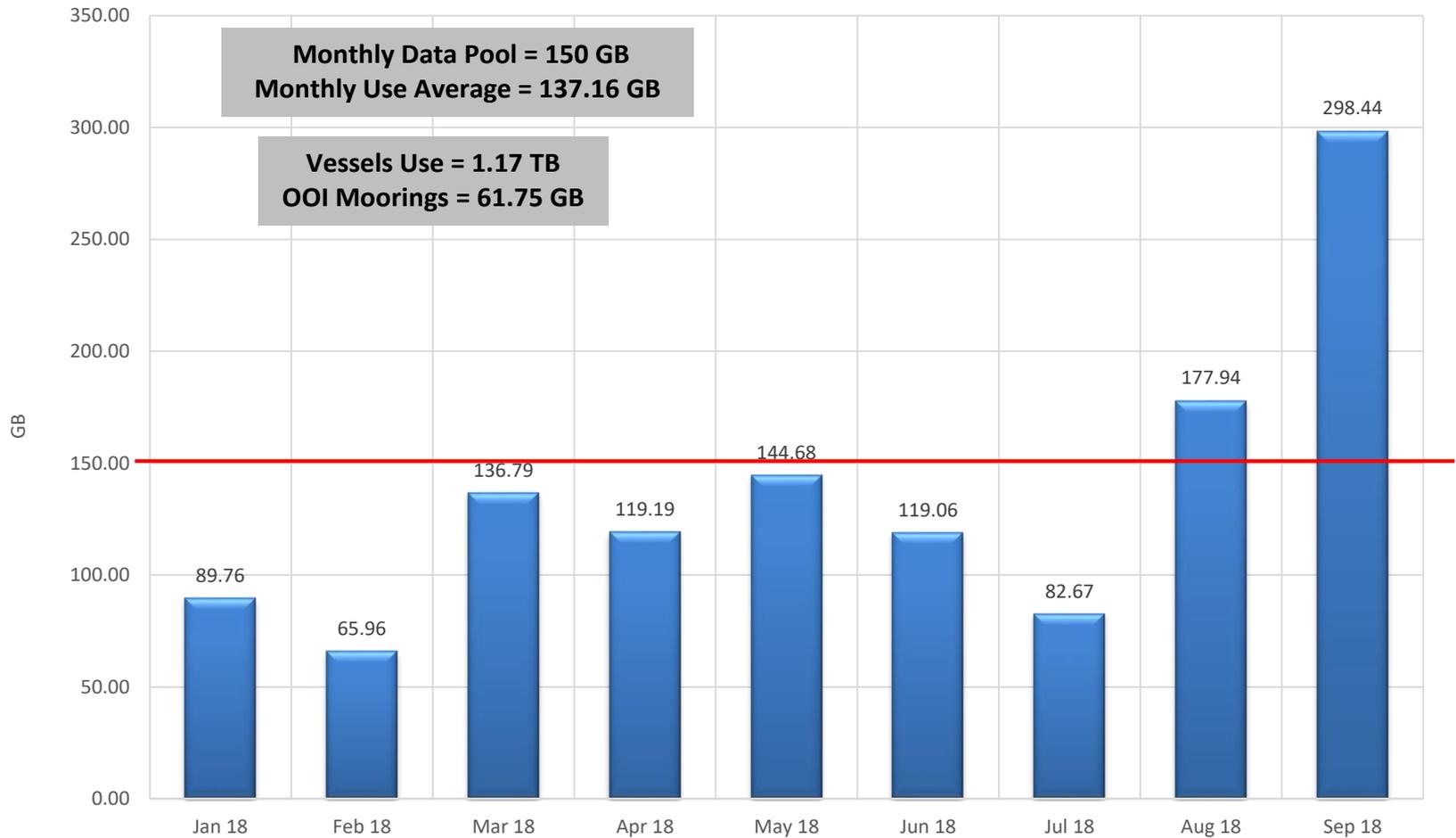
FBB

NEIL ARMSTRONG

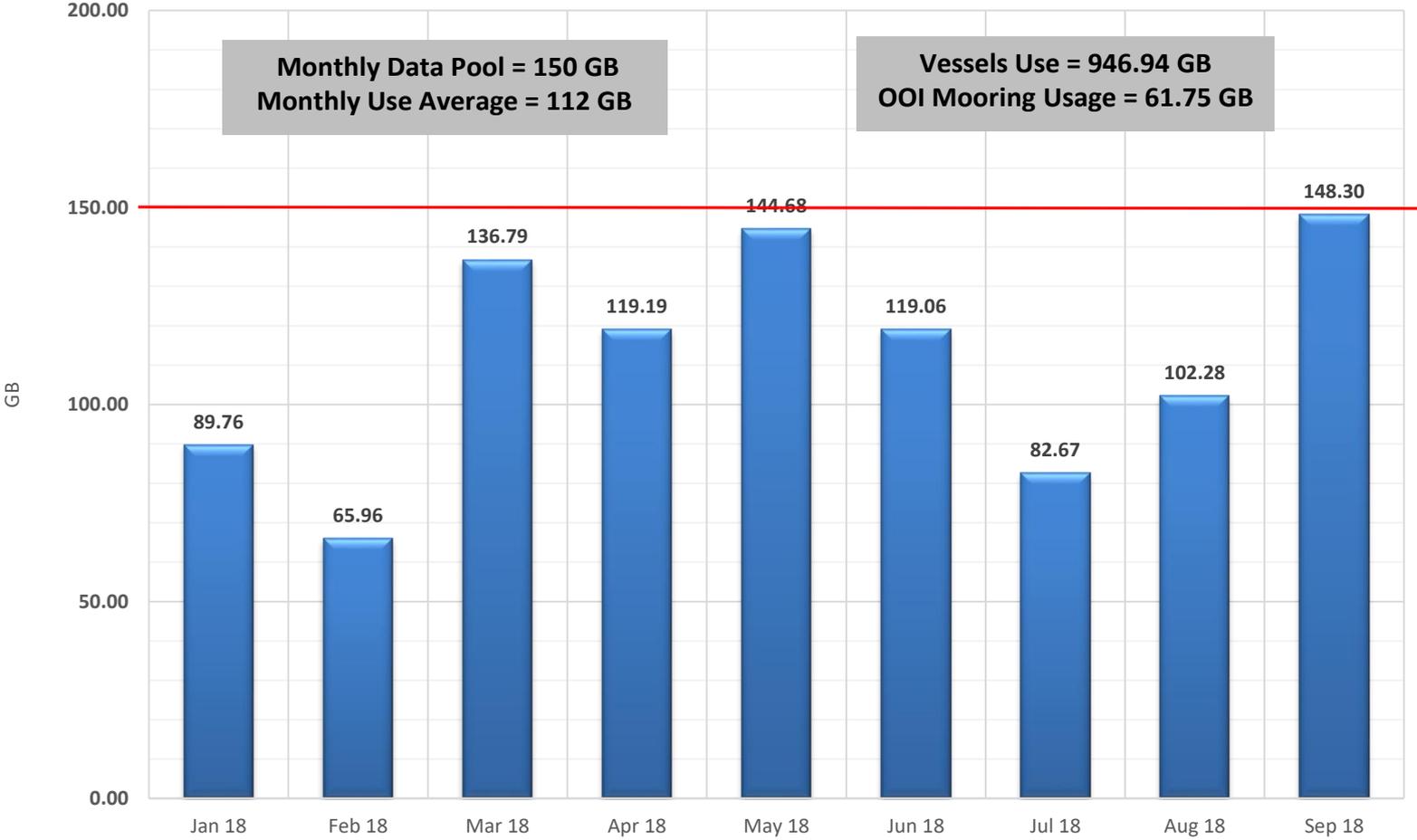


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2018 FBB Usage



2018 FBB Usage: Minus HUGH SHARP - Aug/Sept



Future Plans

- Solicitation for comms program management due 29 October 2018
- WHOI submitting proposal for continued program management

Goals

- Maintain present OOI FBB connectivity
- Implement Fx systems on high data users – Global Class and others
- Discontinue use of stand-alone FBB systems once Fx online
- Ability to enhance data rates for short term projects – i.e. telepresence
- Improve over-all internet experience for crew / science users
- Ability to implement newer technologies with contract amendment