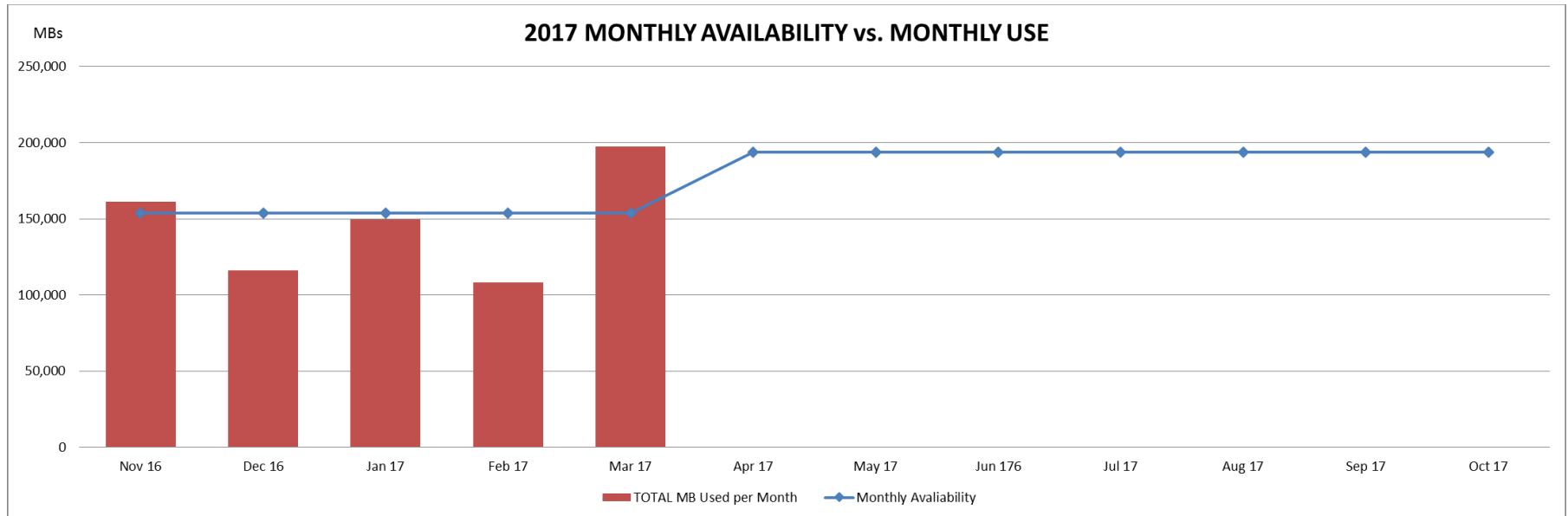


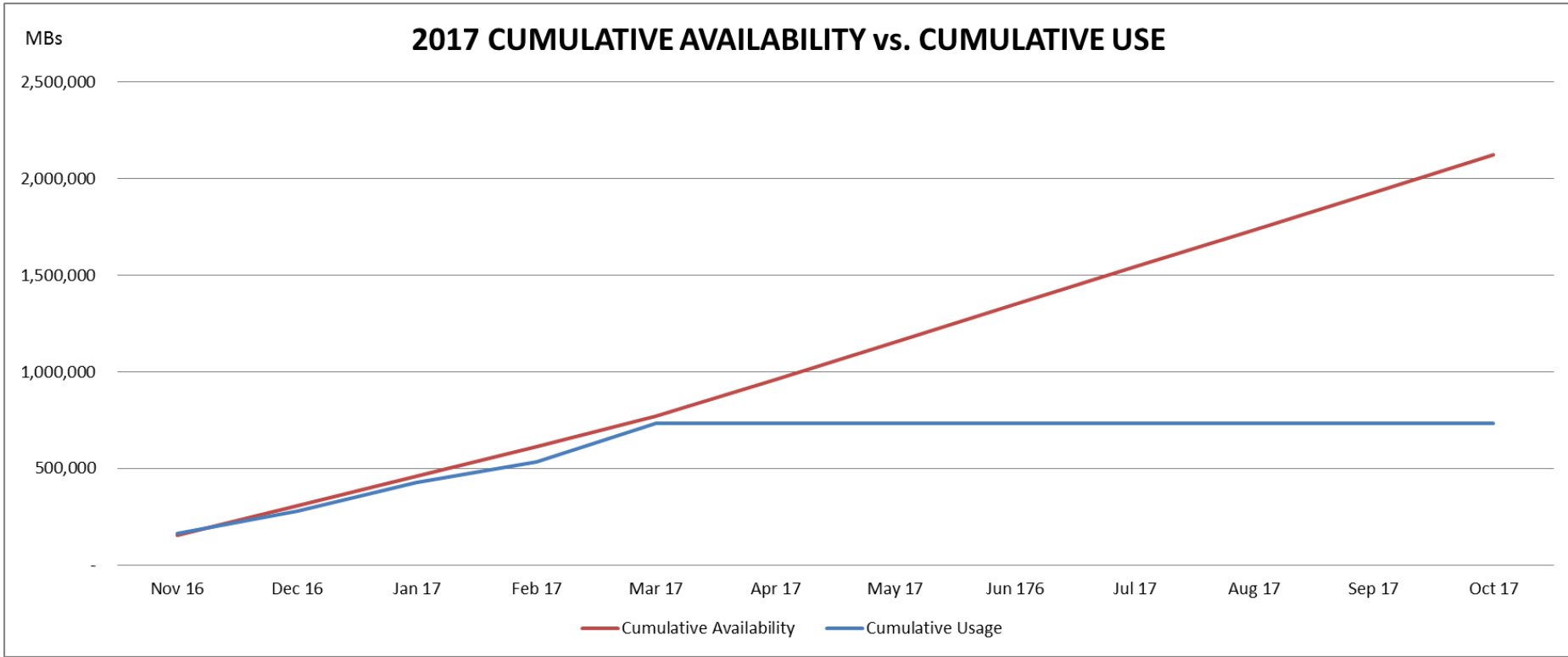
2016 – 2017 FBB/HSN Program

- **Reduced FBB Pool Purchase to 150 GB per Month in November 2016**
- **Current rate is \$0.70 per MB**
- **Over 75 FBB Systems currently in use**
- **HiSeasNet AOR and both Ku-band services have been boosted to new bandwidths:**
 - **AOR/POR now has 2Mbit shore-to-ship to share with 256 kbps ship-to-shore.**
 - **Ku 1 has 768kbps, and Ku2 has 1Mbit.**

2017 Monthly FBB Supply - Demand



2017 Cumulative FBB Supply - Demand



CURRENT SAT COMMS SYSTEMS

- INMARSAT Fleet-Express (Fx) Update:
 - Combination of Ka and L (FBB) bands
 - Gx100 Ka Antennas are 1 meter antennas
 - Purchased 6 Gx100 Ka antennas:
 - Revelle September 2015
 - Armstrong February 2016
 - Sikuliaq March 2016
 - Palmer June 2016
 - Oceanus January 2017
 - Atlantic Explorer March 2017

CYRRENT SAT COMMS SYSTEMS

- INMARSAT Data Plan:
 - \$4,250/month for as much data as can be passed through 2 Mbps (shore to ship) & 512 Kbps (ship to shore) Ka bandwidth and 432 Kbps FBB bandwidth
 - More bandwidth available as systems become global
- Plans for more Fx Systems into Operation to reduce cost for April 2017 increase of FBB Pool to 190 GB per Month
- 2017 RVTEC Subcommittee continues to review fleet needs