UP: REAL-TIME VIDEO TRANSMISSION MIDPOINT PROGRESS

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Overview

- Payload Antenna
- Camera
- Video Transmitter Testing
- Balute
- Schedule
- Summary
Payload Antenna

- “Little Wheel” antenna to be implemented
- Scaled down version of the Big Wheel
Payload Antenna

- Designed to transmit at 426.25MHz
- On the 70cm Band
- Designed at a 120 degree angle
- ½ inch spacing
- Length of wire matches wavelength
- Matches the radiation efficiency of the roof antenna (Yagi)
Roof Antenna

M2 2MC*22 circular polarized Yagi 6-993

Free Space E-Plane

Free Space H-Plane

0 dB = 12.25 dBi

145.900 MHz
Camera

- 600 Horizontal Lines of Resolution
- Weighs 45 Grams (0.10lbs)
- 12 VDC Power Supply
- 0.01 Lux
Video Transmitter Testing

- We tested the transmitter by hooking it up to a dummy load (50 Ohm)
- Pinnacle TV-Pro on channel 58
- 12Volt source for transmitter and battery
Transmitter Testing
Balute

- Our ME team has created a carbon fiber balloon.
Balute
Schedule

- Next 2 weeks - Assemble Balute
- April 2\textsuperscript{nd} - Pre-Launch Inspection
- April 9\textsuperscript{th} - 1\textsuperscript{st} Launch
- May 21\textsuperscript{st} - 2\textsuperscript{nd} Launch
Summary

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Conclusion

Questions ?