



Fox-Plus A Block Diagram

Minimum Viable Product

- Commercial 1U frame (ISISpace)
- Commercial EPS (ISISpace?)
- LTM
 - C&DH
 - TX/RX
- RT-IHU (nice to have)
- Passive attitude control



Fox-Plus-A

Fox-Plus A Place ISISpace EPS Order

Already have a first pass on the option sheet

Fox-Plus A Research ISISpace Antenna Options

Fox-Plus A Launch Options Trade Study

Fox-Plus A Assemble Fox-Plus A Documentation Reqs

Some may be dependent on launcher

ASCENT AX5043 Replacement – Dave Hartrum

Find a replacement for the AX5043

ASCENT Design Multi-Channel FM Voice XCVR

Could be SDR or not

Golf-Tee RT-IHU V1.2 Layout

I may have a volunteer

Test Procedures

I may have a volunteer

RT-IHU Board Checkout-Out Test Procedure



Job Jar

ASCENT

and



FOX+

What's Happening?

Fox-Plus Systems Engineering

- Objective
 - Advance systems engineering tasks
- Team
 - Mike Moore
- Current Activity
 - List of Systems Engineering Documents
 -

Fox-Plus Structure

- Objective
 - Buy the Fox-Plus Structure (and EPS)
- Team
 - Thomas Wu
- Current Activity
 - Need to adapt Fox boards to 1U frame (Thomas)

Fox-Plus C&DH (aka IHU) Flight Software

- Objective
 - Fox-Plus flight software
- Team
 - Cameron Mahaffey
 - Dave McCoy
 - Chris Grill
- Current Activity
 - Assemble prototype environment (Cameron & Dave)
 - Prototype slow scan transmitter (Cameron)
 - A slow scan transmitter developed on the TMS570 Launchpad using modified LTM build software stack

Fox-Plus C&DH (aka IHU) Hardware

- Objective
 - Order a whole stack of LTMs
- Team
 - Leandra MacLennan
- Current Activity
 - Get me some LTM sets for development (Leandra)
 - Focusing on ICR – Looking for alternative parts for EOL parts
 - Picking up LIHU
 - Exercise the available LTM stack (Jonathan)
 - RX/TX assembly
 - Assembling two more and dealing with EOL (Dan)

ASCENT Structure

- Objective
 - Develop 3U space frame
- Team
 - Tom Karnauskas
- Current Activity
 - Design 3U frame
 - Model cards in candidate frame (Tom)

ASCENT SDR Plan B

- Objective
 - Develop SDR for Golf (i.e., five-and-dime)
- Team
 - Rich Gopstein
 - Ray Roberge
- Current Activity
 - Build of Linux for ZedBoard (Rich)
 - Design radio board (Ray & Rich)
 - Obtain preliminary hardware (Jonathan)
 - Have all but FMCOMMS3 maybe use a FMCOMMS4 for software

RT-IHU

- Objective

- Assemble RT-IHU Payload

- Team

- Zach Metzinger
 - Heimir Sverrisson

- Current Activities

- Assemble V1.1 Development Boards (Zach)
 - Result is 5 more assembled V1.1 RT-IHU boards.
 - Flash Loader (Heimir)
 - Result is an updated flash loader to load the RT-IHU board

ASCENT PACSAT

- Objective
 - Develop digital packet communication payload
- Team (typically on this call)
 - Jim McCullers

ASCENT Deployable Solar Panels

- Objective
 - Develop deployable solar panels
- Team
 - Vincent Risalvato
- Current Activity
 - Design solar panel and hinge solution
 - Result is a model of solar panels and hinges that fit in the pockets of the currently envisioned 3U structure.
 - Are we ready to prototype real hardware? Any luck getting cells?
 - If things are going to plan, we had a meeting with Mark Kanawati earlier today.

ASCENT RF

- Objective
 - Develop radio-chip-based SDR
- Team
 - Mike Swiatkowski
- Current Activity
 - Design voice FM transponder board

ASCENT Reaction Wheel

- Objective
 - Develop reaction wheels and motor control algorithms
- Team
 - Tom Davis
- Current Activity
 - Design Reaction Wheel controller board (Tom)
 - Assemble prototype (Jonathan)
 - Unable without controller software
- Keep in Mind
 - Possible Zero-G Flight