Fox-Plus A Block Diagram

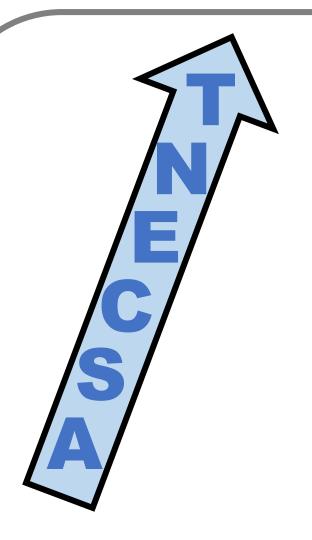# Prototype Slow-Scan Transmitter

Prototype a slow-scan transmitter using an embedded platform

Job Jar

RT-IHU (Zach Metzinger)

- Objective
    - Develop RT-IHU

- Current Activity
    - Assemble V1.1 Development Boards
        - Result is 5 more assembled V1.1 RT-IHU boards.

ASCENT PACSAT (Bill Reed)

- Objective
  - Develop digital packet communication payload

- Current Activity
  - Team Lead

ASCENT PACSAT (Jim McCullers)

- ## Objective

  - Software

- ## Current Activity

  - PACSAT

  - Assemble RT-IHU Breakout Board

    - Result is two RT-IHU breakout boards

    - Ordered headers

    - Hopefully progress this weekend

  - Change connection on debug boards

    - Result is 12 debug boards

    - DONE!!!

ASCENT Structure (Tom Karnauskas)

- ## Objective
    - Develop 3U space frame

- ## Current Activity
    - Design 3U frame
        - Looking into the options for an assembled frame

Fox-Plus Structure (Thomas Wu)

- Objective

  – Fox-Plus Structure

- Current Activity

  – Research ISISpace component options for inclusion in 1U Fox-Plus

Fox-Plus Systems Engineering (Mike Moore)

- Objective
    - Advance systems engineering tasks

- Current Activity
    - Begin working on power budget

Fox-Plus RF (Mike Swiatkowski)

- Objective
  - Develop radio-chip-based SDR

- Current Activity
  - Design voice FM transponder board

Fox-Plus Flight Software (Cameron Mahaffey)

- ## Objective
  - Fox-Plus flight software

- ## Current Activity
  - Get familiar with the flight software

Fox-Plus Flight Software (Dave McCoy)

- Objective

  – Fox-Plus flight software

- Current Activity

  – Get familiar with flight software

Fox-Plus Flight Software (Chris Grill)

- ## Objective

  - Fox-Plus flight software

- ## Current Activity

  - Identify Goals of Generalized LTM

    - Result is a list of desired changes in the LTM software better supporting the varying needs of different recipients.

  - RT-IHU Debug Cable

    - Result is a small board containing the debug circuitry and cabling for the TMS570

Fox-Plus Flight Software (Heimir Sverrisson)

- ## Objective
  - Fox-Plus flight software

- ## Current Activity
  - Flash Loader
    - Result is an updated flash loader to load the RT-IHU board

ASCENT Reaction Wheel (Tom Davis)

- ## Objective
  - Develop reaction wheels and motor control algorithms

- ## Current Activity
  - Design Reaction Wheel controller board

ASCENT Deployable Solar Panels (Vincent Risalvato)

- ## Objective

  - Develop deployable solar panels

- ## 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?

Modeling (Marwan Aylouche)

- Objective
  - Develop Fox-Plus Models

- Current Activity
  - Model Fox-Plus with ISISpace candidate components
  - Currently looking to reduce space required to mount AMSAT boards