

# HyspIRI Programmatic Update



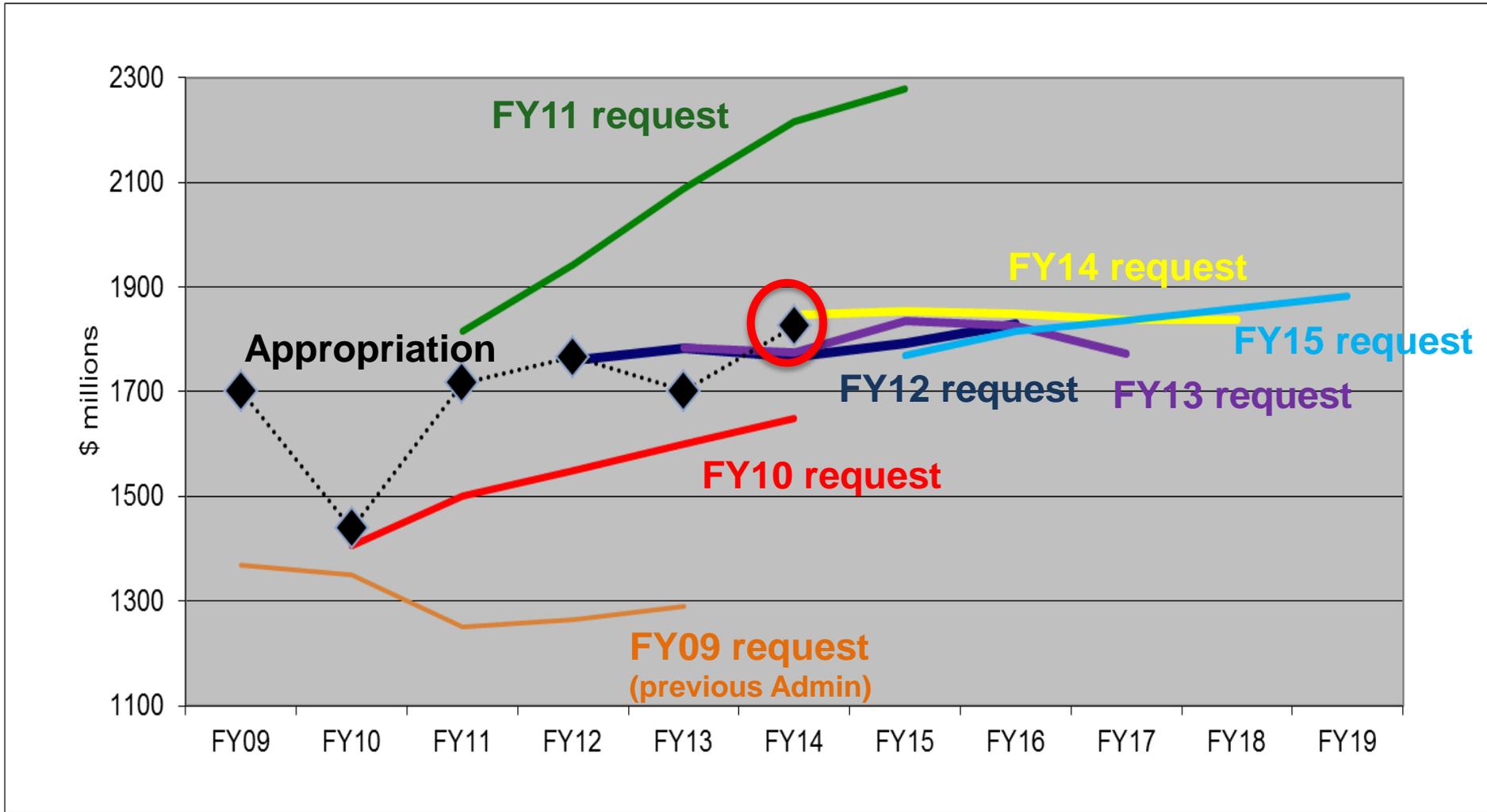
2014 HyspIRI Product Symposium, NASA GSFC Building 34, Room W150



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# Earth Science Budget FY 15 Request



(Slide courtesy of Mike Freilich)



# Guidance for 2014

(Per 1/13/2014 Guidance Memo from Steve Volz)



1. Continue to build broad community support via workshops/symposia
2. Complete science white paper specifying value of individual science measurements and potential science return of instruments on separate platforms, including ISS, if appropriate
3. Use airborne activities to generate HypsIRI-like Level 2 products to define instrument capabilities and explore high-volume data management issues
4. Carry out instrument mission trade studies, including smallsat and ISS opportunities, toward lower cost and more adaptable instrument and/or mission approaches (consider TEAM X or IDL studies to assist; with ESTO, ESM SEWG)
5. Explore options to ensure HypsIRI VSWIR and TIR instruments meet the SLI measurement requirement, including compatibility with heritage data product resolution
6. Engage potential international and domestic partners in addressing opportunities to lower mission cost while maintaining Level 1 mission requirements
7. Support Earth Systematic Missions Systems Engineering Working Group studies on TRL definition and instrument cost
8. Complete a comprehensive development report of HypsIRI mission study activities



# Past Year



- Pre-Formulation Workshop in September 2013
  - *“For a Tier II Decadal Survey mission, the HypSIIRI concept is relatively mature and would address compelling research and applications needs within multiple Earth science disciplines; however, a dedicated HypSIIRI mission is not in the near term program budget. The HypSIIRI science is well positioned to support the Sustained Land Imaging team as they consider the 20-25 year program for land imaging and is encouraged to develop close interactions with that team.*
  - *The team is commended for its excellent community coordination, for its steady progress on instrument definition and data compression techniques, and for overall retirement of risk associated with instrument and data management technologies. The airborne campaigns, both past and planned, continue to provide excellent data sets for the team’s study activities.... The team should continue to focus on instrument and data management and data product development activities.”* – Steve Volz in guidance memo
- HypSIIRI Preparatory Airborne Activities Mission: 14 investigations ongoing since April 2013
- 6<sup>th</sup> HypSIIRI Science Workshop in October 2013—despite Government shutdown
- Steering Committee (weekly) and Science Study Group (SSG) conference calls
- SLI steering committee meetings since summer 2013
- HypSIIRI Mission Applications Reps: JPL/Simon Hook, MSFC/Jeff Luvall produced applications traceability metrics and posters—spreading the word
- AVIRISng and HyTES flying, PHyTIR development
- Whitepaper in final draft



# Times of Change



- Two major streams of activity occurring with high potential for HypsIRI impacts
- The Sustainable Land Imaging Architecture Study Team is reporting out in August 2014 on plans for a 25-year strategy/system for U.S. land imaging
  - Spectroscopy and advanced TIR approaches are likely a part of their report
- The National Research Council will initiate the next Earth science and applications decadal survey later this year
  - Will address the needs for our science
- We need to be aware of what's going on and align our efforts with these activities