Payloads for Rideshare Opportunities: What's ready or would/should be ready to go? [re Decadal/Platforms]

- Question: "working group on Working Group on Explorers, Suborbital, and Other Platforms from the last Decadal. Can you sum up the group's findings? What has changed since then?"
- From Platforms (Diversified, Distributed Sensor…) Appendix:
  - "A diversity of approaches is required for S&SP's objective to create system-wide understanding, but the data from these platforms need to be integrated into distributed yet coordinated approaches that create the best system-wide understanding from the data which may very well be collected by a variety of platforms."
  - "examples of data integration in Constellations and so-called Heterogeneous Facilities—a set of distributed measurements from a variety of measurements vantage points, integrated into a greater whole."

Types of instrumentation/platforms: What should be the priorities for instrument/platform development? [re Decadal/Platforms]

- Platforms, as of 2012:
  - Groundbased solar (looking toward ATST)
  - Groundbased atm/iono (looking toward DASI)
  - Hosted payloads (looking toward Iridium NEXT)
  - Rockets (looking toward tech development)
  - Balloons (looking toward Barrel, increasing ULDB access)
  - Cubesats (55 launched, looking toward science cubes, 6U's, tiny explorers)
  - Constellation examples: 30 magnetometry cubes in rad belts; I/T neutrals and ions with multi-plane, multi-cube arrays
  - Het-Facs: diverse platforms toward system science (example: GPS network, superdarn, radars, neutral winds, missions, cubes, balloons; to understand physical drivers of observed GPS TEC data). Looking for organizational infrastructure. Who supports? How maintained? "Facility" mode for DASI science.

Success factors: What are the key considerations needed to establish an instrument/payload program? [re Decadal/Platforms]

- Question: “important factors to include for a ride share report that we might not fully appreciate?”
  - System science infrastructure logistical/bureaucratic hurdles. Crossing “PI” science with “facility” modes for distributed/diverse system observations
  - Crossing commercial motivations with NASA requirements
  - Test flights for system development before full science deployment