

**WRITTEN STATEMENT BY  
NICOLE ROBINSON  
CHAIR, HOSTED PAYLOAD ALLIANCE**

**HEARING ON  
ADVANCING COMMERCIAL WEATHER DATA:  
COLLABORATIVE EFFORTS TO IMPROVE FORECASTS**

**BEFORE THE  
SUBCOMMITTEE ON ENVIRONMENT  
U.S HOUSE OF REPRESENTATIVES**

**May 20, 2015**

Chairman Bridenstine, Ranking Member Bonamici and Members of the Committee, as Chair of the Hosted Payload Alliance, it is my honor to participate in today's proceedings while representing our diverse and accomplished group of Hosted Payload Alliance members. I'm pleased to join Professor Scott Pace from George Washington University's Elliott School of International Affairs, Scott Sternberg, President of Vaisala Inc, Dr. Bill Gail of Global Weather Corporation and Dr. Thomas Bogdan of the University Corporation for Atmospheric Research at today's hearing.

During your February hearing on "Bridging the Gap: America's Weather Satellites and Weather Forecasting" Chairman Bridenstine urged that, "...we should look to augment our satellite systems through commercial means, just as the Department of Defense and NASA have done" and "...we must look outside the box for new methods of providing essential weather data." The Hosted Payload Alliance (HPA) has heard your call for commercial integration and stands ready to assist and enable the National Oceanic and Atmospheric Administration (NOAA) effort to incorporate new and responsive acquisition practices to further weather sensing capabilities. The Hosted Payload Alliance, already with a history of demonstrated success on orbit, and with others payloads on contract, is ready to institutionalize this "out of the box" approach. This hearing helps in that effort.

Established in 2011, the Hosted Payload Alliance is a satellite industry group whose purpose is to increase awareness of the benefits of hosted government payloads on commercial satellites. The HPA is a non-profit association of seventeen diverse space industry members with broad expertise established to serve as a bridge between government and private industry to foster open communication between potential users and providers of hosted payload capabilities. The focus of the Alliance is on education, awareness and developing solutions to common hosted payload challenges.

A hosted payload is a portion of a satellite, such as a sensor, instrument or a set of communications transponders that are owned by an organization or agency other than the primary satellite operator. The hosted portion of the satellite operates independently of the main spacecraft, but shares the satellite's power supply, transponders, and in some cases, ground systems. The concept of a hosted payload is not entirely new, as many USG designed and built satellites have for years been developed with "hosting" in mind; however, what is relatively new is the concept of using commercially available space, weight and power to host government-developed payloads, instruments, or transponders. Commercially hosted payloads enable government organizations to make use of commercial satellite platforms in order to save costs and create a more distributed architecture for space assets.

Choosing, in essence, to piggyback a hosted payload on a commercial satellite has many benefits:

**Shorter time to space.** Because the development of an entire satellite system is not required, a hosted payload on a commercial satellite can reach space in a fraction of the time that it would take to develop a

free flyer program. Roughly 20 commercial satellites are launched to geosynchronous earth orbit each year and each one presents an opportunity to add on additional capability.

**Lower cost.** Placing a hosted payload on a commercial satellite costs a fraction of the amount of building, launching and operating an entire satellite. Cost reductions can result from shared integration, launch and operations with the host satellite.

**A more resilient architecture.** Hosted payloads enable a more resilient space architecture by distributing assets over multiple platforms and locations. Rather than creating a single platform with multiple capabilities that could be a target for adversaries, spreading capabilities over multiple locations has the potential to contribute to a disaggregated and resilient space architecture.

**Increased access to space.** With roughly 5 satellite launches every quarter, the commercial satellite industry provides a multitude of opportunities for frequent access to orbit..

**Operational options.** Hosted payloads have multiple options to use existing satellite operations facilities with shared command and control of the hosted payload through the host satellite, or a completely dedicated and separate system operated by the hosted payload owner. For sensitive payloads, the government can even chose dedicated and highly encrypted communications downlinks as DoD has with its early hosted payloads.

NOAA stated in their “Next Generation Satellite – Plan” briefing, presented by Thomas Burns, Deputy Assistant Administrator for Systems, on April 28, 2015 that their goal of future architecture is to, “evolve to a more responsive architecture that leverages a suite of capabilities including rapid, less costly missions and direct purchases of services and data to ensure long term economic viability.” Using hosted payloads on commercial satellites is a pivotal tool for the government, and NOAA specifically, to leverage emerging technologies to gain affordable access to additional space capabilities, critical enablers in our constrained fiscal environment. The hosted payload model has clearly demonstrated the timeliness, responsiveness and cost-efficiency of integration between the government and commercial industry via the Commercially Hosted Infrared Payload – a successful DoD program that achieved its objectives in an initiative that provided capability for an estimated 15% of the cost to build, launch and operate a dedicated military spacecraft. In another real-world example, a hosted payload has saved the Australian Defense Force over \$150M in satellite communications costs versus traditional, monolithic acquisition processes, and multiple Wide Area Augmentation System hosted payloads have enabled the FAA to achieve enhanced GPS accuracy for a safer and more efficient air traffic control system. Our Alliance is poised to continue our relationship with NOAA to help achieve greater successes in the future.

Finally, the members of the Hosted Payload Alliance value the opportunity to promote the values of our Alliance to the Subcommittee. We certainly appreciate the continued Congressional support of our collective effort to contribute to and enable NOAA’s, and other government agencies’, critical satellite-enabled missions.



**Nicole Robinson**  
**Chair, Hosted Payload Alliance**

Nicole Robinson joined SES Government Solutions in 2007 and currently serves as the Corporate Vice President of Government Market Solutions. In this position, she is responsible for the development of new products, go-to-market strategies and new business opportunities with global governments and institutions.

Ms. Robinson is currently serving in the elected position of Chair of the Hosted Payload Alliance, serves on the Board of the Washington Space Business Roundtable (WSBR) and was the recipient of a 2012 Future Leaders Award by the Society of Satellite Professionals International.

She has spent 15 years in the Defense industry, with a Bachelor's in Communications, an MBA from Liberty University and is a graduate of the Senior Executives in National and International Security Program at Harvard University, Kennedy School of Government.

