

HOSTED  
PAYLOAD  
ALLIANCE



# Role of the Hosted Payload Alliance

David Anhalt  
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[www.hostedpayloadalliance.org](http://www.hostedpayloadalliance.org)

# Hosted Payload Alliance Charter

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## ■ Why was the Alliance formed?

The Hosted Payload Alliance (HPA) is a satellite industry alliance formed to increase awareness of the benefits of hosted government payloads on commercial satellites

## ■ Objectives of the Alliance

- ◆ **Serve as a bridge between government and private industry** to foster open communication between potential users and providers of hosted payload capabilities
- ◆ Build awareness of **the benefits to be realized from hosted payloads** on commercial satellites
- ◆ Provide a **forum for discussions**, ranging from policy to specific missions, related to acquisition and operation of hosted payloads
- ◆ Act as a source of **subject-matter expertise** to educate stakeholders in industry and government

# Justification for the Creating HPA

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- The U.S. National Space Policy published in 2010 calls for an increasing role for commercial space to meet government requirements.
- Hosted payloads are one of many ways for the U.S. Government to obtain and deliver necessary space capabilities.
- The HPA can provide the bridge between commercial industry and government to build awareness of hosting options.

# U.S. National Space Policy

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- “Purchase and use commercial space capabilities and services to the maximum practical extent when such capabilities and services are available in the marketplace and meet United States Government requirements;”
- “Actively explore the use of inventive, nontraditional arrangements for acquiring commercial space goods and services to meet United States Government requirements, including measures such as:
  - ◆ public-private partnerships,
  - ◆ hosting government capabilities on commercial spacecraft, and
  - ◆ purchasing scientific or operational data products from commercial satellite operators in support of government missions;”

# Potential Benefits of Commercial Hosting

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- Governments and commercial industry can leverage significant commercial investments in space infrastructure for:
  - ◆ Time Savings
  - ◆ Reduced cost
  - ◆ Greater resiliency
  - ◆ Increased access
  - ◆ Operational options
- Procuring commercial hosting services leverages the highly competitive commercial satellite market
- Customers can focus attention on developing and procuring mission payloads
- A payload-focused acquisition strategy can result in more consistent payload production rates



## Trends Underway in the United States

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- Commercially leveraged solutions initiated six years ago by NASA and Air Force have proven to be successful
- Programmatic need for more affordable and resilient solutions is a forcing function to overcome cultural barriers and previous procurement preferences
- US National Space Policy encourages use of the commercial space sector where it can meet government requirements

# Challenges

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- Managing different decision-making timelines, funding mechanisms and approval processes for government and commercial entities
- Synchronizing the delivery of hosted payloads in step with the overall space vehicle assembly, integration and test
- Integrating data streams from commercially hosted payloads into existing government architectures
- Managing risk between multiple stakeholders, both commercial and government
- Agreeing on how to make operational decisions during off-nominal conditions

# Core HPA Activities for 2014

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**Industry Forums on Hosted Payloads**

**Government/HPA Workshops on  
Hosted Payload Issues**

**Education through Public Relations**

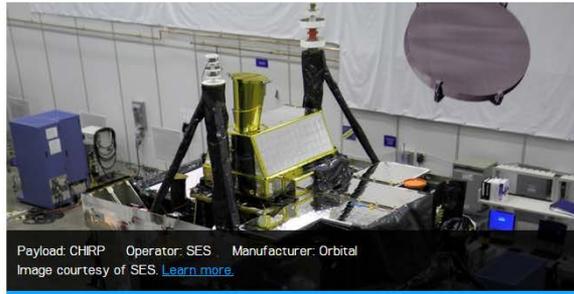
# Industry Forums and Government Events Organized by HPA at Major Venues

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- 10 Mar 14: Satellite 2014, Washington, DC
- 22 May 14: National Space Symposium, Colorado Springs CO
- 24 June 14: HPA Capitol Hill Day, Washington, DC
- 30 Sep 14: IAC-2014 Congress, Toronto, Canada
- 15 Oct 14: Hosted Payload Summit, Washington, DC
- 12 Nov 14: SATCON 2014, New York City

# Promoting Education & Awareness: [www.hostedpayloadalliance.org](http://www.hostedpayloadalliance.org)



**LEARN ABOUT THE BENEFITS OF HOSTED PAYLOADS**

- TIME FRAME
- COST
- ACCESS TO SPACE
- OPERATIONAL OPTIONS

## CASE STUDIES



## HPA CORNER

HPA Corner is a regular feature in the monthly edition of *MisatMagazine*, where industry stakeholders weigh in on an issue of particular importance. [See the current and past issues »](#)

## INDUSTRY NEWS

### HPA Hosting Two Global Networking Forum Panels at IAC

09/15/2014

HPA has organized two Global Networking Forum panels at the International Aeronautical Congress. Both take place Tuesday, September 30, at the Metro Toronto Convention Centre (MTCC), South Building, Room 718 B. In addition, Steven Arnold from Johns Hopkins University, Applied

# The HPA Corner in MilSat Magazine



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**The HPA Corner: Designing A Defensive Architecture**  
By Wendy Lewis, Director of Communications, Space Systems/Loral (SSL)

At the May 22nd Hosted Payload Alliance board meeting, which was held in conjunction with the Space Symposium in Colorado Springs, Colorado, Mr. Doug Llovera, Deputy Assistant Secretary of Defense for Space Policy, discussed the next-generation architecture for the Department of Defense. He told the group that over the next few months, government agencies are developing the strategy for this new architecture, which must integrate Air, Land, Sea and Cyber resources in a way that cannot be contested.

He explained that in the past, when American technology dominated the world, and budgets were unlimited, we were able to take an approach to our space environment which did not have to consider other conventional threats. In today's world, where the threats from adversaries are increasing and space is more highly contested than ever, Mr. Llovera suggested that a more defense-minded approach was logically needed. He referred to this as an historical moment when we need to move from an offense-dominated regime to a defense-dominant regime.

In an offense-dominant regime, where large, highly sophisticated assets that might take billions of dollars and a decade to develop and build dominate the architecture, an adversary on the offensive has an advantage—he can cripple such an architecture with far less effort than it took to build it. A defense-dominant regime flips that on its head. It is designed so that no single target would have the potential to cripple national security, and that the actions an adversary would need to take become far more taxing than the capability he seeks to deny.



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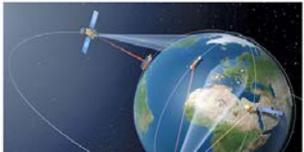
**The HPA Corner: Building Strong Partnerships**  
By Dylan Browne, Vice President Business and Market Development, Astrium Services Government

To measure the success of a hosted payload program, one should measure the success of the underlying partnership. This may be more difficult to assess for public-private partnerships as commercial and governmental entities measure success differently; however, success for each can be defined and evaluated. One such example is the SpaceDataHighway, which is being developed and implemented within a Public-Private Partnership program between the European Space Agency (ESA) and Astrium Services. The SpaceDataHighway will consist of two ESA telecommunication payloads in geostationary orbit which will enable broadband, bi-directional data relay between Low Earth Orbit (LEO) satellites and associated ground segment, via either of the payloads.

Currently one portion of the SpaceDataHighway network is already providing data relay services for the Sentinel satellites within the European Initiative Global Monitoring for Environment and Security (GMES), facilitating a rapid downlink of large volumes of imagery.

This landmark public-private partnership demonstrates the mutual benefits provided to both commercial and government entities. Astrium Services, on the one hand, is in a unique position to implement and operate this revolutionary service, capitalizing on its extensive expertise as an operator of Earth Observation and telecommunications satellites.

On the other hand, the government entity, ESA will benefit from access to readily available commercial capacity without incurring the costs of building-out its own network, both space and ground segments.

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**The HPA COrner: Policy + Legislation Encourage Hosted Payloads.. So, What's The Hold Up?!**  
By Nicole Robinson, Vice Chair, Hosted Payload Alliance + Corporate Vice President, SES Government Solutions

The time and cost benefits of commercially-hosted government payloads have been touted across the satellite industry for years, from payload and satellite manufacturers, to fleet owner/operators, system integrators, and even launch providers.

In recent years, innovative industry and government leaders working with the United States Air Force, the European Commission and the Australian Defense Force have provided governments around the world with example hosted payloads that have validated the value of this efficient means of leveraging industry and accessing space.

With experience under our belts, and government doctrine lending support to hosted payloads, the question remains: why aren't hosted payloads more commonplace? Why in an austere budgetary environment, is the U.S. Government finding it challenging to launch additional cost-saving hosted payload programs?

The U.S. National Space Policy explicitly directed the use of non-traditional options for the acquisition of space goods and services, and cites hosted payloads as one of these non-traditional options. In 2013, the Defense Business Board recommended that the DoD, "Continue hosted payload efforts and their ability to fill special needs in a short time frame." Within the FY14 National Defense Authorization Act, Congress directed the DoD to craft a Space Acquisition Strategy (Mention 653) in which "strategic hardware models are to be considered to secure space capabilities and capabilities that hosted payloads can provide."



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**The HPA Corner: How To Create A More Resilient Space Infrastructure**  
By Janet Nickloy, HPA Chair, Vice President of Strategy & Business Development, National Systems, Harris Corporation

In the recent Message from the Chair, penned by HPA Chair Janet Nickloy in HPA's end-of-year newsletter, she reflects on the trajectory the Alliance has taken over the past year, and outlines where the organization intends to go in 2014.

Nickloy notes, "Recent government communications indicate that hosted payloads are gaining recognition as a viable alternative for U.S. Government space missions." As industry adapts to changes taking place in the wake of increasing acceptance of hosted payloads and the steps the government has taken recently to clear legislative hurdles in order to start taking advantage of the many benefits that come with ridesharing, so too has the HPA stepped up its activities which seek to continue its mission to increase awareness of the benefits of hosted government payloads on commercial satellites.

In 2014, the HPA will build on the success of our government/industry engagement program. Several events have been planned throughout the year with this in mind:

- HPA kicked off the Hosted Payload Forum track at Satellite 2014 with a keynote panel entitled "Hosted Payload Forum: Leveraging the Commercial Space Sector for Enhanced Affordability and Resilience"
- The Annual Board Meeting will again be held at the 30th Space Symposium in Colorado Springs in May
- HPA's first international workshop will occur at the 65th International Astronautical Congress in Toronto in late September
- The Hosted Payload Summit on October 15 in Washington, DC, will include at least one panel hosted by HPA.

**BUILT TO PERFORM:**  
Our heat pipes have logged over three billion hours in orbit.

# Membership Criteria

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- Membership in HPA is open to
  - ◆ Satellite operators
  - ◆ Satellite manufacturers
  - ◆ Payload manufacturers
  - ◆ System integrators and government service providers
  - ◆ Government users and potential users of hosted payloads
  - ◆ Other interested parties

# Hosted Payload Alliance Membership Roster

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- Airbus Group
- ATK Space Systems
- Arianespace
- Boeing
- COM DEV
- Eutelsat America Corp.
- Harris Corporation
- Inmarsat
- Intelsat General Corporation
- Iridium Satellite LLC
- Lockheed Martin
- Northrop Grumman
- Raytheon
- SES Government Solutions
- Space Systems Loral
- Thales Alenia Space



## Become a Member and Get Involved!

- Visit the Hosted Payload Alliance website and complete the online application.

[www.hostedpayloadalliance.org](http://www.hostedpayloadalliance.org)

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## Role of the Hosted Payload Alliance

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