

## SPACE SYSTEMS SYMPOSIUM (D1)

## Hosted Payloads - Concepts, Techniques and Challenges, Missions and Applications (7)

Author: Mr. Albert Weitzel  
Maxar, United States Minor Outlying Islands

Mr. Pat Malaviarachchi  
MDA, Canada

Mr. David Spalti  
MDA, Canada

Mr. Chuck Cynamon  
SSL Federal, LLC, United States

## BENEFITS AND CHALLENGES OF HOSTING PAYLOADS IN LEO AND GEO

**Abstract**

MDA and its subsidiary SSL have identified over 180 LEO and 100 GEO potential hosting opportunities over the 2016 to 2020 timeframe. We have a proven track record of past performance including 5 LEO and 12 GEO hosted payload programs that were developed and launched. From the host payload customer's perspective, affordability is a primary motivating factor for hosting payloads on commercial satellites. From the standpoint of systems engineering strength and manufacturing excellence, MDA/SSL is positioned to find cost effective solutions that serve both the interests of the primary mission as well as the host payload community.

Our hosting approach in LEO includes: a) teaming with a variety of commercial LEO operators; b) offering access to MDA's planned LEO satellites; and, c) offering access to international opportunities. Our hosting approach in GEO is to leverage SSL, a global leader in the manufacture of competitively awarded commercial GEO satellites. SSL is an ideal source of hosting opportunities and a supplier that is familiar with the unique challenges of hosting a GEO payload.

MDA/SSL has a well-established process to perform the systems engineering required to accommodate multiple payloads competing for spacecraft resources. Platform modularity and scalability are key features to support a wide range of host payload configurations.

This paper will describe how past hosting missions were successful, the challenges that had to be overcome, a process for establishing new hosted payload relationships, and insight into our future hosting opportunities list. In addition, we will describe how MDA/SSL has teamed with commercial industry leaders in LEO and top owner-operators in GEO to provide opportunities for the host payload community.