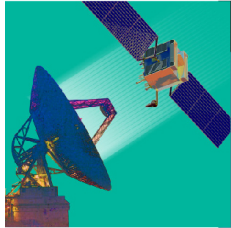


Working Group Preview



Ground System Architectures Workshop



Session 11A

The Making of “Smarter Ground Systems” - Brainstorming

Donald Sather, The Aerospace Corporation

It is said the only constant in the world is change. To meet the challenges of an ever-changing threat and technology environment missions and enterprises themselves need to become flexible, responsive and cost effective to meet current and future needs. While new algorithms, analytic “apps”, software paradigms and cool human interfaces are essential and keep users from drowning in data they are just the most upper layers of a mission system or an even larger responsive enterprise. In the past, IT infrastructure was treated much as the foundation of a house – built once and largely forgotten until it fails. Typically, in the past, a replacement infrastructure, much like a house foundation, required the “tear down and rebuilding” of the entire system to replace it and was quite time consuming (not to mention expensive). Can future ground systems (“smart” or not) still operate in this fashion and be successful in the long term? In the past, the introduction of new capabilities into a system took months or even years to become operational, will this speed be enough to match future needs? Probably not. So, what constitutes a “smarter ground system” and what does it take to build a successful one? What constitutes a “successful” system of the future?

To address this, the Working Group will hear from a group of government and commercial entities that will share what their organizations are doing to develop “smarter ground systems” and address the foundational elements that serve as the underpinning of the algorithms and “apps”. All the workshop participants will then address the questions of:

- What are the elements of a successful “smarter ground system”?
- What does it take to build and sustain those elements especially over the long term in a world of constant change? Is it possible, to any extent, to “future proof” a system or at least make it “future resistant”?