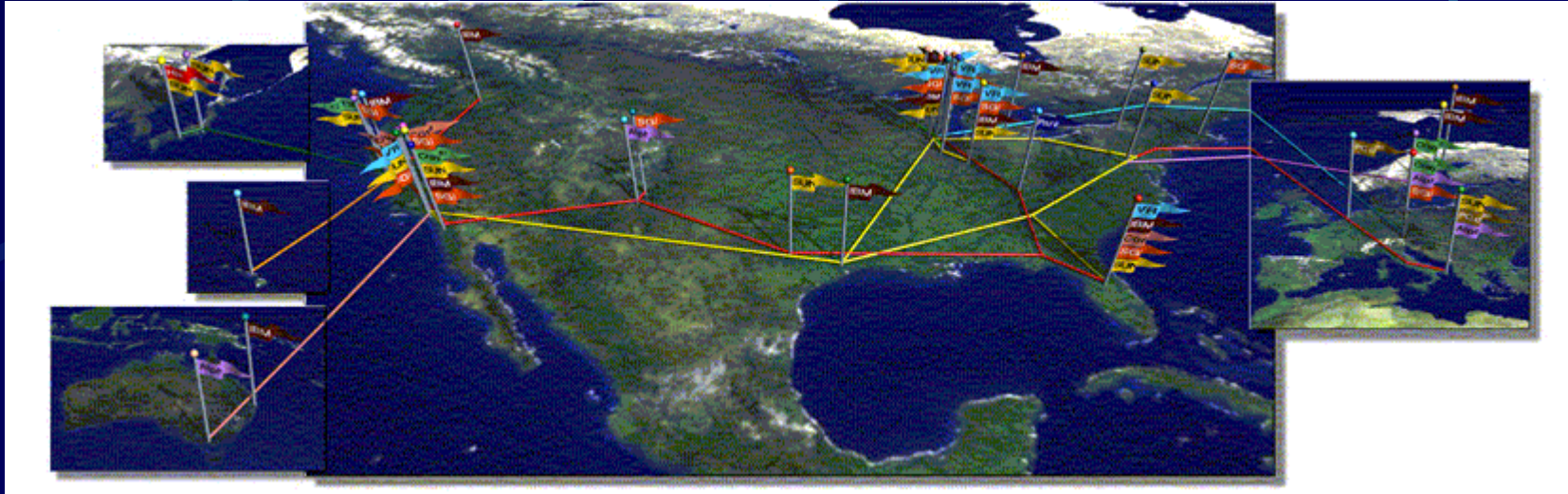


# **Grid and Web Service Standards** **for Government and Defense Systems**

**A Break-Out Session and Extended Panel  
Ground System Architectures Workshop  
<http://sunset.usc.edu/gkaw/gkaw2004.html>**

**March 31, 2004 -- Manhattan Beach, California  
Dr. Craig A. Lee, [lee@aero.org](mailto:lee@aero.org)  
Computer Systems Research Department  
The Aerospace Corporation**

# First, What is Grid Computing?



- **Distributed Computing and Resource Mgmt**
- **Resource Sharing – Virtual Organizations**
- **Service and Data Discovery, Workflow Mgmt**
- **Managing Distributed Access to Petabytes**
- **Security – Single Sign-on across Admin Domains**
- **Convergence of Grid and Web Services**

# Motivation

- Grid/Web Services will become major design tools for promoting reuse and interoperability in ground systems
  - Existing ground systems are primitive grids, designed in isolation with little reusability or interoperability
- Grid Computing has been adopted as key technical direction by all major computing vendors
  - Oracle, IBM, Microsoft, HP/Compaq, Sun, SGI, etc.
- Standards are needed: *Global Grid Forum, [www.ggf.org](http://www.ggf.org)*
  - WSRF (Web Services Resource Framework) intended to complete convergence of grid and web services
- *We need to promote grid/web standards in the space community*
  - *Requirements, Definition & Adoption*



# Goal: Participation by Key People in Specific Areas

- Government Systems
  - End-system requirements
- Relevant Projects and Infrastructure Groups
  - What's going on now
- Vendors
  - What the commercial sector is doing and what's commercially available
- Contractors
  - Closing the loop on the need and use of Grid/Web Computing Standards by government contractors

# Agenda

## ● 1:00 PM - 3:00 PM

- Welcome and Introduction
- Dr. Tom Hinke, Senior Scientist, NASA/Ames
  - *Grid Technology Provides a Cyber Infrastructure Applicable to NASA Applications*
- Dr. Sam Gasster, Senior Engineering Specialist, The Aerospace Corporation
  - *Application of Data Grid Technology to Earth Remote Sensing Science Data Segment Architectures*
- Dr. Geoffrey Brown, Director, Grid Computing, Oracle  
Dr. Bryan Pryce, Technical Architect, Oracle APAC
  - *Grid Computing Dynamics*
- Dave Maples, DataSynapse
  - *Grid Computing*

## ● 3:00 PM - 3:15 Break

## ● 3:15 PM - 5:00 PM

- Dr. Ewa Deelman, Research Team Leader, ISI/USC
  - *Current and Future Grid Infrastructure*
- Michael Osias, Grid Technology, Technical Architect, IBM
  - *IBM Leadership in Grid Computing Standards and Technology*
- Panel Discussion
  - *What Standards or Conditions Are Critical for the Adoption of Web/Grid Services in Government and Defense Ground Systems?*