

**SG 6.11**

## **Proposal for Forming an IAA Study Group**

**Title of Study: Competency-based Space System Engineering Education**

**Proposer(s): W. Larson, P. and C. Swan, E. Ashford, R. Malina, C. Stavrinidis**

**Primary IAA Commission Preference: Commission 6--Education**

**Secondary IAA Commission Interests: Commission 3—System Engineering Development (possibly)**

### **Members of Study Team**

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## **Short Description of Scope of Study**

### **Overall Goal:**

**Currently, space system engineering practitioners are needed by most space agencies and industry, in order to meet upcoming challenges. Many companies and Government agencies have large numbers of unfilled positions.**

**The study team will develop an international list of required space system engineer competencies (capabilities) with performance levels necessary to perform required tasks. The study team will use the vetted and approved capability list to review system engineer education programs and identify which capabilities they develop in participants.**

**The study team will make recommendations pertaining to the system engineer capability content of, and potentially missing components in, existing and proposed system engineering education programs.**

### **Intermediate Goals:**

- 1. Develop a baseline list of space system engineer capabilities with performance levels.**
- 2. Identify system engineering educational programs globally**
- 3. Measure educational programs against needed capabilities**
- 4. Make recommendations for potential improvement**
- 5. Generate and update the space system engineering report**

**Methodology: 1-form the study group; 2-establish and implement the process for gathering required capabilities from industry and Governments; 3-organize and vet capabilities and performance levels; 4-assess educational programs against competencies; and, 5-complete the report.**

**Time Line: Dates by items 1-5 above. 1- December 2006, 2- March 2007, 3- September 2008, 4- March 2009, and 5- November 2009.**

**Final Product (Report, Publication, etc.): Final Report—Competency-based Space System Engineering Education, 90 pages, A4 or smaller.**

**Target Community: Space agencies, industry and educational institutions that must perform system engineering in order to succeed in their tasks.**

**Support Needed: Storage space at an IAA url, if possible. Publication of completed final report.**

**Potential Sponsors: Space agencies, specifically, ESA, NASA, JAXA and others, as well as, industry, specifically, EADS, Mitsubishi, Boeing, Lockheed Martin and others.**

*To be returned to IAA Secretariat Paris fax: 33 1 47 23 82 16 email: [sgeneral@iaaweb.org](mailto:sgeneral@iaaweb.org)*

**Date:**

**Signature:**

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