



INTERNATIONAL INDUSTRIAL COOPERATION FOR SPACE EXPLORATION
Summary of Proceedings
November 16, 2004

On Tuesday, November 16, 2004, representatives from the space industry met to discuss industrial cooperation at an international level. Each company, whether they were representing systems integrators or sub-system developers, agreed that international industrial cooperation in space exploration is beneficial to industry, host governments, and the endeavor itself. Concerns were raised that the “no exchange of funds rule” is prohibitive, and that, although export controls are important, the burden to industry can be softened by streamlining ITAR-related processes and relaxing restrictions on the discussion of technical data of subsystems. There is room for the government to do a better job reconciling its need for safe-guards and industry’s desire for more market-driven cooperation. Judging by comments made by NASA representatives, it seems NASA is sympathetic to the views expressed and is open to reviewing existing regulations.

International industrial cooperation runs up against two main obstacles—the no exchange of funds rule and ITAR.

Consensus was that the no exchange of funds rule as stated in the NASA Federal Acquisition Regulation (FAR) system is antithetical to international industrial cooperation. For the BAA, NASA recently approved a deviation from the rule which allowed companies to team with the best-of-the-best and bid more directly to NASA. The history of FAR was discussed briefly as well. It was started to prevent other nations to believe that the U.S. will help them build their space capabilities and later, after space-faring nations developed their own space programs, evolved into a mechanism to disallow funding for foreign industry.

All participants recognized the importance of export controls and ITAR. On this note, some panelists recommended developing more efficient processes for compliance. TAA waivers to speed up the process were lauded as helpful and necessary for specific levels of cooperation dealing with technical data.

Beyond regulatory obstacles, there are additional cultural obstacles held by industry. As a result of the regulatory climate, businesses don’t frequently consider cooperation abroad. Knowing such business would be a hassle, it is easy to write it off categorically. Moreover, in addition to cooperation at the product level, there needs to be cooperation of ideas and at a system level to foster creativity and innovation.

Current restrictions limit access to existing markets and international technologies. Market driven decisions, less subject to artificial constraints, would efficiently divvy up roles and responsibilities and place industry as the prime integrator for large projects. Global cooperation means tapping into existing designs and investments. The savings would be tremendous and gains to research rapid.

There is a lot of room for promoting standardization and interoperability with space related IT. Extensive cooperation would serve to increase affordability and maintainability of systems. Again, the catch here is that in order to talk about IT standardization at an international level, it is necessary to talk of specifics that are prohibited by export controls.

There are benefits to our nations' governments as well. Panelists believed that increased cooperation would help shore up geopolitical capital. There are fiscal and economic benefits as well. Global teaming serves to foster compatible and complementary functionality in design and strengthen programs' budget base. Over time, this will reduce launch costs and help stimulate market expansion by promoting the technical and industrial base. Reusable launch and crew exploration vehicles are clear examples of projects that require international cooperation, the more unfettered the better, if they are to be cost-effective and interoperable.

The international space community looks to NASA to set the tempo of space exploration. Flexibility on NASA's part could help it tap into capabilities of eager partners. JAXA, ESA, CNES and others were in Washington this weekend to discuss how they plan to interact with NASA Exploration activities. JAXA activity is coordinated around their Council for Science and Technology Policy (or CSTP, Japan's analog to OSTP) Basic Strategy, and looks to engage with NASA on space science research and manned space activity among other things. To reap the benefits, however, NASA needs to reevaluate incentive structures and consider waivers of TAA and no exchange of funds rules to encourage cooperation. As ESA continues to become a major player, its partnerships with NASA and international industry should be based on similar cooperative models. The European "just-return rule," however, might be an obstacle to this end.

In many ways, the very nature of Space exploration lends itself easily to international collaboration. Countries can use their national and industrial resources in concert to tackle the next frontier in exploration. Currently, there is international cooperation at the industry level for all levels of projects including those related to defense. But existing cooperation is hampered by top-down, artificial constraints. In order to maximize the benefits and minimize the costs, new models of international industrial cooperation are needed.