
International Cooperation In Space Technology

By

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ISSUE:

Should the USAF take the lead regarding the advancement of international military space cooperation programs?

BACKGROUND

In a time of declining defense budgets and increasing cost of military space systems, international cooperation requires serious examination. This article discusses various cooperative programs applicable to military space systems and makes recommendations regarding changes in the USAF role in examining and planning for international cooperation opportunities.

Desert Storm demonstrated the effectiveness of space applications to coalition warfare. Our friends and allies and our adversaries were made aware of the force multiplier effects which space programs can bring to the battlefield. Coalition warfare will be a characteristic of future contingencies, and it is clear that space systems will be increasingly important to theater warfare. Economic and military realities require that we must plan to fight alongside our friends and allies. The contributions of our friends and allies are a requirement for success.

An examination of the international market place indicates that the U.S. no longer dominates all areas of space technology. Much of our protected "advanced" technology is in reality "state of the art" technology which is available on the world market. We have a tendency to treat this technology as sensitive, high tech, classified, compartmentalized, and non-releasable, when in fact much of the technology is already available internationally. Many countries have, or are developing, indigenous space technology capabilities that are on a par, or will be on a par, in competitiveness with the U.S. in the near future.

Current efforts at international cooperation programs in military space systems fall into six major categories:

Foreign Cooperative Testing (FCT)
Foreign Procurement (FP)
Co-Development (Co-D)

Foreign Military Sales (FMS)
Co-Production (Co-Pro)
Concurrent Production (Con-Pro)

FCT involves testing and evaluating other nations technologies and equipment with a view toward avoiding a duplication of R&D and enhancing interoperability. FP is the follow-on to FCT and could result in foreign procurement to support a U.S. military mission. Co-D is combined cooperative R&D with a friend or ally.

FMS is selling U.S. military systems and services to international governments once a system is operational and supportable. Co-Pro is a cooperative effort by U.S. and friends or allies to conduct an integrated system production program for use by the U.S. and the friend or ally. An example is F-16 production. Con-Pro is international production of U.S. designed and developed military systems in parallel with U.S. production. Internationally produced systems

are for the use of friends and allies; U.S. produced systems for domestic use. An example of Con-Pro is Japanese F-15J aircraft production.

The United States has international cooperative programs in military space systems with eleven countries: Australia, Canada, France, Germany, Israel, Italy, Japan, South Korea, Spain, United Kingdom, and the United Arab Emirates. To date, these international coordination efforts are specifically in the FCT, FP, and Co-D categories listed above. Meaningful space technology cooperation in the areas of FMS exist with Germany, NATO, and the United Kingdom only, and are currently limited to small FMS sales of Global Positioning Satellite (GPS) equipment and control of communications satellites. The areas of cooperation in military space Co-Production and Concurrent Production appear not to have been explored.

Many countries have an indigenous capability in space technology, or have expressed interest in obtaining such a capability. International military space cooperation may be feasible in the following categories:

- Communications
- Meteorology
- Navigation
- Launch
- Remote Sensing
- Ocean Surveillance
- Wide Area Surveillance
- Reconnaissance

Policy and politics drive space related decisions to a very high level (DoD, Department of State) in the area of international cooperation. Space-related technology release issues, on the other hand, are currently controlled by many low-level staffers whose job is the control of technology release. There is an absence of an appropriate USAF lead agency with a mission of advocacy to organize, plan, and direct international military cooperative efforts. Our friends and allies perceive an anti-international element in the U.S. cooperative process—a “say no” rather than “say yes” mentality. Even though the U.S. no longer dominates the space technology arena, we control or appear to deny access to space technology, goods, and services by our friends and allies. The international community views the U.S. as having a non-release, non-transfer policy rather than an organized plan for release and transfer.

The following traits are required of a USAF lead agency for international military space cooperation.

- The USAF lead agency must possess the program management staff that has experience in international sales cooperation and international business principles, and must display a positive attitude toward international work.
- Several studies in international cooperation have concluded that to be successful, staff program management in the area of international cooperation requires: (a) management skills vs. technical skills; (b) a positive attitude toward international work; (c) an ability to avoid blaming problems on the international nature of the program and on foreign partners; (d) a mind set to not view international programs as technology “give-away”; and (e) the awareness to not treat friends and allies with the same suspicion accorded our enemies.
- The idea of the U.S. competing (internationally) for an FMS sale, or of marketing U.S. equipment in the international arena, must be natural, as this attitude is required to foster international program development.

A successful international cooperation program must have service advocacy. Service advocacy for FMS, concurrent production, and co-production does the following things for the U.S.:

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- Preserves jobs in the U.S.
 - Strengthens the U.S. industrial base in space systems and technology.
 - Promotes U.S. security interests.
 - Shifts the economic burden from the U.S. for funding certain space technology to burden sharing costs with our friends and allies.
 - Establishes the U.S. as a common hub of “space influence” in bilateral programs that together become a multinational space collective security umbrella.

There is a need for a USAF international space cooperation lead agency to examine and plan for a policy and programs to release and transfer space-related technology. Currently, the Air Force focal point for military cooperation on space resides with SAF/AQ. During the acquisition cycle a Cooperative Opportunities Document (COD) is required to analyze cooperative opportunities for each major new start to determine:

- Whether a similar system is in development or under production by one or more allied or friendly nations.
- The ability of a foreign system to satisfy U.S. military space needs.
- The advantages/disadvantages of cooperative development.

The COD process overlooks mature systems for possibilities of foreign military sales, and there appears to be no other process or agency whose advocacy is looking for opportunities for concurrent FMS, production, or co-production of space systems with our friends and allies.

CONCLUSION

The USAF should appoint a lead agency to examine and plan for international military space cooperation in the categories of FMS, concurrent production, and co-production. The lead agency must be staffed with individuals who have the appropriate skills discussed in this article. Part of the task of the lead agency should be to study our space programs from the technology standpoint, to distinguish that which is truly sensitive from that which is merely state of the art and available on the world market. This will allow the identification of programs that are candidates for cooperative programs, and help in developing a long range plan for international cooperation.

The USAF should facilitate international space program cost sharing and advocate an appropriate technology transfer plan for international cooperation. Economic and military reality drive the USAF to fundamentally change its approach toward the transfer of space goods and services to our friends and allies. A USAF charter to put greater emphasis on transferring cost (burden) sharing and allowing appropriate technology transfer in the areas of FMS, concurrent production, and co-production cooperative programs should be developed. This mind set change will allow the USAF to lead the effort to reach new agreements with our friends and allies for sharing the cost and risks of space systems mutually required to maintain our collective security.

ABOUT THE AUTHOR

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