U.S. Special Operations Command — A "Customer-led" IPT Success Story

People Are the Center of the IPT — Recognize Their Professionalism and Empower Them to Do the Job

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The U.S. Special Operations Command (USSOCOM), a unified command, is singular among combatant commands. Our unique operating environment, varied missions, and small inventory requirements led Congress to give us acquisition authority equal to the Services. Indicative of this authority is the appointment of USSOCOM's own Special Operations Acquisition Executive, Mr. Gary Smith. Smith charters four Program Executive Officers (PEO) — Fixed Wing; Maritime and Rotary; Command, Control, Communications, Computers, and Intelligence (C^4I); and Special Programs — with a combined staff of fewer than 100 people to manage all the Special Operations-peculiar acquisition systems.

We are generally responsible for 56 acquisition systems; 13 are managed in-house, and 43 are managed by an outside agency — usually one of the Services — but monitored and funded by us. Despite our numbers, we must still meet all the legal and DoD-directed requirements for acquisition systems. Obviously, we adopt all the creativity and streamlining we can find!

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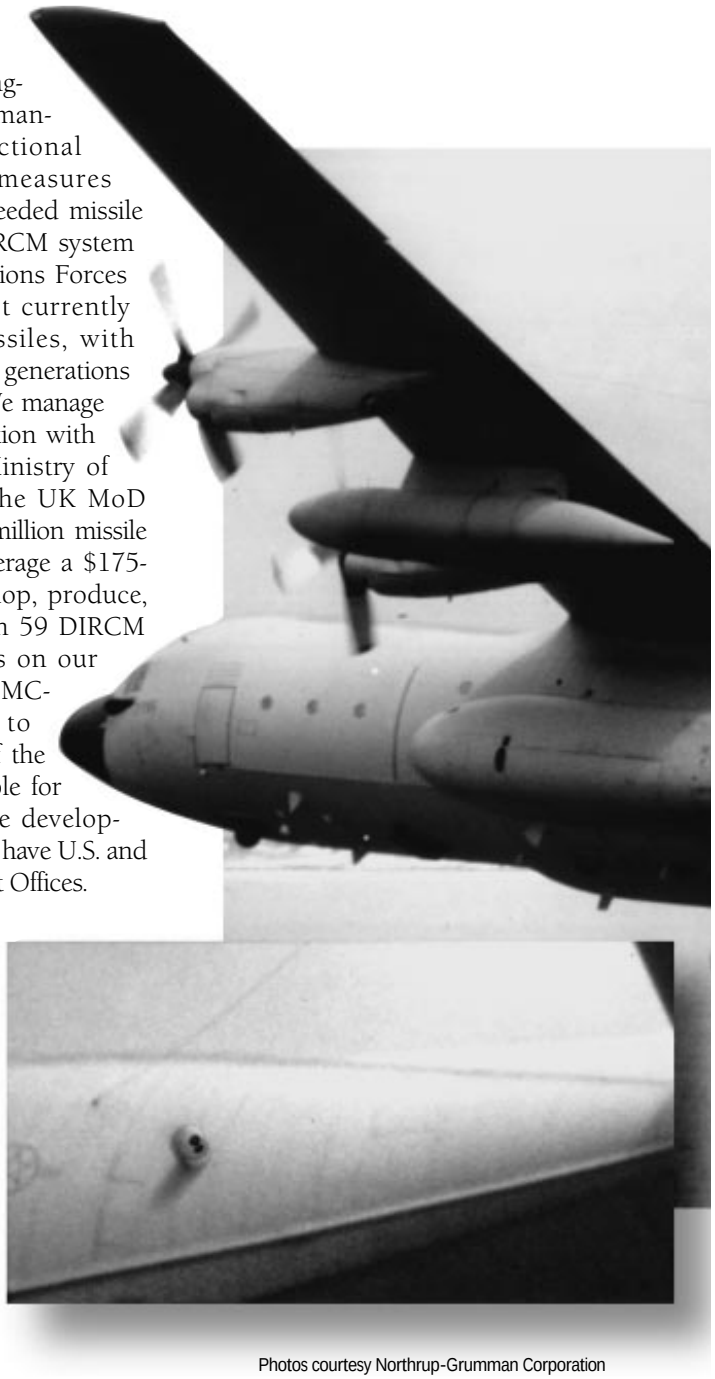
Managing Our Critical Missile Defense System

One of the more challenging of the USSOCOM-managed systems is Directional Infrared Countermeasures (DIRCM), an urgently needed missile defense system. The DIRCM system enhances Special Operations Forces aircraft survival against currently deployed infrared missiles, with growth to handle future generations of anti-aircraft missiles. We manage the program in cooperation with the United Kingdom Ministry of Defence (UK MoD). The UK MoD owns the DIRCM $300-million missile defense contract; we leverage a $175-million portion to develop, produce, install, field, and sustain 59 DIRCM missile defense systems on our Special Operations AC/MC-130 fleet. In addition to managing our portion of the contract, we're responsible for managing program-wide developmental testing. Hence, we have U.S. and UK Program Management Offices.



Our MacDill Air Force Base, Florida, Program Management Office is staffed by a handful of military and civilian managers, augmented by a management support contract with Booz•Allen & Hamilton, Inc. We are in the engineering and manufacturing development

Photos courtesy Northrup-Grumman Corporation

phase of the program; Northrop Electronics Systems, International, is the prime contractor. Chrysler Technologies Airborne Systems is Northrop's subcontractor for integration engineering design, analyses, test, and installation of the DIRCM Group B equipment onto U.S. Air Force Special Operations aircraft — called Group A aircraft integration. Group B is the prime system hardware and software.

In July 1995, we contemplated the Integrated Product Team (IPT) concept as a management process to help us integrate and control our extended acquisition organization. The nature of our organization — a program office with support staff scattered across the globe — presented some challenges to planning and organizing an IPT. Ours was also the first Program IPT established at USSOCOM. For this reason, we wanted to do our homework and get some real benefits for the organization before going to the Acquisition Executive with a proposal.

◀ CLOSE-UP OF THE USSOCOM-MANAGED DIRECTIONAL INFRARED COUNTERMEASURES (DIRCM) TURRET. THE DIRCM TURRET HOUSES AN URGENTLY NEEDED MISSILE DEFENSE SYSTEM, WHICH ENHANCES SPECIAL OPERATIONS FORCES AIRCRAFT SURVIVAL AGAINST CURRENTLY DEPLOYED INFRARED MISSILES, WITH GROWTH TO HANDLE FUTURE GENERATIONS OF ANTI-AIRCRAFT MISSILES.

◀ DIRCM TURRET MOUNTED ON A U.S. AIR FORCE C-130. INSET DEPICTS CLOSE-UP OF THE TURRET.

Foundational Elements

We derived the concept of a customer-led acquisition IPT from Barkley and Saylor's "Customerizing Project Management."[1] They claim projects fail more from the lack of a mechanism to maintain customer involvement than from a lack of resources. Further, projects fail — in terms of quality, schedule, and cost — because they often suffer from bad customer relations, shabby process management, and inadequate team member empowerment.

While Barkley and Saylor don't address IPT, we applied their thesis of customerized project management — emphasizing Total Quality Leadership (TQL) fundamentals of process improvement, customer involvement, and teaming — and added the IPT concept to yield "customer-led IPT." The acquisition customer (who may or may not be the program manager), with acquisition knowledge, purse string authority, and imbued with process improvement, leads the IPT. In our case, the deputy program manager chairs the Group A IPT. We define IPT operationally as an acquisition management process team committed to:

- building plans and executable strategies; and
- identifying and resolving issues as they arise (rather than during programmatic decision reviews).

Selling the Customer-led IPT

Recognizing the value of centrally managing our aircraft integration project through an IPT, our first step was to brief (sell) our customer-led IPT concept, seek comments of our process stakeholders, and ask them to "buy in." We did this at a September 1995 aircraft integration technical interchange meeting held at Chrysler Technologies. Figure 1 illustrates the customer-led IPT vision we briefed. A highlight of the brief was our somewhat contro-

versial assumption that we could accomplish more with less; i.e., with only one empowered representative from each of the DIRCM stakeholder organizations, we could get more work done.

Some organization managers demanded two to four slots each on the IPT to have functional specialists at the meetings. Doing so would have increased the group's size to well over 30 versus the 15 or so we planned. We countered with the argument that if we developed agendas in consultation with members and provided them well in advance of meetings, one person could adequately represent each stakeholder organization. Further, the one-member limitation would result in more disciplined and focused meetings, fewer resources required from IPT member organizations, and significant Temporary Duty (TDY) savings. Keeping the group small and focused also reduced the risk that the government would take over responsibility for contractor-required tasks.

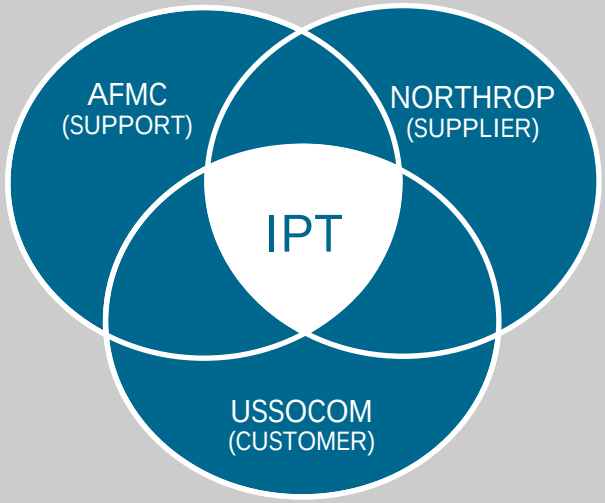
We also discussed our goals, operating principles, and the IPT environment. Our brief was received with some reservations, notably that managers should have engineering and logistical functional support at the meetings.

Step 1 - Group A Aircraft Integration IPT

We started in August/September 1995 by focusing first on a critical element of our program, the Group A aircraft integration project (Group A IPT). Our Group A IPT is concerned with facilitating contractor aircraft integration performance. We're committed to support our contractor's success; if they're on schedule, within cost, and meet quality standards, we both win.

Group A IPT members were selected from stakeholder organizations: Secretary of the Air Force Acquisition Office (SAF/AQQU); Air Force Materiel Command (AFMC) Aeronautical Systems Center and Air Logistics Center; developmental and operational test organizations; the using command, Air Force Special Operations Command; and the contractors, Northrop Grumman and Chrysler (Figure 2).

Figure 1. USSOCOM Customer-led DIRCM IPT



The Group A IPT Charter. Although tempted to write a detailed IPT charter, we kept it simple, convinced that giving the team flexibility and empowerment would be more effective. At our first Group A IPT meeting in October, we briefed our proposed IPT Charter to the members.

Goals. Our IPT goals are:

- to achieve, through teamwork, the timely fielding of DIRCM-equipped AC/MC-130s;
- to create and maintain a Group A IPT in which the program office assumes management responsibilities and meets monthly or, as necessary;
- to establish an issue initiation and resolution process, where all member organizations encourage issues from one another, and discuss and assign issues as action items at meetings;
- to ensure Government Furnished Equipment/Government Furnished Information (GFE/GFI) and aircraft are delivered to the contractor on schedule;
- to facilitate configuration control by identifying proper modification documentation, and scheduling and supporting Configuration Control Boards (CCB);
- to conduct coordinated, disciplined meetings, rotated to achieve site familiarity; and
- to facilitate contractor performance.

Operating Principles. We strongly emphasized operating principles as the glue to hold the team together and asked members to adopt each principle. There were no reservations to the principles; the team members "bought in" at the first meeting.

- Strive for team and platform-common solutions.
- Achieve candor and trust through teamwork behavior.
- Members explore all alternatives to develop workable solutions.
- Keep promises and speak with one voice on settled issues.
- Horizontal communications/development; not "stovepipes."
- Members are empowered by their parent organization; delegated decision authority.
- Members committed for duration; same members attend meetings.

Authority. The DIRCM Group A IPT is chartered by the USSOCOM Acquisition Executive with direction and guidance flowing from August 1995 memoranda generated by Dr. Paul Kaminski, Under Secretary of Defense

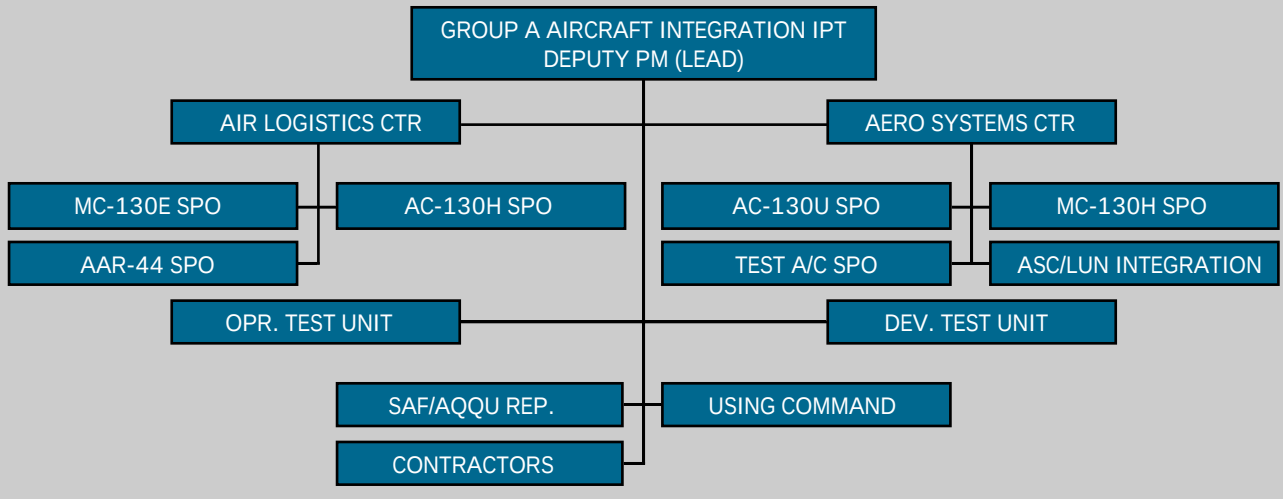
(Acquisition and Technology), and Gen. Wayne Downing, Commander in Chief, U.S. Special Operations Command. Our IPT fundamentals and results, follow:

- DIRCM IPT Priority. We established that the number one priority of our IPT is developing plans and strategies as well as early identification and reconciliation of issues. This is accomplished through teamwork at disciplined monthly meetings.
- Delegated Authority. We insisted that DIRCM IPT members have the authority to represent their organization's positions. The IPT enables the four aircraft System Program Office (SPO) representatives to discuss/resolve commonality issues at meetings.
- Contractor Role. We recognized early on that supporting our contractor's performance was fundamental to the IPT's success. Toward that end Northrop's Group A manager and Chrysler's manager for Group A installation are IPT members. Both managers play an active and significant role in the IPT process.
- Streamline Review Process. Whenever feasible, we hold our IPT meetings in conjunction with scheduled programmatic reviews. This allows us to combine meetings, saving time and TDY expense. Additionally, we take issues raised at the programmatic reviews for action. For example, the IPT attended a Chrysler Preliminary Engineering Review (PER) in November. The team's contributions to the PER were significant, plus we assumed action on 13 issues applicable to us.
- IPT Discipline. Rules for conducting DIRCM IPTs speak to commonsense activities; advanced and coordinated agenda and schedule development; and publication of meeting minutes. The one-person limitation pays dividends in disciplined meetings; much work is accomplished. We covered 16 issues in three to four hours.
- Cost Reduction. The DIRCM IPT identifies nonvalue and redundant work, helping guide infrastructure reduction efforts. By developing an integration plan that contains a common-to-all configuration control flow chart, GFE/GFI documentation procedures, and a modification production schedule, we monitor or control all government Group A aircraft integration work. Also, by keeping the team small, we save approximately $20,000 per meeting in travel and TDY costs. Whenever feasible, we schedule meetings concurrent with other program events.
- Support PM. The DIRCM IPTs are advisory bodies to the PM, the decision maker. IPT correspondence flows through the PM.
- Strengthen TQL. Embracing the DIRCM IPT determines how well the IPT process contributes to the success of the program, vice finding fault late in the program. Two examples highlight TQL process and product improvement. By centralizing documentation standards and flow, we better achieve systems commonality across the four aircraft models. This is important to quality control, maintainability, and sustainability. Second, we conceived the idea of integrating the four operational aircraft SPOs in the test aircraft CCB events, contributing to design commonality. I'm fairly certain the customer-led IPT management process was responsible for these significant events.

IPT Environment. We clarified what member organizations could expect from IPT participation:

- Issue nomination and resolution process expedited.
- Program office-led and funded.
- Members nominate issues anytime to the program office.
- Program office respects busy team member schedules.
- Action items focused and controlled.
- Draft agendas and schedules discussed and distributed before meet-

Figure 2. Group A IPT Organization Chart



ings; meeting minutes provided soon after.
- Including travel, should require five working days monthly.
- Initially monthly meetings, later bimonthly as necessary; location rotated among member organizations.

Additionally, upon request we said we would document performance.

Step 2 — U.S. Program Office Integration IPT

In November/December 1995, after assessing the success of our first IPT, we decided to establish an IPT to integrate the program functional elements. While the Group A IPT concentrates on controlling aircraft integration schedule, quality, and cost risk, the U.S. DIRCM Program Office IPT manages the U.S. DIRCM acquisition phases by controlling program cost, schedule, system performance, quality, risk, and sustainment factors.

The U.S. DIRCM Program Office IPT (Program IPT) comprises one representative from each of the functional elements plus an advisor from selected external stakeholder organizations. As an international cooperative program, we include the UK in our Program IPT. Like the Group A IPT, the one-member limit is designed to keep the team size small and to ensure maximum focus on issues resolution while maintaining cost-conscious management. Not including advisors, the Program IPT has 11 members (Figure 3) with a primary purpose to eliminate functional fiefdoms.

Initial Results:

- To date, we have held two Group A and two Program IPTs.
- The creation of the Group A IPT caused us to write a comprehensive Aircraft Integration Plan that addresses the organizations, responsibilities, activities, and schedules required to integrate the Group B equipment onto USSOCOM aircraft. Additionally, we have documented no less than 35 issues, with many resolved or in a working status.
- Equally important, the Group A IPT brings our many program stakeholders to a table with no agenda other than to help each other build plans and executable strategies, and to identify and resolve issues as they arise.
- During the Program IPT just implemented, we effectively conducted detailed reviews of 30 issues raised by the program functional heads. Additionally, we kept our critical external organizations apprised of detailed program status on a periodic basis. Their enhanced effectiveness continues to pay dividends both now and in the future. By empowering both the IPT members and the advisors, the Program IPT consistently proves that it is indeed possible (and smart!!) to do more with less.

What's Important?

Finally, in our opinion, operating principles, derived from values, hold teams together; values are the IPT's foundation. We have learned these values from our IPTs:

- *People are the center of the IPT – recognize their professionalism and empower them to do their jobs*
- *Focused work ethic – strive for solutions that minimize the risk of system failure.*
- *Collaboration – foster candor and trust through teamwork.*
- *Research – encourage team members to explore all alternatives to systemic solutions.*
- *Covenants – speak with one voice on settled issues; keep promises.*
- *Technical Interchange – develop cross-functional communication to achieve systems solutions; not functional "stovepipes."*
- *Empowerment – member organizations must delegate decision authority.*
- *Continuity – team members are committed for duration.*

REFERENCE

Barkley, Bruce T. and James H. Saylor, "Customerizing Project Management," *Project Management Journal* (September 1995).

Figure 3. U.S. Program Office IPT