THE JOINT ADVANCED STRIKE TECHNOLOGY (JAST) PROGRAM

Streamlined Acquisition and Paperless Proposal Evaluation Process

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This article describes the Joint Advanced Strike Technology (JAST) Program use of streamlined acquisition and a paperless proposal evaluation process to execute its first competitive procurement. It demonstrates streamlined acquisition and paperless procurement in action and shows that innovative methods can be applied successfully to make acquisition more efficient, to the mutual benefit of government and industry.

On 19 January 1994, the JAST Program brought together a joint-Service integrated product team (IPT) to prepare documentation for an open, competitive solicitation. On 6 May 1994, a scant 15 weeks later, the JAST Program competitively awarded 12 concept exploration study contracts from among the 154 proposals received. Before beginning the discussion of how this was accomplished, let me introduce the JAST Program and explain some of its objectives.

The Program and Its Objectives

The JAST Program was spawned by the Bottom Up Review (BUR). Somewhat like the Phoenix, JAST rose from the ashes of the AFX and MRF Programs and the decision to discontinue F-16 production. When the BUR canceled these programs, it created the JAST Program to deal with the capabilities shortfall the Services would experience when existing strike aircraft aged out of inventory. The vision of the JAST Program is a joint-Services team creating the building blocks for affordable, successful development of next-generation strike weapon systems.

The JAST is a new way of doing business. For the first time it brings together operators, technologists and developers on a single joint-Service team with a shared purpose. The team mission is to identify, mature and demonstrate technologies and concepts which meet warfighter needs, while reducing the cost of future joint strike warfare weapon systems.

As the name suggests, JAST is staffed by a joint-Service team consisting of Navy, Air Force and Marine Corps military and civilian personnel. There is no Executive Service responsible for managing the JAST Program, and JAST does not report to the Department of Defense (DoD). The program stands on its own with support from the three Services. The Program Director, Maj Gen (Sel) George K. Muellner, USAF, reports to the Navy Acquisition Executive. When the General's Deputy, RADM Craig Steidle, USN, takes over in two or three years, he will report to the Air Force Acquisition Executive.

The JAST Program is not one of technology development nor acquisition. It is the link, often missing, between science and technology programs and engineering and manufacturing development (E&MD). In carrying out its mission, JAST works with the research community and helps them focus investments. But JAST does not invest in, or manage, research. Likewise, JAST will not be responsible for E&MD.

Working with the Services, JAST will help their operational requirements staffs develop and validate operational requirements and will pass mature technologies and proven concepts to the Services for development.

Because many Navy, Air Force and Marine Corps tactical aircraft will reach the end of their service lives early in the 21st century, a high priority of the JAST Program is to mature technologies and demonstrate advanced tactical aircraft concepts for

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transition into development in time to achieve initial operational capability circa 2010. This means the transition to development must occur around the year 2000.

Lastly, as the model for this new way of doing business, JAST was tasked by Dr. John M. Deutch, then Under Secretary of Defense (Acquisition and Technology) to help lead the way in implementing paperless processes and using streamlined acquisition methods.

Streamlining Actions

Streamlining of this contract activity was more than just an experiment for JAST, it was essential. With a need to transition demonstrated tactical aircraft concepts and mature technologies into development circa 2000, the JAST Program could not afford delays in establishing contracts with industry.

Three streamlining actions were taken: use of a broad agency announcement (BAA) for the solicitation, paperless proposal evaluation, and use of a Short Form Research Contract. Each of these actions will be described, but since two of these, the BAA and the Short Form Research Contract, cannot be used to contract for development and production of hardware and software, emphasis will be on the paperless proposal evaluation process. This can be applied to improve the efficiency of all procurements.

— *Broad Agency Announcement.* The JAST Program elected to use a BAA for this procurement because it provided an almost perfect match with two important program objectives — use of streamlined acquisition and the desire to obtain a range of innovative ideas.

The purpose of the BAA was early initiation of industry studies focused on identifying innovative concepts and technologies which could contribute to reduced cost for joint strike warfare. The BAA was drafted by an IPT consisting of personnel from the JAST Program, Naval Air Systems Command (NAVAIR), Wright Laboratories, and the Aeronautical Systems Center.

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Use of BAAs is permitted under provisions of the Federal Acquisition Regulation (FAR) 35.001. Many requirements of a traditional Request For Proposal (RFP) are not relevant to a BAA. The BAA process is exceptionally straightforward. The solicitation, in its entirety (RFP equivalent), was published in *Commerce Business Daily* (*CBD*).

Offerors submit proposals based on the *CBD*, and contracts are awarded solely on the merit of each individual proposal based on "peer" evaluation. Discussions with offerors are permitted to clarify and refine proposals to better meet the needs of the government. Multiple contracts, or no contracts, may be awarded.

The BAAs are permitted when the intent of the procurement is: scientific study to advance the state-of-the-art, to increase knowledge/understanding when reasonable proposals are anticipated, when a conventional Statement of Work would stifle ideas and concepts, and/or when a "normal" (RFP) solicitation would unintentionally omit a viable source.

The BAAs may be used to solicit proposals for basic or applied research, to identify improvements in technology, materials, processes, methods, devices; or to attempt to advance the state-of-the-art.

A BAA should state needs in the most basic form, cannot restrict any approach, and should not segment or scope the work. The BAAs cannot be related to development of a specific system or hardware solution. Consequently BAAs are seldom used by development agencies. Program Research and Development Agreements (PRDAs), which are similar, are used frequently by Air Force laboratories, for purposes analogous to this BAA.

The first meeting to begin drafting the BAA was held on 19 January 1994. The BAA was published in the *CBD* on 17 February 1994, and 154 proposals were received by 15 April 1994. Compare this to the time normally required to draft and release an RFP and receive proposals, and one of the many benefits of using a BAA to streamline acquisition becomes apparent. Use of a BAA or PRDA should be considered whenever the above criteria pertain.

— *Short Form Research Contract.* Before proceeding to the main thrust of this article, paperless proposal evaluation, addressing the Short Form

Research Contracts used for the 12 contracts awarded is appropriate.

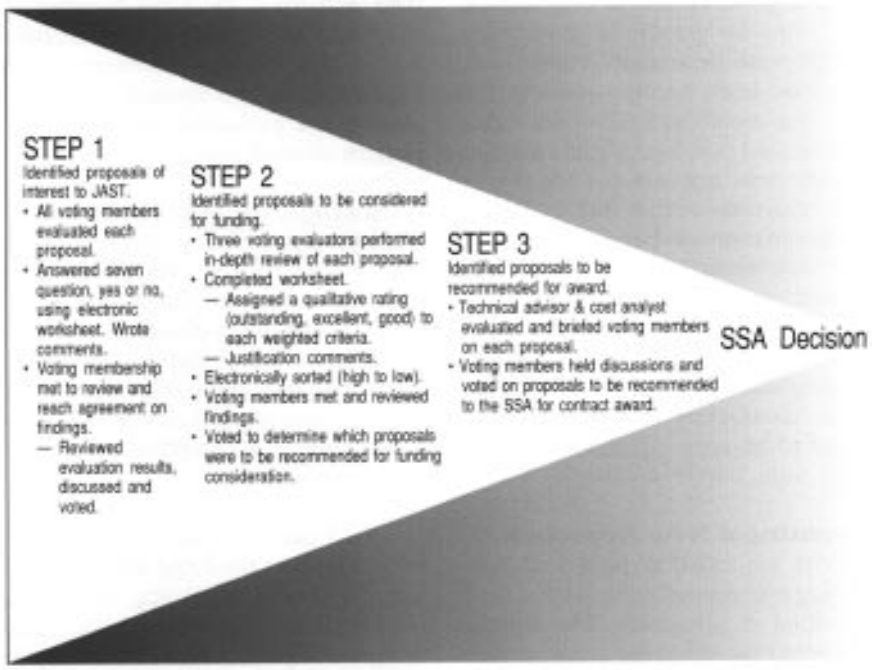
Short Form Research Contracts are greatly abbreviated contracts permitted under DFARS 235.015-71 (c) (2) (i), if the principal purpose of an acquisition is research from an educational institution or a nonprofit organization. As contracting agency supporting JAST in execution of this procurement, on behalf of JAST, the Naval Air Systems Command requested a Class Deviation to the Defense Acquisition Regulations to permit use of the Short Form Research Contracts. The deviation was endorsed by the Office of the Assistant Secretary of the Navy (Research, Development and Acquisition) and approved by the DoD, Defense Acquisition Regulation (DAR) Council.

Use of Short Form Research Contracts reduced the length of each contract awarded from approximately 100 pages, to about 12 pages. Actual length of each contract varied, because of the length of the Statement of Work.

Several benefits were derived from use of the Short Form Research Contract. Because the length of the contract was reduced substantially, fast completion of the contract negotiation and award process was possible. Less than a week was required to award 12 contracts. The Short Form Research Contracts are clear, concise and easier to understand; thus, manpower assets required for administration, management and execution of the contracts is reduced, to the mutual benefit of government and industry.

The Short Form Research Contract is not a panacea for all contracting requirements. Clearly, a research, development, test and evaluation contract requiring fabrication and test of hardware, or a hardware production contract, will require more substance. However, it does illustrate that substantial reductions in contract magnitude are achievable.

FIGURE 1. The Step Evaluation Process



— *Paperless Proposal Evaluation.* In a 24 January 1994 meeting, Maj Gen (Sel) Muellner decided to use paperless processes to execute the JAST Program BAA. Specifically, proposals were to be submitted electronically, the source selection accomplished without the use of paper, and all contract deliverables (studies) provided electronically.

To demonstrate his committment, Maj Gen (Sel) Muellner told the chief executive officers of 50 of the largest defense companies in the nation, at a briefing, that JAST would use these paperless processes. Also attending the briefing in which the General made this announcement was Dr. Deutch (USD(A&T), now Deputy Secretary of Defense), Mr. R. Noel Longuemare (now acting USD(A&T)), and Ms. Nora Slatkin (Navy Acquisition Executive). Maj Gen (Sel) Muellner reaffirmed this commitment before 207 industry representatives at the JAST Industry Day presentation held 25 February at DSMC. There was no backing down; credibility of the JAST Program was at stake. Few, believed that JAST could execute this paperless process to the General's incredibly challenging schedule — two weeks for proposal evaluation and one week for contract award.

How did the JAST Program meet this challenge? At the time of the decision to go paperless, there was no plan, no hardware and no software to do the job.

Following the decision to execute the BAA paperless, a broad search was initiated to identify experienced personnel, processes and tools to support achieving this objective. All leads were pursued. Discussions were held with personnel from the office of the Assistant Deputy Secretary of Defense (Acquisition Processes and Policies), responsible for DoD participation in the Electronic Commerce Initiative (ECI), the Defense Information Systems Agency, Navy procurement activities, Air Force procurement activities, the Defense Logistics Agency, and the Defense Systems Management College.

As a result of this search, it was determined that throughout DoD and

the U.S. Government there exists little useful experience and a lack of available tools for paperless contracting and proposal evaluation. While some work had been accomplished in this area, the tools used were not documented, and developers/users felt their software was not suitable for use by other programs, either due to lack of documentation or because the software was immature or had not been tailored to specific efforts.

The ECI is working toward implementing standards and tools for electronic contracting, but they are reported to be approximately two years away from implementation.

Inventing a New Approach

With no existing paperless contracting and proposal evaluation tools identified as available, the conclusion was that inventing a new system to meet the JAST requirements was necessary. The approach selected was designed for ease of use, high reliability, and the capability to accommodate and track the large number of proposals anticipated. The short time frame available for developing and implementing the system and conducting the evaluation were also important considerations.

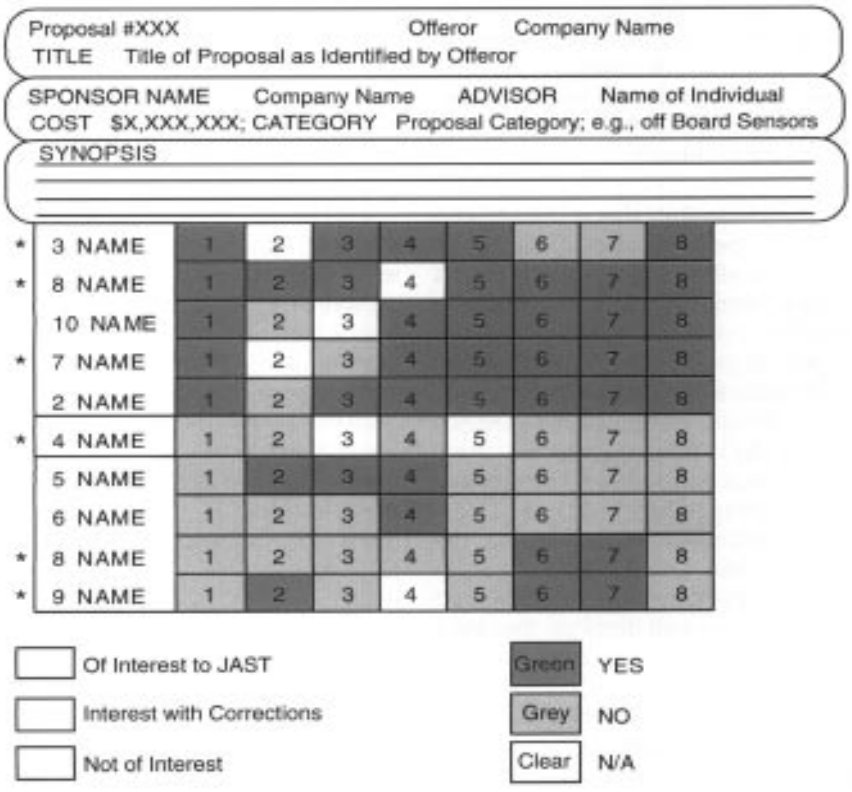
Holding to the tenet that this initial attempt at paperless proposal evaluation should be kept simple, we only required contractor proposals on diskette. While direct electronic submission would be preferred, the judgment was that there were too many uncertainties and risks associated with attempting to accomplish this in the time available.

Direct electronic submission would have required resolving several challenging issues, including protecting classified and proprietary data, data integrity, legality of electronic signatures and data transmission standards. To avoid these issues, the procuring contracting officer concluded that a single original "paper" copy of each proposal would be required. This also provided a fallback in the event a proposal was not readable electronically.

A local area network (LAN), consisting of 12 personal computer workstations, was established to support the evaluation. All workstations were equipped with 21-inch monitors and appropriate operating and application software. Two workstations were positioned in a conference room to be used for group meetings and voting.

Either of these conference-room workstations could be selected to drive six additional monitors which operated as repeaters. These monitors allowed the voting evaluators to view proposals and review the results of each phase of the evaluation together. Computer video projection equipment was considered but rejected, because it could not be procured in the time available.

FIGURE 2. Evaluation Step One Summary Screen



The electronic evaluation tools used were developed employing a powerful relational database application. Tools included worksheets, display screens, a summary screen, and an infinite variety of useful reports. The system provided significant benefits which contributed to an incredibly thorough and highly efficient evaluation.

Using the capabilities provided by this system, the head of the evaluation team (RADM Steidle) was able to assess instantly the progress of every evaluator. After every voting session, results were immediately available. Technical advisors and cost analysts did not have to prepare briefing charts. All of the information needed was available on the existing screens.

Likewise, the evaluation panel did not have to prepare materials to brief the Source Selection Authority (SSA) on their recommendations. The moment the SSA made decisions, the results were completely documented.

Use of passwords controlled access levels and provided data integrity. Tools available in the system facilitated preparation of post-evaluation letters to each offeror, and generated data needed to debrief offerors. The following discussion briefly describes the evaluation process and how the electronic tools were used. Additional information available from JAST is identified at the end of this article.

The three-step process used is depicted in Figure 1. The process was tailored to satisfy the unique characteristics of this solicitation, and efficiently neck down from the large number of proposals anticipated.

Using this and the electronic tools, each of the 10 voting evaluators read all 154 proposals, conducted an exceptionally comprehensive review, and quickly necked down to the 12 contracts awarded. The entire evaluation was accomplished in nine working days without a need for evaluators to work extended hours or weekends.

In accomplishing Step One, all evaluators read every proposal and recorded their evaluation by completing a user-friendly worksheet. Large monitors permitted simultaneous display of the worksheet and the proposal. Periodically, the evaluators gathered in the conference room, reviewed the results of their independent assessments, and voted.

The color-coded summary screen depicted in Figure 2. was used to support the voting. The screen identifies the offeror and includes other pertinent information. The screen also shows the individual color-coded response of each evaluator to questions, and their overall assessment. A simple tool, not depicted, permitted display of individual evaluator comments.

Step Two of the evaluation was conducted in a similar manner. However in this step, three evaluators representing the JAST Requirements Group (the war fighters), the Technology Maturation Group, and the Integration Group thoroughly reviewed each proposal forwarded from Step One and completed a qualitative assessment. To accomplish, this they reread each proposal brought forward and answered questions contained on the Step Two worksheet with a qualitative response (e.g., outstanding, excellent, good). They independently rated each proposal, but collaborated on a joint presentation of their assessment to the other members. A summary screen similar to Figure 2 was used to support the briefings. Following the presentation and associated discussion, the evaluation team members voted to determine which proposals should be brought forwarded to Step Three.

Step Three was used to identify proposals to be recommended for contract award. In this step, proposals forwarded were evaluated by technical advisors and cost analysts at the workstations. They recorded their assessment on a proposal summary screen. This screen was then used to present their findings and recommendations to the voting members. The voting members then met, held discussions supported by the proposal summary screen, and voted on the proposals to be recommended to the SSA for award. The same proposal summary screens were used to brief the SSA on the evaluation results and obtain his award decisions.

The most frequently asked question, and the most difficult to answer relative to this process, is: How much money did you save? A quantifiable response to this question is probably unattainable. There is no direct comparison between what was accomplished in execution of this procurement and any other known procurement. However, metrics exist which illustrate the savings. The cost of the computer hardware and software used to accomplish the evaluation is not considered an evaluation cost. The hardware and software will be used to support a variety of program activities, including future procurements.

Routhly estimated, the paperless process saved about 132,000 pieces of paper. Use of electronic vs. paper proposals saved about 75,000 pages. Electronic vs. paper worksheets saved another 2,000 pages. The Short Form Research Contracts saved about 5,000 pages, and the electronic deliverables from the contracts will save another 50,000 pages.

Conclusion

This article has stated throughout that the process used was thorough and exceptionally efficient in the use of resources. The following items illustrate the efficiencies achieved.

Using the three-step paperless process, 10 evaluators read all 154 proposals and identified those which were of interest to the JAST program. In Step Two the remaining proposals were each reread by three evaluators, who briefed the other evaluators, all of whom had already read the proposals.

In Step Three, proposals brought forward were reviewed thoroughly by technical advisors and cost analysts, and briefed to the voting members — the third review for each of these proposals. This was accomplished in nine working days without the need for extended hours. On the morning of the 10th day, the SSA was briefed and award decisions made.

Assessment of all ten highly experienced evaluators was that this process was the most thorough and efficient proposal evaluation in which they had ever participated. Thus, even if there were no fiscal savings, the efficiency and thoroughness of the process is adequate justification for using paperless evaluation processes.

The subjective assessment of the evaluators, and other close observers, was that a "paper evaluation"

FEDERAL ACQUISITION STREAMLINING ACT OF 1994 (S. 1587) PASSED PRESIDENT SIGNS INTO LAW

On 20 September, the House of Representatives, by a vote of 425 to 0, agreed to the conference report to accompany S.1587: To revise and streamline the acquisition laws of the federal government, and for other purposes. The Senate had adopted the conference report by voice vote on 23 August. The President signed the bill into law on 13 October.

The November/December 1994 issue of *Program Manager* will include an article by Mr. Joseph Drelicharz, Professor of Systems Acquisition Management, DSMC, outlining the provisions of the Act and its implications throughout the acquisition community.

equally thorough and of the same magnitude, would have required two months time. Using this metric, the savings amount to six-weeks time for 10 evaluators and four support personnel. The technical and cost advisors, 20 individuals, completed their work in two days. In a traditional evaluation, they probably would have required three weeks for the same effort.

Data management and documentation is another area where this process provided significant savings. Execution of a source selection is always a major exercise in data management. Data management is directly proportional to the number of proposals, evaluators and steps in the evaluation process. In this case, the data management task was monumental: 154 proposals, 10 voting evaluators, three steps and 20 technical and cost advisors. More than 2,000 worksheets were generated.

The database system used made this task incredibly efficient. One person administrated the entire evaluation and no additional personnel resources were required to perform the data management task. A paper evaluation of equal magnitude would have required about four full-time individuals, and would have had a high potential for errors. Using this system, all data was automatically and accurately compiled and available instantly.

Using the vast quantity of information available in the database, reports in any format desired and containing any of the information recorded could be produced easily and quickly. Further, the entire evaluation process was fully documented the moment the SSA made his award decisions. In a typical, nonelectronic evaluation, documentation of the source-selection process takes about two months to accomplish after the source selection is completed.

Time to accomplish the solicitation is another important consideration. This solicitation required less than four months from idea to contract award. A comparable procurement for tactical aircraft concept exploration and definition studies which was considered a model effort, took almost 11 months. Another comparison drawn from the NAVAIR Procurement Planning Guide shows a typical procurement execution timeline of 63 weeks to complete a similar procurement process.

This initial acquisition activity was a small first step, but it demonstrated clearly the benefits of electronic commerce to both government and industry.

The space available in this article is insufficient to fully describe the processes we used and to present the lessons learned. If you would like to learn more, the JAST Program has three products available free to U.S. Government organizations: (1) a video describing the streamlined and paperless processes used; (2) a paper containing lessons learned and which describes more fully the approach used to streamline the procurement and execute the paperless evaluation; and (3) a manual providing documentation of the database software developed for this paperless evaluation.

To request any of this information, call Dave Hersh in the JAST Program Office at (703) 602-7390, Ext. 6642, via Internet at hershds@ntrprs.jast.mil, or Fax (703) 416-8440.