The Air Force Acquisition Reform Newsletter

# AEROSPACE ACQUISITION 2000

November/December 1999
Volume 2, Number 3

## Achieving Cycle Time Reductions

*By General Lester L. Lyles, USAF, Vice Chief of Staff*

WASHINGTON, AUGUST 30, 1999. The Air Force of the 21st Century needs responsive and speedy development and fielding of our warfighters' systems. The quickly changing global fiscal environment demands no less.

The Lean Aerospace Initiative has identified the drivers for Air Force and DoD system development times. We are developing the necessary justification, tools, process, and infrastructure to make the lasting and meaningful changes required to shorten development times.

The Air Force action plan includes:

- Developing a business case for cycle time reduction to raise awareness on overall development system level and on a project-by-project basis. (See Cost of Delay Analysis);
- Applying evolutionary acquisition strategies and approaches;
- Providing effective incentives for government personnel and contractors to reduce development time where appropriate and advantageous; and
- Developing schedule-based information and tools to assist in the development of best value schedules and the evaluation of alternative proposed schedules.

To date, we have focused on the necessary infrastructure to support faster development times. We must also address the funding limitations that affect most of our development programs.

Achieving the objectives of reduced acquisition response times will require significant changes in our acquisition community, the planning and programming community, our requirements community, and our test and evaluation community. Achieving them will require significant cooperation and support from OSD, the Administration, and Congress.

*General Lester L. Lyles*

Reducing the time to develop and field new weapon systems will not be easy, but it is a challenge that we must embrace.

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# Leadership Corner

*Dr. Lawrence J. Delaney*

Reducing the time for the acquisition community to adapt to new technology, respond to a changing threat, or respond to a change in military strategy is a critical factor in accomplishing our mission of equipping our warfighters with the right equipment at the right time at an affordable cost. This is one of our major focus areas for our acquisition reform efforts. We can no longer accept development times of 10 to 15 years when the technology that is commercially available to both our friends and our enemies is advancing at a blinding speed.

The commercial world has also found that reducing development times is critical to meeting the desires of their customers and improving their development performance. It is similar to the focus in lean production on inventory. By reducing inventory levels, companies uncover the many systemic problems that are hidden by large inventories and allow them to be fixed. Commercial firms have also discovered that cutting development times is central to improving development processes. We believe that focusing on reducing our development times will have similar impacts on our processes.

This is not to say that we reduce development times for its own sake. Careful analysis must be performed on each project that identifies the value of time and places the appropriate amount of effort that maximizes value to the Air Force. AQ has been developing the tools and practices necessary to accomplish these goals, which are highlighted in this issue. I fully support this endeavor as a key focus of our acquisition reform efforts. Our priorities are reducing acquisition response time, lowering total ownership and infrastructure support costs, and, when appropriate, moving to price-based acquisition strategies. We appreciate your efforts to make our acquisition system the best of the services, and one of the best in the world. We must be able to live up to our motto of better, faster, and cheaper in every sense.

## *Letter from the Editor...*

Hello, Everyone. I'm Ron Thomas, the new Editor of *Aerospace Acquisition 2000*. I would like to thank my predecessor, Ms. Dorothy Maguire, for her outstanding efforts in creating the newsletter. My job as the new editor is to build upon the existing publication. You may notice that we have changed the format of the newsletter to give it a new look for a new millenium. For instance, we've changed to a two-color format, so the newsletter can be printed and distributed to a larger audience. We've added new boxes to make it easier to read. Web links have been included wherever possible, so you can find more detailed information about subjects that interest you. We've added a "Leadership Corner" so you can find out what top leaders are thinking, and we've standardized the placement of sections (such as "Success Stories") so you can flip to your favorites quickly. We want to provide you, the acquisition community, with a publication that meets your needs.

Please feel free to give us your feedback and ideas. If there are any reform topics you would like to see more of, let us know. If you have an acquisition reform success story or an idea for one, contact us via e-mail at *arnews@pentagon.af.mil*.

Again, we look forward to the new millennium, and may all your changes be good ones!

Ron Thomas
Editor

## Win a $50 Blockbuster Gift Certificate!

That's right! We're looking for a new name for the newsletter, and if you submit the winning entry, we'll give you a $50 Blockbuster video gift certificate! It's simple, just send us an e-mail with your suggestion, then watch for your entry in a future issue. Entries will be judged on originality, so use your imagination and be creative. Good luck!

Entries must be between one and five words and must incorporate Air Force and Acquisition Reform concepts. Submit your entry to: *arnews@pentagon.af.mil* by December 15, 1999 to be eligible for consideration. The winning title will be selected by the SAF/AQ office and will become the new name of the newsletter!

## Get Published

Are you an aspiring writer? Draft a newsletter article and send it to us at ***arnews@pentagon.af.mil.*** If it's appropriate, we'll work with the Air Force's Office of Public Affairs to get it printed in a nationally recognized publication.

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Please send comments, questions, articles, photos, and upcoming events to:

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**The SAF/AQ Vision**
"An innovative team of professionals leading the Air Force in partnership with industry and the other services to rapidly equip America's warfighters with effective and affordable combat systems."

**The SAF/AQ Mission**
"Provide the leadership, direction, policy, and resources to acquire superior systems, supplies, and services to accomplish the Air Force mission."

**Next Issue:** The January/February issue will highlight Earned Value Management. If you would like to contribute to the debate, send articles to ***arnews@pentagon.af.mil.***

# Reducing Acquisition Response Time

## Creating a fast and responsive acquisition system

*By Major Ross T. McNutt, PhD*

Acquisition response time is the time an acquisition system uses to take advantage of new technology or respond to a change in military strategy. It is a critical factor in the ability of the Air Force, and the military as a whole, to maintain the proper forces with the best equipment. The ability to rapidly respond to changes and opportunities is key to a long-term, sustainable military advantage at an affordable price. For many major defense systems, this time can easily exceed 20 years - hardly a rapid response capability.

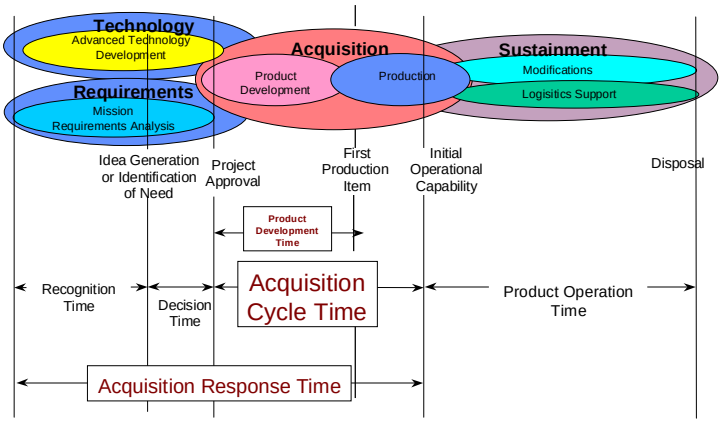



*Figure 1: Acquisition Response Time*

**Current Acquisition Response Times**

There are three components of acquisition response time: recognition time, decision/initiation time, and acquisition cycle time. Recognition time is the period from when the strategy changes, a threat emerges, or a technology is developed to when the need for a new system is recognized. Recognition time can increase total acquisition response time by two to five years. Decision/initiation time is the period from when the need for a new technology is recognized until the acquisition system is planned, funded, and approved. This process can take two to five years. Finally, acquisition cycle time is the period from when a project is started until it is

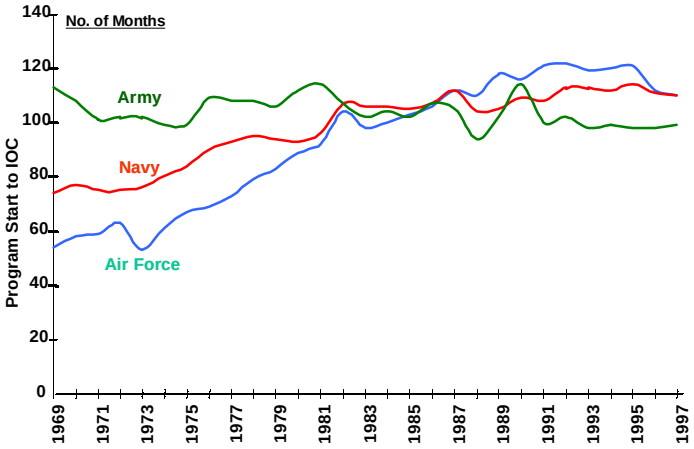



*Figure 2: Acquisition Cycle Times*

available for use by the warfighter. Unfortunately, little hard data is available that shows the full duration of acquisition response time. However, we do know that acquisition cycle time is increasing. In particular, the Air Force has increased the time it takes to develop and field new weapon systems to an average of more than 11 years. Actions are being taken for each of these periods to reduce acquisition response time.

**Impact of Long Acquisition Cycle Times**

According to the Packard Commission, the long acquisition cycle problem "leads to dated technology in our fielded systems, excessive high cost, and the very gold-plated requirements that are one of its causes." The impact of long acquisition cycle times is that systems are not available when they are needed. GPS receivers for troops, tanks, and aircraft, and JTID terminals and LANTIRN Pods for fighter aircraft had been in development for a considerable time prior to Desert Storm, but were not widely available for use when the conflict began.

A long acquisition cycle also results in obsolete technology in fielded systems. For instance, many of our new weapon systems

*(Continued on page 4)*

### Recognition Time

Efforts to reduce recognition time include Battle Labs, joint experiments such as JEFX, spiral development, and S&T-related efforts, and undertakings by defense contractors. Many of these reduction efforts have difficulty transitioning to acquisition programs and fielded systems. For more information, please see *http://www.safaq.hq.af.mil/acq_ref/cycletime/recognition/*.

### Decision/Initiation Time

Efforts to reduce decision/initiation time include the SAF/AQ-led CORONA task to rapidly develop and field operational initiatives, and the HAF 2002 effort to reinvent the requirements process. Additional information can be found by visiting *http://www.safaq.hq.af.mil/acq_ref/cycletime/decision/*.

### Acquisition Cycle Time

Efforts to reduce acquisition cycle time include cost of delay analysis, evolutionary acquisition, correcting schedule-based incentives, developing schedule-based information and tools, and preparing to address funding-based limitations. More information is available at *http://www.safaq.hq.af.mil/acq_ref/cycletime/*.

# Reducing Acquisition Response Time

(Continued from page 3)

have computer processors that are very slow by today's standards and are expensive and difficult to maintain, even though developers used the most advanced computer processors available when the projects began.

Finally, long development times also significantly increase development and sustainment costs. The longer a project is in development, the more likely it is to experience funding instability and leadership changes. It also takes longer and costs more to replace the systems that are produced, due to diminishing manufacturing of parts earlier in the project life - in some cases seven years prior to the beginning of production.

**The Commercial Example**

Many commercial firms have recognized the advantage of responding to customer needs faster than their competitors. Reducing development times has resulted in higher quality products at lower cost that better match the customer's needs. It has also resulted in an explosion in the number of products available.

Many industries closely associated with the defense industry have achieved dramatic reductions in their development times. For instance, automobiles have gone from an average of 84 months in the late 1980s to 24 months or less today. Previously, commercial aircraft took eight years to develop; now, aircraft such as the Boeing 777 are completed in less than five years. Commercial satellites that once took eight years to develop are currently completed in much shorter timeframes, with companies like Hughes going from contract award to orbit operations in 24 months.

Shorter development times allow companies to use newer technologies, incorporate more current marketing information, and respond to a competitor's product faster, resulting in higher profits and increased market share. According to Kim Clark, Dean of the Harvard Business School and an author on product development practices, a rapid product development capability is crucial to a company's long-term sustainable competitive advantage.

**The Drivers of Long Military Acquisition Cycle Times**

A recent MIT Lean Aerospace Initiative completed research on 320 defense projects and highlighted what drives long acquisition response times. Although recognition and decision times can be excessive, the research identified acquisition cycle time - particularly product development time - as the longest period in determining acquisition response time. Despite the fact that 80% of the users indicated that the projects were desired ASAP, and 70% of the projects were needed to meet current operational deficiencies, the research showed that a short project schedule is often rated lowest in priority by project managers.

However, contractors report that the government's expected schedule is, by far, the dominant factor in determining their proposed schedules; 66% of contractors surveyed consider it the "sole determinate." In a vast majority of project proposals, the contractors' proposed schedules match exactly the government-expected schedule. Contractors state that to do otherwise is not a "winning strategy."

Project managers and program element monitors estimate that if funding and scheduling were priorities, the average project could be completed in 50% to 65% of the scheduled time. The research showed that these factors were consistent across all programs, regardless of size, level of technological advance, or system type.

**What the Air Force is Doing to Reduce Acquisition Response Time**

Action is being taken to reduce recognition time, decision/initiation time, and acquisition cycle time. Recognition time is being shortened using experimentation, battlelabs, ACTDs, and S&T efforts. SAF/AQ is reducing decision/initiation time in response to a CORONA-level effort to quickly select and fund successful results of battlelabs and experimentation. To address the longest period in the acquisition response time, the Air Force has developed an action plan to reduce acquisition cycle time.

The Air Force Cycle Time Reduction Action Plan has three phases: building awareness, building the necessary infrastructure, and addressing the systemic constraints. The Plan has been approved by Gen Lyles, and is the basis for a wide range of actions.

**Phase I: Building Awareness Cycle**

Phase I focused on constructing the case for reducing cycle times, correcting the requirements process to account for time, building an understanding of the processes involved, and establishing general goals for various systems. To a significant extent, Phase I is complete. The Air Force built a business case that highlights the impacts of long acquisition cycles on the warfighter, the acquisition community, and the budget and sustainment communities. The business case has been instrumental in changing the attitude about acquisition cycle time and raising it as a significant issue within the Air Force and OSD. To determine the impact on

(Continued on page 5)

## Business Case for Cycle Time Reduction

AF/OSD has adopted business cases highlighting the impacts on the warfighter, budget, and acquisition & sustainment communities. Also, SAF/AQ has adopted cost of delay analysis on a project-by-project basis. For more information, see *http://www.safaq.af.mil/acq_ref/cycletime/impacts/.*

## Requirements Changes

Outlining the time-based nature of requirements are required under CJCSI 3170.01. In July 1998, AFI 10-601 was updated to support evolutionary acquisition. Today, a HAF 2000 effort is determining how to streamline the requirements processes. For more information, see *http://ww.safaq.af.mil/acq_ref/cycletime/action/requirements/.*

## Business Process Modeling

If the current processes are followed, there are 24 separate reviews required within the Air Force to complete a MNS, ORD, acquisition milestone review, and budget process, which are required to start a project. For more information, see *http://www.safaq.af.mil/acq_ref/cycletime/action/model/.*

# Creating a Fast and Responsive Acquisition System

*(Continued from page 4)*

a project-by-project basis, SAF/AQ adopted Cost of Delay Analysis (CoDA) from the commercial industry to show the impact of time on the value received, and compares it to the impact of development cost, production cost, and system performance to establish an analytical basis and a measure of the importance of reducing time.

During Phase I, the Air Force led the effort to change the requirements process to account for the impact of time. Time-based requirements and time-phased requirements are now an integral part of CJCSI 3170, the regulation governing the requirements generation process. Time-based and time-phased requirements will be implemented in all future requirements documents.

Analysis of the acquisition process showed that if the official process is followed, there are 24 separate reviews associated with the mission needs statement, operational requirements, budget, and acquisition plans required to initiate a major project within the Air Force.

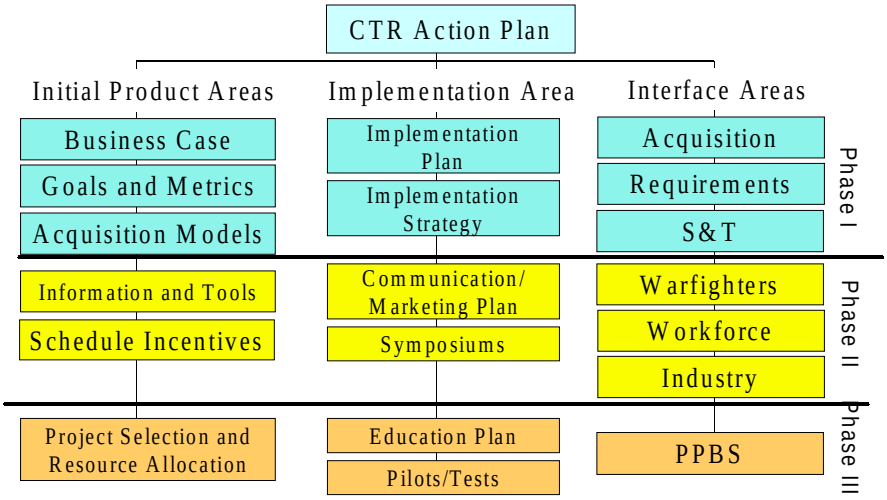
Through this process, the Air Force identified the necessity for evolutionary acquisition strategies, and the ability to incrementally deliver capability and modify systems to meet current needs. This led to the creation of a guide, now in final draft, to assist project managers and MAJCOMs in the application of evolutionary acquisition strategies for weapon systems acquisition.

**Phase II: Infrastructure**

Phase II efforts are currently being carried out across the Air Force. This phase builds the necessary infrastructure within the acquisition community to properly support and execute shorter development times.

Currently, there are two acquisition reform reinvention teams underway. One team, lead by SMC, is determining how to provide effective schedule-based incentives for contractors and government personnel to shorten development time where appropriate. The other team, lead by ASC, is determining what schedule development and evaluation tools, if any, are required to develop and evaluate project schedules and their risks to obtain the best value.

Phase II also looks at increasing awareness of the impacts of long cycle times and the efforts underway in order to build support for the difficult steps required for Phase III.




**Phase III: Systemic Constraints**

Phase III requires addressing funding-based limitations. Today, 80% of projects report that their project schedules are limited by available funding, not by engineering or technical requirements. Commercial firms have addressed this issue through several methods – the most central is to require that all development projects be fully funded based on their development-related requirements. In order to do this, a company must limit the number of projects in the development pipeline to the number it can effectively support and execute in an efficient manner. This is done through a development funnel with phases and gates that allow only the highest payoff projects through, which limits the number of projects in each phase of development.

**Summary**

A focus on acquisition response time is critical to our effort to develop a faster, more responsive acquisition system. Achieving the capability to rapidly develop and field high quality systems will not be easy and will require significantly more than just acquisition community involvement. We have started down the right path, but have a long way to go. However, it is a journey that we must take.

## Evolutionary Acquisition Reinvention Team

This Team, led by ASC's Tom Graves, has developed a guide to assist project mangers and others in the development and execution of evolutionary acquisition strategies. The guide has already received significant praise. It's available at *http://www.safaq.af.mil/acq_ref/cycletime/action/*.

## Schedule Incentives Reinvention Team

The Team, lead by SMC's Bill Floyd, is evaluating and correcting the schedule-based incentives for both contractors and government personnel during the pre- and post-contract award phases of a program. For more information, visit *http://www.safaq.af.mil/acq_ref/cycletime/action/incentives/*.

## Schedule Development and Evaluation Tools Reinvention Team

This Team, led by ASC's Michael Welch, is evaluating the methods used to develop project schedules, and finding out which tools can help get the best-value schedule. More information can be found at *http://www.safaq.af.mil/acq_ref/cycletime/action/tools/*.

# Reserve Officers Demonstrate Application of Cost of Delay Analysis

"The most important way technology could enhance our military capability would be to cut the acquisition cycle in half." These words, spoken by the Chairman of the Joint Chiefs of Staff of the Packard Commission in 1986, lay the foundation for Cost of Delay Analysis (CoDA). CoDA leads to shorter acquisition times by providing trade-off information for decision makers, schedule-based incentives for contractors and government personnel, and a framework for effective resource allocation. By finding the equivalent of time to value, CoDA can help maximize value for the Air Force.

CoDA was first developed by Don Reinertson in 1983. Since that time, it has been used extensively in the commercial world, where value is based on profit. It was found that the value of time is not intuitive; estimates by staff on the same project typically vary by factors of 50 to 80. These inconsistencies lead to poor project decisions. Therefore, analyses must be conducted to establish an accurate and consistent value of time.

Unlike in the commercial world, profit is not an accurate portrayal of value for the Air Force. Instead, a project's value

is measured as its total benefits minus its total costs. This can be challenging, because once a project's benefits have been identified, they must be translated into an approximate dollar value. Performing CoDA involves determining how certain aspects of the project, such as development time, production cost, system performance and development cost, affect the overall value of the program, so that tactical decision rules can be established.

To test the application of CoDA, a group of Air Force reserve officers applied the method to 12 projects involving aircraft, weapon systems, command and control, and communications between December 1998 and February 1999. Selected projects included the KC-135 Re-engineering Project, National Airspace System Modernization Project, APG-63V-1 Radar Upgrade Program, Theatre Battle Management Computer System, Defense Satellite Communications System, T-3 "Firefly," and CH-60S Helicopter Program.

Once the information was gathered, the analysis took only an average of 4 to 6 hours to complete. Most participants expressed that CoDA is extremely useful and should be implemented into Air Force Programs. Jeff Pitt, a reserve officer participant, said, "From what I learned, I think it's a great tool. It gives Program Managers a better understanding of where to spend money, especially if they need to make budget cuts." Jeff Tylec, another participant, commented, "CoDA at the headquarter level will provide a tool by which all programs can be measured in an 'apples to apples' comparison, simply by getting the same baseline information from those programs." Christina Duffy, PEM for the National Airspace System Modernization program, believes CoDA to be an extremely beneficial tool that "helps to evaluate different options for budget cuts in a quantifiable, unemotional way."

The method also allows one to successfully defend program budget cuts by showing how much value in dollars would be lost. Harold Collins, a computer operations officer participant, thinks CoDA would be very useful in the IT industry, where it is necessary to stay abreast of new technologies to keep systems from becoming obsolete. He said, "If we don't reduce acquisition time in the military, we won't be able to keep up with the civilian sector. CoDA is simple and innovative. It is what we need to be doing."

Several conclusions were drawn as a result of the CoDA study. First, it showed that in many cases the Air Force underestimates the value of time. It also demonstrated that CoDA could be used to accurately measure the value of time across a wide array of programs. The method was easily understood and learned quickly with minimal training. The most challenging aspect of CoDA was locating the information needed to conduct the analysis and quantifying program benefits.

*CoDA "helps to evaluate different options for budget cuts in a quantifiable, unemotional way." — Christina Duffy*

CoDA will soon be applied to many Air Force programs. A training package, briefings, and exercises have been developed, and the Acquisition Support Teams have received instruction on teaching the CoDA method. Classes were offered at the PEO/SYSCOM conference, ESC, ASC, Center Acquisition Support Teams, DSMC, JSF, NAVAIR, and during Acquisition & Logistics Reform Week.

Air Force efforts have captured the attention of acquisition leadership. In July, Dr. Jacques Gansler, Under Secretary of Defense (Acquisition Logistics & Technology), announced that CoDA will be used in all new major projects for analysis of alternatives. CoDA training is available to anyone interested; contact your Acquisition Support Team for more information. According to Frank Hutchison, "The difficulty will be getting people to become aware of it, trust it, and break their old habits. The method will spread once people realize what a great tool it is."

To learn more about CoDA, visit the Air Force Cycle Time Reduction Home Page at *http://www.safaq.hq.mil/acq_ref/cycletime.html*.

# Success Stories

## Award Program Drives Cycle Time Initiative

*By Lieutenant General Robert F. Raggio, Commander*
*Aeronautical Systems Center*

In the last ten years, the Aeronautical Systems Center (ASC) has seen its workforce reduced by 40% without a corresponding reduction in workload. As a result, people are working harder than ever before, yet their in-baskets are still full. In April 1999, we launched a Cycle Time Reduction (CTR) Award Program to encourage innovation and increase the efficiency of our mission.

Our goal is a 50% reduction in time, resources, and costs expended to accomplish mission-related processes. Many of our processes solved a problem back in 1990, but may have lost their value for 1999. We want to stand these processes in the harsh light of day and ask, "Why do we do it this way?" Those that don't pass the test will be modified or eliminated.

Like ASC, the CTR Award Program is organized around the Air Force Material Command's Business Area concept. Each of our five Business Areas (Product Support, Installations and Support, Information Management, Medical, and Center) solicits teams to identify processes they believe can be improved. Depending on the process under investigation, teams can be multi-functional, include members from diverse organizations and contractors, and attack processes that cut across conventional organizational boundaries.

Once the team captures a baseline of the current cycle time, new ideas are implemented into the process. New cycle times are recorded and compared to the baseline. Results of successful ideas are submitted to the appropriate Business Area's Board of Directors, which selects the winners.

We've made a substantial commitment to the success of this program. As an incentive, we've set aside $90,000 for awards to team members. Our center-wide program began last January with training and information sessions. So far, the results have been better than expected. As of October 1st, 44 teams have been established from all five Business Areas. Any team that begins the process in this award period, but cannot complete its implementation by the end of the initial award period on 1 April 2000, is eligible to compete in the 2000-2001 period.

Information on the CTR Award Program is available on our web site, *http://www.asc.wpafb.af.mil/asc/ctr*, or through our CTR Implementation Team headed by Mr. Brian Townsend, *brian.townsend2 @wpafb.af.mil*, and Major Mark Seifert, *mark.seifert@wpafb.af.mil*.

At ASC, our people are our most important asset. If we can reduce time wasted on antiquated processes, we can help eliminate in-box overflow and refocus our energy on our vision — to remain the "Birthplace, Home and Future of Aerospace."

## Inside the Spiral

*By Lieutenant General Leslie F. Kenne, Commander*
*Electronic Systems Center*

While new technologies have provided our nation's armed forces with improved capabilities, the rapid pace of technological development has also presented a major challenge - how to get systems into the hands of warfighters before they become obsolete. One way in which the Air Force is doing just that is through spiral development, a method used exensively in the commercial world, to quickly field systems while working closely with the users to ensure their needs are met.

With the spiral development method, an initial prototype is rapidly designed to meet as many of the user's needs as possible using commercial and government off-the-shelf equipment. The initial development cycle is represented as the first spiral in the model. Each subsequent spiral allows for capabilities to be added and tested to ensure the systems meet all of the user requirements. The key to this method is continuous user validation and incremental improvement as the product moves through successive spirals culminating in a deployable capability. When strung together, spirals facilitate more precise and rapid maturation of new technologies. Unlike conventional acquisition strategies, the requirements evolve as development progresses.

At Electronic Systems Center (ESC), the Expeditionary Forces Experiments (EFX 98 and EFX 99) have demonstrated that spiral development works and that early delivery of supportable operational capabilities can be accomplished. An Air Force Battle Lab is then used to enhance performance and provide additional testing of operational concepts.

Currently, Global Air Traffic Management (GATM), Information Operations Planning System (IOPS), and Expeditionary Force Experiments (EFX) use a spiral development process. Integrating Command and Control System (IC2S) will also use this method. A common objective for all of the programs is delivering affordable, timely and supportable operational capabilities to users in 18 months or less.

The decision to use spiral development should be made on a case-by-case basis. It is particularly suited for use on Command and Control (C2) programs where adaptation of commercial technologies and practices are accepted and encouraged.

Spiral Development can be duplicated elsewhere in the Air Force. The proposed AFI 63-123, "Evolutionary Acquisition for C2 Systems," directs the use of an evolutionary acquisition strategy using a spiral development process to acquire all C2 systems, unless the user and the Milestone Decision Authority jointly agree that it is not applicable.

# B-1B Teams for Success

The B-1B Teaming on Proposals (TOPS) process is a Cycle Time Reduction process that uses a structured approach to proposal preparation and review. It is based on a teaming relationship between the government customer and the contractor. The goal is to reduce acquisition lead-time, facilitate the team's agreement on cost and price, terms and conditions, and other contract requirements, and to jointly develop a mutually agreed upon contract document. The result is to decrease costs by reducing cycle time and eliminating rework.

As part of the acquisition reform effort, the B-1 Team has been using the TOPS process for over three years. With continuous process improvement, TOPS has evolved to include a newly developed TOPS guidebook, which has been recognized as a "Best Practice" by AFMC/PK and is available on their web site. The guidebook provides an eleven-step process with a shopping list of items, which should be considered by the team in developing a TOPS schedule. What sets the B-1 TOPS process apart from other integrating pricing processes is the Lessons Learned application which assures continuous improvement and Cycle Time Reduction.

The first B-1 efforts to use TOPS were the Block E Computer Upgrade and WCMD Integration Program. That by itself was an acquisition reform success story. The success continues, because on major programs the B1-B SPO has reduced acquisition time by 28% from Requirements Identification to Contract Award. This has paid off by reducing by 45% proposal receipt to contract award and negotiations to contract award. This is truly a win-win acquisition reform effort for the user, the B-1 SPO, and the contractor.

The bottom line? The B-1B SPO's TOPS process shortens acquisition times, leads to faster and better proposals, better agreements, better contractual documents, and cost savings.