

Electronic Systems Center charting 'smart' course with Blue Teams

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HANSCOM AIR FORCE BASE, Mass. (AFMNCNS) - An ounce of prevention equals a pound of cure, according to the old adage, and the Electronic Systems Center has taken that message to heart.

The Air Force has vowed to improve its acquisition timeliness and cost through an initiative known as "Going Green" - green symbolizing a program that is in good shape using the stoplight model. The goal is to have nine out of every 10 Air Force programs in that category by 2010.

One way to ensure this happens, ESC leaders say, is to prevent programs from ever being anything but green.

"It costs incredibly less to identify and resolve problems early, rather than later in the program life cycle," said Rich Byrne of the MITRE Corp., who serves as the technical director within ESC's Engineering Directorate. "A recent NASA study showed software repair costs can increase over 300 times when discovered at the end versus the beginning of a program."

One way to do this is by forming so-called Blue Teams that enhance the risk-reduction efforts for an acquisition program. Many people are familiar with the concept of Red Teams, which swoop in when a program has veered off-track and work to right it.

In contrast, Blue Teams work tirelessly to avoid the problems in the first place.

"There are instances where we've gone in and said, 'what are all the complaints we can anticipate two years down the road?,' and then we tried to engineer the system to address them before they ever materialized," Mr. Byrne said.

A prime example of this is the E-10 program. This new aircraft, which is being designed to provide superior airborne ground moving target indication, cruise missile defense and superior airborne battle management capabilities, instituted Blue Team reviews early on.

"The E-10 has a four-year history of conducting several Blue Teams each year," said Charlie Arouchon, director of engineering for the E-10 program. "These are hard, independent scrubs of the program that lead to full and open discussion. The key is in developing a culture of continuous improvement where people have an open mindset and program managers try to help the Blue Team find concerns before they become problems."

The Blue Teaming concept transcends technical issues, too. Virtually every aspect of an acquisition program can benefit from this sort of early intervention, says Sue Angell, director of ESC's Acquisition Center of Excellence.

"We talk a lot about streamlining the source selection process, but we must broaden the definition to also include the steps leading up to the actual selection process. Most of the value will come from better managing those

steps," she said. "It's important, for instance, to look at the program risks at the same time we accept the work load. We also need to ensure we have solid requirements, a sound acquisition strategy and that we put out a very clear request for proposals."

Ms. Angell's office is already helping program managers with all of this. As the center works to institutionalize a broadened version of the Blue Teaming concept, it's possible that most programs would have independent specialists from the ACE review and help them perform their pre-source selection activities, she said.

Other functional offices such as contracting and legal could also play a part on such teams.

"There are a lot of resources that can be brought together to make sure a program starts out in great shape," Ms. Angell said. "And that's the best way to help ensure it stays healthy."

One of the benefits of the Blue Team process is that once it's been operating for awhile, it should start to yield some recurring signals that serve as "leading indicators" of potential problems.

"These will tell us when we need to form a Blue Team, if we haven't already," Mr. Byrne said.

Blue Teams are just one of many ways ESC is doing business consistent with the Air Force Smart Ops 21 construct. Smart Ops 21, which seeks to improve productivity while reducing waste, relies on proven industry practices such as Six Sigma and Lean.

"All of ESC's processes are actually based on a culture of continuous process improvement, and that's really what Smart Ops is all about," said Dr. James Cunningham, ESC's director of engineering.