

An Air Force plan aims to generate a new breed of upwardly mobile navigators.

# Combat Systems Officers

By Suzann Chapman, Editor

**I**n today's pool of rated Air Force officers, one finds a total of roughly 4,000 navigators. That is a relative handful, in comparison to the size of the pilot force. At present, Air Force pilots number about 12,000, or 16.3 percent of the total officer corps.

The small number of navigators belies the importance of the job. The navigator community is seen within USAF as a key force multiplier in combat operations.

Even so, senior Air Force leaders believe that navigators for many years had been prevented from reaching their full career potential. They note the paucity of navigators in top leadership ranks and the outdated nature of their training programs.

In September, USAF embarked on a plan that will change these negative dynamics and more thoroughly integrate navigators into the aircrew, actively involving them in helping to fly the aircraft and operate its complex systems.

The Air Force expects not only to create a more skilled aviator but also to open the way for more navigators to reach the service's highest leadership positions.

The new plan centers on development of what USAF describes as a combat systems officer, or CSO. The CSO will be a new and differ-



USAF photo by TSGt. Richard Freeland

*USAF believes that training its navigator community in a new way will produce broadly skilled aviators who can easily assume higher leadership positions. Shown above is a B-52 nav during a mission in Iraq.*

ent breed of navigator, one with much broader up-front training, compared to his or her predecessors.

At the highest levels of the Air Force, there is recognition that the change is overdue.

## **“Undervalued”**

In the words of Gen. Donald G. Cook, the commander of Air Education and Training Command, “We have for too long in our Air Force undervalued the potential and the capability and the abilities of our navigators.”

Compared to the Navy, Cook noted, the Air Force is well behind in this area. The Navy has many navigators in its top flag officer ranks, far more than is the case in the Air Force. The

reason, he said, is the Navy provides early career opportunities for navigators “to lead, to manage, to use judgment, and to have positions of responsibility.”

The CSO concept is intended to do the same thing for Air Force navigators.

The CSO plan calls for AETC to instill in the navigator force a level of knowledge that normally can be obtained only through years of operational experience. Air Force officials believe that the new CSO, when given that base of knowledge, will assume mission management roles early on and crossflow within the career field and into the developing world of unmanned aerial vehicle (UAV) operators.

The Air Force has been working

on the navigator issue since 2002. In that year, Gen. John P. Jumper, Chief of Staff, asked AETC to re-evaluate its training program for the navigator career field. Jumper believed nav training was out of date.

Maj. James E. Griffin, AETC's project officer for the CSO program, noted that technological gains have virtually eliminated what traditionally had been the navigator's primary duty—taking an aircraft from point A to point B.

"What a navigator needs to accomplish has changed," Griffin explained. "You have black boxes that fulfill that function."

Even as navigator duties changed, training remained more or less static. The reality is that today's navigators need a common base of knowledge in advanced nav systems, electronic warfare, and weapons employment, said Griffin.

In September, the service took its first step toward fixing the problem, establishing its inaugural CSO class at Randolph AFB, Tex.

The long-range plan calls for consolidation of training in the navigator career field's three subspecialties: basic (or panel) navigator, electronic warfare officer (EWO), and weapons systems officer (WSO). The goal is to develop a young officer with superior airmanship and some knowledge of weapons employment and electronic warfare tactics. "What we're trying to do with the CSO is combine the best attributes of the three subspecialties," said Griffin.

However, the initial CSO program only incorporates two subspecialties: basic nav and EWO. It will be several years before USAF can consolidate all navigator training into a single CSO program, said Griffin. AETC must go slow because navigators currently are trained at two locations.

The Air Force conducts its basic nav and EWO instruction at Randolph. Meanwhile, Air Force WSO training is carried out at NAS Pensacola, Fla., site of Navy nav training.

## Years To Go

Officials estimate it will be around 2008 or 2009 before the Air Force can consolidate all three subspecialties within the CSO program.

However, Griffin noted, most Air Force WSOs even now come through Randolph for some portion of their



USAF photo by SSgt. Tony R. Tolley

***Moving from one subspecialty to another requires more training today than will be the case under the CSO concept. In the future, CSOs could shift more easily from panel navs to EWOs, such as the ones in these F-15Es.***

training. They will "receive the benefits of changes made at Randolph," he said.

In the most obvious change, the CSO program will increase the number of common training days for basic navs and EWOs. This type of training previously had been limited to 90 days, after which a student would undergo another 82 days of specialized instruction as either a panel nav or EWO. By contrast, the CSO will feature about 137 days of common training and 38 days of special training.

Additionally, the program offers a wider range of topics and puts increased emphasis on warfighting.

The result will be young officers with "more operational knowledge," Griffin said, a fact that should enable them to take on more "mission leadership" or "mission management" while on board an aircraft.

USAF leaders expect the new CSOs to have the capability to take charge early on, which, they believe, will lead to enhanced career opportunities. By giving the new combat systems officers "the background to excel, hopefully, that'll translate into more CSOs in leadership positions," said Griffin.

The Air Force also expects combat systems officers to make the transition from one subspecialty to another more easily than is the case for today's navigators. According to Griffin, the opportunity to switch from being a panel nav to a WSO

exists today, but "it doesn't happen that often."

As the CSO program evolves toward full consolidation among the three subspecialties, said Griffin, AETC will need to provide very little "top-off" training. "If the Air Force needs a few more WSOs," he said, "then it would be much easier to take a CSO-trained individual and transition him from a C-130 to an F-15E."

Other career opportunities will also exist. Today, navigators can apply for pilot training, but opportunities are scarce. Tomorrow, emphasized Griffin, a "likely transition" will be from navigator to UAV operator. He said this was an area of particular interest to Jumper, who has asked AETC to look at the UAV option for CSO graduates.

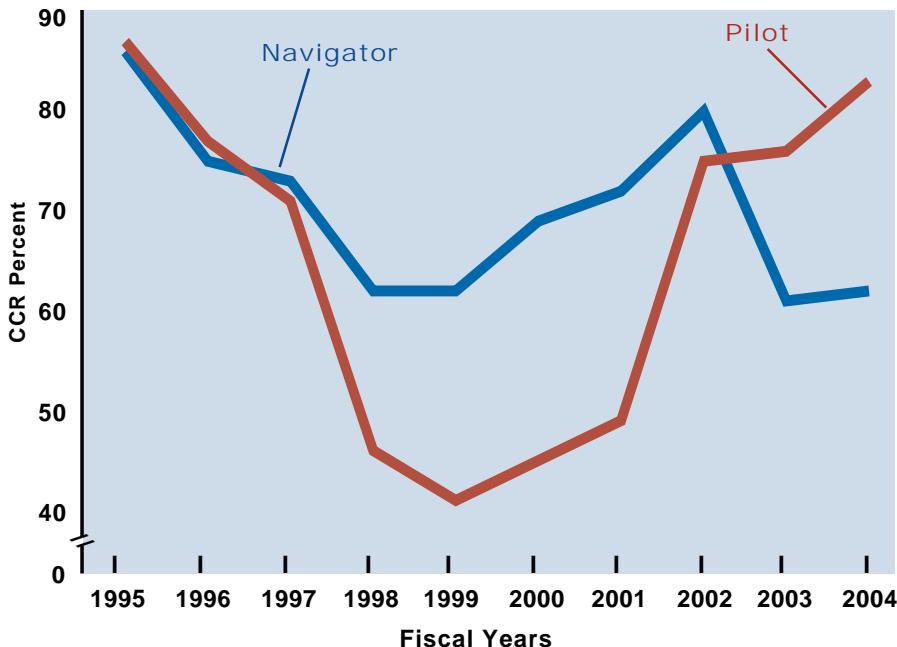
This, said Griffin, is a real possibility and for "the not-too-distant future."

The CSO would need some pilot training, he noted, but probably would not have to undergo USAF's full undergraduate pilot training course. "That makes perfect sense to use a CSO as our future UAV operator," he said, because CSO training will "touch upon topics that are not discussed at pilot training."

## Ideal UAV Operator

According to Griffin, the broad operational background—including aspects of electronic warfare, weapons employment, and use of advanced communications systems—

## Trends in Rated Retention



*This graph depicts the cumulative continuation rate (CCR) for groups of pilots and navigators. It shows what percentage of officers entering their sixth year of service would complete 11 years of service at current retention rates. From the late 1990s through 2001, the navigator retention rate exceeded the pilot rate. That trend began to change in 2002, prompting USAF to open aviator continuation pay to navigators.*

will improve a CSO's leadership potential. It will also make the CSO an ideal UAV operator.

The new training program does not apply to the current navigator force. Griffin said there is no plan to take current operational navs and send them through CSO training. After years in the field, he noted, most navs have already acquired broad expertise, and so more training would be superfluous. In many cases, in fact, the Air Force has relied on these older, more experienced navigators to fill rated HQ staff positions left vacant because of a long-standing shortage of pilots.

The navigator force, for several years, has maintained a higher retention rate than that posted for pilots. (See graph above, "Trends in Rated Retention.") However, USAF officials realized two years ago that the service was facing a navigator retention dilemma.

The numbers were stark. Officials calculated that within two years, 30 percent of the navigator force could have retired, and, within four years, nearly half could be gone.

Consequently, USAF in Fiscal 2003 moved to "stabilize" its navigator inventory, stated an Air Force

time specifically targeting what Air Force officials termed "low-production" year groups with nine to 18 years of service. Early records indicate the Fiscal 2004 navigator ACP "take rate" was about 81 percent. The Air Force, which is continuing navigator ACP for Fiscal 2005, now expects to retain a sufficient number of current navigators even as it builds its new force of combat systems officers.

Will the title for the career field switch from "navigator" to "combat systems officer" before the last traditionally trained nav has left the service? The Air Staff has not yet answered this question, said Griffin. He noted that, with normal conditions of attrition, it will take close to 20 years to attain CSO-only force staffing.

Even though the first CSO class will graduate in July, it will be a number of years before AETC can fully implement the CSO program. A large hurdle involves the command's legacy training systems. "The



*Broadly gauged CSO training will make future navs ideal UAV operators, said Maj. James Griffin. Above, Predator operators work UAV controls during a deployment to Southwest Asia.*

talking paper. It did so by offering the aviator continuation pay (ACP) bonus to navigators, the first time this had been done.

The move proved to be successful. More than half of 2003's eligible navigators elected to accept the ACP, signing on for additional years in service.

The Air Force extended the navigator ACP through Fiscal 2004, this

CSO program we instituted on Sept. 30 [2004] is just the start of the training transition," said Griffin. "It is not what we envision the final program will be."

He explained, "To truly transition to what the Chief of Staff wants for the new aviator, we need to acquire new training systems." Griffin said the technology exists, but funding was not yet available. ■