



Draken L-159Es are Aero Vodochody-designed single-seat, multi-role ADAIR fighter jets.

Photo: Jose Ramos/Draken International

Red Air Rising

Can outsourcing adversary air ease the pilot shortage and enhance combat training? An emerging industry says it can.

By Amy McCullough

The Air Force is about to create a whole new industry: private adversary air (ADAIR). As soon as February, the service will award a 10-year, up to \$6 billion contract to multiple companies, changing the way fighter pilots train today—and possibly forever. While the new contractor aggressors complement, rather than replace, USAF's two in-house aggressor squadrons, the deals could pave the way for a permanent change in approach if the program proves successful.

Using private "Red Air" contractors to supplement military training is not new. Both the Air Force and Navy have done so sparingly in the past. But USAF's new initiative is unprecedented in scale and scope, covering adversary training at 21 bases across the United States and more than just over 50,000 hours of flight time—about 40,000-plus hours for adversary air at 12 fighter bases and nearly 10,000 hours to help train joint terminal attack controllers at nine Army bases.

USAF will award an indefinite delivery, indefinite

"Think of the IDIQ as a license to hunt!"

—Russ Quinn, chief commercial officer at Top Aces

quantity (IDIQ) contract, opening the door for contracts serving specific bases over the next decade.

"Think of the IDIQ as a license to hunt," said Russ Quinn, chief commercial officer at Top Aces, one of four companies vying for a piece of the contract. "For us, it's a license ... to bring the airplanes into the country. That's important for us: If you're a named winner in the IDIQ, you now have the capability to compete for work."

The Air Force won't say who submitted proposals in October or even how many it received, but *Air Force Magazine* spoke with representatives from four firms that said they submitted bids: Top Aces, Draken International, Tactical Air Support, and Airborne Tactical Advantage Company.

Once the IDIQ contract is awarded, the selected companies can begin to compete for task orders to support individual bases, each of which has a unique set of requirements. USAF is looking for multiple kinds of capability, from category A, which calls for a very basic platform, to category C, which will mimic near-peer adversaries and provide training to USAF's fifth generation F-35 and F-22



Top Aces operates a fleet of A-4N and TA-4J jets.

Photo: Geert Van de Put/Top Aces

fighters. The contract will also include categories E and F, which covers close air support for JTAC training.

The Air Force expects companies to have aircraft flying within 12 months of award, or likely the first quarter of 2020.

AIRCRAFT IN HIGH DEMAND, SHORT SUPPLY

Once fully implemented, this will be the world's largest adversary air contract, and though companies have been gearing up for this for years, they still don't have enough aircraft to meet all of USAF's requirements.

"There aren't enough assets available in the contract world," said Scott Poteet, director of Air Force Programs for Draken, the only company currently under contract to provide "Red Air" to the Air Force. "We're working to get there as an industry, but we're definitely not there yet."

Poteet, a retired USAF lieutenant colonel with more than 3,000 hours flying the F-16, estimates it would take more than 150 aircraft flying 250 to 300 training hours per year to meet the 50,000-plus-hour requirement the Air Force wants to fill.

To meet that requirement, companies seeking a piece of that action have been busy shoppers:

■ **Draken**—Acquired 12 South African Atlas Cheetah supersonic fighters last year, and 22 F1s, mostly from the Spanish air force, which are being reassembled at its Lakeland, Fla., facility. In addition, Draken owns nine Aermacchi MB-339s, 27 MiG-21s, 21 L-159s, 13 A-4s, five L-39s, and one T-33.

■ **Textron Airborne Solutions**—(which bought ATAC in 2016)—Acquired 63 Mirage F1 aircraft formerly owned by the French air force, making it the world's largest private supersonic air force. Founded in 1994 and considered the pioneer in this industry, ATAC has flown about 50,000 hours of adversary air, mostly for the US Navy. Company officials said they plan to use 40 to 50 of the F1s to support USAF and use the remaining planes for spare parts and reserves should more aircraft be needed.

■ **TacAir**—Has 21 F-5E/F supersonic aircraft purchased from the Royal Jordanian Air Force and five Canadian CF-5Ds,

which are used mostly for training. The company recently survived a protest and won a five-year \$106.8 million contract to fly Red Air for the US Navy, beating out ATAC, which had held that contract since 1996. Mick Guthals, senior manager of business development, said TacAir plans to have five F-5 Advanced Tiger aircraft at Naval Air Station Fallon, Nev., during support periods, but that requirement could grow to as many as 10 aircraft depending on the Navy's needs.

Guthals said the Navy commitment doesn't significantly impact the company's ability to support USAF. "However, the biggest impact is reduced risk and proven Day One capability for the US Air Force," he said. "TacAir's ability to field and refine highly advanced, innovative technologies in a training environment like TOPGUN and the Naval Air Warfare Development Center, well prior to ACC task orders, allows us to provide the most capable and proven commercial adversary fighters to the United States Air Force immediately, without development or aircraft delay challenges affecting training."

■ **Top Aces**—Has 16 Dornier Alpha jets and 10 Douglas A-4 Skyhawks, most already committed to Canada, Germany, and Australia under contracts supporting close air support training. To compete for Air Force programs, the company is counting on a signed purchase agreement with an undisclosed foreign country to buy 29 early block F-16s, which it hopes would help it nab the high-end training piece of the Air Force's contract. Top Aces, which recently surpassed 75,000 hours of adversary air training, said it could start bringing the fourth generation fighters to the US as soon as the new Air Force contract is awarded.

All of the companies continue to scout additional fleets, and several said they are negotiating to buy or lease more aircraft. "There's a misconception on what industry can provide right now with regard to capacity as well as capability," Poteet said, adding that "to go through the acquisition, procurement, mobilization, regeneration, operations, and sustainment" process takes years.

Red Air Rising: World's Largest Air Contract

The Air Force is looking to contract out just over 50,000 hours of adversary air support and joint terminal attack controller training. Once fully implemented it will be the world's largest adversary air contract.

Here's a break down of the Red Air request:

CRATER LAKE-KLAMATH REGIONAL ARPT. KINGSLEY FIELD, ORE.

MAJCOM: Air National Guard, Air Education and Training Command, F-15 training.
DESIRED SORTIES: 1,828
TYPICAL NUMBER OF SORTIES PER DAY: Two goes with four sorties each.
MAXIMUM NUMBER OF SORTIES PER DAY: Two goes with four sorties each.
AVERAGE DURATION: 1.5 hours
 Contractors will operate on base.

HILL AFB, UTAH

MAJCOM: Air Combat Command, Air Force Reserve Command with F-16s and F-35s.
DESIRED SORTIES: 768
TYPICAL NUMBER OF SORTIES PER DAY: Eight in the first go and six in the second.
MAX NUMBER OF SORTIES PER DAY: 10 in the first go and eight in the second.
AVERAGE DURATION: 1.5 hours
 Contractor will operate on base.

NELLIS AFB, NEV.

MAJCOM: Air Combat Command, with various aircraft, home of US Weapons School.
DESIRED SORTIES: 7,500
TYPICAL NUMBER OF SORTIES PER DAY: 16 sorties in the first go and 14 in the second.
MAX NUMBER OF SORTIES PER DAY: 20 sorties in the first go and 18 in the second. During Red Flag contractors will fly roughly 30 percent more sorties.
AVERAGE DURATION: 1.5 hours
 Contractors will operate on base.

FORT IRWIN, CALIF.

Joint Terminal Attack Controller training.
ON-RANGE HOURS: 1,080
TYPICAL NUMBER OF SORTIES PER DAY: Two goes with two sorties each.
MAX NUMBER OF SORTIES PER DAY: Two goes with two sorties each.

LUKE AFB, ARIZ.

MAJCOM: Air Education and Training Command, USAF's only Active Duty F-16 training wing and one of two F-35 training wings.
DESIRED SORTIES: 1,472
TYPICAL NUMBER OF SORTIES PER DAY: Four in the first go and four in the second.
MAX NUMBER OF SORTIES PER DAY: Two goes with four sorties each.
AVERAGE DURATION: 1.5 hours
 Contractors will operate on base.

TUCSON INTERNATIONAL ARPT., ARIZ.

MAJCOM: Air National Guard, F-16 training.
DESIRED SORTIES: 960
TYPICAL NUMBER OF SORTIES PER DAY: Two goes with two sorties each.
MAX NUMBER OF SORTIES PER DAY: Four goes with four sorties each.
AVERAGE DURATION: 1.2 hours
 Contractors will operate off base.

JB PEARL HARBOR-HICKAM, HAWAII

MAJCOM: Pacific Air Forces, Air National Guard, operating F-22s.
DESIRED SORTIES: 2,930
TYPICAL NUMBER OF SORTIES PER DAY: Six in the first go and four in the second.
MAX NUMBER OF SORTIES PER DAY: Eight in the first go and six in the second.
AVERAGE DURATION: 1.3 hours
 Contractor will operate on base.

FORT CARSON, COLO.

Joint Terminal Attack Controller training.
ON-RANGE HOURS: 1,080
TYPICAL NUMBER OF SORTIES PER DAY: Two goes with two sorties each.
MAX NUMBER OF SORTIES PER DAY: Two goes with two sorties each.

HOLLOMAN AFB, N.M.

MAJCOM: Air Education and Training Command, Air Force Reserve Command operating F-16s.
DESIRED SORTIES: 2,640
TYPICAL NUMBER OF SORTIES PER DAY: Six sorties in the first go and four in the second.
MAX NUMBER OF SORTIES PER DAY: Eight sorties in the first go and six in the second.
AVERAGE DURATION: 1.2 hours
 Contractors will operate on base.

FORT BLISS, TEXAS

Joint Terminal Attack Controller training.
ON-RANGE HOURS: 1,080
TYPICAL NUMBER OF SORTIES PER DAY: Two goes with two sorties each.
MAX NUMBER OF SORTIES PER DAY: Two goes with two sorties each.

KELLY FIELD ANNEX, TEXAS

MAJCOM: Air National Guard operating F-16s.
DESIRED SORTIES: 580
TYPICAL NUMBER OF SORTIES PER DAY: Four sorties in the first go and two in the second.
MAX NUMBER OF SORTIES PER DAY: Two goes with four sorties each.
AVERAGE DURATION: 1.3 hours
 Contractors will operate on base.



FORT RILEY, KAN.

Joint Terminal Attack Controller training.
ON-RANGE HOURS: 720
TYPICAL NUMBER OF SORTIES PER DAY: One go with two sorties each.
MAX NUMBER OF SORTIES PER DAY: Two goes with two sorties each.

FORT DRUM, N.Y.

Joint Terminal Attack Controller training.
ON-RANGE HOURS: 1,080
TYPICAL NUMBER OF SORTIES PER DAY: Two goes with two sorties each.
MAX NUMBER OF SORTIES PER DAY: Two goes with two sorties each.

JB LANGLEY-EUSTIS, VA.

Support for trilateral exercise with French and British air forces.
MAJCOM: Air Combat Command flying F-22s.
DESIRED SORTIES: 3,840
TYPICAL NUMBER OF SORTIES PER DAY: Three goes with eight sorties each.
MAX NUMBER OF SORTIES PER DAY: Three goes with eight sorties each.
AVERAGE DURATION: 1.2 hours
Contractor will operate on base.

SEYMOUR JOHNSON AFB, N.C.

Support for Exercise Razor Talon.
MAJCOM: Air Combat Command operating F-15E.
DESIRED SORTIES: 2,590
TYPICAL NUMBER OF SORTIES PER DAY: Eight in the first go with six in the second.
MAX NUMBER OF SORTIES PER DAY: 10 in the first go and eight in the second.
AVERAGE DURATION: 1.5 hours
Contractor will operate on base.

FORT BRAGG, N.C.

Joint Terminal Attack Controller training.
ON-RANGE HOURS: 1,440
TYPICAL NUMBER OF SORTIES PER DAY: Two goes with two sorties each.
MAX NUMBER OF SORTIES PER DAY: Two goes with two sorties each.

FORT STEWART, GA.

Joint Terminal Attack Controller training.
ON-RANGE HOURS: 720
TYPICAL NUMBER OF SORTIES PER DAY: Two goes with two sorties each.
MAX NUMBER OF SORTIES PER DAY: Two goes with two sorties each.

TYNDALL AFB, FLA. *

Support for Sentry Savannah.
MAJCOM: Air Combat Command operating F-22s.
DESIRED SORTIES: 3,084
TYPICAL NUMBER OF SORTIES PER DAY: Three goes with eight sorties each.
MAX NUMBER OF SORTIES PER DAY: Three goes with eight sorties each.
AVERAGE DURATION: 1.2 hours
Contractors will operate on base.

EGLIN AFB, FLA.

Support for Combat Hammer.
MAJCOM: Air Combat Command operating multiple variants. Also home of the F-35 graduate flying and maintenance wing.
DESIRED SORTIES: 2,140
TYPICAL NUMBER OF SORTIES PER DAY: Six in the first go with four in the second.
MAX NUMBER OF SORTIES PER DAY: Eight in the first go with six in the second.
AVERAGE DURATION: 1.2 hours
Contractor will operate on base.

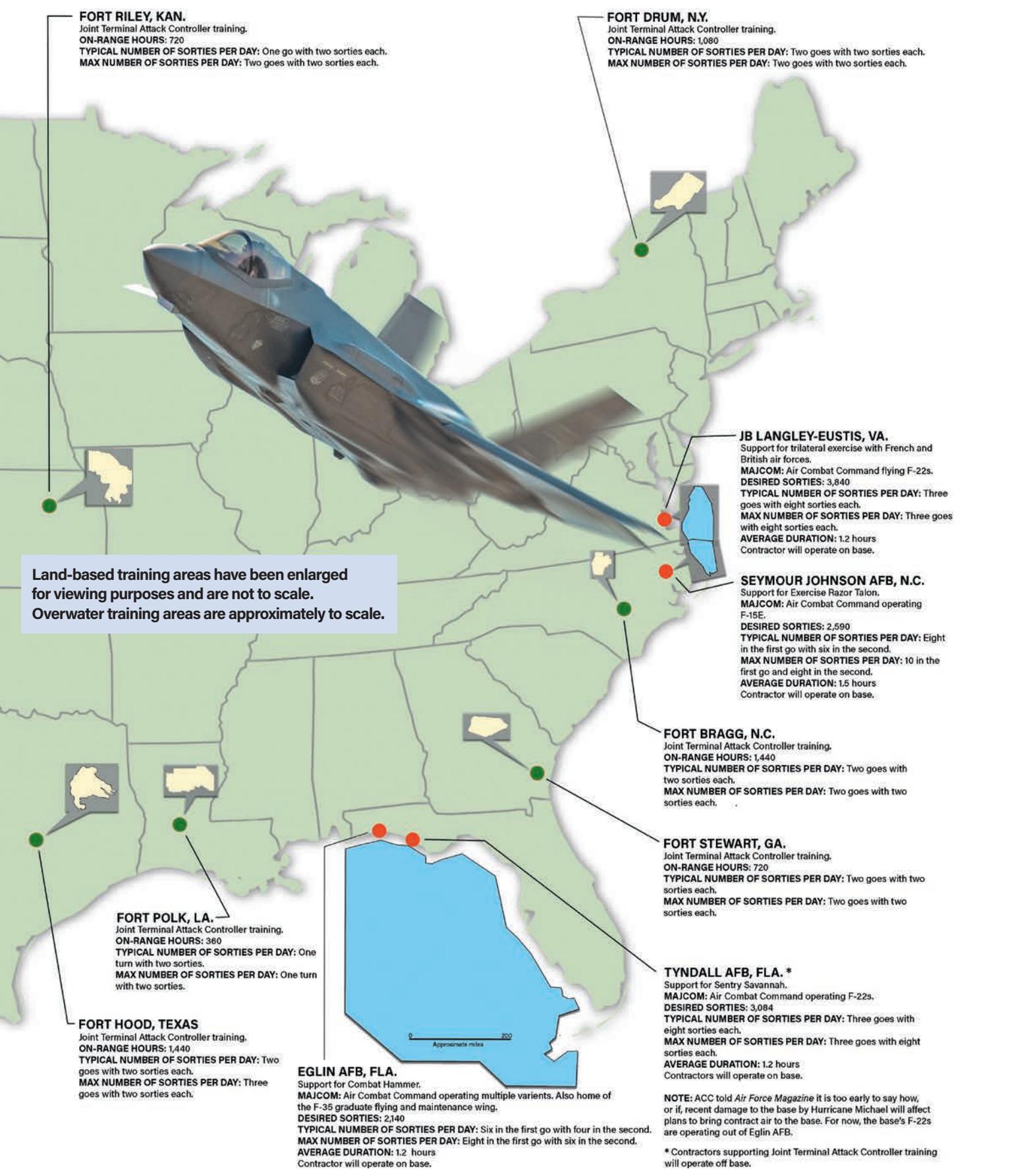
FORT POLK, LA.

Joint Terminal Attack Controller training.
ON-RANGE HOURS: 360
TYPICAL NUMBER OF SORTIES PER DAY: One turn with two sorties.
MAX NUMBER OF SORTIES PER DAY: One turn with two sorties.

FORT HOOD, TEXAS

Joint Terminal Attack Controller training.
ON-RANGE HOURS: 1,440
TYPICAL NUMBER OF SORTIES PER DAY: Two goes with two sorties each.
MAX NUMBER OF SORTIES PER DAY: Three goes with two sorties each.

Land-based training areas have been enlarged for viewing purposes and are not to scale.
Overwater training areas are approximately to scale.



NOTE: ACC told *Air Force Magazine* it is too early to say how, or if, recent damage to the base by Hurricane Michael will affect plans to bring contract air to the base. For now, the base's F-22s are operating out of Eglin AFB.

* Contractors supporting Joint Terminal Attack Controller training will operate off base.

An ATAC Mirage at the company's Adversary Center of Excellence in Texas.



Photo: ATAC

When Draken bought its L-159 fleet, which is currently flying at Nellis AFB, Nev., supporting the USAF Weapons School and Red Flag, it was essentially a brand-new fleet. Each airframe had flown just 50 hours, out of an 8,000-hour life span. Yet it still took four years to get the aircraft on contract.

“One of the things I think nobody in this industry really appreciated up front is how long it takes to source jets, acquire them, import them, ... certify them, and ... upgrade them if they have to be upgraded,” said Guthals, a retired USAF colonel, former B-1 pilot, and former vice commander of ACC’s Operational Test and Evaluation Wing. “One of the good things is we’re finding that we’re much faster than DOD because we don’t have those DOD restrictions on us, but it still takes a long time.”

To field planes faster, some are looking at leases. “It really depends on how long the contract is going to last,” said Russ Bartlett, president and CEO of Textron Airborne Solutions, and former commander of the US Navy’s Blue Angels Flight demonstration team. “If somebody owns some airplanes that are eligible and we don’t, then maybe there’s a good solution there where we lease them for the duration of the contract. It’s just another option.”

When the Air Force decided to add 10,000 hours of close air support to the larger adversary air contract last year, it gave industry more opportunities to put aircraft to work, Bartlett said. But it also sent everyone scrambling to acquire new capabilities.

“We have a couple other fleets of aircraft that are not releasable just yet, but we have other aircraft lined up, either through acquisition or lease for the rest of the categories,” said John Zentner, ATAC director of business development.

“Nobody in this industry really appreciated ... how long it takes to source jets, acquire them, import them, and then certify them.”

—Mick Guthals, senior manager of business development, TacAir

Draken’s Poteet added: “The lease we all have on the front of our mind is a business-to-business lease, but it is possible that we can lease from some other countries. We are looking at some of those opportunities, but those are a little farther away from reality.”

FROM CONCEPT TO REALITY

The Air Force first started seriously considering contracted Red Air in December 2015 when it awarded Draken a one-month, \$8 million proof-of-concept deal to support USAF aggressors at Nellis with six A-4 Skyhawks.

It didn’t take long to see the benefits. Contracting for adversary air “helps reduce the burden on active operational units, who currently fill the majority of the Red Air requirements across the Combat Air Forces,” Air Combat Command spokeswoman Capt. Carrie Volpe told *Air Force Magazine* last year. Contracting for Red Air sorties enables the service to increase fighter pilot production at the unit level “by allowing them to provide more dedicated Blue Air sorties.”

Draken’s deal was modified three times and extended three times before the contract was opened to competition, under a program dubbed Nellis ADAIR II.

While the Air Force never specified a platform, it wanted aircraft capable of flying Mach 1.5 or better, a 45- to 60-minute fight endurance, and equipped with fire-control radars capable of detecting, tracking, and simulating ordnance against an opposing aircraft. It also wanted up to 18 sorties a day, split between 10 sorties in the first round followed by eight in the second. Combined, that added up to about 5,600 hours a year.

One of the most important requirements, however,



TacAir's F-5Es are single-seat, twin-engine all-weather tactical fighters. TacAir imported Jordanian F-5s in 2017 and adapted the jets to fourth generation aggressor capabilities.

Photo: Tactical Air Support

was that there be no down time between when Draken's contract ended and when ADAIR II began. Draken, which already had aircraft on the ramp, won the \$280 million contract in June 2018 and will continue flying adversary air at Nellis through December 2023. That contract is seen as an interim solution until the larger ACC contract takes over.

"One of the catalysts for our ability to get so much work is the fact that we brought radar-equipped aircraft to the fight, the Skyhawk and Honey Badger," said Poteet. "Having a radar-equipped fighter truly fulfills the requirements and needs of the Air Force."

FINDING PILOTS

One of the goals of contracted adversary air is to make life easier for USAF's operational fighter pilots who are often tapped to fill in Red Air gaps at major exercises such as Red Flag.

The 40,000-plus hours of contracted Red Air is not expected to decrease the number of hours USAF aggressor pilots fly, but it will allow operational pilots to spend more time training the way they would actually fly in an air-to-air combat scenario.

Heather Penney, a senior resident fellow at AFA's Mitchell Institute for Aerospace Studies and a former F-16 pilot, said it's important for the service to maintain its own adversary air expertise, but contracting out additional support hours is likely to provide a much higher level of training for pilots.

When regular operational pilots are tasked with flying Red Air, Penney said, "They aren't jazzed up. They want to fly the Blue Air training." While USAF's aggressor squadrons spend countless hours studying the enemy and how they fight, the same cannot be said for operational fighters who play those roles on a part-time basis. "The contract Red Air can provide a more realistic threat scenario or more demanding threat presentation," Penney added.

It's still not clear what impact the growing industry will have on USAF's pilot force. Senior Air Force leaders acknowledge it will be a challenge to have all these companies recruiting pilots at the same time as the commercial airlines while USAF tries to get a handle on its own pilot shortage. However, they maintain the pilots going to industry would have gotten out anyway, so at least the service can still benefit from their experience and expertise.

TacAir, for example, proudly touts its collective expe-

rience on its website, noting that it employs 52 weapons school graduates and 17 former weapons school instructors. Company officials say the fighter ethos the Air Force is looking for is already ingrained in their culture.

But TacAir is not unique on that front. All the companies were formed and are led by former fighter pilots, and all have been actively recruiting and say they are getting a lot of interest from former or outgoing military pilots, but most are holding off on hiring until the IDIQ is awarded. Each of the companies are looking for something slightly different, based on the type of aircraft in their fleet and what piece of the contract they are going for—higher-end or lower-end training.

"Our core pilot is more or less a retired lieutenant colonel or colonel, who's elected not to pursue an airline job or may be part-time at an airline and wants to maintain flying military aircraft," said Poteet. "It's a balancing act because, prior to Nellis ADAIR II, no one knew what the future held. Now that we have stability, we are in the process of hiring."

EVOLUTION OF AN INDUSTRY

Even though the Navy has been contracting for adversary air for decades, the scale of the Air Force program means it will set the requirements by which this industry is being built. For its part, the fledgling industry doesn't seem to buy Air Force arguments that contracting for adversary air will be temporary. While USAF officials insist the capability will eventually return to in-house status, industry is betting that won't happen. They just need to prove they can deliver what the Air Force needs.

"It wasn't but 10 years ago when I was the deputy commander of the adversary tactics group," said Quinn, a former F-16 pilot who racked up more than 3,000 hours in the aircraft. "We were standing up a brand-new aggressor squadron. At the time, that was the Air Force's vision, to do all the aggressor work in house."

Then declining budgets and the move to a fifth generation fighter fleet changed the equation, opening the door to industry.

"Commercial Red Air is happening," Quinn added. "This is a real sea change. It's a completely different way of looking at things. It's difficult for the US Air Force leadership. It's difficult for a lot of people on the outside to get their arms around. ... But the difference makes it both very exciting and also very challenging." ❄