

Nutritional supplements; Will it materialize? T-X ejections; Who's left? ...

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REBUILDING THE MILITARY IN THREE ACTS

The Trump administration has pledged to strengthen the US military. Recent guidance issued by Defense Secretary James N. Mattis laid out how it will proceed, but getting through the interim steps means the Fiscal 2018 defense budget may not get to Congress until May at the earliest.

Readiness accounts will be addressed first, followed by more “pressing shortfalls” and then on to a “larger, more capable, and more lethal joint force,” Mattis wrote in a four-page memorandum to the service Chiefs, combatant commanders, Office of the Secretary of Defense departments, field units, legislative affairs, and other elements of the military hierarchy.

The money will come in three phases, as well: first, a Fiscal 2017 budget amendment, then a revamped 2018 budget request—to be delivered to the Office of Management and Budget by May 1—and finally a rescoped 2019-23 program objective memorandum.

The budget amendment will address “urgent warfighting readiness shortfalls” and requirements driven by “acceleration of the campaign against ISIS.” Force structure will be increased in areas where doing so will have an immediate impact. Though there will be some offsets taken from “lower priority programs,” the net effect will be an increase in the Fiscal 2017 budget signed by President Barack Obama, Mattis wrote.



Defense Secretary James Mattis (left) briefs reporters while flying to Brussels Feb. 14. Mattis said military readiness accounts will soon be bolstered.

The supplemental budget was to be developed under the direction of Deputy Secretary Robert O. Work, held over from the Obama administration, and the budget is to be finished by March 1.

Air Force leaders said they have long lists of readiness accounts—flying hours, munitions, depot maintenance, etc.—that could immediately benefit from a flush of new money. Chief of Staff Gen. David L. Goldfein told reporters in February that increasing the buy rate on the F-35 will be a high priority, as the fighter fleet has suffered from heavy force structure cuts in the last decade, but the F-35 will be “balanced” with other accounts, such as nuclear modernization.

SLOW AND STEADY

Goldfein said, however, that he is instructing budgeteers not to expect a “big infusion” of cash that may not be sustained. “The worst thing we could do,” he said, is to set up a program of new starts that anticipates more money than actually materializes, wasting effort and funds on projects that must be terminated or scaled back.

The Fiscal 2018 budget, according to the Mattis memo, will focus on program shortfalls while “continuing to rebuild readiness.” It will include “buying more critical munitions,” adding money for facilities sustainment, adding money for “promising advanced capability demonstrators,” investing in “critical enablers,” and growing force structure “at the maximum responsible rate.” Work is to develop this budget, and Mattis said he would review it. Work would provide “fiscal guidance” from OMB “when it becomes available” as to specific amounts.

The final phase will start with a new National Defense Strategy, Mattis said. The document will be closely coordinated with the “new National Security Strategy” and will include “a new force-sizing construct, which will inform our targets for force structure growth.” There hasn’t been a force-sizing construct since the old idea of one-and-a-half major theater wars fell by the wayside. The strategy will also determine an approach to “enhancing the lethality of the joint force against high-end competitors” and assess US military capability “against a broad spectrum of potential threats.” This will form the basis of the new 2019-23 defense plan, specifying investments in “advanced capabilities.”

Besides combat effectiveness, the strategy will aim for improving how the Pentagon does business. It will contain “an ambitious reform agenda,” flattening DOD reporting chains and taking advantage of economies of scale. This will happen against a backdrop of keeping faith with our service members and their families, Mattis said. “We will ensure that we are caring for those charged with defending the nation and its interests.”

DOD photo by TSgt. Brigitte N. Bramley



Pilots prepare to exit a T-38 Talon during a refueling stop. In January, two major contractor teams bailed out of the contest for the \$16.3 billion contract to replace the T-38.

T-X MESSAGING

Two major contractor teams—one headed by Raytheon and the other by Northrop Grumman—bailed out of the Air Force's \$16.3 billion T-X trainer competition in January, just a few weeks after they got a look at the service's final request for proposal (RFP). Though the terms had not changed from a previous draft, the companies indicated the price USAF is willing to pay for its T-38 replacement was either lower than they could match or wouldn't make the deal profitable enough to be worth the investment, effort, and risk required.

Other companies said they're still vigorously pursuing the program, but the Air Force's early hopes for a lot of competition on the T-X may not come to fruition.

The Air Force's RFP, released Dec. 30, 2016, said the service will weigh all performance—the technical capability of an offeror's jet, the quality of its training system, and support—about equally with price. In a move to encourage smaller companies to compete and broaden the field of potential suppliers, the Air Force crossed the usual criterion of prior performance off its contest checklist.

Moreover, the service had labored to keep anything not absolutely essential to T-X performance out of the requirements, because this could arbitrarily and unnecessarily exclude competitors. USAF wanted to render the competition protest proof, so no contractor could say afterward that it

hadn't been fully informed about what the Air Force really valued and what USAF would and would not pay extra for.

Perhaps most telling about the RFP was the price, however. When the Air Force first issued its draft performance specifications for the T-X in 2015, it envisioned a program costing about \$20 billion. The RFP in December called for a program of about \$16.3 billion—but with no reduction in the planned 350 aircraft or ground training element.

The first to drop out was the team of Raytheon/Leonardo. They were offering the Italian M-346 Master, rebranded as the T-100. In a joint statement issued Jan. 25, they said that while they think the T-100 "is a strong solution, our companies were unable to reach a business agreement that is in the best interest of the US Air Force. Consequently, Raytheon and Leonardo will not join the T-X competition." The next morning, during Raytheon's fourth-quarter earnings call, the topic of the T-X wasn't even raised.

Though neither company would comment further for the record, industry sources said Leonardo balked at the price Raytheon thought was absolutely necessary to be competitive in the contest, and the companies couldn't come to terms on this key point.

Leonardo announced on Feb. 8, however, that it would enter the contest on its own, fronted by its US subsidiary,

Leonardo DRS, with no change in the content of its offering.

Raytheon was not Leonardo's first partner on the T-100. Originally, the Italian firm had partnered with General Dynamics as the US lead for T-X, but General Dynamics withdrew in early 2015, saying it had "reorganized its businesses" and had decided "to discontinue pursuit of T-X as a prime contractor." Alenia (since renamed Leonardo) eventually reteamd with Raytheon, a strong contender since Raytheon built the T-6 Texan II and T-1 Jayhawk, two of the three aircraft, along with the T-38, in the Air Force's undergraduate pilot training program. Raytheon's knowledge of the Air Force's pilot training syllabus was unmatched.

EXIT THE INCUMBENT

Next to depart the T-X was Northrop Grumman, ostensibly the incumbent since Northrop designed and built the very successful and widely adopted T-38 starting in the 1950s. In a Feb. 1 announcement, the company and its partner, BAE Systems, said they had decided not to submit a proposal "as it would not be in the best interest of the companies and their shareholders."

Just a few days earlier, Northrop Grumman CEO Wesley G. Bush raised industry eyebrows by being noncommittal when asked about the T-X during an earnings call. Bush said Northrop was taking its time about deciding whether to submit a bid, to ensure "we are not kidding ourselves about what the real investment and cost would look like." He said that when a customer shows a preference for price over best value in a contract, and there's not much "differentiation" between the products being offered, such opportunities are less interesting for Northrop Grumman. He indicated that the also-upcoming E-8 JSTARS recapitalization program, with plenty of room for a value-added solution, was a more compelling program for his company.

Northrop Grumman had invested quite a bit in T-X, having refined the BAE Hawk trainer as a first potential entry, then dumping it and starting over with a clean sheet design that wound up bearing a family resemblance to the T-38. Unlike some of its competitors, however, Northrop Grumman never held a flashy unveiling ceremony for the press, despite having flown its T-X—fabricated by subsidiary Scaled Composites—a number of times. Bush, in the earnings call, said he doesn't want to keep investing in a project "just because we've *been* doing it."

NARROWER FIELD

So where does that leave T-X? An Air Force spokeswoman said the service can't really comment on the progress of the program, as it has moved into the competitive phase. However, "the Air Force continues to believe there will be a robust competition for the Advanced Pilot Trainer, AKA T-X, and continues to look forward to the results of the ongoing source selection," she said.

It's worth noting that the T-X competition is not just for an airplane, but for a training system that will combine live-fly piloting experience with in-the-cockpit and in-the-simulator live, virtual, and constructive instruction.

In a Mitchell Institute for Aerospace Studies paper released in December 2016—"Building Better Pilots: Considerations to Ensure T-X Success"—the author, retired Maj. Gen. Lawrence A. Stutzriem, said, "The Air Force needs to remain focused on attaining this enterprise approach, for budget decisions have historically pinched pennies by cutting procurement and sustainment of simulation and assorted nonaircraft training components. The service must stop this habit, as it is now a dangerous relic of 1950s-era attitudes." The T-X will have to be a great airplane, but it will have to have a great training system to go with it.

Boeing/Saab developed a T-X entry from scratch. They said through a spokeswoman that their team is "excited to compete and looks forward to submitting a proposal." Lockheed Martin, partnered with Korean Aerospace Industries, is offering the T-50A derivative of the KAI/Lockheed T-50, already in service with the Republic of Korea Air Force for about 12 years. A Lockheed Martin spokesman said, "We're all in this competition and will be ready to start producing the T-50A ... on Day One of the contract award."

Others potentially competing are Sierra Nevada, teamed with Turkish Aerospace Industries on the Freedom Trainer, and Textron, which is continuing to look for a market where its Scorpion privately funded aircraft can prevail. As now configured, the aircraft would not meet USAF's T-X requirements, so the design would have to be refined.

Stavatti Aerospace, of Eagan, Minn., said in early February it will offer a variant of the Javelin, an aircraft it inherited from Aviation Technology Group, now out of business, and is looking to partner with another company for manufacturing and the ground-based training and simulation system.

The T-X was originally envisioned by the Air Force as a commercial, off-the-shelf product that, with minor tweaks, could be adapted to USAF's needs. Industry officials said, however, that it became apparent after the first iteration of USAF's requirements that most foreign trainers couldn't perform as USAF wanted, driving Boeing and Northrop Grumman to design new airplanes.

THE CHIEF'S PERSPECTIVE

"I think ... we could have predicted this," Chief of Staff Gen. David L. Goldfein told reporters when asked in February about the T-X dropouts.

"It's not surprising to me" that as the companies and the Air Force conducted their exhaustive dialogue, the contractors "got more fidelity on what the customer is thinking" and were able to make "informed business decisions to say whether they wanted to compete or not," he said. Industry offered up about "1,300 different individual recommendations" on refining the T-X RFP, Goldfein said, and once the companies truly understood what the Air Force wanted and valued, "and what the other competitors have," some made a "business decision not to jump into this race."

"I'd be concerned right now if I had one competitor," Goldfein added, but USAF now has "two competitors that have a very good sense of what we're looking for." The longer dialogue up front led to "a far more informed and better-written RFP," and so, "I think we're probably about where we should be" with the T-X competition. ★