

MITCHELL INSTITUTE
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**Want Combat Airpower?
Then Fix the Air Force's Pilot Crisis**

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OUT OF TIME: The Air Force has suffered a chronic pilot shortfall for two decades



USAF fighter pilot shortfall:
2006 – ~ 200 fighter pilots
2017 – ~ 1,000 fighter pilots
2024 – ~ 1,150 fighter pilots!

The shortfall is not just about “numbers” - current exit rates mean that experienced pilots are not remaining in the Active Component. This impacts operational squadrons and leadership, as well as planners and HQ staff.

In combat, experienced aircrew have better mission outcomes and decreased attrition rates compared to inexperienced pilots. *Air Forces must have experienced pilots to successfully sustain combat operations.*

The inability of the USAF to solve its fighter pilot shortfall may indicate an inability to replace combat losses



RISK: The USAF does not have enough pilots to sustain a credible combat force in a peer conflict

Without strategic depth of experienced combat pilots, U.S. combat airpower could collapse in war.



DVIDS - Images - 104th Fighter Wing pilots fly fini-flights [Image 3 of 8]

It's about TIME

The U.S. Air Force must have enough depth of experienced pilots across the Total Force to withstand combat losses and still be operationally effective until replacements can be trained and seasoned.

The Air Force MUST increase the quantity and percentage of experienced pilots in its pilot corps



Autonomous aircraft cannot replace human pilots in the fog and friction of the battlespace



Human combat pilots will continue to provide America's asymmetric advantage in the battlespace



History has proven the consequences of a pilot corps that is too thin and lacks experience

The highly trained but small air forces of Germany and Japan collapsed when they were unable to replace experienced pilots.

Luftwaffe:

Jul-Dec 1943 – 170% strength loss
Jul-Dec 1944 – 250% strength loss

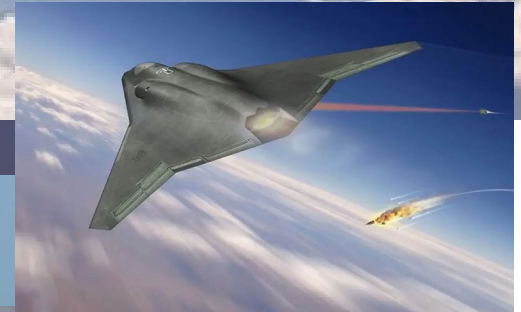
These losses are a reality of war and conflict – without a strategic depth of experienced pilots and a pipeline to produce replacements, air forces can spiral into defeat.



The lack of experienced pilots and a pilot force with insufficient strategic depth is a fatal combination



CHALLENGE: The Air Force needs to recapitalize and grow for today's global security challenges



**“America needs more Air Force and it needs it now.”
General David Allvin, Air Force Chief of Staff**



Four key factors influence a squadron's capacity to absorb new pilots at rate

A squadron's ability to absorb new pilots, fully execute its Ready Aircrew Program (RAP), complete continuation training, and upgrade its mature pilots depends on:

- The number of pilots in a squadron
- Ratio of experienced to inexperienced pilots in a squadron
- How many sorties a unit can generate each month
- The availability of advanced simulators to a squadron

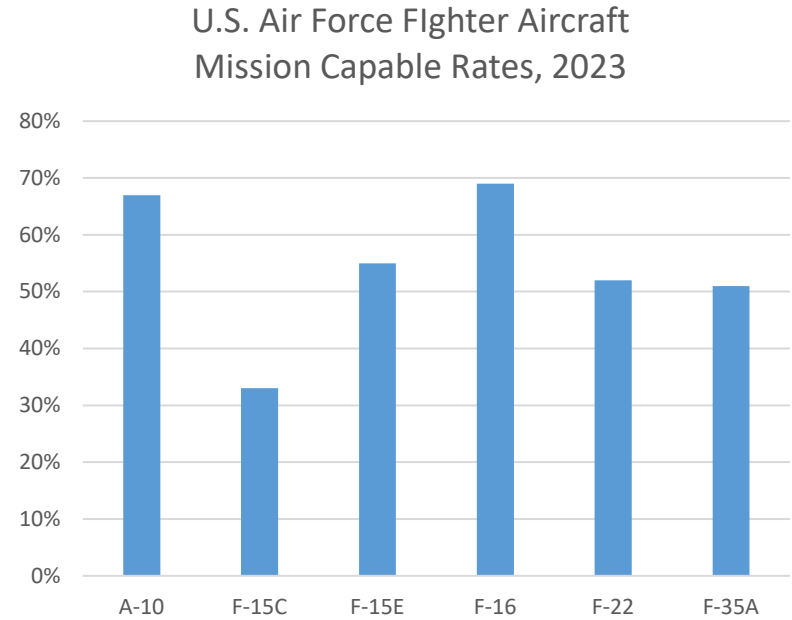
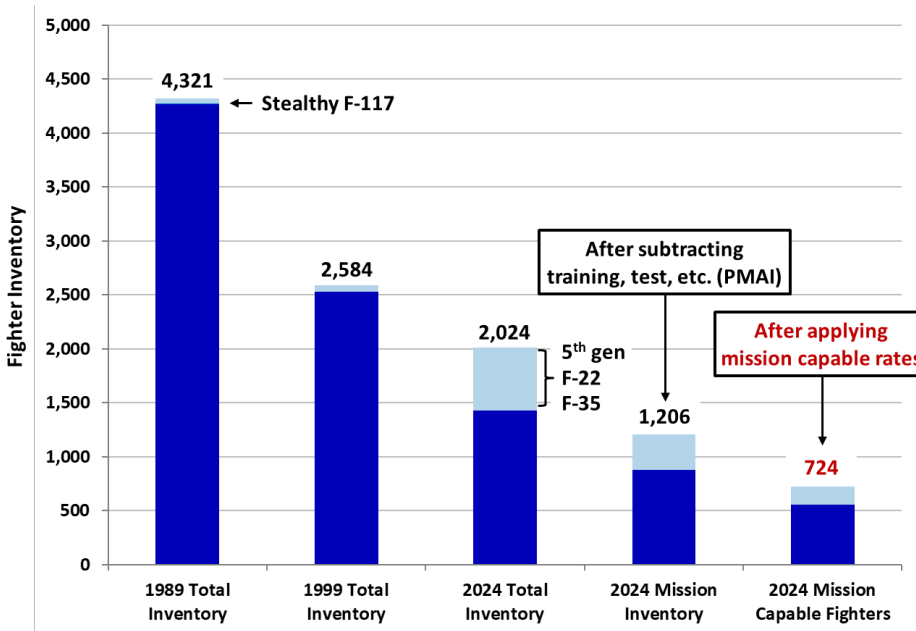


DVIDS - Images - 114th Fighter Wing exchanges jets with 122nd Fighter Wing [Image 12 of 24]

If pilots and squadrons cannot meet RAP requirements, they lose their combat qualification



CHALLENGE: Dwindling aircraft fleet size and aging aircraft harm utilization rates and risk pilot readiness



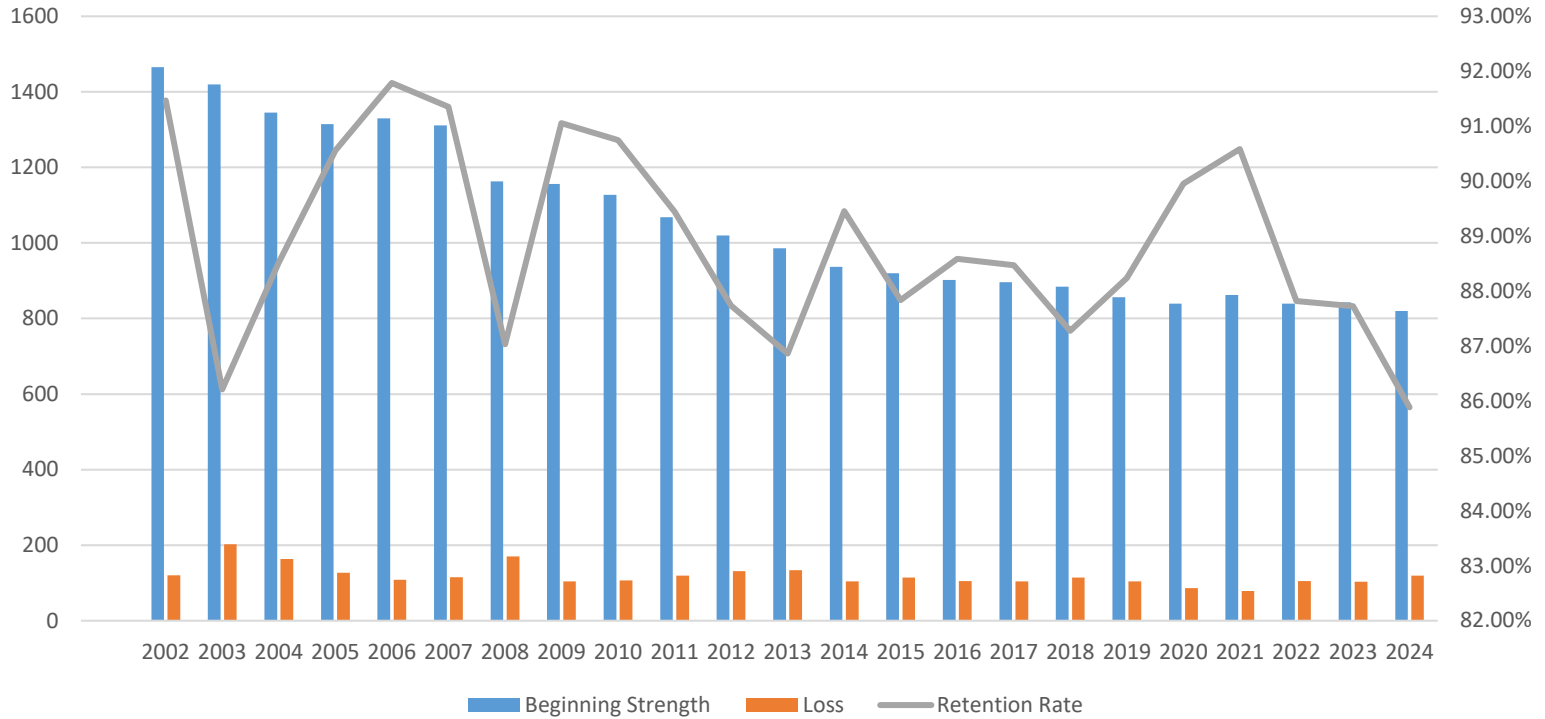
Aircraft age has adversely impacted fleet mission capable rates, which directly translates into higher cost for fewer flying hours

The Air Force must recapitalize and grow its fighter fleet to improve mission capable and utilization rates



The Air Force's Reserve Component preserves pilot experience across the Total Force

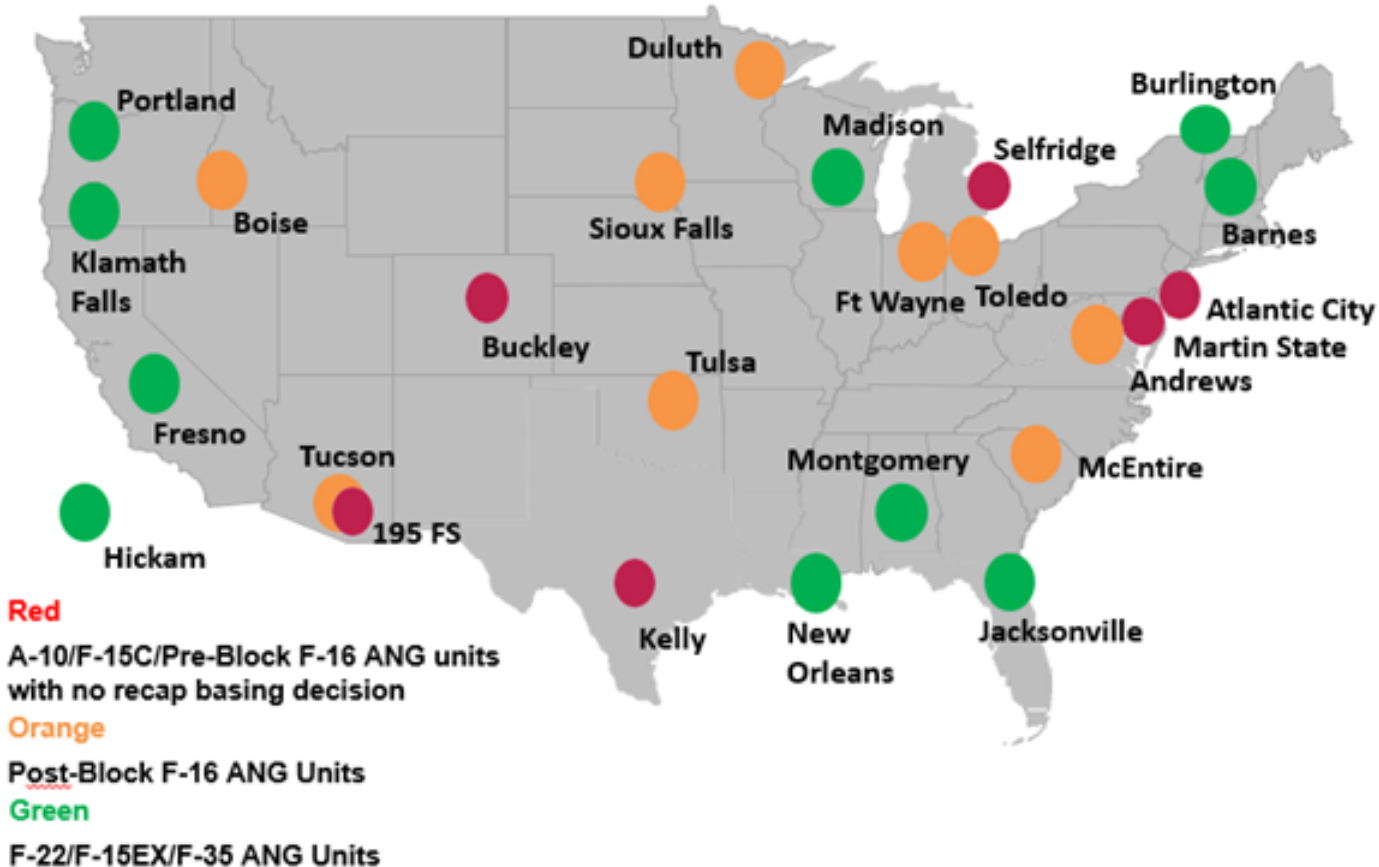
ANG 11F Retention Rate, 2002-2024



The U.S. Air Force can increase its experienced combat pilot corps by leveraging its Reserve Component



The Air Force's Reserve Component preserves pilot experience across the Total Force



RISK: But many fighter squadrons in the Reserve Component are at risk of closure



Recommendations

- 1. The U.S. Air Force should grow its Active Component fighter forces to increase the quantity and rate at which it can absorb new pilots and maintain their combat readiness.** This means replacing old aircraft with new at a one-for-one rate and increasing the Air Force's F-35A acquisition rate to at least 74 aircraft per year.
- 2. The U.S. Air Force should preserve and grow the number of its Reserve Component fighter squadrons and increase the number of fighters assigned to each squadron.** Air Force leaders should grow the number of Reserve Component squadrons, increase their primary assigned aircraft to 24, and leverage these RC squadrons to absorb new Active Component pilots graduating from their initial fighter qualification courses.
- 3. The U.S. Air Force should recapitalize and modernize its combat forces to improve the mission-capable rates of its fleet.** If production rate expansion of F-35A cannot be scaled at the rate necessary to arrest inventory decline and improve mission capable rates, the service should consider procuring advanced F-16 models and F-15EXs to replace legacy airframes, preventing squadron closures. The USAF must also fully fund weapon system sustainment accounts.



Recommendations

- 4. The U.S. Air Force should recapitalize and modernize its Active and Reserve Components concurrently.** Both components must have the same type of equipment for this support to be effective and affordable. The U.S. Air Force must avoid creating a segregated force structure if it is to fully integrate the Reserve Component into all its operations. This concurrency creates interdependencies between the two components that increase their flexibility to adjust to changing training requirements in peacetime and the dynamic needs of combatant commanders in wartime.
- 5. The U.S. Air Force must ensure its advanced simulators are connected to the Joint Simulation Environment and are available to squadrons for daily training.** Advanced simulators are crucial to training combat air forces for the high-end threats in scenarios that current physical ranges cannot accommodate. Pilots need experience in scenarios that stress their abilities within the safety of simulation so they can expand their skillsets and strengthen their cognition.

The nation cannot wait – it must begin building a strategic depth of experienced combat pilots that can successfully sustain combat operations in a peer conflict



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