

Florida plays an essential role in U.S. National Security. It is home to three Combatant Command headquarters, including U.S. Central Command, U.S. Special Operations Command, and U.S. Southern Command.¹ The state contains over 20 military bases with each armed service represented. The state is particularly important for pilots, providing over 180,000 square miles of Department of Defense (DoD) controlled airspace for training.²

Northwest Florida's Role in U.S. National Security

Florida's panhandle is home to several major military installations that are essential to U.S. military operations and mission readiness.

- **Eglin Air Force Base (AFB)** is the DoD's second largest test and training complex making its operations essential for the U.S. military's weapons and warfighter training.
- **Hurlburt Field** is used by Air Force special operations to train forces on precision strikes, specialized mobility and intelligence, surveillance, and reconnaissance.
- **Naval Air Station (NAS) Pensacola** is known as the "Cradle of Aviation," as it is the first established Naval Aviation command, essential to the U.S. Navy mission readiness.
- **Naval Air Station Whiting Field** is home to 61% of the U.S. Navy's outlying landing fields, making the base a key center for Department of Defense aviation training.
- **Naval Support Activity (NSA) Panama City** contains the Naval Surface Warfare Center Panama City, a top research, development, and evaluation laboratory for the U.S. Navy.
- **Tyndall Air Force Base** conducts crucial training for F/A Raptor Pilots, air battle managers, air traffic controllers, and weapons controllers and crew chiefs.

CLIMATE-RELATED THREATS TO THE REGION

A 2019 Senate Armed Service Committee hearing identified the top 10 Air Force Bases at risk of weather impacts. Three Northwest Florida bases, Eglin AFB, Hurlburt Field, and Tyndall AFB, made the list.³

Eglin AFB was particularly identified as at risk of extreme weather, inland flooding, drought, and wildfires in the 2019 DoD "Report on Effects of a Changing Climate to the Department of Defense."⁴ Eglin's increased susceptibility to grave climate effects is alarming, especially due to the fact the base plays an essential role in the U.S. military's weapons and warfighter training.

Flooding and Extreme Weather

Flooding is of particular concern for Northwest Florida bases. In 2014, torrential rains caused record flooding at NAS Pensacola, Eglin AFB, and Hurlburt Field, altering operations at all three.⁵ In 2018, severe flooding coupled with high winds from Hurricane Michael damaged 95% of Tyndall AFB's infrastructure and disrupted training and maintenance for about a month. By 2050, Florida bases are expected to experience 10 times the number of floods experienced in 2016. While not affected much by sea level rise today, 50% of Eglin AFB facilities are expected to be affected by sea level rise flooding by 2070.⁶

Extreme Heat and Wildfires

Florida is facing increasing temperatures and its military bases are not immune. Currently Northwest Florida experiences around 70 days with temperatures crossing 100 degrees Fahrenheit. Worst case estimates that assume if no climate action is taken, all seven military bases in Northwest Florida will experience over 112 days above 100 degrees annually by 2100.⁷ This fact is particularly alarming for readiness as the military pauses or limits all outdoor physical and strenuous activity when temperatures reach 90 degrees.⁸ Referred to as black flag days, the trends in heat will increase their frequency, limiting servicemember's ability to train.

Eglin AFB is among a shortlist of bases that have the highest relative average exposure to wildfires and has one of the highest percentages of base area with high or very high wildfire hazard potential.⁹ Wildfires also impact critical infrastructure outside of the installation, like electricity.

RESILIENCE EFFORTS AND CLIMATE SOLUTIONS

In February 2022 Northwest Florida became a new sentinel landscape, only the tenth in the nation and the second in Florida.¹⁰ The designation, made by the U.S. Departments of Agriculture, Defense, and Interior, means the region will receive priority for Federal funding to protect military missions, maintain rural land uses, and conserve habitats.¹¹ Enterprise Florida, the Florida Defense Alliance, and the Florida Defense Support Task Force worked together to draft and submit the proposal.

Tyndall AFB, in its \$4.9 billion recovery plan and quest to become the installation of the future, continues to rebuild after devastating storms in 2018.¹² A \$357 million infrastructure project was awarded to rebuild roadways, fencing, lighting, parking, water, wastewater, electrical, stormwater, communications, fire protection infrastructure and other related works.¹³ The contractor will be required to comply with Miami/Dade County hurricane standards.

In 2018, the City of Pensacola Climate Mitigation and Adaption Task Force released a report on climate mitigation strategies for the region.¹⁴ The plan outlines opportunities to cut greenhouse gas emissions and urges updates to emergency management and infrastructure plans that incorporate climate change projections and calls on local authorities to protect wetlands and natural spaces to aid excess water drainage.¹⁵

Florida's Department of Environmental Protection has continued to provide financial assistance to prepare coastal communities for current and future effects of rising sea levels, including coastal flooding, erosion and ecosystem changes.

FEDERAL PROGRAMS—CLIMATE MITIGATION & RESILIENCE

This list provides examples of programs available to help address climate change. Some of these programs are available to military installations while others are only open to communities. The funding provided by each program is available through an annual application process.

The investment needed to catch up to years of deferred maintenance and to be ready for storms as strong as 2018's Hurricane Michael will be costly, but nowhere near the expense the DoD is likely to incur if the U.S. takes a slow or reactive approach to climate change. The programs need expansion.

Flood Mitigation Assistance – \$200 mil/FY for flood prone areas. It provides funding to states, local communities, and federally recognized tribes and territories. It can also fund projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program.¹⁶

National Coastal Resilience Fund – \$34 mil/FY for flood protection for coastal communities through building/enhancing green infrastructure. Restored coastal ecosystems provide valuable habitat for fish and wildlife. These same wetlands, dunes, and coral reefs also offer flood protection for coastal communities by lessening wave energy and absorbing excess waters.¹⁷

Defense Community Infrastructure Program – \$50 mil/FY is available to empower communities that surround military installations to strengthen operational readiness by building or strengthening vital community infrastructure (roads, schools, etc.).¹⁸

Military Installation Sustainability – \$12 mil/FY for community vulnerability studies used to enhance or fortify infrastructure outside a military base.¹⁹

Sentinel Landscape Program – \$60 mil/FY for land acquisition to advance sustainable land practices around bases and to strengthen military readiness, conserve natural resources, bolster agricultural and forestry economies, and increase climate change resilience.²⁰

Defense Access Road Program – \$20 mil/FY for public highway improvements. DAR empowers communities to mitigate risks to infrastructure posed by recurrent flooding and sea level fluctuation when access to a military installation is reduced.²¹

Building Resilient Infrastructure and Communities – \$500 mil/FY for hazard prone areas. Supports communities through capability- and capacity-building to encourage and enable innovation, promote partnerships, and enable large projects²²

ENDNOTES

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