

Florida's soldiers face more heat risk from climate change than any other state

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On a military base, a black flag is bad news. That means it's too hot outside to do anything strenuous, so training and missions are put off until conditions improve.

As the climate changes, there could be plenty more black flag days ahead, especially in Florida, a new analysis from the Union of Concerned Scientists found. America's military bases could see an average of an extra month of dangerously hot days by mid-century. In Florida, they could quadruple.

Pentagon data shows [heat](#)-related illnesses and injuries are on the rise in every branch of the military. Last year, nearly 2,800 soldiers suffered heatstroke or [heat exhaustion](#), a roughly 50% jump from 2014.

"I think most of us, if we hear there are tens of thousands of cases of heat stress in our troops every year, our minds would go to where they were deployed," said Kristy Dahl, a senior climate scientist at UCS and the lead author of the study. "But more than 90% of the military cases of heatstroke happened right here at home."

Florida's three major air force bases—Homestead, MacDill and Tyndall—topped the charts for bases due to see the biggest increase in days with a heat index above 100 degrees Fahrenheit.

The analysis didn't include the Coast Guard, and the climate model the Union of Concerned Scientists used only covers the contiguous U.S., so the Keys didn't make the cut. The Naval Air Station Key West was the star of an earlier Union report, however. It found the 5,800-acre installation was more vulnerable to sea rise than any other coastal base.

But while sea rise threatens the structures of a base, heat primarily threatens the people who populate it.

Heat illness isn't just a medical concern, it's a matter of national security, said Stephen Cheney, a retired Brigadier General in the U.S. Marine Corps and president of the American Security Project, a national security advocacy group. The more [hot days](#) where soldiers can't train,

the less prepared they are for deployment.

"There's a direct connection between readiness and climate," he said. "The military has known about this for a long time, but it's getting a lot worse."

The military started to take climate change seriously as a national security threat under President George W. Bush, Cheney said. That continued in President Barack Obama's administration but has all but disappeared as an issue under President Donald Trump.

"They've gone well out of their way to whitewash it from any strategic document, which is just not looking at reality," Cheney said. "The administration can say what it wants denying [climate change](#), but that report kind of lays it out in stark contrast to their opinion. Call it what you will, it's getting hotter."

That heat is affecting more and more soldiers, despite the fact that the military has strong protections in place for heat-related illnesses, unlike most farmworkers, construction workers or other outdoor laborers. That includes strict schedules for work, rest and hydration and a flag system that relies on sophisticated weather readings.

"They really do think about what the conditions are like for someone who's exerting themselves outside," Dahl said. "They take these guidelines seriously and they realize these heat deaths are a problem."

In fact, after a heat-related death at the military's largest basic training base in 2016, Fort Benning in Georgia, doctors there decided to create a special Heat Center dedicated to preventing heat illness and come up with the best strategies to treat it.

Maj. Meghan Galer, the doctor leading the initiative, wrote in a blog post

that they sometimes see soldiers come in with core body temperatures of 109 F. Ever since the initiative began, Dahl said, no soldier has died of a heat-related illness at Fort Benning.

"This will pay dividends in establishing and maintaining military superiority in inhospitably hot environments," Galer wrote.

That research may become even more important in a world where emissions aren't capped, Dahl said.

Now, MacDill Airforce base sees about 20 days a year with a heat index of 100 F. Under a future scenario where emissions aren't cut, often called "business as usual," MacDill could see 116 days at that heat index by midcentury, and 151 by 2100, the analysis found.

Under a scenario where emissions are allowed to rise a little longer and then cut drastically later on, the analysis found MacDill would see 97 days with 100-degree heat index by midcentury and 110 day by century's end. Under a third scenario with an immediate, drastic emissions cut, MacDill could only see 98 days of 100-degree heat index by 2100.

"A lot of this is baked in, although that's more the case for Florida than other places in the country," Dahl said. "Because Florida's already a hot place, it doesn't take that much warming to put you over the 100-degree threshold."

The longer the world waits to cut emissions, she said, the harder it will be to meet this challenge in the future.

"The best way to limit future global warming and future frequencies in the increase of extreme heat is to reduce our emissions swiftly and aggressively," she said.

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