WELCOME

# Climate

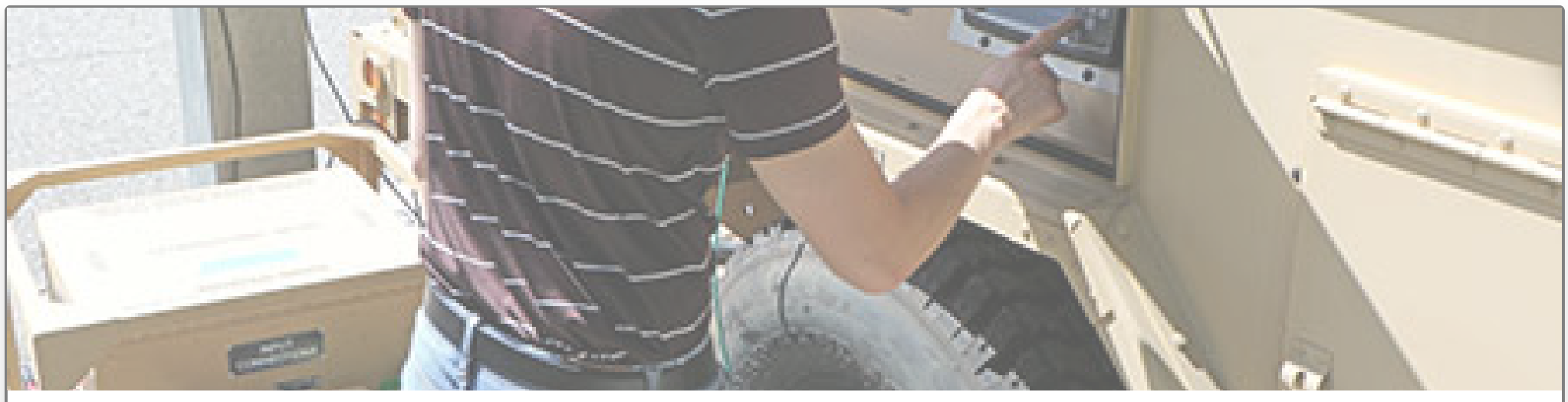
Environment and Energy Resilience

## DOD Makes Climate Assessment Tool Available to Partner Nations

*By C. Todd Lopez, DoD News*
Apr. 21, 2023

## DOD Produces Climate Assessment Tool, Strengthens Climate Cooperation With Six Allies

*By DoD News*
Apr. 20, 2023



## Official Describes Steps DOD Taking for Energy, Environmental Resilience

*By David Vergun, DoD News*
Apr. 17, 2023

## DoD Climate Assessment Tool Climate Videos

*By Defense.gov*

Recent Videos

# CLIMATE CHANGE

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Richard Kidd, Deputy Assistant Secretary of Defense for Environment and Energy Resilience, discusses what is being done to adapt to climate change impacts on the Defense Department.

Source

### Why is climate change important to the DoD?

Climate change affects many aspects of the DoD, including Operations, Installations and Infrastructure, and Personnel.

### Operations

- Increased global insecurity – “Failed States”
- Defense Support to Civil Authorities- “Fire Year” instead of “Fire Season”

- International Humanitarian Response

**Installations and Infrastructure**

- Drought, floods, heat
- Loss of access to training areas
- Degraded infrastructure

**People and Equipment**

- Heat stress and health impacts
- Readiness effects
- Performance degradation

# DoD CLIMATE ADAPTATION PLAN (CAP)

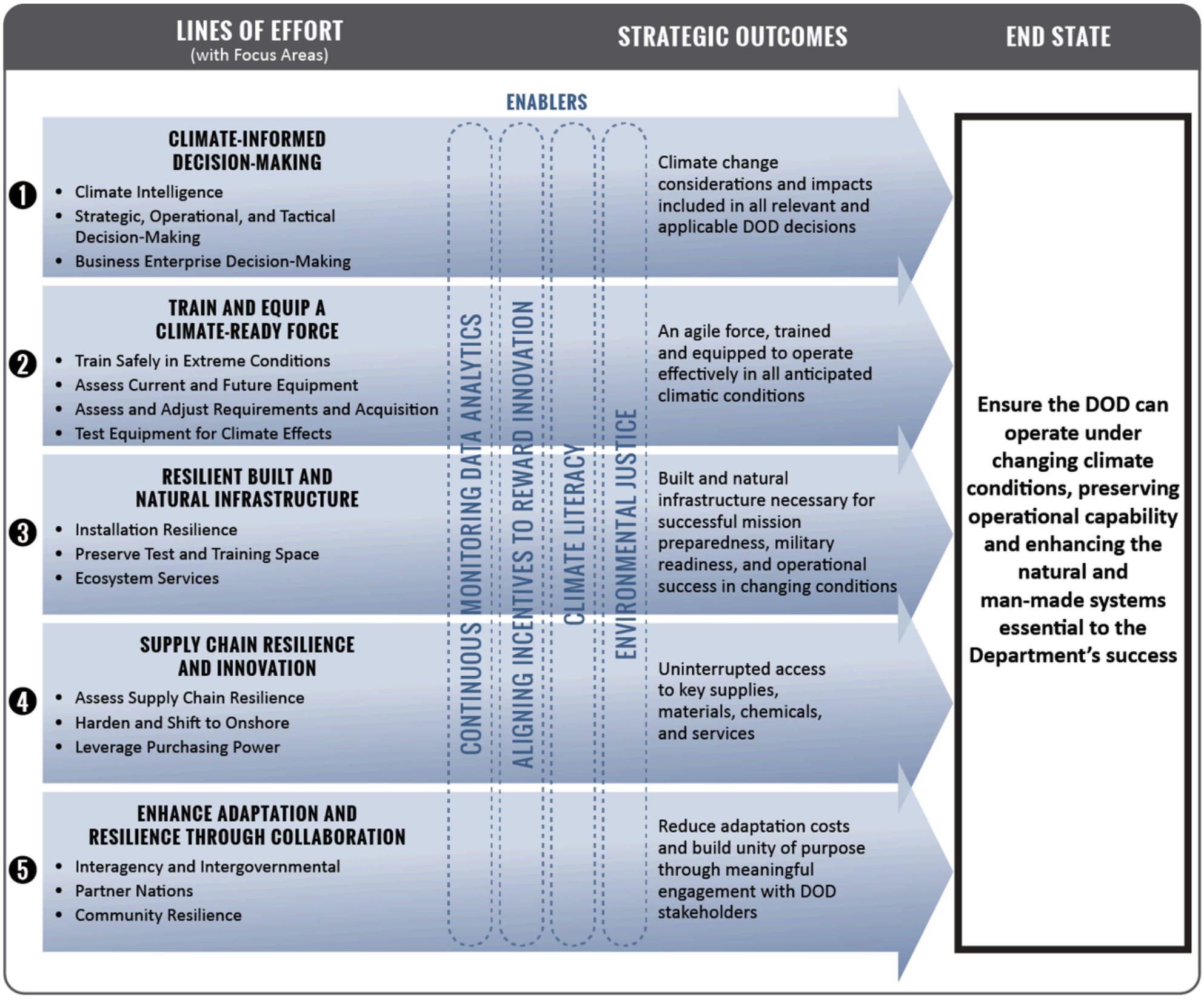
"The Department must take bold steps to accelerate adaptation to reduce the adverse impacts of climate change. These adaptation efforts must align with our strategic objectives and mission requirements, ensuring that our military can deter aggression and defend the nation under all conditions." - *DoD CAP*

- Spurred by EO 14008, Section 211, issued 27 January 2021
- Signed by SECDEF 1 September 2021
- Released by White House 7 October 2021

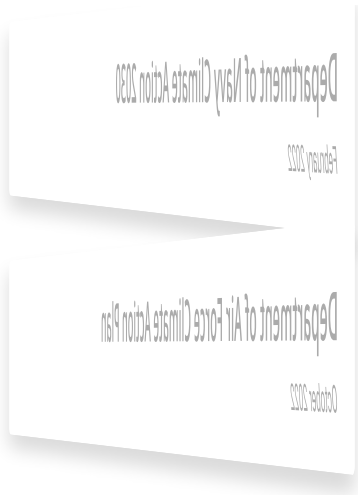
Climate change is a serious threat to our security. It impacts our missions, plans, and capabilities and must be met by ambitious, immediate action.

The Department is responding to climate change in two ways: adaptation to enhance resilience to the effects of climate change; and mitigation to reduce greenhouse gas (GHG) emissions.

The Department is showcasing its bold steps with its Climate Adaptation Plan (CAP), which is intended to drive transformative change across the entire Department.


LINES OF EFFORT
(with Focus Areas)
STRATEGIC OUTCOMES
END STATE
ENABLERS
CONTINUOUS MONITORING DATA ANALYTICS
ALIGNING INCENTIVES TO REWARD INNOVATION
CLIMATE LITERACY
ENVIRONMENTAL JUSTICE
1 CLIMATE-INFORMED DECISION-MAKING
• Climate Intelligence
• Strategic, Operational, and Tactical Decision-Making
• Business Enterprise Decision-Making
Climate change considerations and impacts included in all relevant and applicable DOD decisions
2 TRAIN AND EQUIP A CLIMATE-READY FORCE
• Train Safely in Extreme Conditions
• Assess Current and Future Equipment
• Assess and Adjust Requirements and Acquisition
• Test Equipment for Climate Effects
An agile force, trained and equipped to operate effectively in all anticipated climatic conditions
3 RESILIENT BUILT AND NATURAL INFRASTRUCTURE
• Installation Resilience
• Preserve Test and Training Space
• Ecosystem Services
Built and natural infrastructure necessary for successful mission preparedness, military readiness, and operational success in changing conditions
4 SUPPLY CHAIN RESILIENCE AND INNOVATION
• Assess Supply Chain Resilience
• Harden and Shift to Onshore
• Leverage Purchasing Power
Uninterrupted access to key supplies, materials, chemicals, and services
5 ENHANCE ADAPTATION AND RESILIENCE THROUGH COLLABORATION
• Interagency and Intergovernmental
• Partner Nations
• Community Resilience
Reduce adaptation costs and build unity of purpose through meaningful engagement with DOD stakeholders
Ensure the DOD can operate under changing climate conditions, preserving operational capability and enhancing the natural and man-made systems essential to the Department's success


Department of Defense Climate Adaptation Plan
September 2021
Department of Defense Climate Adaptation Plan Highlights and Examples
October 2021
Department of Defense Climate Risk Analysis
October 2021
Department of Defense Climate Adaptation Plan
October 2022
United States Army Climate Strategy
February 2022




# DoD CLIMATE ASSESSMENT TOOL (DCAT)

***Climate vulnerability*** of infrastructure, systems, people, organizations, missions, operations, or activities is comprised of three components — **exposure, sensitivity, and adaptive capacity:**

- **Exposure** is the geographic proximity of infrastructure, systems, people, organizations, missions, operations, or activities to a climate hazard.
- **Sensitivity** is the degree to which a climate hazard beneficially or adversely affects the intended function of infrastructure, systems, people, organizations, missions, operations, or activities.
- **Adaptive capacity** is the ability of infrastructure, systems, people, organizations, missions, operations, or activities to adjust to adverse impacts caused by a climate hazard.

***Climate hazard*** is a process, phenomenon or event related to changes in weather and climate that may cause disruption, degradation, damage or other impacts to infrastructure, systems, people, organizations, missions, operations, or activities.

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**WHAT IS THE DoD CLIMATE ASSESSMENT TOOL?**

A CAC-enabled, web-based collection of scientific climate data to support research, analysis, and decision making about exposure to historical extreme weather and reasonably foreseeable climate effects.

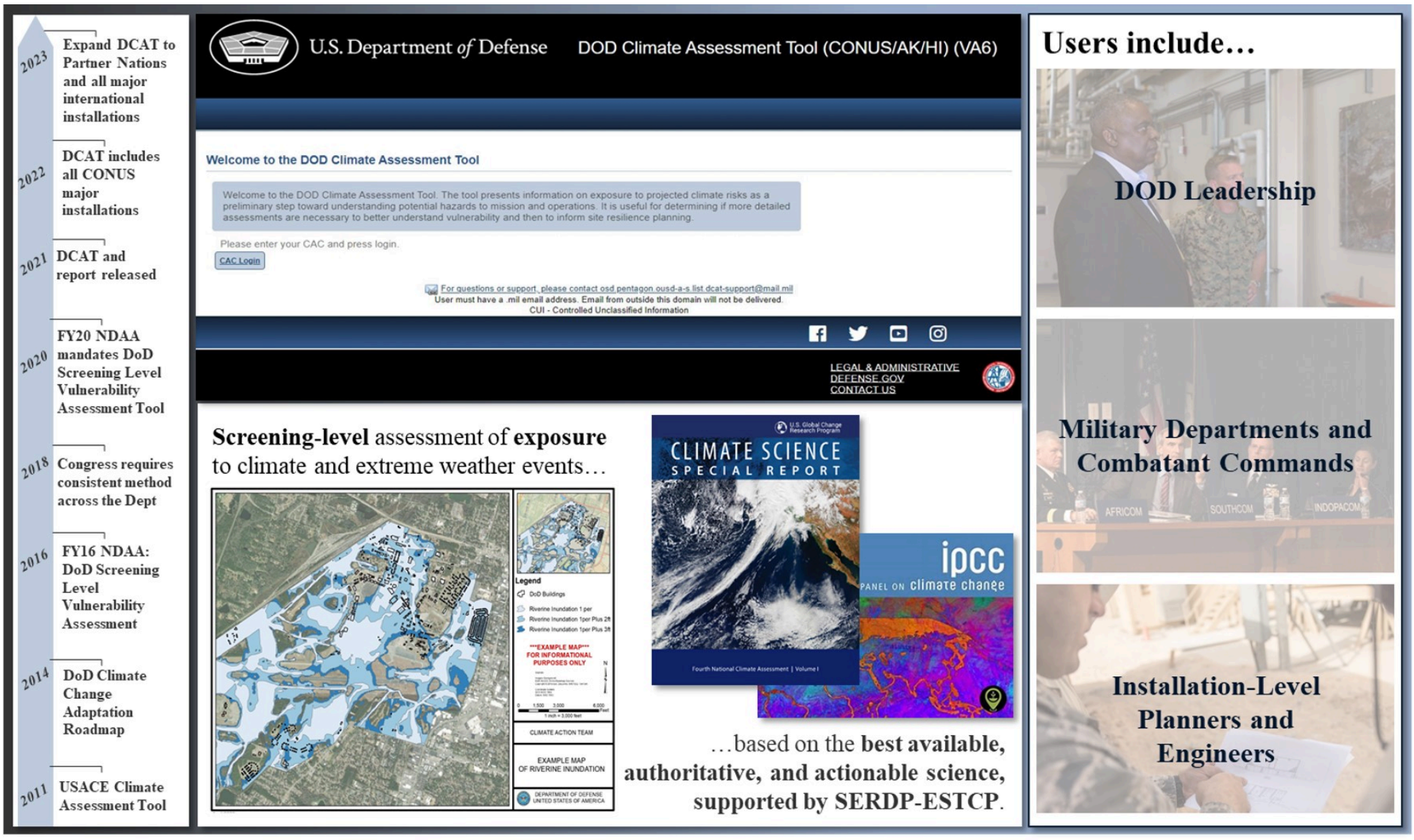
**WHAT IS THE PURPOSE OF THE CLIMATE TOOL?**

Enables Military Departments and their installation personnel to deliver consistent exposure assessments and identify regions or installations for additional climate-related studies.

**HOW WILL THE TOOL SUPPORT ANALYSIS AND DECISION MAKING?**

The tool uses data from past extreme weather events (e.g., hurricanes, tornado tracks) and the effects of future changes in sea levels, riverine flooding, drought, heat, land degradation, energy demand, and wildfires to produce hazard indicators.

The data supports a screening-level assessment of installation vulnerability expressed as a combination of exposure (designated by the tool) and sensitivity. This high-level assessment is useful for long-term planning and informed decision making. In the report accompanying the tool, an example installation illustrates the concept of sensitivity with different types of military assets (e.g., airfields, piers, training and testing areas).




Climate change has been identified by the DoD as a critical national security threat and a threat multiplier. DCAT is the Department's actionable climate assessment tool leveraging best available, authoritative data and methods. Assessing long-term exposure through tools like DCAT is essential to account for climate risks and vulnerabilities to DoD sites worldwide.

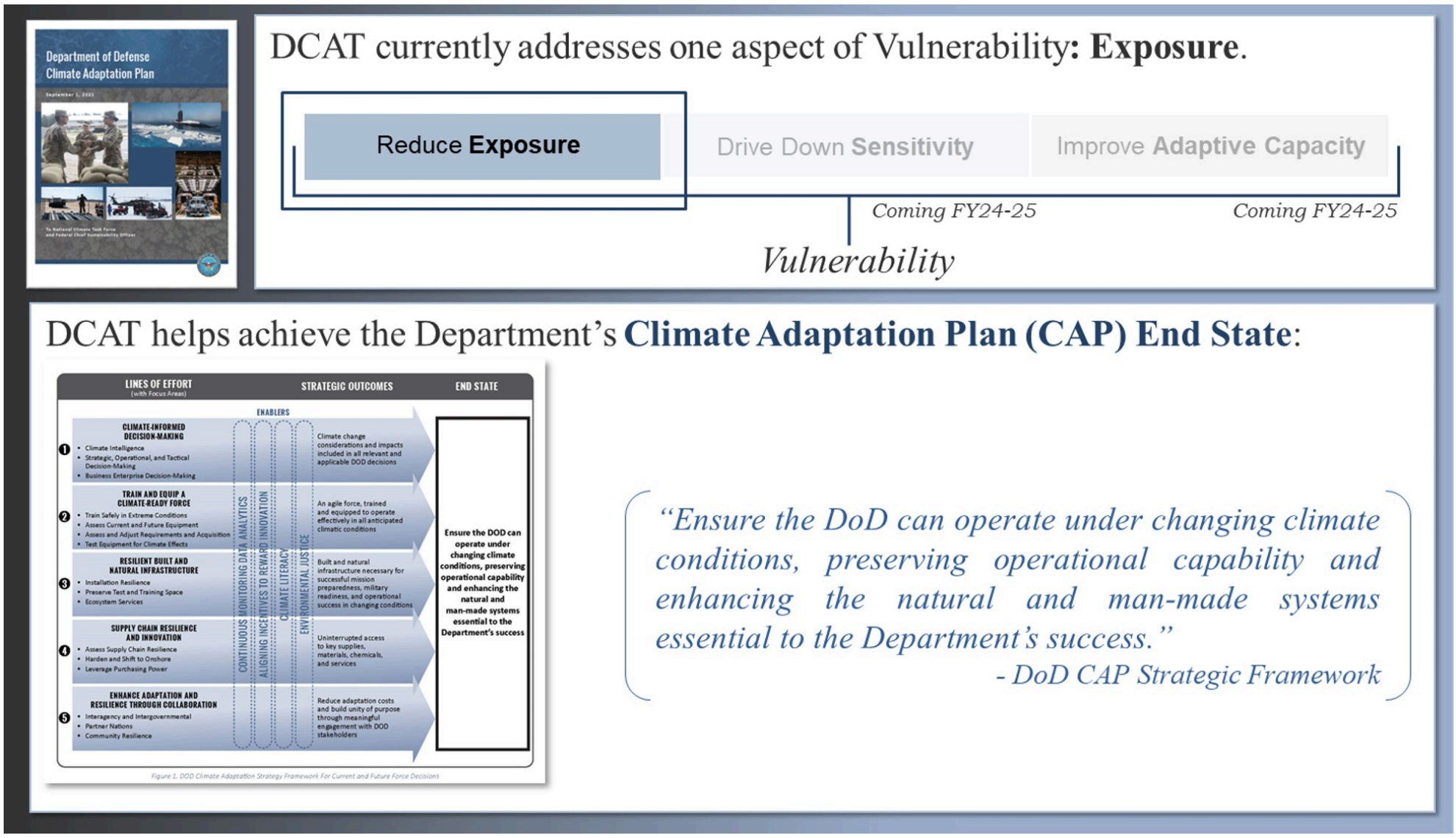
DCAT supports climate-informed decision making about prioritization and resources for climate adaptation and resilience (Climate Adaptation Plan LOE 1) to achieve the CAP End State: Ensure the DoD can operate under changing climate conditions, preserving operational capability and enhancing the natural and man-made systems essential to the Department's success.

It provides a screening-level analysis and enables Military Departments and installation staff to deliver consistent climate exposure assessments, compare exposure across locations and prioritize further investments where additional climate-related studies might be needed to determine sensitivity and adaptive capacity.

DCAT calculates installation's future climate exposure to 8 hazards: *coastal flooding, riverine flooding, heat, drought, energy demand, land degradation, wildfire, and historical extreme weather events.*

The tool assesses climate hazard exposure for two scenarios—lower future warming and higher future warming—and two future epochs: 2035–2064 (reported at 2050) and 2070–2099 (reported at 2085).

It includes customizable reports that can be used to prioritize installations for further, more detailed study of exposure, sensitivity, and adaptive capacity (ESAC); support effective and efficient planning; and identify climate resilience measures.




Using DoD credential authentication, the CONUS-Alaska-Hawaii DCAT can be found here. Overseas analyses in the DCAT International tool can be found here.

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An in-depth report providing an unclassified overview of the data and trends represented within the DCAT is available here: DoD installation Exposure to Climate Change at Home and Abroad

## OUSD A&S Offices

Acquisition & Sustainment

Office of the Assistant Secretary of Defense for Acquisition

Office of the Assistant Secretary of Defense for Sustainment

Office of the Assistant Secretary of Defense for Energy, Installations, and Environment

Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs

Office of the Deputy Assistant Secretary of Defense for Industrial Base Policy

Office of the Executive Director for Special Access Program Central Office

## Military Services Links

Army Acquisition

Army Sustainment

Army IE&E

Navy Acquisition

Navy EI&E

Air Force Acquisition

Air Force Sustainment

Air Force EI&E

## Resources

Veterans / Military Crisis Line

Accessibility | Section 508

Freedom of Information Act

DoD No FEAR Act

Plain Writing Act

National Defense Strategy

USA.gov

Web Policy

External Link Disclaimer

## DoD Links

US Department of Defense

USD Research & Engineering

USD Policy

USD Comptroller

USD Personnel & Readiness

USD Intelligence

DoD CIO

DoD Inspector General