Initial assessments concluded that location determines weather, climate, or geologic conditions; all installations are susceptible to impacts; Avoiding all risks is not possible: therefore design in adaptation and resilience; and analysis can inform risk reduction/management strategies and/or extreme weather preparations.

Addressing severe weather and climate threats at installations from a planning perspective

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Installations are a weapon system. Every Department of the Air Force mission starts and ends on an installation. We project power, conduct operations, generate readiness, test new platforms, train to support joint operations, and provide safe and healthy communities at our installations. As the joint force becomes increasingly dependent upon an integrated battle network, Air and Space Force installations also serve as key nodes in enabling mission success around the world. More than 330,000 active-duty personnel organize, train, and equip at DAF installations, and for thousands of Airmen, Guardians, and their families, installations also serve as their homes and centers of life. The readiness and resiliency of installations is a matter of strategic importance to ensure the Air Force and Space Force can always provide combat capability to the joint force.

Secretary of Defense Lloyd J. Austin recently released his top three priorities for the

Department of Defense: Defend the Nation, Take Care of our People, and Succeed through Teamwork. He identified tackling the climate crisis as one of the lines effort under the priority to defend the nation, elevating climate as a national security priority. Severe weather events and the changing climate are a continual threat to our installations. During the past several years, the Air Force has experienced first-hand the effects climate and severe weather can have on our installations. The Air Force is aggressively moving forward with rebuilding efforts at Tyndall Air Force Base, Florida, following the devastation caused by Hurricane Michael in 2018 and Offutt AFB, Nebraska, following historic flooding in 2019. We are also recovering from recent winter storms that brought extreme cold to much of the United States, affecting dozens of DAF installations.

A one-size-fits-all approach to understanding risk from natural hazards would not work well across all installations. These risks must be addressed base by base because each installation faces different hazards because of local weather and geography. While integrating planning for these hazards into existing policies, the need for a methodology was recognized to help identify the exposure – or susceptibility – to natural hazards so risks to the mission can be understood to then determine how best to apply resources where it matters most to improve adaption and resiliency.

An enterprise team of planners and weather professionals developed the *Severe Weather and Climate Hazard Screening and Risk Assessment Playbook*, published in spring 2020. It outlines a consistent and systematic framework for cross-functional teams to screen for severe weather and climate hazards and assess current and future risks at each installation. The playbook establishes a minimum screening list of severe weather and climate phenomenon and provides some guidance on how to use several tools, including a now-publicly available DoD Regional Sea Level database (https://drsl.serdp-estcp.org/). The playbook also provides some initial information on next steps for how installations can adapt and reduce the level of risk.

Initial assessments at all major installations are complete and the information can be incorporated into existing plans and processes, such as planning products, programming for projects, and emergency management plans. Installations will ultimately capture risks in their Mission Sustainment Risk Reports, as required by AFI 90-2001, *Mission Sustainment*. Additionally, installations will be better prepared to use playbook process outputs to develop the new congressionally mandated requirement to have an Installation Resilience Component Plan as part of Installation Development Plans over the next several years.

The DAF is well-positioned to withstand the increased focus on climate change. Informed planning and project design and emergency preparedness help address the climate change "adaptation" side - *addressing* the impacts of climate change. Our operational energy, or aviation fuel, efficiency initiatives address the climate change "mitigation" side - efforts to *reduce the causes of climate change: greenhouse gas*

emissions – while also providing significant return-on-investment with increased readiness and lethality. The AFCEC Comprehensive Planning Division remains postured to provide technical assistance and reach-back support to CE planners and resiliency planning stakeholders across the enterprise. If you have any questions or need additional information regarding DAF severe weather and climate readiness efforts please contact Jeff Abalos at jeffrey.abalos@us.af.mil.