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FOR DOCTRINE DEVELOPMENT AND EDUCATION



AIR FORCE DOCTRINE PUBLICATION (AFDP) 3-72 NUCLEAR OPERATIONS

INTRODUCTION TO NUCLEAR OPERATIONS

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Nuclear operations are a key component to the success of [joint all-domain operations](#) and critical to this current era of great power competition, especially as it pertains to deterrence. The Air Force’s responsibilities in nuclear operations are to organize, train, equip, and sustain forces with the capability to support national security objectives. In support of the [National Security Strategy](#) and [National Defense Strategy](#), US nuclear operations promote security and stability by:

- ★ Deterring nuclear and non-nuclear attacks on the US and its interests.
- ★ Assuring allies and partners.
- ★ Achieving US objectives if deterrence fails.
- ★ Hedging against an uncertain future.

Nuclear weapons remain important in the current global environment. Our nuclear deterrent is the ultimate protection against a nuclear attack on the US, and through [extended deterrence](#), also assures the security of our allies and partners against regional aggression. It also supports our ability to project power by communicating to potential nuclear-armed adversaries that they cannot escalate their way out of failed conventional aggression.

“Nuclear weapons have served a vital purpose in America’s National Security Strategy for the past 70 years. They are the foundation of our strategy to preserve peace and stability by deterring aggression against the United States, our allies, and our partners. While nuclear deterrence strategies cannot prevent all conflict, they are essential to prevent nuclear attack, non-nuclear strategic attacks, and large-scale conventional aggression. In addition, the extension of the U.S. nuclear deterrent to more than 30 allies and partners helps to assure their security and reduces their need to possess their own nuclear capabilities.”

-- [2017 National Security Strategy](#)

Paradoxically, while the number of nuclear powers has increased since the end of the Cold War, the total number of nuclear weapons has decreased. Fewer US nuclear weapons have forced a

transformation in Air Force thinking and analysis, especially in a military environment that has grown more complex due to conventional capabilities, missile defense, and the proliferation of anti-access and area denial capabilities. Maintaining strategic stability will be an important challenge in the years ahead as both state and non-state actors seek to acquire new capabilities or to modernize and recapitalize existing nuclear systems.

Each nuclear actor brings its own decision calculus. US decision makers, including [combatant commanders](#), subordinate [joint force commanders](#), and commanders and staffs of Air Force components, require an understanding of both adversary and ally decision-making processes and behaviors and consideration of second- and third-order effects of their decisions. Just as the understanding of US decision makers may fall short, foreign actors may possess a limited ability, if any, to correctly discern US operations, detect changes in US posture, or recognize US intent. Nuclear operations in a proliferated, multipolar world cannot be conducted using bipolar, Cold War paradigms.

This AFDP is arranged around the following key related topics:

- ★ [“Fundamentals of Nuclear Operations”](#) presents a discussion of nuclear weapons employment policies.
- ★ [“Strategic Effects of Nuclear Operations”](#) presents a discussion on the key effects of [deterrence](#), [extended deterrence](#), [assurance](#), [dissuasion](#), and [defeat](#).
- ★ [“Presentation of Nuclear Forces”](#) discusses organization and command relationships for Air Force nuclear forces.
- ★ [“Nuclear Command, Control, and Communications”](#) presents information on the processes and characteristics associated with nuclear command and control.
- ★ [“Planning Considerations”](#) presents high-level considerations of nuclear planning and the post-strike environment.
- ★ [“Nuclear Surety”](#) presents an overview of surety and the subordinate topics of safety, security, and reliability.

Normally, doctrine provides guidance to commanders for their consideration in campaign design as well as during execution of an operation, as they adjust their forces to seize opportunities and respond to adversary actions. However, since nuclear operations have the potential to achieve effects at the strategic, operational, and tactical levels simultaneously, the conduct of nuclear operations is strictly controlled to ensure a unified effort using all [instruments of national power](#). As such, subordinate nuclear commanders have very little flexibility in adjusting the execution of a nuclear plan. Also, detailed force planning is performed at the joint, not Service, level; hence, there is little Service doctrinal guidance herein on such normally expected topics as planning considerations at the Service component level. Some planning discussion is provided for general awareness; Airmen may be called upon to provide weapons system expertise or regional expertise within a regional planning context.