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Safety

**DIRECTED ENERGY WEAPONS (DEW)
SAFETY**

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This directive establishes Air Force directed energy weapons safety policy. Directed energy weapons provide unprecedented capabilities and produce a broad spectrum of new hazards. These hazards require unique safety measures to prevent directed energy weapon mishaps. This directive implements Department of Defense Instructions 6055.1 and 6055.11 for directed energy weaponry.

1. The Air Force will ensure directed energy weapons (DEW) receive unique treatment because of their speed-of-light delivery, range, weapons effects, energy-generation and handling requirements. Unique treatment is a scalable approach to directed energy weapon safety that is commensurate with the hazard potential of each weapon.
2. The Air Force will ensure protection of personnel, property, operational capability and the environment from undue risk of damage or harm from directed energy weapons, consistent with mission requirements.
3. The Air Force will establish and conduct a safety program for directed energy weapons to ensure the safe research, development, test, operation, training, maintenance, storage and decommissioning of these systems.
 - 3.1. As an element of this program, the Air Force will determine the applicability of federal, state and local laws and regulations, international law and host nation laws, as well as the utility of advisory standards developed or adopted by national or international scientific safety organizations.
4. The Air Force will establish and conduct a safety certification process for directed energy weapons. Directed energy weapons must be certified prior to operational or training use.
5. The Air Force will investigate mishaps involving directed energy weapons in accordance with AFI 91-204, *Safety Investigation and Reports*, and other directives as appropriate.
6. This directive establishes the following responsibilities and authorities:

- 6.1. The Assistant Secretary of the Air Force for Installations, Environment and Logistics (SAF/IE) is responsible for safety and occupational health policy matters of DEW.
 - 6.2. The Assistant Secretary of the Air Force for Acquisition (SAF/AQ) is responsible for ensuring awareness of directed energy weapons safety requirements in acquisition policy and is responsible for providing acquisition inputs, in conjunction with the MAJCOMs, to the Planning, Programming and Budgeting process.
 - 6.3. The Air Force Chief of Safety (USAF/SE) is responsible for ensuring compliance with directed energy weapons safety policy and procedural guidance.
 - 6.4. The Air Force Surgeon General (USAF/SG) is responsible for ensuring the evaluation of directed energy weapons health effects to personnel.
 - 6.5. The Associate Director for Ranges and Airspace (XOO-RA) is responsible for ensuring directed energy weapons safety requirements are implemented in range operations policy.
 - 6.6. Lead Command (or MAJCOM) is responsible for advocating funding requirements and manpower in the budgeting process to ensure sufficient funding and manpower are available to develop and implement the requirements of the Directed Energy Weapons Safety Program.
 - 6.7. Headquarters Air Force Safety Center (HQ AFSC) is responsible for developing and maintaining instructions to implement this directive and is the certification authority for DEW safety.
 - 6.8. Commanders at all levels with a mission related to directed energy weapons will understand the capabilities and hazards of DEW systems and use them appropriately. They will incorporate maximum directed energy weapons safety, consistent with applicable test, training or operational requirements, in their mission planning, decisions and operations.
 - 6.8.1. Outside the United States, its territories or possessions, commanders must be aware of the safe-use requirements of applicable host nation laws.
7. Major commands, field operating agencies, and direct reporting units, if applicable, will not issue instructions that implement this policy directive without USAF/SE approval.
 8. See **Attachment 1** for governing policies and directives implemented by this policy directive and other publications with which it interfaces.

JAMES G. ROCHE
Secretary of the Air Force

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References******Implemented Publications:***

DoDI 6055.1, *DoD Safety and Occupational Health (SOH) Program*

DoDI 6055.11, *Protection of DoD Personnel from Exposure to Radiofrequency Radiation and Military Exempt Lasers*

Interfaced Publications:

JP 1-02, *Department of Defense Dictionary for Military and Related Terms*

AFPD 13-2, *Air Traffic Control, Airspace, Airfield and Range Management*

AFPD 32-70, *Environmental Quality*

AFPD 90-1, *Policy Formulation*

AFPD 91-2, *Safety Programs*

AFI 91-204, *Safety Investigations and Reports*

Abbreviations and Acronyms

DE—Directed Energy

DEW—Directed Energy Weapon

DoD—Department of Defense

RF—Radiofrequency

USAF—United States Air Force

Terms

Directed Energy—An umbrella term covering technologies that relate to the production of a beam of concentrated electromagnetic energy or atomic or subatomic particles.

Directed Energy Weapon—A system using directed energy primarily as a direct means to deny, disrupt, damage or destroy enemy equipment, facilities and personnel.