



2018 Secretary of Defense Environmental Awards Environmental Excellence in Weapon System Acquisition, Large Program Award

Each year since 1962, the Secretary of Defense has honored installations, teams, and individuals for outstanding conservation achievements, innovative environmental practices, and partnerships that improve quality of life and promote efficiencies without compromising the Department of Defense's (DoD) mission success. The 2018 Secretary of Defense Environmental Awards cycle encompasses an achievement period from October 1, 2015 through September 30, 2017 (Fiscal Year (FY) 2016-2017). A diverse panel of 63 judges with relevant expertise representing Federal and state agencies, academia, and the private sector evaluated all nominees to select one winner for each of the nine categories that cover six subject areas: natural resources conservation, environmental quality, sustainability, environmental restoration, cultural resources management, and environmental excellence in weapon system acquisition.

About the Environmental Excellence in Weapon System Acquisition, Large Program Award

The Environmental Excellence in Weapon System Acquisition, Large Program award recognizes efforts to incorporate environment, safety, and occupational health requirements into a large (Acquisition Category I) weapon system acquisition program's system engineering, contracting, and decision-making processes. Adhering to these principles enhances DoD's acquisition process by ensuring that weapon system programs prioritize the safety of personnel and protection of the environment. The 2018 winner of the Environmental Excellence in Weapon System Acquisition, Large Program award is the *Combat Rescue Helicopter Program Environment, Safety and Occupational Health (ESOH) Team, Wright Patterson Air Force Base, Ohio*.

About the Combat Rescue Helicopter Program ESOH Team, Wright Patterson Air Force Base, Ohio

Wright Patterson Air Force Base (WPAFB) is located just outside of Dayton, Ohio, and is hosted by the 88th Air Base Wing and the Air Force Material Command. The base boasts a total of 27,406 military, civilian, and contract employees and a resident population of 1,821 people. The Combat Rescue Helicopter (CRH) Program is a United States Air Force Acquisition Category IC program located at WPAFB. The CRH Program replaces aging HH-60G Pave Hawk helicopters with a new helicopter designated as the HH-60W. The primary mission of this helicopter is recovering isolated personnel from hostile or denied territory. The CRH Program has thoughtfully integrated ESOH into systems engineering planning, execution, and decision-making. The CRH Program incorporated warfighter-generated ESOH requirements into the program, including avoiding health hazards associated with mechanical forces, toxic substances, radiation, noise, or other emissions. The program also eliminated Highly Volatile Organic Compounds; identified and eliminated safety hazards, or reduced their risk to acceptable levels; and ensured the ability to train, operate, maintain, and dispose of the system in full compliance with environmental laws, regulations, and executive orders.



The CRH Program ESOH Team (from left to right): Sam Hunt, Jeff Miller, Arnold Godsey, Sandy Lambert, Gene McKinley, David Diaz, and Grady Davis. Air Combat Command, Air Force Research Lab, Air Logistics Center, and Sikorsky team members are not pictured.

Major Accomplishments in FY 2016-2017

- The CRH is the first Air Force, and possibly the first DoD, aircraft to eliminate carcinogenic hexavalent chromium (Cr6+) paints from both the exterior and interior structural surfaces of the aircraft. This initiative addresses what is one of the top ESOH risks facing DoD today, and on the exterior alone, will remove over 75,000 pounds of Cr6+-containing coatings from workplaces and waste streams.



Hazardous hexavalent chromium (Cr6+) primer on the interior and exterior of aircraft have been replaced with non-chrome alternatives through targeted identification and risk mitigation processes. Replacements eliminate exposure risks for operators and maintenance personnel.

- The CRH Program ESOH Team engaged in a nose-to-tail assessment of hazardous material (HAZMAT) on the aircraft, reviewing 488 unique HAZMAT used in manufacturing or specified in maintenance technical manuals. The Team eliminated 40% of these HAZMATs across airframe, avionics, and maintenance technical documentation, significantly reducing risks to supply chains, personnel, and the environment.
- The CRH Program ESOH Team fully integrated system safety into their efforts, enabling the Team to identify and mitigate serious mishap risks associated with the Terrain Awareness and Warning System and the 50 caliber GAU-21 machine gun. The ESOH Team used the MIL-STD-882 system safety process to eliminate hazards or to reduce risk to the lowest practical level consistent with cost, schedule, and performance requirements.
- The team comprehensively identified, assessed, and mitigated noise risk to operators and maintenance personnel, protecting Airmen and women from long-term hearing loss and possible disabilities. The CRH Program ESOH Team is currently monitoring six noise-related hazards in and near the operating aircraft to ensure they do not pose a risk for long-term hearing loss. One serious risk has been mitigated to medium through operational procedures and protective equipment.
- The CRH Program ESOH Team assembled comprehensive HAZMAT and hazard data tracking systems that provide an authoritative, cost-effective resource for National Environmental Policy Act compliance at bed-down locations, and will provide the basis for continuous ESOH risk reduction throughout the lifecycle. These efforts will ensure that the system can be safely demilitarized at end-of-life.



The CRH Program ESOH Team identified and eliminated hazardous materials used during CRH assembly. Efforts reduced HAZMAT exposure for operators and maintenance personnel and doubled the coating life, thereby reducing lifecycle sustainment costs.