

76th PROPULSION MAINTENANCE GROUP

MISSION

The 76th Propulsion Maintenance Group is made up of five squadrons whose maintenance capabilities keep the warfighter equipped with weapon systems that ensure air superiority. This 76th Propulsion Maintenance Group is responsible for aircraft jet engines and engine component repair and Tinker AFB is the only Air Force depot-level maintenance facility that has this capability. With a workforce of approximately 2,000 personnel, the repair of engines and major engine assemblies for F-15, F-16, E-3A, E-6, E-8, B-52, B-2, C-141, B-1B, KC/RC-135 and F/A-22 Aircraft supporting both Air Force and Navy workloads, and are responsible for the 15-year Propulsion Business Area (PBA) contract (F100, TF39 & T56 Engines) valued at \$10.5 billion. The 76th Propulsion Maintenance Group has a 2.5 million hour annual workload with an operating budget exceeding \$1 billion. The capabilities that allow for this superiority are second to none and are defined and described here for your information. Each of these capabilities are used in the overhaul/repair/testing processes, the manufacturing/machining processes and engineering processes.

The Mechanical Processes Group plays a key role in the repair capacity of the 76th Propulsion Maintenance Group. Our highly skilled 2,350 person workforce disassembles, inspects, repairs, assembles, and performs numerous diagnostics on every engine piece part.

The 76th Propulsion Group's NDI Engineers have extensive experience with propulsion and strong backgrounds in material engineering. They contributed to the development of quantitative corrosion inspection techniques including optimization of the inspection approach and improvement in inspection data processing and analysis. NDI is the examination of an object or material with technology that does not affect its future usefulness. NDI can be used without destroying or damaging a product or material. Because it allow inspection without interfering with the product's final use, NDI provides an excellent balance between quality control and cost-effectiveness.

76th Propulsion Maintenance Group has the Largest Thermal Spray Shop in DoD. Thermal spray coating are used to provide specific functional properties to jet engine components. For example,

tungsten and chrome coatings provide wear protection; ceramic base thermal coatings protect the base metal protect the base metal from the intense heat of engine operation. Thermal spray guns and robotics are used to direct the coating towards a component. The coating material is injected into a flame where melting occurs and the kinetic energy of spray plume propels the molten coating to the repair surface. Upon impact the material splats and accumulates to form a coating.

LINEAGE

76th Propulsion Maintenance Group established, 31 Jan 2005
Activated, 18 Feb 2005

STATIONS

Tinker AFB, OK, 18 Feb 2005

ASSIGNMENTS

76 Maintenance Wing, 18 Feb 2005
Oklahoma City Air Logistics Complex, 1 Oct 2012

ATTACHMENTS

Oklahoma City Air Logistics Complex, 10 Jul 2012

COMMANDERS

Col Robert Helgeson, #2013

HONORS

Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

Air Force Outstanding Unit Awards
1 Jan 2006-31 Dec 2007
1 Jan-31 Dec 2008
1 Jan 2010-31 Dec 2011

EMBLEM

MOTTO

NICKNAME

OPERATIONS

Roll in the Big Engines: Technicians tested a Pratt & Whitney F117 turbofan engine for the first time at Oklahoma City Air Logistics Center's specially refurbished test cell, announced officials at Tinker AFB, Okla., site of the center. The test took place on June 13, they said. Over the last two years, engineers constructed a larger test frame to hold the 15-foot-long, 10,000-pound engines, which power C-17 transports. Reworking the test cell for the F117 also required new control software, a re-glazed observation room, closed-circuit television monitoring, and various airflow modifications, in addition to a new concrete pad, states Tinker's June 22 release. Before the FAA certified the new cell earlier this year, the 76th Propulsion Maintenance Group was forced to send engines refurbished on Oklahoma City's line to JB Charleston, S.C., for test runs. The new test cell "adds to our capability" immensely, allowing both in-house rebuild and testing, said Joel Williamson, a quality assurance contractor. 2012

Air Force Order of Battle

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Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.