



For many aircraft that come here, the Aerospace Maintenance and Regeneration Center is a place of renewal.

# Like a Phoenix



Photography by Guy Aceto, Art Director, and Paul Kennedy



*Out on the Arizona desert, row after row of early model F-16As stand carefully protected from the wind, dust, and rain, ready for a possible return to action. The fighters are among the thousands of aircraft from all of the armed services stored at the Aerospace Maintenance and Regeneration Center, a special Air Force Materiel Command site that occupies a 2,600-acre swath of Davis-Monthan Air Force Base, near Tucson.*

*The place is often called "the Boneyard," but that's a misnomer. Aircraft frequently do not come here to die but to be regenerated. AMARC has adopted as the emblem of its mission a stylized Phoenix rising to new life.*



**AMARC may now be a vast aircraft warehouse, but it started small. After World War II, the Army had a surplus of B-29s and C-47s, and it created at Davis-Monthan a site for storing them until they could be scrapped. The place was perfect—dry, remote, with hard soil. From that humble beginning, AMARC's holdings have grown to some 4,500 fighters, bombers, transports, and other types of aircraft. The services reach into AMARC's stockpile for aircraft and parts of all types.**

**While thousands of World War II aircraft met with the scrapper's torch, the goal today is to preserve airframes and parts for later use. At right, a Navy F-14 Tomcat sports a covering of Spraylat, a protective coating that dries to form a tough, skintight plastic film that can be peeled off.**



Staff photo by Guy Aceto

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**At left, AMARC aircraft preservation technician Manny Vasquez applies a coat of Spraylat to an F-16. Aircraft arriving at the facility go first to this long open shelter. Workers drain all fluids and begin the process that will preserve the fighter. Storage is customized for three different types of use—a return to flying, spare parts, or eventual disposal. In all cases, the ejection seat system is deactivated and aircraft seams are taped over.**

**In 2004, AMARC processed into storage a total of 217 aircraft. It was a highly diverse fleet, including C-141 cargo aircraft, F-14 fighters, HH-3 helicopters, and F-16s such as the one at right, which last flew with the Minnesota Air National Guard. Doug Anglemeyer (left) and Johnny Mendez, both aircraft preservation specialists, are spraying the F-16 with preservation coating.**



Staff photo by Guy Aceto



*Against a backdrop of vaulting southern Arizona mountains, what looks like a herd of F-4 fighters and T-38 trainers (above) stands in the hot and arid desert environment. Some will be turned into unmanned, remotely piloted target drones, while others will be “parted out” to foreign customers. At right, older model KC-135 aerial tankers are parked in a straight line across the rock-hard desert floor.*

*This desert logistics center in 2004 regenerated 21 F-4 fighters, performed detailed inspections on 24 A-10 attack aircraft, and processed or maintained thousands of aircraft.*



*The photo at far left shows a collection of reclaimed C-130 propellers, carefully wrapped and precisely aligned for future use. At near left, a mothballed B-52 bomber still wears its “war paint” from another time, while a preserved C-141 stands in the background.*

**AMARC ascribes great importance to its role in the A-10 service life extension program—or SLEP. It supports the program, which began at Ogden Air Logistics Center at Hill AFB, Utah. Workers here are on track to complete the reconditioning of 24 sets of wings this year.**

**At right, aircraft technician Angela Drottz custom fits a piece of antibal-  
listic foam to protect the interior of the Warthog’s wing. Drottz created special templates to use as she sculpts each piece by hand. She is the only person in the Air Force who does this work.**



Photo by Paul Kennedy

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**The facility completed its first A-10 SLEP wings in 2003. At present, it takes about 140 days to complete a set. Each wing has its own individual quirks and problems; many of the repairs are “handmade” in nature.**

**At left, AMARC technician Scotty McClure prepares to replace the air foil on an A-10 wing.**

**At right, Nilo Alvarado, an aircraft technician, works on an operational A-10 undergoing SLEP. Other A-10s (below) have been stripped of their wings and await evaluation. The wings from some of these Warthogs may eventually be given to others deemed more flightworthy.**



USAF photo

Staff photo by Guy Aceto



**Another major program focuses on the F-4 fighter. The air forces of many other countries still operate the legendary Phantom. However, the QF-4 drone has been successful in its own right. At right, technicians (l-r) Bill Griffie, Shane Guerrero, and Jeff Denlinger work on F-4Es withdrawn from storage to undergo regeneration as part of the Full-Scale Aerial Target program. Last year, the Air Force brought out of storage 21 Phantoms. After reconditioning, they were flown to California, where a contractor completed the conversions.**



Photo by Paul Kennedy

Staff photo by Guy Aceto



**The AMARC workforce also has the task of dismantling and displaying certain weapons under terms of the strategic arms reduction accords of the 1980s and 1990s. The photo at left shows a B-52G, serial no. 6488, which was sent to Davis-Monthan in 1993. It has been partially dismantled and left outside, open to inspection by Soviet (now Russian) satellites seeking to verify US compliance.**

**At right are the remains—a wing and tail section—of a C-141, whose components were used to supplement the active fleet. In the background is a huge C-5, awaiting reclamation as the need arises.**



Staff photo by Guy Aceto

*The AMARC workforce is experienced and stable. Many are former members of the armed services. Moreover, they are multiskilled, having been trained to work on more than 70 types of aircraft systems. They modify aircraft to current standards, making sure they are airworthy before they go back into active service. At right, aircraft worker Kim Brown seals the flap on an A-10.*

*AMARC is a major source of special tooling and special test equipment. It stores more than 318,000 line items of production tooling for aircraft manufacturing. This storage would cost the government millions of dollars at a commercial facility.*



Photos by Paul Kennedy



*At AMARC, packing and crating is a big deal. Shipped items can be small and fragile, or large and complex. The center maintains a 60,000 square-foot facility dedicated to custom packaging of every shipment. Each crate or box is crafted in the carpentry shop. At left, packaging specialist Dawn McGrew prepares a high-priority aircraft part for shipment.*

*Each year, workers salvage, inspect, repair, and certify thousands of parts. AMARC's commodities division removes parts and assemblies from the center's stored aircraft and ships them to support active aircraft. In 2004, the center's workers reclaimed more than 22,000 major parts valued at nearly \$700 million. Below, David Montano, a packaging specialist, inspects a reclaimed aircraft part prior to shipment.*



**A visitor to AMARC sees much more than conventional aircraft. The facility serves as a storage site for expensive tooling for the B-2 stealth bomber, as well as for huge sections of Titan missiles, seen at right and below.**



Staff photos by Guy Aceto



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**At left is a Spraylat-encased D-21 drone, a somewhat mysterious spy aircraft bearing more than a passing resemblance to the much larger SR-71 Blackbird spyplane. Above, sentimental nose art adorns an F-111 Aardvark fighter-bomber that took part in the 1986 Eldorado Canyon raid on Libya as well as Desert Storm five years later.**

**The photo at right recalls two legendary Air Force warhorses—the F-4 Phantom and the B-52 Stratofortress (93 of which are still active). With its wide variety of aircraft, the center serves as a microcosm of the Air Force.**

**The work out in the desert never ends. Of the thousands of aircraft that arrive at AMARC, roughly 25 percent return to flying status of some sort. In no way—mission, outlook, or action—does AMARC qualify to be known as a “boneyard.” The Phoenix is the proper image. ■**



Staff photo by Guy Aceto