



AIR FORCE INFORMATION FACT SHEET



AIR RESCUE



===== OFFICE OF INFORMATION
OFFICE OF THE SECRETARY OF THE AIR FORCE
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HISTORY

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During World War I German forces used airplanes as flying ambulances, while the Allies modified trainers and combat aircraft to evacuate wounded.

However, when the first American World War II aircraft moved into the European Theater in 1942, the Army Air Corps was not equipped to handle rescue missions. Aircrews lacked aircraft ditching training. Survival equipment was meager and when aboard was often left in the aircraft following ditching. Air rescue was generally a task of the Royal Air Force.

With the buildup of the United States' Eighth Air Force in the United Kingdom, American rescue techniques improved, resulting in a greater percentage of rescues as the war progressed. The most notable success was during the Normandy beachhead operation.

Sixty complete aircrews are known to have been picked up by the allied rescue organization on D-day. Efficiency of rescue units covering Ninth Air Force operations was best illustrated when 84 of 86 occupants of 18 ditched C-47's were rescued.

As Allied offensive strikes moved toward Japan, rescue operations posed different and difficult problems. Great distances in the Pacific called for rescue operations on a larger scale. Constant moving of rescue bases to follow our island-jumping offensive complicated matters. Rescue units in the Pacific had to shift and change with the tide of battle.

But between July 1943 and April 1945 air-sea rescue units working with the Fifth Air Force saved 1,841 persons; 360 during January 1945, when the Fifth had its own emergency rescue squadron. In nine months of missions from the Marianas, 654 of 1,310 downed crewmen were rescued.

On May 29, 1946, Headquarters Air Rescue Service was established and assigned to the Air Transport Command which in 1948 was combined with the Navy Air Transport Service to form Military Air Transport Service (MATS). At this time MATS was given the ARS responsibility.

By 1952 Air Rescue had grown from a handful of people with meager equipment into a world-wide organization of thousands of men and the best equipment available. It had performed legendary combat missions. Its concept had been underscored by the wartime sea rescues of Captain Eddie Rickenbacker and General Nathan F. Twining.

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AIR RESCUE SERVICE MISSION

From its Orlando AFB, Florida headquarters, ARS provides world-wide search and rescue coverage of Air Force operations. The facilities of the Air Rescue Service are made available to meet civil rescue needs and those of other military services when emergency situations occur. Expert in all phases of survival, trained crews and rescue teams are always ready to fly, hike, swim or parachute to assist those in distress.

ARS has the space-age mission to assist in the recovery of astronauts and materials and in other facets of the man-in-space program. It directs military aircraft evacuation during hurricane warnings and coordinates search-and-rescue programs using Civil Air Patrol and other agencies where necessary.

International attention was first focused on ARS recovery missions during successful efforts to retrieve the capsule ejected from the USAF Discoverer XXV vehicle in June 1961.

During the May 1962 orbital flight of Lt. Commander Scott Carpenter, Air Rescue Service again exhibited its effectiveness when two pararescue-men jumped from an HC-54 into the Atlantic Ocean east of Puerto Rico to install a flotation collar around the base of the spacecraft, Aurora 7. Commander Carpenter later stated that their actions probably saved the spacecraft from sinking.

All search and rescue activities within the United States are coordinated through three Air Rescue Centers: Robins AFB, Ga.; Richards-Gebaur AFB, Mo.; and Hamilton AFB, Calif.

The ARS Command Post at Orlando AFB, Florida and the overseas rescue coordination centers at Hickam AFB, Hawaii, and Ramstein AB, Germany, exercise operational control over the 11 Air Rescue Squadrons located strategically throughout the world. The locations of these 11 squadrons is determined on the basis of providing coverage of the over-water air routes used by deploying USAF aircraft and the orbital paths of our national manned space programs. One additional squadron will be activated in the Philippines in July 1963 to further enhance ARS global rescue/recovery capabilities.

The squadrons make up a mobile recovery force. Equipped with HU-16's, HC-54's and helicopters, they train with combat forces in their particular area.

In 1961 ARS assumed control of the local base rescue helicopter program at 75 world-wide Air Force bases and gained 150 helicopters to perform this mission. To better realign this rescue resource, the number of bases thus covered will soon be reduced to 64 and the resources of the 11 detachments to be inactivated will be reassigned to augment the remaining 64 bases which have the highest incidence of rescue missions.

"To the public our story is humanitarian, dramatic and heroic. To every American who sees or hears it, an image is created with which he readily and proudly associates himself." -- Brig. Gen. Joseph A. Cunningham, ARS commander.*

(* General Cunningham will relinquish command of ARS 1 July 1963 to Brig. Gen. Adriel N. Williams.)

HU-16
C-47
C-54B
HC-54D
C-57G
HC-57G
HH-43B/F
CH-3C
HH-3C
HH-21

AIRCRAFT

Primarily, three aircraft are used by ARS: the HC-54D Douglas Rescuemaster, HU-16 Grumman Albatross and the HH-43B Kaman Huskie helicopter.

HC-54D

This 60,000-pound transport is one of Air Rescue's mercy aircraft fleet. Except for the airframe, this Skymaster version (commercially known as the DC-4), is completely modernized and modified for rescue missions.

The four-engined, 150-knot airplane is converted to provide more effective and economical world-wide Air Rescue coverage and can stay aloft over 20 hours with a rescue crew of a pilot-commander, co-pilot, navigator, radio operator, and two pararescuemen-observers.

The 3,300-mile range Rescuemaster carries a minimum of four MA-1 (ARK) air rescue kits as standard equipment. Completely winterized and packed with electronic search and navigational equipment, the HC-54D has been fitted also with special scanner blisters which permit an unobstructed view directly below the aircraft from 700 feet.

The HC-54D can be easily identified by the internationally-known USAF-ARS markings.

HU-16B

The versatile HU-16 Grumman Albatross can operate from land, water, ice or snow. Air Rescue pilots master landing and taking off in all four of these environments. Equipped with JATO (Jet-Assisted Take-Off) bottles this craft can become airborne in seconds.

Although the "Rescue" modified aircraft has gained a half ton of weight, cruising speed and range are increased. Stabilizer and rudder areas have been enlarged to provide improved control. The wing span, increased 16½ feet, provides stability in the air and on water.

HH-43B/F

One of Rescue's most important functions is operating the Local Base Rescue and Fire Suppression units at numerous world-wide Air Force bases. The primary "tool" these detachments use is the turbine-powered HH-43B Kaman Huskie.

This small, powerful helicopter can respond immediately to aircraft emergencies. It can fly a thousand-pound fire-suppression kit plus two rescuemen-fire fighters to a crash site in minutes. The HH-43B normally requires no engine-warmup time and can be airborne 30 seconds after the crew is aboard.

The use of the HH-43B's airborne fire suppression capability adds new dimensions to air rescue. Technically, the new chopper is a "synchropter," and its configuration of intermeshing rotors side by side provides a swirling rotor wash uniquely suited to fire suppression.

Over 72 percent of all crashes occur on air bases or within a 10-mile radius. Nearly half these accidents result in fires, and success of any rescue during a crash fire is measured in the minutes and seconds required to reach the downed aircraft. With surface vehicles usually limited to operation over clear and level areas, the helicopter provides a logical solution to the problem.

When a crash occurs the "chopper" proceeds to the scene with a rescue team and a 1,000-pound fire-suppression kit. The kit, attached below the aircraft, is released automatically at touchdown -- then the rescue team is landed.

As the rescue team approaches the aircraft, the HH-43 rises and hovers. Its powerful rotor downwash beats back the flames, opening a path for the team's entry. Foam from the fire-suppression kit is used to keep the path open and prevent flash back flames. The rotor downwash also supplies cool air to the team and downed aircraft occupants.

HC-130E

Demands for improved rescue techniques and global support continually grow. The faster rescue help, equipment and medical aid can be rushed to aircraft and disaster victims, the better chance victims will have of surviving. ARS is planning to use HC-130E Hercules, a long-range Lockheed aircraft capable of crossing the Atlantic non-stop.

The Hercules has rear-loading truck-bed height, ability to land and take off from comparatively short runways and a relatively high speed (more than 300 mph). All of these factors make the aircraft ideal for rescue operations.

LATE SEP 65

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By mid-1963, ARS will have 12 squadrons of 65 aircraft (29 HU-16's and 36 HC-54's). By mid-1964, plans call for an addition of 28 C-97's. Eventually, Air Rescue hopes to replace the HC-54's with the HC-130's.

CHRONOLOGY

1918- - - - Flying ambulances first tested between what is now Scott AFB, Illinois and nearby Mascoutah Field using a modified Jenny.

1939- - - - Air rescue operations first became an integral part of German Luftwaffe during invasion of Norway.

1940- - - - British Air/Sea Rescue Service formally organized.

German Rescue Service introduced the Sea Rescue Float -- a large bouy-type platform designed and meticulously equipped to maintain the life of any downed aircrewman who might reach it.

1942- - - - Rescue operations organized for Pacific Theater.

1943-1945 - - EUROPEAN THEATER

In 1943 only 28 percent of Eighth Air Force crews in distress were saved. By April 1944 the figure had risen to 43 percent for bomber crews and 38 percent for fighter pilots. In September approximately 90 percent of AAF crews forced down at sea in the European Theater of Operations were recovered. By the end of March 1945 a total of 1,972 American airmen had been saved by British or U.S. rescue units in the North Sea, the English Channel and other waters around Great Britain.

PACIFIC THEATER

In spite of the great distances involved, the rough weather, and determined opposition from units of the Japanese fleet and air force, rescue units of the Army, Air Force and the Navy achieved an impressive record in the Pacific. Between July 1943 and April 1945 air-sea rescue units working with the Fifth Air Force saved 1,841 persons, 360 of them in the month of January 1945, when the Fifth had its own emergency rescue squadron. In the whole nine months of missions from the Marianas, 654 out of the 1,310 of the B-29 crews reported down were rescued.

1950-1953 - - KOREAN WAR

The 3rd Air Rescue Squadron was credited with a total of 9,680 rescues within the combat zone at the end of the Korean War. Of this number, 996 were UN personnel saved from behind enemy lines.

Helicopters saved six out of seven pilots forced down behind enemy line, one pickup taking place twenty minutes after the pilot was shot down and another involving hazardous night flying.

1955- - - - First-night helicopter rescue by an HH-19 made in Alaska.

1959- - - - - ARS officially reorganized in support of USAF global air-crew recovery program.

Brig. Gen. Joseph A. Cunningham named commander of ARS.

1962- - - - - Two pararescuemen jumped to the aid of Lt. Commander Scott Carpenter following his orbital flight.

1963- - - - - During floods in North Africa 300 Moroccans were safely evacuated by helicopter.

Air Force Major L. Gordon Cooper completed a 22-orbit flight while ARS aircraft and pararescuemen waited and watched around the world. They were on duty in California, Bermuda, Florida, Trinidad, Panama, Peru, Ascension Island, Morocco, the Azores, Nigeria, Kenya, Rhodesia, Libya, Saudi Arabia, Mauritius Island, Australia, Singapore, the Philippines, Okinawa, the Fiji Islands, Japan, Guam, Kwajalein, Midway Island, Tahiti and Hawaii.

Brig. Gen. Adriel N. Williams - scheduled to assume command of ARS July 1, 1963.

QUOTATIONS

"The Air Rescue Squadron is undoubtedly a humanitarian arm of the local U.S. aerial armada. But perhaps we might look at it in another light and concede that it is a factor in its own right which cannot but further enhance existing Philippine-American relations."

President Magsaysay
The Philippines
May 1955

"The USAF Air Rescue Service is an outstanding institution, with men who are indeed dedicated to their great task."

"....The Air Rescue Service has made theirs the tradition of those people who used to and are saving the lives of men at sea; to act regardless of all personal risk in order to save the lives of their fellow-men."

Prince Bernhard
The Netherlands
February 21, 1956

"In war and peace, the Air Rescue Service has 'sold' the American concept of the high value of the individual's life and personality. Its deeds have demonstrated the good will of our great nation."

Lt. Gen. William H. Tunner (USAF-Ret.)
Commander, Military Air Transport Service
July 1, 1959

"Please accept my heartiest congratulations for the excellent support rendered by all branches of the Department of Defense participating in the Mercury-Atlas multi-orbital flight (MA-8). The teamwork, flawless performance of duty and splendid cooperation in this most noteworthy achievement is something we will all remember with pride. Please convey my heartfelt appreciation to all members of your forces who participated in this significant event."

Lt. Gen. Joe Kelly
Commander, MATS
October 1962
(Commander Schirra's Flight in Sigma 7)

"During wartime people were rewarded for acts of courage in the face of the enemy, but I am glad to present you with this medal in time of peace, for your personal devotion in helping others in times of need. Today, even though I wear a uniform, I am representing the Senate of Hamburg as each of you receive this award."

Brig. Gen. Ro Loeytved-Hardegg
German Air Force
(Award ceremony for Air Rescue
aid during Hamburg floods of July 1962)

"Operations in the space age, in which we find ourselves today, have generated an increased requirement for a world-wide recovery capability to retrieve equipment, material, nose cones, 'black boxes'-call it what you will. The resources, techniques and equipment required to recover this important hardware from space are virtually the same as those needed to search for, find and rescue personnel. Therefore, it seems only natural that this dual recovery capability - personnel and material - be incorporated within the Air Rescue Service."

Brig. Gen. Joseph A. Cunningham
Commander, Air Rescue Service
May 1962
(Following Carpenter's spacecraft recovery)

"Air Rescue Service personnel performed in an outstanding manner while engaged in the search operations. They gave no thought to personal inconvenience nor to the hazards and difficulties encountered. One of the helicopters crashed during the search operation, but the crew was rescued and continued their aggressive efforts until the search for the missing pilot was officially discontinued."

Lt. Gen. Robert M. Lee
Commander, Air Defense Command
March 1963
(Search for F-102 pilot on Thule)

"I thank you, Mr. President, for your message of sympathy for the tragic losses which recent floods have brought to my country. My very deep sympathy is with the relatives and friends of American servicemen and their families, who lost their lives. We shall remember with gratitude the selfless cooperation of their comrades in the work of rescue and comfort."

Queen Elizabeth
January 1953
(Floods in England)