



# HISTORICAL DATA

## AIR RESCUE SERVICE (MATS)

1 JANUARY-31 DECEMBER 1949

HEADQUARTERS  
AIR RESCUE SERVICE  
BARTON HALL  
WEST POTOMAC PARK  
WASHINGTON 25, D. C.



REF ID: A66666

## FOREWARD

The Historical Data for the period 1 January through 31 December 1949 records the most valuable information on the organization, mission, responsibilities, planning for the present and future, and training of Air Rescue Service personnel and equipment world-wide.

It is hoped that the information contained in this history will be useful in meeting the objectives outlined in AFR 210-3, 13 January 1950.

REF ID: A66666



### MISSION OF THE AIR RESCUE SERVICE

Maintain assigned units in operational readiness for air rescue support of combat air operations on a global scale.

Provide route and area rescue service for United States military forces in time of peace and war on a global scale.

Render rescue service, upon request, to civil aviation of the United States and to civil and military aviation of other countries in accordance with ICAO procedures.

Perform such other missions as directed by the Chief of Staff, United States Air Force.

Note: Rescue service is fulfilled by aerial and ground search, dropping of survival equipment and medical personnel, and evacuating survivors.

### CODE OF AN AIR RESCUE MAN

It is MY duty as a member of the Air Rescue Service to save life and to aid the injured.

I will be prepared at all times to perform my assigned duties quickly and efficiently, placing these duties before personal desires and comforts.

These things I do that others may live.

### POLICY OF AIR RESCUE SERVICE

Rescue Service exists only to save lives. The probability of finding survivors diminishes with each minute that passes after an air disaster occurs. Therefore, in each and every incident it must be presumed that there are survivors and every possible effort must be made to find, aid, and return these survivors to safety. The thoughts and efforts of every man in the Air Rescue Service must be directed toward creating an organization better equipped and trained to carry out any rescue by day or night in the least possible time so that all will know that no life has been lost through a wasted minute or a misdirected effort.

in all cases, by proper authority, as outlined in AFR 190-5, AFL 190-10, and MATSL 47-2. In no instance will ARS aircraft or other major items of equipment, such as weasels, be used for static display away from the home station.

Radio &            During this period, Air Rescue Service personnel appeared  
Television        on a number of radio and television shows. These appearances were in connection with several of the outstanding incidents in which ARS participated, such as the Greenland Ice Cap rescue mission and Operations Haylift. Actually, the personnel were just a small part of a large production, as in "We The People" and on Edward R. Murrow's news broadcast and television show. The ARS PIO furnished much information to various civilian agencies to assist them in writing articles and preparing programs.

Medical            The Medical section has attained new heights of importance in the Air Rescue Service. Basically, it was as important as any of the other phases of the Air Rescue Service. It is true that flying operations were stressed but more and more emphasis was being placed on improving the medical sections. It was particularly true of the rescue teams which included medical officers and airmen technicians trained for the specific purpose of treating and caring for victims of a crash or other types of emergency until rescue or evacuation could be effected. With this in mind, the Air Rescue Service has continually experimented and tested new means, methods, and material for the purpose of improving the present methods of treating emergency cases.

The first requirement for efficiency in these sections was qualified personnel. Education and training in this specialized work was met by establishing a school; this was accomplished by initiating a new course in Emergency Medical Procedures at the School of Aviation Medicine, Randolph AFB, Texas. Eventually 22 medical service corps officer graduates will be assigned to ARS as members of pararescue teams, replacing the present day para-doctors. This change-over in the pararescue and land rescue team composition is being made because of the critical shortage of medical corps officers within the USAF.

Paramedic  
Drop Kit

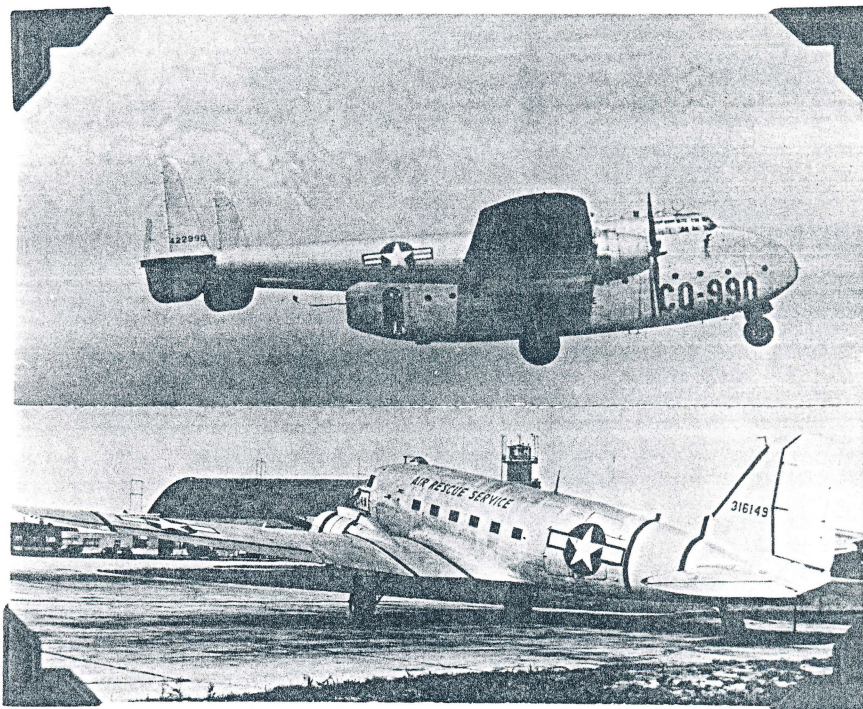
To keep up with the increasing demand for improved methods and emergency techniques, some research was accomplished in conjunction with the Aero-Medical Laboratory at Wright-Patterson in connection with equipment for pararescue teams. An Arctic Medical Pararescue Drop Kit was prepared and submitted to the Alaskan Air Command for service test. Results from the test have not, as yet, been completed but it is believed that the test will prove the contention for continued and exhaustive experimentation in the field of emergency medicine. The results of such experimentation is evident in the numerous rescue operations where injured personnel required medical attention. Captain Robert H. Klotzman, ARS Acting Medical Staff Officer, was directly responsible for the course of study set-up at the School of Aviation Medicine in Emergency Medical Procedures. Captain Klotzman formulates all procedures regarding Air Rescue Service emergency medical teams.



confronting the two Air Forces. This of course, must, and did include the search and rescue operations in that area. This group consisted of from four to six representatives from the United States Air Force, Air Rescue Service and RAF. It is interesting to note that the discussion periods were attended not only by the members of the two services but also by members of the American and British Consulates.

Extracts  
of Major  
missions

The exploits of Air Rescue Service received world-wide attention through the media of the newspapers and radio, and no accurate account of an organization would be complete if its accomplishments were not included. In the case of Air Rescue Service these accomplishments demonstrated, to the fullest extent, the mission of the organization. During the past year ARS performed a number of full scale operations. The first big operation was caused by that ever present element--the weather. When the blizzard struck the central and western areas of the United States last January, the Air Rescue Service went into action by dropping food, blankets, and medical supplies for use by people isolated in homes and in stalled passenger trains. C-47 and C-82.



type aircraft of the Air Rescue Service dropped feed to starving cattle on the open plains. At Chadron, Nebraska, a man with a broken leg was attended by an ARS paradoctor, who was flown to the spot by a helicopter. A C-47 delivered 144 penicillin syringes and \$500,000 worth of radium to the hospital at Chadron. Ground rescue teams aided many stricken families by delivering food and fuel in surface vehicles known as Weasels. On the spot medical aid was rendered by medical technicians attached to the ground rescue teams. The 2151st Rescue Unit at Lowry Air Force Base, Colorado, performed the majority of ARS missions in this emergency and, by airplanes and ground vehicles (Weasel), delivered approximately 525 cases of C-Rations, 20, 171 lbs. of food, 10,000 lbs. of coal, 25,000 lbs. of feed for cattle and other miscellaneous supplies. 281 sorties were flown by various aircraft for a total of 448 flying hours. (See Appendix No. 19 for letters of appreciation and commendation).

Civilian  
Aircraft  
Survivors  
Rescued by  
ARS

An experienced civilian pilot with over 2000 hours flying time and a CAA instructor's rating departed Fallon, Nevada for Winnemucca, Nevada, with one passenger. The weather reports indicated low ceilings and heavy snow showers along his route. The pilot's family initiated the alert when he failed to arrive at Winnemucca. Air Rescue Service received word at 0030, 2 February, that the aircraft was missing. A communications search was made immediately and the Civil Air Patrol, the National Guard, Forest Service stations, and



Sheriff's offices in the search area were alerted. The rest of that night was spent drawing up search patterns and conducting necessary ground work so that all would be ready at dawn. The weather was still bad at daybreak although it was forecast to improve. The mission commander dispatched an SB-17 to scout the weather and search for open areas. Shortly before noon the Air Rescue Service SB-17 located the wreckage of the crashed aircraft in the center of Carson Sink. Survival kits were dropped and the SB-17 then proceeded to orbit the spot to direct the C-47 carrying the pararescue team. Men and equipment were dropped in close proximity of the crash. The paradoctor decided that immediate evacuation was necessary if the pilot and passenger were to survive. A light, ski-equipped aircraft was dispatched to the scene and the survivors flown to safety.

C-82 Resolute  
Bay

On 24 March, a Tactical Air Command C-82 enroute from Crystal II to Resolute Bay transmitted by radio that it was lost and was making an emergency landing---"position unknown". On 25 March, radio messages were again received from the C-82 crew indicating that they had landed on the "ice" and all were well. Search and rescue activity commenced on 25 March, but inclement weather prevented location of survivors visually. On 26 March, the crashed aircraft and survivors were located by an Air Rescue Service SB-17. Supplies were then dropped and a rescue ski-wheel C-47 was ordered to proceed to the crash scene from Crystal II, via BW-8 and Thule. The C-47 arrived at Thule on 27 March and proceeded direct to the crash

Delivery of the first URC-4 sets are expected by April 1950.

Desert  
Trans-  
mitters

It is interesting to note that squadrons and flights continued to experiment with their equipment in order to obtain better results in the area of their geographic location. Personnel of Flight D, 7th Rescue Squadron, Dhahran Airfield, Saudi Arabia succeeded in utilizing their equipment for additional purposes. Perhaps, in no other place in the world, where ARS units are operating, would dust storms hamper the operation of aircraft. In the past, storms made approach conditions on the airfield almost impossible, so the enterprising ARS personnel proceeded to install transmitters in the desert rescue vehicles and use them for homing beacons for incoming aircraft. Operation could begin in a matter of minutes after the initial alert. The equipment was used on numerous alerts during marginal conditions and the tests proved successful. Not long after the initial tests were made, a Philippine Airlines aircraft was guided to a safe landing after two unsuccessful attempts to land due to the dust storms.

Public  
Address  
System

Never one to overlook the possibility of an improvement on existing methods, the Air Rescue Service investigated the possible use of a public address system to facilitate rescue operations. This public address system utilizes new principles of amplification. Voice modulation is injected into a compressed air stream; and range, with good readability, is about 2500 yards.



The system planned for airborne use, complete with microphone, speaker, and power supply, would weight approximately sixty-five pounds.

Para-  
rescue &  
Land  
Rescue  
Teams

The pararescue and land rescue teams contribute much to the successful completion of a search and rescue mission. The term, pararescue, is self-explanatory, since it implies that the rescue operations, of crash victims, are assisted by personnel that have been dropped by parachute to the crash site.



It is through this means that immediate emergency medical aid can be assured the injured and the survivors can expect

to be rescued. The pararescue teams consist of five men, trained for that specific purpose. One Medical Officer and four airmen make up the group, (two of the men are medical technicians and the other two are survival specialists). The pararescue teams are particularly important when the scene of the crash is in an area of extremely rough terrain; in such instances, the team parachutes to the site. Medical men immediately render aid to the injured and the survival specialists provide for their existence. Preparation is also begun for evacuation to be made either by air or by the land rescue team on vehicles. In many instances, evacuation cannot be effected immediately; therefore, the survival specialists must prepare a suitable camp for the entire party. Para-rescue procedures have saved many lives since their adaption by the Air Rescue Service. Assistance may also be given by pararescue personnel to survivors that are adrift on water either by parachuting or by use of the helicopters.





One can readily realize the effect on the morale of the unfortunate victims when trained men are dropped from the sky, prepared to aid them in every way possible.

The greatest improvement for medical sections during the past year involved supplies and equipment. Prior to this time much of the necessary equipment was not available to the rescue teams through normal supply channels. Since the activities of the teams were vital to the success of the mission of ARS, special directives made this equipment available to rescue units in all areas of operation. One of the outstanding developments that occurred this year was the paramedics airborne medical kit. The kit contains all necessary equipment from minor emergency medical attention to emergency surgery. This was a completely new but vitally necessary item for the Air Rescue Service. Also an improved jump suit was made by taking the suit used by the fire fighters of the U.S. Forest Service and modifying it to fit the particular needs of the pararescue teams.

#### Land Rescue Operations

A land rescue team consisted of six men, trained in survival and medical techniques which, incidentally, is the same as that of the pararescue teams. Land teams, however, do not take the jump school course. The equipment carried by the land rescue team is the same as that of their flying component. When an incident occurs, the land rescue team is coordinated in the search operations. The land teams are moved to the area of search and there operations begin with

the interrogation of individuals that may have information concerning the incident. All leads are carefully checked and land rescue teams are sent to areas where observation from the air is impractical, such as very heavily wooded areas. In cases where it is impossible for a parachute landing, the land teams are sometimes guided to the scene of the crash by aircraft, or by employing land navigation procedures. Upon the arrival of the land party, the survivors are moved to a suitable place for air or land evacuation. These movements sometimes require long and hazardous travel under extremely adverse conditions.





Replace-  
ment for  
M-29C  
(Weasel)

One of the developments for land rescue operations was the tests conducted on a vehicle which will replace the M-29C (Weasel). The vehicle tested is known as the T-46, and if accepted, will be an all purpose, all climatic vehicle. Some tests have been accomplished but no data has been released. One of the modifications desired is a reduction in the weight of the machine. The weight is 11,000 pounds which prohibits air transportation by ARS aircraft. Air transportation greatly increases the efficiency of land rescue operations.

Training  
at the  
2156th  
AR Unit

Perhaps the most important and far reaching effort to make the pararescue and land rescue teams as proficient as possible will be the organization of the 2156th Air Rescue Unit (TTU), MacDill AFB, Florida. This unit will be organized in order to provide, among other things, standardized training for all members of the rescue teams. In the future, members of the rescue teams, will receive the same training in survival techniques and emergency medical procedure. Therefore, regardless of circumstances there will always be a qualified man ready to give the needed attention. The first classes in this training will not begin until early next year.

Flying  
Safety

Every member of the Air Force and particularly personnel of the Air Rescue Service should become "safety minded". ARS must take that "calculated risk" many times in the performance of its assigned mission and, therefore, a potentially high aircraft accident rate is ever present. During the first six months of this reporting period, twenty two accidents occurred, fourteen of which were classified as pilot or supervisory error.

A dilligent effort was made to reduce this high accident rate in Air Rescue Service organizations. Headquarters, Air Rescue Service, initiated a letter to each of the squadron commanders which placed the responsibility of flying safety directly upon those commanders. The results were very encouraging in that during the last six months of 1949, there were only eleven accidents and only three of these could be attributed to pilot or supervisory error. This decrease of accidents strongly indicated that the problem was being met by making all personnel safety minded.

Aircraft  
Accidents

The following is a breakdown of Air Rescue Service aircraft accidents for calendar year 1949.

| <u>Calendar Year 1949</u> | <u>Total<br/>Accidents</u> | <u>Major<br/>Accidents</u> | <u>Minor<br/>Accidents</u> |
|---------------------------|----------------------------|----------------------------|----------------------------|
| 1st Quarter               | 8                          | 6                          | 2                          |
| 2nd Quarter               | 14                         | 10                         | 4                          |
| 3rd Quarter               | 7                          | 7                          | 0                          |
| 4th Quarter               | <u>4</u>                   | <u>1</u>                   | <u>3</u>                   |
| TOTAL                     | 33                         | 24                         | 9                          |

Aircraft  
Accidents  
by Type  
of Air-  
craft

The following is a further breakdown of aircraft accidents indicating the type of aircraft involved.

| <u>Type Aircraft</u> | <u>Total<br/>Accidents</u> | <u>Major<br/>Accidents</u> | <u>Minor<br/>Accidents</u> |
|----------------------|----------------------------|----------------------------|----------------------------|
| SB-17                | 8                          | 7                          | 1                          |
| SA-10                | 3                          | 2                          | 1                          |
| C-47                 | 4                          | 3                          | 1                          |
| C-64                 | 1                          | 0                          | 1                          |
| C-82                 | 1                          | 0                          | 1                          |
| L-5                  | 9                          | 7                          | 2                          |
| L-13                 | 4                          | 2                          | 2                          |
| H-5                  | <u>3</u>                   | <u>3</u>                   | <u>0</u>                   |
| TOTAL                | 33                         | 24                         | 9                          |

This record does not mean that the squadrons will rest on their present laurels of good showing, but, that with increased effort, maximum capabilities for further reduction of aircraft accidents can and will become a reality.

The training of personnel of the Air Rescue Service includes a variety of aircraft and emergency equipment. With the expansion of Air Rescue Service during this past year it was necessary to provide training for a large number of personnel in order to meet the requirements for technical trained personnel. A continuous program for training in parachute jumping for the pararescue teams, survival training,



emergency medical procedure, mountain climbing, helicopter pilot training, helicopter maintenance, and all the related



subjects of the radar communications field was effected during this past year. There was a shortage of radar mechanics and airmen were encouraged to apply for technical school training. In other cases, trained radio men were put on OJT training in the maintenance division of the radar sections of the units. In this way trained personnel were not lost to other commands and ARS was able to alleviate, to some degree, the critical shortage in that particular SSN.

Training  
Arabian  
Officers

The Air Rescue Service did not confine its training to ARS personnel only. In March two Arabian officers arrived in the ZI to receive training as pararescue and land rescue officers. The two officers completed parachute jump training at the Parachutists School, Fort Benning, Georgia, and the pararescue and survival training at the 5th Rescue Squadron, MacDill AFB, Tampa, Florida. Upon completing the two courses these officers returned to Dhahran where they were attached to Flight "D", 7th Rescue Squadron, to assist the pararescue and land rescue teams at that location.

AF-Navy  
Exchange  
Program

The exchange program of the Air Force and Navy, which was inaugurated 3 October for the purpose of training officers in the work of other branches of the service, effected the Air Rescue to the extent that two Air Rescue officers were assigned to the Navy and two Navy officers were assigned to the ARS for a one year tour of duty. One Navy officer was assigned to MacDill AFB, Florida, and the other to Hamilton AFB, California. One ARS officer was assigned for duty at San Francisco, California, and the other at Norfolk, Virginia.