

A HISTORY OF
THE
AIR RESCUE SERVICE

PREPARED UNDER THE EDITORSHIP OF

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"THAT OTHERS MAY LIVE"

1959

Foreword

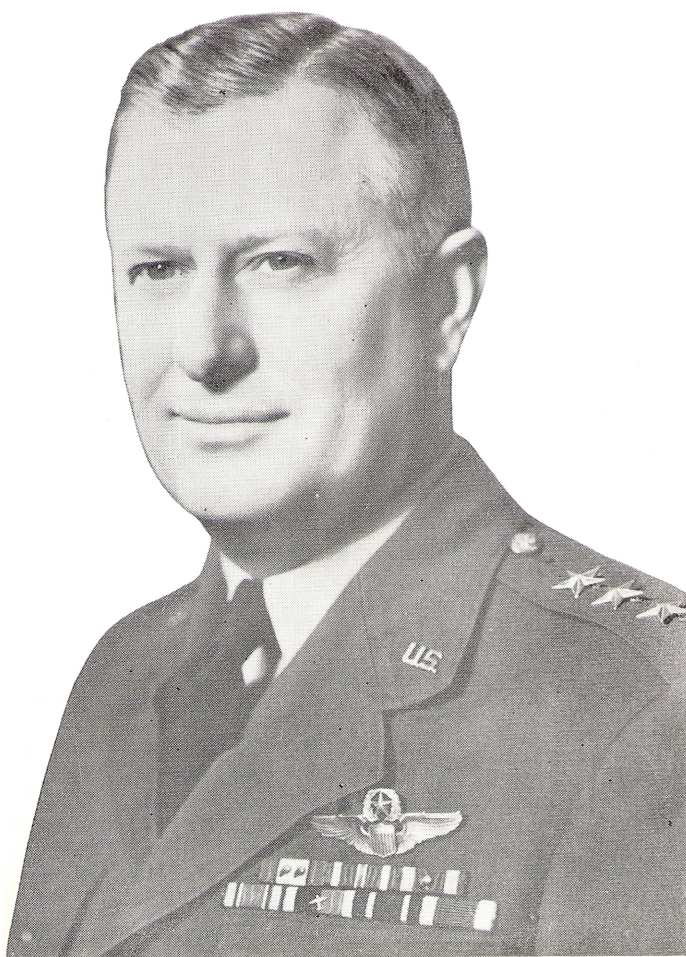


THIS STORY of how the Air Rescue Service has dramatically demonstrated the humanitarian character of the American People, without losing sight of its essential military functions, is one that every American and especially all Air Force personnel, can read with thoughtful pride. In war and peace, the 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.

Statement by Lieutenant General William H. Tunner
Commander, Military Air Transport Service
Scott Air Force Base, Illinois

1 July 1959

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*Lieutenant General
William H. Tunner
Commander
Military Air Transport Service*

A Dedication



This history of the Air Rescue Service was written with several very definite objectives in mind. Primarily, it was written for the men of Rescue to enhance their understanding of the organization in which they serve and to make them aware of the richness and profundity of its tradition. It is especially directed toward the young incoming airmen upon whom the future of the Air Force and our country depends so much. It is from the past that tradition grows and tradition engenders that precious, indefinable commodity — *esprit de corps*.

I have always felt that throughout the Air Force we can accomplish a great deal by placing a greater emphasis on our past, our developments and our accomplishments. Graven on the facade of the Archives Building in our Nation's Capitol is the motto, "What is past is prologue." So another reason for writing this history is to record lessons of the past in the hope that they will lead to the solution of the problems of today and tomorrow, that we may build a better and prouder Air Rescue Service.

This volume was also written to provide detailed source and background material for students and writers interested in the prosaic as well as the colorful and heroic aspects of the Rescue mission. To this end it is as accurate as our records and the limitations imposed by human fallibility permit us to make it.

Over the years covered by this history a large number of men have given their lives in line of duty in valiant efforts to rescue their fellow man. The exact number can never be known. In Appendix One are listed the names of Air Rescue Service personnel who have died in line of duty subsequent to 1950. The Korean Conflict battle deaths are shown separately. Air Force records kept prior to 1950 do not indicate the organization of assignment at time of death so selection of Rescuemen from the long, grim, hallowed list was impossible. We sincerely regret this unavoidable omission. To all these men who have offered up their lives in so noble a cause, this volume is respectfully dedicated.

A handwritten signature in dark ink, appearing to read "T. J. DuBose", with a stylized, flowing script.

T. J. DUBOSE
Brigadier General, USAF
Commander

1 July 1959



*Brigadier General Thomas J. Du Bose
Commander, Air Rescue Service
September 1952 until July 1959*

Table of Contents



Foreword	vi
-----------------------	-----------

A Dedication	viii
---------------------------	-------------

Introduction	1
---------------------------	----------

Chapter One	5
--------------------------	----------

World War II Rescue in England, Europe and the Mediterranean Area

Britain's Fight Against the Odds — Aid From the Enemy — The Barren Beginning — The Power and the Problems Increase — Forces Joined — A Dark Picture Brightens — A New Step Forward — Service With a Snarl — All's Still Not Smooth — Traffic Jam in the Channel — Rescue Comes to 'Mare Nostrum' — Arrival of the First U. S. Unit — A Long Time 'Between Jobs' — Off On the Right Foot — Getting Down to Business — A Testimony to Training — Little Boats, Little Help — Invasion in Southern France — A Summing Up.

Chapter Two	25
--------------------------	-----------

World War II in the Pacific Area and India

A Day of Infamy — Distances Don't Lend Enchantment — Another Start From Scratch — The Twining Rescue — A School for Rescue Specialists — The Dream Pays Dividends — Rescue Structure Evolved — Always Too Little, Too Late — Fear Interferes — Close Interservice Cooperation — Two Spectacular Saves — In on the Last Act — An Evaluation — Rescue Operations in India — The Tempo Increases — A 'New Look' Emerges.

Chapter Three	39
----------------------------	-----------

World War II Rescue in the Arctic Areas

Only the Strong Survive — Crescendo Ends 'Bolero Movement' — Another 'Hunch' Pays Off — The Ever-Unscrupulous Enemy — Never Enough to Go Around — War Clouds Off Alaska — A Need to Know — Things Had to Get Better — Difficult But with Advantages.

Chapter Four	49
---------------------------	-----------

The Tools to Do the Job

The Arsenal of Democracy — Airborne Lifeboat Developed — Practice Makes Perfect — The Role of the Rescue Boats — The Stuff to Stay Alive — The Situation Improves — Item One: Stay Afloat — The Means to Stay Alive — To Locate the Living — Old Reliable of the Air Waves — To Find Is Not to Save — Ancestor to Today's 'ARK' — You Can't Beat Good Technique — 'Whither Thou Goest . . .'

Chapter Five ----- **63**

The Genealogy of an Ideal

Who's In Charge? — Old Hands at the Helm — Differences of Opinion — A Plan at Last — A Time for Decision — The Post-War Concept — ARS Becomes a Reality — Starting From Scratch — Progress Against the Tide — OJT Fills Vacancies — Taking Inventory — A New Broom and a Turning Point.

Chapter Six ----- **75**

Rescue During the Korean Conflict

History's Tragic Course — The Same Old Troubles — New Tools for an Old Job — A Communications Net Set Up — Choppers Make the Difference — A Life Saving First — Friends in Need — Returned to Fight Again — Heroism Under Heavy Pressure — It Beats Walking Home — Not Always Defenseless — An Occasional Light Touch — A Savior Not a Fighter — Help and Heroism in the Night — A Team Forged Under Fire — Praise From Above — The Price of Freedom: Eternal Vigilance — Under a New Leader, New Developments.

Chapter Seven ----- **93**

The Rescue Organization After Korea

A Time to Take Stock — The Old Eighth Born Anew — Put Up or Shut Up — New Gear To Do the Old Job — New Look for an Old Timer — Two Important 'Firsts' — Old Reliable Gets a Face Lifting — Another New 'Bird' in the Inventory — The 'Gooney' Gets Another Overhauling — In Rescue, Four's Still a Crowd — Rescue Ahead of Schedule.

Chapter Eight ----- **105**

The Rescue of Military in Peacetime

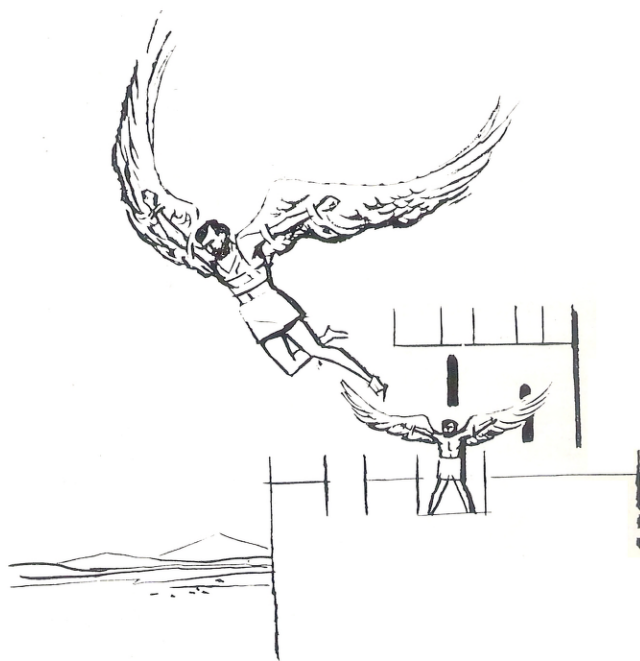
One Mission in Peace and War — Trouble on the Ice Cap — . . . We Will Find Them — From the Slimmest Clue, Success — The 'Bread and Butter' Mission — Down 'The Slot' by Radar — Deep Six One Neptune — Long Fall, Sudden Stop — Saved From the Sharks — Little to Go On — Chopper Miracle in the Med.

Chapter Nine ----- **119**

The Rescue of Civilians in Peacetime

A Dedication Beyond Duty — The Statistical Box Score — Operations 'Snowbound' and 'Haylift' — Variety and Ingenuity Save Lives — An Epidemic Checked by Chopper — Help From the Air During Midwest Floods — An Epic Save in the Mediterranean — Not All Endings Are Happy Ones — Heroism During Floods in Britain — Words of Praise for Aid in the Netherlands — Bavaria Adds to International Goodwill — Red Brutality Over the South China Sea — Rescue Under Communist Guns — They Don't All Make the Headlines — In the Grim, Grey Azores, A Helicopter Masterpiece.

Chapter Ten	-----	141
	Pararescue	
	Born in Trouble — Only One Way In — Jumping the Gun Slightly — Schools of Hard Knocks — Heroics are Routine — Success Breeds Success — Night Jump Saves 15 From a B-36 — Perserverance Despite Adversity — Tragedy On Nantawusha — First Successful Night Helicopter Rescue — Night Jump and Chopper Balancing Act Save Two — Gettin' There 'Fustest' — They're Rugged But Not Unbreakable — Quick Save After High Speed Bailout — Into a Frozen Hell on Top of the World — High On a Windy Hill - Tragedy — A Night Jump In the Land of the Rising Sun — A Letdown Isn't Always Nylon.	
Chapter Eleven	-----	165
	Today's Position and a Look at the Future	
	To Live Is to Change — Too Many Systems, Too Much Speed — A New Approach to Air Crew Recovery — The Status of Rescue Today — Global Passes Its First Tests — The Concept Expands — The Picture Broadens — New Business Expected to Boom — Envoi.	
Appendix One	-----	175
	"Greater Love Hath No Man Than This . . ." Air Rescue Service Battle Deaths Korean Conflict Air Rescue Service - Deaths.	
Appendix Two	-----	181
	World War II Rescue in the South Atlantic and Caribbean Areas Heavy Traffic at the End — Spread Thin but Effective	
Appendix Three	-----	183
	The Quest for Perfection The Mother/Daughter Approach	
Appendix Four	-----	186
	High in the Wild Blue Yonder High Altitude Sampling Project	
Appendix Five	-----	187
	Testimonials	
Acknowledgements	-----	191



Introduction



On the 29th of May 1946, the Air Rescue Service was formally established as an integral part of the United States Army Air Force. This is a history of that organization — its inception, birth and later day development under the Military Air Transport Service.

The writer of any history is always faced with the problem of where to begin, for it is never easy to put our finger on some elusive point in time and say with exactness and without hesitation, "This is where it all started."

We try to isolate a time, a place, a situation from which we can go forward; but then after further search, we discover a link which takes us deeper into the past. This link may be an event which has sparked a chain reaction, or perhaps some creation of man's imagination, a concept, an idea or even a dream which has refused to die.

And so when we record the fact that on May 29th 1946, Colonel Wallace S. Ford assumed command of Headquarters Air Rescue Service as a part of the Air Transport Command, we are historically accurate. But this was not the beginning. So much had already gone before.

History — according to one man's definition — is a complex continuum. That is to say it is a steady flow of literally innumerable events no one of which can become distinctive except that it be related to something else. The writing of a "history" therefore, becomes a selective process wherein each fact presented is chosen from a multitude on the basis of its relationship with some other significant fact or group of facts. The writer must be selective. That's where the trouble lies because, no matter how hard one may try, it is impossible to be totally objective in selecting any particular item.

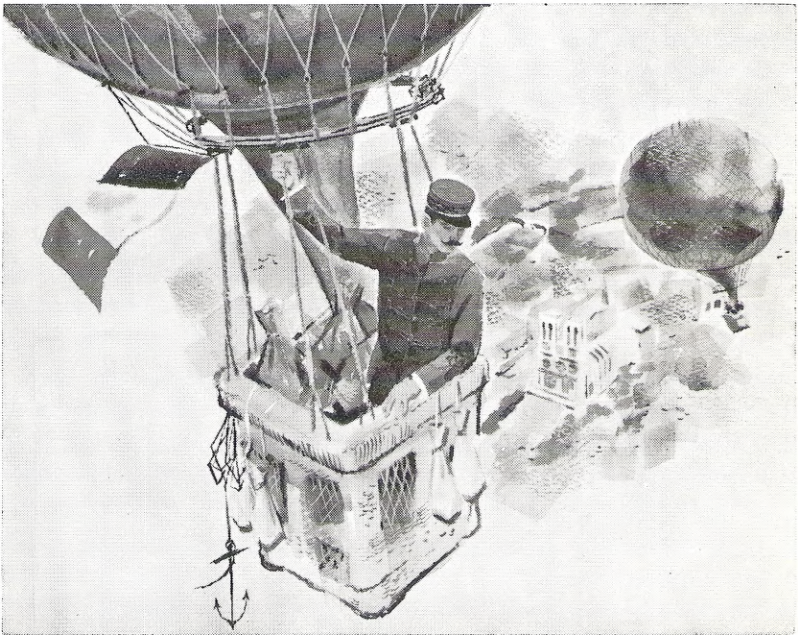
When one makes the decision to include this fact and exclude another, one makes a subjective decision based on a fantastic number of intangibles. And that is why, to paraphrase Plutarch, it is so difficult a matter to trace and find out the truth of anything by history. That which seems important and "belongs" in one man's history would never even be seriously considered by another even though both men were to work from the same source material.

All agree that certain of the concepts behind the Air Rescue organization are very old. Many years before the Wright Brothers lifted the first heavier-than-air machine off the ground at Kitty Hawk, man's

mind had conceived of the air as an avenue of escape from death. Greek mythology provides the story of Daedulus who devised wings of feathers and wax in an attempt to fly to safety and freedom with his son Icarus. Daedulus was successful, but Icarus failed when he flew too near the sun and his wings melted — a flying safety hazard which today's flyers need not face. But what of tomorrow's?

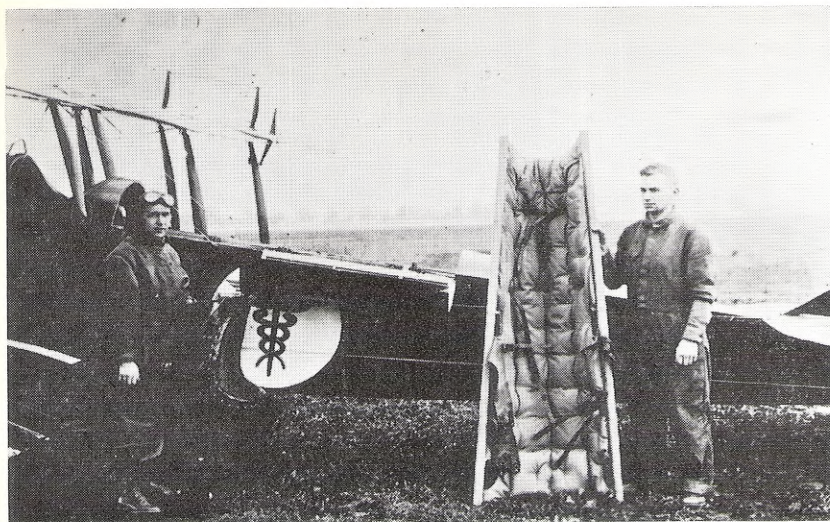
We think of that basic rescue aircraft, the helicopter, as a modern invention, yet it too had its origins in the distant past. It was visualized by the illustrious painter, and "genius of all trades," Leonardo da Vinci. His drawings of this imaginative aircraft are still in existence and, although crude by our standards, an idea was born, a contribution made.

As for the first actual aerial rescue, we are told that this occurred in 1870, thirty-three years before the first airplane was to fly. During



the Franco-Prussian War, while the guns of Bismarck's Army pounded the city of Paris, the ingenious French utilized observation balloons to airlift 160 patients and bags of important mail from the beleaguered city.

A half century later during World War I, when German forces were again attempting to overrun France, several attempts were made to use airplanes as ambulances. As early as 1915, the French Air Service



MODIFIED 'JENNY'—WW I trainer, was used in the first U. S. flying ambulance tests back in 1918 in vicinity of present Scott Air Force Base.

evacuated the sick by air from Serbia. The airplane was then in its infancy. Any trip was bound to be hazardous and the outcome doubtful, but it was a daring step forward.

As early as 1918 our own air arm was modifying World War I trainer and combat type aircraft to serve as "flying ambulances." On September 24th a test run was conducted between what is now Scott AFB, the present home of MATS Headquarters,, and Mascoutah Field some several miles distant utilizing a modified *Jenny*.

In 1926, during the Riffian War in Morocco, the French again took the initiative by improvising ambulance planes which they flew over the treacherous Atlas Mountains to evacuate a significant number of wounded personnel. The great possibilities of rescue by air were being slowly realized. Yet, incredible though it may seem, there are officers and airmen in Rescue today who during World War II, flew mission after mission in all the various theaters and were never aware of the existence of rescue agencies in their vicinities.

However, World War II did give the concept of aerial rescue its real impetus and we choose, therefore, this point in time for our beginning. We choose it not because it affords opportunity to recite a string of unbroken successes and colorful tales of derring-do. In too many instances quite the opposite was the case. True, there were successes and there were heroics. But it was the shortcomings and tragic

failures of World War II that pointed out the need for organization and professionalism in the art of saving lives from the air that led slowly but inevitably to the Air Rescue Service of today.

In every history there must be omissions. Certainly there is no intent to slight those who participated in the many superb missions which have, for considerations of space, escaped mention on the pages that follow. The contributions of these anonymous men have added inestimably to the lore and legend of Rescue. Their dedication has brought to thousands that most precious of all gifts — the gift of life.





Chapter One



World War II Rescue in England, Europe and the Mediterranean Area

BRITAIN'S FIGHT AGAINST THE ODDS

DURING THE EARLY STAGES of the war, Great Britain was reeling under heavy blows of Germany's highly vaunted *Luftwaffe*. The Nazi bomber crews had been trained to perfection and the destruction they left behind was grim tribute to their accuracy. Hitler's master plan for conquest was being carried out on schedule. Newsreels of the day showed him improvising a little jig and shaking hands with himself in anticipation of success. England's fate hinged on the outcome of the Battle of Britain and everybody knew it. For if the Germans gained control of the air over England and the Channel, then invasion was a certainty. Pitted against high numerical odds, each RAF pilot was of vital importance to the survival of England. Winston Churchill's statement that "Never in the field of human conflict was so much owed by so many to so few" was no exaggeration.

Aircraft, so essential to the defense of the Island Empire, were valuable in terms of pounds and shillings and were not easily replaced.

But more important were the men who manned these planes. Difficult as procurement was, new aircraft could be obtained far easier than experienced, combat-wise pilots.

This was one of the factors that prompted the British to think seriously in terms of an organization whose job it would be to rescue airmen who were forced to ditch in the sea. And, strangely enough, when sometime later the British set up a rescue service they profited immeasurably by the examples already set by the Nazi enemy.

AID FROM THE ENEMY

The Germans had early realized the value of a rescue organization for the maintenance of aircrew morale. Such a service was in existence as an integral part of the *Luftwaffe* prior to 1939 but it was not utilized extensively until the invasion of Norway. Later when Hitler tried to carry out his threat to bomb England to her knees, this coverage was extended to the English Channel and the areas off the coasts of Belgium and the Netherlands.

Rescues were accomplished by the Germans principally with Heinkel-59 float planes assisted by fast rescue launches stationed on the European coast facing the British Isles. The Heinkel-59's carried three collapsible rubber boats, blankets, medical stores, and two-way radio communication gear. They were vividly marked with a red cross in keeping with their humanitarian mission. This marking might have been acceptable had not the Germans devised a clever sideline for their rescue craft. Using the red cross to gain immunity from attack, the planes would spot allied shipping and set them up as targets for German vessels in the area. When the British discovered this two-fold purpose of the Heinkels, the Germans were informed through a neutral nation that the scheme would no longer be tolerated. But the Germans must have considered it a good thing while it lasted.

In October 1940 the German Rescue Service introduced the Sea Rescue float — a large buoy-type float designed and meticulously equipped to maintain the life of any downed aircrewman who might reach it. A number of these were placed in position extending almost across the English Channel. They were fitted with bunks for four men, blankets, clothing, food, water, distress signals and lamps. Painted a vivid yellow with a red cross on either side of the central conning tower, these floats were clearly visible from a considerable distance. Two hundred and fifty feet of rope, attached to the float, drifted in the current to aid airmen in climbing aboard.

Periodically, these life-saving devices were checked by patrol boats and survivors were transferred. Since RAF pilots in distress would head

for the buoys too, both sides made the periodic checks. It became a matter of pure luck as to whether or not a survivor returned to his comrades or sat out the war in a POW camp. And one can only speculate on what might have transpired if a downed German flyer had reached a buoy only to find that an RAF pilot had already set up housekeeping.

The German Rescue Service also led the way in providing certain other pieces of survival gear which later became standard issue to Allied airmen. An inflatable dinghy was part of the regular equipment of German bomber aircraft, and in the summer of 1940, one-man dinghies were being issued to fighter pilots.

All German aircrews were provided with bags of Fluorescine, a dye marker which stained a large area of water a bright green color. Bomber crews had portable radio transmitters at their disposal. These could be taken into a dinghy and used to call for assistance. It was the German Rescue Service, too, which first employed highly visible yellow coloring for their dinghies, skull caps and flotation jackets.

The Germans were fighting the British, but at the same time, in the field of air rescue, they were helping them. It wasn't long before Royal Air Force crews, and later American crews were equipped with similar and often improved versions of German survival devices. A notable example of an improvement was the famed "Gibson Girl." Its predecessor was a captured German radio transmitter. Perfected by the United States, it was used extensively both by American and British aircrews during the war. Before the end of the war, following Germany's lead, aircraft modified solely for Rescue work were put into operation with special search and rescue gear.

In this way, the Germans had made their contribution to the progress of Allied air rescue programs, not only in the development of rescue devices but in pointing up the fact that air rescue was an indispensable element of any first rate air force.

THE BARREN BEGINNING

The initial approach of the British to problems of rescue was haphazard, to say the least. It wasn't that they were indifferent to the plight of airmen, who were forced from the skies, but to a nation with its back against the wall fighting for its life, temporary, piecemeal methods were the only solution.

During the first months of the conflict, British aircraft ditching in the sea were the responsibility of their own units. Operational aircraft were dispatched and if survivors were located, on the spot arrangements were made to divert any surface craft in the vicinity to the scene.

There was no direct communication system in existence and, as a result, costly and often tragic delays were experienced in advising rescue vessels that their help was needed.

In March 1940 a communications system was established granting distress messages a priority. Under this system messages were sent directly to the agency closest to the spot of a downed aircraft. Unfortunately, there was still no organized unit to furnish help.

Increased air operations over the Channel during the summer of 1940 raised even higher the toll of lost airmen. In the last three weeks of July, alone, 220 airmen were reported killed or missing. Something had to be done, and soon was done. Again, it was a stop-gap measure, but one which, in one month's time, was to pave a direct path to an independent rescue service.

A local rescue service was established off the coast of Dover by elements of the Royal Navy and the Royal Air Force. Utilizing light naval craft, RAF high speed launches, and a few borrowed *Lysander* amphibians, the value of this organization was soon realized. As a result, the Deputy Chief of Air Staff called a meeting in August 1940 to draft the organization of a formal "Air/Sea Rescue" service.

A skeleton rescue unit was established which combined the high speed launches of the Coastal Command with the rescue functions of



VESSEL OF MERCY comes alongside rafts to save air crew members of a B-17 forced to ditch after bombing mission during World War II.

the Naval Auxiliary patrol. The RAF rescue airplanes were placed under the operational control of the local naval authorities, and it was agreed that the RAF should be responsible for organizing air search and informing naval authorities of the area being searched.

Thus, after nearly twelve months of war, the first move was made toward the formation of an organization specifically allotted the task of rescuing airmen forced to ditch at sea. From that day in August of 1940, systematic communications, search and survival procedures were quickly established. The British were in business.

THE POWER AND THE PROBLEMS INCREASE

The entrance of the United States into the war in 1941 greatly intensified the problem of aerial rescue. More aircraft available for operational missions meant more aircrews needing assistance. When the first American aircraft moved into the European Theater in 1942 there was no facility within the USAF designed to accomplish the Rescue mission. Furthermore, our aircrews lacked even the rudiments of proper training in ditching aircraft and, to complicate matters more, many U. S. aircraft had very poor ditching qualities. Survival equipment was meager and even when it was aboard it was often left in the aircraft in a mad scramble to abandon the distressed plane.

In the area surrounding the British Isles, a crashed airman was always within 100 or 200 miles of friendly shores. However, this did not make the task of rescue a simple one. Several hours in the water of the North Sea or the English Channel even during summer months made survival extremely doubtful, and in winter a relatively brief immersion was often sufficient to cause death.

FORCES JOINED

At first glance, the outlook wasn't very encouraging. There were rescue problems to face, of this there was no doubt. But the British had faced these same problems before. They had found some of the answers and these they willingly passed along to the Americans. It was obvious, however, that it would be some time before the Americans could organize a rescue service of its own. This was of great personal concern to General Henry H. Arnold.

Conferences were held between the Eighth Air Force and the RAF which culminated in a formal agreement in September 1942. The agreement stipulated that rather than attempt to set up a separate rescue service, the United States should participate in the RAF's existing Air/Sea Rescue organization by contributing a number of planes and crews. The United States offering at first was small, but as more planes

of the Eighth Air Force became operational in the United Kingdom, American contribution to the effort increased.

Although still primarily a British show, the Americans were determined to do their utmost with the means they had available. The obvious first step was to implement a training program to correct their own deficiencies in matters of rescue and survival.

Based on the premise that a man can be rescued only if he has been able to live through the initial crash and extract himself from the wreckage of his aircraft, the American forces, during the latter half of 1942, inaugurated an intensive survival program for all U. S. aircrews. The success of this training, in conjunction with a stepped up rescue program, was illustrated by the increasing percentage of successful rescues as the war progressed.

A DARK PICTURE BRIGHTENS

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 to 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.

Whether or not an airman survived a bailout or ditching and was subsequently rescued depended upon a number of factors, all complex and variable. The skill and coolness of the individual confronted by the emergency, his physical condition, the ditching characteristics of his aircraft, the timeliness with which he notified rescue units of his trouble, weather conditions, and almost inevitably pure luck, entered the picture. Some of these factors could be controlled, others could not. But Rescue's success was going to hinge to a degree on its ability to reduce the number of avoidable causes of death.

By June 1943 an American-manned fixer system to fix the location of American aircraft in distress was in operation with headquarters at Hornchurch, located on the eastern outskirts of London. RAF personnel trained this first rescue unit of the 65th Fighter Wing and on the 4th of July the first "All American" mission was run, but the U. S. group remained an integral part of the British organization and was never without their advice and support.

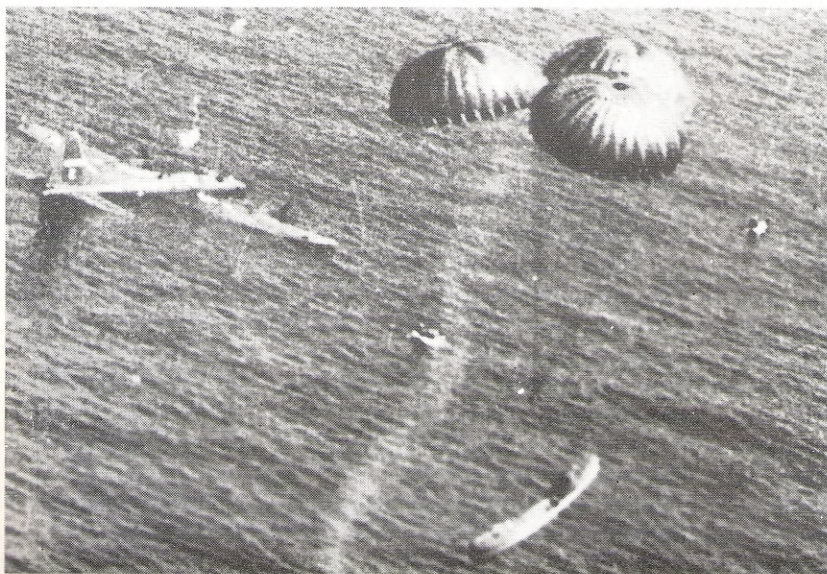
Air activity increased during 1944 as the Allied Forces carried the fight into the German homeland. Bombers and fighters of the British

and American air forces shuttled back and forth across the channel bombing and strafing enemy communication and supply lines in preparation for D Day. After D Day the surging offensive continued as the Allies went all out for victory. The need for more adequate facilities grew in direct ratio to this intensified effort.

A NEW STEP FORWARD

Now, from this small rescue-control unit of the 65th Fighter Wing came one of the biggest forward steps taken in developing rescue techniques during the war. This was the use of permanently assigned spotter aircraft as a planned part of rescue operations — a technique that was later to be developed to perfection by specialists of the Air Rescue Service. The rescue control unit of the 65th Fighter Wing meanwhile had been moved from Hornchurch to an attic room above the gymnasium of a grammar school whose name was to become a familiar sound to aircrewmens and Rescue personnel — Saffron Walden.

Early in 1944, fighter planes were drawn from operational fighter units to patrol the aircraft strike lanes after a mission for the purpose of reporting to Saffron Walden any aircraft down in the sea. As air activity increased and ditchings became more frequent, it was suggested



AIRBORNE LIFEBOAT has just been dropped from RAF aircraft to 8th AF crew after they ditched their battle-damaged B-17 in North Sea.

that fighters act as repeater stations for direct control of Air/Sea Rescue craft during rescue operations. As a result, all 8th Air Force fighter groups were asked to detail special aircraft on each strike to work directly with the Saffron controllers — to go anywhere over the water as the situation directed, and most important, to develop direct liaison with the recovery boats.

The success of this idea during operations in April 1944, led to a joint agreement between the British and American Air Forces whereby the U. S. agreed to provide 25 P-47 aircraft and pilots specifically for rescue work. These aircraft were to replace the spotter aircraft supplied from operational fighter units and were equipped to drop the British "M" type dinghies and smoke floats. Although their primary purpose was to provide protection for the 8th Air Force operations, they were also to be available for participation in any rescue missions when not actively engaged in 8th Air Force coverage.

The Royal Air Force's part in the augmentation of this service was an agreement to provide six *Warwick* bombers, equipped with airborne lifeboats, and two *Walrus* amphibians prior to each 8th Air Force operation. These could be dispatched to the ditching scene of the USAAF plane upon the request of the controlling unit at Saffron Walden. In addition, British Air/Sea Rescue boats were equipped with radios tuned to the Saffron Walden frequency so that they might be diverted to the crash area. The P-47's functioned as a relay during the operation.

SERVICE WITH A SNARL

This new P-47 squadron became operational on 9 May 1944, as Detachment B, Flight Section, Hq 65th Fighter Wing. The following day it took part in a mission which resulted in the rescue of crew members of a B-17 which was ditched some 240 miles off the English Coast. It was an unusual mission in that the rescue unit had to bare its teeth and snarl a little. The ditching had been observed by friendly aircraft and a Royal Air Force *Warwick* had dropped an airborne lifeboat. All ten of the distressed crew boarded the lifeboat and were proceeding to safety under the observation of rescue aircraft when they were intercepted by a Danish fishing vessel which took them aboard and immediately headed for German occupied Denmark. The *Warwick* fired several shots across the bow of the Danish vessel and at the same time called for assistance in diverting the Danes from their purpose. Four P-47's of the newly formed American unit rushed to the scene. Although unarmed, their presence undoubtedly influenced the captain of the fishing boat in his decision to "heave to" until an

Allied high speed launch arrived to rescue the "captured" airmen from the somewhat confused Danes. The Danes may have thought they were lending a helping hand, but at the time no one was in a position to give them the benefit of the doubt.

ALL'S STILL NOT SMOOTH

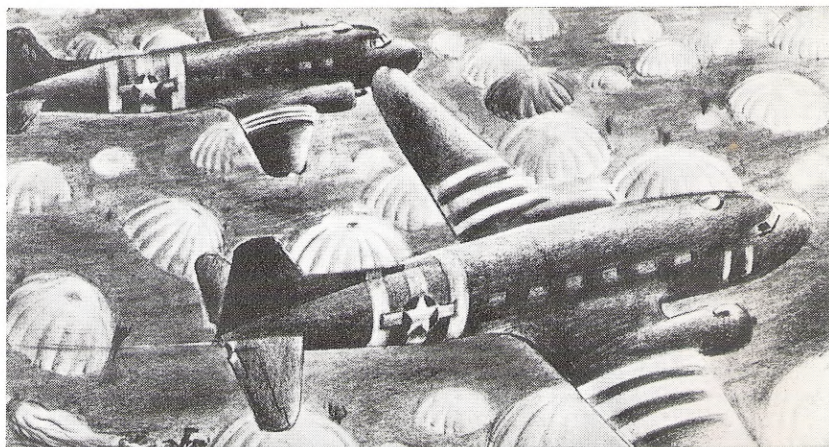
Detachment B, operating without a formal table of organization for nine months, faced a multitude of problems. Commanded by 23-year-old Captain Robert Gerhardt, this unit had a mission and an operating location (Boxted, England) but not much else. Aircraft, buildings, rescue gear, and other items so vital to the organization had to be borrowed from other units or improvised on the spot. Personnel was constantly changing. Both pilots and ground crews were on temporary duty and were continually being recalled to their home units to fly combat missions.

But perhaps the greatest problem of all was the aircraft which had been made available to the organization. Only 25 "war weary" airplanes were obtainable and these had practically been discarded because they were considered unsafe for combat missions. These then were the planes that Rescue pilots were forced to use, flying long hours, miles from land in miserable weather and at low altitudes. Scrounging tools, fabricating unavailable equipment and providing working space to get their aircraft in condition was a job in itself. The fact that the mission was accomplished at all is a tribute to the men who worked tirelessly night and day with only one thought in mind — get the job done. Their attitude was indicative of the spirit that infused "Rescuemen" during the war — a spirit which is still dominant.

The situation facing Detachment B was bound to change and it did. Within a relatively few months the operational need for rescue was fully recognized by higher headquarters. The unit was organized with a T/O in January 1945, and was designated the 5th Emergency Rescue Squadron — thus losing its "stepchild" status. By the spring of 1945, the unit was operating with P-47's as spotter and patrol aircraft, OA-10 *Catalinas* as patrol and rescue planes, and B-17's for dropping lifeboats and rescue gear. The American unit was now ready to assume its full load of responsibility in the combined Anglo-American rescue operations.

TRAFFIC JAM IN THE CHANNEL

Complete statistics as to the number of aircrews rescued on D-day and the week which followed are not available. On D-day there were so many ships, filling the Channel, the chances of a downed, living airman being lost were remote. The assault area and the areas on either



side of it were systematically covered with rescue boats and planes, making it difficult for an airman to bail out or ditch without being seen and picked up in a matter of minutes. Of the thousands of Allied airmen taking part in the Normandy Beachhead operation, very few were lost at sea because of lack of Rescue facilities. Sixty complete aircrews were known to have been picked up by the Anglo-American rescue organization on D-day alone. An indication of the efficiency of the rescue units covering the operations of the 9th Air Force is seen in the score of 6 and 7 June, when out of the 86 occupants of 13 C-47's ditched, 84 rescues were effected.

After the first few days of invasion activity, the number of calls for rescue services decreased because of the establishment of emergency landing strips in Normandy. These gave pilots an alternative to coming down in the Channel. It appeared to some that the need for rescue work — meaning the limited concept of pulling airmen out of the water — was coming to an end. This was not true. Instead, the emphasis moved to the waters beneath the northern approach to the British Isles. Big bomber missions to Berlin and Leipzig used this route across the Zuider Zee or past the Frisian Islands. Aircraft getting into trouble on such flights were often too far from the Allied lines in Europe and many ditchings continued to occur in the frigid North Sea.

As the war drew to a close in Europe, the 5th Emergency Rescue Squadron (originally designated as Detachment B, Flight Section, Headquarters 65th Fighter Wing) was still flying about 750 operational hours a month. On the average this meant saving the lives of 50 men who were involved in some 20 ditchings or bailouts.

Rescue Comes to Mare Nostrum

"THE HAND THAT HELD THE DAGGER . . ."

On June 10th, 1940, Italy attacked France, and at the same time declared war, on Great Britain. France was already deep in the throes of defeat. As the Italian army advanced a few miles into French territory, the Germans marched into the undefended "City of Light" — Paris. Four months later, the Italians invaded Greece. The war had now spread to the Mediterranean.

With the ever-expanding sphere of Axis operations, came additional problems and burdens for the struggling British forces to face. And as air activity in the Mediterranean area increased, one of these problems was bound to be air rescue. The British, by this time, had developed efficient procedures. It would not have been a complicated matter to use these same procedures in the Mediterranean area, had it not been for the fact that on August 8th, 1940, the German *Luftwaffe* launched their all-out assault on the British Isles. England, at the moment, was too busy defending her own shores to be overly concerned with the development of rescue units in areas away from the homeland.

The Germans had expected that once the *Luftwaffe* had begun its systematic bombing of English cities, the British would be hopelessly disorganized. But to their dismay, not only had the British survived the heavy poundings of the latter part of 1940 and 1941, but had struck back effectively. Instead of the anticipated chaos, they were still organized, even more united in spirit, and ready to turn their attention to those things which they had been forced to neglect. One of these was an Air/Sea Rescue Service in the Mediterranean.

The first flight of RAF rescue aircraft was assigned to the Middle Eastern Theater in the autumn of 1941. Originally equipped with *Warwicks*, designed to drop life rafts to survivors, the flight was soon augmented by a *Walrus* amphibian borrowed from the Royal Navy, and two amphibians — a Fairchild and a Grumman — which had been presented to the English by U. S. citizens to be used for ambulance work.

The air arm was further bolstered by the assignment of three, later increased to seven, high-speed launches. This unit was based at various points along the North African coast. Its exact location — thanks to the "Desert Fox," General Rommel — depended on the fortunes of the British forces at any particular moment. In the months which followed, additional rescue boat units were established with the search itself being

performed by aircraft from operational combat units. It was not until February 1943 that the first formal British Air/Sea Rescue squadron was formed in the area. Designated as No. 283 Air/Sea Rescue Squadron, it was organized at La Sebala, Tunis, and consisted of six *Walrus* amphibians and four high-speed launches.

In 1944, the British had four Air/Sea Rescue Squadrons operating in the Mediterranean. These were equipped with airborne lifeboat-equipped *Warwicks*. Fortunately, amphibious aircraft were also available for rescue work since there was not a single successful lifeboat drop recorded during the entire period of operations. Supplementing the aircraft in the squadron were 45 high-speed launches under the command of the Mediterranean Allied Air Force, and 21 launches under the Middle East Command.

ARRIVAL OF THE FIRST U. S. UNIT

The first American rescue unit to make its appearance in the area was also activated in 1943, and was the result of efforts of the 12th Fighter Command to augment British rescue activities. Amphibian pilots were obtained from among those training at the Pensacola and Jacksonville Naval Air Stations in the United States. Five OA-10 training planes were assigned to the unit, and to put it mildly those tired aircraft had seen better days. The aircraft, with Air Transport Command pilots at the controls, left the States for Malta early in June. Routed via South America and West Africa, only three of the original complement reached their destination on schedule.

One of the aircraft was damaged at Puerto Rico and could go no further until extensive repairs had been made. The second aircraft developed trouble after having successfully spanned the Atlantic and was forced to land in Spanish Morocco, the soil of a neutral nation. Here the crew was interned.

The planes and crews were originally assigned to the 12th Fighter Command, but when they arrived in the theater of operations, they were placed under the operational control of the RAF and stationed at Malta. However, the unit was soon forced to transfer to Bizerte since there were no other OA-10's on the island, and the problem of maintaining the aircraft was extremely difficult.

But moving the unit didn't solve the problem of maintenance. For even at the new location it was almost an impossible task to keep the *Catalinas* in the air. Spare parts were hard to obtain at Bizerte and, in many instances, appeals had to be made to the U. S. Naval Air Station at Port Lyautey, French Morocco for assistance. There were still other complications hampering the operation besides the lack of spare

parts. The worn out condition of the planes themselves made it necessary to replace rivets, sheet metal, and plexiglass damaged after each open-sea landing. And if this weren't enough, the crews lacked sufficient training. Even the most optimistic were forced to shake their heads in doubt when they surveyed the situation.

A squadron-type organization was eventually built around this AO-10 detachment, and this "catch-as-catch can" unit was successful in saving the lives of 40 Allied airmen and five Axis airmen during the invasion of Sicily. Eleven open-sea landings were accomplished and almost 200 mission flying hours logged. But with the gains came losses. One amphibian was strafed on the water while attempting a pick-up and another was shot down by enemy aircraft while on a mission. The score on the debt side of the ledger — two aircraft destroyed — one crew lost.

Despite poor aircraft, lack of thorough training, and the absence of any formal organization, the men of this early rescue unit were a determined group. They faced long odds, but they regarded them as a difficult challenge which had to be surmounted. From the beginning they were eager to show what they could do with what they had, and with what they had they did well — their first mission was a success.

On the 17th of July 1943, word was received that an RAF *Hurricane* pilot was adrift in the Mediterranean. The moment had arrived when the fledgling unit might have the chance to prove itself. The rescuemen approached the task almost nonchalantly as though this were routine for them, but underneath their veneer of indifference they were tense and anxious. This was one pilot who had to be found.

As they flew over the blue water, all hands were alert keeping a sharp lookout, but the sea appeared more vast than any of them had ever realized. Finding the distressed airman wasn't going to be easy. As the hours passed their eyes grew tired from the tedious job of scanning, and then after what seemed like an interminable amount of time there he was below them. A landing was performed without difficulty and in a matter of minutes the British pilot was hauled aboard expressing his appreciation with all the enthusiasm that a person adrift in a raft for eight days can summon. But the happiness of the rescuers matched that of the rescued, for not only had they saved a valuable life but in so doing had proved their worth as rescuemen.

A LONG TIME 'BETWEEN JOBS'

With one rescue to their credit, the unit waited impatiently for the next opportunity. It came almost a month later to the day and in spectacular fashion. With airfields secure in North Africa, a shuttle bombing technique was developed by the Allies. B-17's operating out of

England were to bomb enemy territory and then proceed to North Africa for a landing. Here they would pick up a new bomb load, turn around, drop their bombs on the return flight and land again at their home base.

The first of these missions took place on the 18th of August 1943 but not without complications of a serious nature. Three of the aircraft were forced to ditch in the Mediterranean because of insufficient fuel. The rescue unit obtained a fix on one of the ditched aircraft and a *Catalina*, with an escort of ten P-38's, rushed to the scene of the ditching. Ten survivors were eventually sighted and a landing was made, but this time there was trouble. The impact in the rough seas tore off the right wing float of the amphibian. The aircraft moved cautiously toward the distressed airmen and they were quickly loaded aboard the rescue plane.

But now, a takeoff was impossible. There was only one alternative—to taxi toward the African coast. The *Catalina* fought the heavy waves as it headed for shore, but the mission was still far from over. A short while after the pick-up, a British *Spitfire* buzzed the rescue craft wallowing below it and directed the pilot to ten more B-17 crewmen afloat in the sea. Now more survivors of the bombing mission were loaded aboard, and again the *Catalina* struggled through the waves toward safety as time and time again the sea threatened to swallow its precious cargo.

Shortly before 1600 hours, seven hours after the initial landing, a high-speed launch came alongside and took the survivors aboard. A second launch threw a line to the aircraft and took it in tow. By 0300 hours the following day, all hands had arrived at their destination. Twenty American airmen had been saved to carry on the fight. This would have been truly a cause for celebration, but if one had been held it would have been premature, for there was to be an unexpected climax to the rescue saga.

The following day a report was received on the third B-17 which had gone down into the sea. In a matter of minutes, another *Catalina* was in the sky racing toward the scene. Three members of the B-17's crew were spotted tossing around on the waves. A landing was made, this time without mishap, and the men were flown home. This brought the total of saves to 23 out of a possible 30. The other seven men were never found and in all probability did not survive the ditching.

The original rescue detachment remained in the Mediterranean until December of 1943 when its flight crews were recalled to the United States and assigned to Keesler Field, Mississippi. The need for properly

trained rescue units to operate with USAAF commands throughout the world, had now been fully recognized. At Keesler, an Emergency Rescue School was being established and personnel of the Mediterranean unit were to be among its instructors.

On the 13th of December 1943, the last mission was flown. When the final score was tabulated, 56 rescues were credited to the fledgling organization, which in a short time had gained the valuable experience from which others were soon to benefit.

OFF ON THE RIGHT FOOT

Meanwhile, members of the 1st Emergency Rescue Squadron began to assemble in October 1943 at Boca Raton, Florida. Flying officers of this unit had been trained both at the Jacksonville and Pensacola Naval Air Stations before coming to Boca Raton for their final polishing. The training they had received, the equipment and new aircraft at their disposal gave them advantages which their predecessors never had.

The squadron, under the command of Lt Colonel Littleton J. Par-due, departed for the port of embarkation in February of 1944. The personnel consisted of 52 officers and 147 enlisted men who were assigned to three operational flights and a headquarters section. The outfit was equipped with nine OA-10 *Catalinas* — six amphibious and three boat types, three L-5's and three B-25's to be used as administrative support aircraft. The unit landed at Casablanca during the middle of March and by the first of April it was stationed at Ajaccio ready to assume its share of the rescue operation, the full burden of which had been shouldered by the RAF from December 1943 when the the original



CATALINA—Known as the 'Cat,' OA-10 did yeoman service throughout WW II as a rescuecraft and saved the lives of countless U. S. airmen.

American rescue unit left for the States. Within the first month of operation, ten Americans and one Australian crewman were pulled from the waters of the Mediterranean by the new organization.

GETTING DOWN TO BUSINESS

The first mission occurred a little more than two weeks after the unit had arrived. While searching for a ditched RAF *Wellington*, the lone survivor, an Australian, was sighted in a dinghy. In a calm sea it would have been a fairly simple operation to land and pick up the airman. But this was not the situation. The winds were high and fifteen foot waves made a landing extremely hazardous. The possibility of climbing to a sufficient height to radio the location to a surface craft was considered and quickly discarded. There was only a 300 foot ceiling and if the crew lost sight of the airman tossing around below them, he might never be found again. There was only one thing to do — attempt the dangerous landing.

A few minutes later, a successful landing was made and the survivor was hauled aboard, but now came the hard part. Getting down was one thing, getting back into the air was another. Several take-offs were attempted, but the high winds and battering effect of the waves made it impossible to achieve the necessary speed. There remained only one solution — taxi the aircraft toward Bastia and pray that the fuel supply would last. Eventually the *Catalina* ran out of gas, but luckily it was intercepted by a high speed launch which towed it to shore. Everybody had prayed and the prayers were answered. How they were answered was of little importance.

In the strict sense of the word, this came close to being a foolhardy mission because the lives of the crew and the aircraft itself were put in immediate jeopardy. However, at this time, search planes were not equipped with the variety of survival gear available today. The pilot had considered the possible approaches to his problem. His conscience would permit him but one choice — to attempt the pickup. If he had followed any other course, the downed airman would have almost certainly lost his life. The calculated risk paid off.

A TESTIMONY TO TRAINING

The second mission of the month was less dangerous than the first, but the speed and efficiency with which it was handled makes it worthy of mention since it proved the value of extensive training which the unit had undergone before being sent overseas.

On the 29th of April 640 planes participated in a daylight raid on Toulon. The rescuemen on Corsica were alerted and were standing by. At 1230 hours a call was relayed to them that a B-24 was in trouble

and would soon be forced to ditch. By 1400 hours, two dinghies, containing the ten man crew, were sighted by a Flight B *Catalina*. Meanwhile an RAF high-speed launch was making its way toward the scene from its base at Ajaccio to make the pickup. It was forty-five minutes to an hour away when Lt John H. Mork, pilot of the rescue plane, saw that one of the survivors was injured. He obtained permission from the surface vessel to land and haul the distressed aircrew aboard.

A short time after the go-ahead from the RAF launch, the survivors were being loaded aboard the *Catalina*. Packed now with 18 persons, and with retrieved equipment adding to the weight, the amphibian, with engines roaring, plowed through the relatively calm sea, gained speed, and was airborne again. Three and one quarter hours after the B-24 had actually hit the water, the *Catalina* taxied out of the basin and up the ramp at Ajaccio.

LITTLE BOATS, LITTLE HELP

Working in conjunction with the air rescue units in the Mediterranean were four American emergency boat crews — the 5th, 8th, 11th, and 12th. But the work of the U. S. boats were restricted by their 36 foot lengths. This precluded any substantial amount of open-sea operation. As a result, they were assigned routine jobs such as towing targets, carrying messages, ferrying passengers from ship to shore, and as rest and recuperation boats.

INVASION IN SOUTHERN FRANCE

On June 6, 1944, D-Day, the Allies crossed the English Channel and stormed the Normandy beaches. Some two months later, the invasion of southern France was carried out successfully but almost without notice because of the relative ease with which the undertaking was accomplished, and because its importance was overshadowed by the gigantic D-Day operation. But here, as in the Normandy invasion, air rescue was an essential part of the over-all plan.

Flight A was returned to Ajaccio prior to the invasion where it worked hand-in-glove with Flight C. And Flight B remained in Italy to provide cover for diversionary action. Although the rescue effort, here, was basically a British-manned and controlled operation, the American units played a significant role. Forty-five missions were flown which resulted in the saving of 27 lives — 24 American, two British, and one German. For this achievement at this time, the squadron was awarded the Presidential Unit Citation.

The following month, the First Emergency Rescue Squadron split into three separately functioning units. Flight A was transferred to Grottaglie and Flight B to Foggia, Italy to provide rescue coverage

for Allied bombers flying over the Adriatic Sea in the expanding air war. Headquarters and flight C remained at Ajaccio.

Relocation of elements of the squadron continued during the month of October. Flight A was stationed, for a brief period, at an airfield about 20 miles from Nice. Shortly thereafter, Headquarters moved to Foggia and Flight B to Falconara. On the first of January 1945 orders were issued sending Flights A and C to India to organize the 7th Emergency Rescue Squadron.

Within a week, all personnel and planes, with the exception of four B-17's which had arrived the last of December and remained with the unit until March, had departed. All that remained of the original Squadron was Flight B at Falconara, and Squadron Headquarters at Foggia. During the middle of February, the Squadron bolstered by newly assigned personnel and equipment, was reorganized. It retained its old designation, but was comprised now of only two flights and a headquarters unit.

With the successful invasion of southern France the need for rescue units in the Mediterranean area diminished. But in the more active theaters of operations in the Pacific, experienced rescuemen could still be employed to good advantage. With these factors in mind, the 1st Emergency Squadron was ordered to the United States, after the defeat of Germany in 1945, for possible reassignment to the Pacific. The squadron arrived in the United States in June and was stationed at Keesler Field to await further orders. But the orders to go to the Far East were never issued, for a series of events took place in quick succession climaxed by the defeat of Japan.

On August 6th, 1945 Hiroshima was bombed, and three days later the city of Nagasaki was almost completely destroyed. On the 14th of August Japan surrendered, bringing an end to the long and bitterly fought war. Shortly thereafter, the 1st Emergency Squadron was inactivated.

A SUMMING UP

An evaluation is always an expected part of any history which attempts to do more than present factual material in chronological order. And so, in retrospect, the question must be asked, "What did American rescue units in the Mediterranean area accomplish?" The answer to this could be stated very simply: "They saved lives." And to give added weight to this statement, it might be pointed out that official tabulations credit the 1st Air Rescue Squadron, alone, with the rescue of 244 downed airmen. This figure does not include survivors sighted by PBY's to whose location high-speed launches were directed for pick-up.

The figure only includes the number of survivors rescued and carried to safety after open-sea landings had been made.

But rescue efforts in the Mediterranean and elsewhere produced much more than statistics by which Rescuemen could prove their accomplishments. There were also intangible benefits which couldn't be expressed in terms of integers and graphs: The morale of the combat crews was greatly improved because of the knowledge that American rescue crews were on hand if they should be forced to ditch or parachute into the sea; some of the rescue techniques, developed as a result of experience gained in a variety of situations, have become standard procedure in today's rescue units. And perhaps last, but certainly not least, the successes of the early units brought about an awareness in the minds of many of the importance and the necessity of having a regular rescue service — adequately equipped, fully trained, and combat ready — as an integral part of the United States Air Force.

The achievements of these pioneer rescue units are a tribute to the foresight and direction of General "Hap" Arnold who, early in the conflict, recognized the need for aerial rescue and took action to provide it.



**General of the Air Force
Henry Hartley 'Hap' Arnold
1886-1950**



Chapter Two



World War II in the Pacific Area and India

A DAY OF INFAMY

HOSTILITIES BEGAN for the United States in the early morning of December 7, 1941, when at 0755 hours Japanese planes, manned by picked crews specifically trained for the mission, swept in from the north and simultaneously bombed Pearl Harbor and Hickam Field. Wave after wave of enemy fighters and bombers savagely strafed and bombed the island. And when they disappeared over the open sea their objective — to cripple the Pacific Fleet — had been attained. Thus the ugly drama of war had begun: the first scene had been played, and the Japanese had given a stellar performance as the villain.

The war which had begun with a bombing attack on that December day, was destined to culminate its violence with a bombing attack on the ninth day in August of 1945 at 1101 hours in the morning when a lone B-29 dropped a single atomic bomb on the city of Nagasaki. During those intervening 44 months, great victories of Allied land and

sea forces were to be recorded; victories in which aerial warfare was to play a crucial role. And here, as in other combat areas across the globe, Air Rescue was to be called upon to support the enormous venture.

Rescue in the Pacific theaters of operation posed far different, and in many ways, more difficult problems than those encountered in the European areas. For one thing, the great distances involved in the Pacific war made extensive over-water flying inevitable in just about every combat strike. Obviously, this called for rescue on a larger scale than was required elsewhere. Then there was the constant moving of rescue bases made necessary by the island jumping offensive. Rescue units in the Pacific had to be maintained in a kind of fluid state ready to shift and change form with the flow of battle. This was not true of the European theaters where, for the most part, the locations of the bases were permanent and it was easier to organize an effective communications system and coordinate the various plans of activity.

DISTANCES DON'T LEND ENCHANTMENT

As the Allied offensive moved north toward Japan, islands were secured and landing strips were built wherever practical, but distances remained formidable. Iwo's capture, for example, provided a mid-way haven for heavy bombers who found themselves in trouble on their way back to the Marianas after strikes at Japan. This alleviated the rescue problem to some degree, but there were further complications: The sea northward from Iwo was infested with Japanese planes and ships; high winds, rain, squalls, and heavy clouds were common, and typhoons were an occasional menace. Searching for life rafts under these conditions was both difficult and extremely hazardous.

And a comparison of the two theaters produced one big difference: The rescue effort in the Pacific did not have the advantage of an efficient and effective British organization which could be used as a foundation. Except for the China-Burma-India areas, where the British provided significant help, this was primarily an American operation which had to be built from scratch.

As would naturally be expected, there was interest in rescue right from the start of the Pacific war, but there was not an organization available specifically for this purpose, nor was there any real coordination of the different efforts which had to be improvised. Each individual Air Corps unit had to depend on its own facilities to do the job, and with almost a complete lack of knowledge as to the necessary procedures to follow, the results were far from efficient. The Americans, in effect, found themselves facing a similar problem to that which the British faced when pressed by the relentless offensive of the German *Luftwaffe*.

The need to do something about rescue was apparent, but stop-gap methods had to be adopted until some of the pressure had been removed.

ANOTHER START FROM SCRATCH

The first effort at directing rescue operations in the Pacific began in the Plans Section of the 5th Fighter Command of the 5th Air Force. In December of 1942, Major John H. Small, Jr. arrived in New Guinea and took a personal interest in the problem. Immediately he began compiling a jungle survival book into which he incorporated all data which was then available and he distributed copies of the book to aircrews. Then in July of 1943, with one enlisted man, he started directing air searches for missing crews of his command. For two months he had no planes of his own set aside especially for purposes of rescue, and he was forced to work with any agency able to furnish assistance. But in August of that year he received four OA-10's around which he was able to organize the semblance of a rescue service. His unit proved its worth, for by the end of April of 1944 it had saved 455 downed airmen.

In January of 1943, about the time Major Small was compiling his jungle survival book and using all of his resources to find some way to launch a rescue service, an incident occurred which emphasized, in a dramatic way, the importance of an extensive rescue program.

THE TWINING RESCUE

On the 27th of that month, General Nathan F. Twining, who at that time was Commander of the 13th Air Force, went down in the sea with 14 companions, on a flight from Guadalcanal to Espiritu Santo.



PICK-UP of Gen Nathan Twining and his crew is made by Navy PBY five and a half days after they ditched their crippled B-17 in Coral Sea.

A full scale search of the area was instituted utilizing every available facility — Navy vessels, Air Corps, Navy and Marine planes. The search continued for six long days before a Navy PBY found the party floating in life rafts off the New Hebrides Islands. The successful completion of this mission was attained, only by diverting men and aircraft from their primary mission as parts of offensive operational forces. If a rescue organization, trained to perform search missions, had been available interference with the offensive campaign would not have been necessary.

While the incident involving General Twining highlighted this rescue need in the eyes of Pacific commanders, similar events which had taken place elsewhere in combat areas had already focused attention on the desirability of having independent rescue organizations work directly with the separate Air Forces. The result was the formation of an Emergency Rescue School in the United States whose purpose was to train the personnel who would comprise such organizations.

A SCHOOL FOR RESCUE SPECIALISTS

This school was established in the Spring of 1944 at Keesler Field, Mississippi, and the first of its graduate units to see action was the 2nd Emergency Rescue Squadron which had been activated in December of 1943 at Hamilton Field, California. In July 1944, after completing its training at Keesler, the Squadron was separated into four flights and a headquarters section and was assigned to the 5th Air Force. The advanced echelon departed for the Pacific on the 17th of July and upon arrival took up a position on Biak Island off the coast of New Guinea.

Just ten days later, the first three missions were flown and on the first flight five downed airmen were rescued. A short time thereafter, personnel and aircraft, which had previously operated in the area under the direction of Major Small, were transferred to the 2nd, bringing the aircraft strength up to 16 *Catalinas*. By September of 1944, all four operating flights were in place and performing their task. The dream of Major Small and others had become a reality.

THE DREAM PAYS DIVIDENDS

During the first six months of activity, the organization retrieved 300 airmen from death or capture. This gave the 2nd an average of 1.6 saves per day of operation. During the last two months of the period, the Squadron was able to raise its average to 2.2 saves per day. This increase was the result of improved sighting, searching and reporting methods and the opportunities for rescue were greater. The expanding war necessitated long range missions to places like Balipakan and Luson; hazards were increased and more planes were forced into the sea.



CARRIED ASHORE by rescuers Gen Twining looks little the worse for wear after spending almost a week adrift in a crowded liferaft.



HANDSHAKE and hearty thanks are extended by Twining to Lt Robert Feddern, pilot of PBY which made the pick-up from the Coral Sea.

Prior to October 1944, the 5th Air Force was the forward element in the island hopping plan of attack and in this position it carried the brunt of the air war. During the Fall of 1944, the 13th Air Force assumed the heavier portion of the burden. Since there was a greater need for experienced rescuemen to work with the 13th, the 2nd Emergency Rescue Squadron was transferred to that Air Force and the newly-arrived and less experienced 3rd Emergency Rescue Squadron was assigned to the 5th Air Force. This move was indicative of the thinking now prevalent that a rescue unit should be a part of every major air strike.

RESCUE STRUCTURE EVOLVED

During the first year of operations, a basic group structure was developed for rescue units in the Pacific. Two Emergency Rescue Groups were formed similar to the organizations in action in the Mediterranean area. They were composed of aircraft squadrons and boat crews. The 527th Rescue Composite Group, later to be redesignated the 5th Emergency Rescue Group, was activated in September 1944 under the control of the 5th Air Force Headquarters. Originally comprised of the 3rd Emergency Rescue Squadron and the 14th Emergency Rescue Boat Squadron, it was strengthened, in April 1945, by the addition of the 6th Emergency Rescue Squadron with its 12 *Catalinas*.

The 5230th Rescue Composite Group, redesignated the 13th Emergency Rescue Group in March 1945, was activated by the 13th Air Force in October 1944. It consisted of the 2nd Emergency Rescue Squadron and the 15th Emergency Rescue Boat Squadron.

Despite the fact that these units were consolidated into two basic organizations and placed under the control of an Air Force level headquarters, the exercising of that control from a central point was virtually impossible. Not only were the individual flights and boat crews scattered throughout the theater of operations, but they were constantly moving forward as they kept pace with the invasion troops. A glimpse at the picture in May 1945 points up the situation as it existed. At that time, Headquarters and Flight A of the 3rd Emergency Rescue Squadron were directly under the control of the 5th Rescue Group, but Flight B was being directed by the 308th Bombardment Wing, Flight C by the 309th, and Flight 4 by the 310th. However, as confusing as the situation appeared on the surface, it was dictated by necessity with one thought in mind — to provide as much coverage as possible.

ALWAYS TOO LITTLE, TOO LATE

The recognition of the value of an air rescue service, the establishment of the school at Keesler, and the increase in the number of trained personnel and aircraft available were gratifying to the proponents of air

rescue. But this didn't eliminate all of the problems. The need was always greater than the supply. And enemy opposition added to the difficulties of the rescuemen.

Although fighter cover was provided for most rescue missions in enemy territory, several aircraft were badly shot up. And as though this weren't enough, the Japanese developed a few nasty tricks which minimized the danger of any rescue crew becoming complacent if that was at all possible during those trying days. One of the favorite ruses of the Japanese was to put out an enemy life raft as a decoy and when a searching rescue plane came to investigate they met it with heavy fire. The Japanese were also instrumental in preventing U. S. airmen from securing native assistance after their planes had been forced down near native inhabited islands.

FEAR INTERFERES

Native cooperation, for the most part was good, but it would have been considerably better if they hadn't feared Japanese reprisals. A fear which was far from groundless. In one instance, two officers and a small part of men from the 2nd Emergency Rescue Squadron visited a small island south of the Philippines to enlist native help for downed airmen. The chief of the tribe, although sympathetic and polite, refused. The Japanese had already warned him of the consequences should he help Allied airmen. It was obvious under the circumstances that the chief could do nothing for the party from the 2nd Rescue Squadron, but a medic with the group noticed an ulcer on the leg of a small boy and gave it medical attention. This act of kindness was to have dire results, for shortly afterwards a Japanese patrol saw the bandaged leg of the boy and recognizing it as American handiwork, shot the chief of the tribe.

Throughout most of the Pacific, the Navy held the top commands. Assuming that the Navy would provide the necessary rescue facilities, the AAF did not plan to assign any of its rescue units to that area. However, as air operations stepped up, it became apparent that the rescue facilities were inadequate and the Army took steps to remedy the situation.

The difficulty arose, not because of any lack of concern on the part of the Navy but because of a basically different concept of rescue coverage between the two Services. The navy doctrine favored a principle of area coverage, with rescue units assigned for operational control to a variety of island or area commands. The Air Force, on the other hand, backed up by its experience in the Southwest Pacific, insisted that its rescue units should serve as integral parts of a theater air force in the belief that this practice would guarantee the greatest flexibility in their employment.

— three weather planes which flew over three potential Japanese targets a few hours before the bomb run, and the attack force of three B-29's — the atomic bomb-carrying aircraft and two instrument and photo ships.

Both missions were successful and the aircraft returned without incident. The operation was indicative of several things. One, it pointed up the cooperation between the two military services in the combat theaters; and, two, it disclosed the efficiency that had been developed by rescue units in the Pacific. But most important, it established the fact that no major military air strike was to be made without support of rescue elements. When the last B-29 strike was staged on the 14th of August 1945, about 2,400 men, or one fourth of those participating in the mission were on air-sea rescue duty.

AN EVALUATION

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. Because of the many variable factors which can affect the success of any rescue operation, the results of some months were better than others, but from an over-all viewpoint, improvement was seen almost everywhere as time went by. The rescue effort was on a lavish scale but the outcome made it all very much worthwhile as can be seen from a spot check of the record. 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.

RESCUE OPERATIONS IN INDIA

Rescue operations in India never reached the proportions realized in other areas of activity. Until the middle of 1944, responsibility was vested in an RAF Air/Sea Rescue Squadron modeled after those in the British Isles. With naval support, this organization was sufficient for the limited amount of air strikes in the theater.

During the summer of 1944, however, a small AAF rescue detachment was sent to India and attached to the RAF. It was comprised of two command pilots who had received amphibian training at Pensacola during 1943, and three Canadian built PBV's which had to be extensively modified before they were operational. This unit provided the only American rescue support until the Spring of 1945. Shortly after arrival, one of the pilots was killed in a crash. This left the unit with but one aircraft commander and two amphibians.

CLOSE INTERSERVICE COOPERATION

Despite the differences of approach between the two Services, Navy amphibian squadrons worked closely with their Army counterparts throughout the Pacific Area. Not only did they provide direct aid to AAF combat crews who were in trouble, but they furnished valuable technical support to the AAF crews who were flying the *Catalinas* — an aircraft with which the Navy men were more familiar. Rescue squadrons often found maintenance facilities and spare parts lacking within their own organization. This difficulty was often overcome with the aid of naval cooperation consisting both of formal advice and “mid-night requisitional” assistance.

On November 24, 1944 the XXI Bomber Command began its long range strikes against Japan from Saipan. The 4th ERS, which completed its training at Keesler Field in June of 1944 and was then sent to the Hawaiian Islands for further training, was assigned to the Central Pacific for support. But it was April 1945 before the 4th ERS was in operation with three of its PBY's at Peleiu. During the interim, the rescue service for the B-29's which had to fly from the Marianas across 1400 miles of open sea to reach their targets on Honshu was the subject of negotiation between the AAF and the Navy.

During the few months of operations before the war ended the 4th acquitted itself in creditable fashion. On July 30, 1945, amphibians and life-boats carrying B-17's of the 4th, covered the 3rd Fleet carrier strikes against Japan. This was the first time that AAF rescue facilities were used in support of Navy carrier plane strikes.

TWO SPECTACULAR SAVES

Two of the rescues performed by the unit were of a spectacular nature and demonstrated the cooperation between the two branches of the Service. The first rescue occurred during the attack when a Navy fighter pilot was forced to ditch in the Japanese Sea. The crew of an OA-10, ignoring the danger involved, flew completely across the island of Honshu, landed in the sea, retrieved the pilot and recrossed the Japanese mainland. By this time, the fuel supply of the *Catalina* was exhausted and now it, too, was forced to ditch in the Pacific. But practically ready and waiting, were units of the fleet who picked up the Rescue crew and the Navy survivor.

The second rescue, just like the first, began with the Navy and ended with the Navy with the AAF giving a valuable assist in between. This time a Navy pilot crashed in Suruga Bay off Honshu. Again an AAF rescue amphibian ignored the danger of heavy fire from Japanese shore batteries, and made the pickup. The sea was extremely rough and

the Catalina crashed in an attempt to take off in the choppy water. The Army crew and the Navy survivor were given a breathing spell when a B-17 dropped a lifeboat into which the survivors climbed. By the time they had made their way to a point about twenty miles off shore, fleet units of the Navy were ready once again to pick up the rescued and his rescuers. The whole procedure though a little unusual and perhaps unorthodox was nevertheless effective.

IN ON THE LAST ACT

During the summer of 1945 the air war against Japan became more and more intense, and efforts were made to bolster rescue coverage in the area. The 6th Air Rescue Squadron, assigned to the 5th Air Force was divided, in July, between Ie Shima and Okinawa. Two flights of the 7th Squadron, stationed in India at the time, were sent to Okinawa in August but, as it turned out, too late to be of assistance. The 5th Air Rescue Squadron, which had been operating in the European theater since 1943, was scheduled for deployment to the Pacific as part of the bolstering plan. And a new Squadron, the 9th, was ordered activated in the Army Air Force Training Command and scheduled for deployment to the Pacific in August. The war ended, however, before the plan could be fully implemented. But until the end of hostilities, air rescue units continued to perform their important function, and perhaps one of their most important missions, historically speaking, came as the final curtain was dropped on the stage of combat.

On the 6th and 9th of August, 1945, full rescue support was given to cover the B-29's *Enola Gay* and *The Bock's Car*. When these aircraft arrived over their individual targets of Hiroshima and Nagasaki to deliver the first and second atomic bombs, they were covered by an integrated rescue effort utilizing the services of both air and sea power.

Rescue operations from the Marianas were under the direction of a naval command (Commander Air/Sea Rescue Task Group). Assigned to the atomic strike was a cooperative USAAF-Navy force of 48 amphibians, eight B-17's, and an unknown number of B-29's. Not directly under the Air/Sea Rescue Task Group, but under its control for rescue operations, were 152 surface vessels, including 16 destroyers. These craft were stationed around the Marianas and Iwo Jima, and along the planned return flight route from Japan. Nearest the coast of Japan were "Lifeguard" Submarines.

This effort was similar in size and scope to those previously set up for B-29 missions against Japan — missions which included hundreds of planes in the striking force. In this particular instance, over 60 aircraft and 150 surface vessels were dedicated to the protection of but six planes

THE TEMPO INCREASES

British coverage along the west coast of India and over the Bay of Bengal proved inadequate late in 1944 when the 20th Bomber Command began to increase the number of its missions. The need for fully trained rescuemen to support the operations of the 20th was evident. Arrangements were made to have two flights transferred from the 1st Emergency Rescue Squadron then on duty in Italy where they were no longer needed. The plan was to have these combat experienced rescuemen become the nucleus of the 7th ERS which was to be activated on the 25th of January 1945. The new unit began operations in March and during the first month's activity they flew 43 missions and performed 16 rescues.

The China Theater possessed the first American operational unit specifically designed for rescue work. This was a small jungle rescue unit organized during the Spring of 1943 by personnel assigned to the India-China Wing of the Air Transport Command. The unit, composed of medical and survival specialists operated from an airfield at Chabua. When a report was received that an airman was downed in the jungle, they would proceed overland and make the rescue. Although not organized as an aerial-rescue unit, plans were used to carry on the search. Once a crash site was spotted the planes were used to carry the rescue unit to the landing strip nearest to the location. Then, when the mission was successfully carried out, the planes would carry the team and survivors back to their base of operations.



H-6 HELICOPTER saw limited service during late months of the war.

A 'NEW LOOK' EMERGES

A regularly constituted aerial rescue unit did not materialize until late in the war, but its operation had a significant effect on the future development of the present Air Rescue Service. The 8th Emergency Rescue Squadron, which arrived in China in May of 1945, was the only squadron equipped solely with helicopters and C-47 search support aircraft. Its mission was a departure from the "Air/Sea Rescue" idea for it was an outfit specifically designed for land rescue. In six months of operations, not a single "Air/Sea" search or rescue was performed but 110 land missions were flown and 43 downed airmen were rescued. The mountainous terrain over which the squadron operated gave a thorough test of the rotary-winged aircraft's ability, and the results were most satisfactory. In one instance, three R-6 helicopters were employed to find and rescue a crew which had bailed out of a distressed aircraft. A rescue was performed in a matter of hours which would have taken three weeks or more for a ground party to accomplish.

Throughout the war against the Japanese there was a marked difference between the American and Japanese attitudes toward human life in combat. Although their concepts were expressed officially in almost identical terms, in actual practice they varied considerably. Martin Caidin's book, "Zero", reports the view of Masatake Okumiya and Jiro Horikoshi. This book reports the inside story of Japan's air war in the Pacific. Horikoshi was Japan's leading aeronautical engineer and designer, while Okumiya was the commander of most of the sea-air battles in the Pacific from 1942 to 1944. During the first year of the war he was in command of Japan's homeland air defenses. After the war he held a high position in the new Japanese Air Defense Force. His comments on aerial rescue during the war are extracted from the book.

"There are other factors in aerial combat even more important than the quality of the individual opposing aircraft, and perhaps the most vital of this is having experienced pilots and aircrews. After every mission the Americans sent out flying boats to the areas in which their planes had fought, searching for and rescuing aircrews which had been shot down and stood a good chance of surviving aboard liferafts. Every lumbering flying boat, normally an easy catch for our fighter planes, went out on its search mission with nine to twelve escort fighters. Although their duties were extremely hazardous, the crews of these flying boats performed their missions gallantly, and there arose few occasions during the war when groups of men so consistently exposed themselves to multiple dangers. Our pilots

could not fail to be impressed with these daring search missions and, despite the fact that enemy pilots manned the flying boats, our men regarded them as unusually courageous.

"On the other hand, although the Japanese high command realized (perhaps in theory only) the value of saving human lives, and believed that every human life should be held as irreplaceable, they would not emulate the American rescue policy. Our naval commanders were so afraid of the possible sacrifices which might be the consequences of attempting to rescue our crews which were shot down that often we abandoned on the open sea those men whom we obviously could have saved. The naval command's attitude toward the situation was that they could not tolerate the possible loss of a large flying boat merely to effect the certain rescue of one aircrew.

"I pondered this situation more than once. For this apathy toward rescuing downed pilots was not merely the attitude of the high command Our own combat men, the flying mates of the same men who were shot down and adrift at sea, would not, even under orders, take any unnecessary chances to save their lives. Lest this attitude be misconstrued as indicating that our men lacked compassion for their friends, it should be added that they would not expect otherwise should they be the ones to be shot down. Any man who was shot down and managed to survive by inflating his liferaft realized that his chance for continued survival lay entirely within his own hands. Our pilots accepted their abandonment stoically. At any rate, the entire Japanese Navy failed to evince any great interest in rescue operations of this nature.

"There were exceptions, of course, and during my final stay at Rabaul the seaplane group commander proved to be one of these. He and his men often flew dangerous missions to save the lives of those aircrew members downed at sea. Their seaplanes were small and few in number; despite their most intensive efforts, they could do little."



Chapter Three



World War II Rescue in the Arctic Areas

ONLY THE STRONG SURVIVE

THE ARCTIC IS an unscrupulous enemy. It fights with any weapon that comes to hand. It strikes without warning and hits hardest just when you think the battle is won."

These are the words of Colonel Bernt Balchen, celebrated explorer, pilot and adventurer in his autobiography, "Come North With Me," published by E. P. Dutton and Company - 1958. He is describing a rescue mission which the Air Force called one of the great sagas of the Arctic, an unparalleled story of suffering and sacrifice and human endurance lasting almost six heartbreaking months on the Greenland Ice Cap.

The time is November 1942. For over a year, Colonel Balchen has been Commander of Task Force 8, a group of men sent to the far north to create another link in a chain of air bases which served as aircraft ferrying and communications stations, charged with the additional responsibility of providing weather reports for land and sea op-

erations and protecting the coast from enemy invasion. Task Force 8 set up its headquarters on Greenland's west coast high above the Arctic Circle, a site that became the northernmost American Air Base in the world.

All during the summer of 1942, aircraft destined for Europe to participate in the Allied invasion were pouring into Greenland in an endless stream. The flying crews were, for the most part, fresh from civilian life and inexperienced in long range flying, however, accidents were few and forced landings only one in a thousand. But Balchen knew and predicted that when summer ended, fall and winter would come with darkness, heavy icing, high winds, and bad luck. This is exactly what happened.

CRESCENDO ENDS 'BOLERO MOVEMENT'

A B-17, one of the aircraft of the "Bolero Movement" — code word for the prelude to the Allied invasion of Western Europe — was diverted along with 120 other aircraft to intensify the search for a missing C-53 transport which had experienced engine trouble and was forced down on the East Coast of Greenland. Exactly where was the big question for the reports coming into Balchen's headquarters were thoroughly confusing.

The aircraft assigned to the search were combing the Cap in grid patterns whenever there was a break in the increasingly bad weather. On November 9th, the B-17 in question went out before dawn and never came back. There were nine men aboard. Thus began the biggest rescue effort ever attempted in the north, an effort that lasted almost six heart-breaking months, claimed the lives of five men and the legs of another.

Colonel Balchen recorded the great mission in his diary as it happened: "The freezing winds are building to gale force and always as we fly there is the threat of a sudden williwaw. Once I am at 12,000 feet over the Ice Cap when we hit a violent downdraft, the down-roll of a williwaw curling off the Cap, which drops us to 8,000 feet with our plane still in climbing attitude, throwing us on our side with the rudders full out opposite in an effort to counteract. Then we hit the reverse draft, and shoot upward again to 15,500 feet in descending altitude. I estimate the wind velocity at about 175 miles at this time and with an indicated air speed of 215 m.p.h. our ground speed is only 37 m.p.h. for twenty minutes."

ANOTHER 'HUNCH' PAYS OFF

"On November 24th, after two weeks of futile search, I follow a hunch and make a long sweep to the southward. Ahead I see a little red

star climbing the dark sky, and then another flare and another, and another, and I alter course and drop down. The wrecked "Fortress" is lying in a valley of a glacier, at an altitude of about 4,000 feet, like a crushed dragonfly on the ice. It has hit in the worst possible area of the Cap — an active part of the glacier, scored with crevasses and bottomless canyons in the ice. I see from the air that the impact has broken the fuselage behind the wing, and the tail end of the plane is hanging down into an abyss. Held on the level ice only by the weight of its front end, the bomber is obviously in a precarious position. It is a miracle that any of the crew are alive . . .

"I take one look at the crumbling glacier, and instruct them not to leave the plane unless roped together. I have on board emergency supplies — stoves and sleeping bags and clothing and first aid equipment — and my first couple of drops are made with cargo parachutes. The howling wind ships them past the plane before the crew can grab them, and the bundles slip over the rim of the abyss. I decide to try free-dropping without chutes, and warn the men to stay under cover inside the wreck. I come down to about fifty feet over the glacial valley, bucking the violent air that boils off the Ice Cap, and kick out the remaining bundles, actually hitting the fuselage several times. The wind is so strong that the drifting snow streams from the B-17's wing tips as I pull up after the drops and head for the auxiliary station at Atterbury Dome, eighty miles away."

Four days later when there was a break in the storm, Colonel Balchen was back over the scene to drop medical supplies for the B-17's navigator whose feet had frozen. A short time later a Coast Guard Grumman amphibian arrived on the scene and Balchen advised the pilot that he could make a wheels-up landing on a level near the downed bomber. Balchen provided bamboo poles and snow shoes for a crossing of the crevasse to the wreck. The landing and subsequent journey to the side of the stranded men was completed an hour later. The navigator could not be moved to the Grumman for evacuation because of his frozen feet, but two other injured crew members were flown to safety.

THE EVER-UNSCRUPULOUS ENEMY

As Balchen circled above he spotted two motor sledges from Atterbury Dome. These were manned by men who had been alerted by Balchen immediately after he had discovered the wreck. Now they were only twenty miles from the site and making good time. Colonel Balchen estimated that it would only be a matter of hours before the navigator was rescued. The next step would be to evacuate the other members of the crew via the Grumman amphibian the next day. Balchen headed back to



Colonel Bernt Balchen

his base — BW-8 — confident that their troubles were almost over. But the following morning, Balchen's description of the Arctic proved only too accurate. It was indeed an unscrupulous enemy.

One of the motor sledges broke through a snow bridge only a hundred yards from the *Fortress* and its operator fell to his death in the crevasse. Two Coast Guard crewmen who had evacuated the B-17's radio operator failed to return to their base. The following March, the remains of the Grumman were discovered. It had flattened against a mountain in a blinding snow storm. All three men died in the crash.

Another survivor of the original crash plunged to his death when a snow bridge collapsed beneath him. Seven were finally saved. To get the last three out, Balchen made another landing near the crash-site in a PBY — his third of the mission. After loading the three B-17 survivors aboard, he was forced to lighten ship. Characteristically, he turned the aircraft over to the copilot and with three companions struck out by dog-sled for the coast over 80 miles away. After being forced to hole up for five days during a 150-mile an hour williwaw, he made the coast in less than two weeks and was soon returned to base via PBY.

This massive rescue operation is considered by the Air Force one of the great sagas of man against the Arctic, an unparalleled story of suffering and sacrifice and human endurance.

NEVER ENOUGH TO GO AROUND

Rescue, during World War II was not confined to the principal theaters of combat, but came into play in varying degrees in arctic waters of Alaska and the North Atlantic, transport routes throughout the Atlantic and Pacific, the waters of the Caribbean, and the water areas around the Hawaiian Islands and the Isthmus of Panama. Sometimes the coverage was effective, and at other times it was furnished in a rather haphazard

manner. The reason for this was simple: The global character of the war had put such a strain on the production and manpower resources of the United States that it was necessary to place all of the available equipment and men in areas where the need was greatest.

Even in combat areas the required equipment and personnel were often slow in arriving, and again, as so often was the case, the equipment earmarked for rescue units was sometime old and inadequate for its purpose. After combat units and supporting units in combat sectors had received whatever was available for them, then areas outside the sweep of combat operations received what was left. And it wasn't much.

From a rescue standpoint, the picture was not all black, however. In the North Atlantic the air route paralleled that of surface convoys, so in effect, protection for one was protection for the other. There was always a good possibility that naval vessels guarding the convoys would be on hand and ready to assist should an aircraft run into trouble. In Alaskan waters and on the Pacific side of the Panama Canal there was a concentration of naval strength and the same was true along the Caribbean and South Atlantic air routes. Consequently, the downed airman was not always without friends in the neighborhood. (See Appendix Two)

WAR CLOUDS OFF ALASKA

The campaign in the Alaskan area began when aircraft from Japanese carriers bombed Dutch Harbor in the Aleutians. Shortly thereafter, other vessels of the Japanese fleet joined in an attack which lasted for two days. The attack, however, was anticipated by the United States, and Eleventh Air Force and Navy air units were able to strike back effectively. It was thought, at that time, that the Japanese attack was a prelude to the invasion of the Alaskan mainland, but it was learned much latter that the purpose of the Japanese was to discourage any ideas the United States might have entertained concerning the possible use of the Aleutians as stepping stones to Japan. With this in mind, the Japanese landed forces on Attu and Kiska at the extreme western end of the chain.

In another area it might not have been too difficult to blast the Japanese Forces from the positions they had taken, but in this part of the world the enemy was protected by heavy overcasts and hazardous weather which prevented American bombers and fighters from carrying out any kind of effective attack. Because of this, it was more than a year before the Japanese could be driven out.

During the Aleutian Campaign, rescue coverage was provided by the extensive Naval forces in the area since there was no formal Army Air Force rescue organization in existence. During the final phase of the operation, 30 Navy PBY's participated in rescue missions, and they were

forced to perform under the worst possible weather conditions one could imagine.

When AAF and Navy bombers had successfully blasted the Japanese from their strongholds Alaska ceased to be an active combat theater and the Navy's PBY fleet was assigned to more advanced locations, but the need for rescue in this theater continued. Under the Lend Lease Program, the United States was ferrying quantities of aircraft to Russia via the Alaskan route. With so many planes in the air the possibility that some of them would get into trouble was anticipated and, although an attempt was made to provide some kind of rescue facilities, the results were often less than satisfactory.

A NEED TO KNOW

When a plane crashed or was forced down, local organizations in the area where the plane was last reported instituted on-the-spot rescue missions. But this was a time consuming process. Even when the approximate location of the crash site was known, the success of the mission was jeopardized by insufficient equipment, and personnel who were unfamiliar with the best search and rescue procedures.

There were many instances where the deficiencies were pointed out to a lesser or greater degree. A situation which occurred on the 1st of June 1942 is indicative of what can happen when proper steps are not taken to increase the odds in favor of success. On this date a B-18A crashed into the side of a mountain in the Cook Inlet region. An intensive search failed to locate the plane, but on the 17th of June two survivors of the crash walked into Anchorage and reported that there were still two men alive in the wreckage who were unable to walk out. After a rather disorganized search, the plane was sighted 7,500 feet up Mt. Redoubt.

A group of men were gathered for the rescue attempt but were not given the proper orientation prior to departure to the scene of the crash. A guide, whose services were required, was assured that the trip would be a short easy one, so all he carried was an ax and a pair of binoculars. A crash boat, used to carry the party to the crash site contained little of the proper equipment, and lacked a radio with which to maintain contact with headquarters. Enroute to the scene, one of the boat's engines gave out and could not be repaired. This might or might not have been avoidable, but, in any event, progress was slowed.

One thing, however, was certain: A reconnaissance flight for the guide, followed by proper planning and preparation would have eliminated some of the problems which eventually had to be faced.

Upon arrival at the foot of the mountain, the rigorous climb began.

Two days later, on the 20th of June the site was reached. One survivor was close to death and the other survivor, despairing of rescue, had left the plane five days before and was never seen alive again.

After a short rest, the guide was sent ahead to the home base to request aid and the party moved down the mountain again. Four days later, a six passenger plane picked up the survivor and part of the rescue crew and flew them to Anchorage. Thus twenty-four days after the crash occurred, the patient was placed in a hospital. He lived, almost in spite of the rescue effort, rather than because of it.

THINGS HAD TO GET BETTER

The state of affairs in regard to rescue needed improving, of this there was no doubt. It was a continuing source of concern to Commanders in the Alaskan Theater just as it was elsewhere in the world where American fighting men were stationed. Events similar to the crash of the B-18 against the side of Mt. Redoubt were unpleasant reminders of the fact that something had to be done. Not only was an organized rescue effort essential, but the men who were flying in the area had to be trained in the rudiments of survival techniques. Temporary methods, however, had to be relied upon until more direct action could be taken.

The Arctic Training School at Buckley, Colorado, activated in the summer of 1943, was an example of this more direct action. Training of personnel for the far north regions posed problems not to found elsewhere; for the greatest danger in the arctic was not from the sea or from enemy action but from the frigid climate, rugged terrain and unpredictable weather. The five-week course took all of these things into consideration. Training was devoted to arctic living and travel and search and rescue techniques with particular emphasis on clothing, navigation, map reading, sanitation, first aid, communications and survival. During the school's existence, three Rescue squadrons were activated and assigned to the far northern regions.

In the Fall of 1943, the 1st Arctic Search and Rescue Squadron was sent from Buckley Field to Greenland where it was made a part of the Greenland Base Command. Early in 1944, the 3rd Arctic Search and Rescue Squadron was sent to the Air Transport Command's North Atlantic Division, and the Alaskan Wing Squadron, also under the ATC, went to Alaska. The 10th Rescue Boat Squadron was stationed at Elmendorf.

The area of responsibility of the Alaskan Wing Squadron was divided into two sections — "A" sector (Canada) and "B" sector (Alaska). The Canadian border separated the two sectors. The Wing was divided into five separate flights; three in the Canadian sector at Ed-

monton, Fort Nelson, and White Horse; and two in the Alaskan sector, one at Fairbanks and the other at Nome.

As time went on a variety of equipment became available to the rescue units of the far north; C-64's, L-5's, AO-10's, C-47's, rescue boats, and dog sleds made their appearance on the scene.

Operationally, the rescue units were successful. For example, after the Alaska Wing Squadron went into action only two missions occurred in which aircraft were not found and on one of these missions the pilot walked to safety even though it took him twenty-five days to do it. His rescue had been thwarted because of his failure to file a flight plan or to maintain radio contact.

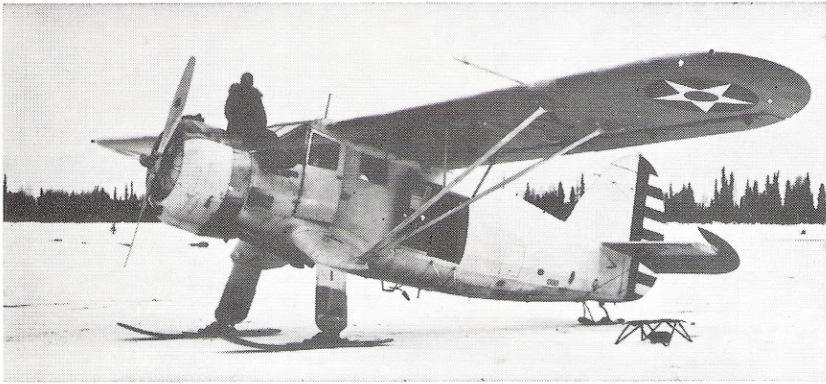
The 10th Rescue Boat Squadron and boats from the different bases were able to operate effectively because they were unhampered by enemy action, an advantage the Pacific boat units never had. They always seemed to be under the gun.

Missions performed by the Arctic units were, in some respects, different from those in the active combat theaters. Besides the recovery of downed aircrews, Rescue's aircraft and personnel were used to ferry replacements to isolated outposts, transport the sick and injured, carry supplies, aid natives in distress and fly convoy for ships in trouble.

The Rescue units in Alaska and Canada continued to operate until the end of the war. At that time, the ferrying of aircraft under the Lend Lease Program was halted and the units were dissolved. After the 3rd Arctic Search and Rescue Squadron was sent to the North Atlantic



MAINSTAYS of units in the far north were the ubiquitous C-47 and superb dog teams trained to reach otherwise inaccessible crash sites.



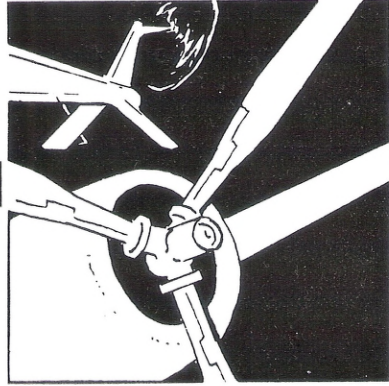
SKI-EQUIPPED C-64 was rugged and wonderfully well suited for work in far north. Variety of equipment complicated maintenance problems.

Division of ATC in February of 1944, it remained intact for a month or two and then was disbanded and its personnel were dispersed. Some of the men continued to serve in a search and rescue capacity while others became casual ATC replacements. After the Squadron was dissolved, search and rescue was covered by the individual base units.

DIFFICULT BUT WITH ADVANTAGES

Although facing greater problems with regard to weather and terrain, in many ways the rescue units operating in the northern latitudes during World War II were better off than their counterparts in the active combat theaters, air routes over which aircraft were flown remained stable. As a result, rescue units were not constantly on the go as they were in some areas of the Pacific where they moved constantly to provide coverage for the shifting zone of operations. The permanent nature of the rescue bases made it possible to maintain an efficient communications system, and last but certainly not the least of the advantages was the fact that rescue missions could be carried out with little fear of enemy interference.





Chapter Four



The Tools to Do the Job

THE ARSENAL OF DEMOCRACY

BEFORE THE ENTRY of the United States into the war, the resources and potential of America were being used to a large extent, to support the endeavors of those who would soon be its allies. America had become the "Arsenal of Democracy" and supplying the requirements dictated by a great war was almost a full time job.

With the Japanese attack on Pearl Harbor, problems of supply multiplied many times. How far the war would spread and how long it would last was anybody's guess. One thing was certain. Even with the American production geared for an all-out effort, it would be sometime before supply would catch up with demand.

That there would be shortages, even in areas where the need was greatest, was no secret. For some it was going to be a case of, do the best with what you have. And air rescue did just that. In many instances, off-the-shelf equipment was improvised, adapted, or modified for rescue work. The results were not always the best, but at the same time this equipment not only proved of great value in helping to save lives, but as part of a forced experiment it paved the way for today's efficient rescue gear.

However, it would be incorrect to suggest that all of the equipment available for rescue work was old and broken down or so unsuited for

the task that it had to be extensively modified. The OA-10 *Catalina*, the best available plane of its type for rescue missions was found in every theater. It was possible for the *Catalina* to cruise at a speed of 120 knots, slow enough to make a careful search, and its relatively rugged construction enabled it to land and take-off in fairly high seas. But quite naturally, it was subject to some criticism. It was awkward in flight and lightly armed — two factors which made it particularly vulnerable to enemy attack. Another disadvantage was its short range — a radius of from 600 to 800 miles which made escort of long-range strikes impossible. The rescue record of the *Catalina* included spectacular successes and dismal failures, and whether rescuemen were for or against this aircraft probably depended to some extent on their personal experiences with it.

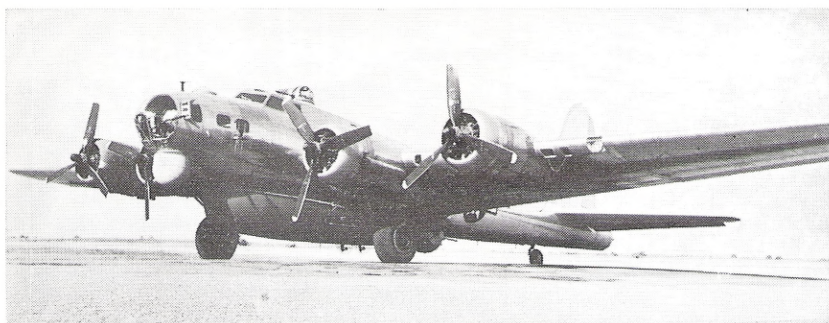
The problem encountered because of the *Catalina's* short range was answered in part by the conversion of some B-17's for rescue work. The B-17 *Flying Fortress* was, at the time, the Army Air Force's principal long-range bomber. It had twice the range of the "Cat" and could cruise slowly enough for effective search purposes. As a rescue plane it was able to accompany bombers to and from strikes at enemy targets, and could be used for long-range search operations.

There now remained to be found the answer to the problem of what to do when survivors were spotted in the water. Some kind of immediate relief and a way out had to be provided. The British had overcome this by fabricating an airborne life raft which they attached to their *Warwick* bombers. The 5th Emergency Rescue Squadron had used the same idea in a slightly different way: They attached dinghy packs under the wings of P-47 spotter aircraft and attempted to put them within reach of any airman found in the water. With these two ideas in mind, the Materiel Command's Equipment Laboratory went to work to produce an airborne lifeboat, which could be dropped to survivors. The result was the A-1 lifeboat.

AIRBORNE LIFEBOAT DEVELOPED

The A-1 lifeboat was constructed of 5/8 inch laminated mahogany plywood. It was 27 feet long with a 7½ foot beam, had 20 water-tight compartments, and was made to withstand 40 miles an hour winds and 20-foot waves. Powered by two independently operated air cooled engines, the boat was capable of a speed of eight knots with both engines running. It had a cruising range of 500 miles. Enough food, water, and clothing was packed into the craft to provide subsistence for 12 persons for a period of 20 days.

When carried by a B-17, it could be faired into its belly so as to produce little additional drag. Dropped by parachute, the boat was usu-



DROPPABLE LIFEBOAT, faired into belly of a B-17, did yeoman service during WW II, but was later replaced by boat-carrying B-29s.

ally released at a speed of 120 m.p.h. from an altitude of 1,500 feet. Self-righting chambers automatically inflated with carbon dioxide when the boat was dropped. This enabled it to float right side up upon impact with the water.

The first operational drop of the new AAF lifeboat occurred in April 1945 in the North Sea. It was a real test since conditions were presumably beyond the capabilities of the craft: The drop was made in a very rough sea with a 50 knot wind blowing. RAF *Warwicks* patrolling the area had already attempted three drops without success. Their boats either broke up on contact with the rough seas or were blown away by the high wind. An SB-17 of the 5th Emergency Rescue Squadron was called into action and a drop was successfully completed. Ninety seconds after it had hit the water, the six men were aboard. Twelve minutes later they had the engine running and were headed for England. They survived a bad storm, but eventually ran out of gas and found themselves at the mercy of the seas. On the third day, a torpedo boat homed in on the lifeboat's Gibson Girl and brought the men home.

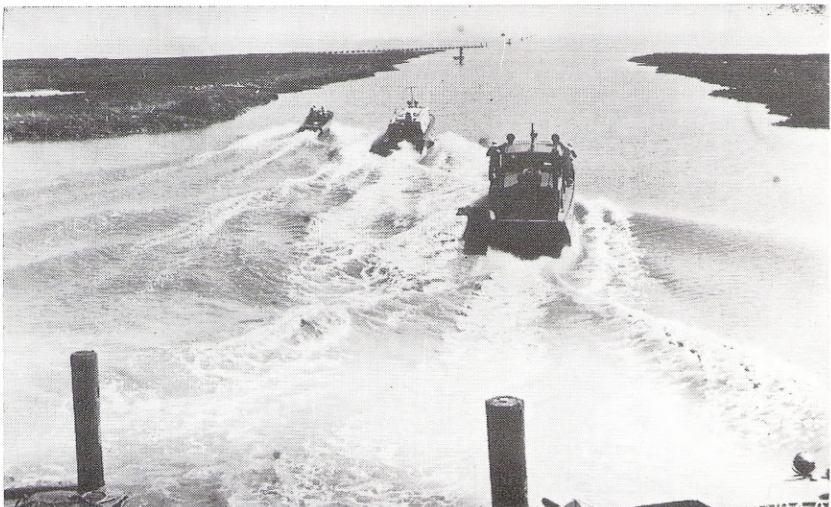
The second operational drop occurred on May 1st 1945. A fighter pilot was located floating in a raft just outside the harbor of Trieste. The area was heavily mined and any attempt by amphibian to land could have been disastrous. An SB-17 of the 1st Rescue Squadron was flown over the area and a lifeboat was dropped to within 200 feet of the survivor. Shortly thereafter he scrambled aboard and was on his way. Records do not indicate how long it took him to reach port but the chances are that he made it in good time for he was a man of experience: This was the third time he had to sail home from a mission. Twice before he had been rescued with the assistance of lifeboats dropped by the British.

Before the war was over, the introduction of the B-29 *Superfortress* made the rescue SB-17 obsolete. It could not keep pace with the faster, longer range, B-29's operating in the Pacific area. By the Spring of 1945, steps had been taken to modify a B-29 for the rescue mission and lifeboats were constructed for testing purposes. The war ended before the modification and testing program could be completed. But the work continued and eventually the lifeboat-carrying B-29's became a regular part of the Rescue Service.

THE ROLE OF THE RESCUE BOATS

Every theater had its rescue boat squadrons. Whenever possible they operated in conjunction with the air rescue arm and, in some instances, as in the case of the 5230th and 5276th Rescue Composite Groups, they were an integral part of the rescue force itself. The idea to use boats grew out of the success the British had had with boat units in the English Channel and in the North Sea where most of the ditchings occurred.

Originally, the responsibility for operating Army surface vessels in air-sea rescue service belonged to the Quartermaster. The Marine Training branch, organized for the training of boat crews, was activated at New Orleans Army Base as a QM function in February 1943. In November, of that year, the job was turned over to the Army Air Force, and early in 1944, the unit was transferred to Gulfport, Mississippi. A short time later, in the Spring of 1944, the Marine Branch and the Aircrew Training Branch, which had begun operations at Hamilton



HEADING OUT—Crash boats scored their greatest success in the English Channel and North Sea but proved too vulnerable in long run.

Field, California, and then moved to Boca Raton, Florida, merged to become the AAF Emergency Rescue School with headquarters at Keesler Field, Mississippi. Ninety-five boat crews were trained before the school was discontinued.

The equipment used by the crews ranged from 16-foot swamp gliders and 22-foot shallow draft boats to seagoing vessels up to 104 feet in length. Eventually the AAF developed a standard 85-foot emergency rescue craft. But no craft was ever perfected which satisfied the AAF's requirements of high speed, long cruising range, and seaworthiness. As a result the performance of the boats was never quite what was desired.

Because of their vulnerability in the face of enemy action, boats could not be used in areas where the Allies did not have control of the air. Activities were confined even in these locations to areas close to our operational bases. If boats were used outside these locations they operated under cover of darkness.

When an air strike was planned in the Pacific and boats were to be a part of the rescue operation, the usual procedure was to position them at night along the proposed line of flight for 100 or 200 miles at some atoll where they could not be seen by the enemy. Crews of bomber and fighter craft were briefed on their position, and if they were forced to ditch during the mission, they would make the attempt as near as possible to one of the boats. After they had been rescued, they would be brought back to the base again after dark.

Boats were used extensively in the Caribbean, along the South Atlantic routes, and in other non-combat areas. Hence there was comparatively little danger of enemy interference and they operated with a fair amount of success. In the Pacific, they proved most effective in carrying supplies to guerrilla forces and in transporting downed airmen and, in certain instances, isolated ground troops from islands to bases of safety.

THE STUFF TO STAY ALIVE

Rescue equipment can be divided into two general categories — that carried by crewmembers on their person or in the aircraft itself, for example survival gear, and that used by Rescue squadrons in searching for and rescuing survivors. Great strides were made during the war in supplying these items when it was realized that the efficiency and success of a rescue organization was in ratio to the amount and kind of gear available in that particular theater.

The fact that the parachute was about the only standard piece of survival equipment available at all times to pilots of fighter planes,

during the early days of the war, is almost incomprehensible today. Nevertheless, this was true. The one-man life raft, and the "Mae West" life jacket with its pockets filled with sunglasses, bandages, sea marker dye, signaling mirror, first aid kit, flares, and other survival equipment, were developed for general use and issued *after* the war was in progress.

At the start of the war, emergency supplies were meager. Larger aircraft, of course, carried a greater quantity of survival gear and supplies than smaller craft. But often, what they did have was lost when an aircraft was forced to ditch. Sometimes the gear would be improperly stowed, other times there would be a lack of coordination among members of the crew and as a result the equipment was never taken out of the aircraft. Lack of familiarization with the gear itself caused many to lose their lives before rescue units had a chance to save them. As crews received proper training in the technique of making emergency exits, and in the proper stowing and use of survival gear, a higher and higher percentage of "saves" was recorded.

THE SITUATION IMPROVES

As the war neared its end, large aircraft had their emergency equipment stowed in the body of the plane where it was accessible, or in special compartments from which it was automatically released on contact with land or water.

The B-29 carried three large life rafts capable of supporting the entire crew. Contained in the rafts was a variety of survival equipment—a Very pistol, distress signal flares, sea marker dye, a flashlight, a signaling mirror, a sail, a handpump, a bailing bucket, navigation charts, a compass, a desalting kit, water, food rations, a first aid kit, fishing supplies, and a radio transmitter. All of these items had a specific purpose and they were included in the inventory because of the experience that had been gained in the needs of men adrift in the sea or downed in remote land areas.

Since so many combat missions were flown over large water areas, the primary emphasis was placed on types of equipment which would help downed airmen to survive while a search for them was being carried on, and equipment which they could use to help rescuers locate them. Despite a number of almost fantastic exceptions, the length of time a crash victim could stay alive was limited. It goes without saying, then, that early rescue was considered essential.

ITEM ONE: STAY AFLOAT

High on the list of survival equipment was, of course, the life raft. Long before the war, the Army Air Force was in the market for the ideal life raft. They needed one that was light in weight, could be

stowed neatly when deflated, and contained pockets or compartments for the essential survival items. From time to time, rafts had been accepted and rejected and when war came, the search for the "perfect" raft was still going on.

As airmen, through experience in combat, became aware of the good points and the bad points of the rafts then available, modifications were made on the old and research and development were stepped up on the new. One initial change was the switch over to the rubberized-fabric life rafts without bladders.

Among the various rafts which came into use was the five-man raft, Type A-3. Made of a compound of natural rubber and cotton, it had a design similar to that of a Navy raft. It was standardized in 1943, but a newer model, Type A-3A made its appearance in 1944. The A-3A weighed 36 pounds and measured 98 by 60 inches. It had one 10-inch seat, two water ballast pockets and a lifeline that doubled as a boarding ladder. By the end of 1944 about 150,000 of these two types had been delivered. Meanwhile, the AAF Materiel Center had developed Type E — a seven-man raft which could be dropped from rescue craft.

Model AN-R-2A, a Navy one-man raft, was adopted by the AAF in 1942 for the use of fighter pilots, but this proved unsatisfactory because it had to be blown up by mouth and it was hard to board under usual ditching conditions. As a replacement for this model, consideration was given to the use of an RAF individual dinghy which came equipped with a sail, collapsible hand pump, signaling devices an anchor, and a spray shield. American pilots in the ETO had shown a preference for this model, but in May 1944 the AAF adopted type C-2. This raft had a rated capacity of 350 pounds and a wider variety of survival items than the British version.

THE MEANS TO STAY ALIVE

Perhaps no need was greater for the downed airman, than a supply of drinking water. In December 1942, General Arnold ordered the procurement of the Delano Sunstill. This still was light in weight and was simple to operate. Under certain conditions it could produce about one pint of water per day. But unfortunately, sun stills did not come into general use until the end of the war. While it seems almost unbelievable,, significant delays were caused by the time consuming process of obtaining patent rights, and the reluctance of some civilian manufacturers to share trade secrets. By September 1944, a desalting kit was being issued. These kits took most of the salts from the sea water by chemical precipitation and filtering, but the materials in the kit were subject to deterioration. Indeed, no truly satisfactory solution to this desperate survival problem was found during the course of World

War II and even today the available kits leave much to be desired.

In order that a man in the water live long enough to die of thirst, he must be able to keep afloat. To this most desirable end, the AAF developed a new rubberized fabric vest in 1944. Before that time, it had used the Navy's B-4, but this had proved unsatisfactory because it would not keep an airman in full flying clothes afloat under all conditions. The AAF type B-5 was designed to keep the face of an unconscious person out of the water and to exert less pressure on the wearer's body.

Another line of research was devoted to developing a ration suitable for stowage in life rafts. This responsibility was shared by Wright Field and the Army Quartermaster Subsistence Laboratory in Chicago. In 1941 an emergency ration, developed in 1934 primarily for the use of flyers downed on land, was still being issued. Compounded of bitter chocolate, powdered skim milk, oat flour and cocoa, it was packaged in four ounce cakes of 600 calories per square. When the Army's K ration was perfected, it was thought that it might be used to provision life rafts, but it proved to be too thirst-provoking, too bulky and too poorly packaged for use at sea.

In 1942, the Materiel Command developed a package containing an Army D. ration bar, dextrose tablets, bouillon powder, and chewing gum. In 1943 the Quartermaster doubled the caloric content of the K ration and reduced its thirst provoking qualities, but the K ration still was not satisfactory. In June of 1943 the VIII Bomber Command was authorized to procure a quantity of the British Mark II emergency rations for issue to heavy bomber crews. These remained in use for a considerable length of time.

Throughout the war, AAF and Quartermaster researchers continued their quest for the ideal survival package: One that would contribute the most to the physical and spiritual well-being of the survivor. As a result, items in some of the packets included everything from bouillon powder to chewing gum, from benzedrine tablets to religious literature.

TO LOCATE THE LIVING

Side by side with the creation of survival gear was the research, development and testing of equipment which survivors could use to help bring their rescuers to their location. One such ingenious device was the corner reflector, developed and tested by the Army Air Force in 1944. It consisted of a frame, covered with a loosely woven metal cloth, which could be opened like an umbrella. It weighed but 20 ounces and when collapsed measured 13 by 14 inches. Tests conducted at Eglin AAF Base in Florida established that under ideal conditions

its radar echo could be detected by a device was installed in a di seven miles if the searching 500 and 1,000 feet over the Navy use, and often placed value in the combat areas. its fragility and the fact th radar-equipped planes which

Of all the devices u rescue planes the most su The great need for this dev highlighted by the three-w and his party in 1942 and th and 14 airmen between Gu Two basic types eventu VHF transmitter, referred to operated on a frequency of signal could be detected fro 5,000 feet, however, it was was depleted after approxim

OLD RELIABLE OF THE

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its radar echo could be detected from a distance of 20 miles when the device was installed in a dinghy. But the reliable maximum distance was seven miles if the searching aircraft was flying at an altitude of between 500 and 1,000 feet over the sea. Although standardized for joint Army-Navy use, and often placed in the emergency vest it proved of negligible value in the combat areas. Two disadvantages which limited its use were its fragility and the fact that it could be used only in connection with radar-equipped planes which were seldom available in sufficient numbers.

Of all the devices used for attracting attention of search and rescue planes the most successful was the portable radio transmitter. The great need for this device was recognized early in the war. It was highlighted by the three-week ordeal of Captain Eddie Rickenbacher and his party in 1942 and the six-day trial of General Nathan F. Twining and 14 airmen between Guadalcanal and Espiritu Santo in 1943.

Two basic types eventually came into general use. One, the British VHF transmitter, referred to as "Walter" was a light weight radio which operated on a frequency of about 45 megacycles. Tests demonstrated its signal could be detected from 25 to 30 miles by an aircraft flying at 5,000 feet, however, it was deficient in that its battery-powered energy was depleted after approximately 20 hours of transmission.

OLD RELIABLE OF THE AIR WAVES

A more successful radio transmitter was the American designed SCR-578 commonly known as the *Gibson Girl*. Though larger — a factor which limited its use to larger life rafts — it had a hand-operated generator and could be used as long as there was someone able to crank the handle.

The *Gibson Girl* was a simple rugged transmitter. After it was modified in the spring of 1945 it could broadcast distress signals automatically on two frequencies — 500 kilocycles for homing of searching aircraft and 8,280 kilocycles, the world-wide emergency frequency for aircraft. It was also equipped with a manual transmission key and a manually operated signal light. Operating on 500 kilocycles the set had an optimum range of from 200 to 300 miles. On 8,280 kilocycles the set was poor at shorter distances, but excellent for long range transmission—in daylight its range was from 750 to 1,500 miles, and at night, under ideal conditions, it was often several thousand miles.

This was the best emergency transmitter to be developed during the war. Based on a captured German model, the American transmitter proved more effective than its British counterpart, or even the original German effort. By the end of July 1943, no rescue had been recorded as a direct result of the British transmitter, but eight USAAF crews had been saved in the European Theater with the help of the *Gibson Girl*.

Arrangements were made to supply 12,000 *Gibson Girls* to the RAF for delivery during 1944.

Fully as important as the communications and survival equipment for survivors was the search equipment developed for the search planes themselves. The signals of the *Gibson Girl* could be received on a variety of airborne and landbased receivers, but there was no assurance that the signal would be picked up unless the aircraft was aware of the downed plane and was monitoring the designated wave length. Late in the war a radio receiving set was specifically designed and tested which automatically received any messages on the *Gibson Girl's* 500 kilocycles frequency. With such a set installed in an aircraft, there was no valid reason for a pilot to be unaware of a distressed aircrew in his vicinity. Not only did the receiver automatically monitor the emergency band, but there was a flashing red light mounted on the instrument panel which attracted the pilot's attention to the incoming signal. Although this instrument materialized too late to be used extensively during the war, it was the forerunner of the highly specialized electronic searching aids now available in rescue planes.



GIBSON GIRL was developed too late for extensive use in WW II but is still reliable. It is the forerunner of the newer aids now available.

TO FIND IS NOT TO SAVE

Finding survivors was one thing, giving them aid was another. The simplest rescue approach was to locate the downed airmen and if they were in the water, direct an amphibian or surface vessels to the scene for a pickup. There were often times, however, when this was not feasible. Surface vessels might not be close enough to do any good, and the amphibians were restricted, under certain conditions by their landing capabilities. If the victims were located on land, light planes could not always get to them either because of the distances involved or because there were no landing strips at the crash scene. There was only one answer: Emergency gear had to be available which could be dropped to the site so that life could be sustained until help arrived or until survivors could make their way to a possible pick up spot.

The RAF had already made some progress in the development of droppable rescue gear, and in 1943 they sent quantities of their equipment to the United States for study and possible modification to suit AAF requirements. From this beginning, and with the help of experienced airmen, a variety of rescue gear was developed and placed into production.

By 1945, SB-29's PBV's and SB-17's as well as cargo-type planes used by Rescue units were equipped with a widely diversified inventory of emergency survival gear. Included were large life rafts, raft accessory kits, *Gibson Girls* and other emergency signaling devices. Smoke grenades were also an important part of the gear carried aboard and were used to mark the spot once survivors were sighted. This eliminated the possibility of losing sight of them again because of weather or heavy seas. The life rafts, which would support 2,500 pounds, were dropped from the bomb bay. If the rescue craft was not a bomber, the rafts were pushed out of the cargo door. Sustenance kits and practically all other rescue items were dropped by parachute in the same manner.

ANCESTOR TO TODAY'S 'ARK'

One piece of British equipment which was modified for AAF use and which has since been further developed to replace the airborne lifeboat was sea Rescue Gear, Type A-1. It consisted of five interconnected units, attached to a parachute. One of the units was a life raft, and the other four contained 45 items of necessary survival equipment. The contrivance was dropped near survivors who would get into the raft and haul in the remaining units by the line which was attached.

As the war progressed, as much emphasis as possible was placed on the research and development of the tools of rescue and survival gear. By the end of the war, rescue planes and survival equipment

had been perfected, distributed and their value recognized to such an extent that any downed flyer had a good chance of being rescued. The flyers knew this and their morale zoomed accordingly. It only took one save to make true believers of an entire squadron.

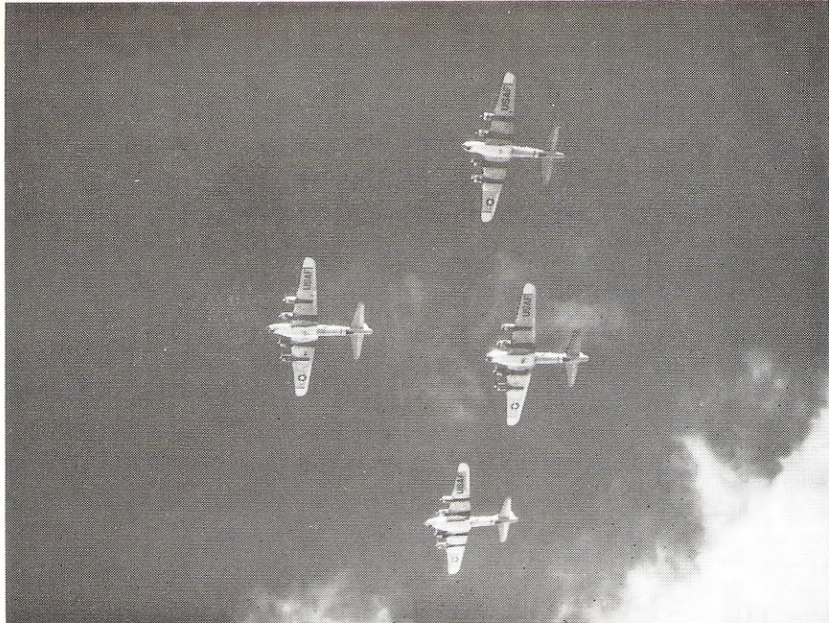
World War II served not only as a developing and proving ground for special equipment and essential materials of rescue but it also provided the necessary impetus for experiments in rescue and search techniques.

The first technique used during the early days of the war in Europe and the Mediterranean was the grid search. Information would be received that a plane had gone down and all available aircraft were then diverted to the probable location, where a concentrated search was instituted. Planes flying parallel courses would criss-cross the area in a grid pattern until survivors were located or the probability of their being located in that particular spot no longer existed. They would then extend their search until it became evident that there was no chance of success or they made the grade.

Not all planes in trouble, however, required this kind of help. The RAF had discovered that many lost and crippled planes trying to make their way back over the Channel could be saved simply by maintaining radio contact with a control point. This control point would give them their location and help them chart a course to the nearest landing area. There were times, also, when just keeping in touch with those on land gave the pilot the moral support he needed to bring in his plane.

Even if it were not possible for the pilot to get back safely, contact with a radio point provided the means for getting a fix on the distressed aircraft. Once the pilot's location was ascertained, the possibility of a quick rescue was good in the event he was forced to ditch or leave his aircraft. Communication nets in England were one of the first attempts made by the United States Army Air Force to protect its flyers. The use of this rescue aid soon came into use in all combat theaters.

However, the communication net and grid search system had its limitations. In many instances distressed aircraft were in the sea before search could begin and precious time was lost. Although practical over smaller bodies of water like the Channel and sections of the Mediterranean, the system was not as successful when larger bodies of water were involved. A new technique, relied upon on several occasions in the Mediterranean Theater, and invasion of Southern France, and for the gathering of delegates to the Yalta Conference, came into full use over the vast areas of the Pacific. This was the "Escort and Orbit" technique.



'WHITHER THOU GOEST . . .'

The plan called for rescue planes to accompany combat fighters and bombers on their strikes at enemy positions. Rescue craft would fly with the combat planes as far as it was feasible for them to go. While the strike was in progress, the rescue planes would orbit in position until the attacking force returned at which time they would accompany the group back to the base. The use of this technique gave the attacking force coverage over a large portion of the flight and, if an emergency occurred, aid was close at hand.

To increase the coverage still further an extension of the plan was put into effect called the "rescue line." This necessitated the cooperation of both air and surface craft. Crash boats were stationed 100 to 200 miles from the home base along the flight line, and Navy submarines were positioned close to the enemy target and at points along the flight routes where crash boats could not venture. Along the airline, planes of the Emergency Rescue Squadrons orbited awaiting a call for aid.

An example of this technique was seen in the strike on Balikpapan on the 10th of October 1944. This was a major strike with the 5th and 13th Air Forces, the 91st Reconnaissance Wing, and elements of the U. S. Navy taking part. The final plan encompassed the use of amphibian aircraft of the Army Air Force and the Navy plus a submarine. On this particular strike, crash boats were not used. Seven aircraft of the 2nd Emergency Rescue Squadron were assigned to the mission. Two of them were stationed in the forward area, two covered the middle and the rear, and three were held on alert to provide aid wherever it was needed. As enemy fighter concentration was expected to be high, and as there were no AAF fighters available for support, it was decided not to assign rescue planes over the target itself. Instead, a lifeguard sub-

marine was positioned 15 miles off-shore as close as possible taking into consideration the expected enemy opposition and the depth of the sea in the area.

A great deal of work and advanced planning had gone into the project before the rescue coverage scheme was finally accepted. Information was gathered on enemy fighter strength, ocean currents, prevailing winds, and weather conditions in order to determine the size and the composition of the rescue force needed to insure the proper amount of protection. A communications order was written which specified the rescue frequency and outlined the instructions for calling the sub. The importance of using the proper code was emphasized to avoid disclosing the location of the rescue sub when distressed aircraft were radioing the essential details of their whereabouts.

The coverage for this strike was highly effective. Attention to detail paid off. Not a single airman who had been forced to land on either water or land in areas away from the target was lost, and it was believed that all who reached the water alive in the vicinity of the target were rescued. A total of 40 airmen were picked up and returned to duty — 24 by amphibian and 16 by submarine.

The use of submarines for rescue purposes became almost standard procedure before the war ended, and a Navy submarine liaison officer was appointed to Air Force headquarters in the Pacific. One of the greatest dangers, of course, was the possibility that the sub would be caught on the surface near enemy installations where shore batteries or aircraft could cripple it before it was able to submerge. If an airman was down in a life raft close to the enemy shore and a sub was in the vicinity, it would pass close to the life raft with its periscope extended. The survivor would throw a rope over the periscope and be towed out to sea. When the sub had arrived at a safer location it would surface and the survivor would be taken aboard. This maneuver proved successful in several instances and — although this is pure conjecture — it must have been a source of confusion to the Japanese until they finally discovered what was happening.

During the war, most of the survivors who were rescued were recovered at sea. They were either picked up from life rafts or, if they were forced down on land, they would make their way to a body of water for an amphibious rescue. There were also a few times when light liaison planes were landed on unprepared or hastily prepared landing stripes to pick up isolated groups of combat troops or air crash victims.

In the closing days of the conflict, helicopters saw service on a limited basis in the China theater as rescuecraft. Their day was yet to come.



Chapter Five



The Genealogy of an Ideal

WHO'S IN CHARGE?

AIR RESCUE, as seen during the war was born of necessity, nursed on the ideas of dedicated men and supported by whatever equipment was available until it reached a kind of maturity. And as it grew, it was able to contribute much to the cause of which it was a part. Perhaps, the most remarkable thing about all this is the fact that during this time, there was no one organization within the military directly responsible for the over-all supervision of rescue activities.

Within the AAF, rescue had been considered a command responsibility rather than a headquarters responsibility. Each command operated independently providing for its own needs and when necessary negotiated with a sister service for whatever assistance it might require. AAF Headquarters obligation was to provide material assistance and indoctrinate aircrews in matters of rescue as part of their regular training.

In the spring of 1942, AAF Headquarters was reorganized and AAF Headquarters responsibility toward rescue passed to the Director of Traffic Control and Regulations. Two months later, in a minor reshuffle, the job was given to the Director of Flying Safety. In March 1943, there was a major reorganization of AAF Headquarters and Air/Sea Rescue was assigned to a newly activated Flight Control Command at Winston-Salem, North Carolina. On the 25th of August 1943, the

responsibility was again reassigned, this time to the Emergency Rescue Branch under the control of the Assistant Chief of Staff, Operations, Commitments and Requirements (OC&R).

The Emergency Rescue Branch was charged with the responsibility of determining the kind and amount of equipment required by the AAF rescue units. This branch also assigned the Emergency Rescue Squadrons and the Emergency Rescue Boat Squadrons to the different theaters. Theoretically, once the assignments were made, ERB's jurisdiction over them ended, but in practice it worked out differently. Since this office was, in effect, the source of supply it had a direct influence on the individual unit's ability to do its job.

OLD HANDS AT THE HELM

The men guiding this organization were experienced rescue men. In charge were Lt. Colonel J. W. Burgand who had received his background as supervisor of the AAF's Air/Sea Rescue program in England. Assisting him was Major W. J. Small, the officer who pioneered aerial rescue in the Pacific while assigned to the 5th Air Force. The other officers in the organization were, for the most part, returnees familiar with problems of rescue in the theaters of combat.

In February of 1944, the Air Sea Rescue Agency was established at the express request of the Joint Chief's of Staff. Its function was to coordinate the efforts of the Navy and the Army Air Forces. Although it included members from all of the Services it was predominately naval in concept. Headed by Admiral Russell R. Wasche, Coast Guard Commandant, the Agency was staffed mainly by Coast Guard Officers who had had ten or more years of experience in sea rescue operations. The majority of these men had commanded both air and surface craft and were proficient in all phases of rescue technique.

Under the authority contained in the directive establishing the Agency, these men conducted joint studies and assembled information on the various aspects of the rescue task. They analyzed technical data and examined reports on the research, development and design of air-sea rescue equipment for the purpose of improving rescue methods and procedures. They also investigated existing rescue facilities to determine their effectiveness and devised means which would enable them to handle the tremendous work load. In line with this, they published the Air-Sea-Rescue Bulletin containing some of the information they were able to gather, and distributed mimeographed extracts from Agency liaison officers who were stationed in the various theaters.

In the Zone of the Interior, the 1st, 2nd, 3rd, and 4th Air Forces, with their specifically organized base units, controlled rescue over land

in their respective area. Generally speaking, the Coast Guard protected the off-shore waters of the eastern and western seaboard. In the overseas theaters, operational control of Rescue units was vested in either the particular Air Force responsible for the area or the naval commander of the regions. In some instances, certain air lanes passed over regions which were protected by either of these agencies. Here the Air Transport Command had the responsibility.

Thus one can see that, when the war ended in August 1945, no single agency was directly charged with either the administrative or operational control of the AAF's Rescue units. This decentralized system, coupled with rapid demobilization of our military forces after V-J Day resulted in confusion which came close to destroying the capability of the AAF Rescue units.

DIFFERENCES OF OPINION

In order to appreciate more fully, the various aspects of the problem it is necessary to survey briefly the differences of opinion between the services in matters concerning Rescue.

Air-Sea rescue had been a topic of conversation of the Joint Chief's of Staff as early as December 1942. The talks were confined mainly to the coordination of the supply and distribution of emergency rescue equipment. But eventually a more complex and controversial problem came under discussion: Whether a separate agency for rescue operations should be created, or whether one of the existing services should be charged with primary responsibility.

In July of 1943, Admiral Wasche, Coast Guard Commandant, presented the factors, qualifying his command for this responsibility, to the Joint Chiefs. He concluded his report by saying that air-sea rescue was "A most proper function of the Coast Guard." But later Captain W. B. Scheibel, in remarks to the Headquarters Staff of the USCG, modified, somewhat, the original Coast Guard opinion. He stated in part: "While the Coast Guard should remain, both by statute and tradition, the leader in search and rescue, no longer is it a one-man show."

This contention met with some opposition, and a subcommittee of the JCS Joint Administrative Committee was set up to analyze the situation thoroughly. After a complete investigation, the committee voiced the opinion that the Coast Guard would face "insurmountable obstacles if it attempted to expand" into all types of rescue activity and recommended that each service assume responsibility for its own aircrews and continue their separate activities, with immediate authority delegated to the theater commanders. However, it did recommend that a central coordinating body be established in Washington with representatives

from each service. This resulted in the formation of the Air-Sea Rescue Agency in February 1944, which has been previously mentioned.

The Army Air Force recognized the fact that the Coast Guard had borne the primary responsibility for air-sea rescue off the coast of the United States since 1915, but contended that an organization, strictly continental in nature, could not operate a service that had to extend from the Greenland ice cap to the jungles of Burma. Furthermore the Army Air Force's concept of aerial rescue was far broader than that held by the Coast Guard. The naval organization conceived of the operation as saving men from drowning, while the air arm of the military was not only concerned with this, but with the possibility that aircraft could go down over any land area across the globe. In addition to these factors the AAF strongly contended that in time of a national emergency, flexibility and mobility were essential factors in the make up of an air rescue unit and that these things could not be achieved unless the rescue units were retained, combat-ready, within the air chain of command.

The Coast Guard did not agree with these arguments and proceeded to make plans for the assumption of air-sea rescue control. In April 1944, it was brought to the attention of General Arnold that the Navy was giving consideration to a proposal that the Coast Guard take over air-sea rescue functions, both domestically and on overseas airways. It was also suggested that the Coast Guard was the logical agency to handle the radio direction finding and the navigational aids along the airways now serviced by the Army Airways Communications System (AACS).

The Navy officers concerned were quickly informed that on the principal routes of the Army Air Force, AACS would continue to handle all communications and navigational aids as a matter of primary interest. No official comment was made at this time in regard to Rescue, but even if the sentiment was not expressed it appeared that the same feeling applied to rescue operations.

A PLAN AT LAST

During the summer of 1944, Major General Laurence S. Kuter, one of the earliest and strongest proponents of aerial rescue, made the following statement in a memo to General Arnold. "Because of the need for, and development of air-sea-rescue facilities in the Army Air Force, this activity has become an integral part of the Army Air Force Organization and is to be considered as necessary a part of the Air Force as any other supporting combat units."

This statement was part of a memo which was the result of an exhaustive study and it became the basis for a regulation (USAAFR 20-54) which was published during the last year of hostilities. It establish-

ed a definite plan for rescue operations within the AAF not only for the period of the war but after the war as well.

This did not mark the end of the discussion. In fact the Air Transport Command, which was to shoulder a large part of the burden, expressed its opposition to the plan. In March 1945, Major General Harold L. George, ATC Commander wrote to Lieutenant General Barney Giles registering his concern over the sections of the AAF regulation giving ATC responsibility for rescue coverage on transportation routes. With a good deal of validity, General George stated that, in his opinion, the AAF was not prepared to fulfill the heavy responsibility of safeguarding the over-ocean air lanes of the world in a manner that would insure maximum security and safety in the event of water landings. Presenting a conclusion with which many disagreed, he said that, "When we realize the magnitude of the operation for emergency rescues at sea, we inevitably come to the conclusion that the only way to provide the maximum sea rescue is by turning over this responsibility to the Navy"

A TIME FOR DECISION

When hostilities with Japan officially came to an end in September 1945, the question of who was to be responsible for aerial rescue had to be settled. The Navy began to inactivate its own rescue units and was pressing for acceptance of the Coast Guard's claim. AAF leaders, despite ATC's objections, remained reluctant to alter their position for fear that its rescue need would not be adequately supplied. The final decision was based on a memorandum prepared by Lieutenant General Hoyt S. Vandenberg in which he discussed the problem and proposed a solution — a solution which in a sense was a compromise.

The General stated that because there was no rescue organization in 1941, many varying systems of rescue, influenced by local conditions, had been introduced in the different theaters by both AAF and Navy forces. Conflicting policies were the inevitable result. Attempts to establish joint policies or to create a joint Army-Navy organization had been notably unsuccessful.

The rescue organization established during the war had been responsible for furnishing four types of coverage: Coverage for operational strikes, transport routes, rear areas and individual bases. From an analytical standpoint the AAF had supplied superior coverage for combat strikes — attested by the remarkable records established by the Emergency Rescue Squadrons. But coverage of the transport routes and the rear areas had been neither efficient nor economical. Base rescue coverage had been of an improvised nature and varied from base to base. Recognizing that the concept of aerial rescue was firmly established and that

provision for it had to be continued, General Vandenberg believed that six elements were essential to any over-all plan for air-sea rescue — control and supervision, communication facilities, mobile self-contained airborne rescue units, base rescue equipment, ocean-going station vessels, destroyers and submarines.

The first four elements could be supplied by the AAF. The last two were properly a naval function. Since the Coast Guard was planning a comprehensive sea rescue program for transoceanic air routes and water near the United States and its possessions this agency could be largely vested with the responsibility for providing such protection.

In conclusion, General Vandenberg recommended approval of a directive delegating responsibility for providing an aircraft search and rescue service for all components of the U. S. Army to the Air Transport Command. The ATC would be directed to establish and maintain a land-air search and rescue organization within the United States and sea search agencies along ATC foreign routes, to organize mobile rescue squadrons for assignment to each theater air command, and to establish liaison with Coast Guard commanders for continental search rescue.

THE POST-WAR CONCEPT

On the basis of these recommendations, the AAF formed its postwar rescue organization. Global coverage was visualized with squadrons assigned to the various air forces throughout the world to cover adequately their potential combat needs. Although these units were to be assigned the additional responsibility of area coverage, they were to be kept mobile to allow movement as required or directed.

A land Rescue organization was to be organized in the ZI utilizing rescue aircraft assigned to individual bases for use in the immediate vicinity. In addition, there would be rescue aircraft and crews assigned to appropriate rescue units. Because of their limited capability, the rescue boats were to be eliminated from the program and the Coast Guard was to take over responsibility for the waters adjacent to the United States, its possessions, and on the transoceanic transport routes. Responsibility for the adequacy of the AAF coverage was to be vested in the Commanding Generals of the Air Transport Command and the Continental Air Forces.

Now that the question had been settled as to whether or not the Army air arm was to have its own aerial rescue service, the next move was to organize as soon as possible. On the 5th of December 1945, the first step was taken when the 62nd AAF Base Unit was designated. On the 23rd of January 1946, organization of the unit took place at Andrews Field, Maryland, and the unit was placed under the Continental

Air Force. At its inception the 62nd was charged with only search and rescue activities within the United States, but the day was not far off when this unit would become the center of a great service which was to protect American aviation wherever it might fly.

ARS BECOMES A REALITY

On March 13, 1946, Headquarters Air Rescue Service was established and assigned to the Air Transport Command. Effective April 1st of the same year, the 62nd AAF Base Unit was assigned to the same Command. Then, on the 29th of May, Colonel Wallace S. Ford relieved Colonel Joseph F. Westover, Commander of the 62nd, and took command of Headquarters Air Rescue Service and the 62nd. In this manner, Headquarters ARS was superimposed upon the 62nd. The designation then became Headquarters, Air Rescue Service (62nd AAF BU).

In official jargon it all sounded very complicated, but in plain everyday terms it meant just one thing: The Air Rescue Service, as we now know it, was born. The new organization moved to the Washington National Airport and set up shop.

The ultimate goal of Air Rescue was a unified Service with a central control point from which over-all supervision could be maintained. But this was something that would take time to achieve. It would be no small chore to devise a system which would provide effective coverage throughout the world. Supply and equipment requirements had to be filled, personnel secured, training programs set up, bases established, and many other necessary things accomplished before the program was functioning on a full scale basis.

STARTING FROM SCRATCH

As envisioned by those in command, this was not going to be a job of patching up an old structure, but of building an entirely new one. In the meantime rescue work had to go on. There was just no way of closing up shop until the new structure was completed.

In the overseas theaters it was going to be necessary to rely on the individual Air Forces, as in the past, to carry on rescue activities, and the question, "With what?" could have been justifiably asked; for by this time the mustering out program had taken a heavy toll and economy moves were soon to increase the damage.

In the Pacific, at the end of the war, were the 2nd, 3rd, 4th, 6th, and 7th Emergency Rescue Squadrons. The 2nd Headquarters ERSq moved in September 1945 from Morotai to Luzon, P. I. There it remained until March 1947 when it moved to Okinawa and absorbed the personnel and equipment of the 6th ERSq which was inactivated. In

August 1945, the 3rd ERSq moved with the 5th Air Force into Japan. By the summer of 1946 it was operating four flights (or detachments) in Japan and one in Korea. The 4th ERSq remained in the Pacific. Its Headquarters and four flights were located at North Guam until it was eventually incorporated into the Air Rescue Service. The 7th ERSq, which had been moved into the Pacific from the CBI during the closing days of the war, lost its personnel and equipment to the 6th Squadron in January of 1946 and moved to Hawaii in name only. On May 15th the unit was inactivated.

The 1st Emergency Rescue Squadron had returned to the United States from the Mediterranean area early in 1946. In June, by normal attrition, it was depleted of all personnel. At this time, orders were cut declaring the organization officially inactivated as of the 31st of March. As it turned out, this was a temporary measure, for in September this organization was reactivated as the 1st Rescue Squadron and assigned to the Caribbean Defense Command.

The 8th Emergency Rescue Squadron, the helicopter squadron which had been sent to China during the spring of 1945, was inactivated in December of the same year. The 5th, which had performed so brilliantly with the 8th Air Force in England, was returned to the States in 1945. Most of the squadron's original officers and men were discharged, but a new unit was formed around those remaining. Stationed at Keesler Field, Mississippi, it performed operational missions from that station until May 1946 when it moved to Morrison Field, Florida.

In the United States, the 62nd AAF BU and ARS Headquarters assumed control of operations. During the war, each of the four Air Forces in the ZI had established their own rescue units and had located detachments in bases throughout the nation. The 1st Air Force had the 107th AAF BU, and the 2nd Air Force the 209th AAF BU, the 3rd Air Force had the 303rd AAF BU, and the 4th Air Force, the 475th AAF BU.

The stateside rescue units, like their counterparts overseas, were caught in the squeeze caused by the rush of personnel back to "civvies." There were few, among those who remained, with the amount of training their predecessors had had, but the raw material was there. These men and their equipment became the source of supply for the new Air Rescue Service.

PROGRESS AGAINST THE TIDE

By the end of July 1946, the organizational framework was composed of a headquarters, two squadrons and ten detachments. Air Rescue Headquarters had moved from the Washington National Airport to

Morrison Field, Florida to be near the 5th Air Rescue Squadron which now had been given the task of training personnel in addition to performing its primary mission of rescue.

Headquarters Squadron "A" was at Andrews Field, Maryland. Its five detachments were located at Westover Field, Massachusetts, MacDill Field, Florida, Selfridge Field, Michigan, Memphis Municipal Airport, Tennessee and Fort Worth AAB Texas. Headquarters Squadron "B" was placed at Hamilton Field, California and its detachments were located at McChord Field, Washington, March Field, California, Hill Field, Utah, Great Falls AAB, Montana, and Lowry Field, Colorado. In theory, at least, every square inch of United States Territory was covered.

The time, 1946, was a difficult one in which to launch a new enterprise. The prevailing thought throughout America, now that the war had ended, was to put it in the past and return to normalcy as soon as possible. A return to normalcy meant the demobilization of the Armed Forces, and a huge slash in future military spending. It was felt that money could best be used now for civilian pursuits.

For combat units, this presented no insurmountable problem since their active duty mission was over. But such an attitude was to have an adverse effect on the plans of Air Rescue. Its mission never ended and it would continue for twenty-four hours a day, 365 days a year. Without sufficient financial support, cooperation and interest from those in a position to give it, there was bound to be some tough sledding for awhile.

In December 1946, the Air Rescue Service was authorized 1,135 men of these 304 were to be in the officer category and 831 were to be enlisted men. Filling the officer quota was not difficult. When final count was made only four places had not been filled. But filling the enlisted quota was not easy. Here vacancies remained for 343 men. Some of the enlisted men were trained for the job, but not many. The enlisted men who had formerly served with Rescue had accumulated the necessary number of points and had been discharged.

OJT FILLS VACANCIES

To relieve the problem as much as possible on the job training was instituted, personnel were shifted within ARS, and men with certain skills which could be of use were borrowed from other bases. To minimize the difficulties caused by fund reductions, all commanders were re-impressed with the fact that they must become cost conscious, and they were instructed to take full advantage of the facilities of agencies already in existence with a capability for rescue work. The

State Police, U. S. Forestry Service, National Park Service, the Civil Air Patrol, Navy and Coast Guard Air Sea Rescue, and the Army Flight Service were among those to be relied on for assistance.

But money was still an important commodity, and the lack of it seriously hampered plans for the operation of advanced bases, the transfer of aircraft and the Air Rescue Training program itself. Many of the aircraft assigned to Rescue had been relieved from combat assignment and showed the scars of battle. Only one, the H-5 helicopter could be considered as ideally suited for the mission and, in 1946, this aircraft was still pretty much of an experiment. It had seen some action in China, during the hostilities, but it was felt that it needed many more hours of operation before it could be utilized to its fullest extent.

TAKING INVENTORY

The actual inventory of aircraft included 33 C-47's, aiding these in long range search missions were 13 SB-17 bombers, most of which were equipped with lifeboats. Only 12 OA-10 *Catalinas* were available for amphibious operations. Assigned for low-level short range search were about 32 light-weight L-5 liaison aircraft. Also on the list were nine AT-11's which were totally unsuited for rescue, and actually were in the process of being retired at the time. With these airplanes and 17 helicopters — a total of 116 aircraft, ARS was expected to cover the entire United States. Overseas, the rescue units were working with aircraft they had used during the war. There a similar picture presented itself.

In spite of these difficulties, the Air Rescue Service functioned remarkably well. In the six months period starting on the 1st of July 1946, units of the Service conducted searches for 64 military aircraft and 43 civilian aircraft. Along with this, Rescue Service Detachments participated in searches for survivors of sea disasters, and performed missions of mercy for the civilian population.

Sometimes, Air Rescue was called upon to perform jobs rather remote from the rescue of distressed aircraft survivors. From the end of June to the end of August, for example, Rescue was asked to assist the U.S. Forestry Service in a project labeled, "Container Missile." This involved the dropping of containers of water or extinguishing fluid from the air to the scene of timber fires below. And during this same period, some of the 'copters of Air Rescue were assigned to assist the Post Office Department. This extra curricular activity entailed picking up mail from large municipal airports, often located miles from a city, and carrying it to the downtown central post office. In July, ARS supplied five helicopters with their air and maintenance crews for the

and small arms fire, the helicopters flew 75 sorties. Two H-5's were damaged by enemy fire but were able to continue the mission.

The effectiveness of Rescue operations such as this was attested to in 1951 by Dr. Elmer L. Henderson, Chairman of the American Medical Association, when he stated that the mortality rate among wounded soldiers in Korea was only two per 100 as compared to four per 100 in World War II. One of the main reasons for this he attributed to fast front line evacuation.

RETURNED TO FIGHT AGAIN

When Rescue units were not involved with the evacuation of the wounded or flying U. N. agents in and out of enemy territory, they were doing their traditional work — that of recovering downed airmen. Operating under fighter cover the versatile but vulnerable 'copters went deep behind the lines sometimes as far as 100 miles and snatched men who were facing almost certain capture by the enemy.

To cover situations where a pilot or crew member was forced to bail out over enemy territory, an attempt was always made to follow a standard procedure which called for the cooperation of the men in his squadron or flight and the distressed airman himself. As soon as the man had bailed out, the other men maintained a low and top Combat Air Patrol (CAP) over him. One of his companions would notify a Control Center giving the exact position of the downed airman. The



IN SKIVVIES but still clinging to his oxygen mask, unknown pilot is returned to his unit by chopper from the much-decorated 3rd ARSq.

closest ARS unit was then notified and either a helicopter, or, when appropriate, an SA-16 was sent to the area with fighter protection. While waiting for aid to come, the fighters orbiting over the downed airman would attempt to neutralize any enemy ground opposition. The downed pilot could help direct this attack by using his URC-4 radio and communicating with the planes carry on the assault. Usually, by the time the Rescue aircraft had reached the scene, the CAP leader would have selected the best pickup spot and would have determined the wind velocity and direction. With this information to help him, the 'copter or SA-16 would be able to attempt an immediate rescue. The covering aircraft, meanwhile, maintained a constant strafing action. Then, with the downed pilot aboard, the Rescue plane would head toward home with a fighter escort. This was the pattern that was followed whenever possible and it proved to be very effective.

HEROISM UNDER HEAVY PRESSURE

On 12 October 1950, the 3rd Air Rescue Squadron was notified that an RAF pilot had crash landed behind enemy lines. First Lieutenant David C. McDaniels, an H-5 pilot, and (then) Captain John C. Schumate, a paramedic, took off to perform what was to become one of the most daring helicopter rescues of the Korean War. The mission required a 125 mile round trip into enemy held territory. After locating the downed pilot a landing was effected nearby and Captain Schumate sprinted approximately 200 yards under heavy small arms fire to his aid. Extricating the injured man from the plane wreck, he hoisted him to his shoulders and returned through the withering fire to the helicopter. The accomplishment was the more remarkable since the injured man weighed over 180 pounds and the Captain tipped the scales at less than 140. On the return flight, Schumate administered an emergency transfusion to the severely injured man. This transfusion is believed to be the first in history to be administered in a helicopter in the combat zone. In December 1950, Schumate and McDaniels received the Silver Star for this successful and outstanding mission. Five years later, at ceremonies at the British Embassy in Washington, D. C., Schumate was awarded the British Military Cross on behalf of Queen Elizabeth for this same action.

IT BEATS WALKING HOME

One of the deepest penetrations of enemy lines took place on the 26th of January 1951 when two jet pilots were rescued by a helicopter of the 3rd Air Rescue Squadron. The first pilot was shot down while on an interdiction mission far north of the battle line and parachuted into a rice paddy. Another pilot in his flight began to strafe an enemy

position in an attempt to keep them occupied until such time as the downed airman could be recovered. This procedure was effective until the pilot ran out of fuel. He too had to bail out but before doing so he was able to report his situation and position to the Rescue Controller. Three hours after the first pilot had bailed out, an H-5 whirled into view. The pilots came out of hiding and within a matter of minutes both men were aboard the 'copter and on their way back to U. N. lines.

About this same time, another jet pilot found himself in a similar predicament. While on a rail cutting mission his aircraft developed trouble and had to be abandoned. An alert in response to the pilot's call for help brought a quick response from Rescue. Arriving on the scene the pilot went down for a quick survey of the situation and when he had just about decided that he could make the pickup without any trouble, a group of MIG's appeared overhead and tried to prevent the rescue. The F-86 *Saberjets*, flying cover for the mission, went into action and while the airman was being loaded into the 'copter, the American jets were knocking down three of the Communist planes.

NOT ALWAYS DEFENSELESS

Rescue helicopters were often the target for enemy gunfire but at least on one occasion the tables were turned. This was in June of 1951 after a Marine pilot, flying a *Corsair* on an interdiction mission against ground targets, was forced to bail out of his plane after being hit by enemy fire. The pilot's wingman called for 3rd Rescue, then did what he could to help the downed flyer below him who was trying to fight off the Communist soldiers with his pistol. Eventually the downed pilot used up all of his ammunition and the Red soldiers moved in and took him prisoner.

But the saga didn't end here. About this time, four F-51's arrived on the scene and strafed the area forcing the Commies to take cover. The Communists realizing immediately that their prisoner was the best protection possible took him along with them. Now the F-51's could not strafe the enemy without endangering the life of the pilot. The Rescue H-5 arrived at the location and was told the problem facing the Americans. But the pilot had an ingenious solution. He swung low over the ditch and the medic aboard poured bullets at the enemy with his carbine. This time they took to the brush but left their prisoner behind. The Rescue pilot made a go around for a better approach then came in low for the pickup in the face of heavy enemy fire. The litter bar was lowered and as the aircraft flew in the survivor grabbed the bar and was jerked into the air. The medic pulled him



BATTLE TAXI—Flying an H-5 under heavy mortar fire, Capt Daniel J. Miller made three trips to save six wounded men surrounded by Communist troops. His heroism won him the Cheney Award for 1951.

into the airplane, and the pilot poured on the power. As soon as they were out of danger, the 'copter was inspected. The inspection showed that it had been hit several times and gas was leaking from a punctured tank. But the aircraft, its crew, and the rescued pilot were able to reach friendly territory.

On at least two occasions the H-5 was used as an improvised bomber. A pararescue man with Detachment "F" from Flight "D", Staff Sergeant Edward Boggs, a tough ex-infantryman, demonstrated on both occasions that he could toss a hand grenade with the best of them. On two separate islet pickup missions deep in enemy territory, Sergeant Boggs spotted hidden automatic weapons which were making it hot for the chopper. He directed the pilot to alter course so that the weapons could be approached from their blind side, and at the proper moment Boggs dropped phosphorus grenades on the thatch that was covering the enemy position. It is believed that these were the first two "bombing missions" chalked up by Rescue helicopters, and the scorching that the concealed Reds received became known as the Detachment "F" hotfoot.

AN OCCASIONAL LIGHT TOUCH

Life with the 3rd was not all heroics and certain of their missions were not without humorous overtones.

One Lieutenant William B. Peel on a local helicopter proficiency flight sighted a recently crashed F-80 on a sandbar in the Naktong

River. Intrigued by the unusual position of the jet fighter, which was surrounded by water, he flew "low and slow" past the crash the better to examine it. As he did so, he noticed someone burrowed in the sand under the wing and another individual in the fuselage of the aircraft. This aroused the good Lieutenant's curiosity to the extent that he decided to land on the sandbar. Before his wheels touched, two Koreans armed with carbines ran out from the F-80 with their hands over their heads. Lieutenant Peel and two airmen who were riding along as ballast disarmed the unresisting Koreans and tried to question them. The prisoners spoke no English and Lieutenant Peel spoke no Korean so the interrogation never reached first base.

With great presence of mind, Lieutenant Peel determined to bring his captives to K-37 for questioning. He bound them with some GI blankets carried in the helicopter and loaded his captives on board. He took off with one of the airmen in the back seat with a weapon held at the ready. The other airman was left on the sandbar with a promise that the helicopter would return soon. Lieutenant Peel landed at K-37 and held the suspicious looking men firmly rooted in their footprints under the constant threat of his pistol while the Air Police Squadron was notified.

The Air Police arrived with an interpreter and after a brief exchange of words (Korean) the interpreter announced to the eagerly waiting audience that the two men were ROK guards who had been stationed at the F-80 to protect it. A somewhat abashed Lieutenant Peel flew back to the sandbar to retrieve the airman he had left behind.

During the summer of 1952, a downed MIG was spotted in northern Korea. This started another one of Rescue's 'copters on a mission which might be considered unusual for Rescue. When the report on the MIG came in, American experts wanted a closer look at the Russian machine and the 3rd's helicopter detachment was ordered to get it back to U. N. lines. Captain Joseph Cooper flew an H-19 to the location and with 50 fighter planes flying protective cover, the job was begun. The MIG proved to be difficult to dismantle, but a few hand grenades were secured to several of the main structural parts and set off. This ingenious idea produced the desired results. The MIG, now in sections, was loaded aboard the H-19 and carried back to the U. N. lines for study and appraisal.

A SAVIOR NOT A FIGHTER

These missions were typical of the hundreds flown by Rescue helicopters during the Korean War. The Sikorsky H-5 had not been constructed with the view that it would be used for combat operations.

As a result, it had no built-in armament or protective armor for the pilot, crew, or for any of the vital parts of the aircraft itself. However, its low speed did offer some protection. It was a difficult aircraft to hit with anti-aircraft flak: Bursts of flak were usually accurate as to altitude but most of the time it was observed tracking away from the 'copter. And when the H-5 was caught in flak, it was possible for the pilot to evade it by a rapid change of altitude, direction or speed. These factors compensated to a degree for the aircraft's lack of armament and armor.

Another distinct disadvantage of the H-5 was its low load capacity. On medical recovery missions, the craft carried a pilot and a medic as well as two patients in external capsules. If the patients were heavy, the load exceeded that for which the airplane was designed, also, this had the effect of cutting down the chopper's range. Then the fact that it was not an all-weather plane limited its effectiveness. However, in spite of these shortcomings, the H-5 compiled a remarkable record.

The H-19 compensated for many of the inadequacies of the H-5. Under ideal conditions it could carry eight litter patients or ten passengers besides the pilot, copilot and medic. It had more speed, a longer range, and was better suited for all-weather operations than was the smaller H-5.

Perhaps the best way to illustrate the magnificent achievements of Rescue crews and their helicopters is through the use of statistics. During the course of the Korean War, the ARS airlifted 9,680 military personnel to safety. Of this total, 9,219 were carried by helicopter. Nine hundred and ninety-six United Nations fighting men were rescued from behind enemy lines. Of these 846 of them were picked up by the dependable "whirly bird."

Moreover, because of their versatility, Rescue's 'copters proved suitable for a variety of tasks which were not directly in line with Rescue's life saving mission. They were used to transport high-ranking military personnel to and from strategic areas, and during peace negotiations they carried United Nations representatives to and from the conference table at Panmunjom.

HELP AND HEROISM IN THE NIGHT

The exploits of the helicopter crews were many, colorful, and daring and accounted for the largest percentage of recoveries, but there were other men and other aircraft performing the indispensable functions of rescue. There is no way of saying with absolute certainty and fairness that this mission or that mission was the most spectacular or the most important. But if a list were made of outstanding rescues one,

occurring on the night of June 11, 1951, with an SA-16 and its crew in the starring role, would have to be placed at the top.

Shortly before dark, Captain Kenneth Stewart, an F-51 pilot, was forced to bail out of his plane, over the Taedong River in enemy held territory, after it had been hit by flak. He landed in the river without mishap, and was able to inflate his raft and hide under it until darkness. Meanwhile, the other F-51 pilots with him on the mission provided cover from above after they had radioed the 3rd Air Rescue Squadron, based in Japan, for help.

When the call was received at 3rd Rescue, Lieutenant John J. Najarian was alerted for a scramble. He got his crew together as quickly as possible and in a matter of minutes his SA-16 was airborne and headed for Korea and the downed pilot. Over Korea he picked up two F-51's which provided escort for the mission.

Darkness had completely settled by the time the trio had reached the general location. There was a heavy haze and neither moon nor stars to brighten the area. Flak bursts provided the only light. Lieutenant Najarian knew that landing in complete blackness, something that had never been done before with an amphibian, was risky business if not an impossibility. If he used his landing lights he would offer a perfect target to the enemy guns firing from the shore. But that was something the faster more maneuverable *Mustangs* could do and get out in a hurry before they were hit. As Najarian turned his SA-16 into the river, one of the F-51's flew in front of him, lowered his wheels and flaps, turned on his landing lights and dived toward the approximate position of the survivor. This was all the help Najarian could expect under the circumstances and he knew it. The moment had come. There was no time to figure out possible techniques and formal procedures. With no reference points to guide him and hemmed in by high tension wires along the shore he brought his 14-ton plane down in the debris-filled river.

The exact location of Captain Stewart was not known, but Lieutenant Najarian did know that he was somewhere in the water behind him. As he started turning into the east bank of the river he saw a blinking pin point of light. He started toward the signal trying to stay in line with the survivor. An added hazard was the depth of the river, in places only six feet deep. At any moment there was the possibility that the hull of the SA-16 would be mired in the muddy bottom. At last the pickup was made amidst the continuing fire from enemy shore positions which the F-51's were trying desperately to quell.

Najarian had gotten in, the survivor was aboard, now the problem was to get out again. As he started taxiing for takeoff, he could not

see the water. There was no horizon, the only thing he had as a point of reference was the dim outline of a peninsula sticking out into the river. This he used as his "horizon" and his takeoff was successful. Flak broke out ahead and to the left of him but he racked the '16 over in a climbing turn and dedicated himself to that ancient military maneuver known as "getting the hell out of there." Lieutenant Najarian, his crew and Captain Stewart, the survivor, were on their way home. For this action Lieutenant Najarian was awarded the Distinguished Flying Cross and accorded many additional honors.

SA-16's were occasionally used for medical pickups. In one such instance an urgent call was made to the 3rd Rescue Squadron to pick up an officer and two critically wounded sailors who were in need of immediate medical assistance. They were part of a crew of a small naval vessel engaged in the bombardment of enemy shore installations off the east coast of Korea. The 3rd Rescue Squadron immediately alerted an *Albatross* crew, and the pilot took off into severe thunderstorms with a ceiling of only 150 feet. Using radar, he successfully accomplished a letdown over the ship and the amphibian landed on the heavy sea. The injured men were transferred aboard, the throttles "firewalled" and moments later the amphibian staggered through the rough water and was airborne. Three more lives had been saved.

A TEAM FORGED UNDER FIRE

During the Korean War, Air Rescue officers observing the activities of both the helicopter and the amphibian saw that it made a good team. In this was born a partnership which has lasted through the years that have followed. An example of this partnership in action was seen after an F-84 had been shot up behind enemy lines. Following previously established plans, the pilot of the disabled plane, escorted by his wingman, headed for the open sea. Unable to reach open water, the distressed aircraft was ditched on the shore and a report was sent to Rescue. An *Albatross*, already airborne, and on his way to intercept, was notified of what had happened and informed that a helicopter would be needed for the pickup. The SA-16 and a 'copter, which had been dispatched on the mission, rendezvoused and rushed to the scene of the ditching. Enemy ground fire was heavy but the 'copter made the pickup, and flew the survivor to a neighboring island. Here the survivor was transferred to the SA-16 and flown to safety.

One of the fastest rescues recorded involved a *Mustang* pilot who was forced to bail out of his disabled aircraft just off the coast in enemy territory. Foreseeing his difficulty the pilot had called for help prior to the forced abandonment of his plane. Luckily an SA-16 which



JET ACE, Capt Joseph McConnell, after shooting down eighth MiG, was himself shot down. He was saved to fly and fight again by H-19.

was returning to its base was in the vicinity and intercepted the distress call. While the *Mustang* pilot was floating down to the water, the SA-16 was circling above surveying the situation. The pilot had some bad moments — he had landed within range of Communist shore guns and was entangled in his chute. Staying afloat was a struggle. Within five minutes, however, the SA-16 taxied up alongside and the crew fished the downed airman out of the water.

PRAISE FROM ABOVE

The Korean War produced 40 aces, 39 of whom were pilots of jet aircraft and one a pilot of a propeller driven *Corsair*. And an interesting footnote to the achievements of Air Rescue during this time is this: of these forty aces at least four were saved by the efforts of the men of the Rescue organization. Captain D. Jolley was rescued on the 4th of July 1952, Major Frederick C. Blesse on the 3rd of October 1952, Captain Joseph McConnell on the 12th of April 1953, and Captain Lonnie Moore on the 30th of April 1953.

The 3rd Air Rescue Squadron received many well deserved tributes and commendations. In fact no unit in the entire Air Force received a higher number of personal citations. Over one thousand were presented. Significantly, this squadron was the first organization during the Korean War to receive the Presidential Citation which was presented

in recognition of the numerous frontline rescues accomplished by its personnel during the first six months of hostilities. But, perhaps, the achievements of this organization were best summarized by a statement of Lieutenant General George E. Stratmeyer, Commanding General of FEAF, made on the 5th of April 1951.

"Approximately 90 percent of all flying personnel downed behind enemy lines have been picked up by U. S. Air Force helicopters . . . It is the opinion of Fifth Air Force Operations that 85 percent of all forward evacuations done in Korea have been performed by U. S. Air Force helicopters.

"The intrepidity of pilots and medical attendants, who risked their lives beyond the call of duty in flying our helicopters into Communist troop concentrations to rescue shot down pilots, cut-off friendly forces or injured paratroopers, is a tribute to the Far East Command, the United States Air Force, to our country, and to the American people . . .

"It is only fitting that the USAF 3rd Air Rescue Squadron should be commended for the superior and excellent manner and the diligent attitude in which its personnel carried out their duties, and are still carrying out their assigned tasks. The 3rd Air Rescue Squadron also should be singled out as being the first U. N. Armed Forces organization that entered into aerial rescue operations with helicopter aircraft in the Korean War on 27 July 1950."

OTHER FERTILE FIELDS TO TILL

Not all of the activity of the Air Rescue Service was confined to the Korean area of operations. Rescue was a global organization and its mission in other parts of the world continued. There was a series of organizational changes during this period the purpose of which was to strengthen the Air Rescue structure.

In July 1950, the 10th Rescue Squadron which had been operating in Alaska was placed under the jurisdiction of Headquarters, Air Rescue Service. It was redesignated the 10th Air Rescue Squadron, just as other ARS units had been redesignated during this same month. With the addition of the 10th, ARS was responsible for providing air coverage on all routes in the Northern Hemisphere.

Another forward step occurred in 1951 with the reorganization of all Rescue units under a new Table of Organization. In February of that year, two other squadrons were activated and assigned to the Air Rescue Service. One of these was the 11th Air Rescue Squadron with a strength of 122 officers and 636 airmen. Three flights became operational immediately: Flights "A" and "B" were located at Hickam AFB, T.H. and Flight "D" was located at Andersen AFB, Guam. Flight "C" was scheduled for active duty on Kwajalein on the 1st of October 1951.

The inclusion of the 10th on Air Rescue's roster insured more adequate coverage in Pacific areas where the war in Korea had increased air traffic.

THE PRICE OF FREEDOM: ETERNAL VIGILANCE

In Europe, preparedness and vigilance continued to be the policy. For who was to know where or when there might be further eruption of hostilities. The 3rd Air Division was stationed in England as part of the over-all United States Air Force plan of readiness and, wherever combat units went, so did Air Rescue. The 9th Emergency Rescue Squadron which had been activated during the closing days of the Second World War had been deactivated before it had seen action. It was now reactivated as the 9th Air Rescue Squadron. Its headquarters and Flights "A", "B" and "C" were stationed in England. Flight "D" was sent to Wiesbaden, Germany where it replaced Headquarters and Flight "A" of the 7th Air Rescue Squadron. The 7th moved to a new location at Wheelus Field, Tripoli so it would be readily available for rescue coverage of the Mediterranean area.

In March, 1952, another squadron was added to the ARS organization. The 12th Air Rescue Squadron was activated with an authorized strength of 118 officers and 604 airmen at Palm Beach International Airport, Florida. It remained there until the summer of 1952, when it was transferred overseas. Headquarters and three flights took up position at Bordeaux, France, and one flight at Furstenfeldbruck, Germany. Just prior to the end of the war in Korea the 14th Air Rescue Group was activated and assigned to ARS. It established its position at Palm Beach International Airport.

The changes in the Air Rescue Service which occurred in 1951 and continued into 1952 were not the first of such changes nor were they to be the last. Surveillance of the air rescue program and the organization itself was constant and at any time when it was seen that a possibility for improvement existed, shifts were made, units were added, and new responsibilities were designated. These moves, however, were not dictated by the desire for improvement alone, they were dictated, too, by the fluid state of world politics. There was no questioning the fact that Air Rescue had to keep pace and be ready for any eventuality.

With these factors in mind, Air Rescue went through another period of reorganization in 1952. Another Table of Organization was put into effect which raised the structural level of the Air Rescue Service to that of other components of the Military Air Transport Service. The units of ARS previously known as "squadrons" were re-

designated "groups", and the units previously known as "flights" were given numerical designations as "squadrons" under these groups. By changing the working designations and by establishing the Group Commander rank of Colonel, the Air Rescue Service assumed a numbered Air Force structure to coincide with its mission.

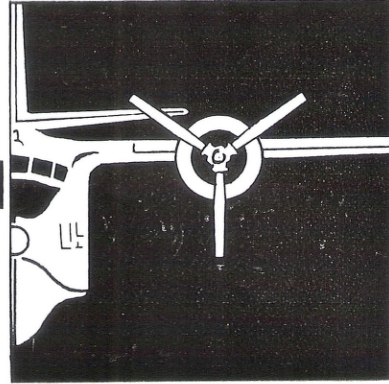
UNDER A NEW LEADER, NEW DEVELOPMENTS

When Brigadier General Thomas J. DuBose became Commander of Air Rescue Service in 1952, the command entered a new period of development. He replaced Colonel Richard T. Kight who had commanded ARS since December, 1946. From that time until 1952, Air Rescue Service had grown from a handful of people with very little equipment to a world-wide organization of thousands of men and the best equipment then available. Colonel Kight had directed a tremendous task. Both the general application of rescue doctrines, which grew out of the exigencies of war and natural disaster, and the dedicated effort of Colonel Kight from 1946 to 1952 had already established *Rescue* as a necessary adjunct to the protective air arm of the nation's defense system.

General DuBose's task was to continue to develop sound doctrines and effective techniques to carry out an even greater program dedicated to the credo "that others may live".

The Korean War ended on 27 July, 1953. The new Air Rescue Service had received its baptism under fire and had immersed in glory having performed missions in combat bordering on the legendary. Even more important was the fact that the concept of aerial rescue confirmed by World War II had been further substantiated. ARS had proved its ability to function more efficiently than the World War II emergency units which had been thrown together under the pressure of circumstances, trained and equipped almost haphazardly.

But the earlier Emergency Rescue Squadrons had provided the foundation upon which the Air Rescue Service was constructed, and the fact that Rescue was ready to go when the Korean War broke out must be credited in part to the efforts of those men who broke the trails. That Rescue continued to grow, must be attributed to the far-sightedness of these men, veterans and newcomers to the Service, who thought only in terms of progress. In June of 1950 personnel in Air Rescue numbered 3,000 and by the end of the war the total had reached 6,500 men. New groups had been organized, more efficient equipment and been procured and simply was better able to keep up with demand than ever before. Now, wherever Air Force planes might fly, those who flew them could be assured that Rescue was not far away in times of need.



Chapter Seven



The Rescue Organization After Korea

A TIME TO TAKE STOCK

AT THE CONCLUSION of any war comes a time when critiques are held and reevaluations are made. After the Korean conflict had ended, those in command of the United States Air Force examined in great detail USAF achievements and shortcomings. They then went a step further and projected their thinking into the future in an attempt to determine the most effective way for the Air Force to fulfill the important roll assigned to it throughout the world.

The Air Force plan of reorganization, based on these findings, called for 137 Wings, and to support this force it was ascertained that a Rescue Service composed of 12 Groups with 40 Squadrons would be needed. Thus, once again, a realignment and a reorganization of the Air Rescue Service became necessary in order to keep pace with the streamlining of the entire Air Force.

The basic plan for the realignment of the Rescue units in the Pacific Area was formulated in January 1954 and vitally affected the 2nd, 3rd and 11th Air Rescue Service Groups. The 11th Group was inactivated in February, however, its 76th Squadron continued to operate as a unit "independently at Kwajalein," but in reality it was under the control of Headquarters ARS. Its 78th Squadron was inactivated during the summer of 1954, and its 79th, at Guam, was transferred to

the 2nd Group. The plan also called for reducing the strength of the 2nd Group. The schedule called for the inactivation of the 32nd and 34th ARS Squadrons in May 1954. The 3rd Group was to be affected by the proposed inactivation of the 37th Air Rescue Squadron and the 2157th Squadron which was formerly Detachment #1 in Korea.

In the spring of 1954, the war in French Indo-China created a crisis throughout Southeast Asia that threatened the peace of the entire area and possibly the world. As a precautionary measure, a decision was made to forego the making of any further changes in Rescue's organization in the Pacific Area for the time being. On 10 August 1954, the last gun in the eight year old war was silenced. The Communist Vietnam were victorious and the French withdrawal left them in control of 60 percent of Vietnam including the rich Red River Delta. This political "fact-of-life" and the signing of the Southeast Asia Treaty of Defense later in the year stabilized the world situation somewhat and the projected reorganization took place.

THE OLD EIGHTH BORN ANEW

But in spite of the crisis in French Indo-China, significant changes had been made which increased Air Rescue's effectiveness. One of these was the addition of the 8th Air Rescue Group to the Air Rescue Service. The 8th dated its existence back to World War II when it was activated for a time as a helicopter Emergency Rescue Squadron in China. Inactivated at the close of the war, the organization was reactivated and designated the 8th Air Rescue Squadron in 1950. At that time it did not become a part of the Air Rescue Service but was assigned instead to the Strategic Air Command for its exclusive support. This was done contrary to the beliefs of key Air Rescue Service officers who felt that the Group properly belonged within the ARS structure. But, at the same time, top SAC officials were firm in their conviction that they were in a better position to train personnel for their own use.

PUT UP OR SHUT UP

To settle the question, an Operational Readiness Test was conducted by the Inspector General of the United States Air Force to determine whether or not the 8th Group would remain under SAC control or be assigned to ARS. Matched against the 8th was the Air Rescue trained 14th Air Rescue Group. The results of the test were conclusive. The 14th exhibited a superior manner of performance during the exercise proving, in effect, that Air Rescue people were better able, because of their experience and background, to train men for the job of rescue.

Transfer of the 8th Group to ARS followed, and included in the ranks of the 8th were the men of two squadrons of the 14th. Opera-

English pilot had been brought aboard. Examination showed that his chances for life were slim unless he was given an immediate transfusion. Hurriedly, the medic prepared his patient and administered a bottle of plasma. This was the first, but not the last, transfusion given during a helicopter flight. Its success prompted all services using the 'copter to make transfusion equipment available in the event that it was needed. (See page 81.)

Three months after the war had begun, a helicopter unit was activated at Taegu, Korea. Designated Detachment "F" and later Detachment One, of the 3rd Air Rescue Squadron, the unit was composed of 11 officers and 56 airmen and had both helicopters and Stinson L-5 *Sentinel* liaison aircraft to do the job. By the end of the first half year of war, their helicopters had made 618 medical transfers and their L-5's had transported 56 wounded men.

FRIENDS IN NEED

On the afternoon of the 15th of February 1951, this Detachment was involved in a mission which was indicative of the thoroughness and perseverance with which the unit approached its assignments. American troops were surrounded and fighting for their lives in a small town 20 miles east of Seoul. Among other items, they were badly in need of blood plasma, medical supplies and blankets. With these supplies aboard, six Sikorsky H-5's took off.

In spite of enemy small arms fire, each helicopter was able to make three trips, delivering the necessary supplies and returning with one or two patients until darkness halted the operation. On the following day, two of the 'copters were not operational, but the remaining four H-5's took up where they had left off. Now there were further complications: a snow storm had suddenly developed with winds in excess of 40 miles per hour but nevertheless, before the day had ended, 22 critically wounded men had been removed from danger bringing the total number of evacuees to 52. With the help of the helicopters and Fairchild C-119's, which dropped supplies while U. N. fighter aircraft strafed and bombed enemy positions, the besieged men were able to fight their way out.

Fully as spectacular was the rescue of more than 300 injured and wounded paratroopers during the period 23 - 29 March 1951. The jump itself had occurred on March 23rd when the troopers left their aircraft over Musan-ni. This drop — behind enemy lines — was the second largest of the Korean War. It caught the enemy by surprise and did much to consolidate the U. N. situation in the west. However, as is always the case, for some of the units "everything went wrong" and the call for help was relayed to Rescue. Under intense mortar

a heavy toll of the wounded men who had to spend many grueling hours in the Jeeps and ambulances transporting them to the rear for more extensive treatment. With two patients and a medical technician on each flight, the helicopter could cover in five minutes the same distance covered by a jeep or ambulance in an hour. This was extremely important when a man had received a head wound, sucking chest wound or stomach wound, speed was on many occasions the difference between life and death.

Doctors treated wounds in Korea that they would have only seen on corpses during World War II. The helicopter was able to bring them in and the lives of many were saved. During World War II these same hideously wounded men could not have survived the trip from the front to the operating table.

Most of the helicopter and L-5 missions were flown between front line medical clearing stations and rear area hospitals. If the wounded soldier required medical attention of a type available only at hospitals in Japan, the aircraft landed at an airstrip, and from there he was flown to Japan by transport.

A LIFE SAVING FIRST

Emergency medical attention could be given aboard the helicopter if the need should arise. A medic was a part of each crew and more than once these men proved they were up to their job. One such demonstration took place in October 1950 after a seriously wounded



TRANSFUSIONS administered in flight while wounded were being Rescuelifted from the front lines by choppers saved countless lives.

after the American Forces had gone into the fight against the Communist invaders. In the States, the SA-16's were coming off the production lines and the first of these arrived in the combat theater with the 5th Squadron's Detachment "E." By November, the 3rd Rescue Squadron began to receive its own amphibians.

Helicopters were in great demand, and to alleviate this condition, 'copters were transferred from all parts of the world. The new Sikorski H-19 was in production at the time and these began to arrive in 1951. However, supply never did quite catch up with demand, because the rotary winged aircraft proved themselves particularly adaptable to rescue work in this rough terrain and, as a result, there was always a critical need.

To improve the effectiveness of our rescue effort, Rescue Coordination Centers operated by FEAF were established at Johnson, Itazuke, and Misawa Air Bases, and a naval liaison officer was assigned to each Center to coordinate Air Force and Navy rescue efforts. Later, Marine and Army officers served at the Centers in a similar capacity.

A COMMUNICATIONS NET SET UP

A communications system was also established. The 3rd Rescue Squadron operated a communications network 24 hours a day. With its center at Johnson AFB, it covered all of Korea and Japan. Through the use of this system it was possible to contact almost every American, Japanese or United Nations agency which could, in any way, aid in rescue activities. Air Rescue stations at Iwo Jima, Guam, Manila, Okinawa, and Hawaii could also be contacted should the situation require it.

From a purely clinical point of view, Air Rescue's undertaking during the Korean conflict was both conventional and unconventional. In the first category, was the job of escorting bombers on strikes against the enemy, intercepting distressed aircraft, and recovering airmen downed in the sea. In the second category, the unconventional, were the tasks of transporting wounded personnel from the front to hospitals in the rear, delivering and picking up U. N. agents who worked behind enemy lines, and rescuing flyers who had gone down deep in enemy territory.

CHOPPERS MAKE THE DIFFERENCE

Rescuemen had been committed to these unconventional assignments during World War II, but at that time they were far from an everyday occurrence. In Korea they became routine. Much of the rescue effort of the Flight "D" Detachment was devoted to these activities. "Choppers" of the 3rd were in almost constant demand as the number of casualties increased. The rough Korean roads were taking

support of land operations and on strategic bombing missions against the Communist Forces and supply concentrations. The scene was set for a unified Air Rescue Service to play its dramatic and important role in support of our combat flyers.

The Air Rescue Service had two squadrons in the Pacific Theater responsible for rescue work. Attached to FEAF were the 2nd and 3rd Rescue Squadrons. The 2nd Squadron had its Flights in the Philippines and on Okinawa and its SB-29's were charged with the task of providing cover for B-29 missions in Korea. Since they were the closest to the scene of the fighting they were the ones who were to carry the heaviest burden. It was the men of this organization who were soon to distinguish themselves by going far behind enemy lines to recover United Nation's airmen.

THE SAME OLD TROUBLES

At the outbreak of the Korean War, the Air Rescue Service was growing in strength in both personnel and aircraft and was soon expected to reach a point where the Service could be considered adequate for its peacetime mission. But there is a vast difference between an organization geared for peace and one geared for war. So once again Air Rescue was to be plagued with shortages in personnel, aircraft and equipment.

The 3rd Rescue Squadron was comprised of 88 officers and 381 enlisted men, assigned to four flights stationed at the Johnson, Yokota, Misawa, and Ashiya Air Force Bases in Japan, and there was a detachment at Taegu in Korea. As an emergency measure to bolster personnel strength, men from the 2nd Air Rescue Squadron were placed with the 3rd on temporary duty, and on August 10th a new Table of Organization was authorized which increased the number of openings to 122 officers and 624 airmen. Until these openings could be filled by permanently assigned personnel, Detachment "E" of the 5th Air Rescue Squadron was activated at Lowry AFB, Colorado. This unit, composed of four new SA-16's manned by 12 officers and 22 airmen arrived in Japan on July 28. In the interim, the original TDY orders which had increased personnel strength of the 3rd, were changed extending the period of duty from 120 days to 150 days. By the middle of November, the 3rd Rescue Squadron had 133 officers and 623 airmen assigned to it either on a temporary or permanent basis.

NEW TOOLS FOR AN OLD JOB

Steps were also being taken to relieve the shortage of aircraft. SB-29's and SA-16's were slowly becoming available for duty in the Far East. Several of the SB-29's were on operational status in the ZI, and the first of these long range Rescue planes arrived a month or so



Chapter Six



Rescue During the Korean Conflict

HISTORY'S TRAGIC COURSE

WHEN JAPAN SURRENDERED in August 1945, there were probably few people in the world who even considered the possibility that in less than five years another bitter struggle would be fought for the cause of freedom. Yet such was the tragic course that history was to take.

On the 25th of June 1950, the Communist forces of North Korea swarmed across the 38th Parallel in a full scale invasion of the U. N. recognized republic of South Korea. Immediate reaction was that this was something local in nature, something that would be short lived. But within the next few days a swift-moving series of events took place which proved otherwise. On the 27th of June, President Truman ordered air and sea aid for the South Koreans. On July 8th, President Truman named General Douglas MacArthur as Comamnder of all U. N. Forces in Korea. Almost from the beginning the hostilities were referred to as a "police action" by leaders of the United States and the United Nations, but this did little to hide the fact that this land with its rugged mountain range, heavy summer rainy season and frigid winters, had become an international battleground in every sense of the word.

When President Truman ordered aid for South Korea, our Far East Air Force planes, both fighters and bombers went into action in tactical

Colonel Kight returned from his trip not only a convert but a booster of the cause. The survey he had made from his desk at Headquarters had been verified in the field, but at the same time contact with the human element had made a world of difference. His way was clear: He had to strengthen the Service with the best men he could train, and he had to secure aircraft designed specifically for rescue work. He advocated the necessity of the mission with complete conviction. He pushed for the improvement and expansion of his new command, not its extinction. The reports he made to his superiors in Washington were accepted with but a few reservations. The new Air Rescue Service was here to stay.



experiment in Los Angeles. In October, three more helicopters and their support personnel participated in an 18-day test in Chicago.

A NEW BROOM AND A TURNING POINT

In December 1946, Colonel Richard T. Kight, formerly with the Pacific Division, Air Transport Command, assumed command of the Air Rescue Service (62nd AAF BU). Colonel Kight, a veteran of 13 years in the Army Air Forces, was an outstanding pioneer pilot with ATC during the war. He was also the aircraft commander of the *Gulliver* which carried the late Wendell Wilkie on his epic flight around the world.

The speed with which the *Gulliver* circled the globe, often over uncharted areas, and the efficiency of the crew, had much to do with the selection of "One World," as the title for Mr. Wilkie's widely read book about that trip. In appreciation for the efforts of all concerned, Mr. Wilkie dedicated the book to Colonel Kight and his crew members.

The appointment of Colonel Kight marked a turning point in the fortunes of the Air Rescue Service. Before he departed for his new assignment he was instructed by Major General Gordon Seville, the Deputy Commander of the Air Transport Command, to give Rescue a good once over and then either build it up or get rid of it. This would settle, once and for all, the question of whether Air Rescue, as an independent organization, should continue to function or not. Unfortunately, there still existed a feeling among many persons that the Air Rescue Service was both useless and wasteful.

When Colonel Kight arrived and looked over the situation from his desk at Headquarters, he saw little to convince him that he should do anything but close up shop. He had around 800 officers and men, with varying degrees of training. His aircraft were, for the most part, in very poor condition. In Colonel Kight's own words, "First reaction was to wash it out." But he was not a man who would be willing to take such drastic action without first making a personal inspection of the units in the field.

Physically, he found things much as he had expected to find them. His men were the orphans of every base on which they were located. They were loaded with secondhand aircraft of which by no stretch of the imagination could they be proud. But there was one thing in great supply and that was morale. Wherever he went he found enthusiasm and devotion to duty. Here were men convinced of the importance of their work, and wanting to do it better. "I couldn't understand it," the Colonel remarked. "They were all ready to whip the world with nothing."

tional control of both Groups was vested in ARS, making Air Rescue completely responsible for the accomplishment of SAC support. Shortly thereafter, Headquarters 14th Air Rescue Group was sent to England where it was assigned the duty of aiding in the training of the 8th Group for the SAC mission.

Two other changes occurred at this time but of a different nature. Their purpose was to increase Rescue's flexibility. As originally organized in 1946, the Air Rescue Service was a self supporting organization with its own mess, supply, and other services. Under the new 1954 Table of Organization, these support units were reduced to a minimum, and Rescue emerged as a purely operational agency.

The second change established a system of manning that took into account the fact that Rescue units in different parts of the world had problems peculiar to them alone. A unit, stationed in the arctic for example might have a mission identical with that of a unit in the tropics, but weather conditions, terrain, communication facilities and base support could drastically alter the requirements of the two units. It can be readily seen, therefore, that the concept of completely standardizing the units was, for the most part, impractical. Reorganizing along functional lines became a must.

The new concept of manning, as established during 1954, allowed the commander of a group to state the personnel requirements he needed in order to perform the assigned mission at his particular station. The Table of Organization, which determined the over-all strength of the Air Rescue Service, was used as a guide, but the group commander had the authority to shift the men within the groups or the squadrons, just so long as the over-all command strength was not affected.

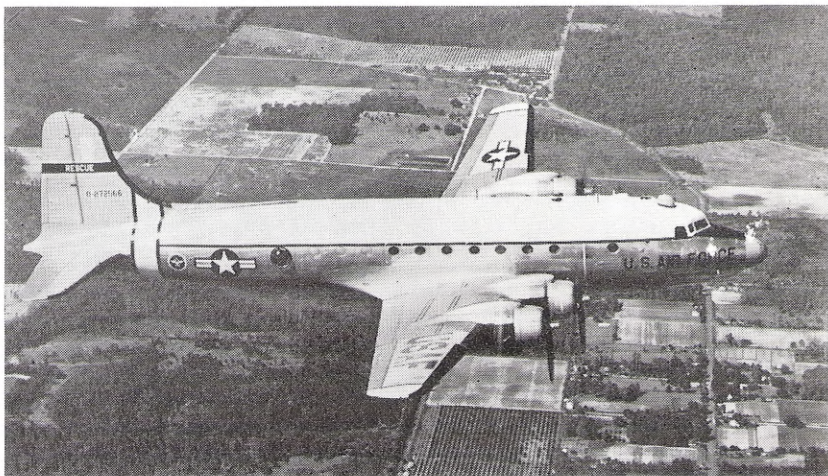
NEW GEAR TO DO THE OLD JOB

The concept of flexibility in the Air Rescue Service was not confined to the organizational set up. It was reflected as well in the acquisition of new equipment and modification of the old. In the field of aviation, as perhaps in no other field, advances have been taking place with a remarkable swiftness. Aircraft secured for today's need, might not be suitable for tomorrow's. This is true in regard to both military and civilian endeavors. In order to keep pace with new developments affecting capacity, range and speed, Air Rescue's requirements were constantly changing. Aircraft being used by Air Rescue were under constant scrutiny, with a view to improve or replace them if necessary. This procedure, of course, did not begin in 1954. It had begun when the idea of a Rescue Service was first conceived, and will continue as long as it is in existence, but the changes as a result of it became more noticeable as Rescue grew in stature and prestige.

The SB-17 and SB-29, with the aid of their attached lifeboats, had, to a degree, supplied the long range search and rescue capability for ARS operations over water. While excellent aircraft, in their day, the unmodified B-29's and B-17's were phased out of the Air Force. This resulted in considerable difficulty for ARS. Parts became harder to obtain as were personnel who were familiar with these aircraft. And as long as Rescue had to depend on the 29's and 17's, these two shortages posed a great problem. But aside from this, Rescue had re-evaluated both SB-17's and 29's and found them undesirable for rescue work. They were constructed as wartime bombers with high powered engines far in excess of the power needed for rescue missions. Not only were they expensive to operate and difficult to maintain and to get into action quickly, but their comparatively high rate of fuel consumption put a definite limit on their range.

NEW LOOK FOR AN OLD TIMER

In 1953 the decision was made to replace these with the more adaptable SC-54's. When this change was originally planned, Air Rescue expected to receive the first of these new planes during the Fall of 1954 with the remainder of the first order scheduled for delivery within the next year and a half, but the arrival of the 54's was delayed. The reason for the delay was twofold: First, replacement of C-54's with new aircraft in MATS and in other commands did not progress as rapidly as was originally anticipated, and second, there was some hesitation before approval was granted because of the extensive modifications required by the Air Rescue Service. In October 1955,



RESCUEMASTER'S greater speed and safety plus its increased life-saving potential made it a welcome addition to the Rescue inventory.

however, a year later than originally scheduled, the first of 38 *Rescuemasters* was assigned to Rescue.

The SC-54 with its increased range and endurance has proved valuable and more suitable for certain types of rescue work than Rescue's triphibian workhorse, the SA-16 *Albatross*. Its greater speed and the additional margin of safety provided by its four engines, made the 54's highly desirable for the precautionary missions which make up a large portion of ARS flights. It also proved superior to the lifeboat-carrying SB-29's. Equipped with the new MA-1 Air Rescue Kit, the SC-54 had a capability for saving 160 people, while the capacity of the SB-29 lifeboat was but 14.

The SC-54, modified by the Convair Aircraft Corporation, could almost have been considered a new aircraft. To increase its range, well protected auxiliary fuel tanks were installed in the cabin, enabling it to stay aloft for a period in excess of 18 hours. The interior of the aircraft was extensively remodeled and the latest electronic and communications equipment installed. A standard hot-cup galley was placed in the craft for the preparation of in-flight meals, and provision was made for two bunks for crew members not on watch. Both of these innovations were of vital importance in maintaining efficiency during missions of long duration. A specially modified door was constructed, capable of being opened in flight so that equipment drops could be made and pararescue teams could safely jump from the aircraft.

The *Rescuemaster* was super-winterized for far northern operations, and floor level heaters were installed for the crew's comfort during cold weather search missions. All of the new SC-54's were fitted with B-36 scanner blisters 'midships with special seats at the scanner's position to make the scanner's long, tedious job easier and more comfortable. New type defrosters prevented the blisters from fogging or icing up and the blisters were located so as to permit easy view of the terrain directly below the aircraft from an altitude of less than 700 feet.

TWO IMPORTANT 'FIRSTS'

Of the many modifications and equipment changes in the SC-54, two stand out as "firsts" in Air Force aircraft. Of special importance was the new Goodyear anti-skid brake which enhanced the SC-54's landing capability. This device employed an electric hydraulic mechanism to detect the skid at its onset, and release and reapply brake pressure as needed, to insure maximum brake efficiency on almost any landing surface.

The other "first" was an ingenious pneumatic flare launching chute which could be loaded in flight and fired by either pilot or the

rear scanners. The chute, mounted in the floor of the aircraft, utilizes dry compressed air or nitrogen to discharge the flares.

Because of its greater capability, Rescue units using the SC-54's had greater flexibility and mobility than they had with either the SB-17's or the SB-29's. The new aircraft required less runway, was vastly superior in "engine out" performance and could accommodate a greater number of survivors. Maintenance parts were easier to obtain and there were more qualified pilots available to fly this new addition. Preflighting this aircraft could be accomplished much more quickly than with either the SB-17 or SB-29 and, as a consequence, it could be airborne in much less time — an important factor since in rescue work minutes mean lives.

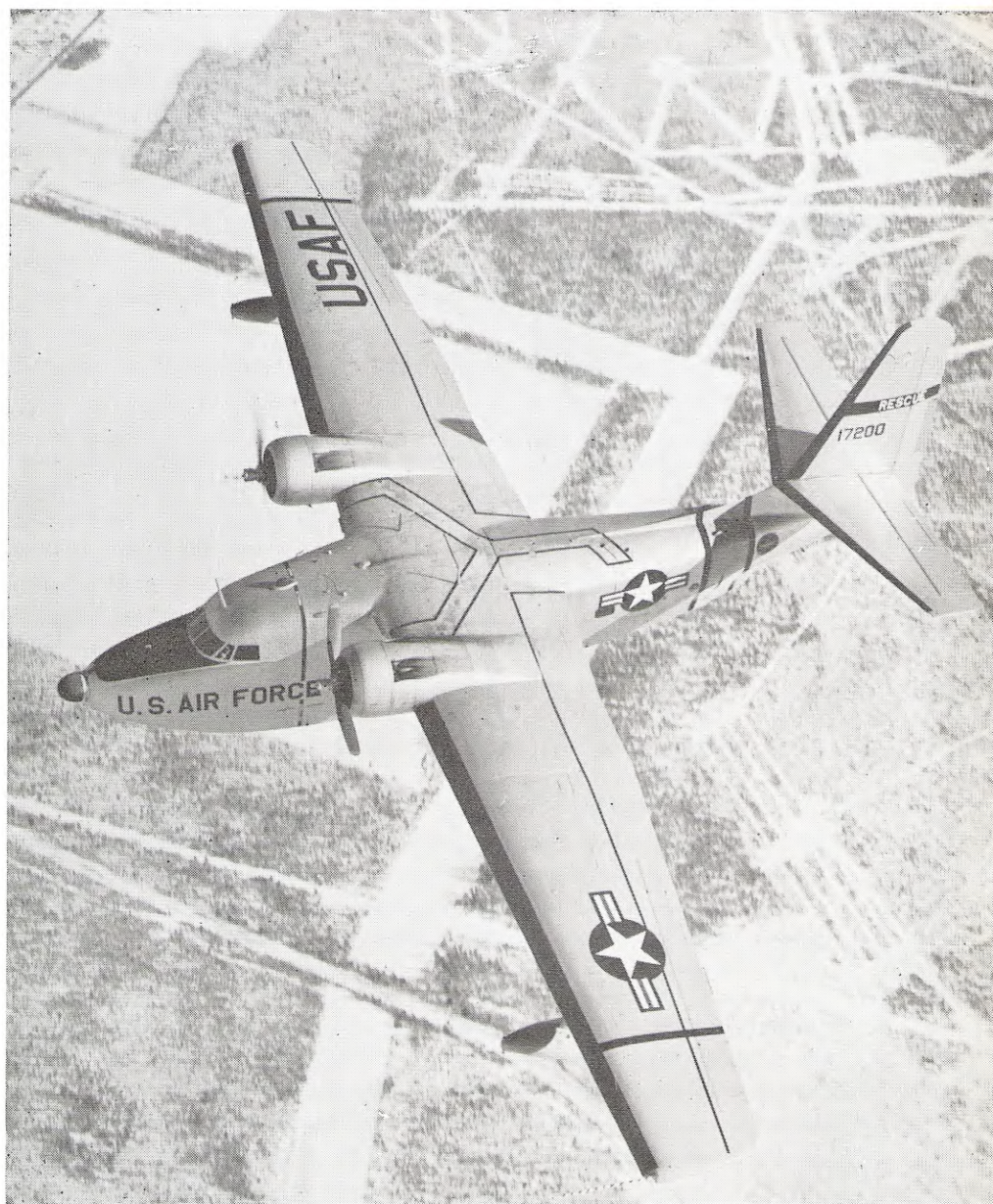
OLD RELIABLE GETS A FACE LIFTING

The SA-16 *Albatross*, which was acquired by Air Rescue in November 1949 still proved to be its old dependable self. The best available plane of its type, it was indispensable, operating on land, rivers, coastal waters, and on the open sea itself, and with a special keel, on ice and snow. In 1954 thought was given to the acquisition of a newer aircraft embodying all the fine points of the SA-16, but this was precluded by cutbacks in military expenditures. It was agreed therefore that this plane should be utilized to its fullest extent and that any limitations it might have be corrected wherever possible.

During previous years, modifications had been made on the *Albatross*. A false keel had been installed for better water control and provisions had been made for four bottle JATO units to furnish more power for takeoffs in heavy seas or when loaded to capacity. A Vercor pistol mount to enable the gun to be fired more safely had been installed in the fuselage just over the radio operator's head.

During the spring of 1954, the Air Rescue Service asked for additional solutions to some of the limitations inherent in the basic design of the SA-16; Grumman aircraft supplied some of the answers. An extensive modification plan was proposed which would increase the wing area, enlarge the rudder and horizontal stabilizer surfaces and add a high pressure rubber de-icer boot.

After a careful examination of the proposed modifications, approval of the plan was given. The prototype was designated the SA-16B and it was completed during the closing days of 1955. In the middle of January 1956, it made its first flight and fulfilled the expectations of the contractors in every respect. Improved performance was evident in single engine operation, ceiling, range, maximum speed, lower stalling speed, icing conditions and general handling characteristics. The Air Force accepted the SA-16B during the spring of 1956.



'QUEEN BEE' as the redesigned SA-16B was dubbed, demonstrates its single-engine capability. The broad sweep of elongated wing not only improves aircraft's performance but makes it appear more graceful.



WINTERIZED, range increased, specially modified for Rescue mission, the tandem rotored SH-21B is utilized by squadrons in the north.

ANOTHER NEW 'BIRD' IN THE INVENTORY

In 1954, action was begun by the United States Air Force to equip certain units of the Air Rescue Service with the Vertol H-21 which was being used extensively by the Army and other Air Force organizations. The H-21 was a proven aircraft from a personnel and cargo carrying standpoint, but there were misgivings on the part of ARS as to the ability of this aircraft to perform the Rescue mission. After conferences with USAF officials, modifications proposed by Air Rescue were approved. The hoist was reinforced enabling it to lift a 400-pound load, a radio compass was installed along with a new type command radio which was more efficient in the northern latitudes than the one which was originally in the H-21. The aircraft was winterized, equipped with external fuel tanks to extend its range and painted with Rescue markings. During 1956, squadrons in the 6th and 10th Groups were equipped with the Rescue configured SH-21B's.

The ARS SH-21B chopper is a tandem helicopter with a high weight-lifting capability for this type aircraft — 4,700 pounds. In its cabin it can accommodate either 12 litter patients or 20 fully-equipped troops or Rescuemen in the seated position. Powered by a 1,424 h.p. Wright engine, the twin rotors are driven by a multiple transmission system giving speeds up to 120 knots with normal power at sea level. It can attain a maximum ceiling of 18,000 feet and hover in ground effect at 6,800 feet. Fitted with auxiliary fuel tanks, the SH-21B has a range of approximately 650 miles.

THE 'GOONEY' GETS ANOTHER OVERHAULING

The oldest plane in the Air Force's inventory of aircraft is the C-47 *Skytrain*. Sometimes affectionately referred to as the *Gooney Bird*, some of these airplanes are as old as the personnel flying them. In the Air Rescue Service it has been nearly as important to the mission as the B-47 has been to the Strategic Air Command. It was used both on rescue missions and as support aircraft for many years.

Despite numerous modifications made throughout the years, the SC-47 has been unfortunately long obsolete. Nevertheless, Air Rescue was forced to operate it in spite of its limitations until late 1958 when it was finally phased out. The most recent modification project to standardize, modernize and make maintenance corrections on the Rescue SC-47 fleet was initiated early in 1955. This program called for the modernization of the electronics gear, redesign of the fuel system, the installation of better navigational equipment, modification of the hydraulic system, and the addition of JATO facilities. Early in 1956 the first SC-47's underwent modification. Delivery of the first modified aircraft was made during the middle of April.

There are other changes which might have been made to better the performance of the old reliable SC-47, but from the standpoint of economy, further modifications would not have been feasible without strong justification. The only solution was an entirely new aircraft.

IN RESCUE, FOUR'S STILL A CROWD

Today, Air Rescue operates with four different airplanes where ten years ago it was forced to maintain and fly three times that many, but the process of standardization is still not complete. The most desirable situation both from an operational and maintenance standpoint would be to have a maximum of two basic Rescue planes. One would be a fixed wing aircraft incorporating — but exceeding — the capabilities of the SA-16; and the other a high-powered helicopter with a greater range and a heavier payload than the SH-19 or the SH-21.

Another objective toward which Air Rescue strives is the constant improvement of the equipment and survival gear now in use and the development of more advanced types which reflect the latest ideas which rescuemen constantly gain through experience. The MA-1 Rescue Kit is one such recent development. With the elimination of the lifeboat carrying B-29's, some kind of survival equipment had to be provided for the men who had been forced to ditch in the sea. The MA-1 Kit, unofficially but appropriately called the 'ARK' (Air Rescue Kit), was the answer. Its purpose is to give airmen downed in the sea a temporary means of safety from the time they are sighted until a time when they can be successfully rescued by an amphibian or surface vessel.



SURVIVORS of the ocean racer 'Elda' which hit uncharted reef and sank, were saved by MA-1 kit dropped by defunct 29th ARSq.

The ARK consists of two 20-man liferafts and three survival kits. The two rafts are connected with 840 feet of buoyant line along which three survival kits are evenly spaced. The ARK is dropped upwind of the survivors under most circumstances, and the rafts are inflated automatically as they fall. Since the rafts float high in the water and the survival kits have practically no freeboard, wind causes the rafts to drift past the survivors, encircling them with the floating line. The survivors then pull the raft, or rafts, to them, climb aboard and haul in the survival gear. Tests and operational experience have proved that the ARK, with survival equipment suited for the climate of the particular area in which the disaster occurs, can afford complete protection under all but the most extreme wind, sea and temperature conditions. One distinct advantage of this equipment is that fact that it can be carried aboard all rescue craft and thus can be made available more often and more readily.

In terms of financial savings and efficiency of operation, this Rescue equipment far exceeds the A-3 lifeboat which it replaced. The A-3 lifeboat costs approximately \$30,000; and the ARK including all survival gear, costs but a fraction of that amount. For emphasis, it might be pointed out that it costs more to recondition one lifeboat after a drop than it does to equip an SC-54 with four fully-fitted ARK's. Furthermore, the lifeboats were cumbersome, difficult to drop accurately, and could accommodate only 14 persons. Each ARK has built in ac-

curacy. It can be dropped by any pilot without danger to the survivors and can accommodate as many as 40 persons. Four ARK's are standard equipment aboard Air Rescue' new SC-54D. In an emergency, however, the SC-54D can carry many more since each ARK weighs but 300 pounds.

The first attempt to procure this equipment for the Air Rescue Service occurred in 1953, but delay in establishing certain specifications, difficulties in obtaining the necessary supplies and minor modifications forced a postponement of the distribution of these kits to the field. By October 1955, however, the kits were distributed coincident with the arrival of the first SC-54's and the elimination of the SB-29's and SB-17's.

RESCUE AHEAD OF SCHEDULE

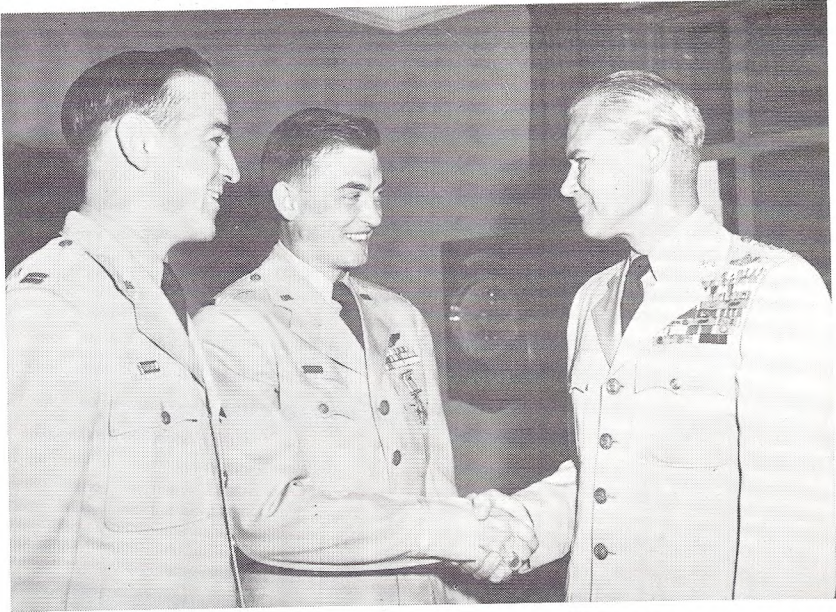
By the end of 1954, the Air Force had not yet reached its projected strength of 137 Wings, but the Air Rescue Service was considerably ahead of schedule. It was now composed of 12 groups with 38 squadrons with the following structure:

The 4th and 5th Air Rescue Groups, each with four squadrons, covered the Continental United States. Also stationed within the United States, but with specialized functions was the 8th Group and its four squadrons. The 1st Group with a squadron in the Canal Zone, a squadron in Puerto Rico, and a squadron in Bermuda, provided rescue coverage in the Caribbean and surrounding areas. The 6th Group covered the air lanes of the North Atlantic with units in Newfoundland, Greenland and Labrador.

Where the 6th Group's area of responsibility ended, the 9th Group's began. One squadron was assigned to Iceland, one to Scotland and one to England. The 7th Group shouldered the rescue burden from the Azores, through the Mediterranean Sea to Saudi Arabia. Its four strategically located squadrons were at Lajes, Sidi Slimane, Tripoli and Dhahran. Central Europe was protected by the 12th Group's three squadrons stationed in Germany.

On the other side of the United States, the 2nd and 3rd Groups, with their squadrons, covered the Pacific from bases in the Philippines, Okinawa, Guam, Japan and Korea. The 76th Squadron protected the area around Hawaii. In the far north was the 10th Group, with its 71st Squadron at Elmendorf AFB, Anchorage, and its 74th Squadron at Ladd AFB, Fairbanks.

RESCUEMEN FIRST TO FLY ATLANTIC IN HELICOPTERS



OPERATION HOP-A-LONG — Capt Vincent H. McGovern, pilot of the lead helicopter 'Hop-a-Long' and Lt Harold W. Moore, pilot of the second helicopter, 'Whirl-o-way' were awarded DFC's by the late Gen Hoyt S. Vandenberg, for being the first to fly choppers across the Atlantic. Capts Harry C. Jeffers and George O. Hambrick, the co-pilots, were also decorated. The idea for the epic flight was McGovern's. After thorough study and careful planning down to the last detail, the flight was made from Westover AFB to Presque Isle to Goose to Narsarssuak to Keflavik to Prestwick to Schiphol to Wiesbaden. 'No sweat!' Two days after completion of the historic flight, choppers were used on an actual rescue mission.



Chapter Eight



The Rescue of Military in Peacetime

ONE MISSION IN PEACE AND WAR

THE AIR RESCUE SERVICE is not, as some might believe, a service devoted to aid military personnel during war and one to aid civilians during peacetime. Those who imagine this kind of a dividing line are probably influenced by the amount of notice information media take of outstanding examples of cooperation between military organizations and elements of the civilian population, particularly when there is a humanitarian aspect to the story. The reason for the misconception becomes still clearer when assisted by Rescue to military aviation often go unnoticed and unpublicized simply because those who perform the deeds consider them strictly routine. Nevertheless, the basic purpose of the Air Rescue Service remains unchanged. Its function to support the Air Arm of the United States continues even when hostilities cease. It is a combat-ready, tactical organization. Its fundamental reason for existence is the recovery of the downed combat crewman.

In these times of international tension and crisis as the United States strives to maintain a state of preparedness, increasing numbers of military aircraft are in the skies performing a variety of missions throughout the world. New designs are being tested, flying crews are being put through their paces, airmen are being trained, simulated combat problems are being worked out, supplies and personnel are being

transported. These endeavors necessitate flights long and short, over land and water, involving many types of aircraft from T-33s to C-133s, from a lone pilot to as many as 160 people. And each time a plane leaves the ground there is always the possibility that somewhere along the way, help might be needed. Under these circumstances the primary function of the Air Rescue Service is exercised frequently.

Since its inception in 1946, to date, Rescue has flown over 38,500 missions of all kinds. Following are a few examples of assists given to uniformed personnel in peacetime, chosen for little else than to give an indication of what has been done, can and continues to be done. For each one selected, there are undoubtedly a dozen equally worthy of mention.

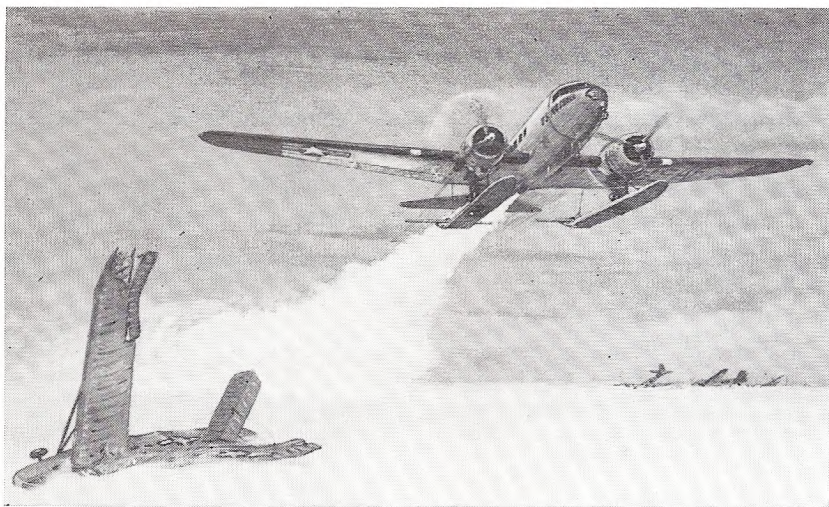
TROUBLE ON THE ICE CAP

On December 7, 1948 a C-47, with seven men aboard, was forced to crashland on the Greenland Ice Cap. None of those aboard the aircraft was seriously injured. Sufficient emergency gear and equipment were available to supply the wants of the men for a short period of time, and the fact that a medical officer was among the survivors and in a position to render aid if needed, put everyone's mind at ease for the moment.

Almost immediately, radio contact was made with Bluie West-1, and an estimated position was given, but approaching darkness and low visibility prevented Flight "B", 2152nd Rescue Unit, stationed at Goose Bay, Labrador, from locating the crash that day. The following day, the survivors were spotted by an ARS SB-17 at a 7000-foot elevation and supplies were dropped. At this point the mission seemed simple. It developed into something quite the opposite as low temperatures, high winds, dirty weather, and deceptive snow crusts teamed up to hamper all efforts to rescue.

Within a short span of time, there were three unsuccessful recovery attempts: An SB-17 tried a wheel landing on the hard snow crust and nosed over with two men aboard. A glider, with a crew of two, was cut loose and landed safely, but the strong winds foiled three pickup attempts and eventually tore the glider itself apart. A second glider, with a crew of one, landed and was rendered non-flyable when, during a recovery attempt, a tow rope broke and the recoil smashed a wing. None of the crew members of these rescue-craft was injured but the number of men stranded on the ice cap had increased to twelve.

Additional equipment was rushed northward: A C-47, equipped with JATO brackets, arrived on the scene after having been held up by the weather, first at Goose Bay, Labrador, and then at Bluie West-8. The Navy aircraft carrier, *Saipan*, with Navy and Marine helicopters



ICE CAP RESCUE after series of misadventures stranded 12 men for 21 days, was finally accomplished by a JATO and ski-equipped C-47.

aboard, was enroute to render assistance when on the 28th of December, 21 days after the initial crash, the men were successfully removed from the Cap.

The rescue was accomplished by MATS pilot, Lt. Colonel Emil G. Beaudry, an old hand at the game of Arctic rescue, and the vehicle which plucked the men from the snowy wastes was the JATO-equipped C-47.

. . . WE WILL FIND THEM

The successful rescue attempt won words of praise from General Laurence S. Kuter, who was then Commander, Military Air Transport Service. In a letter to Colonel Kight, he said:

"I want to add my own and very sincere congratulations to you and the personnel of the Air Rescue Service for a hazardous and difficult job well done. The experience, the good judgment, and the unceasing effort which you have contributed to this rescue will add another fine chapter to the record of the Air Rescue Service. Moreover, your entire performance will be tremendously reassuring to airmen, everywhere, that should they ever be forced down — somewhere, somehow, we will find them.

"For the able manner with which it marshalled its resources of both personnel and equipment; for its effective utilization of all available outside assistance . . . and for the tireless effort which it sustained throughout the emergency, the Air Rescue Service merits the highest praise."

FROM THE SLIMMEST CLUE, SUCCESS

In the Fall of 1949, a Strategic Air Command B-29, enroute from March AFB, California, to Kindley AFB, Bermuda, was ditched in an unknown location, touching off what was then the largest aerial search in the history of Air Rescue. All Rescue had to go on with the bomber's last report: "Lost. Unable to remain airborne."

Over 150 aircraft from the United States and Bermuda, aided by innumerable surface vessels, participated in the operation. The 1st ARS Squadron, as well as the 5th and 6th Squadrons, was involved in the search.

Two days after the *Superfortress* went down, a Rescue SB-17 spotted two liferafts. It circled the area and dropped smoke flares to mark the spot and ascertain wind direction. The A-1 lifeboat was then released from the underside of the '17 landing less than 100 feet from the rafts. A short time later, a Canadian cutter intercepted the survivors and they were taken aboard.

This was the second time in two months that the A-1 lifeboat was used to good advantage. The month before a C-46 was reported overdue on a local flight out of Kadena AFB, Okinawa. The 2nd Air Rescue Squadron dispatched two SB-17s with their lifeboats, and in less than an hour the survivors had been sighted and saved.

THE 'BREAD AND BUTTER' MISSION

Over the years, the hours spent by Rescuemen flying intercept missions represent a large portion of the total number of mission hours flown. These missions are oft-times flown without excitement or mishap and tend to become somewhat routine, and, for the most part, they seem to follow a certain pattern. A plane flying over the vast sea areas of this earth or over land areas far from a possible landing site, develops engine trouble. A call is sent to Rescue, and in a matter of minutes a Rescue plane is in the air heading in the direction of the distressed aircraft. Using highly-developed electronics and communications gear, the plane is located and escorted by the Rescue plane to safety. In many instances, the distressed aircraft would have made it alone, but there have been many times when the opposite has been true. Air Rescue is then able to chalk up a save and this more than compensates for all the "routine, no trouble" missions ever flown.

Such a mission occurred late in 1954. Four Air Force C-119 *Flying Boxcars* took off for Narsarssuak Air Base, Greenland, where the landing strip can only be approached by flying up a treacherous L-shaped fiord, 45 miles long and one to five miles wide. Lined on either side by mountains ranging up to a mile high, it is an awesome sight. Even

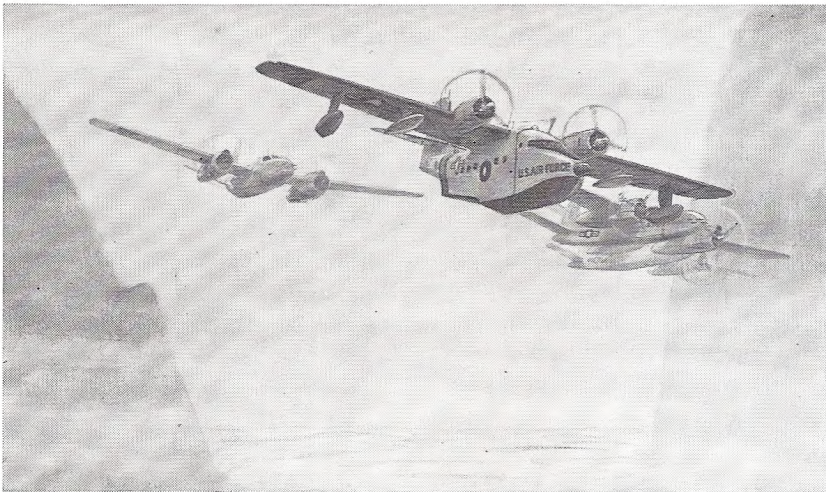
on a clear day, pilots making an approach through it know full well the exactness with which they must fly their craft. Once in the narrowest section, there is little or no time to make a correction for even a minor miscalculation. And when the fiord is filled with fog, flying it is a harrowing experience. This was the situation faced by the pilots of the C-119s after they had passed their point of no return. Weather was bad and visual approach to the base was impossible.

DOWN 'THE SLOT' BY RADAR

When the situation was made known to Rescue, a crew was alerted. Flying only by radar, the Rescue plane made its way down and out of the fiord. It rendezvoused with the *Boxcars*, took two of them in tow, and escorted them back through the corridor of stone to safety. Returning again to the coast, the procedure was repeated and the other two C-119s were guided in.

Rescuemen know full well the meaning of the phrase, "History repeats itself." If something happens once it's almost a certainty that sooner or later the same thing is going to happen to somebody else. In January 1956 the pilots of three B-26s faced the same problems as they approached the fiord.

In an SA-16 *Albatross*, Rescue pilots, Captains McCurry and Strong, felt their way out of the fiord on the plane's radar set and after some delay found the '26s which were dangerously low on fuel. Just before



BY RADAR and guts through dense fog, SA-16 shepherds B-26 bombers up treacherous, winding fiord to safe landings at Narsarssuak AB.

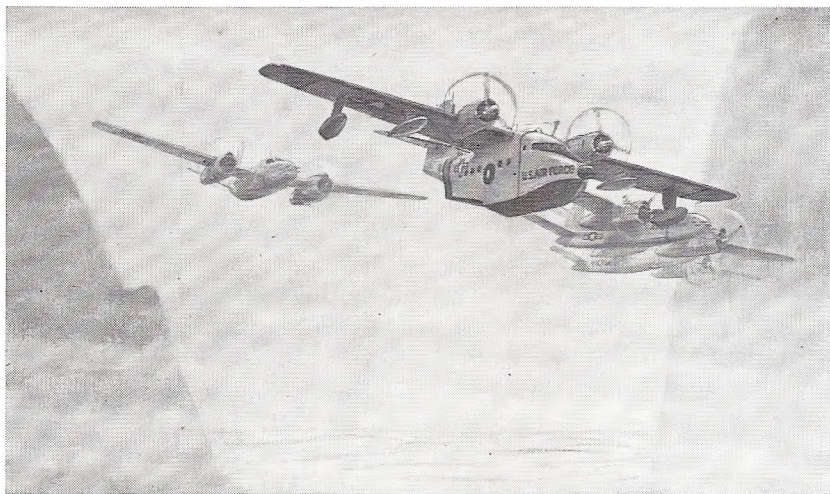
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dark, the four-plane formation started back up the weather-obscured fiord with the *Albatross* leading the way and the bombers following closely behind.

Because in those days Narsarssuak Air Base was without runway lights, the strip was lighted by smudge pots and the headlights from every available vehicle. A Rescue helicopter hovered near the end of the strip and focused its landing lights on the touchdown point.

All three bombers made it safely although one barely missed the hovering 'copter and another skidded to a stop in the crash barrier. If the pilots of the C-119s and the B-26s had been forced to ditch their craft, how many crew members would have survived is anybody's guess; but, it is a certainty that seven aircraft would have been lost if the Rescue boys hadn't been there to lend assistance.

DEEP SIX ONE NEPTUNE

The time was 14:50, July 29, 1954. The big Navy *Neptune* bomber, with eleven men aboard, was heading for its base at Brunswick, Maine, less than an hour's flying time away. At 5000 feet, the weather was fine and the plane seemed suspended on the white, cottony topsides of the clouds that floated beneath it. The engines hummed reassuringly and all hands relaxed in the knowledge that all was well. The working day was drawing to a close and they'd soon be home again.

At this same moment, off Quonset Point, Rhode Island, not many miles away, Captain Richard Swenson and his crew of six had just finished practicing water landings in their SA-16. They too were glad the day was about over. Captain Swenson pointed his plane in the direction of Westover AFB, Massachusetts, satisfied that it had been a day well spent. In practice, his crew was a smooth-working unit and he was confident that they were ready for any emergency that might arise. He wondered when they would get the chance to show what they could do, little knowing that even then the chronometer on his wrist was ticking away the seconds.

The port engine of the Navy P2V-5 sputtered and died without warning. Almost immediately, the starboard engine went dead. Commander Jones, pilot of the bomber, had issued emergency orders over the intercom at the first sign of trouble and instructed his radioman to send a "Mayday." As the port engine started to falter, he pressed the panic button six times — a warning to his men to prepare to ditch.

The voice of Captain Bob Martin, the Air Rescue Controller at Westover, brought the plight of the *Neptune* to the attention of the SA-16. The difficulty faced by the Navy plane was vague and its position still more vague. With just enough information to go on, Swenson got his orders: "Urgent, proceed at once!"

Low on fuel, the Air Force captain pointed his plane toward a location 110 miles east by north of Montauk Point, Long Island, and "fire-walled" his throttles. He knew the characteristics of the *Neptune* — if ditched it would sink like a rock. With luck it might stay afloat long enough for some of its crewmen to get out. But even if all got free of the aircraft, time was still of the essence. At this time of the year sharks inhabited these particular waters and a man floating in a Mae West, if bleeding, would attract them from miles around. Captain Swenson gave his '16 plenty of body-English and a hopeful prayer trying to coax more speed out of her.

Nearing the approximate position of the Navy plane, Swenson banked, circled, and lost altitude. The crew of the *Albatross* peered intently into the sun-tinted waters below them searching for some sign of hope. One of the crewmen spotted some debris being torn apart by a school of hungry sharks. All aboard felt a sinking feeling in the pits of their stomachs, but upon closer look they saw that the sharks were attacking some crates and garbage tossed over the side by a passing ship. But the danger remained: How long the sharks would remain occupied with their present find was the big question, and once the survivors were spotted it would take time for the Rescue plane to circle and assess the sea for a landing approach. There was always the chance that the sharks might move in faster.

The radio operator aboard the *Albatross* got a faint signal from his direction finder and a blip on the radarscope which disappeared quickly. Swenson made a minor correction in his direction and moved steadily on. There was another false alarm as someone thought he spotted smoke, perhaps a signal from the distressed plane, but this turned out to be the spume from a large whale. But this was the last disappointment. Shortly thereafter, Lt. John Rimmer, co-pilot of the Rescue plane spotted the small bobbing balloon that held the survivors' Gibson Girl antenna aloft. In a few seconds the SA-16 was circling over two rafts lashed together, floating on a patch of sea, stained yellow by dye marker.

Nothing remained now but to get in and get out in a hurry, but often this is the biggest "nothing" a Rescue pilot can face. Swenson made a pass over the sea to assess it for a landing and when he had completed the pass his mind was a mass of facts. These facts when evaluated correctly usually bring success; if mis-interpreted, failure. Swenson considered the wind velocity and direction, picked up a fat swell, lined up with it, and set his plane down to within a hundred feet of the survivors.

As the eleven survivors happily climbed aboard the SA-16, Swenson

hoped desperately that their happiness wouldn't be short-lived. With the number of survivors added to the number in his own crew, the reliable SA-16 was going to have to prove even more reliable. It took two take-off attempts before the overloaded Rescue plane was airborne and giving any indication of staying there. Swenson heaved a sigh of relief and mentally uncrossed his fingers. One by one the survivors came forward to thank him for what he and his men had done.

And what made everything even more satisfactory to Swenson was the knowledge that his crew had synchronized like a watch and when the *Albatross* taxied onto the ramp at the Naval Air Base the ambulance waiting there didn't have a single customer.

LONG FALL, SUDDEN STOP

On December 6, 1954, twenty-one year old Pilot Officer Brian Cross, an RAF reservist, was flying on a routine training mission when his *Meteor* jet went into a high-speed stall and then into a spin at 30,000 feet. Frantically he struggled with the controls but the aircraft refused to respond. The jet began to accelerate rapidly and then disintegrate. Cross cleared the aircraft successfully but as the canopy of his chute blossomed above him a chunk of debris from the *Meteor* pierced the nylon fabric. Collapsing and filling alternately, the chute tossed him about like a puppet on a string throughout the four long miles back to earth. The time of the bailout was 1000 hours.

Below the semi-conscious Cross was the frigid water of the Thames Estuary and perhaps sudden death, and racing toward his location to prevent that death was an SA-16 *Albatross* from the 66th Air Rescue Squadron stationed at Manston Airfield overlooking England's Strait of Dover.

The call for help had come to the American Rescue Squadron after having been relayed from Cross' wing man. As the necessary information concerning the accident was being given to Captain Howard Richards, the SA-16 and its crew with the exception of Richards himself, who was to pilot it, was waiting on the flight line. The information the Captain received, as is often the case in this kind of an emergency, was sketchy, but at 1022 the Rescue craft was in the area only twenty-five miles from Cross. Three minutes later Richards saw him in a yellow rubber one-man dinghy.

As Richards told the story later, "At once I turned the *Albatross* for a water landing into the choppy three-foot waves. I cut the left engine to keep from hitting him, then I cut the right engine to stop the aircraft so that the raft was right up to our door. We lifted Cross in. He was in shock and no wonder! He had hit hard in only four feet of water, half a mile from the shore. He was wet and cold and

his nose was bleeding. But he was alive when he should have been dead. The time of the pickup was 1033 hours."

SAVED FROM THE SHARKS

For Captain Robert H. McCully, Aircraft Commander of *Rescuemaster* 72713, it had been a long weary day but he was smiling as he completed his observation run. Below him the survivors of a C-124 were already pulling the line on the automatically inflated 20-man MA-1 raft and easing it toward them through waters swarming with sharks. In the distance, the first helicopters from the US Navy carrier *Boxer* were churning the surface of the water with the wake of their big blades as they raced to pick up the three men. This was the end of a search that had begun 12 hours before when a MATS C-124 bound for Wake Island in the Pacific ditched after the propeller came off its number three engine, went through the fuselage, cut off all electrical power and the aileron cables.

When Jonathan W. Brown, skipper of the ill-fated MATS aircraft, told his story he said that while he and the other survivors were in the water just hanging on, he felt sure that at daylight search planes would be out looking for them. And he was right.

When Hickam Rescue Control Center received word that Captain Brown was experiencing engine trouble and was returning to Honolulu, an SC-54 and its crew scrambled out to intercept and escort the C-124 to Honolulu International Airport. Then, during the 54's run-up, its radio operator heard the distressed aircraft report, "Cannot stop prop from turning, losing oil rapidly, request new clearance to Johnston Island



INJURED survivor, Capt Jonathan Brown, commander of ill-fated Globemaster, is helped to flight deck of carrier *Boxer*. Right: Chopper guides the ship's small boat to a mailbag spotted floating in wreckage.

as soon as possible, cannot make Hickam". A few minutes later ARTC clearance to Johnston Island was relayed, this was acknowledged but no further transmissions were received.

An SC-54, which was on strip alert at Johnston Island some 200 miles south of the distressed *Globemaster* was scrambled. As the estimated time of intercept passed and no sign of the stricken transport could be found, the Johnston Island SC-54 started an expanding square search, and a second SC-54 was dispatched from Hickam to commence a creeping line search along the *Globemaster's* assumed track.

LITTLE TO GO ON

As dawn broke, a massive search for wreckage and survivors was initiated. Five C-124 sister-ships were dispatched from the 1502nd ATS at Hickam, a Coast Guard R7V from Barbers Point NAS and *USS Boxer*, joined the three SC-54's from the 76th Air Rescue Squadron in the search area.

At 0850 hours, Captain McCully's SC-54 was in contact with the on-scene Commander *USS Boxer* and had commenced searching its assigned area which was the area of highest probability. At 1247 he sighted an oil slick. Minutes later two other crewmembers reported simultaneous sightings of signal mirror flashes, dye marker and three survivors clinging to a cargo box in the swells below. All was about over for those who survived. July 4, 1958 the day it all happened was a day that would be hard to forget. The search for the other six crewmembers continued through the following morning with negative results.

What has been written here is but a brief factual account of the mission as it occurred. It represents little more than a series of events linked together by time. But for those who searched and for those who waited it was much more. For those who searched it was a quick scramble with little to go on, checking and rechecking the few available facts and figures then deciding on that all-important area of probability, plotting a search pattern and tirelessly carrying it out, listening for a faint signal, looking for an optimistic sign and hoping.

And for those who waited it meant facing the possibility of hours maybe days in the water, fighting off attacking sharks, seeing things that weren't there, hearing the sounds of aircraft that were nowhere in the vicinity, staring and wondering, hoping and praying for a miracle. For three of the survivors the miracle happened, for the other crewmembers it didn't.

That six men lost their lives, pinned in the aircraft or for unknown reasons, is a fact that is to be regretted, but as Major (now Lieutenant

Colonel) M. V. Frederickson, Commander of the 76th saw it, it had served as a costly illustration.

"The people out here in the transport squadrons and other people who go out on trips," he said, "now know that they stand a chance if they go down... The only factors which helped these people to survive were their perseverance,, training, and the feeling that Rescue was on the way..."

CHOPPER MIRACLE IN THE MED

The history of the United States has many pages dedicated to heroics in the area of Tripoli. From the standpoint of dedication and the willingness of men to put everything on the line when the chips were down, few can top the feat of a helicopter crew from the 58th Air Rescue Squadron, Wheelus Air Base. On the morning of 7 June 1959 at 0505, a distress signal was received from a Wheelus-based C-47 some one hundred miles from the base enroute from Ramstein, Germany. Nine minutes later all contact was lost and within minutes thereafter a Rescue *Albatross* was airborne for the scene.

High winds and waves running up to 30 feet made sighting anything on the surface difficult. The wind was gusting up to 40 knots. A C-47 from Wheelus finally sighted a partially-inflated life raft about 0700. In it were seven men.

The SA-16 dropped an MA-1 Kit but in the high wind the 20-man rubber rafts danced across the wave tops before they could be retrieved. Wind and waves made it impossible for the '16 to land. Approximately an hour later the slower SH-19 helicopter, piloted by Captain Merle A. Clapsaddle, Captain Wilber W. Loud, co-pilot, and paramedic, S/Sergeant James N. Potter, reached the scene. The chopper was 60 miles from the nearest land. Under ordinary circumstances, it would have been forced to make two trips but the seas were so high, the survivor's peril so extreme and the chance of finding them a second time were so slight that Captain Clapsaddle made the decision to pick up as many as he could and still stay airborne.

Both pilots fought the controls as Sergeant Potter directed them from his hoist operating position on the lower deck. One by one the survivors were hoisted aboard as Sergeant Potter fought to keep the basket within their reach in the surging seas. One by one each of the seven survivors raised the helicopter's weight nearer the critical maximum gross figure. Finally, all seven survivors were aboard and, fighting the controls all the way, the two pilots headed for the nearest landfall some 60 miles away. They aimed for Zuara. At first the chopper refused their efforts to gain a safe altitude and they fought to keep it aloft — skimming barely over the wave tops. With only five minutes fuel remaining they

made their landfall and then flew eastward along the beach to the ancient Roman city of Sabratha. There, they landed.

Ambulances were called and after they arrived all survivors were taken to the Wheelus hospital, where they were pronounced in good condition. It was learned that the pilot of the ill-fated airplane, the eighth man aboard, had been fatally injured in the ditching when the propeller had torn off the number one engine and ripped through the flight deck. Under the circumstances, seven out of eight seems a remarkable score.



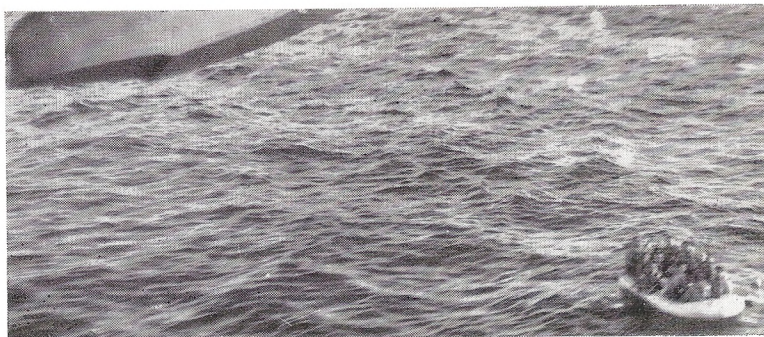
INTERSERVICE military peacetime rescue is an everyday occurrence. Here, a chopper from the 33rd ARSq hoists a crewman to safety from the Army's light tug LT-578 after she foundered on a reef less than a mile off the coast of Okinawa. All 28 crewmembers were saved from the tug when the pounding surf forced open her water-tight doors and flooded the vessel which was engaged in salvage work at the time.



JET PILOT rescued by the 54th ARSq jumps from the helicopter that made the pick-up and brought him back to Goose AB. Mechanical difficulties had forced him to bail out 90 miles from the base. Miserable weather conditions forced him to spend about 30 hours in the Labrador bush but he was none the worse for wear after his return. Certainly his sense of humor wasn't impaired—his first act was to check on per diem rates for the north woods.



WET, COLD but miraculously alive, Lt W. M. Stevenson survived ejection from B-47 into the icy waters off Nova Scotia despite the fact he wore only summer flying gear. Prompt and accurate MA-1 kit drop and open sea landing by an SA-16 under difficult conditions saved his life.



DRAMATIC photo shows nine survivors of a ten-man Navy patrol plane crew huddled in liferaft. They had been shot down by Russian jets off coast of Vladivostok. SA-16s from 3rd ARGp swarmed to area, landed on open sea at first light and saved them.



Chapter Nine



The Rescue of Civilians in Peacetime

A DEDICATION BEYOND DUTY

ALTHOUGH THE Air Rescue Service is a component of the United States Air Force with the primary mission of saving the lives of American airmen, it is truly a rescue service for all. Civilians of all races, creeds, and nationalities as well as military personnel have been benefitted by Rescue's determination to be prepared at all times with the best available in equipment, facilities and men. From the uneducated native in an isolated Philippine village to the irreplaceable jet pilot; from the distressed airman basic, to the Shah of Iran, MATS' Air Rescue Service has become a symbol of America's supreme regard for human life.

The precise importance of the international goodwill engendered by the men of this service is difficult to ascertain or evaluate but in this era of international tension, with two diametrically opposed schools of political ideology battling for the possession of men's minds, their contribution must be considered on the plus side as far as democracy is concerned.

Elliott Arnold, a noted author who has for a long time recorded the American scene, spent five months in 1955 travelling around the world gathering material for his book, "Rescue." He visited all of the groups and many of the squadrons of the Air Rescue Service interviewing hundreds of officers and airmen as well as the men and women whose

lives they saved. When he had completed his research, Mr. Arnold had this to say: "From the beginning I have seen Rescue in a very special light. I consider it one of the most potent forces our country has to win friends in this tricky world and these tricky times. Nobody, to my mind, is doing more than Rescue to communicate to human beings everywhere what we, as Americans, think of the sacred status of the human life. Each Rescueman is more than a man in uniform; he is a representative of an ideal of ours, translating concepts of Americanism and democracy in the simplest and most direct and most selfless way . . ."

THE STATISTICAL BOX SCORE

At the time this document was completed, thirteen complex years had elapsed since the founding of the Air Rescue Service as an independent organization. During this period of time Rescuemen have flown a total of over 258,584 hours on search and rescue missions. Some of these missions involved downed flyers — military and civilian. Others were flown to aid accident victims and the survivors of overwhelming natural disasters in every part of the world. In all over 30,000 people have been given direct assistance. At least 7,573 persons have been saved from certain death — probably many more — since on many occasions where Rescue has been of assistance the possibility existed that the survivor might have saved himself or might have been saved by some other agency. Such instances are scored simply as "assists" and all of the other statistics are recorded on an equally conservative basis.

Included in the total are those persons recovered under combat conditions during the Korean hostilities. During this phase of activities, 9,680 United Nations personnel were rescued, of these 996 were picked up from behind enemy lines.

But there is more to the story than the figures indicate. Not included in this survey are the thousands of people who were aboard distressed aircraft which were intercepted and escorted to safety by Air Rescue planes. And to increase the total still further were the many people aboard aircraft which were given communication and navigational aid by Rescue thus enabling them to reach their destination safely.

By the process of simple division the figure 7,573, the number of people saved from certain death, represents an average of better than one and one-half lives a day over 13 years of operations. However, the real measure of success of the Air Rescue Service is not found in statistics but in the words of gratitude of survivors, their families, and their governments, and in the missions themselves. Space does not permit the inclusion of all of them, but at the same time the history of Rescue would not be complete without at least the mention of a few.



STRANDED woman receives rations courtesy ARS during 'Operation Snowbound.' Land teams in their 'weasels' worked long, cold hours.

OPERATIONS 'SNOWBOUND' AND 'HAYLIFT'

In January 1949, a severe blizzard struck the central and western areas of the United States. Within a short time roads were blocked isolating cities, towns and — most critically — rural areas. Both humans and livestock were in great need of food. Five or six transcontinental trains were stranded without food or heat for passengers. In numerous areas medical supplies were urgently required.

An emergency call was sent to the Air Rescue Service unit at Lowry AFB, Colorado and, almost immediately, operations "Snowbound" and "Haylift" were underway. This was a task for which ARS, with its flying crews and ground rescue teams, was ideally suited. SC-47's and C-82's flew over the hard-hit areas dropping food and medical supplies to the marooned. And from the air they located herds of hungry cattle and dropped them bales of hay.

On one mission, 144 penicillin syringes and \$500,000 worth of radium were dropped into the snow which had engulfed Chadron, Nebraska. On the ground, land rescue teams worked long cold hours pushing their way, with the help of their "weasels," through the heavy drifts with still more food and supplies.

When the final count was taken, 281 individual sorties, equaling 488 flying hours had been flown. Five hundred and twenty-five cases of "C" rations, over 20,000 pounds of food, 10,000 pounds of coal, and 25,000 pounds of cattle feed were dropped.

and seventy-eight persons were inoculated. The epidemic, which had begun five months before, was finally checked.

HELP FROM THE AIR DURING MIDWEST FLOODS

The summer of 1951 was a hot and humid one for the people of Kansas and Missouri and when rain came it was a welcome sight for always theirs was the hope that when it subsided the air would cool and life would be somewhat more bearable. But in July the rains came more often than anybody wanted. The danger of flood was becoming apparent with the steady rise of the rivers. It rained continuously on the 10th of July, then overnight the flood they feared was upon them. Rivers, at some points only 100 to 200 yards wide, overflowed their banks, and spread destruction over areas of many miles. Floods had come before but this one was the worst.

Many small towns were completely covered and only the high points of main highways were visible and, on these, motorists were stranded along with other people who had fled to safety. In many locations food stores were ruined, water had become contaminated and medical supplies were badly needed.

During the first seven-day period, aircraft from Flight "D", 4th Air Rescue Squadron, and Flight "C", 5th Air Rescue Squadron, assisted by other Air Force aircraft, dropped more than two-hundred tons of food, blankets, and medical supplies by parachute to the flood victims. Air Rescue 'copters went to work picking up the stranded. SB-29's dropped two A-3 airbrone lifeboats — one of which was credited with rescuing four hundred and thirty-nine people. And SA-16's were also on hand to lend what help they could. It was impossible for them to land in the muddy, debris-filled flood waters, but they assisted in the operations by dropping food, blankets, medical supplies, and more than a score of rubber life rafts to float the marooned to safety.

The victims of the 1951 Kansas Missouri floods will remember the disaster as it affected them personally, but they will remember too the familiar aircraft of the Air Rescue Service flying overhead, 'round the clock, ready to help wherever and whenever they were needed.

AN EPIC SAVE IN THE MEDITERRANEAN

On the afternoon of July 27, 1952, radio operators on duty at Wheelus Field, Tripoli, Headquarters of the 7th Air Rescue Group, intercepted a "Mayday" from a British *Dakota* about to ditch in the Mediterranean. Captain Ken Reeves standing by in the alert tent was quickly notified. In 20 minutes, the captain and his crew had their SA-16 airborne and were headed to the *Dakota's* last known position. Enroute to the approximate position, Captain Reeves made



MEDITERRANEAN EPIC—Capt Ken Reeves wins Cheney Award for landing in heavy seas and saving 32 survivors of downed airliner.

contact with the radio station at Castel Benito and was told that more than thirty people, among them women and children, were aboard the distressed aircraft. In the meantime a British commercial plane had spotted the survivors floating in life rafts. Reeves got a VHF homing on the plane and headed toward the spot. Before he arrived, the captain queried the radio station at Benghazi and found out that a surface vessel was in the vicinity but it would be several hours before it could reach the survivors. Captain Reeves knew that the lives of these people depended on him alone.

When he reached the scene he considered the hazards involved. Strong winds were shipping up ten-foot waves, a landing without mishap was possible, but even if he were able to accomplish that, what then? A takeoff was almost out of the question. No amount of rationalization could change the fact that those below him clinging to semi-inflated life rafts had to be rescued. A few minutes later, after a careful sea-evaluation, Captain Reeves made his decision. He effected a full flap, full stall landing into the wind, downwind from the rafts. The co-pilot placed the propellers in reverse pitch. The airplane squatted and — after a noisy complaint — remained on the water. After a short time all of the 32 who had been struggling in the water were safely inside the SA-16 where they remained until they were transferred to a British destroyer two hours later.

During the transfer operation, the SA-16 was damaged by a whale-boat from the destroyer, but Captain Reeves refused to abandon his damaged aircraft. He remained in command of it during towing

operations which, complicated by a series of mishaps, consumed three days. In recognition of his humanitarian acts, his valor and courage, Captain Reeves received the Cheney Award for 1952.

NOT ALL ENDINGS ARE HAPPY ONES

In November 1952, an Israeli naval vessel became the object of a widespread search by squadrons from the 7th, 9th and 12th Air Rescue Service Groups. The search itself was unsuccessful but the mission was indicative of Rescue's willingness to commit all available facilities whether the odds of success are great or small. For this attempt, the 58th stationed at Libya, the 66th from England, and the 81st and 83rd from Bordeaux, France were all utilized to the fullest.

On the 2nd of December, the Chief of Staff of the Israel Defense Force wrote to the Army Attache at the American Embassy, Tel Aviv, and expressed his feelings about American cooperation.

"I wish to express my appreciation of the great efforts made by the U. S. Air Rescue Service in order to assist our search for the boat which was lost at sea.

"It is to be regretted that our combined efforts were of no avail but at least we may rest assured that everything possible was done in this case.

"I should be grateful if you would pass the contents of this letter to all those who so readily came to our assistance in this hour of need."

HEROISM DURING FLOODS IN BRITAIN

Airman Second Class Reis L. Leming was a member of the 67th Air Rescue Squadron, stationed in England, when in January of 1953 the worst floods on record struck that country. With other members of the 9th Air Rescue Group of which his squadron was a part, he was assigned to flood duty. Rescue is, for the most part, an operation calling for teamwork, but there are times when one man has to do the work of many to get the job done. This was one of those times. Survivors were scattered everywhere.

Although unable to swim himself, Leming was directly responsible for saving the lives of 27 people. Wearing a rubber exposure suit, he pushed a rubber liferaft through raging water to stranded victims and took them to safety. He made three long torturous trips before he collapsed and had to be dragged to safety himself.

Official recognition of the efforts of Rescue personnel was quick in coming. On the 2nd of February, 1953, Queen Elizabeth sent this cable to President Eisenhower: "I thank you, Mr. President, for your message of sympathy for the tragic losses which the 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."

But for Airman Leming there was a very special kind of recognition which was to come from two sources, the Queen of England, herself, and the people of Great Britain. Queen Elizabeth took official action to honor the courage of this airman by granting him the George Cross, the second highest non-military award for valor in Britain. An added distinction was the fact that this American serviceman was the first foreigner in all history to receive it in peacetime.

And, perhaps in a way, more indicative of the international good will resulting from Leming's act, were the letters received by him from the second source — the people of Great Britain. One hundred and fifty private citizens saw fit to write and tell Leming just how they felt about it. One letter from a Mrs. K. Jackson, London, dated the 3rd of March 1953 stated:

"Like many of my countrymen and women, I am filled with admiration at your courageous rescue of British and American families from the floods.

"In a recent broadcast, one of your countrymen said he was tired of the derogatory way British people referred to American service personnel as GI's.

"A much more suitable designation would be GA's — Gallant Allies! Your kindness and generosity at the recent train disaster and during the present floods has been very heart warming.

"Bless you all and thank you."

WORDS OF PRAISE FOR AID IN THE NETHERLANDS

The floods which struck England on the 21st of January 1953, hit the Netherlands the following morning and for the low country it resulted in a disaster of major proportion. But, here too, Air Rescue went into action with all speed to do what it could to help. That this help was significant was expressed in a letter from the Netherlands Ambassador to the United States Secretary of the Air Force in July 1953.

"Now that conditions in my country are returning to normal after the disastrous floods of this winter, my Government has instructed me to convey to you the heartfelt gratitude of the people of the Netherlands to the U. S. Air Force for its wonderful work during and after the disaster.

"From England, helicopter pilots of the 9th Air Rescue Service Squadron performed heroic deeds over the flooded area and saved the lives of scores of my countrymen. Planes of the 68th Air Rescue Squadron also did invaluable work . . .

"I need hardly tell you how deeply the quick and spontaneous cooperation lent by the U. S. Air Force have (sic) been appreciated."

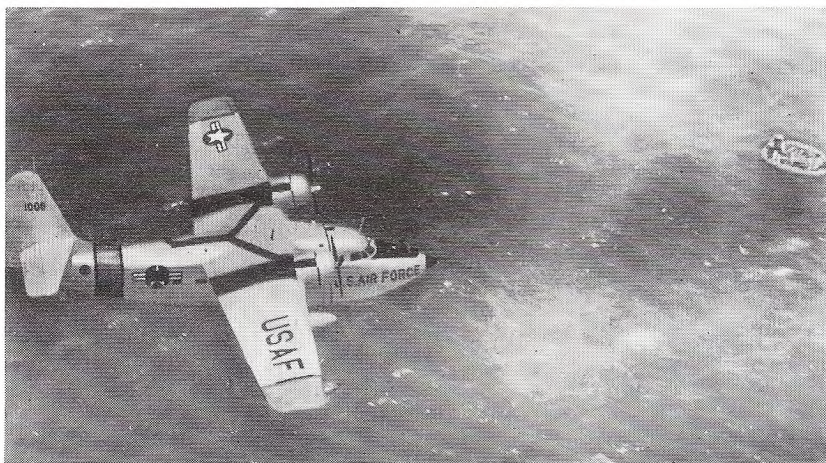
BAVARIA ADDS TO INTERNATIONAL GOODWILL

The 12th Air Rescue Group had a similar opportunity in the summer of 1954 to render assistance and to contribute to German-American friendship when heavy floods inundated parts of Bavaria leaving hundreds homeless. In the words of Major General Robert M. Lee, 12th Air Force, this "example of cooperation and immediate helpfulness . . . had done much to improve German-American relations."

This conclusion was borne out by the actions of Dr. Hans Erhardt, Minister-President of Bavaria. In a letter to Lt. General William H. Tunner, Commander in Chief, USAFE, Dr. Erhardt expressed his "sincere appreciation and thanks on behalf of the population and state of Bavaria for the selfless service rendered by U. S. soldiers and airmen." This was not just a courtesy letter, for Dr. Erhardt also appeared before a special session of the Bavarian *Landtag* and detailed to the assembled public officials the "prompt, generous and effective assistance given."

RED BRUTALITY OVER THE SOUTH CHINA SEA

When Captain Jack T. Woodyard reported for alert duty on the morning of July 23rd, 1954 there were just two things on his mind; checking out his co-pilot in the SA-16 flight which he had planned for that day, and the uncomfortable hot and humid weather which had settled heavily over Clark AFB in the Philippines. He had no reason to suspect that this day would be other than routine, but before it was to end, the captain and his crew were destined to become central char-



MEMORABLE photo shows Woodyard's SA-16 nearing raft filled with survivors of the Cathay-Pacific airliner shot down by Communist jet.

acters in a drama that would shock the world. A Rescue crew commander never knows what to expect.

At 0835, while the crew of the *Albatross* was on the flight line warming up the engines of their plane, radio operators at the Air Rescue control center of the 31st Air Rescue Squadron received an SOS, relayed to them from the civilian operated rescue control center at Manila. A Cathay-Pacific British airliner, with eighteen people aboard, was in trouble. One of its engines was on fire and the aircraft was losing altitude fast. Captain Woodyard and his navigator were given a quick briefing at the control center, and armed with this knowledge and the airliner's last known position, altitude and airspeed they rushed back to the flight line. At 0855, Woodyard's SA-16, with a capacity fuel load, was in the air and on its way. Thirty-five minutes later, Captain Dale Baker and his crew, on stand-by alert, took off to assist in the search of the distressed DC-4.

Enroute, the two aircraft commanders worked out a search plan taking into consideration all the factors and possibilities they could imagine. Actually, there didn't seem to be any extraordinary cause for alarm. Even with the loss of one engine, there was a better than even chance that the pilot could nurse his plane to Hong Kong — two-hours flying time from his SOS position. Hainan, a big Chinese Communist-held island of 13,000 square miles was only twenty miles away, and Tourane, Indochina was but an hour away. Captain Woodyard's mind was eased further by the knowledge that in the rescue business all hands pitch in to help. At that moment he knew that planes, from many different sources were scouring the area for the plane or survivors.

When Captain Woodyard was thinking about these things, he and Captain Baker were hundreds of miles and many flying hours from the distressed plane's last known position. Though they had no way of knowing it, the possibility of either of them getting into the act was exceedingly remote.

Woodyard had his radio man contact Hong Kong for a further interpretation of the original distress signal. He was told that nothing more had been heard from the Cathay-Pacific plane. He knew now — almost instinctively — that something serious was wrong or there would have been some kind of news. The captain and his navigator worked out a new search plan and when he radioed the change to Captain Baker, he was told that a raft had been sighted by a British *Sunderland* flying-boat dispatched from Hong Kong. This sounded like good news to begin with but when his navigator pin-pointed the coordinates of the raft he discovered that it was within the twelve-mile

limit designated by the Communists as their International Boundary. The Air Rescue pilot pushed the SA-16 to its maximum speed.

About an hour from his destination, he was advised by Hong Kong that no military aircraft were to approach the scene of the incident. Woodyard acknowledged the message but stayed on course. Although not aware of it at the time, this warning had been originated by Hong Kong after the Communists told them that any "war planes" approaching the vicinity of Hainan Island would be fired upon without warning.

About seventy-five miles from the raft's given position, contact was made with a French plane — a *Privateer* — which had spotted two survivors. From the French plane, the SA-16 got a UHF tone to steer by. When the SA-16 was fifteen miles out, the French plane dropped a flare to guide its approach to the dinghy which was bobbing about in ten-foot swells four miles from Hainan Island. Captain Woodyard knew why the British *Sunderland* had not made the pickup — the heavy seas would have torn the *Sunderland* apart.

When Captain Woodyard went in for his landing, the British *Sunderland*, the French *Privateer* and Captain Baker's SA-16 were circling overhead ready to give any assistance within their power. He landed in the lee of an island about three miles distant. The heavy swells, whipped up by a 15 to 20 knot wind, made it impossible for Woodyard to see more than a few hundred feet in front of him as he taxied. From above, the *Privateer* checked his course and guided him to the raft.

When the SA-16 nestled alongside the raft, the pilot of the DC-4 pulled back the tarpaulin which covered the raft and instead of two survivors there were nine. The terrific impact of the 160 M.P.H. crash had torn off most of their clothes. Several had deep gashes in their arms and legs and one Chinese girl had severe internal injuries and a mangled leg. She died on the flight back to Hong Kong.

When Captain Blown, skipper of the Cathay-Pacific airliner reported up forward to Captain Woodyard before takeoff, the real reason for the tragedy was uncovered. Engine trouble? No. Communist aviators, without mercy, had shot down the civilian airliner taking the lives of ten people. This was the story that made the headlines. The real story earned for Captain Jack T. Woodyard the Distinguished Flying Cross and the American Legion's Valor Award for the year.

THEY DON'T ALL MAKE THE HEADLINES

The rescue of the Cathay-Pacific survivors by Captain Woodyard and his crew captured the imagination of people everywhere, but often, the life saving achievements of Air Rescuemen go unnoticed because they lack the elements of the spectacular. In May of 1955 President

Ramon Magsaysay of the Philippines wrote of this very thing in a letter to the Air Rescue Service. Mr. Magsaysay concerned himself with comments on seemingly minor and routine incidents; the transfer of a small Filipino girl, stricken with polio to a hospital for treatment, the delivery of an urgently needed respirator to a Baguio hospital in a last hour attempt to save a human life, the airlift of a critically wounded policeman from a remote village to the hospital at Clark AFB.

President Magsaysay concluded his letter with this paragraph: "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 conceded that it is a factor in its own right which cannot but further enhance existing Philippine-American relations."

IN THE GREY AZORES, A HELICOPTER MASTERPIECE

In the early morning hours of 19 September 1958, the Portuguese ship *Arnel* ran on rocks and shoals off the coast of Santa Maria, an island in the Azorean Archipelago. Captain Keith Proctor, a helicopter pilot from the 57th Air Rescue Squadron, saved 48 persons from the doomed ship. His personal account of the exploit follows.

". . . The ship was in danger of capsizing and the rough seas prevented surface vessels from rescuing the . . . survivors still on board.



STRICKEN Portuguese ship *Arnel* groans on reef while chopper makes one of its many trips to shore carrying survivors to safety.



GROUND PARTY rushes to help survivor as he jumps from chopper. **Right: Capt Keith Proctor** looks on from cockpit as eager hands assist woman from SH-19 which brought her to safety from doomed *Arnel*.

Thirty passengers had attempted to reach shore in three life boats, but they were battered unmercifully against the jagged rocks that lined the coast and only three passengers had survived. After evaluation by the SC-54 on-scene Commander, Captain William H. Chambers, the task that lay ahead was determined to be one for an Air Rescue helicopter.

"Accompanied by Lt. Joseph E. Gagnon, Co-pilot, and Staff Sergeant Stanley M. Monnie, Pararescue and Survival Specialist, I headed the Rescue SH-19 Helicopter southeast over the boiling Atlantic toward Santa Maria. During the 140 nautical mile trip from my home station, Terceira Island, Azores, to the stricken vessel, I emphasized to my crew what would be expected from them once we reached our destination. From having seen the *Arnel* in the past, I knew that our work would consist of 'hoist pick-ups.'

"As we neared the Island of Santa Maria I contacted Captain Chambers who was flying over the *Arnel* in an SC-54 and asked him to drop a smoke bomb up wind from the ship. My plan was to fly over and around the ship, evaluate the situation, select the largest area to make hoist pick-ups and use the smoke bomb for a visual reference and to provide an indication of the wind direction and velocity.

"It's times like this, when minutes mean lives, that our months of training pay off. Captain Chambers made one pass over the ship and dropped a smoke bomb in exactly the right spot. About one minute later I flew over the ship and in an instant had a gruesome picture of havoc, that can only be caused by an angry sea, embedded in my mind. The *Arnel* was part way out of the water, tilting drunkenly on her port side. Huge waves were crashing over the deck, forcing the panic

stricken passengers to hang on for their lives. The frothy seas that encircled the stricken vessel were littered with debris. This angry sea had already claimed the lives of 27 unfortunate passengers.

"It was evident that we had to act fast if we were to prevent more people from meeting an untimely end. I flew around the ship once and came to a hover about 150 feet above the water with the ship on my right. There was a small area on the aft portion of the ship that appeared to be the best place from which to effect a rescue. The area was not large enough to land but by careful maneuvering of the helicopter we were able to hover over the ship and lower a cable to the deck with a rescue basket attached. This was very difficult because the ship was rolling madly on the reef and there was a high mast whipping back and forth forcing me to hover very high. Also, there were several guy wires and considerable rigging across the deck which compelled us to be very careful lowering and raising the basket from the deck so that it would not become entangled.

"I could not see the ship from my seat in the cockpit and had to be directed over the exact spot by my hoist operator. He would talk to me constantly over the interphone, saying, "Back, back, hold it, that's good, forward a little, now, left, left, that's good, hold it steady the basket is almost to the deck, a woman is getting in, OK, I'm bringing the survivor up, she's coming up, she's almost to the door, she's at the door, I'm getting her into the chopper, OK, she's in the chopper." This dialogue continued for four and one half hours while 48 men, women, and children were rescued. The only variance would be when our helicopter would get too close to the rigging or mast and then I could tell from the urgency in his voice that reaction had to be fast.

"After hoisting each survivor aboard I would fly about one half a mile to a level hill top and deposit my passenger in the waiting arms of the rescue people on the ground. Then we would shoot back to the ship for another pick-up. Our second rescue was that of a woman and two babies. My hoist operator related to me all the necessary instruction for a successful rescue plus the fact that the babies slept through the entire operation.

"On one occasion, while hovering over the ship, we made two pick-ups. This did not prove to be a good procedure, however, because I would get so tired that I had considerable difficulty holding the chopper steady. My legs bothered me the most. This was because the wind over the water was very gusty and to hold the helicopter steady demanded constant, heavy rudder pressure.

"One other factor that bothered us somewhat was salt spray. Huge breakers would hit the ship and fine salt spray would collect on the

helicopter windshield, partially obliterating my vision. This condition was eased somewhat by the presence of rain squalls that would wash away the salt. After rescuing seven women and three babies, our fuel supply was getting dangerously low and we were forced to fly about five miles to Santa Maria Airport to refuel. While precious gasoline was being pumped aboard our helicopter, a Portuguese was asked to write a note to the skipper of the *Arnel* asking him to remove the aft mast from the ship, explaining that by doing so he would lessen the danger of the helicopter hitting it with the rotor blades. We planned to drop the note to him on our next trip over the ship, but when we arrived, work was already under way removing the mast. Evidently, they also had realized the danger involved.

"After rescuing the remaining ten women and two babies, we stowed the rescue basket and started using a Rescue sling. The correct procedure to follow when being hoisted up in the sling is to put it over the survivor's head and arms letting it wrap around the body just below the arm pits. We were unable to relay this information to the people on the ship, however, and all of the remaining pick-ups were made with the survivors sitting in the sling.

"By this time we had a very efficient system working. I would take off from our landing site, hover over the ship; my hoist operator would make the pick-up while my copilot watched the instruments for me. After the survivors were aboard the helicopter I would turn the controls over to my copilot, who would fly to shore where I would make the landing. This relief aided me a great deal and provided the rest to overcome the long hours of tension.

"As operations progressed and the group aboard the ship became smaller, they began to fight each other for the sling. I think that they were afraid the helicopter would not return to pick them all up. This was not a major problem, however, and six and one-half hours after I left Lajes Field I picked up the last survivor. As I was returning him to shore I looked down at the wrecked hulls of the life boats that were crushed against the jagged rocks and could not help but think that 27 people would still be alive if they had only waited for our helicopter."

For his skillful and heroic rescue, Captain Proctor was awarded the Distinguished Flying Cross. Lieutenant Gagnon and Sergeant Monnie received Air Medals.

helicopter windshield, partially obliterating my vision. This condition was eased somewhat by the presence of rain squalls that would wash away the salt. After rescuing seven women and three babies, our fuel supply was getting dangerously low and we were forced to fly about five miles to Santa Maria Airport to refuel. While precious gasoline was being pumped aboard our helicopter, a Portuguese was asked to write a note to the skipper of the *Arnel* asking him to remove the aft mast from the ship, explaining that by doing so he would lessen the danger of the helicopter hitting it with the rotor blades. We planned to drop the note to him on our next trip over the ship, but when we arrived, work was already under way removing the mast. Evidently, they also had realized the danger involved.

"After rescuing the remaining ten women and two babies, we stowed the rescue basket and started using a Rescue sling. The correct procedure to follow when being hoisted up in the sling is to put it over the survivor's head and arms letting it wrap around the body just below the arm pits. We were unable to relay this information to the people on the ship, however, and all of the remaining pick-ups were made with the survivors sitting in the sling.

"By this time we had a very efficient system working. I would take off from our landing site, hover over the ship; my hoist operator would make the pick-up while my copilot watched the instruments for me. After the survivors were aboard the helicopter I would turn the controls over to my copilot, who would fly to shore where I would make the landing. This relief aided me a great deal and provided the rest to overcome the long hours of tension.

"As operations progressed and the group aboard the ship became smaller, they began to fight each other for the sling. I think that they were afraid the helicopter would not return to pick them all up. This was not a major problem, however, and six and one-half hours after I left Lajes Field I picked up the last survivor. As I was returning him to shore I looked down at the wrecked hulls of the life boats that were crushed against the jagged rocks and could not help but think that 27 people would still be alive if they had only waited for our helicopter."

For his skillful and heroic rescue, Captain Proctor was awarded the Distinguished Flying Cross. Lieutenant Gagnon and Sergeant Monnie received Air Medals.



INJURED Norwegian seaman, Arnt Arnisen was Rescuelifted from the ice-bound sealer Drott by an SH-19 which had been flown to the area by a C-124. This pick-up off the coast of Greenland culminated a five-day mission which involved six NATO countries (above). Below: Another mission requiring airlift of a chopper to the scene of the incident occurred in September 1955. The Norwegian vessel Jopeter was completely helpless in the merciless, crushing ice that doomed her. Twenty-six passengers and crewmembers were carried to the safety of another ship in a huge Rescue effort directed by 55th ARSq.





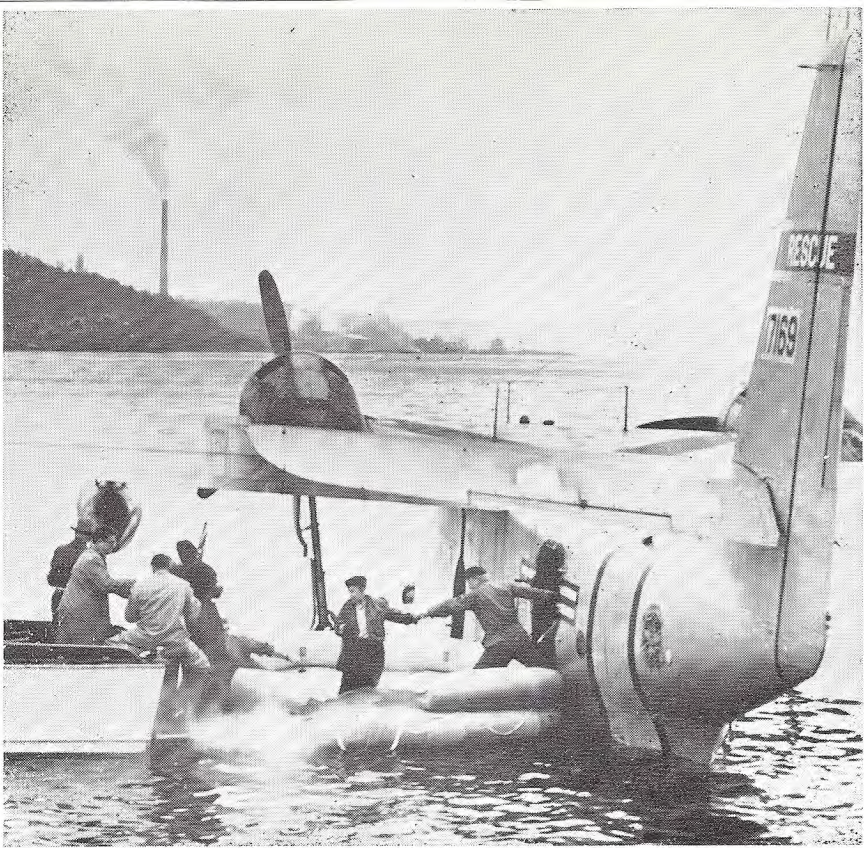
CHOPPERS save survival trainees blown out to sea off Puerto Rico and unable to get back to shore (above) and Japanese villagers stranded by the swirling flood waters that swept the island of Hokkaido in 1955 (below). Half a world apart they are linked by a common humanity and the consummate skill that made them possible.





SHUTTLE SERVICE by two helicopters of the 56th ARSq saved 52 crewmen from French ship Pei-Ho aground off Casablanca. Below: Stricken skindiver is hoisted to safety by Rescuebasket off Okinawa.





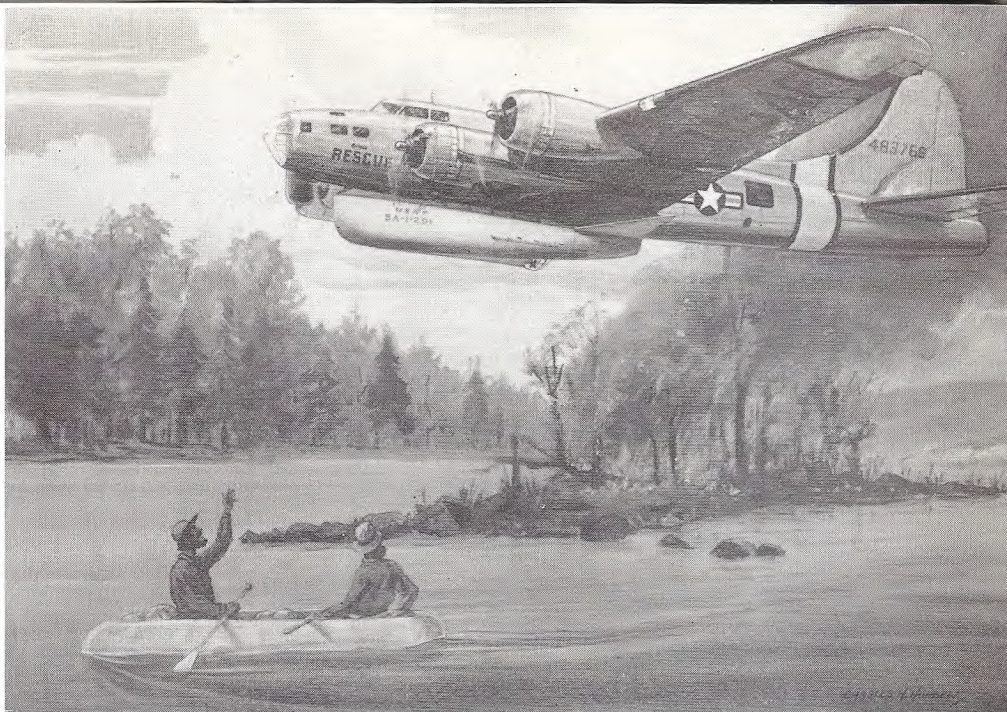
FORTUNATE survivor of airline crash in Puget Sound uses raft for bridge to go from SA-16 that saved her to transfer boat. 32 were saved because Rescue '16's were on scene within minutes after the ditching. Below: Seriously ill Filipino is paddled from his small village in a four-man raft to the SA-16 that will carry him to a hospital in Manila.





MERCY FLIGHT lands near tiny village on Little Diomed Island in the Bering Strait to Rescuelfly badly burned Eskimo child to hospital on mainland. Below: Skin-boat brings native girl critically injured by an exploding stove to the SA-16 that will fly her to hospital.





LOST in the northwoods for over a month, two American civilians on a fishing trip are finally spotted by a boat-carrying SB-17 (above). Below: Tanda Maru, broken and sunk by gale force winds and mountainous waves off Japan, is remembered as the setting of a real Rescue epic. In the face of enormous difficulties a helicopter saved 14 of her crewmembers who were clinging to bridge, rigging and fantail.







Chapter Ten



Pararescue

BORN IN TROUBLE

IN EARLY AUGUST 1943 a C-46, carrying 21 persons, got into serious trouble while flying near the China-Burma border. An SOS was sent, then the passengers and crew parachuted from the plane. But this was not an ordinary emergency, for aboard were civilian OSI and State Department officials — one of whom had intimate knowledge of the war plan for the coming North Burma Campaign — several high-ranking Chinese Army officers, and the well-known news commentator, Eric Sevaried.

General Alexander, the Commanding General of the India-China Wing, ordered that contact with the survivors be made immediately and all necessary rescue procedures be instituted. This was an order that would be willingly followed, but there were complications. No accurate plot of the crash was available; only a general idea of the location was known. The aircraft's last report placed it somewhere in uncharted territory in the northern portions of the Naga Hills. In an area of this kind it was almost certain that help could be gotten to the survivors only by paratroop.

The Wing Surgeon, Lieutenant Colonel Don Flickinger and two of his medical corpsmen volunteered for the job. Colonel Flickinger had made one parachute jump in 1941 while testing rescue and survival

gear, but his two assistants, Sergeant Harold Passey and Corporal William MacKenzie had never jumped before.

The three men were airlifted by C-47 to the search site approximately 150 to 200 miles from their advance base at Chabua. After three or four hours of search, they picked up a ground signal display, on a small plateau, which read, "need urgent medical care."

ONLY ONE WAY IN

The position of the survivors indicated at least a ten or twelve day trip over land through unexplored head hunter territory. Flickinger's earliest suspicions were confirmed — the only immediate way in was by parachute.

The pilot of the C-47, Major Katzman, gauged the wind with great accuracy and on his signal the rescue party bailed out at 800 feet, landing within easy reach of the survivors' camp. They found the group alive except for the co-pilot who had not cleared the plane with his chute and had crashed with it. The radio operator had a broken leg, another passenger had a broken ankle, and there were six others with less serious injuries. For a full month these jumpers, aided by friendly natives, cared for the sick and the injured until the party was led to safety.

Colonel Flickinger said later that once he saw that his assistance was urgently needed the decision to jump was an easy one to make, but what he was about to do was a new idea and, at some levels, considered unacceptable. And even though this first pararescue mission was an heroic success, approval of the technique was not immedi-



PIONEERS in pararescue technique, Sgt William G. MacKenzie, Lt Col Donald Flickinger and Sgt Richard S. Passey jumped to give medical aid to stranded plane crash victims.

ately forthcoming. However, the important thing was that a precedent had been established. As far as the Rescue people, themselves, were concerned, teams trained and equipped to jump to the aid of airmen downed in remote or inaccessible areas would be a valuable asset to any rescue service. But some time was to elapse before this came to pass.

JUMPING THE GUN SLIGHTLY

In January 1947, less than a year after the organization of the Air Rescue Service, Colonel Kight, Rescue's Commander, anticipating eventual approval of higher authority, gave permission to his staff to initiate preparations for the formation of parachute rescue teams. Then, in February, he sent a letter to the Air Transport Command and to the Army Air Forces requesting their stamp of approval. After conferences at Headquarters USAF in July, authorization was granted to organize and train six teams, each composed of one doctor, two medics, and two survival specialists.

That November, five enlisted men, two medical officers and a representative from the A-3 (Operations) Section of Headquarters Air Rescue Service, participated in a two-week course of training at the Forestry Service's "Fire Jumpers" School in Montana. Upon completion of the course, these parachutists formed the nucleus of instructor personnel in Pararescue and Survival School conducted by the 5th Rescue Squadron at McDill AFB, Florida.

This was the beginning. Since that time, the acquisition and training of personnel for pararescue has gone through a series of changes all aimed at producing a special breed of men physically, mentally and emotionally endowed to jump under almost any condition if a possibility exists that a life might be saved.

Today, as in the past, aspirants must first go through a screening process to determine if they have the unique qualifications for the job. If they are accepted, and haven't already qualified as parachutists, they are sent to the Airborne School at Fort Benning, Georgia. Here each trainee receives instruction in parachuting techniques and must complete five "live" jumps in order to get his rating. Those who apply for pararescue work and have already earned their parachutists badge, skip the first step and start at the second: The School of Aviation Medicine at Gunter AFB, Alabama. Here they attend the ARS specialists course.

In a jam-packed four weeks they are brought up to date on the latest developments in the field of advanced first aid as they learn how to diagnose and treat all but the most serious and complex injuries and illnesses. If sometime in his future career the pararescueman should encounter these more difficult types of cases he is still not at a loss

to render assistance, for the training he receives at Gunter enables him to describe a survivor's condition right down to the most minute detail. Possessing this ability he can convey the information to a doctor by radio and in turn be advised on the exact procedures to follow.

When the trainee completes this course, he is assigned to one of the ARS squadrons for duty and on the job training. This advanced training parallels as closely as possible that formerly given at the Pararescue and Survival School which was deactivated on December 24, 1953. This was perhaps one of the most colorful Air Force schools ever to come into existence. Its classes were held in some of the least hospitable places on the North American Continent, and a glance at its curriculum will explain how pararescuemen are able to consistently perform the impossible.

SCHOOLS OF HARD KNOCKS

The courses lasted nearly three months. For tropical training, the neophyte paramedics lived in the Florida Everglades. Coastal survival instruction was held on an uninhabited island southwest of Key West, Florida. Desert survival and mountain climbing training was conducted in the Joshua Tree National Monument area of the scorching Mojave desert. The arctic phase conducted in areas near McCall, Idaho where winter and summer conditions are similar to those in polar regions.

Before the trainee was through, he knew the capabilities and the limitations of the Rescue team and its marvelously varied and ingenious equipment. He had proved his ability to select landing areas (drop zones) from the air. He knew how to drop spotter chutes and smoke flares to help compute and correct for existing wind conditions.

Using techniques, different from those taught through mass jumps at Airborne School, he made precision jumps from the types of aircraft used in rescue work. He handled steerable chutes and, after intensive effort, he could land with remarkable consistency, on or near a pre-selected target the size of a blanket. During his training, he and a partner formed a team called a "stick." Together they jumped day and night into water, trees, rocks and open fields.

They learned what to do to get down to the correct location on the ground, and they learned what to do when they got there. They learned how to survive and how to travel to any destination over rocks, mountains, snow, and deserts, through all types of geographic deviations. In brief, they learned how to get out once they got in and how to take the survivors along with them.

The extent of the courses given at squadron level today is limited by the terrain and weather conditions of that particular locality. But

there is a compensating factor: The instructors, all pararescuemen themselves, are for the most part graduates of the old Survival School. They have gone through the most extensive and rigorous training that could be given and as a result are ideally suited to pass along the unusual tricks of their trade.

A similar type of training, with the exception of jumping, was given to ground rescue teams which were at one time another part of the Rescue Force. These men, like the present day pararescuemen, were ready to go into action at any time in areas where jumps or helicopter recovery was impractical. Alone or guided by observation aircraft, the ground teams worked their way to the scene of a crash or a bailout then transported the survivors to locations suitable for land or air removal. Their basic means of transportation was the M-29 "Weasel" which, with its caterpillar treads, could go just about anywhere. The work of these teams has now been taken over by the pararescuemen who, when the occasion demands, abandon their usual mode of travel, and accomplish their mission in the ways of earthbound men.

HEROICS ARE ROUTINE

In any other branch of the Service, the deeds pararescuemen consider as part of the daily routine, would be considered worthy of commendation, but for them no gratitude is necessary. This is the life they love and they wouldn't have it any other way. If anyone should doubt the truth of this, a quick look at their exploits will provide convincing evidence.

Perhaps the most significant mission from the standpoint of its effect on pararescue history other than the Flickinger episode was the Nicaraguan mission of May 1947. Occurring at a time when Headquarters USAF was considering the request of Colonel Kight for official sanction of parachute teams as part of the Rescue program, it no doubt influenced them in their decision to give approval to the idea.

It all began when fifteen crewmen bailed out of a flaming B-17 as it passed over the Nicaraguan jungle on a flight between Albrook in the Canal Zone and Kelly Field, Texas. The success of the intensive search which lasted many days was due to the combined efforts of 'copters, OA-10's, C-47's, B-17's, C-82's, the personnel who manned them and those who kept them in the air; and jungle troops from the 33rd Infantry who, with native guides hacked their way through the dense undergrowth to locations where some of the survivors had been spotted from the air.

The meticulous logs kept by Air Rescue and infantry personnel tell of the long days of search and waiting and the many complications that arise during an involved rescue attempt of this scope. Recorded,



SPECTACULAR jump into the Nicaraguan jungle by Capt Holliday saved the life of a downed, half-dead and totally helpless B-17 pilot.

too, are the moments of disappointment that come with failure and the moments of jubilation that come with success as the ground forces penetrated ever deeper into the thick humid jungle and the planes circled endlessly overhead searching for some sign of life below. This is a story in itself, but here we isolate one incident which pararescuemen can rightfully call their own.

One of Rescue's aircraft keeping vigil overhead had noted that a survivor had failed to retrieve any of the six sustenance kits which had been dropped to him. The only conceivable explanation was that the man was badly injured. This posed a problem since there was no clearing nearby where a 'copter could land, and the man might not live long enough for the jungle troops to hack their way to him. There was only one solution — a doctor had to jump to his side.

Captain Pope Holliday, a young medical officer with jumping experience, was dispatched to the area from the 5th Rescue Squadron to do the job. On the 27th of May he jumped from an OA-10 to within fifteen yards of the survivor. When he had cut is way to the man's side, he found him well on his way into shock due to the combination of a lack of fluids and the intense heat. The man had not had water for four and a half days except what he could lick from palm leaves in the early morning. Holliday cared for the man, slowly bringing him back

to health. Six days later when a ground party broke through to them, he was able to walk to an area where he could be evacuated by helicopter.

SUCCESS BREEDS SUCCESS

At the conclusion of Holliday's part in the mission he wrote in his diary: "The speed and ease with which parachutists can reach survivors in isolated locations makes it highly advisable that this type of transportation be used whenever possible."

What Captain Holliday had said and what he had done made the desired impression on Headquarters at Washington, for only a month later the go-ahead was given to Colonel Kight to start forming his parachute teams.

Thirteen crew members out of the 15 aboard the ill-fated B-17 were recovered from the Nicaraguan jungle. One man died while being evacuated by helicopter and the other was never found. And the story provided good copy for the newspapers and magazines, but Holliday's own outfit appeared, at least on the surface, unimpressed with the part he had played. When he returned home and read the history of the 5th, written during his absence, he found this entry: "During the first week of June 1947, due to the fact that Captain Pope Holliday was on TDY in Nicaragua, it was necessary that Captain Lewis replace him in the routine administration of the medical section of the 5th Rescue Squadron."

The Flickinger and Holliday missions were milestones along the way. Since that time, the daring of these pioneers has been matched by others. Space does not permit the inclusion of all of their feats here, treated in dramatic style as they well might be. The missions that follow are a cross-section of the many. Their purpose is to illustrate the complexities of the profession and the personal courage of those who follow it. Let it suffice to say that a tribute to some is a tribute to all of the parascuemen who get to where they are needed by many modes of travel and by floating beneath their white and orange striped canopies to the earth below.

NIGHT JUMP SAVES 15 FROM B-36

The night of February 12, 1952, the 54th Air Rescue Squadron stationed at Goose Air Base was alerted that an aircraft had crashed in that vicinity. Lt. Colonel W. R. Grady, the Commanding Officer, immediately began plans for the mission to begin at daybreak.

T/Sgt. Charles J. Abbott, a paramedic assigned to the squadron, was alerted at 2330 to be prepared for a daybreak departure. Realizing that time would be a very important factor of survival in the sub-zero weather, he suggested that they begin the mission at once. Although a

night jump under these unusual conditions had never been accomplished, Sergeant Abbott knew that a delay until daylight could possibly be fatal to any injured survivors.

The alert crew immediately boarded a SC-47 and proceeded to the crash site by direction obtained from the pilot of a T-33 which was making a routine local flight at that time. The burning wreckage was readily spotted as the weather was clear. The crash had occurred 17 miles southeast of Goose Air Base. As the Rescue plane circled the crash, the pararescue team composed of Sergeant Abbott and Staff Sergeant John Bowers evaluated the situation as to whether a jump would be justified since no survivors were visible. In the rugged, semi-mountainous terrain surrounding the wreckage, the snow was an estimated eight to ten feet deep and the temperature twenty degrees below zero. The paramedics, feeling it was possible that some of the crew remained alive, did not hesitate to jump under these extreme conditions. Sergeant Abbott jumped first and landed approximately 200 yards from the crash scene and Sergeant Bowers landed near by. They did not wish to land too near the wreckage which was still burning.

Nothing was visible to either except the walls of snow surrounding them. Locating each other by the sound of their voices, the jumpers checked for injuries. Radio contact was made with the Rescue plane, and snow shoes were requested. The plane dropped several pairs of snow shoes but the paramedics were unable to find them in the darkness.

Remembering the general direction of the wreckage seen as they were descending, they bulled their way through the snow. Progress was very slow. The radio froze and they lost all outside contact. But after one hour of travel, a streak of luck came their way when they stumbled upon one of the many pairs of snow shoes that had been dropped. Using the snow shoes, one of the men would pack the snow for several feet ahead and then he would backtrack to where the other waited. Both men would step upon the snow shoes and advance to that point and the slow process would be repeated. Even so, the men still swamped several feet into the snow with each step, but the added elevation given by the snow shoes enabled them to spot the wreckage.

Three hours elapsed from the landing in the snow until they finally arrived at the nose of the B-36 — still no sign of life and no answer to their shouts. Searching through the shattered fuselage of the crashed plane, however, Abbott and Bowers found seven men huddled together, suffering from the cold, shock and injuries. Disregarding the discomfort caused by their stiffly frozen clothing, Sergeant Abbott began to administer first aid to the injured and Sergeant Bowers built a fire. They

fixed a shelter and cared for the wounded, splinting broken limbs to good limbs and treating the men for shock.

From the pilot of the B-36 it was learned that 17 men had been on board. The search for the missing continued. Nine more of the men were found; of these one was dead and another died before they could get him into a sleeping bag. This accounted for 16, leaving one man still missing.

Back at Goose Air Base, a maintenance crew worked feverishly through the night to repair the Rescue helicopter which was out of commission. By dawn, it was ready for departure and shortly after first light reached the crash site carrying hot soup and a flight surgeon.

The doctor checked over the survivors and the chopper carried them back to the base. When all were evacuated, the doctor and the paramedics continued the search for the missing man. Night was closing in so the pararescue team and the doctor returned to Goose to get some sleep and to prepare for the next day's search. During the night it snowed an additional 18 inches. At dawn the helicopter was used to transport members of the Accident Investigating Board to the scene of the crash and in their investigation, they pulled on the control cables in the tail section of the plane causing a movement next to the buried survivor who shouted and was heard. Dragging him from the snow, they found he had no injuries but was suffering from the cold and was in a state of shock.

The survivors were flown to their home base by one of their squadron airplanes and the mission was closed. On January 26, 1954, Commendation Ribbons were presented to T/Sergeant Charles J. Abbott and S/Sergeant John Bowers for their heroic action in the rescue of these 15 men.

PERSISTENCE DESPITE ADVERSITY

In the latter part of November 1954, Air Force Lieutenants Howell and Lill bailed out of their disabled T-33 over Koyuk Sound in the Bering Sea sparking a mission which is illustrative of the lengths to which pararescuemen will go before they are willing to admit that their search efforts are unsuccessful.

After Howell had parachuted from the jet trainer he landed chest deep in the frigid arctic waters, waded to shore and walked until he found an abandoned hunter's shack. By this time his clothes were frozen stiff and the cold had numbed his entire body. For 24 hours he curled up in a sleeping bag and tried to keep warm. Outside the temperature hovered at zero.

The next day he heard the sound of an airplane overhead and

rushed outside — still in his birthday suit. He was spotted from the air by Technical Sergeant James LaCasse and Staff Sergeant Charles Chapman. They jumped and thanks to their accuracy, he was soon being warmed by the clothing which the two pararescuemen had taken from their own backs. For Lieutenant Howell the ordeal was over and the search for Lieutenant Lill began.

From the information LaCasse and Chapman had received from Howell and from their own estimate of direction and drift they figured that Lill had landed a few miles down the beach. They went to the village of Mose's Point where LaCasse engaged Don Stickman, a native Eskimo pilot, and flew with him to the village of Koyuk. At Koyuk, LaCasse hired a thirty-foot native skin boat, three dog teams of seven dogs each and six natives. With the boat on the sled, the rescue party started across the river. The lead fell through the ice and four dogs were lost. Fortunately, the party was able to drag the driver of the team out of the water after a fifteen minute struggle. But the Eskimos considered the incident a bad omen and returned to their village.

LaCasse, faced by a language barrier, was having difficulty convincing the natives of the importance of their help when he remembered that as a school boy in Canada he learned that the way to get the natives to cooperate was to explain to them that they weren't being used as natives but were part of a team. This time an American team. It worked.

When LaCasse got word from a search plane that a chute had been sighted imbedded in the frozen Bering Sea they made their way to Norton Sound then followed the coast for about ten miles. At this point LaCasse decided that it would be best to float the boat rather than risk the danger of going through the coastal ice losing additional equipment and possibly lives. Unable to float the boat from the shore, LaCasse contacted the aircraft flying overhead and had some exposure suits dropped. The superstitious natives refused to don them until the pararescueman had put one on and waded out into the water. When the Eskimos were satisfied that no harm could come to them, the mission continued. Two natives stayed on shore with the dogs and the rest went with LaCasse. Pushing and pulling the boat through the mud while waist deep in water was an exhausting process. They stopped to rest every 10 or 20 feet until they finally got it into the Bering Sea. There they started the motor and headed southeast to where the parachute had been located. After six brutal hours they still hadn't reached the spot. Again they turned toward the shore to wait out the night.

In the morning when LaCasse and the natives awoke they found the boat frozen in solid. LaCasse began to worry about the natives: The mission had already caused them the hardship of losing their dogs, and now they had lose the use of their boat. The natives relied on the meager amount of equipment they possessed in order to survive. Without it they faced possible starvation. But at the moment there was little that LaCasse could do to change the situation other than to radio for immediate assistance. Stickman came in again and landed on the beach and the natives were paid for their work.

When Chapman had learned that LaCasse was unable to get to the chute by boat he tried another approach. He came down with Stickman in the light plane and landed five miles farther south on the beach and then waded out to where the chute was imbedded in the ice.

The canopy itself was on the ice, the lines were under the water and the harness was on the bottom. Chapman found a glove, a map, and a hat and that was all. He smashed the ice and trampled around trying to find the second man's body, but there was no sign of him. He continued his search into the hills without success. Earlier, Chapman had found Lill's name stenciled on the chute. There could be no doubt that it was his. Officially, the mission was closed. But unofficially, something special remained to be done.

That Christmas the pararescuemen made a drop over the Eskimo village. There were toys for the kids and there was food for everybody — plenty of food. LaCasse said later, "It was an experience working with them. Their attitude was that they were a team being led by someone who knew what he was doing. But you couldn't push them too far. They had to know that they were equals. Which they were, and more . . ."

TRAGEDY ON NANTAWUSHA

Not always can the pararescueman reach his destination via his stock in trade — the "nylon letdown." Sometimes they must walk in. For them, that's the hard way. Such a mission began at 1022 hours on March 6, 1955. A C-54 *Skymaster* enroute to Hong Konk with 14 persons aboard crashed into Nantawusha, a fog-shrouded peak that juts menacingly into the Formosan sky.

When radio contact with the aircraft was broken, an air and sea search began which brought cooperation from many agencies; a Chinese PBY, a destroyer patrolling the Formosan Straits, British flying boats from Hong Kong, plus Air Force Rescue planes from the Philippines, Okinawa, and Formosa with pararescuemen aboard. The following day

one of them, Master Sergeant Verl Linford, saw a glint of metal below. He asked the pilot of the search plane to move in for a closer look.

"The ominous sign of scattered wreckage shocked our eyes," Sergeant Linford wrote later in his report. "There was still the chance that it was the scene of an old crash but a check with the Chinese Air Rescue Service negated this.

"The widespread destruction and hazardous terrain precluded positive identification from the air. Ordinarily, Technical Sergeant Francis Dean and I would have jumped to the scene. However, the almost vertical slopes and gnarled ancient cypress trees made para-jumps extremely dangerous. The high altitudes made helicopter approach almost impossible. The decision was forced by nature — a ground party would have to walk in."

The ground party of which Linford spoke, consisted of three para-rescue technicians besides himself; Technical Sergeants Francis Dean, John Hennessey and Ted Hawkins. With them were 16 aborigines, who were to act as porters and help cut their way through the dense growth, and 36 Chinese Nationalist soldiers who were assigned to protect the ground party from whatever dangers that might exist in this mysterious mountain country where head hunting was once practiced and numerous wild boar forage for food.

The long trek to the scene of the crash began 35 miles from the foot of the mountain. It was hazardous enough but only an indication of things to come. The ascent was begun on the 9th of March.

"...Gradual at first, the slope became increasingly steep and treacherous. For some strange reason, known only to them, the guides would not stray from the mountain paths. This resulted in a circuitous route around one peak, through a valley and finally up the slope to the crash site."

The party was resupplied by air drops which were extremely hazardous undertakings because of the rain and fog. At one point, Captain Mattias, a Rescue pilot, dove his SA-16 through a hole in the clouds and then had to use flaps to slow down the plane at the end of the dive so that the drops could be made. Even then, the terminal speed was great enough to part the chutes from the water containers spilling the water uselessly on the rain drenched slopes. For two and a half days the party collected what rain water it could as it continued the journey.

"Traveling for the most part during the evening and night, we continued toward our goal. We found it easier going during the clear nights than during the dense foggy days. On the morning of 10 March,

we found it necessary to traverse a path surrounded by sheer cliffs. Landslides were constantly being dislodged so that there was peril of a further disaster at the hands of the treacherous Nantawusha. Once while crossing the path that dropped precipitously, Sergeant Dean slipped and was saved by the quick arm of an aborigine porter. The 30-foot drop onto jagged rocks below would have meant death. Perhaps in recognition of our grim determination, Dame Fortune seemed to smile on us and during that evening we safely reach the wreckage."

From the evidence of the terrific impact the conclusion was drawn that death to all had been instantaneous. The ground party recovered the altimeter, compass and other instruments which would be given to the Accident Investigation team upon return. With the bodies of the 14 airmen the long trek home was begun.

"The aborigine porters had gained our respect and favor during the ascent. Their courage, stamina and determination were inspiring to us. Now on the final phase they won our love as well. They carried their heavy loads almost without fatigue and showed tender respect for the precious lives that had ceased."

During the 180-mile trek the pararescuemen lost an average of 18 pounds. Nevertheless, the following day they reported for duty. As Sergeant Linford put it, "In Rescue we can't afford to rest on our laurels or lick our wounds."

FIRST SUCCESSFUL NIGHT HELICOPTER RESCUE

The first night helicopter rescue was made in April 1955 by an SH-19 from the 74th Air Rescue Squadron. Five persons were carried to safety under the most adverse circumstances imaginable and certainly one of them, a woman whose spine had been shattered, owes her life to the perseverance and heroism of Captain James A. Nolan, Rescue crew commander, 1st Lieutenant Lewis F. Wells, co-pilot, and pararescueman T/Sergeant James H. LaCasse.

A civilian light plane, flown by a bush pilot, was flying a nurse and a two-year-old girl to the hospital at Tanana, when a severe snow storm was encountered. The bush pilot attempted an emergency landing at Kokrines, failed and crashed into the ice of the Yukon River. An SA-16 from the 74th spotted the crash and requested assistance in the form of a light plane from Tanana. Another bush pilot brought a doctor and a nurse to the crash scene, but after affecting a landing to pick up the survivors could not take off. His aircraft had become frozen to the surface of the ice.

While waiting for help, Doctor Jeanne Persons administered drugs and kept the nurse and baby protected from the weather. Meanwhile,

the SH-19, which was staging out of Tanana, was on its way. At Tanana Nolan had learned that the forecast for the troubled destination was marginal because of low ceilings and snow. But despite the gloomy bulletin, carefully calculating their chances, they elected to stick to their rescue try. The chopper throbbed 65 miles from Tanana to the site of the aircraft crash. And it was no easy job to locate the badly crumpled craft under the circumstances.

Being unable to spot a landing area on the shore they eased the chopper down onto the river ice. It was April, the Yukon ice was softening, Nolan and Wells combined in their efforts to keep the helicopter hovering ever so lightly on the surface of the slush for 25 minutes, while LaCasse loaded the survivors aboard.

The sergeant courageously jumped from the helicopter into deep snow, not knowing whether the ice would hold, and fought his way through to the crippled party on the bank. He found two of the survivors in desperate condition — one was a tot of two, blue with cold and the other, the nurse with a shattered spine, was still locked in the wreckage. In a moment LaCasse had his parka off and bundled the infant in it. Next he recruited a helper from the forlorn group and carefully extricated the woman clamped in the aircraft. In order to avoid compounding her injuries, he meticulously planned each move he and his apprentice made. Once free, the woman was carefully positioned on the litter and the paramedic and his assistant then shuffled back through the snow and gently placed the woman aboard the helicopter.

With the weather deteriorating rapidly, Sergeant LaCasse commuted to the crash site two more times, transporting people in his arms on each trip back. On one trip he carried the child and on the next a full grown survivor without adequate footgear, unable to make her own way through the brutal snow. For the other two he carried back snowshoes and they were able to get to the helicopter on their own. As LaCasse leapt aboard at last, the ice beneath him failed but Nolan poured on the coal and all were safely aboard.

Success in this very dangerous achievement can be credited in large part to the daring, quick thinking and teamwork of the two officers involved, who demonstrated themselves to be masters of helicopter rescue procedure. But as Brigadier General Thomas J. Du Bose was to observe later, "One can assume that the entire mission would have met with disaster had Sergeant LaCasse delayed in getting the persons aboard." For the daring rescue Nolan was award the First Oak Leaf Cluster to the Air Medal, Wells and LaCasse were both awarded Commendation Medals.

NIGHT JUMP AND CHOPPER BALANCING ACT SAVE TWO

On December 23, 1956, at about 2000 hours, a WB-50 from Yokota Air Base, Japan crashed in the mountains about 20 miles northwest of Johnson Air Base, Japan. The night was dark with no moon, but the fire from the crash could be seen from the flight line at Johnson. The 36th Air Rescue Squadron immediately dispatched an SA-16 with two paramedics aboard and a helicopter with one paramedic aboard. Both aircraft arrived at the crash at about the same time. The jumpers aboard the SA-16 were T/Sergeant Terry Walker and S/Sergeant George Hill. The jumper aboard the chopper was T/Sergeant Robert Elliott.

The range of mountains where the crash occurred, though not too high, is rugged and very steep. On arrival in the area, the helicopter could not find a spot large enough to land and remained circling the crash area. In the SA-16, which was also circling the crash, Sergeant Walker was making his checks and getting ready to jump.

Using the smoke from the fire of the crash for wind drift direction, Sergeant Walker and Sergeant Hill jumped. They landed on a steep incline, Sergeant Hill a few feet from a sheer drop off. They gave each other a voice check and started up the mountainside for the crash site. Upon reaching the crash they found only two survivors, both burned and near death. Sergeant Hill called the helicopter on the URC-4 radio and advised them that the survivors had to be evacuated or they would not survive.

Captain Paul R. Lunsford, pilot of the helicopter, advised that he would try again. He found a small rice field on the side of the hill, but it was too steep to land on so he hovered with only his front wheels on the ground. He hovered his aircraft in this position until the paramedics loaded the two survivors and then airlifted them to Johnson Air Base. The lives of these two men were saved by the prompt action and courage of these two jumpers and the helicopter pilot. T/Sergeant Walker and S/Sergeant Hill were awarded the Commendation Medal for their part in the mission. Captain Lunsford was awarded the Air Medal.

GETTIN' THERE 'FUSTEST'

Pararescuemen usually approach the start of a mission with grim determination, hoping for the best but prepared for the worst. It can be and often is grim work. But they aren't without a sense of humor and laughs are enjoyed the most when they are at someone else's expense, particularly another pararescueman.

A short time after the Howell and Lill mission mentioned earlier (see page 149) LaCasse and Chapman went to the rescue of a pilot

and radar observer of a jet which had crashed alongside the Chena River. They were taken to the scene in an SA-16 flown by Captain Cole the same pilot who had flown them on the earlier mission. The weather was a mixture of ice, snow and fog — a miserable combination of elements which resulted in extremely low visibility. When the survivors were spotted they were standing on the wing of their plane waving night flares like it was the Fourth of July. As Cole circled over the site, LaCasse and Chapman were having difficulty keeping the two jet airmen in sight. It was truly a case of now you see them, now you don't. They decided to get out in a hurry to avoid losing sight of them once and for all.

The two pararescuemen landed cushioned in the trees, uncoiled their letdown ropes and quickly slid to the ground. They moved swiftly to the jet, but instead of two appreciative survivors they found two other pararescuemen, Master Sergeant Ira Chichester and Staff Sergeant Willard Williams, grinning from ear to ear. In contrast, the expressions on the faces of LaCasse and Chapman were a blend of surprise, disappointment and chagrin — tinged with a slight blush of embarrassment.

The mystery was soon solved. While the SA-16 had been circling overhead preparing for the drop, Chichester and Williams flew in low in a 'copter piloted by Lieutenant Lewis Wells. They saw the two jet airmen and when Wells moved in they dropped from the hoist, put the survivors into the sling for the short trip home. The chopper went on its way and Chichester and Williams stuck around for the big laugh.

THEY'RE RUGGED BUT NOT UNBREAKABLE

Before most pararescuemen will admit that a mission is unusual it has to be far removed from the ordinary. They do happen and one such occurred on the 25th of February 1957 in Hawaii. It involved personnel from the Army, Navy, and Air Force with an assist from a civilian doctor; five different types of aircraft and an automobile were cranked in; and a pararescueman who jumped to the rescue, found himself on the receiving end — when it came to medical aid.

It all began when the Army man, pilot of an L-20, reported to Hickam Air Force Base that he was having engine trouble and would attempt to reach Maui Island before bailing out. When the Rescue Control Center was notified, an SC-54, an SA-16, and the alert helicopter were directed to proceed to the scene of the emergency. Aboard the rescue craft were two pararescuemen, Master Sergeant John Robins and Technical Sergeant Earl Casto.

While the Rescue planes were enroute, the pilot of the distressed aircraft had a change of heart and stayed with his plane instead of bailing out. About this time, the Navy came on the scene. A P2V pilot spotted the crash site and reported that the Army pilot waved to him as he orbited over him, but when the SA-16 and SC-54 arrived the man was motionless. Fearing that he was severely injured and that valuable moments might be lost, the two pararescuemen jumped. About 100 feet over the DZ, a gusty surface wind caught Robbin's chute and upon landing he was dashed against the sharp volcanic rock fracturing his pelvis. Casto was also injured but less seriously and he was able to get to the injured pilot and give him first aid.

Shortly thereafter a civilian doctor managed to reach the scene and he and Casto took care of Robbins. When the 'copter arrived, the L-20 pilot was loaded aboard and taken to Kafului Airport and then to Tripler General Hospital. Sergeants Robbins and Casto eventually arrived at Kafului by auto — and rejoined their Army patient later at Tripler.

QUICK SAVE AFTER HIGH SPEED BAILOUT

It isn't often that pararescuemen are afforded the luxury of being on the spot when they are needed. Usually they face any number of obstacles before they get to where they can do some good, but early in



INJURED F-105 driver, Capt H. W. Leaf, is lifted from 48th ARSg chopper that made the quick pickup after his high-speed bailout.

1958 two paramedics, Sergeants Walter M. Millard and William J. Tanski were there when it happened.

Tanski and Millard, with other members of the 48th Air Rescue Squadron, were watching several planes make high-speed supersonic passes over the runway at Eglin Air Force Base, home of the Air Proving Ground Center, when one of the aircraft, an F-105 piloted by Captain H. W. Leaf, crashed about ten miles from where they were watching the show. Immediately the scramble horn sounded and Tanski and Millard boarded the alert SH-19 helicopter. The crash had started a furious five acre blaze and the 'copter headed for that direction. In the meantime, a T-33 had located the pilot's parachute and when the SH-19 arrived, the jet pinpointed the crash location and the two paramedics went to work.

First, Sergeant Tanski lowered Sergeant Millard on the hoist. Of the 100 feet of usable cable, 90 feet had to be used to get Millard through the tall pines near the edge of a swamp. Using the URC-4a portable radio transceiver, Millard requested the helicopter medical kit. To expedite delivery of the kit, Tanski lowered it with 120 feet of nylon rope. Then Tanski with an assist by the copilot on the hoist, was lowered to join Millard.

The survivor had left the doomed fighter at low altitude and high speed. He was alive but suffering from severe shock, multiple bruises and lacerations. First the paramedics dressed his cuts and then give him 500 cc of dextran intravenously. Under the circumstances, Tanski and Millard considered the possibility that Captain Leaf might have a broken back and weren't about to take any chances on complicating matters. They needed something hard and flat on which to place him. A civilian contractor who had witnessed the crash had a wooden door on his truck. Several helpful residents carried the door from the truck back to the scene of the incident.

While this was going on, another 'copter was scrambled. Aboard, this time was the 48th's Flight Surgeon, Captain Patrick E. Callahan. The chopper landed in an area about 300 feet from the injured pilot. Separating the two locations was swamp 100 feet wide.

The first chopper, hovering above the swamp, guided the stretcher bearers to an ambulance on the other side of the swamp. The ambulance, with the pilot, moved through the pine forest to the Flight Surgeon's chopper. Another transfer was made and the injured pilot was flown back to Eglin.

The Flight Surgeon later complimented the two paramedics on their skill and good judgment. He was of the opinion that the dextran which

they had administered reduced shock and almost certainly prevented serious brain injury. Of this, Millard and Tanski could well be proud. And proud too of the speed with which they accomplished the job: Fifteen minutes after the crash they were treating the survivor. Fifty-eight minutes later, he was in the hospital.

INTO A FROZEN HELL ON TOP OF THE WORLD

A big Navy patrol bomber had crashed high up on Greenland's polar ice-cap, miles above the Arctic Circle. The aircraft disintegrated against a mountain of ice.

After a search that lasted for days the wreckage was spotted from the air. Scattered over a treacherous and almost unapproachable area the crash was bordered on three sides by glaciers and ice-caps with extremely steep slopes, the fourth side was a sheering 19-hundred foot ice cliff which dropped off into the sea.

In an SA-16 Rescue amphibian specially equipped for Arctic operations, two parachutists of the 55th Air Rescue Squadron, Technical Sergeant Elliott Holder and Staff Sergeant Robert Christensen, circled above the wreckage and without hesitation made the crucial decision to jump. They jumped because faint radio signals of undetermined origin indicated that someone might have survived the crash. Evaluation from the air was impossible and there were no areas nearby suitable for landing an aircraft. It is a rule in Rescue in that there are always survivors until firsthand evidence is obtained to the contrary. Holder and Christensen risked their lives to bring aid to any of the nine crewmembers of the Navy aircraft who, by some miracle, might still be alive in the wreckage.

Disregarding their own safety, they jumped in high winds, sub-zero temperatures and in the face of a threatening arctic storm. They landed on the ice-cap and were dragged for many yards by the winds before they were able to collapse their chutes. Christensen was dragged a quarter of a mile and came within a few yards of being swept to his death over the ice cliff.

They made their way over treacherous ice slopes to the scene of the crash which was more than a mile from the drop zone they had selected. The scene that greeted them on their arrival at the crash site was not a pleasant one. All aboard had met death almost instantly as their aircraft shattered against the ice-slope. This does not detract from the heroism of the two jumpers. The important and undeniable fact remains that Holder and Christensen jumped to save lives and the lives they jumped to save were not their own.

For eleven days the arctic storm howled around them and prevented removal of the bodies. The temperature was below zero and the winds

often times exceeded 100 knots. On the twelfth day, the storm abated and they made their way to a spot where they could be lifted from their ice prison by helicopter — none the worse for wear. Twelve days in a deep freeze and not even a cold.

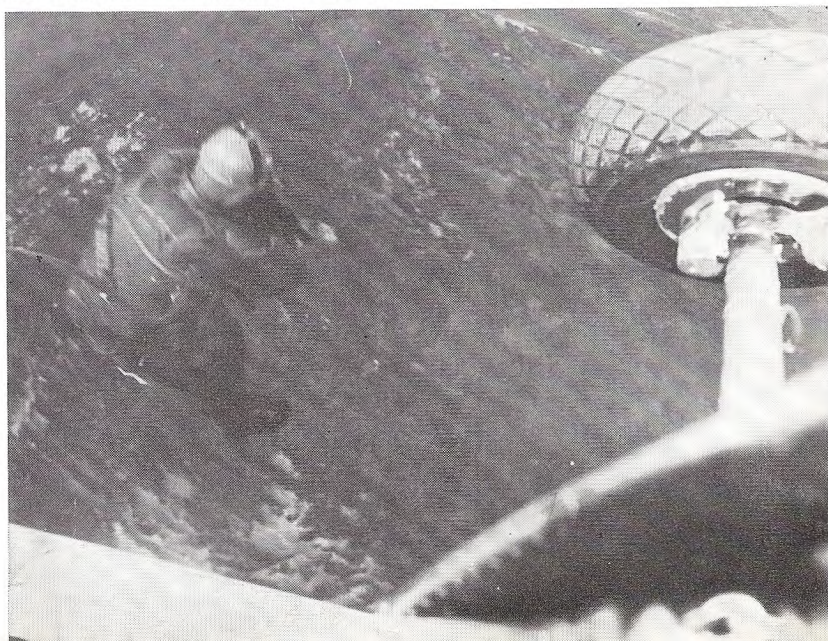
In any future shooting war, the role of the paratroopers may well be a big one and viewed in this light the jumps of Holder and Christensen take on a special importance. Previously, no expert considered military operations in the Arctic practical or even possible on any significant scale because of the extreme cold, high winds, and difficult terrain. Now they acknowledge that not only are they possible, but if our northern bulwark of defenses is to be impregnable they must be planned for and guarded against. These two paramedics proved conclusively that with proper equipment and training — and a few “guts” — troops can survive for significant periods of time under the worst of arctic conditions.

HIGH ON A WINDY HILL — TRAGEDY

The flight Jack LaRocque and Henry Baker decided to make to Yakima, Washington, on April 9, 1955, was to be just a routine week end trip. They left The Dalles, Oregon, and headed toward the Simcoe Mountains in the early morning with clear skies prevailing. They hit severe turbulence and decided to attempt a 180 degree turn. Before the turn could be completed, the control cables broke from the strain of the pilot's trying to maintain an upright attitude. Since there were no parachutes aboard, there was little to do but ride the airplane down and hope for the best.

Luckily the pilot of this small plane had filed a flight plan. When he became overdue at his destination, the Civil Aeronautics Administra-

OUT THE DOOR of helicopter with his feet together and his arms over his reserve 'chute, paramedic braces himself for the opening shock.



tion immediately initiated a search. The following morning, Easter Sunday, at dawn, an extensive search was planned. The search was partially hampered by the fog which hung in the valleys causing a large portion of the ground to be invisible. But about 1400 hours that afternoon, the downed aircraft was spotted and an SA-16 from McChord Air Force Base headed for the scene.

On the first pass the SA-16 dropped two spotter chutes. On the second pass paramedics, Staff Sergeant Ed Willis, Technical Sergeant Francis M. Dawdy and Technical Sergeant Charles J. Abbott of the 43rd Air Rescue Squadron jumped. Conditions were far from ideal for the jump as the terrain was rough and the wind was howling up the side of the mountain. Sergeant Abbott still says, "It's the first time I've ever jumped, hit the ground, and rolled uphill." When Sergeant Dawdy landed, he was thrown against a tree, which broke his helmet causing head injuries. He remained unconscious for more than an hour from these injuries.

Sergeant Abbott and Sergeant Willis proceeded to the wreckage and found the pilot, Jack LaRocque, in the airplane, still conscious but in great pain and shock. Both his legs had been badly broken when the impact of the crash had caused them to be rammed through the floorboard of the plane. LaRocque was given a shot of morphine and wrapped in a flight jacket. From the footprints in the snow, it appeared that Henry Baker, apparently only slightly injured had gone in search of help. Radio contact was established with the SA-16 which was still circling overhead and a helicopter was requested for the evacuation of LaRocque. The SA-16 relayed the information to McChord and within an hour the rescue helicopter arrived. During this time LaRocque was put on a stretcher and given intravenous feedings.

The pilots of the helicopter, Captain Palmer and Lieutenant Kittleson, did an outstanding job in landing the aircraft only 100 yards from the crash at the 5,800 feet level during strong winds. The paramedics, while carrying the injured man to the helicopter were forced several times to set the litter down as they plunged waist deep in snowdrifts.

Within minutes, LaRocque reached Klickitat Valley Hospital where additional emergency treatment was given. Later the same day he was transferred to The Dalles where Captain Palmer landed the helicopter at the 16th Street ballpark. It was then that LaRocque lapsed into unconsciousness and remained in a coma for 21 days. He finally recovered.

From the available evidence, LaRoche's passenger, Henry Baker, had not seemed very badly hurt and after spending the night in the plane with LaRocque, had left early Easter morning to bring help. A thorough search was conducted with the aid of at least 100 people. They

checked every cabin and outpost in the vicinity but he has never been found.

A NIGHT JUMP IN THE LAND OF THE RISING SUN

Two men, Technical Sergeant Terry S. Walker and Staff Sergeant George R. Hill, paramedics with the 36th Air Rescue Squadron were responsible for saving the lives of two crew members of a WB-50 aircraft on 26 December 1956, which crashed on its approach to Yokota AB, Japan.

The ill-fated WB-50 was returning from a weather reconnaissance under the control of Yokota GCA when it suddenly disappeared from the radar scopes. Immediately the 36th Air Rescue Squadron at nearby Johnson AB was notified. The weather at the time was strictly marginal, three to four miles of visibility with smoke and haze, and the temperature was below freezing.

An SA-16 aircraft with two paramedics aboard was scrambled. The WB-50 aircraft was found crashed and burning on a steep mountain side approximately 15 miles from Yokota AB. The SA-16 made two passes over the burning wreckage and on the third pass Technical Sergeant Walker, as jumpmaster, jumped followed by his teammate at approximately 2130 hours. It was an extremely dark night and very cold. The two paramedics had to guide their descent by the burning wreckage and while descending, they kept shouting at each other so as to help stay as close together as possible since they couldn't see one another. They landed fairly close with Sergeant Walker landing on a rock path just missing a rock fence and the chute hung in a tree. Sergeant Hill landed on a small shed, rolling off onto the ground.

Soon after landing, Sergeant Walker contact the Rescue aircraft with his URC-4 radio, notifying that the jump was a success and proceeded to the wreckage. Approximately 15 minutes later they reached the wreckage and started looking for survivors. The Japanese were of tremendous help to them and they gave the paramedics all the blankets they needed to keep the two living men warm, plus helping them search for other possible survivors. Both men were suffering from extreme shock, third degree burns and internal injuries. They were treated with morphine and Dextran and then were Rescuelifted by an SH-19 aircraft, one at a time to the Johnson Hospital.

Doctors who treated the survivors, credited the lives of the two survivors to the courage and medical know-how of the paramedics.

The entire mission was conducted under the most difficult and hazardous conditions and Walker and Hill were awarded Commendation Medals.

A LETDOWN ISN'T ALWAYS NYLON

Not always does the pararescueman utilize the parachute when he jumps. On two notably heroic missions the jumpers left their aircraft without benefit of parachute to save a life under most desperate circumstances. In 1951 Tech Sergeant Richard C. Burks was in a helicopter dispatched to a B-29 crash off the coast of Okinawa. A veteran of 200 parachute jumps, Burks "bailed out" from an altitude of 35 feet and managed to save two crewmembers from the burning bomber. The fact that the water was infested with sharks and dangerous manta-rays and the surface covered with burning fuel deterred him not one instant. For his selfless heroism he was awarded the Soldier's Medal.

In another heroic incident the deadly enemy was *cold*. According to official estimates from the Alaskan Command, a man downed in Cook Inlet can stave off unconsciousness and numb icy death for just about 30 minutes. Second Lieutenant Elvon Anderson lasted almost four times that long, but he would be a dead man today were it not for the heroism of Airman First Class Howard C. Griffus. Anderson had been forced to parachute from an F-89 *Scorpion*, which developed engine trouble. He landed in the cold, deadly, turbulent waters of the Inlet and because of bad weather, strong tidal current and little information as to exactly where he bailed out it was 90 minutes before he was spotted and a helicopter could reach the scene. By this time, Anderson was too cold to help himself in any way. Without hesitation Airman Griffus donned an exposure suit and plunged into the Inlet. After great difficulty he got Anderson into the sling and when they were unable to lift him aboard the helicopter Griffus instantly sized up the problem and with no regard for his own personal safety waved the helicopter away. He knew Anderson needed immediate help or he was a dead man. He didn't know how long his own personal ordeal would have to last or whether they could spot him again at all in the murk, fog and fast approaching darkness.

It was almost an hour before an SA-16 could land, taxi through the swells, pick him up and return him to the base. Everyone felt sure that Griffus would be suffering from exposure and shock, but the big, rugged, young paramedic climbed out soaking wet and grinning. He reported for duty at 0730 the next morning. For his heroism, Griffus too received the Soldier's Medal and was nominated for the Cheney Award for his acts of extreme valor and devotion to his fellow man.

Over the years the primary purpose of the Air Rescue Service has been to save lives. Pararescue work is but one phase of this aerial rescue concept. The world over flyers can be confident that should

trouble strike, this highly trained very proficient group of men — the paramedics — are available to jump to their aid. Following his ordeal in the jungles of Burma, Eric Sevareid later wrote of the men who risked their lives to save his, "Gallant is a precious word: they deserve it."





Chapter Eleven



Today's Position and a Look at the Future

TO LIVE IS TO CHANGE

THIS HISTORY has — among its other goals — attempted to point out when, why and how, over the years, certain changes were made in the overall search and rescue structure within the military department. While the primary mission has always been to save the combat crewman the Air Rescue Service to this date has been predominantly a specialized type of military operation which changes, when need be and necessary, as a result of spontaneous action to meet some immediate demand. Although a command in itself, Rescue has been parceled out to various theater commands to meet the needs and peculiar requirements within a particular area. This so developed that Air Rescue Service became, in effect, a structure of individual compartments strategically deployed around the world to meet specific and specialized purposes. Generally speaking, no two groups or squadrons were alike.

As has been pointed out, in September of 1954 the Air Rescue Service assumed responsibility for the 8th Rescue Group, which prior to that time was assigned to the Strategic Air Command. The 8th Air Rescue Group was designed and organized to provide a specialized air crew recovery capability for the Strategic Air Command for the return of downed air crews from enemy areas. This was a highly specialized

and technical operation, which encompassed techniques and procedures peculiar to deep penetration and recovery from enemy areas. At first, none of the other groups practiced or studied these unique techniques and procedures.

With the Air Rescue Service in this specialized type of recovery operation, it developed that the European and Pacific Air Commanders had similar requirements for combat recovery specialists in their areas. Therefore, in 1955 Rescue units were established in the European and Pacific areas to provide for this job. Thus, calendar year 1955 closed on a note of area specialization to meet specific and peculiar needs within an air command area, and a second peculiar requirement was superimposed on the overall pattern. This latter — the wartime recovery of down SAC crewmen from behind enemy lines — became generally identified as “air crew recovery.”

TOO MANY SYSTEMS, TOO MUCH SPEED

During 1956, the recovery forces conducted extensive training exercises with combat forces which they were designed to support. A general analysis of this operation by Air Rescue Service in 1956 revealed that, for example, a combat crew from the European area would not be familiar with the techniques and procedures utilized in the Pacific area. Therefore, such a crew could not activate nor expect rescue response in case of an emergency when flying into or thru a Pacific area of operation. This specialization was good for the limited area in which it was initially designed to operate. However, aircraft were flying too far and too fast for this approach to long endure. Its greatest weakness was the fact that no one crew could possibly know the techniques and procedures of every theater area to which it might be assigned, or over which it might be ordered to fly and fight. It became readily apparent that a single, easy-to-work, foolproof system for all the services must be developed.

A Joint Chiefs of Staff memorandum SM945-56, dated 28 November 1956, designated the Chief of Staff of the USAF as Executive Agent to conduct a study with the objective of standardizing wartime search and rescue procedures for all services on a global basis. Air Rescue Service provided a representative to assist in the preparation of this paper. The JCS paper is generally recognized as the birth of today's global search and rescue concept. Granted, the JCS paper was envisioned for war conditions, but it must be apparent that search and rescue, during war conditions, is merely an extension — admittedly more hazardous and complex — of search and rescue operations in peacetime.

Three specific actions prompted the global concept. First, was



HIGH SPEEDS of aircraft and long-ranges made possible by mid-air refueling, made old systems obsolete and brought on global concept.

the conversion of the combat forces to high speed, long-range jet aircraft. Second, was the continued emphasis on joint command structure. Under this set-up each of the services provided combat forces to meet a common objective. And third, that combat aircraft in normal mission activity were, as a matter of course, flying over two or more joint command areas. It soon became obvious that the crew of an aircraft hurtling over several command areas could not be expected to know the complex techniques and procedures required within each area under the old system. A common denominator was needed and, fortunately, evident.

The Air Rescue Service had had considerable experience in this area of diversified techniques and procedures for specific geography and peculiar requirements. They had run this course before and had long since recognized that a single standard system was definitely required. It was only natural, therefore, that Rescue take the lead in drafting the paper for JCS standard wartime SAR procedures. The Army and Navy concurred with the wartime SAR procedures as advanced by USAF, and a JCS paper, dated 1 May 1957, was the initial document pointing toward standardization of all U. S. military search and rescue activities. ARS, realizing the importance of standardization, undertook to align the USAF search and rescue structure as soon as possible.

A NEW APPROACH TO AIR CREW RECOVERY

On February the 7th 1958, ARS sponsored a conference at Orlando Air Force Base, Florida, for the purpose of drafting a USAF air crew

recovery program. The objective of the conference was: "To determine the best means within available resources for providing an air crew recovery program for the USAF with standardized procedures, training, and communications for the recovery of all air crews of all USAF commands in peace and war, friendly or enemy areas."

At the outset of the conference it was apparent that the USAF search and rescue structure was not staying abreast of the global air capabilities of the Air Force. It was the old story in a new frame of reference — horse and buggy thinking in the age of the jet, rocket and atom. The compartmentalized and specialized SAR structure was too rigid and limited to fit in with the global characteristics of jet and long-range support aircraft.

After two days of continuous conferences and much vigorous discussion, two fundamental conclusions were reached. First, that the USAF needs a comprehensive global aircrew recovery program with standardized procedures, training, and communications for all USAF air crews, in times of peace and war in friendly or enemy areas. The second conclusion was that the Air Rescue Service should be reorganized to develop the specialized recovery techniques and that a single system should be established to support the USAF as a whole.

The years 1957 and 1958 witnessed the USAF Search and Rescue concept change from specialized area and compartmented operations to a global concept of standardized procedures and operations. To further our efforts toward standardization, the JCS paper of 1 May 1957, came up for review with specific emphasis on simplifying the very important but difficult authentication system. In June 1958, a conference convened at Orlando Air Force Base, Florida, for the purpose of establishing a USAF position on wartime search and rescue procedures for presentation at the August 1958 Joint Chiefs of Staff world-wide coordination conference. The June 1958 conference was attended by Headquarters USAF, Strategic Air Command, Tactical Air Command, Air Defense Command, Military Air Transport Service, Air Training Command and Air Rescue Service. The conferees agreed that the 1 May 1957 JCS SAR paper was too complex. Identification and authentication of downed crewmen in enemy-held areas was of literally vital importance to the man on the ground and his would-be savior in the air. Yet, the system demanded too much of the man in trouble. An injured man — perhaps in shock — a man near panic and in fear of his life, cannot be required to be a memory expert.

Therefore, all conferees pitched in to develop a streamlined system of authentication whereby each crewman uses an authenticator applic-

able to himself alone. Bearing in mind that wartime SAR is merely an extension of peacetime SAR, a system was designed, wherein, no crewman would ever have to jeopardize his own or anyone else's safety or chance for recovery. At the same time the system was made foolproof, standard and simple for all to understand.

At this point in time, the reorganization of the Air Rescue Service was proposed. This came as the direct result of the February 1958 conference, which was an effort to realign Rescue capability within the Air Force itself. A second conference was held in June to simplify and make effective a system for its use by the three services.

Then came the problem of implementation. For the remainder of the year Rescue continued its efforts to obtain reorganization of the USAF prime Search and Recovery activity. This was finally realized, and on 18 March 1959, Air Rescue Service was officially reorganized in support of a USAF global aircrew recovery program. This reorganization consists of eliminating the 8th Air Rescue Group, its two squadrons and its specialized SAC recovery operation. Some of the troop spaces from the group and its two remaining squadrons were reallocated to bolster other squadrons. An increase in the number of squadron aircraft was authorized. As a result of this manpower and equipment augmentation, each unit became measureably stronger and more flexible.

THE STATUS OF RESCUE TODAY

This most recent reorganization resulted in a Headquarters Air Rescue Service, 17 squadrons and three detachments. The three detachments are designed to provide the control center or control nucleus to make the entire global system work. Called "ROCS" (Recovery Operation Centers), Detachment One was established in Hawaii in support of the operation of the Pacific Air Forces (PACROC); Detachment Three in Europe in support of the operations of the Air Forces in Europe (EUROC); and Detachment Two at Orlando Air Force Base, Florida, in support of the North American area of operations (NAROC).

These recovery operations centers act as coordination and control centers, providing centralized direction and decentralized execution of the USAF global Rescue/Recovery program. While the 17 squadrons are conveniently located to provide for peacetime search and rescue work, they are strategically located for war operations as well.

Nine of the squadrons are considered the mobile recovery force. Each is equipped with seven of the time-tested SA-16's and each conducts training with the combat forces in their particular area. Eight squadrons are considered static in terms of their island and arctic lo-

cations, and their prime mission is in support of USAF air routes. These squadrons are also mobile, but not in the same degree or for the same basic purpose as those training with combat forces. To weld these squadrons together into a cohesive force structure, two Deputy Commanders have been established; one in the Pacific and one in Europe, to supervise the squadrons in each area. These deputies are also special staff advisors to the overall commanders in the area as far as Rescue matters are concerned. They act for the Commander, Air Rescue Service, in their respective areas and exercise operational control of their units under most circumstances.

GLOBAL PASSES ITS FIRST TESTS

Since this latest reorganization, the limited experience available indicates that the global concept is practical and feasible. During 1958, ARS was in the process of shifting over to the new global concept when crises in Lebanon and Formosa required immediate concentration of a variety of forces in preparation for imminent trouble. The Rescue operations centers in each area monitored these movements and quickly positioned our Search and Rescue capability to cover the combat forces deployed to the area. Aircraft were moved about like checkers from the ZI and Europe to the Pacific and Mediterranean to furnish "Duck-butt" route coverage and support for tactical aircraft and air transport winging to the trouble zones. Rescue's global concept passed its first tests.

On a relatively small scale, Rescue's participation in Operation Deep Freeze, planned for the Fall of 1959, will be another demonstration on how forces can be juggled to meet a variety of contingencies. It is planned to send two SC-54's from the 64th Air Rescue Squadron to augment PACROC, which is committed to send two of their '54's to Christchurch, New Zealand, for a three month period. These '54's will supply cover for the C-124 *Globemaster* transports between Christchurch and McMurdo Sound in the Antarctica. In addition, they will participate in any search missions or rescue missions that may develop in the course of operation. In this case the Rescue aircraft would stage out of McMurdo Sound — our first efforts on earth's southern-most continent.

THE CONCEPT EXPANDS — THE PICTURE BROADENS

Up to this point the philosophy of the Rescue mission has concerned itself almost exclusively with the saving of lives — the recovery of personnel. From the earliest this has been the fundamental purpose underlying the Rescue concept — its *raison d'être*. Undoubtedly, it will continue to be in the future. However, something new's been added.

In August of 1958, Headquarters USAF recognized that future weapons systems dictate a continuing and expanding need for recovery of personnel and important paraphernalia now identified as materiel, hardware or just plain "things." In September of 1958, a conference was held at Orlando Air Force Base, Florida, to determine the need for, and the requirements of a USAF aerial recovery force capable of locating, rendering aid to, and retrieving personnel and such equipment as nose-cones and capsules. Conferees attending the 30 September 1958 conclave represented Headquarters USAF, Air Research and Development Command, Strategic Air Command, Tactical Air Command, Military Air Transport Services and Air Rescue Service. The conference set a precedent in that it marked the first time such a group had ever met to discuss the complex problem of the recovery of missiles, capsules and other devices. They planned for today and a "tomorrow" more than a decade away — a significant and thought-provoking period of time.

On 12 November 1958, Air Rescue Service submitted a plan to higher headquarters outlining the concepts, the characteristics of the required force and the qualitative operational requirement for a recovery system for man-in-space operations. Granted, this plan was not definitive; it did not discuss the *exact* forces required or the deployment of these forces. These specifics are being worked on now. But this plan marked the first time that ideas were put down on paper relative to the sort of a force needed to participate in a man-in-space operational situation.

Since the 30 September and 12 November actions, Air Research and Development Command, the operational "users" of new weapons systems, have endeavored to come up with their requirements. A study had now been undertaken by Air Rescue Service to state the need for, to identify the recovery mission, to define its requirements, and to recommend appropriate USAF action for the realization of a recovery force structure that will give Air Force the support it needs for future weapons systems and space programs.

NEW BUSINESS EXPECTED TO BOOM

ARS is definitely in the recovery business. A new draft of AFR 20-54 delegates to Rescue future responsibility for searching for, locating and retrieving personnel and/or materiel in support of USAF global air and space operations.

International attention was focused on this aspect of the Rescue mission during large scale efforts to recover the capsule ejected from the USAF *Discoverer II* rocket in April 1959. Detachment three, the European Recovery Operations Center (EUROC), utilizing the new global concept called in aircraft from the 53rd, 54th, 57th and 67th Air

Rescue Squadrons in an all out effort to locate this important vehicle from outer space. With an advanced base at Bodo, Norway, the Mission Commander, Colonel Theodore P. Tatum, even went to the extent of hiring two Norwegian helicopters and airlifting them to Spitzbergen for the final stages of the search. Although the search area was covered completely and thoroughly, the nose-cone was never located. The quest was enormously complicated by velocity error of the missile, plus failure of the release mechanism in the rocket itself to function at the precisely, pre-calculated instant. These malfunctions caused the *Discoverer II* capsule, instead of following an easily plotted trajectory, to hurtle far from the original pre-planned impact area. Like Longfellow's arrow, it "Fell to earth, I know not where." Complex re-calculation of the area of probable impact pointed to the Spitzbergen area and reported sightings of a descending object believed to be the capsule in that area triggered the search.

Rescue aircraft are currently involved in tests concerned with Project Mercury. When the first astronaut is hurled into space on man's most epic-making voyage, in all probability it will be the Air Rescue Service that will be called upon to locate and recover the capsule. These are but indicators. It is envisioned that the next decade will place ever-increasing emphasis on the use of Air Rescue Service as an aerial recovery force.

ENVOI

The mid-20th Century is a new, breath-taking age of discovery — the discovery of interplanetary space. It is built on a quest for knowledge — knowledge that will one day provide man sailing directions in the limitless, three dimensional sea that spreads infinitely above him. Man's progress in space depends on the outcome of complex research projects now being conducted at many levels. For the moment, the great emphasis is on sending not man but "black boxes" into space. Humans are too heavy, bulky, ineffective, delicate and — in America — too priceless for the first inquisitive explorations. But it won't be long. In 1960 Project Mercury — the U. S. man-in-space program — becomes airborne. The first astronauts will be rocketed aloft aboard Redstone missiles and by 1961 a Mercury astronaut will have the dubious pleasure but unqualified honor of being fired into orbit. This is, of course, predicated on the success of each and every meticulously plotted intermediate experiment aimed at assuring his safe return.

Before the awesome step is taken hurling man into space, much knowledge must be gained if his safe return is to be assured. Many of the "black boxes" need not return home "alive." If they have successfully radioed their findings back to earth, they can vaporize in a planet's

atmosphere or wander into space never to return and they will have served their purpose well and completely.

But to gain certain knowledge that will assure our astronauts' safe passage through the reaches of space, many of these objects must be returned safely and once returned, recovered. For the present, this fact offers Air Rescue Service, with its newly assigned recovery mission, an opportunity to play a vital role in man's never ending and vital search to learn more and more about the universe in which he lives and the space in which he hopes — in the not-too-distant future — to travel. We now exist that others may learn *and* live.

When the capsule bearing our first astronaut occilates gently beneath the parachutes which lower it back to earth and it settles toward the southern sea, Rescue will be there. In man's greatest exploratory adventure, Rescue will have played again its traditional life saving role. Somehow this seems exactly as it should be.



Appendix One*



“Greater Love Hath No Man Than This . . .”

AIR RESCUE SERVICE BATTLE DEATHS KOREAN CONFLICT

<i>Name</i>	<i>Grade</i>	<i>Date of Death</i>
HAGERTY, Edward D.	CPT	31 Jan 1951
KOHFIELD, Eugene C.	1LT	13 Sep 1951
LEAR, Leslie W.	CPT	25 Jun 1952
PARKER, Robert B.	1LT	28 Nov 1950
REID, Lawrence A.	PFC	13 Sep 1951
WILK, Raymond C.	1LT	19 Feb 1952
TOVSEN, Donald E.	TSG	31 Jan 1951
WILKERSON, Desmond	PFC	28 Nov 1950

AIR RESCUE SERVICE — DEATHS

1950

<i>Name</i>	<i>Grade</i>	<i>Date of Death</i>
BURRELL, Eldon J.	1LT	4 Jul 1950
SCHLOTZHAUER, M. R.	SSG	4 Jul 1950
WATSON, Dana G.	PFC	17 Oct 1950
WISE, Nuison A.	SSG	17 Sep 1950

1951

<i>Name</i>	<i>Grade</i>	<i>Date of Death</i>
ALDEN, Frank A.	CPT	8 Sep 1951
ALLEN, JOE K.	CPL	8 Sep 1951
CULBERSON, W. O.	SSG	10 Apr 1951
HOLLISTER, George W.	SSG	10 Apr 1951
HUBBLE, James C.	1LT	14 Jan 1951
KING, Robert E.	TSG	7 May 1951
LITTLE, Andrew J., II	PFC	19 Mar 1951
NEVIUS, Charles W.	CPT	10 Apr 1951

* This list of Rescue men who died in line of duty was compiled by Headquarters USAF, Directorate of Statistical Services. Air Force records kept prior to 1950 do not indicate organization of assignment at time of death. These omissions and any others that may exist are unavoidable.

OLTE, Adrian
PITTS, Robert T.
ROSS, Robert S.
SANDLIN, Clifford E.
SIMPSON, George W.
VON WERNE, August H.
WHIPPLE, John H.
WOOD, George H.
YAPUNICH, Stephen

PFC 12 Dec 1951
SGT 10 Apr 1951
1LT 4 Sep 1951
SGT 10 Apr 1951
PFC 1 Aug 1951
SGT 28 Feb 1951
SSG 11 Oct 1951
CPT 10 Apr 1951
SSG 10 Apr 1951

1952

<i>Name</i>	<i>Grade</i>	<i>Date of Death</i>
BAKER, Marion G.	SSG	19 May 1952
BALL, Alan S.	TSG	19 Jan 1952
BARLOW, Harry E.	1LT	10 Dec 1952
BATSON, Eugene E.	A2C	18 May 1952
BOONE, David L.	1LT	19 May 1952
BOOZER, James V.	1LT	10 Dec 1952
CLINE, Charles A.	A2C	24 Nov 1952
CONLON, John P.	1LT	19 May 1952
COOMBS, William N.	CPT	22 Nov 1952
DEROTH, John A.	SGT	19 Jan 1952
ECKLEY, Albert D., Jr.	SSG	9 Jul 1952
HANSEN, Hans Eugene	1LT	10 Dec 1952
HENNINGS, Ronald F.	A1C	17 May 1952
HOAR, David B.	A1C	8 Sep 1952
LANKIEWICZ, S., Jr.	CPT	19 Jan 1952
MARTIN, Howard E.	A3C	22 Nov 1952
MATEJA, Richard W.	MSG	10 Dec 1952
MAY, Eldon Earl	A2C	18 May 1952
MC CREARY, Jerry R.	SSG	18 May 1952
MUNRO, Sidney F.	CWO	29 Jun 1952
NEELY, Edgar D.	MSG	4 Dec 1952
OLSON, Allyn Boyd	A2C	10 Dec 1952
PONIKVAR, John E., Jr.	CPT	22 Nov 1952
POTRAS, Frederick R.	SGT	18 Mar 1952
RYAN, Kenneth M.	1LT	19 May 1952
SEALE, John F.	A2C	11 Jul 1952
TURPEN, L. D.	A2C	6 Jun 1952

1953

<i>Name</i>	<i>Grade</i>	<i>Date of Death</i>
DAWDY, John R.	MSG	3 Feb 1953
HUBBARD, Maynard G.	MAJ	13 Feb 1953

KELLEY, Dan F.	A2C	13 Feb 1953
McGAHAN, Harold R.	CPT	13 Feb 1953
NEUBARTH, Paul R.	MAJ	13 Feb 1953
PINNEY, Ernest H.	A1C	13 Feb 1953
COGGINS, James E.	A3C	18 Mar 1953
ERRICO, Robert W.	1LT	18 Mar 1953
JONES, Sammy O.	A3C	18 Mar 1953
KERR, Michael, Jr.	A2C	18 Mar 1953
KIMBROUGH, David E.	SSG	18 Mar 1953
MONTGOMERY, Robert J.	A1C	18 Mar 1953
NULL, Roger Dean	1LT	18 Mar 1953
QUINN, Francis X.	CPT	18 Mar 1953
RASH, David Elton	A1C	18 Mar 1953
RICHARDSON, Matthew	SSG	4 Mar 1953
ROY, William Allen	CPT	18 Mar 1953
VAN DEREN, George	SSG	31 Mar 1953
ALFORD, Johnny A.	MSG	28 Apr 1953
HESSOM, Joseph E., Jr.	1LT	6 Jun 1953
BUCHANAN, Clyde J.	MSG	3 Jul 1953
LEONARD, Frank W.	CPT	12 Jul 1953
HERON, Charles L.	A2C	27 Sep 1953
PIERCE, Robert S.	1LT	1 Sep 1953
REED, Roddy W.	CPT	27 Sep 1953
SELL, Leroy M.	CPT	27 Sep 1953
FRANCIS, Buell E.	1LT	20 Oct 1953
GRIMES, Kenneth J.	A1C	20 Oct 1953
BURKS, Edward E.	CPT	17 Nov 1953
HAVRILAK, Edward V.	SSG	15 Nov 1953
LANNING, William L.	1LT	15 Nov 1953
LINDSEY, William D.	TSG	15 Nov 1953
MOORE, Philip E.	SSG	17 Nov 1953
TROSTLE, John H.	CPT	15 Nov 1953
WEAKS, William T.	1LT	18 Nov 1953
BAIRD, Mack A.	SSG	19 Dec 1953
PETTAY, John O.	LTC	31 Dec 1953
WARE, John T.	TSG	19 Dec 1953

1954

<i>Name</i>	<i>Grade</i>	<i>Date of Death</i>
COLEMAN, Henry A.	CPT	12 Feb 1954
HOGAN, John C.	SSG	26 Apr 1954
ANDERSON, Donald A.	A2C	3 Jun 1954
ELLIS, Dale F.	1LT	3 Jun 1954

KIMBERLING, Paul E.	CPT	10 Jun 1954
McKELWAY, St. Clair, Jr.	1LT	3 Jun 1954
PREMENTINE, George P.	A2C	3 Jun 1954
BABIAR, Edward A.	MSG	2 Jul 1954
BRUDER, Albert R.	WO2	22 Jul 1954
CRANMER, Vernon E.	A1C	28 Jul 1954
SCHNEIDER, Richard I.	2LT	28 Jul 1954
WRIGHT, Stanley, Jr.	1LT	28 Jul 1954
SMITH, Gilbert N.	SSG	15 Dec 1954

1955

<i>Name</i>	<i>Grade</i>	<i>Date of Death</i>
SMITH, Joseph C.	LTC	18 Jan 1955
CALEBAUGH, David W.	1LT	27 Jan 1955
CALLAWAY, Edgar W.	SSG	18 Jan 1955
HARDIN, Cullen D.	CPT	18 Jan 1955
BONNEAU, Urban J.	CPT	22 Feb 1955
MADARIK, Jay A.	A1C	9 Mar 1955
RAMIREZ, Freddie	SSG	9 Mar 1955
TROPPMAN, Charles R.	1LT	9 Mar 1955
ZIEGLER, John C.	MAJ	9 Mar 1955
ADAIR, Ralph E.	1LT	10 Jun 1955
CALLANDER, Kennet R.	A1C	10 Jun 1955
ERBSTOESSER, Je. L. O.	A1C	10 Jun 1955
GAUDINO, Richard P.	1LT	10 Jun 1955
HABERKORN, Peter J.	SSG	10 Jun 1955
HERTZOG, Gene B.	2LT	10 Jun 1955
MOORE, Walter E.	A1C	10 Jun 1955
PITTS, Robert W.	A2C	8 Jun 1955
SCOFIELD, Lansing G.	1LT	10 Jun 1955
TUMBLESON, Lyle D.	1LT	10 Jun 1955
WRIGHT, Johnny L.	TSG	10 Jun 1955
KONING, Robert A., Jr.	A2C	29 Jul 1955
ABRAHAMSON, Cliff S.	1LT	19 Aug 1955
BURKE, Frank L., Jr.	CPT	19 Aug 1955
DUNN, Charles F.	MAJ	19 Aug 1955
ELLIS, Larry L.	2LT	25 Aug 1955
HUBBARD, John N.	1LT	25 Aug 1955
JOHNSON, Frederick H.	A1C	19 Aug 1955
KIRK, Jack H.	A2C	25 Aug 1955
KIRVEN, Eugene T.	CPT	19 Aug 1955
McMULLAN, Patrick J.	CPT	19 Aug 1955

MOORE, Alvin E.	SSG	19 Aug 1955
SEWELL, Raleigh R.	A2C	25 Aug 1955
WANN, Danny B.	1LT	24 Sep 1955
DICKENS, Thomas L.	A2C	24 Sep 1955
FUNKE, Richard A.	1LT	24 Sep 1955
HUFFMAN, Henry C.	A2C	23 Sep 1955
KELLY, Thomas J.	1LT	24 Sep 1955
KINNIELL, Bobby L.	A2C	24 Sep 1955
LEVITT, James H.	A1C	24 Sep 1955
MINDRUP, Marvin	2LT	24 Sep 1955
NELSON, Donald L.	A1C	24 Sep 1955
HAWKINS, Roy C.	TSG	21 Oct 1955
ALLEN, Norman R.	A2C	7 Nov 1955

1956

<i>Name</i>	<i>Grade</i>	<i>Date of Death</i>
LAMBERTON, William L.	A2C	4 Jan 1956
BINGHAM, Norman G.	2LT	9 Feb 1956
FONDA, Victor M.	2LT	16 May 1956
HENDERSON, William H.	MSG	10 May 1956
HINES, Charles M.	MSG	14 Jun 1956
MULLIGAN, Charles D.	A2C	2 Jun 1956
HULOCK, Frank L.	SSG	4 Aug 1956
JONES, Dennis W.	A3C	31 Aug 1956
SCOFIELD, Brian W.	1LT	23 Oct 1956
AHUNA, James T.	A2C	19 Dec 1956
BEST, Robert E.	1LT	29 Dec 1956
STOREY, Leslie J.	MSG	20 Dec 1956

1957

<i>Name</i>	<i>Grade</i>	<i>Date of Death</i>
ESSEX, Kenneth C.	A1C	2 Feb 1957
FRITTS, Richard C.	A3C	28 Mar 1957
HENDRICKSON, William	1LT	28 Mar 1957
LOAGUE, William C.	CPT	23 Mar 1957
VANDENHOEK, William J.	A1C	6 Mar 1957
WILLIAMS, Walter S.	A2C	28 Mar 1957
McCAULEY, Reese S., Jr.	1LT	22 Apr 1957
DEERE, Houston B.	SSG	23 Sep 1957

1958

<i>Name</i>	<i>Grade</i>	<i>Date of Death</i>
GREENE, James A., III	1LT	7 Oct 1958
DE PEW, John H.	A2C	24 Jul 1958
DE WALD, Harry J.	1LT	24 Jul 1958

MUSTAIN, John B.
 SULLIVAN, Eugene
 COLEMAN, Daniel N.
 CULVER, Everett R.
 WILSON, Paul H. D.
 KELLER, Jeffrey L.
 MARKET, Joseph L.

SSG	24 Jul 1958
2LT	24 Jul 1958
TSG	5 May 1958
TSG	5 May 1958
1LT	5 May 1958
A3C	16 Feb 1958
A1C	14 Feb 1958



Appendix Two



World War II Rescue in the South Atlantic and Caribbean Areas

HEAVY TRAFFIC AT THE END

EXCEPT FOR THE PRESENCE of a few crash boats, Army Air Force coverage in the South Atlantic was non-existent until the summer of 1944 when a full-time Wing Rescue Officer was assigned to the Operations Section of the Air Transport Command's South Atlantic Division. Before this time, the burden was carried by operational units of the AAF and elements of the Navy. In July 1944 a plan was carried out which called for the establishment of rescue bases at Natal, Ascension Island, and Belem. One OA-10 at each base was assigned to supplement the work of the rescue boats.

When the war ended in Europe it was decided to transport troops from the European and Mediterranean Theaters to the United States by air, via the South Atlantic route, and to ferry thousands of combat bombers as well along the same air lane, the coverage was strengthened. The Navy stationed six destroyers along the way to take weather observations, monitor all traffic and relay messages. In addition, the Navy furnished three blimps. The AAF rescue units stationed a total of five B-17's, four OA-10 *Catalinas* and four crash boats along the sea lanes. Rescue units operated from Recife, Brazil, and the Brazilian Island of Fernando de Noronha, as well as Natal, Ascension Island, and Belem.

The operation was a success. During June, July and early August a total of 52,449 troops were transported through the area and 4,076 aircraft passed through Natal. On 11 August, as it became evident that the war in the Pacific was drawing to a close, the project was suspended.

SPREAD THIN BUT EFFECTIVE

Rescue in the Caribbean was dependent primarily on surface vessels and aircraft from operational units. As late as December 1944 there were only four aircraft in the entire theater which were specifically assigned to rescue work. The Caribbean rescue organization possessed two OA-10's, another old amphibian, and a B-18 bomber. Surface craft consisted of eight 63-foot boats, one 45-foot boat, and two 22-foot boats. Nevertheless the unit accomplished its assigned task well. An extensive communica-

tions net was established containing 14 Detection Finder fixer stations so located as to provide radio coverage over the entire area.

When a plane was reported in trouble or missing, the location was plotted and surface craft or airplanes were dispatched to the scene. AAF operational units as well as the facilities of other services operating in the Caribbean — RAF and U.S. Navy — were always ready to furnish aid when possible. In one instance when a B-25 was reported missing an 11-day search was abandoned only after debris and a liferaft from the missing plane were located on an island near Trinidad.

When hostilities came to an end in 1945, the concept of air rescue was firmly entrenched in the planning of American Air Force leaders. Although the requirements of war had limited its application to some extent, the operation had come a long way from the narrow concept of saving and returning fighter and bomber crews from the sea. In the non-combat areas, aerial rescue had been extended to aid native populations, to distressed ships at sea, and to sick and injured personnel in isolated areas. The airplane as an instrument of mercy had come into its own. The decade to follow was to see this broadened concept applied.

Appendix Three



The Quest for Perfection

THE MOTHER/DAUGHTER APPROACH

IN RESCUE, minutes mean lives and the Rescue mission has always demanded an around-the-clock, all weather capability in which speed getting into action is of literally vital importance. Since the SC-47 has been phased out of the Rescue inventory, four different aircraft are currently used to prosecute the global Rescue recovery mission — the SC-54, the SA-16, the SH-19 and the SH-21. No one of these vehicles is in itself satisfactory. In other words, no one of these vehicles can do the job as completely and as expeditiously as it should be done. Either they are too slow or they lack the range or endurance or they cannot operate in all areas and off all terrain and the open sea. Maintenance, training and support problems are complicated by the present necessity of operating this heterogeneous group of aircraft.

Ideally, one aircraft capable of vertical takeoff and landing, possessing a high speed potential, long-range and the ability to haul a heavy payload could perform the total mission. At the present state of the art, this happy combination cannot be achieved. Seeing a need for steps to be taken in this direction, Rescue, in July of 1957, went out with a qualitative operational requirement (QOR) which set forth what has become known as the Mother/Daughter Concept. It was proposed that a system in which a relatively small VTOL aircraft carried by a relatively large, high speed, multi-engine, conventional aircraft be melded together to perform every conceivable aspect of the total Rescue recovery mission. The proposed combination is envisioned to be capable of accomplishing the mission under all climatic conditions and from any area or surface in the world.

The Lockheed C-130, *Hercules*, is presently considered the one aircraft in existence which most closely approaches the requirements for the Mother aircraft. Several outstanding aircraft companies worked out approaches to the complex and interesting problem of developing a Daughter aircraft that could be launched and recovered from the larger

aircraft while still in flight. Vertol, Bell, Grumman and Lockheed are among the top-notch firms that submitted detailed proposals which sought to meet the very difficult criteria that ARS set forth. Their proposals, depending on how one views them, border on the realm of either Buck Rogers or Rube Goldberg.

Perhaps the most interesting proposal to date was submitted by the Buffalo division of Bell Aircraft Corporation. Their proposal, designated the D-190, utilizes a ducted fan propulsion system and is to be used as a parasite in conjunction with the C-130, Mother aircraft. It is of mid-wing configuration, retractable, tricycle gear and has a low twin empennage to facilitate stowage beneath the Mother aircraft. Powered by two turboprop engines it has a crew of two and can carry as many as five passenger-survivors. It utilizes an amazingly simple and effective reaction control system, to achieve the critical hovering-transitional phases of flight.

A typical mission would involve Mother and Daughter taking off separately, effecting rendezvous, where upon the Mother plane will transport the parasite Rescue vehicle to the scene of the operation. The 190 will then detach, perform the rescue and return to the carrier aircraft. If necessary, refueling can be accomplished and numerous pick-ups effected. Upon completion of this rescue mission it will be retrieved and the crew will transfer to the larger C-130 for the long ride home. The hovering capability of the D-190 would enable it to accomplish, satisfactorily, its Rescue mission in a variety of difficult situations. It is designed to be able to pick up survivors in otherwise inaccessible areas and from the open sea. Its development has currently progressed to the mock-up stage.

An interesting sidelight is cast on this program, by a letter dated 1 June 1959, from General Thomas I. Du Bose to Lieutenant General William H. Tunner, Commander, MATS. The letter reads in part, "The soundness of our Mother-Daughter concept of a recovery system took a giant step forward this month when in the presence of my Operations people, the capability of the DOAK VZ-4 (Model 16) to convert from VTOL to normal aircraft flight was successfully demonstrated at Edwards AFB. I was particularly impressed by the ducted propeller concept of thrust used by DOAK when I saw the VZ-4 in work one year ago. The lack of unprotected and moving external parts makes this aircraft's configurations particularly suitable for aerially hooking up with a carrier (Mother) aircraft. With the successful flight of this VTOL aircraft the only grey R & D area of the Mother/Daughter concept is the aerial hook-up of the two aircraft . . . Therefore, I

am going to propose to USAF that we investigate this area by wedding the VZ-4 to a C-130, and with a minimum expenditure of R & D funds, physically prove the entire concept of the Mother/Daughter recovery system."

Over the years, Rescue has had to make do with numerous and various types of aircraft which have been modified and adapted to particular, limited emergency conditions. During the first ten years of organized Rescue, at least 18 different aircraft types were phased in and out of service. Each was suited, for a while at least, to perform one small facet of the overall mission. None was able to do the entire job. Even today, as has been pointed out, no single aircraft exists which is capable of accomplishing all aspects of the total ARS mission. Until such time as this ideal aircraft can be built, efforts are being made to solve the problem with the materials and knowledge we now possess.

The Mother/Daughter concept is but one approach. It is indicative of the fact that current thinking is in terms of one overall recovery system capable of doing the complete job. Since USAF has now recognized the need for a rescue and recovery function in support of its future weapons systems and space projects, great hope is held for progress in this direction.



Appendix Four



High in the Wild Blue Yonder

HIGH ALTITUDE SAMPLING PROJECT (HASP)

Late in 1957 the Air Force in conjunction with certain civilian scientific organizations initiated a program to make a systematic radio chemical analysis of the upper atmosphere. "Crow Flight" was the code name assigned to the program. As a vehicle to carry the various sampling mechanisms, the Lockheed U-2 aircraft was selected. The U-2 is an unarmed single-engine jet aircraft with a crew of one and a very high altitude capability. Its range and altitude performance are consistent with the requirement of the research program. It has tandem landing gear and out-rigger wheels and struts — sometimes referred to as "pogo sticks." These struts drop off when the aircraft becomes airborne. Landing is accomplished with the aid of a drag chute. After the landing roll, wing tip skids prevent damage to the aircraft.

Because certain of these sampling missions are flown over terrain which includes sub-arctic, water and tropical areas having a minimum of emergency landing fields and navigation aids, Air Rescue support was considered necessary for each mission. To provide this support the 2157th Air Rescue Squadron was reactivated on 31 January 1958, but redesignated the 64th on 18 March 1959, and made a permanent organization. Using SC-54 type aircraft, the 64th has flown more than 9,000 accident free hours in support of "Crow Flight." Most of this time has been logged over hazardous terrain and under conditions far from ideal.

During the first phase of Operation "Crow Flight," the 64th was based at Ramey Air Force Base, Puerto Rico, with a Detachment at Ezeiza near Buenos Aires, Argentina.

HASP authorities believe that the air sampled along the meridional corridor will be representative of the entire atmosphere as long as the sampling is carried out over a sufficiently long period of time. Eventually they feel the whole atmosphere will be carried through the corridor by normal zone circulation. However, to prove the validity of this theory the U-2 aircraft were moved to Texas in July and August 1959, to continue their operations along another meridian. At the same time, the 64th Air Rescue Squadron moved to Bergstrom Air Force Base, Texas, by Air Van to continue support of this program.

Appendix Five



Testimonials

From the literally thousands of letters written to Air Rescue units and individuals over the years expressing gratitude for various accomplishments, several are included here as indicative of the many.



"The highly developed skills of this efficient organization were severely tested during such emergencies as the Bethel flood in May 1956, the KC-97 incident over Cook Inlet in August 1956, the B-29 crash on Bald Mountain in December 1956, the Ice Skate Project in March and April 1957, the B-29 crash at Granite Peak in November 1957, and the air evacuation of Little Diomed Island in December 1957. During these operations, the lives of many were contingent upon the calibre of job accomplishment by the men of the 71st Air Rescue Squadron. The demonstration of such ability has contributed highly to the morale of all airmen flying in the Alaskan Theater." — From a letter from Kenneth H. Gibson, Brigadier General, USAF, Commander, Alaskan Air Command to the Commander of the 71st ARSq.



"We wish to call to your personal attention the outstanding achievements of the 74th Air Rescue Squadron of Ladd Air Force base, in coming to our assistance when our plane crashed near Anaktuvuk Pass in the Endicott Mountains on August 18, 1953.

"It is quite certain that without their timely aid several of us would not be alive today. The entire squadron is entitled to our most heartfelt thanks but there are three men who we feel should be given special mention: Capt Dave Gardner, the helicopter pilot, and S/Sgt Charles Chapman and A/IC Walter Atkins, Paramedics.

"Chapman and Atkins parachuted to the scene of the crash on a jagged mountain peak, landing on broken rocks at an altitude of 5,000 feet at the risk of their own lives. It is almost miraculous that they were able to land on that terrain without being seriously injured, especially so because they had previously made a jump the same day . . .

"You have under your command an organization of which you can be very proud." — From a letter by Mr. Fred J. Weiler to Lt Gen J. H. Atkinson, then Commander of the Alaskan Theater.

"I wish to express my sincerest thanks for your cablegram of condolence in behalf of your good self and your men in the USAF Air Rescue Service on the tragic passing of President Ramon Magsaysay. It has helped greatly to assuage my own deep personal sorrow over his untimely passing . . .

"Please know that we also deeply appreciate the pledge and rededication of your unit for the continuance of your humanitarian services to the Filipino people in memory of our departed President." — From a letter to General DuBose from Carlos P. Garcia, President of the Philippines dated 3 April 1957.

☆ ☆ ☆

December 28, 1955, Tokyo

Dear Commander,

This morning I have seen a photograph of relief work of your Group and read the news with deep emotion.

I hereby express my heartfelt thanks for your men who saved Japanese seamen from a standpoint of love for humanity.

I am not a poet but the following is my improvisation. Please accept my faithful gratitude for your brave behavior.

A rain-storm with thirty-knot gale,
Rush about the northern Sanriku Sea,
On the deck of the Tanda Maru broken in two,
Wait for helping hands covering with rough waters,
Tragic scene is beyond words.
Then a helicopter approaches braving the gale,
A rope of rescue down swaying by the wind,
Cling to a life raft for their lives,
Thus fourteen Japanese seamen were saved,
Ah, calm and heroic Lieutenant Gates.

Sincerely yours,
Kikuju Komori

☆ ☆ ☆

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

"During the flood disaster in the Netherlands in 1953 Colonel Rizon and the men under his command performed most excellent work here, for which they will always be remembered by the people in the Netherlands with warm gratitude.

"The Air Rescue Service have 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.

"It is a wonderful thought and a symptom of our way of life that part of the Air Forces should be dedicated to this purpose: the saving of human beings in distress."

Letter from Bernhard, Prince of the Netherlands, dated 21 February 1956.



"My wife and I feel that we must ask you to convey our grateful thanks to the airmen of the US Air Sea Rescue Service in the Far East.

"Our eldest son is a Naval Air pilot on H.M.S. Ocean (he also served in Glory). On three occasions since February of this year, your pilots have – within a matter of minutes – picked him up from enemy waters after his fighter-bomber had been crippled and forced down in the Korean fighting.

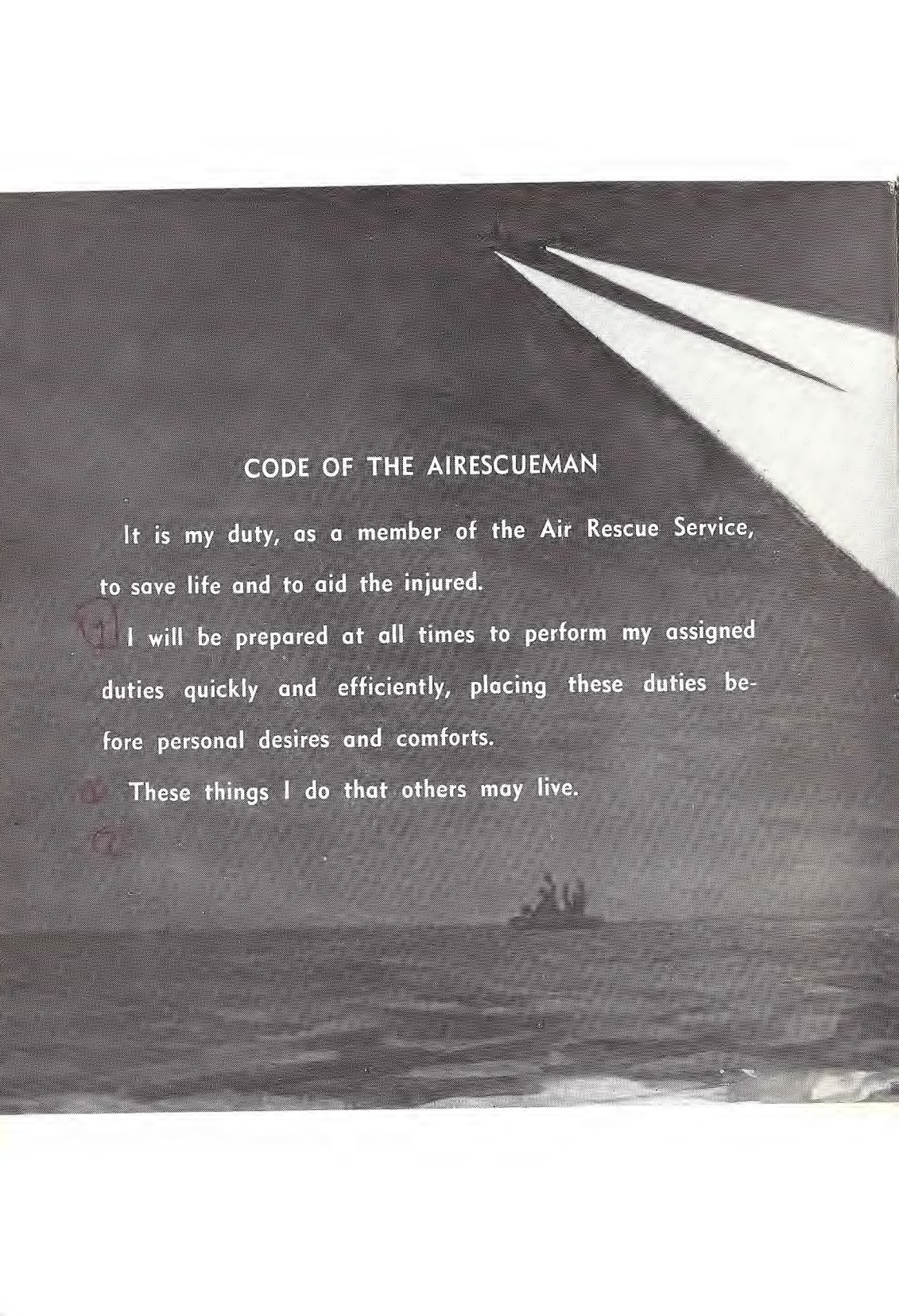
"Once he had to crash-land on the beach of a tiny island in the Yellow Sea; another time his aircraft was forced down on the sea and sank almost immediately. On the third occasion, on the 4th June last, he was hit and in flames from head to tail before he bailed out and dropped in the sea just off the Korean Coast.

"The helicopter in this case made a daring rescue just 25 yards off the enemy beach. In addition he has been given expert medical attention, clothing and hospitality in ships of the US Navy.

"A grateful mother and father say thank you." – Letter to The Secretary of the United States Embassy, London, England, dated 15 July 1952, from D. W. J. Swanson of Cornwall, England.







CODE OF THE AIRESCUEMAN

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 be-
fore personal desires and comforts.

These things I do that others may live.

