

AIR RESCUE SERVICE



FIRST ANNUAL PARARESCUE COMPETITION FOR THE DON FLICKINGER TROPHY

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ORLANDO AFB, FLORIDA

THE DON FLICKINGER TROPHY

A DEDICATION

In 1808, high over Warsaw, Poland, a balloon caught fire. The man it was carrying jumped, jerked and prayed—and reached the ground alive. His name was Jordaki Kuparento. His was the first life to be saved by a parachute.

Since then, countless thousands of airmen owe their lives to the silken canopies that have floated them safely to earth when the machines that carried them aloft failed.

In early August 1943, Lt Colonel Don Flickinger, Sergeant Harold Passey and Corporal William MacKenzie jumped from an airplane flying over an uncharted mountainous area near the China-Burma border. They, too, jumped to save lives but the lives they jumped to save were not their own. They jumped to the aid of twenty souls who had been forced to bail out of a crippled C-46 flying the dangerous run over "the Hump."

News commentator Eric Sevareid was one of the twenty to whose aid Flickinger and the two medics jumped. He stood on the mountain below and watched the plane carrying them make its run—black against the storm clouds. He watched what he presumed to be three bales of cargo tumbling out and three 'chutes open. He later wrote that he, "wondered what could be so important as to necessitate this late trip. Somebody let out a yell—the bales were growing legs." The leg-sprouting bales were, of course, Flickinger, Passey and MacKenzie.

In his book, "Not So Wild a Dream," Sevareid pays the trio a beautiful and eloquent tribute. "Gallant," he writes, "is a precious word; they deserve it."

Flickinger was—and is—a doctor; Passey and MacKenzie, medics. Their jumps pioneered a new technique in the field of aerial rescue, a new concept concerning the use of parachutes for saving lives.

The pararescue men of the Air Rescue Service carry on the heroic tradition which Flickinger, Passey and MacKenzie began. Early this year, for example, two parachutists of the Air Rescue Service, Technical Sergeant Elliott Holder and Staff Sergeant Robert Christensen, jumped from an aircraft flying far north of the Arctic Circle. They landed on the Polar ice-cap as a storm closed in around them. Before they were able to collapse their 'chutes they were dragged hundreds of yards across the jagged ice, one almost to his death.

They jumped near the wreckage of a Navy patrol bomber that had crashed on the ice-cap several days earlier. Faint radio signals of undetermined origin, indicated that someone might have survived the crash. Complete evaluation of the wreckage from the air was impossible. There were no areas nearby suitable for landing an aircraft or helicopter. They jumped to determine whether or not there were survivors and, if there were, to bring them aid.

They found that none of the nine crew members had survived the crash but this grim discovery in no way alters the fact that Holder and Christensen jumped to save lives. They spent 12 days on the ice-cap in sub-zero temperatures sustained chiefly by their courage and their knowledge of arctic survival techniques. That the men they jumped to save had all met instant death when their plane plowed into the icy mountain cannot detract from the heroism of the two Air Rescuemen. Their selfless act was in the great tradition.

The heroism of Holder and Christensen is not uncommon. It is, in fact, typical of this special breed—the pararescue men of the Air Rescue Service. In a proud organization devoted to its motto, "that others may live," they are of the elite. It is fitting that the trophy symbolic of supremacy among the pararescue teams of this world-wide rescue organization be named the Don Flickinger Trophy.

PARARESCUE PIONEER

-A Personal Account by Brig. Gen. Don Flickinger of
His Historic Jump into the Wilderness-

During the spring and summer of 1943 (operating in the Assam area with headquarters at Chabua - India-China Wing Air Transport Command, we formed a small jungle rescue unit composed of medical and other personnel picked especially for their physical stamina, resourcefulness and knowledge of the jungle, and general survival procedures to proceed into the jungles over land and rescue downed aircrews. Several rescue missions of this type were successfully carried out, aircraft being used to transport the team to the landing strip nearest the site. Later, the aircraft would return to pick up the team and rescue personnel. Various supplies were air dropped to the expedition as weather and/or enemy action permitted.

Provisions were made early for air drop of a rescue team to a site inaccessible by the overland route and a system of signalling was developed which allowed survivors to signal to the search plane concerning the status of their party and their needs - especially as regards medical care.

On approximately 3 or 4 August 1943, a C-46 carrying a total of 21 crew and passengers got in trouble and parachuted out everyone after radioing an SOS. Among the passengers were civilian OSI and State Department officials enroute to China, one of whom had intimate knowledge of the war plan for the coming North Burma campaign. One or two high ranking Chinese army officers also were aboard.

The Commanding General of the India-China Wing (General Alexander) directed that we establish contact immediately with the survivors and institute necessary rescue procedures. We had no accurate plot on the crash and had only a general idea

from their last position report where the plane might be, namely in so-called uncharted territory on the map in the northern portion of the Naga Hills. It appeared that the most expeditious means of getting to the survivors was by paratroop into the area.

I decided to volunteer for the reason that I was the only medical officer who had made a previous parachute jump (1941 in Hawaii - testing sea rescue and survival gear and techniques). Two medical corpsmen, Sergeant Harold Passey and Corporal William MacKenzie, volunteered also and the three of us were airlifted by C-47 flown by Major George Katzman (now of American Airlines) to the search site approximately 150 - 200 miles from our advanced base at Chabua.

After 3 - 4 hours of search we finally picked up a ground signal display on the side of a hill in the jungle on a small plateau near some native huts. The signal read "need urgent medical care." Since the position indicated at least a ten or twelve day trip over land through unexplored head-hunter territory, the decision was easy to make. I told my medical corpsmen that I did not feel that they should jump with me but they would have none of this and followed me on the bailout.

Our pilot, Major Katzman, was a major factor in our landing on the plateau rather than down the mountainside. He gauged the wind with great accuracy and we bailed out on his signal at about 800 feet above the plateau and we all landed within easy reach of the camp.

We found the group alive except for the co-pilot who had not cleared the plane with his chute and crashed with it. The radio operator, T/Sgt Oswalt, had a broken leg, another passenger had a broken ankle and there were six other personnel with less severe injuries.

Without the help of Sgt Passey and Corp MacKenzie the job of administering the necessary medical care and caring generally for the survivors would have been extremely difficult but with these two it was relatively easy. We had jumped with our own constructed packs and were well equipped with all necessary supplies and equipment. In truth, the net success of the entire rescue mission was largely due to the courage, stamina, resourcefulness and spirit of these two medical corpsmen and it is impossible to accord them too much credit in this, their first undertaking as pararescue medical personnel....

I cannot say too much for, or praise too highly, the courage and complete unselfishness of those men, officers, nco's and enlisted men who worked in the first air rescue squadron at Chabua, Assam. There can never be recognized nor proclaimed a full and true account of the many acts of heroism which they performed routinely and regularly as a necessary part of their work.

THE PARACHUTE - A BRIEF HISTORY

The parachute can be defined as a fabric canopy, designed to effect a safe descent through the air. Most commonly it is thought of as being used by persons forced to abandon disabled aircraft while still in flight. We all know it is variously adapted to other uses in both civil and military aviation.

Like a lot of other notions we hold today, credit for its basic concept goes to that paramount genius of the Renaissance, Leonardo DaVinci. In his "Codex Atlanticus," circa 1495, he wrote, "If a man have a tent roof of caulked linen 12 braccia broad (i.e., approximately 24 feet) and 12 braccia high, he will be able to let himself fall from any height without danger to himself."

His illustrations are amazingly modern and, as usual, Leonardo wasn't very far wrong. The 24-footers currently in use serve very well in emergencies and a lot of guys are hale and hearty today on account of them.

Fundamentally, the parachute is the individual protective unit in the air which is equivalent to the life preserver on the sea. As such, it is regarded as standard individual equipment in military aviation. (Editor's note—This is a rough comparison and anyone who has used both items will so testify.)

In broader use the 'chute has been extended to mass troop landings and heavy load-carrying functions. In the modern military concept entire armies are landed by parachute, as well as such pieces of heavy equipment such as small tanks. Parachutes also are used to bring detachable parts of aircraft, such as the pilot's compartment or cockpit to the ground intact, and are variously employed in other automatic devices designed to save both lives and equipment.

Design and Principle. A parachute consists essentially of the light-weight fabric canopy with suspension lines extending downward from its periphery to the load to be suspended. At this point a harness, designed to accomodate the load, is attached to the lines. As the load falls and the canopy is freed by a device known as a ripcord, it is blown away from the load because of its lightness and large area. Air blows into the mouth of the 'chute between the multiple folds of the "skirt" and since it cannot escape as fast as it enters, pressure is built up in the peak of the canopy. This pressure moves radially from the peak thus expanding the canopy until it is fully open and permitting the load to be borne to earth at a safe rate of descent.

A parachute which has been packed for a long period will be compressed, and this condition results in a delay in the time of opening. (Editor's note--This is one article on parachutes that will positively never mention the old joke about turning them in for new ones when they don't open.) It is therefore important that 'chutes be unpacked, aired, inspected, and repacked at frequent intervals, usually of about 30 days, and immediately following exposure to dampness or damage. In tropical or humid climates more frequent repacking is necessary.

Parachute design has not been changed fundamentally in recent years. When properly maintained and packed, the 'chute has become a remarkably reliable device. Although silk was used principally as canopy material for many years, other materials such as rayon, cotton, and even in some cases burlap, have been found effective. Canopy shapes have changed somewhat and some have departed from the full cup shape with scalloped edges. A ribbon-type 'chute originated by the Germans has been under study and further development in the United States. In some designs a smaller pilot chute opens first and accelerates the opening of the main canopy.

As airplane operating speeds and altitudes increase, the problem of emergency escape becomes more complex. Ejection and descent from high-altitude aircraft have become automatic, and survival equipment must be included along with ejection seats and parachutes.

Origin and Military Uses. Following Leonardo DaVinci by about a century, a Venetian named Fausto Veranzio took up the idea and in his book, "Machinas Novas," an engraving appeared purporting to show a man descending from a tower. He was rigged by four cords to what appeared to be a bed sheet. The effort probably wasn't too successful since it was over a hundred years before there's record of anyone trying it again.

In the very late 1600's a Frenchman developed a novel way to keep himself in cakes and ale. He spent his afternoons amusing the King of Siam by leaping from a high tower, breaking his falls with king-sized umbrellas strapped to his wrists. How many afternoons he spent pursuing this activity and what he broke besides his falls does not appear in the history books.

Late in the 18th Century the practical aspects of the parachute became apparent and it was soon pressed into service to increase the life expectancy of certain daring aeronauts who were experimenting with balloons. It seems that an alarming number of the boys were coming down much too fast and their wives were complaining about the results of the sudden stop. Besides, they were messing up the countryside something awful.

In 1797, the Garnerin brothers, a couple of Frenchmen, put on a series of jump demonstrations in England - probably on the theory that should anything go amiss, they didn't want to hurt any friends. Andre J. Garnerin stepped out of a balloon at an altitude of over 8,000 feet and made it down without a scratch.

Eleven years later, one Jordaki Kuparento jumped into the pages of history from a flaming balloon over Warsaw, Poland. His was the first life to be saved by a parachute.

Half-hearted experimentation was conducted for years but little progress was made until around 1880 when Captain Thomas Baldwin, an American, invented the vent in the peak in the canopy which made for greatly improved stability and control. Parachuting took a considerable upsurge in popularity following this development since a guy's chances of survival were thereby increased more than somewhat.

Nevertheless, during the last decades of the 19th Century the parachute was relegated to circuses and country fairs where it thrilled amusement-hungry spectators and, all too often, satisfied their morbid curiosity. It seems that 'chutes were still something less than one hundred percent reliable as the daredevils that jumped them frequently learned to the sorrow of their next of kin.

Not until years after the advent of powered flight did the 'chute finally come into its own and then only as the result of demands for the greater safety of fliers.

France, Germany and Russia all made important contributions in this ever-expanding field. France, in particular, is due great credit for its development, offering prizes for the invention of lighter, safer 'chutes and other jump devices that would promote their acceptance.

The French utilized paratroopers for small-scale raids during World War I. In what was probably the first use of air-borne units in the modern sense, a French captain and an assistant landed behind German lines with a load of explosives in the Spring of 1918 and proceeded to raise several kinds of hell with their communications.

Partially as a result of this, Brig. Gen. William Mitchell, head of the AEF's air services, persuaded General Pershing to approve a plan to parachute the entire 1st Division behind German lines from an air armada of 1,200 bombers. When the powerful allied ground offensive brought Germany to her knees, this plan was never carried out but it was typical of Mitchell's progressive attitude. It was his firm conviction, then considered heretical, that World War II would be fought in the air and that air-borne troops would play a significant role in the conflict.

Russia became "jump conscious" in 1911. In 1930 parachute jumping as a sport was a national pastime. Altitude records were sought, and on August 24, 1940, Kharokhonov stepped out of a plane at 40,813 feet and fell freely for 38,700 feet before opening his chute. Literally millions of Russian civilians had been trained when further information ceased to be obtainable in 1940.

Following the Russian beginnings, the heavily upholstered Hermann Goering organized the first German battalions in 1933, and young men were selected and subjected to vigorous training. During the early phases of World War II, in 1939 and early 1940, several captured Polish towns were evacuated and devoted to the intensive training of German parachute troops. These forces were used effectively during the invasion of the Low Countries in 1940. The military tactics thus developed were first applied spectacularly in the capture of the Rotterdam Airport on the morning of May 10.

While the Germans were overrunning the Low Countries, the United States resumed its deferred parachute training program on a large scale. Two months after the organization of the first experimental parachute platoon at Fort Benning, Georgia, in May 1940, the operation was moved to Highstown, New Jersey, where two 125-foot training towers had been built. These were used continuously during the expansion of the facilities at Fort Benning.

The pattern of airborne warfare consisted essentially of paratroop landings in morning fog, combined with simultaneous bombardment. While paratroopers disrupted communications and anti-aircraft defenses, further bombardment "softened" the objective prior to the landing of airborne troops, which held the objective until the infantry arrived. Military use of paratroops continued throughout World War II and reached its peak in the Allied invasion of the European continent.

Non-military Uses. For more than a decade the United States Forest Service has dropped fire fighters and supplies at scenes of major forest fire disasters. The savings in time and personnel in this type of work is highly advantageous. A special type of slow-descending chute is used to enable the jumper to study the character and extent of the fire as he descends. Supplies are dropped with inexpensive chutes made of burlap and many tons of equipment and materials have been dropped in this way.

Supply service by parachute has become useful for many purposes including modern exploration. Recent projects such as the Archbold Expedition in New Guinea in 1938 and the Wood Expeditions in the Yukon wilderness have substituted parachute supply operations for trains of pack animals.

Development of modern meteorological methods has found new uses for parachutes as observation at higher altitudes has become essential in the interest of accuracy. An important tool for this work is the Radiosonde, which is a small case containing weather recording devices and a unit which broadcasts code signals representing temperature, humidity, and other information as the device is carried upward by a balloon. A parachute makes it possible to recover the Radiosonde after it has completed its ascent.

From time to time inventors have advanced the idea of using large parachutes for emergency descent of aircraft. Although this application has not progressed far beyond the theoretical, there has been considerable use of "spin chutes" in flight research on the spinning properties of planes. These devices are usually released from the tail and aid in counteracting the spin in descent.

Caterpillar Club. An unofficial organization in the USAF called the Caterpillar Club was formed in 1922 and has since recorded the names of those whose lives have been saved by parachutes. The idea of the "club" grew out of a jump made on October 20, 1922, by Lt. Harold G. Harris, an Army pilot, when the plane he was testing at McCook Field (now Wright-Patterson Air Force Base) disintegrated in the air. Membership in the "club" reached 200 by 1930 and has since grown at a rapid rate. As one might expect, World War II and the Korean conflict produced a "bumper crop" of new caterpillars.

PARARESCUE TEAM CAPABILITY

Countless successful Pararescue Team operations are a daily tribute to the highly effective training of the Pararescue and Survival School of the Military Air Transport Service. Following a recent reduction in the number of Pararescue Teams and the subsequent reporting of surplus personnel, it was determined that no further justification existed for this training. As a result the school was deactivated 24 December 1953.

Air Rescue Service Commanders should be fully aware of the capabilities and limitations of their presently assigned Pararescue Teams. As a guide to a better understanding of these capabilities and limitations a brief summary of the primary aims of the training received should be most helpful.

Pararescue and Survival Training provided Air Rescue Service with personnel qualified in precision parachuting, administration of medical aid, and the care and rescue of survivors in all climatic areas under all conditions.

After careful screening and selection, the Pararescue and Survival trainee was sent to the Airborne School, Fort Benning, Georgia, for a three to five weeks basic airborne course. There he received instruction in parachuting techniques and completed five "live" jumps, qualifying as a rated parachutist.

Specifically, training at Fort Benning included: (1) Demonstrations of physical ability; (2) Development of emotional stability; (3) Demonstrated ability to perform parachute jumps from troop carrier aircraft into open fields, carrying field equipment and combat gear; (4) Demonstrations of familiarity with procedures for emergency landings; (5) familiarity with the care, handling, storage, packing and other characteristics of operation of the troop-type parachute assembly.

Upon completion of the Basic Airborne Course, the student proceeded to the School of Aviation Medicine at Gunter Air Force Base, Alabama, to attend the Air Rescue Specialist Medical Course. During the four-week course, the trainee received instruction in all types of advanced First Aid, including: (1) How to determine nature and extent of injuries. (2) How to render advanced First Aid. (3) How to describe survivor's condition over radio to physician so as to receive and execute physician's recommended measures. (4) How to protect disaster victims from environmental hazards.

Successful completion of the ARS Specialist Medical Course qualified the student for additional training at the Pararescue and Survival School. The ten-week curriculum of the Pararescue and Survival School had six general areas of instruction for the trainee. For example, before graduation he was indoctrinated in the physical characteristics and environmental problems found in arctic, desert, tropical, coastal, and mountain terrains. Given basic information of native psychology of various areas, he is able to improvise in the field as the necessity arises.

For tropical field training the Pararescue airman actually lived in the Everglades of Florida. Coastal survival instruction was conducted at Boca Grande Key, an uninhabited island about 10 miles southwest of Key West, Florida. The desert survival and mountain climbing training was conducted in the Joshua Tree National Monument area of the Mojave Desert, California.

The trainee gained his arctic indoctrination near McCall, Idaho, where winter and summer conditions are similar to polar conditions. Before completing his training, he learned about the capabilities and limitations of the Rescue team and its equipment and proved his ability to select landing areas from the air, computed and corrected for existing wind conditions.

The Pararescue airman, besides learning how to survive in the various terrain areas, also learned how to travel. He learned how to read a map and a magnetic compass. Not only did he learn how to live, but also learned how to travel to his destination over rocks, mountains, snow and desert through all types of geographic deviations. In brief, he is able to navigate back to civilization or to pre-determined rendezvous points.

Tracing the Rescue operations through its four stages of notification, search, aid and rescue, the Pararescue team members learned the techniques of ground interrogation, land search, entrance into disaster areas, and return of victims to stations of safety. Underlining the phases of training is a constant daily reminder that operational readiness and speed are of the essence.

Since Air Rescue Service is world-wide in scope, working with both national and international civilian and military authorities, Pararescue personnel must know and understand certain legal procedures. In this phase of training, the Pararescue man learned about the correct disposition of human remains and personal effects, and how to mark and safeguard aircraft wreckage.

The curriculum of the Pararescue and Survival School acquainted the Pararescue airman with a host of allied skills dealing with the successful Rescue mission.

The Pararescue men of today have the capability and desire to be a primary rescue facility. He may be called upon to participate in operational missions any minute of day or night—so others may live.