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The summary of the origins, heritage and legacy

The term Para-rescue/Pararescue and associated terms para-doc and para-medic emerge as nomenclature as early as 1940 to describe or portray an activity that was gaining visibility during the Second World War as the numbers of noncombat and combat aircraft losses increased. These terms weren't introduced and used to identify primary duty assignments, a specific military occupation specialty (MOS), or an authorized Specification Serial Number (SSN) at any time during the Second World War.

It's the emerging global air contingency rescue and recovery exigencies of the Cold War that advances the necessity for establishing the enlisted pararescue occupation. This establishing of the never previously existing enlisted pararescue occupation specialty originates with Headquarters Air Rescue Service submitting a formal request, 5 February 1947, for the authority and manning to establish pararescue teams.[1],[2]

The first pararescue team was established and activated in July 1947 and no later than June 1948 the enlisted MOS/SSN 3383 Rescue-Survival was approved and authorized.[3],[4] Since July 1947 the acquisition and training of personnel for pararescue has gone through a series of changes, captured in the enlisted classification directories, all aimed at producing an operational capability to accomplish rescues, personnel recoveries, and sensitive equipment recoveries under almost every condition likely to be encountered in the operational environments.

The 3383 origins MOS/SSN converted to the Rescue Survival AFSCs 92131/92171, effective 15 May 1951.

The rescue and recovery exigencies of the cold war quickly injected the Pararescue occupation specialty into accomplishing combat operations, humanitarian operations, and other operations. The potential for even humanitarian operations having combat, evasion and capture risks contributed to pararescue being a combat military occupation specialty.

This divesture from being an enlisted medical occupation explains why the specialty has been grouped in the Aircrew Protection Career Field (1952), Aircrew Operation Career Field (1975), back to the Aircrew Protection Career Field (1993), and the Special Warfare Career Field (2019).

Since July 1947 the enlisted pararescue occupation specialty (AFSC) has built the legacy of being the most decorated Air Force enlisted force. They've been awarded one Medal of Honor, 12 Air Force Crosses, over 105 Silver Stars and hundreds of other medals awarded for heroism or outstanding achievement during search and rescue missions.[5],[6]

Prior to the Second World War: 1940 through 8 December 1941.

Although Col. Albert E. Truby (MC) authored a paper in 1922 conceptualizing airplane ambulances that would undoubtably take medical officers to the site of crashes and bringing casualties from the crashes back to hospitals in the future,[7] it isn't easy to identify some elusive point in time and say with exactness and without hesitation, "This is where pararescue started prior to the Second World War.

However, there are events, individuals, and organizations that transformed ideas into feasible and viable capabilities. Unfortunately, as most written histories focus on the arrival of an aerial rescue service there are omissions on the development milestones leading to the establishing the USAF enlisted occupation specialty in 1947. A specialty that emerged from specialized volunteer enlisted medical duty assignments that increasingly required training, experience, and abilities that prevented drawing enlisted medics and flight surgeons with the least training and preparation for such duties.

It's the U.S. Forest Service's Aerial Fire Control Experimental Project in 1935 that began experiments to determine the feasibility of parachuting into rough mountainous terrain.[8,9] These efforts were thwarted until 1939 due to factors of belief such activities were too risky and the nature of parachute design and technology prior to 1940.

It's not until 1939 that the U.S. Forest Service began directing significant efforts to determine the feasibility and viability of using smokejumpers. It's during 1939 that census was achieved and the conclusion reached that smokejumpers could land safely in all kinds of timbered, rugged and mountainous terrain at elevations ranging from sea level to 6,800 feet above sea level.[10]

Consequently 1939 is considered the birth of Smoke Jumping.[11] However, the first actual fire jumps were made on 12 July 1940 by Rufus Robinson of Kooskia, Idaho, and Earl Cooley of Hamilton, Montana, on Martin Creek in the Nezperce National Forest.[12] Three days later the first successful "rescue jump" is made by Smokejumper Chester N. Derry to an airplane crash in the Bitterroot Forest.[13]

It's also during 1940 that the Army Air Forces sends flight surgeon, Captain Leo Paul Martin, through Smokejumper training in order to parachute for rescue operations. He may have been the first physician trained to do so prior to the 7 December 1941 attack on Pearl Harbor.[14] Although there is no record of him making an actual fire or rescue jump his training marks the initial milestone in rescue jumping.[15] He perished in a plane crash on 25 October 1942.[16,17]

The documented training of Captain Leo Paul Martin is the breakthrough event of physicians being trained as parachuting physicians (para-docs) and enlisted medics being trained as parachuting medics (para-medics) in order to parachute to rescue survivors of aircraft forced landings and crashes in remote inaccessible locations along the various long range air ferry routes (Alaska-Siberia-1941, South Atlantic-1941, North Atlantic-1942, the Hump which was initially known as the India China Ferry-April 1942, Middle Atlantic-1943).

The Second World War: 8 December 1941 through 2 September 1945.

The United States becoming a belligerent by declaring War against Japan on 8 December 1941 and declaring war on Germany on 11 December 1941. Applicable to this period is the establishment of the Army Air Force/Air Force History Program in 1942. Unfortunately, the prepared and submitted unit histories rarely provide comprehensive narratives of units organized as a medical and rescue unit.

The appearance of such medical and rescue units happens no later than 1943[18] without no single military or other governmental agency exercising centralized advocacy or administrative control pertinent to the development of parachuting-in physicians and enlisted medics for rescue

operations during the Second World War.[19] This situation contributed to the absence of establishing criteria that clearly describe special duty assignment or an occupation specialty that depict the various levels of difficulty and responsibility so they can be understood and consistently applied.

Consequently, reconstructing of the development of parachuting-in physicians, enlisted medics, and other personnel to rescue aircrew during the Second World War must involve correlating the History of the U.S. Forrest Service Smokejumper Program, the civilian Canadian Pararescue Service (1943-July1944)[20],[21] and informative articles published in newspapers, magazines, professional journals, professional periodicals and bulletins.

An immediate aftermath of the United States becoming a belligerent in the Second World War is it was confronted with a complex military global expansion demand and "a critical shortage of cargo shipping which persisted for much of the war period."[22] This created the strategic war fighting necessity to move significant tonnages of cargo and ferrying large numbers of aircraft along long-range air ferry and air shipping routes required for conducting a global war.

This rapidly increased the Army Air Force need to establish inland search and rescue units and the need for physicians and enlisted medics who are trained parachutists. Until 1943 most of these mission needs were limited to the North American Continent, primarily the contiguous United States, Canada, and the Alaska Territory.

The appearance of these inland search-and-rescue medical units is directly connected to the huge Lend-Lease demands that our allies, Britian, the Soviet Union (June 1941) and China (June 2, 1942) had for U.S. armaments, ships, planes, tanks, fabricated materials, and food stuff. Other than a small stretch of the Hump the five major air routes (Alaska-Siberia-1941, South Atlantic-1941, North Atlantic-1942, and the Hump which was initially known as the India China Ferry-April 1942, Middle Atlantic-1943) avoided contested military air space. Consequently, the parachuting-in of flights surgeons and enlisted medics under combat conditions and into contested military surface environments didn't happen until August 1943.

Anticipating the inevitability of the frequent need to parachute-in physicians and enlisted medics a special training relationship was established between the Army Air Force and the U.S. Forest Service's smoke jumper training program. This training relationship expanded to the Forest Service being an active partner participant in the Army Air Force's Second Air Force Search and Rescue Section during 1943 (initiated by Captain Frank Wiley of the Army Air Force).[23]

The meager information mentioned in the History of the U.S. Forest Service smoke jumper program identifies Amos R. "Bud" Little as being among the first military physicians trained to parachute in the line of duty for rescue purposes[24],[25] He entered the Army Medical corps in 1943, shortly after graduating from John Hopkins University Medical School (1942), and was immediately assigned to the 2nd AF Search and Rescue Section. He was sent through the smoke jumper training program and went on to earn national acclaim for his rescues. The most prominent being his parachuting to the surviving crew members of a crashed B-17 Bomber.[26],[27]

This B-17 bomber and crew of 10 crashed at a 11,000-foot location on Crown Peak in the Colorado Rockies on 13 June 1944. Four of the ten were killed, six survivors four of which seriously injured.

This feat required him to parachute from 12,500 feet and it was the first of seven rescue jumps during his three years of military service (1943-1946). This jump made both aviation and medical history, at the time, as the highest parachute landing on record. Dr. Little was honored with the Army Commendation Medal, the Air Medal, and the Legion of Merit for his service.

After his service he continued parachuting with the U.S. Forest Survive and assisted other agencies in establishing parachute units and search and rescue organizations. In 1955, Little received the A. (aeronaut) Leo Stevens Memorial Parachute Medal (award discontinued in 1959) for his para-rescue work. The Medal was presented on 29 January 1955 in Helena, by Gov. J. Hugo Aronson of Montana, on behalf of the Awards Committee, while the Montana State Legislature was in session.[28]

Another innovator who received significant recognition after the war for establishing parachute rescue units in Canada is Mr. Wilfrid Reid May. He is credited during the period 1942 through 1943 for conceiving of and developing a functional training program for a first aid parachute crew to take aid to downed pilots in remote areas.[29],[30],[31],[32],[33] Although the appearance of the training program could be pushed back to 1942 these initial training operation were described as being comical until Lt. Col Frank N. Nightengale, Assistant Training and Operations Officer of the Alaska Wing headquarters arranged to send May's volunteer parachutists through the U.S. Forest Service smokejumper training program no earlier than September 1941 and no later than December 1942.

Mr. Wilfrid (Wop) May's reminisce that it was "shortly after smokejumper training was completed that the Canadian Pararescue teams were put into service."[34],[35] This is confirmed by the U.S. Forest Service's smokejumper program history disclosure that on 10 December 1942 that about 25 individuals of the U.S. Coast Guard, Canadian Air Observer schools, and the U.S Army Air Forces had completed the smokejumpers parachute training.[36],[37]

Regardless, it's certain his innovative persistence and direct involvement resulted in the furnishing Canadian Pararescue squads (teams) providing coverage of the Alaska-Siberia air ferry and air cargo shipping route in Canada. Affirmation of the significance of his achievement is the Army Air Force awarding him the prestigious Medal of Freedom with Bronze Palm (established 6 July 1945, E.O. 9586)[38],[39] to recognize his notable service as a civilian during the Second World War. The Bronze Palm indicates equivalency to the Legion of Merit, Officer and Legionary.

This Medal was presented to him by Brigadier General Dale Gafney of the United States Army Air Force. The citation identifies meritorious service for the United States Army Air Force during the period January 1942 through January 1946. It identifies he conceived of the idea of ariel rescue crews for rescue of flyers in the bush area and developing a trained parachute rescue squad he furnished as a rescue service indiscriminately to Americans and Canadians thus saving the lives of many fliers.[40]

Although the increased need for aerial search and rescue was anticipated for within the boundaries of the contiguous United States the Army Air Force it lacked the aircraft and aircrews to sustain an adequate number of aircraft to search for and locate crashed aircraft. This lack of aircraft and aircrew situation contributes to the Civil Air Patrol (CAP) being assigned the search for and rescue mission no earlier than 1 December 1941. The Civil Air Patrol had no unit presence outside of the

contiguous United States until its Hawaii Wing is established in January 1947, its Alaskan Wing established February 1948, and its Puerto Rico Wing established in November 1949. CAP's poor record keeping has put the existence of its parachute corps into obscurity.

The existence of CAP's parachute corps spanned the period between early 1942 and the early 1950s.[41],[42],[43] CAP's records indicate its first parachutist were integrated as members of civilian parachute clubs joined the CAP. By July 1942 its parachute corps was actively seeking doctors, nurses, skilled woodsmen, and forest fire fighters implying these parachutists had a specifically assigned task or mission to parachute-in to areas that were inaccessible by other means. However, there is an absence in the historical record of any CAP parachutist being parachuted-in to rescue anybody. The historical record does disclose CAP parachutists routinely and frequently accomplished exhibition jumps at air shows, war bond drives, and other public events.

Consequently, correlating CAP's parachute corps to any significant developmental milestone of pararescue methods, procedures, tactics and occupation specific knowledge, skills, and ability standards and qualifications requirements isn't possible unless additional records are found.

The historical record establishes the Air Transportation Command (ATC) being the most proactive in formally pairing a contingent of parachuting doctors and parachuting enlisted medics with aircraft.[44] ATC had by 1943 successfully integrated this pairing in its noncombat Air Rescue units of its Alaska Air Division and North Atlantic Wing. By September 1943 ATC had committed to establishing such pairing in its combat air rescue unit of its China Burma Wing.

The China, Burma, India (CBI) Theater air supply routes and the Hump Ferry route during the Second World War provided the only combat search and rescue opportunity to the Air Transportation Command. Although the primary mission of Air Transport Command didn't change the aircraft and aircrew loss statistics of flying the Hump and other air supply routes in the CBI were comparable to flying a combat mission over Germany.[45]

These loss statistics included the possibility and probability aircraft could be intercepted by enemy fighter aircraft and aircrew surviving bailout or forced landing could expect the need to avoid being captured or killed by enemy ground forces.[46] Additionally, these statistics fail to expose the circumstances "that in many cases there was reason to believe some, or all, crew members had been able to successfully bailout of their planes only to never be seen again."[47]

The psychological impact of aircrews wondering about their chances of getting back after bailout or forced landing in the CBI Theater,[48] contributed to a decrease in aircrew morale and an increase in the numbers of disgruntled aircrew. Thus, the building of an air search and rescue capability in the CBI produced a positive psychological effect on boosting the optimism, morale, and motivation of aircrew who frequently and routinely flew under combat and or extremely hazardous conditions knowing every effort would **be** made to rescue them. A positive psychological effect replicated in subsequent conflicts as it was noticed, aircrews performed their duties more efficiently knowing that every effort would **be** made to rescue them if they were shot down.[49]

Aerial search and rescue as developed and implemented by the India China Division, Air Transport Command during the period 1 December 1942 through 15 February 1946 differed very little from what ATC's search and rescue units were doing in the remote isolated wilderness of Canada and

Alaska. But the parachuting-in under combat condition into a military contested ground environment did introduce subtle differences in the protocols of operational risk management implemented in the CBI Theater.

Specifically, acceptable risk protocols governing the search and rescue of aircrew operations were compelled to accommodate necessary risk. The concept of necessary risk means risks too high to be acceptable are tolerable under certain conditions. Conditions most connected and relevant to the parachuting-in, when necessary, physician and enlisted medics under combat conditions to rescue aircrew located in a military contested ground environment which exposed these personnel to possible encounter with enemy forces which would result in their capture or execution.

Aerial search and rescue of aircrew in the CBI prior to 24 October 1943 were spasmodic and fell impromptu upon the first available aircrew and aircraft that could be spared.[50] The historical records consistently credit Captain John L. "Blackie" Porter an Air Transport Command pilot with putting together an ad hoc unofficial group that borrowed aircraft to fly search and rescue missions in July 1943. Further, his persistence was instrumental in obtaining official approval on 25 October 1943 to establish and command a special unit (team), known as Blackie's Gang, having the primary mission to fly aerial search and rescue missions in the CBI.[51], [52],[53],[54],[55],[56],[57] This special unit continues-on with its primary mission after Captain Porter was killed in action on 10 December 1943.[58],[59]

The special unit known as Blackie's Gang acquires the 1352nd Army Air Forces Base Unit (AAFBU) designation effective 1 February 1944.[60],[61] Although the 1352nd AAFBU is discontinued and disbanded on 22 December 1945, it is the unit that most closely mirrors the missions and capabilities of the 66d AAFBU Search & Recue, Continental Air Forces, Morrison Field, West Palm Beach Florida, activated 5 December 1945[62] as the Army Air Forces began grappling with determining its post Second World War aerial search and rescue and pararescue mission requirements.

Although there is a lack of certainty of Blackie's Gang having direct involvement in the first parachuting-in of a physician and two enlisted medics under combat conditions, it is certain Captain Porter as commander of his special search and rescue unit took initiative in October 1943 to work with medical units to form a volunteer group of physicians and enlisted medics to parachute-in to crash sites to save crewmembers and passengers in need of immediate medical aid.

This parachuting-in of Flight Surgeon Lt. Col. Donald (Don) Davis Flickinger, and enlisted medics Sgt Richard S. Passey, and Cpl William Mackenzie on 2 August 1943 under combat conditions into a contested military surface environment within the CBI theater in August 1943 happened without authorization and was significantly controversial.[63]

Part of the controversy was generated by the previous February-March 1943 failure of an Office of Strategic Services (OSS) Detachment 101 six-man unit (B Group)[64],[65] parachute-in supposedly having a third objective to assist Air Transport Command crewmen who were shot down in the Lawksawk Valley. All members of B Group were killed or captured and executed.[66] There is a strong possibility Detachment 101s B Group is being confused with Oscar (O) Group led by Oscar Milton, MC, which had its primary objective to rescue downed aircrew.[67] Regardless, OSS

Detachment 101 did officially have a mission to rescue downed allied aircrews in the CBI throughout the period from 22 April 1942 through 12 July1945.[68]

Another part of the controversy "throughout the war there was to be a difference of opinion over whether flight surgeons should fly on combat missions."[69] By extension parachuting-in a physician and medics had even a higher risk of the medical units in CBI suddenly losing a physician and enlisted medics that had no readily available replacement.

The following is what is known about the pivotal rescue mission in the CBI Theater that sufficiently demonstrated the feasibility and viability of parachuting-in physicians and enlisted medics under combat conditions into a military contested environment to rescue aircrews. So much so that it became routine to do so in the CBI Theater.

The C-46, serial number 41-12420, took off on 2 August 1943 at about 8:00 AM to fly from Chabua, Assam, India to Kunming, Yunnan, China, carrying seventeen passengers and a crew of four. At about 9:15 AM, due to engine failure, the passengers and crew bailout in the remote Patkai Range between India and Burma territory.

About two hours later a Search and Rescue C-47 being piloted by Captains Hugh E. Wilds and George Katzman located the survivors and airdropped medicine and food and then departed and returned around sundown to parachute-in Flight Surgeon Lt. Col. Donald (Don) Davis Flickinger, and enlisted medics Sgt Richard S. Passey, and William Mackenzie. [70],[71],[72]

Three of the four crew members and all eighteen passengers successfully bailed out of the C-46 and survived their parachute landings. The body of the copilot, Lt. Charles William Felix, was found under the wreck. He was wrapped in a chute and was buried there. One of the three surviving crew members (Radio Operator Sgt Walter K. Oswalt) broke his leg, and six others had less serious injuries.

After the Flight Surgeon and two enlisted medics parachuted-in they established a base camp at a native village near Lahe Nanyon, Myanmar (Burma) to treat the twenty survivors and provide medical care to the villagers while waiting for British administrator, Philip Adams, two American soldiers, many porters, and 60 shotgun-toting Naga bodyguards to arrive at their location.[73]

This group began trekking on August 18, with porters carrying Oswalt and a Chinese officer on bamboo litters; the others walked. They arrive at the British administrative facilities at Mokokchung, Nagaland, India on 24 August 1943, 22 Days after the crash, after trekking 145 miles through enemy controlled territory, rugged terrain and much feared Nagaland.

There are accounts suggesting Captain Porter recruited Captains Hugh E. Wilds and George Katzman and Sgt Walter K. Oswalt into Blackie's Gang after this mission.[74] Tragically, there is certainty Sgt Oswalt was killed in action performing duties on the B-25 being flown by Captain Porter when this aircraft was shot down on 10 December 1943.[75], [76],[77]

Regardless, the success of this mission became the pivotal milestone development in rescue jumping as it demonstrated what could be done under combat conditions and in military contested environments. This success permitted Captain Porter to pursue and gain official approval to form the first formal search and rescue team for aircraft flying the Hump. It also allowed Lt. Col

Flickinger to form a volunteer group of rescue physicians and medics (Surgical SSN 861/Medical SSN 409) assigned to base aviation dispensaries who kept themselves in readiness to fly and parachute-in when necessary to either the crash site or at a place they could walk in to provide medical treatments and aid.[78],[79], [80]

The resulting side effect is under the influence of Major General William H. Tunner, Commanding General India-China Division, Air Transport Command [India] an agreement was reached in August 1944 with every other Army Air Force Command operating to any extent over Hump route and the CBI region that all search and rescue would be the responsibility of the India China Division, Air Transport Command.[81]

Given the support of General Tunner search and rescue began publishing monthly bulletins to disseminate valuable information concerning jungle travel and survival hints. General Tunner also ordered each base to establish a jungle indoctrination camp with practical training provided by trained jungle scouts.[82],[83]

However, it's Blackie's Gang, subsequently the 1352nd Army Air Forces Base Unit (search and rescue) and the volunteer group of physicians and medics being credited for pioneering and honing new imaginative and risky tactics for conducting search and rescue under combat conditions and in contested ground environments. These methods and tactics became the tactical template of similar search and rescue units operated later by the Tenth, the Fourteenth (formerly the American Volunteer Group/China Air Task Force), and the Twentieth Air Forces.[84],[85]

It's obvious the need for rescue from land areas and from large water bodies (oceans, seas, straits, bays, gulfs) was recognized from the moment the United States entered the Second Word War; however, lack of resources (aircraft/aircrews), diplomatic concerns and the highest levels policy decisions and implementations hindered the Army Air Force acquiring self-sufficiency in search and rescue capabilities prior to 1943.

Diplomatically, "the formal agreement of September 1942 between the RAF and the Eighth Air Force in September 1942 stipulated that the Americans would not duplicate the rescue services the British could provide for saving U.S. aircrews who came down in the North Sea and the English Channel."[86] Similarly, the Army Air Force depended heavily upon the RAF and other British agencies for rescue services in North Africa and throughout the Mediterranean until 1943.[87]

Policy until 1943 collaboratively divided aircrew rescue operations among the Army Air Forces, Navy, Coast Guard, and even to some degree operational units of the Office of Strategic Services (primarily Detachment 101-CBI and Aircrew Rescue Unit 1, 15th Air Force-Halyard Mission.[88]) This collaborative policy position the US Navy within the limits of its resources to readily assume responsibility in areas of its primary jurisdiction for the rescue of Army as well as Navy fliers. responsibility in areas of its primary jurisdiction for the rescue of Army as well as Navy fliers.[89]

In August 1943 the Army Air Force drafted plans to make itself as self-sufficient as was possible by organizing seven air-sea rescue squadrons.[90] However, only two of the seven were operational by the summer of 1944. Another was operational by the end of 1944 the others became operational during 1945. Thus, most histories concentrate on the program of August 1943 for the creation of seven emergency rescue (ER) squadrons and the April 1944 and the 8th Emergency Rescue

Squadron introducing the Sikorsky-built YR-6 helicopters in May 1945 as a rescue machine in the CBI.

The rapid demobilization and restructuring to a peacetime military spanning the period of May 1945 through September 1947 contributed to the loss of units, training, and a rapid decline of manpower. None of which were collated to inform in depth as far as all the parts involved the development of to search for and find has the combat obligation to protect aircrews and passengers of aircraft downed in military contested environments. This surface rescue capability requirement occurred simultaneously with rapid demobilization and emergence of the Cold War which triggered the need for a new Air Force enlisted occupation specialty. An occupation specialty coequally melding the inherent abilities and qualities of being an enhanced medic, survivalist, mountaineer, rescue swimmer, rescue-parachutist, and combatant.

The lineage rescue parachutist qualifications and abilities have already been connected to the U.S. Forest Service Smoke Jumper Program. The training and rescue operations relationship lineage was retained when the 62nd AAF Base Unit, Morrison Field Florida was established effective 5 December 1945.

The survivalist lineage interlock is a complicated mix of formal and on-the-job training programs due to these numerous formal and on-the-job survival training programs lacking the purpose and capability to train personnel to be qualified to rescue others under extreme hostile environments to include military contested environments.

One formal survivalist-rescue training program having a search and rescue curriculum is the formal arctic survival lineage that originates with a training program activated at Camp Williams, Wisconsin in September 1942. As the need for such training intensified in 1943, this school was relocated to Maine, then to Buckley Army Airfield Colorado in June 1943 and finally relocated to Great Falls Army Airfield (Malmstrom Air Force Base), Montana in October 1944. The relocation to Great Falls Army Airfield was because it had a more severe climate and the 7th Ferrying Group having the responsible for overseeing the lend-lease Alaska-Siberia air route and the secondary mission to deliver combat aircraft to U.S. domestic bases and foreign destinations in all theaters of operations throughout the world.[91],

It's during the period this training program was located at Buckley Army Airfield that the curriculum/syllabus devoted a purpose to learn the art of rescue under arctic conditions to include how to parachute-in with sleds and dog teams. This training program trained and qualified the survival instructors of the Army Air Force's school established in 1943 in the wilderness area near Namou Royal Canadian Air Force Base, in Alberta, Canada.

This training program's rescue syllabus was discontinued in December 1945 concurrent with the shutdown of the Army Air Forces Cold Weather Survival training at RCAF Station Namao, the relocation of this survival training program to Camp Carson, Neveda, and rescue survivalist training requirements being transferred to 62nd AAF Base Unit, Morrison Field Florida, which became Headquarters Air Rescue Service, effective 1 July 1946.[92], [93]

The contributions of the medical training and research agencies of the Army Air Forces School of Applied Tactics (AAFSAT), Orlando, Florida are often overlooked. However, it is here the School

of Aerospace Medicine graduates and Personal Equipment Officers preparing to deploy to the combat theaters learned about field aviation operations.

AAFSAT was active from 12 November 1942 to 8 March 1946. It was established to fulfil the primary purpose to train air force cadres--key personnel framework for all new combat groups--in the latest combat tactics and under operating conditions approximating as closely as possible those with which these officers and men will be confronted in the various war theatres.[94] Concurrently it was a tactical development laboratory and a distributor of tactical information.

To carry out both the instruction and tactical developments missions, each of AAFSAT's Departments operated as a normal tactical command with an academic section superimposed upon it. To make this possible AAFSAT was integrated by design to be part of the infrastructure that turned 8,000 acres of southern Florida into a war theater complete with simulated enemy bases, forces and fleets.[95],[96]

The effectiveness AAFSAT is the resultant of it drawing heavily on the experience of men freshly returned from combat assignments who, whatever their pedagogical skill, had an impressive fund of useful information.[97]

Organizationally AAFSAT had specialized agencies and a variety of units. Three of these agencies had a collaborative relationship that ensured medical tactics, military field medicine, flight medicine, and air force medical operations were covered. The primary unit was the AAFSAT Aeromedical School, the second unit was the AAFSAT Arctic, Desert and Topic Branch and the third unit was the Jungle Survival School conducted by the Aero-Medical Department at Orlando, Florida.[98]

The AAFSAT Aeromedical School was established November 1942 and deactivated March 1946 while the AAFSAT Arctic, Desert and Topic Branch was active from April 1944 and deactivated October 1945. The Jungle Survival School operated from August 1944 through November 1945 with its curriculum being strongly influenced by the improvised medical care and native medical assistance experience gained by Colonel Don Flickinger, MC, during his previous assignment in the CBI theater.

These three AAFSAT agencies fulfilled the aircrew protection research function and staffing training challenge of preparing medical officers for assignment to staffing dispensaries, infirmaries, clinics, small mobile (portable) surgical hospitals and aviation units in the forward areas of combat theaters.

The duty responsibility of the Arctic, Desert, and Tropic Branch, AAFSAT in part was to "collect, record, co-ordinate, compile by investigation and research of all available sources and prepare for publication and dissemination in appropriate form, information bearing on AAF activities in arctic, desert, and tropic regions."[99] This included investigating and research all incidents of survivors of a crash, ditching, or bailout confronting the hardship of surviving and evading until rescued.[100]

The academic programs of the AAFSAT Aeromedical School primarily focused on the tactical training of Flight Surgeons.[101] The training was tailored to the type of aircraft (fighter, bomber, cargo/transport) and operational mission of the aviation unit being assigned to. Those being assigned to Air/Emergency rescue units went through a training regime focused on providing

urgent medical treatment and stabilization in high stress tactical environments encountered during the pre-evacuation and evacuation phase of rescue operations.

A secondary academic program providing the qualification training for the Personal Equipment (nonrated) Officer SSN 1042, established effective 4 May 1943[102], discontinued effective 21 July 1950.[103] This expanded to include enlisted Personal Equipment Technician (NCO), SSN 594,[104] established no later than 30 June 1945.

Personal Equipment Officers and Personal Equipment Technicians were new specialties established to ensure properly functioning aircrew life support, personal protection, and emergency equipment, and instructing aircrews in the use and care of this equipment and survival methods. This local unit support instructing included emergency procedures and survival techniques. This somewhat establishes the SSNs 1042 and 594 as the closest to being military survival instructor occupation specialty designations established during the Second World War.

Throughout World War II a small number of Army Air Force para-doctors (less than 100) and enlisted para-medics, Surgical Technicians (SSN 861) and Medical Technicians (SSN 409), accumulated an impressive record of daring parachute rescues. As there is no record of screening and selection to put individuals into these duty assignments or existence of a distinct unified centralized parachute rescue team training program this impressive record was gained unintentionally by chance. However, these daring rescues was the result of Flight Surgeons and enlisted medics who were endowed with certain qualities of gumption, grit, courage, physical abilities and knack for practical problem solving.

A sequence of unfortunate events involving less than friendly Soviet fighters causing forced landings of B-29s as early as 1944 foretold the coming of the Cold War and influences causing the distancing of Army Air Force Medical Service (Flight Surgeons/enlisted medics) and the aeromedical evacuation mission from search and rescue missions.

Although these events didn't cause the need for conducting rescue operations behind enemy lines these events were forewarnings of aerial search and rescue services must adapt to provide a more robust tactical function and combat mission capability.

The first events occurred in mid-1944 during the initial B-29 bombing missions from China. It involves the Soviets seizing three damaged B-29s (B-29A 42-6256, B-29A 6358 and B-29A 42-6365) when forced landings were accomplished in the Soviet Union while Soviet fighters fired upon them.[105]

Another involved the Mercy Missions conducted to locate, contact and rescue allied war prisoners held by the Japanese as there were possibility of POW massacres and the complication of the declaration of war by Soviet Union against Japan on 8 August 1945 and its occupation of Manchuria during the period from August 1945 thru May 1946.

On 27 August 1945 over one thousand B-29s began flying POW supply Mercy Missions to 157 camps through the Far East not to mention the number of troop transport flown to repatriate the American POWs. It's in this confusing situation that the B-29 Hog Wild was engaged and fired upon by Soviet fighter aircraft on 29 August 1945. This resulted in six of the crew accomplishing

an emergency bailout into the Sea of Japan and the remainder of the crew doing an emergency forced landing on a Soviet airfield.[106]

Post Second World War (September 1945) to the Establishment of the United State Air Force (18 September 1947)

The enormous rapid demobilization occurring during the period from May 1945 (VE Day) through September 1947 had severe impact on the Army Air Force as it determined what unit types and how many of each unit type were essential for the security of the United States. This situation was further complicated by extensive funding cutbacks causing decisions to reduce, eliminate, and/or consolidate training programs.

The situations imposed by demobilization and funding cutbacks had a detrimental impact on the training provided to prepare Flight Surgeons and enlisted medics for parachute rescue duties. An undesirable result of compromised training programs is the presence of complacency and ineptitude was increasing until the training programs for parachute rescue team duties were reinvigorated in 1947.

Two rescue missions that occurred in 1947 had the most influence in reinvigorating these training programs.

The first was the May 1947 Nicaraguan mission accomplished by Flight Surgeon Captain Pope Holliday. This mission was instrumental for the June 1947 official go-head approval given to HQ Air Rescue Service to start forming parachute rescue teams.

The second was the tragic December 1947 death of a flight surgeon and two enlisted medics who parachuted to the B-29, Clobbered Turkey crash site 95 miles north of Nome Alaska on 28 December 1947. This avoidable tragic loss of life exposed how much the training of flight surgeons and enlisted medics for the complexities of arctic parachute rescue missions had deteriorated since September 1945.

The aftereffects of the Clobbered Turkey mission contributed to the Air Rescue Service becoming the training provider for all personnel assigned to parachute rescue teams. Additionally, this mission contributes to Headquarters Air Rescue Service's request of January 1947 for approval of a Specification Serial Number (SSN) identifying enlisted Parachute Rescue Team duty assignments (SSN 3883) being approved and authorized no later than June 1948.

Obscured in historical records during the period from 1945 to 1947 a multitude of domestic and international factors influenced the future development of and need for a unique enlisted combat rescue-survival-medic occupation specialty detached from the status of medical personnel in armed conflict.

The easiest to reveal and most applicable international political influences are the core principles permitting international civil transport by air. The general principles and application of the provisions of these principles, known as the "Chicago Agreement" [107] agreed to on 7 December 1944 and put into effect on 6 June 1945. This agreement exerted significant impacts on national security by imposing operational constraints and creating critical political operational environments requiring careful assessment and management.

Several provisions of the Chicago Agreement address aerial search and rescue operations during times of peace which are closely intertwined in several articles of the "Geneva Conventions of 12 August 1949."[108] Both international agreements every state has complete and exclusive sovereignty over the airspace above its territory and territorial sea. This airspace sovereignty imposes complications in state aircraft (military) whether unarmed or armed doing unscheduled peacetime civil humanitarian search and rescue missions over or closely adjacent to airspace of other states (countries).

Articles of Geneva Conventions of 12 August 1949 codify aerial combat search and rescue operations as being a combatant activity and puts the use of medical personnel of being a potential breech undermining the protected status of medical personnel, medical units, and aircraft displaying medical emblems (Red Cross). While not absolutely prohibiting the use of medical personnel for SAR in denied, hostile, or sensitive areas or areas under enemy or unfriendly control there is clear assertion medical personnel used in these areas for SAR purposes lose their protected status as they are not performing humanitarian duties but are considered performing duties harmful to the enemy.

Meanwhile in 1945 increasing Soviet polar explorations coupled with menacing political actions and highly active espionage activities establishes the existence of undeclared war being waged that is known as the Cold War. Driven by concerns of a potential polar invasion led by a Soviet (Russian) nuclear armed bomber force posed a viable threat to Canadian and American cities, bases, industries including Western Europe classified manned reconnaissance missions (August 1945) undertaken to protect the security of the United States began being flown to monitor and record Soviet military activity in northern and eastern Siberia, the Bering Sea, Kamchatka Peninsula and the Polar Regions.

Air Staff postwar plans for continuous long-range Polar missions led to creating the Air Rescue Service in May 1946, then assigned to the Military Air Transport Service.[109] Additionally, the newly established Air Rescue Service was given administrative and technical control for all rescue-survival training programs passed from the Emergency Rescue School, 2121st AAF Base Unit (disbanded April 1946), the specialized Arctic Rescue-Survival training program passed from RCAF Station Namao to 62nd AAF Base Unit 1 December 1945, (July 1946), the AAFSAT Aeromedical School Jungle Survival training program, and the passing of the Second Air Force's smoke jumper training arrangement with the U.S. Forest Service to the Air Rescue Service.

Aligning all these survival programs under the Air Rescue Service allowed the training of methods of survival in all environments and climate conditions. The medical training programs for detached duties and assignments to parachute rescue teams remained aligned under the School of Aviation Medicine. By 1948 a 210-hour Para-Rescue Medical Aid Course (also known as Rescue-Survival Medical Aid Course) had been developed and implemented.

To effectively provide long range rescue in the polar region and areas adjacent to Soviet territories the Air Rescue Service requested in a letter dated 5 February 1947 the approval to establish cohesive fully qualified parachute rescue teams composed of one medical officer (flight surgeon), one medical technician (SSN 861-surgical or SSN 409-medical) and two other enlisted personnel with training in first aid.[110] This request is approved in June 1947.

Very quickly the time consumed in training and funding the training for enlisted assigned to parachute rescue teams had become sufficiently problematic that the Air Rescue Service found the necessity to generate the request for establishing and authorizing a Specification Serial Number (SSN) be to identify to an enlisted generalist but also specialized merged rescue-survival-medic occupation code designation for assignment to its parachute rescue teams.[111] This SSN request appears to have been approved in December 1947 in conjunction with the 15 December 1947 implementation of the Pararescue and Survival School, 5th Air Rescue Squadron, MacDill AFB, Florida of the Air Rescue Service.[112],[113] If not this request was certainly approved no later than June 1948.[114]

The procedure for requesting a new SSN code or Military Occupation Specialty Code required an extensive occupational analysis to include training required. This analysis had consultant input from the original para doctors remaining in service after the Post Second World War demobilization and current para doctors of the Air Rescue Service. There is also the fortuitous happenstance of one of the consultants, Donald Flickinger, during the period 1947 through 1949 being assigned to the School of Aviation Medicine first as chief of the department of internal medicine, then as director of research, and finally as director of medical sciences.

Coincidentally, there is the additional happenstance of the Air Rescue Service during the period from 1 December 1946 to 9 July 1952 being commanded by Colonel Richard T. Kight. His war time service included him being Chief of Staff and Director of Hump Operations, India China Division, Air Transportation Command during the period 31 December 1942 through 5 December 1943.[115],[116]

During this assignment Colonel Kight certainly had detailed knowledge of the parachute rescue accomplished by Flight Surgeon Lt. Col. Donald (Don) Davis Flickinger, and enlisted medics Sgt Richard S. Passey, and Cpl William Mackenzie on 2 August 1943. Further, it is likely he was involved in approving the 25 October 1943 activation of the first air rescue unit (Blackie's Gang) providing search and rescue services on a 24-hour basis in a military contested environment.

Impact of transitioning to an independent Air Force 1947-1953

The separation of the Army Air Forces from the Army on 18 September 1947 found the Air Force needing to resolve many force and organizational structure problems. Among these problems was determining the line composition officer (rated aviation, nonrated), and non-line (medical, legal, clergy) composition to include how they fit into the operational command and functional support leadership hierarchies.[117]

Policies were quickly established by the Air Force detailing the types of units its rated line officer, nonrated line officers and non-line officers (medical, chaplain, legal) could and could not command. This contributed to nonrated line officers and non-line officers being primarily assigned to support roles. These policies also exerted strong influences on both enlisted and officer career opportunities and paths. By extension this included how the Air Force approached training its officers and Noncommissioned Officers (NCOs) for small tactical unit operational and functional leadership roles, duties, and responsibilities.

During this period the practicality and legitimacy of assigning company grade Medical Corps and Medical Service Corps officers to command and supervise pararescue teams was becoming compromised by several factors.

The first factor to emerge is there being a critical shortage of medical officers serving in the military and specifically the Air Force.[118] This caused Medical Service Corps officers to expand into and assume roles created by the shortage of Medical Corps officers.[119] Beginning in 1948 this situation initiated the gradual change over of Medical Corps officers commanding parachute rescue teams to Medical Service Corps officers in 1948.[120],[121]

Effective 2 October 1952 policy decision was implemented to remove Medical Corps officers (physicians) from jump status and prohibiting them from participating in actual Pararescue mission operations of any sort as the inherent hazards (risks) far outweighed the gain obtained.[122] Subsequently, effective November 1952 Medical Service Corps officers were removed from Air Rescue Service manning documents.[123] Those Medical Service Corps lingering in Air Rescue assignments were also removed from jump status and prohibited from participating in actual Pararescue mission operations. Consequently, at this time the duties of commander for these pararescue teams reverted to Master Sergeants as a decision was made not to replace these medical officers with rated or non-rated line officers.[124]

The lack of an officer being there to command and lead pararescue operations on the surface continued until the Combat Rescue Officer AFSC was established in 2001.

The second factor being the combined provisions of the Chicago Agreement of 1947 and the subsequent Geneva Conventions of 1949 addressing aerial search and rescue operations during peacetime and periods of armed conflict introduced Laws of Armed Conflict legality risks. The legality risks is Medical Corps, Medical Service, Nursing commissions establishing medical being exclusively in medical service that establishes a noncombatant status. By 1956, these concerns plus career progression being connected to medical service assignments contributed to the deletion of aeromedics from participating in combat rescue operations as crewmembers on air rescue aircraft.[125]

This sequential prohibiting and removal of medical service officers from participating in actual Pararescue mission operations was extended to not replacing medical service officers with line (rated/nonrated) officers. Instead, the decision was made late in 1952 to assign and utilize noncommissioned officers (Master Sergeants) as pararescue team commanders.

The vocabulary context of Team Commander is identifying command permissions, duties, responsibilities, and autonomy delegated to these NCOs as the lowest command authority in the operational chain of command responsible for executing the commander's intent. It is the emergence of the Pararescue Team Leader qualification and certification as an occupation specialty career education, training, and development requirement.

Such duties and responsibilities become of importance once the appropriate commander (mission, task force, unit) has made the decision that pararescue forces are needed to accomplish the mission with the technical decision that the successful use of pararescue is feasible being made by the pararescue team commander (subsequently Team Leader). This required being directly involved

in mission planning whether based on immediate response pre-launch mission information or preplanned crisis or contingency response information. Should the pararescue team be committed to surface operations the team leader directs the actions, capabilities, and actions of the team to accomplish the objectives.

In 1951 the Air Force implemented its own physical fitness standards, replacing the previously used Army physical fitness standards. The physical fitness training and standards implemented by the Air Force avoided putting a premium upon the strength, stamina, agility, and coordination.

Even when the Air Force implemented the Five Basic Exercise (5BX) program for males and the Ten Basic Exercise (XBX) program for females in 1962 the Air Force's fitness standards were and remain ineffective in developing and sustaining physical efficiency for military effectiveness.

The Air Force as early as 1947 recognized pararescue had a unique core total military fitness (combat effectiveness) requirement to perform in physically demanding austere environments. To satisfy this requirement it was decided to include physical fitness as a required daily military duty requirement. This allowed pararescue to develop and implement its own core fitness training and testing with inclusion of swimming training and testing in accordance with the Army's 1946 FM 21-10 Physical Fitness manual.

By 1952, the aircrew standardization program provided the means to introduce pararescue mission ready fitness standards as an annual mission ready evaluation requirement which eventually became an Air Force Teir II career occupation-specific fitness standard. It should be noted that it's not until 1988 that other AFSCs began introducing fitness programs modeled after the pararescue indoctrination and mission ready fitness programs.

Simultaneously, during the period from 1947 to 1952 the removal of officers from the pararescue teams introduced the consequence of needing enlisted personnel possessing the ability to provide leadership under conditions of strain, confusion and stress. Consequently, the combined consequences of higher leadership and physical fitness ability requirements and increasing training costs created the need to screen, assess, and select the better suitable volunteer candidates.

Individual and group situational problem solving and physically demanding training events were integrated throughout all phases of pararescue training provided by the 5th Rescue Squadron, MacDill AFB Florida in June 1948[126] (subsequently 2156th Air Rescue Squadron-Technical Training Unit, Palm Beach International Airport, Florida).

All these multi-capable cross utilization training developments necessary to produce enlisted combatant airmen prepared for immediate world-wide deployment with peak physical performance to potentially independently operate across all surface terrains and environments to include unfriendly and hostile military environments was sufficient to justify, validate and authorize student self-elimination from training policies.

This laid the foundation for the prerequisite formal entry into AFSC assessment, selection, and screening course known as the Pararescue Indoctrination course at Lackland AFB in 1965. A mandatory pre-entry into AFSC awarding training course which subsequently laid the foundation for the Air Force Special Warfare Assessment and Selection screening program implemented in 2019.

Regardless, it's the 1947 request of the Headquarters Air Rescue Service for authorization and activation of permanently constituted mission ready pararescue teams followed quickly with the request to authorize and establish Specification Serial Number that was approved no later than June 1948. Thus, although pararescue operations were accomplished during the Second World War it was accomplished by personnel given additional training to perform such duties on a as needed status.

The SSN was converted in May 1951 to an AFSC unique to the Air Rescue Service which was acquired the responsibility to provide the Air Force trained and qualified pararescue personnel. By 1952 this enlisted career occupation specialty had acquired an approved Air Force specialty training program, firmly established essential occupation specialty specific human performance requirements and standards, specified operational (mission/tactical) leadership duties and responsibilities, and a rudimentary applicant assessment and selection program at a quality not quantity level not being replicated, duplicated, or imitated as mandatory entry into and retention of AFSC requirements by any other Air Force specialty occupation or career field until the mid-1980s.

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