

*CALL SIGN - DUSTOFF*  
**A HISTORY OF U.S. ARMY  
AEROMEDICAL EVACUATION  
FROM CONCEPTION TO  
HURRICANE KATRINA**

by  
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# Foreword

DUSTOFF Medic, SFC Brian “Papa” Brockett, knelt over his patient, doing his normal assessment, checking for unknown wounds and asking “Are you okay?” to check his alertness. The young Marine Infantryman merely wiped the blood from his face, where he had taken a round as he burst through the door of an Iraqi home in search of insurgents. He smiled and replied, “I’m okay. I knew you’d come.” As “Papa” retold this story, his eyes filled with tears, and his voice waivered with the return of the emotion of knowing the faith our Warriors place in DUSTOFF crews to be there for them in their time of need. This story was told in 2008; however, it resonates with the same fervor as did Major Charles Kelly’s last words of 1 July 1963, “When I have your wounded.”

And so it is today. The current DUSTOFF crews run to their aircraft, confident that they can—and will—face the dangers that await them over the next hill and then they go where others dare not. They cross mine fields, face incoming fire from those who would do harm to their comrades in arms, and willingly risk their own lives to medically evacuate others. They are the Warriors of compassion, standing on the shoulders of Soldiers like Charles Kelly, Pat Brady, Mike Novosel, Steve Hook, Tiny Simmons, Charles Allen, John Temperilli, Ernie Sylvester, Doug Moore, Paul Bloomquist, Hank Tuell, and thousands of others who earlier flew the medical evacuation helicopters.

The inevitable consequence of war is the production of casualties. After World War II, visionaries like Spurgeon Neel recognized the efficacy of using helicopters to evacuate casualties from the battlefield. He and others led the fight to develop the MEDEVAC helicopters into the single greatest lifesaving system developed by our Armed Forces. Neel realized that this capability could also provide a greater national service. He was instrumental in creating the Military Assistance to Safety and Traffic (MAST) Program, which provided this service to our nation’s towns and rural areas. Neel’s innovative and creative ideas led directly to the use of helicopters as a part of the medical health care delivery system.

This book captures the story of DUSTOFF from its conception. It reviews its development and use in both Korea and Vietnam, but focuses on the post-Vietnam years that saw almost constant transformation of unit structure, doctrine and structural command and control, and the development and adaptation of new aircraft and lifesaving equipment. It also chronicles the transfer of the MEDEVAC units from medical to aviation control, a most traumatic event that presented the MEDEVAC community with another set of challenges.

What held steadfast through these times of change was the immutable fact that brave American Warriors on the battlefield executed the nation's wars with the faith that comes from knowing that should they become casualties, the DUSTOFF crews would come. Their heroic efforts were recognized during our nation's military missions in Panama, Desert Storm, Provide Comfort, Bosnia, Afghanistan, and Iraq; the almost continuous support for MAST operations across the nation; and innumerable responses to domestic crises, Hurricane Katrina most prominent among them. Theirs is a stellar legacy, one well recognized and now, well recorded.

Darrel Whitcomb has expertly captured the story of this national treasure—the face of hope in scenes of chaos—the story of the Warriors of compassion. All captured in two quotes – “When I have your wounded” and “I knew you’d come.”

Daniel W. Gower, Jr.  
Colonel, U.S. Army Retired  
Executive Director, DUSTOFF Association

# Preface

*There is a very interesting togetherness between medicine and aviation with which I have been fascinated over the years.*

- Maj. Gen. (ret) Spurgeon Neel, USA<sup>1</sup>

Much has been written about U.S. Army aeromedical evacuation—or MEDEVAC—as it has come to be known, and deservedly so. Most works have focused on the war in Korea or Vietnam. This project has a larger interest. It will explore the conceptualization of the initial attempts to use aircraft for evacuation, review its development and maturity through those conflicts, and then focus on the history of MEDEVAC post–Vietnam to the transformation of the MEDEVAC units from medical to aviation command in 2003, and the response to Hurricane Katrina in 2005.

By MEDEVAC, I specifically mean the utilization of helicopters to pick up wounded soldiers and rapidly move them to medical facilities in the rear area. I acknowledge that ground vehicles can also perform this function, and those units are also an important part of the story of medical evacuation. The focus in this work will be on the unique use of helicopters to accomplish this mission. It is a fascinating story of the development of a uniquely American innovation, although other nations also conduct it now for their troops.

Some definitions are needed:

MEDEVAC: Medical evacuation is performed by dedicated, standardized medical evacuation platforms, with medical professionals who provide timely, efficient movement and en route care by medical personnel of the wounded, injured, or ill persons from the battlefield and other locations to medical treatment facilities.<sup>2</sup>

Similar and frequently confused with MEDEVAC is:

CASEVAC: A term used by nonmedical units to refer to the movement of casualties aboard nonmedical vehicles or aircraft.<sup>3</sup>

As the definitions show, MEDEVAC is much more than CASEVAC. It is a key component of the overall medical system of the Army that has as its primary mission the conservation of military manpower.

“Necessity,” said the Greek philosopher Plato, “is the mother of invention.” Military commanders have long recognized the need to move casualties from the field of battle as quickly as possible. Alexander the Great had a medical corps of litter bearers who brought in the wounded and teams of surgeons and medics who practiced the medicine of the day as best they could. The result was fewer deaths and more men returned to duty.

Later armies followed variations of this theme. As the technology of medicine itself advanced, so did the ability to collect the wounded. Armies took advantage of technological progress to facilitate the process. French armies of the 18th century developed special wagons. They called them “Ambulance Volante” or “Flying Wagons,” and the lumbering vehicles followed closely behind the battle lines to collect the inevitable result of increasingly lethal warfare.

An evolution of this system was created by United States Army Maj. Jonathan A. Letterman. After witnessing the carnage and lack of good care for Union soldiers in the first year of the Civil War, he was empowered by Maj. Gen. George McClellan, commander of the Army of the Potomac, to establish an evacuation system based on an ambulance corps for the Army of the Potomac to collect the wounded and provide initial care. It would be equipped with ambulances, horses, and necessary supplies and manned by medical technicians who would then deliver the casualties to divisional field hospitals. Specially detailed officers would administer this system, thus allowing the doctors to focus on caring for the wounded. Eventually, they would also use ships and trains to move the wounded to general hospitals in the rear areas. The system worked well and was soon adopted for the entire Army through Army regulations and then an Act of Congress. It established a chain of evacuation that still exists.

As the technology of transportation advanced, so did the implements of medical evacuation. Any new invention was—within a short time—drafted for evacuation duties. Ships, trains, trucks, and automobiles were all adopted, and medical personnel put aboard, thus extending medical capability forward so that casualties could more quickly receive care. When the airplane was developed into something that could carry more than just a pilot, it too was detailed to evacuation duties. It was only natural that the helicopter, with its unique ability to land in nearly any location, would be assigned to MEDEVAC duties. It held the promise of further decreasing the time required to move critically wounded from the point of injury to critical medical care. It seemed to be the perfect device to answer the necessity that spawned the chain of evacuation.

Yet every child has two parents, and while necessity is the mother of MEDEVAC, aviation is its father. He is a stern father with immutable laws of physics that define what those wonderful MEDEVAC helicopters and crews can and *cannot*



do. Helicopters do facilitate moving the wounded through the chain of care more quickly than other vehicles, but the physical limits of flight cannot be overridden by medical necessity.

Helicopters can only go so fast and so far, and there are places where helicopters cannot go. These may be defined by weather, terrain, or a vengeful enemy, but those rules are inviolate—no amount of necessity can override them. Any user of helicopters must obey those rules or be prepared to pay a terrible price. This reality has been traced in blood many times over.

These rules apply to any practitioners of the art of aviation. Long ago, aviation pioneers realized that airplanes and their use must be controlled by aviators who understood the reality of flight. Perhaps recognizing this, during the Korean War the Army designated a small number of Medical Service Corps (MSC) officers to attend flight school and become MEDEVAC helicopter pilots. It was—and still is—a good match.

It is evident that in the modern world of aviation and medicine, the MEDEVAC pilots have to serve both masters. They must understand the medical imperative of their task, yet perform it within the limits of physics. They must honor both of their parents to be successful.

In a microcosmic way, the four-person crew of the MEDEVAC helicopter represents this melding of two disparate sciences. In the cockpit, the two pilots, commissioned or warrant officers, understand both specialties. In the back of the aircraft, the crew chief focuses on the operation and care of the aircraft, while his cabin-mate, the flight medic, is the medical technician. His focus is on the application of medical care as necessary to evacuate the casualties to higher levels of medical capability. It is a time-tested system that brings together the best of both specialties.

But which is primary: aviation or medicine? It is a beguiling question. To whom should that crew answer, the medical command that controls the chain of evacuation and medical supplies, or the aviation command that provides the organization and support necessary to facilitate flight?

That appears to be the dilemma, the yin and yang of this story. Is it, in the end, the right question?

One immutable point is crystal clear. That wonderful force of MEDEVAC helicopters and crews is a national treasure that serves our nation in both peace and war.

This story is presented chronologically. Part I looks at the heritage of MEDEVAC from its beginnings in World War II through the bitter battles in Korea, the interwar years, and the long struggle in Vietnam. Part II covers the 1980s, a time of domestic duties and contingency operations. Part III looks at the turbulent 1990s with the end of the cold war, a hot war in the Persian Gulf, dramatic military force reductions, and a call to duty in the Balkans. Part IV stretches into the millennium, covering the terrible events of 9/11, further conflict in Afghanistan and Iraq, the Aviation Transformation Initiative that moved MEDEVAC from medical to aviation control, and the national response to Hurricane Katrina. In general, after Part I, a thematic approach is used, and the chapters are organized

with interweaving sections covering doctrine (Service and joint), organization, and operations.

One explanation is necessary. I will mention many specific U.S. Army units in this work. Divisions and larger units will be referred to by their full title, as will medical units down through battalion. Combat battalions will be referred to as per the Combat Arms Regimental System. The MEDEVAC units that are medical companies (Air Ambulance) and medical detachments (Helicopter Ambulance) will be addressed as Med Co (AA) and Med Det (HA), respectively, such as the 57th Med Det (HA) or the 45th Med Co (AA). As the story will explain, in 2005, the MEDEVAC units were reorganized and moved from medical to aviation command and control. At that point, they lost their heritage designations such as the 498th Med Co (AA), and each unit became the Charlie company of a general support aviation battalion like Charlie Company, 2d Battalion, 3d Aviation Regiment, abbreviated as C/2d/3d. These simplifications are in the interest of brevity.

This work has brought me into contact with many wonderful people who have facilitated its creation. I would be remiss not to mention them.

My first research effort took place at the Armed Forces Medical Library in Falls Church, Virginia, where I was well supported by Patrick Walz, Emily Court, and Diane Zehnpfennig. One of the first books that they gave me to read was *DUSTOFF: Army Aeromedical Evacuation in Vietnam*, which was written by Peter Dorland and James Nanney and published in 1982. It is a fine piece of history that effectively tells the evolutionary story of MEDEVAC in that conflict, and it helped me set my course to discover the later story.

My next stop was Fort Rucker, Alabama. I attended the 2CF7 Medical Evacuation Doctrine Course at the U.S. Army School of Aviation Medicine (USASAM). I met Lt. Col. Vinny Carnazza, Maj. Ken Koyle, 1st Sgt. Michael Stoddard, and Sfc. Jim Burbach at the USASAM, and conducted interviews with fellow students in the 2CF7 course.

I also spent fruitful time at Fort Rucker with Steve Maxham and Dick Tierney at the U.S. Army Aviation Museum and with Col. Dave MacDonald and his coworkers at the Medical Evacuation Proponency Directorate.

Dr. John Dabrowski, the Army Aviation Branch Historian, gave me a great deal of his time, as did Jill Redington, Jean Southwell, and Janice Haines, who helped me dig through the massive data available in the Aviation Technical Library.

I made several very productive visits to the U.S. Army Center for Military History at Fort McNair in Washington, DC, where I worked with Mr. Stephen Everett and Ms. Patricia Ames. Their help in deciphering Army force structure was invaluable.

The National Archives in College Park, Maryland, are a rich source of information. There, I was well assisted by Rich Boylan and Susan Francis-Haughton who patiently helped me find archival information on units and operations.

I traveled to Fort Bragg, North Carolina. Ms. Donna Barr Tabor, the historian for the XVIII Airborne Corps, helped me recover data on the MEDEVAC units that have served in this unit or at this post. Lt. Col. Scott Putzier of the 56th Medical

Evacuation Battalion helped me find data on that unit. I attended the inactivation ceremony for the 57th Med Co (AA). It was sad to watch as the guidon was cased on this unit that has existed since the Korean War era. Perhaps more than any other unit, it represents the spirit of MEDEVAC.

The medical warriors at Fort Sam Houston, Texas, hosted me for two weeks as I conducted interviews and did primary research on doctrine and force structure in the AMEDD Directorate of Combat and Doctrine Development. Col. Mark Hegerle and his personnel were graciously generous in their support. I must specifically thank Ms. Cecily Price and Mr. Ken Sutton for allowing me to call on their vast historical knowledge of this mission and its doctrine. I also went to Fort Hood, where I visited the 507th Med Co (AA) and the 36th Medical Battalion (Evacuation), two units key to this history.

Several individuals have given me critical “vectors” in this venture. Col. (ret) Dan Gower of the DUSTOFF Association has guided me with invaluable background and historical information, and he has been absolutely selfless in helping me to find and interview key participants in this mission. This project could not have happened without his beyond generous support. His absolute love for and dedication to this mission and community of real heroes is truly humbling.

Col. Randal Schwallie has served as my conduit into the Army Reserve community. The Army Reserve’s story of great service as part of the MEDEVAC community has received little recognition.

My work allowed me to visit several more MEDEVAC companies, both active and National Guard. All commanders were wonderful hosts and gave me open access to their histories and troops. Interviewing them was a truly enriching experience. Over the years, there are or have been more than 110 units. I could not visit them all or their descendents. But I would like to especially thank 2d Lt. Jasmine Chase of the 112th Med Co (AA), Maine ARNG, who generously shared her unit history with me.

The U.S. Army Military History Institute at Carlisle Barracks, Pennsylvania, is a rich source of information, and I spent two very productive days there under the expert guidance of Mr. Dave Keough.

Capt. Jim Page hosted me for two days at Fort Campbell as I dug into the history of MEDEVAC at that huge post, home to the famous 101st Airborne Division (Air Assault). It is the location for two MEDEVAC units now, the Charlie Companies of the 6th and 7th Battalions of the 101st Aviation Regiment, formed from the remnants of the inactivated 542d and 50th Med Cos (AA), respectively. This visit was critical to understanding MEDEVAC and the key role that “Eagle Dustoff” played in this saga.

I traveled to Germany and visited the pre-transformation 159th Med Co (AA) at Wiesbaden Air Base, the 236th Med Co (AA) at Landstuhl, the 45th Med Co (AA) at Ketterbach, and the MEDEVAC alert facility at Hohenfels. Additionally, Mr. Bruce Siemon, the U.S. Army Europe Historian, hosted me at his office in Heidelberg for a very productive visit to that rich trove of documents.

While visiting Seattle, Washington, I met with Mr. Mark Hough. Mark never

served in the military, but has developed a strong and enduring interest in MEDEVAC. He has published the best single book chronicling the individual histories of MEDEVAC units, *United States Army Air Ambulance*. He generously shared his voluminous files with me and gave me a “tour” of his collection of more than 500 unit patches.

In Atlanta, I spent a day with Lt. Col. Al Koenig, a historian assigned to the First Army. He is leading the effort to capture the U.S. Army response to Hurricane Katrina, and generously shared his extensive files with me. The next day, I visited Lt. Col. Pete Smart at the Redstone Arsenal at Huntsville, Alabama. He works in the Aviation Utility Helicopters Project Office, and he gave me an excellent tutorial on the MEDEVAC fleet of helicopters.

My office mates at the Office of Medical History have been unselfish in their support. Our archivists, Will Edmondson and Lisa Wagner, provided great support in digging out documents from our extensive collections. Tom Gray and Annita Ferencz provided the administrative structure that made the office run. Maj. Lew Barger and Maj. Rich Prior were our active Army counterparts and served as the critical link to our forces operating daily around the world. Drs. Sanders Marble, Jonathan Hood, and Lisa Budreau are all experts in their fields and possess that innate capability to always ask the provoking question. All of this was directed by Dr. John Greenwood, a preeminent historian who, with more than 30 years experience as a prolific historical writer, set the standard for the rest of us. I sincerely thank the team for their support, and Dr. Greenwood for his leadership and guidance. Lastly and perhaps most importantly, I must also thank my dear wife, Chris, for her generous and loving support as my transcriber, editor, and chief taskmaster for this effort. I just could not have done it without her.

This project also gave me the opportunity to become familiar with a very special individual, Maj. Gen. Spurgeon Neel. He—perhaps more than any other single person—created MEDEVAC. As a young major in the late 1940s, he saw the rich potential that helicopters represented as aerial ambulances, and never lost the passion of that vision through the many assignments of his long and distinguished career. Unfortunately, he passed away in 2003. But he was a prolific writer and penned many articles, staff studies, and reports on the subject. Additionally, he granted several recorded and transcribed interviews that are rich in detail, and track so much of the mission as it developed during his career. He is truly the patron saint of MEDEVAC.

I offer a sincere salute to the dozens of soldiers and civilians I interviewed for this project. Their patience is appreciated. There was no way to meet with all of the men and women who have been members of this great community. I do believe that I have interviewed a truly representative slice of them. My interviewees make up four distinct groups: (1) the “old lionhearts” from the Vietnam War; (2) the post-Vietnam transitionals; (3) the post-Desert Storm “zealots,” who are the commanders of today; and (4) the young men and women who are the current MEDEVAC force. I have done my utmost to properly record and use their words as accurately as possible, and I hold in confidence those “background” discussions

so vital to understanding. To all my interviewees I say, “Your words are the essence, the heart of the story.”

Some individuals I asked to interview refused because the memories are too strong. I respect that and accept it. Much of this story is about war. That endeavor touches all who experience it. Some soldiers love it. Some soldiers hate it. All are changed irrevocably by the experience.

And lastly, I offer a dedication.

I dedicate this work to the men and women of MEDEVAC. First of all, it is their story. Most importantly, it is offered for all that they do. Day and night, they are there. Good weather and bad, they are there. Enemy or no enemy, they are there. They give far more than their nation has a right to expect. Their efforts humble us all. They represent the best of our nation, and we must never forget that.

And right now, they are out there at so many locations,  
waiting for that call.

Suffused as they are with a focus, a determination, a will that has been  
*forged in the fire of compassion.*

Pray that it should always be so.

