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MASTER OF MILITARY STUDIES

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**From the Ground Up: The Need for Standing Dedicated United States Marine Corps Air  
Assault Battalions**

SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF MILITARY STUDIES

**Major Cody L. Hardenburgh**

AY 2018-19

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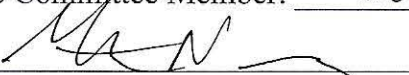
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## **Executive Summary**

**Title:** From the Ground Up: The Need for Standing Dedicated United States Marine Corps Air Assault Battalions

**Author:** Major Cody L. Hardenburgh, United States Marine Corps

**Thesis:** The Marine Corps currently lacks an advanced understanding of helicopter and infantry integration which results in utilizing aircraft as just another mode of transportation. By having standing Air Assault Battalions in Camp Lejeune, North Carolina, Camp Pendleton, California, and Camp Schwab, Okinawa, Japan and close integration of flying squadrons and infantry battalions, the Marine Corps can maximize the lethality of both air and ground forces. This will pay dividends towards a more ready and responsive Marine Corps capable of conducting combined arms long-range battalion level air assaults tethered to a crisis response timeline.

**Discussion:** Employing elements of the United States Army 7th Cavalry Division in Ia Drang Valley Vietnam in 1965 was a watershed event in history that solidified and led to the continued need of heliborne operations. Throughout the conflict, assault/support aircraft were used in concert with surface fires that created well timed and executed concert of destruction that left the enemy in a dilemma they could not cope with. This example of a textbook air assault is why the Marine Corps needs to understand and maintain resident knowledge and expertise in every division. Additionally, helicopterborne crisis response is crucial due to a destabilizing globe and pockets of terrorism that continue to grow at an exponential rate.

**Conclusion:** Without a standing dedicated air assault capability in each of the three active duty divisions in the Marine Corps there is a significant risk that is being assumed to continued expeditionary success. The Marine Corps must take a measured approach by dedicating three Infantry battalions and converting them to independent units that work directly for the Division Commander respectively. The Marine Corps can no longer afford to utilize assault support aircraft in the inventory as another mode of transportation. It is time for a change that will thrust the integration of aircraft and ground forces into the 21st century.

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## *Preface*

When I started researching Air Assault capabilities, it became clear to me that I had plenty of subject matter experts that I have known for years. Through friends and family, I realized that there was a huge untapped resource that could assist me through the development of this paper. One of those resources was Don Ericksen an Army Captain aviator in Vietnam who could provide me perspective of what the men from above faced. Not only did he provide me valuable insight into the day-to-day operations through many conversations that took place, but he also provided me two books to use as research material. They were *19 Minute to Live: Helicopter Combat in Vietnam* by Lew Jennings and *A Pilots Tale: Flying Helicopters in Vietnam* by William H. Heilman.

My Concept of Air Assault uses standing inventory and personnel in the Marine Corps. I did not want to go down the path of asking for experimental equipment or task organization. A conversion of a standing Infantry battalion on both east and west coast as well as Okinawa, Japan is not an entirely difficult endeavor to accomplish. The Marine Corps does it all the time with Infantry battalions training and conducting a change of posture to a Battalion Landing Team in order to deploy as a part of a Marine Expeditionary Unit. Instead of one Company training to become helicopter certified it would now be four. This can be achieved through a rotational effort.

Additionally, I understand that there has been a significant amount of time and effort dedicated to Joint Forceable Entry Operations. By having standing Air Assault battalions, the Marine Corps can be once again called upon to be a part of a complex problem to have capabilities that the nation depends on. The United States Navy has decided to develop an *America* Class Landing Helicopter Dock class ship that has no well deck to launch waterborne or surface-borne units. With that an increased helicopter infantry unit will need to be called on once those ships are christened and set sail.

Throughout my experience with helicopter-borne operations at Weapons and Tactics Instructor school as a platoon Commander, two separate Marine Expeditionary Unit deployments, and a ground tour to Afghanistan in 2010, I have seen varying degrees of success with Air Assault. As an homage to the men of 1st of the 7th Calvary that worked so hard to out-cycle the enemy in Ia Drang Valley, Vietnam, I used them as a historical example. They had an ideal situation in which they trained up together and integrated aviation and infantry throughout all aspects of the battalion. When I close my eyes and imagine a well-trained, fully integrated unit they come to mind.

Finally, I would like to thank the following individuals for their assistance and mentorship through this process, Lieutenant Colonel Philip Laing, Lieutenant Colonel Paul Armstrong, Colonel Matthew Neumeyer, Dr. and retired Lieutenant Colonel Craig Swanson and finally Don Erickson. Gentlemen, without your help this would not have been possible.

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## INTRODUCTION AND THESIS

Throughout the existence of vertical envelopment and rapidly everchanging technology that comes with helicopters and tilt-rotor aircraft there is a necessity to bring the Marine to a new level of training and education. Marines and Sailors must understand the capabilities, limitations, and versatility, from planning to execution to have an added advantage over the adversary. The Marine Corps' long-standing expeditionary mindset and doctrine have provided a guiding light for helicopterborne operations. By using the existing rotary wing aircraft to quickly employ troops and firepower in a particular zone of action, the Marine Corps must reinvigorate the capability that has provided overwhelming success in the past. Crisis response around the globe could be substantially improved by employing air assault capabilities in dedicated Infantry Battalions in Camp Lejeune, North Carolina, Camp Pendleton, California and Camp Schwab, Okinawa, Japan. Currently, the Marine Corps places an Infantry Battalion on a Global Reaction Force following deployment to maintain a ready, highly-trained unit to be able to respond within a limited amount of time to areas requiring humanitarian and disaster relief, crisis response, embassy reinforcement, or support of Joint Forceable Operations. This gamut of mission sets provides the Marine Corps an over the horizon capability necessary to respond to an affected area overnight without a heavy footprint on the deck. Essentially, Marines and Sailors attached and tethered to aircraft have a responsibility to understand how they can be employed. Unfortunately, the Marine Corps writ large uses the aircraft as another mode of transportation and not as a lethal platform that can quickly out-maneuver the enemy, surprise them, or deliver an Infantry unit to execute a mission.

Throughout the history of United States' helicopterborne operations, there is a specific battle that remains the premier example to follow. The example is the success of Lieutenant

General Hal Moore in La Drang Valley during the Vietnam war in 1965. This event continues to be studied and reviewed to illustrate proper helicopterborne operations and demonstrate an expeditionary capability through the use of well-integrated planning and execution. The advantage that General Moore had were not only credited to the new UH-1 Huey aircraft, which is capable of effectively and quickly launching units, equipment and supplies, but that the 1st Battalion 7th Cavalry had a mindset of completely integrating the Infantry and a flying squadron. These units that would not only serve as a mode of transportation but a thought through capability to out maneuver the enemy in Vietnam. The enemy had never faced anything like it to that point and found it particularly difficult to defend against considering the small amount of ground that the Huey needed to perform a hover and employ the troops almost immediately.



(Figure 1. UH-1 Huey courtesy Wikipedia)

The Huey and the 7th Cavalry would continue to serve as a guiding light to all services for the expert employment of helicopter and an air assault capability. They managed to maintain and provide the infantryman continued support of all classes of supply and close air support. Due to the expeditionary nature of helicopterborne operations a large footprint was not needed to

sustain offensive and defensive operations. In fact, air mobile units can be quickly mobilized as evident by the 1st Cavalry Division in 1965 to the Vietnam War. The example provided by the 7th Cavalry is the best demonstration of a fully integrated Air Assault Capability to date. The lessons learned and successful nature of the campaign should be brought over to United States Marine Corps helicopterborne Operations.

The future of the Marine Corps positively depends on changing the mindset of the Corps in conducting helicopterborne operations. The Marine Corps needs a fully integrated understanding of helicopterborne operations and to bring this force to the fullest potential. Standing Battalions in each of the three Divisions will certainly be a step in the right direction. Techniques, Tactics and Procedures are almost always best figured out at the lowest tactical level. The answers to appropriate questions can and will be examined by the battalion staff and assisted by the Division staffs. These Air Mobile, Air Assault Battalions will be manned and equipped appropriately, very similarly to a standing infantry Battalion, the only change being that they will not need large organic wheeled assets instead a necessary amount of the new Polaris Razor side-by-side vehicles capable of being loaded into the cabin of a V-22 B or CH-53 E. The Urgent Needs Statement necessary to handle any armored enemy is to have every Squad outfitted with Carl Gustaf rockets. This will give the air assault units a fighting chance by being quick, agile, tough to target, and lethal against any adversary they engage with. The aircraft supporting the Air Assault Battalion must also get a revised communications system to properly inform the Marines and Sailors in the back of the aircraft to create a better Common Operational Picture. When Marines receive information real-time the uncertainty suddenly becomes less of a worry and confidence begins to climb for a better chance of success.

This paper will examine a successful historical example of helicopterborne operations, recent recorded data from Marine Corps Center for Lessons Learned, Expeditionary Operations Training Group, Marine Aviation Weapons and Tactics One, and finally a plan to move forward with implementing Air Assault Battalions in 1st, 2nd and 3rd Marine Divisions.

## **HISTORICAL EXAMPLE OF HELICOPTERS IN VIETNAM**

The idea of an air mobile unit that would be fully supported from rotary wing aircraft is not new. In 1962 Secretary of Defense Robert McNamara required the Department of the Army to research the Air Assault capability to "...use helicopter assets to rapidly move, support and resupply troops in combat."<sup>1</sup> Many believe that McNamara was onto a new and innovative idea that would help turn the tide in the favor of the United States during the Vietnam war. However, the man who deserves the credit for this accomplishment is General Hamilton Howze. The study was aptly named the "Howze Board."<sup>2</sup> General Howze was convinced with the new aviation additions to the United States Army, which included observation helicopters, utility helicopters, and attack helicopters, would assist in quickly employing and supporting Soldiers to overwhelm the enemy that they were facing. "The tactics these new helicopter combat organizations would use to rapidly deploy large troop units into combat would become known as "Air Assault."<sup>3</sup>

The United States Army had already beaten Secretary McNamara to the race, in February 1963 at Fort Benning Georgia, where innovative and experimental tactics were well underway to support what would later become Air Assault. During this period General Harry Kinnard was given free reign without beaucroatic interference to test and examine capabilities of the 11th Air Assault Division, 10th Air Transport Brigade, and Aviation group.<sup>4</sup> Many of the Generals and staff officers assigned to this test branch were enthusiastic about creating a force that would not necessarily be tied to the challenges of the basic Infantry Unit. Chiefly, the terrain that bogged

down men, by the rigors of the jungle large lagoons and saturated terrain. The lack of resupply opportunities which in many cases limited how many days the Soldiers could sustain themselves and in sweltering heat, with little to no shelter and a threat of exhaustion always on their minds.

Although, Fort Benning had its own challenges; it was not comparable to the dangerous, unforgiving jungles of Vietnam. The terrain throughout the country of Vietnam posed a strict disadvantage by being unfamiliar with the foliage and was not the best way to out maneuver the enemy.<sup>5</sup> What impressed senior leadership most about the Air Assault concept was not the aircraft or the technology that came with it. In fact, many believed to include Generals Kinnard, Howe, and Gavin, that coming from the overhead in a helicopter with little to no notice towards the enemy was an advantage that now presented them with a 3-Dimensional issue that they would have to resolve.<sup>6</sup> General Gavin, an Airborne veteran from World War II and Korea, also believed that vertical envelopment was the way of the future. He believed that helicopters were so much more than a medical evacuation platform such as it was being used in Korea.

Strategically the notion of air assault started to become a highly logical and efficient way of attacking specific targets or terrain in a short period of time. Time was of the essence as the American taxpayer protested the Vietnam efforts soon after the announcement to join the Vietnam conflict. To add to the dismay of the people, a draft was started to involuntarily enlist or commission young men and woman to assist in the efforts in and around Vietnam.

None more excited was a young Lieutenant Colonel Hal Moore. At the time he was a Lieutenant Colonel anxious to take command of a Battalion. He would become the Commanding Officer of the first helicopterborne Calvary Unit in the United States Army. However, this was not by surprise or random circumstance as General Moore had been part of the experimental Air Assault test branch for two plus years and worked for some of the same Generals, Gavin

specifically, that had been advocating for the employment of air assault units in combat. His previous relationships with key influential personnel landed him a job that he was uniquely qualified for. There had been limited information on how this was going to be accomplished except that he had an advantage by creating a fully integrated infantry and aviation unit that would live, eat, and sleep together under the same roof. This would make the training opportunities more readily available to the Soldiers who were desperately attempting to learn the new capabilities. Time was of the essence considering the Vietnam war was well underway and the United States needed an advantage over the enemy.

The ground battle up to the 1965 point was somewhat slow and lethargic, mainly due to the unforgiving terrain and what seemed to be an enemy who was determined to slowly deteriorate the moral of the United States by fighting a long drawn out ground battle. As the Communist forces continued to have success on the ground, the Department of Defense was simultaneously developing and producing specific aircraft to initially defend the support helicopters but also hunt the enemy. The first of the attack platforms was the AH-1G Cobra helicopter which found its way into the Vietnam war in 1967. It was a fast, sleek, capable, two seat helicopter capable of holding 2.75 rocket pods on either wing a total of 72 in all, a 40mm automatic grenade launcher with 300 rounds and a Emerson Electric 6 barrel 7.62 Gatling gun with up to 2000 rounds.<sup>7</sup> The importance of providing the data for this aircraft was not only that it was the first of its kind but to show the versatility of the armament that it carries.



(Figure 2. AH-1G Cobra courtesy vietnamveterannews.com)

Today the Marine Corps uses an updated version of this aircraft because it remains a multi-role aircraft capable of providing accurate and timely Close Air Support to the maneuver forces on the ground. Specifically, the AH-1G provided a much-needed escort capability to the slower and more vulnerable assault support aircraft such as the Huey or Chinook. The first Cobra helicopters ability to provide ordinance in a timely and accurate manner was cutting edge technology and was necessary for the assets that planned on conducting long range air assaults. Another innovative addition to the United States Army aviation inventory was the CH-47 Chinook. It represented the heavy lift cargo variant that could easily lift wheeled assets and cargo via suspended line. This would later be an important to Air Assault operations as they were quickly assigned to carry 105MM Howitzers to support ground operations.<sup>8</sup> Artillery Batteries

could now be emplaced quickly without having to move through the highly restricted terrain that happened to encompass most of Vietnam.

One of the most famous air assaults of all time was the operation that took place with General Hal Moore's battalion in the Ia Drang Valley in 1965. This is an example of a battalion-level air assault to seize a landing zone and cut off the Ho Chi Min trail to defeat elements of the uniformed Viet Cong forces. To this point the Viet Cong had maintained the advantage by holding defensive positions in tunnels, hill sides; and ambush positions of all sizes. These guerilla tactics were a parasite on the American ground troops because these positions were well hidden, highly defensible and filled with, in most cases, multiple improvised traps capable of maiming or killing personnel, with explosives or other rudimentary techniques like pungi sticks or timber shaped to be sharp and impale anyone that would encounter them. A slow methodical approach would be necessary from the Soldiers and Marines that would come across a defense such as these. Another frustrating portion of the fight was that in many cases the ordinance dropped from fix-winged aircraft would have little to no effect on the North Vietnamese forces due to the depth and structural enforcement that they had made over the years of conflict. These enemy defensive positions were also well tied via communications lines so that receiving information on the composition and disposition of forces was able to be disseminated and acted on.



(Figure 3. Pungi sticks courtesy peteralanlloyd.com)

Deployment of forces from the underground tunnels and defensive positions came quickly as they hoped to overwhelm the enemy by attacking on a specific position with numerically superior forces, from a position that was not expected. This also posed a problem for the intelligence community as it was hard to anticipate enemy troop numbers and positions within a specific zone of action. That is why the air assault and Lieutenant Colonel Moore's forces capability to quickly amass forces made the enemy having to respond to a specific part of the battlespace in which he may not have had defensive positions prepared or ready for. The advent of air assault in many ways leveled the playing field for the Vietnam enemy forces. At Lieutenant Colonel Moore's fingertips lied the employment of 16 Huey Helicopters to get his battalion into the Landing Zone he had conducted reconnaissance on previous days.<sup>9</sup> During flight school helicopter pilots heard about the successes and shortcomings in multiple venues across the country. The mantra of the pilots such as Chief Warrant Officer William H. Heilman quickly became "Keep it low, keep it fast and keep it unpredictable, oh yea and stay in

formation.”<sup>10</sup> Within weeks of the predominance of air craft showing up in Vietnam issues quickly occurred with random fire coming from the canopy of the thick jungle. These random Hail Mary shots were from enemy units or farmers that were not happy about the Americans being in their territory. What was unnerving about the enemy sporadic fire is that pilots were somewhat vulnerable to any type of fire due to all of the critical mechanical part that are in the helicopter for example the engine, transmission, hydraulic lines, critical control surfaces, and finally the unprotected pilot. To illustrate this fact, throughout the continuous helicopter operations throughout the entirety of the Vietnam War were a total of 35,000 United States Army aviators, of which 1,872 were Killed In Action.<sup>11</sup> This stark reality shows that the aircraft that were flown in and around the Vietnam area of operations were not always at a strict advantage.

It took innovation, an enhanced understanding of aerial tactics, and a tight integration with the troops that would benefit from the assault or support aircraft. If that is not enough to think about, there is yet another portion of the aviators lives that was particularly dangerous and that was the airfields in which an astronomical amount of ammunition and petroleum, oils and lubricants were stored. The flight line and airfield operations locations were a prime target for the enemy to attempt to attack. The static aircraft that were awaiting the next mission or receiving mechanical attention also posed a threat to the personnel living within the compound walls. The defense of these sleeping tigers was costly. These aviation units would need a significant patrolling effort around the periphery of the base to quell any threat that would sabotage the efforts of maintaining, sustaining, and executing some of the most dynamic military operations Vietnam ever experienced.

## **IA DRANG VALLEY**

Lieutenant Colonel Hal Moore and his men of the 1st Battalion, 7th Cavalry lead some of the most intense fighting in a zone of action throughout the entirety of the Vietnam War. He was able to document much of the campaign due to a curious and determined reporter Joe Galloway from the United Press International. Ia Drang would become “The Battle That Changed the War in Vietnam.”<sup>12</sup> A bold statement but a very true and accurate description of the events that unfolded in what would become an innovative and well-coordinated military operation. Of the 16 U-H1 Huey’s that Lieutenant Colonel Moore was given he had to figure out which platoon, Company and equipment would be necessary to go first to the predetermined Landing Zone, known as X-Ray. Lieutenant Colonel Moore knew that the surrounding hills were most likely infested with enemy fighters as intelligence had previously suggested that the Ia Drang Valley was a troop base used to launch missions and ambushes from. November 14th was the day that Lieutenant Colonel Moore had gotten the fragmentary order to select a Landing Zone and clear the Ia Drang valley of enemy forces.<sup>13</sup> Several hours later the Battalion was loaded into the helicopters, artillery was slung-loaded into a predetermined firing position to deliver 105mm howitzer fire on the LZ with preparatory fires. On the first wave of the air assault, Lieutenant Colonel Moore established a hasty Command Post in a clearing adjacent to Landing Zone X-Ray.

The first wave of Soldiers had landed into zone without any enemy resistance. However, one platoon did manage to capture what seemed to be a young Vietnamese boy conducting reconnaissance on the American movement in the area. He was taken prisoner and questioned, later he provided information that there had been 1,600 Vietnamese soldiers within the surrounding hills that could be mobilized quickly to strike.<sup>14</sup> Early in the afternoon the battalion

had only been able to get 175 men on the ground. At this point General Moore had to carefully place his forces to not get them into a situation that they could easily get overwhelmed by the sheer number of enemy forces. Massing Army Soldiers quickly was not possible due to the limited (16 Huey's) and a round trip time from pick up to drop off was close to 30 minutes. That roundtrip time would become longer as the pilots soon needed to divert to avoid enemy fire and create surprise.<sup>15</sup> Another problem that Lieutenant Colonel Moore would have to overcome was the maintenance cycles and issues with the aircraft that were being flown non-stop. The aircraft were made mostly of aluminum making it vulnerable to small arms fire. Rearming ammunition and refueling also had to be factored into the equation which became frustrating for the troops that had already been in and around Landing Zone X-Ray. The support could not come soon enough, as the Soldiers were left with minimal support in between the waves of aircraft. To complicate the scenario further the pilots also needed rest to properly operate the unforgiving skies. All of these issues are still true in today's battlefields around the globe. It is also relevant to mention that should, a plane get shot down or have to conduct an emergency landing, additional aircraft and assets must be diverted to attempt a recovery and destroy any remaining sensitive equipment that can not be lifted out expediently. However, one of the advantages that 1st Battalion 7th Cavalry had was the Close Air Support that came in various forms to include an Air Force fixed-wing fighter bombers or A1-E Skyraider. The A1-E carried 250 and 500 pound bombs that were mainly Napalm. These munitions worked well in the jungle because it could quickly and effectively spread and stick to the target that it was intended for.



(Figure 4. A1-E Skyraider courtesy reddit.com)

A negative aspect to this Close Air Support is that it was rudimentary and lacked the technology to have first round effective due to the lack of guidance systems from the aircraft or the munition. Through trials and tribulations, the Air Force pilots did get exceptionally good at being accurate mainly due to the coordination that was occurring from the ground or from the airborne commander circling above the zone of action.

Critical thinkers capable of making accurate decisions are necessary in a unit that is going to be successful at doing air assaults. For example on many occasions throughout the Ia Drang valley pilots would have to determine to take more troops or ammunition and equipment.<sup>16</sup> Thankfully, these men had been working together for more than a year and knew how each other operated and anticipated decisions that would be made through the chalkboard analysis they had gone through in many of the training sessions and scenarios.

Later in the day the battalion would run into another scenario which cause additional concerns for the troops on the ground and in the sky. It was the fact that it was going to get dark and create additional issues and considerations that would potentially slow helicopterborne support. Both aviators and the infantryman had to now deal with the issues that came along with flying and finding the enemy before they were to be ambushed or attacked. Air Assault takes an enormous amount of coordination but with continuity and having trained together Lieutenant Colonel Moore was at the advantage. His timing and coordination with the artillery battery in support of him as well as the Close Air Support provided by the Air Force fighter bombers created a well-oiled machine that was capable of out-cycling the enemy. During the night hours, General Moore decided that it would be prudent to create a defensive perimeter to create survivable position until the aviation assets could come back into the picture during the first light.<sup>17</sup> Instead of having the aviation advantage they would have to now depend on the artillery battery and the organic mortars and crew serve weapons that had gotten into the fight at this point. Some of the unit's men to include Sergeant Ernie Savage had been cut off from the rest of the Company and Battalion due to terrain and night fall occurring. However, he was still able to utilize the fire support artillery that he was not bashful about, throughout the night he called on them frequently and at any noise that may have remotely sounded like enemy forces trying to sneak up to his hasty defensive positions and infiltrate the stranded Soldiers.<sup>18</sup>

Lieutenant Colonel Moore had made the decision that those men would have to be rescued upon first light in order to avoid another large skirmish with no air support to help him out of the situation. The enemy activity consisted of 5-10 men probes that in many cases were quickly repelled, this provided the battalion staff a minute to catch up with estimates to provide a good picture of what they would face the following morning. As dusk and darkness set in, many

units started reporting and seeing what had looked like the enemy positioning themselves around Landing Zone X-Ray in order to prepare for an attack that would certainly follow in the morning. At this point the enemy had a good idea of Lieutenant Colonel Moore's strength of personnel and equipment but could not overcome the advantage of the aviation assets that had been introduced to the Ia Drang Valley.

## **IA DRANG VALLEY ENDSTATE**

Throughout the next two days of fighting 1st Battalion 7th Cavalry and other units associated with the Ia Drang Campaign had killed 3,561 the United States Army had sustained 305 Killed In Action. This equated to 12 Vietnamese dead for each American.<sup>19</sup> These are staggering numbers when you realize that the number of Americans initially on the ground was less than 200. 1st Battalion 7th Cavalry did eventually get its total end strength of personnel, but it did take over 24 hours to do due to a myriad of tasks the aviators were called on to do. This included but was not limited to the friendly casualty, evacuation, resupply, and equipment transportation. The successes in the Ia Drang valley were so significant that Lieutenant Colonel Moore was summoned by Secretary McNamara himself to debrief the entirety of the battle. Based off of the lack of words that Secretary McNamara was able to drum up it was clear that this was a remarkable campaign fought hard by both the enemy and American forces. At times throughout the debriefing there was awkward silence, mainly due to the fact that Secretary McNamara had come to a stark realization. The Vietnam war was not going to be a short conflict in fact the amount of personnel, equipment and money would have to increase exponentially to keep up with the demand of the determined enemy and his will to continue to fight to the death. Today the story of Lieutenant Colonel Moore's battalion is still on many reading lists for all ranks to read and reflect on. The innovation, leadership and determination that occurred in 1965

is still a revered campaign worth examining to understand the complexity of conducting air assault missions with a determined and fierce enemy. Had Lieutenant Colonel Moore's battalion not had the training, continuity, and critical thinkers in his leadership from Non-Commissioned Officers and up, this campaign could have failed upon the first wave of aircraft landing in Landing Zone X-Ray.

Leadership is very difficult to measure as there is no max effective range or way to scientifically determine the amount of impact that it has on the outcome of a battle, campaign or war. However, the characteristics of a unit such as 1st Battalion 7th Cavalry are somewhat uncommon, not all units have the ability to aggregate, train, and go to combat together. It is somewhat rare to have the ability to do that with so many competing requirements such as enlistment contracts, on station time, and a career progression that normally calls for a diversity of opportunities to make the service member a more well-rounded individual. A Vietnam deployment typically lasted from 6 to 12 months depending on the unit that the individual is serving with. That provided a significant amount of time to determine what Company will be the main effort or supporting effort and how to array the forces to best reach the results of mission accomplishment. Having a close-knit relationship with aviators that provide all of the support to the unit is absolutely essential, otherwise they just become another way to be transported around. In the case of the air support in the Ia Drang Valley it was evident that the pilots and associated ground support to include mechanics, ordinance, fuel and supply personnel all worked cohesively. The pilots that flew in and out of Landing Zone X-Ray had to have nerves of steel and enormous skill. Operating in a tiny Landing Zone while receiving small arms fire from the enemy and safely landing, avoiding the foliage, heavily saturated areas, and only take seconds before they were back in the air, demonstrates the challenge. There dedication to each other as

brother in arms was unsurpassed and had a positive impact on the outcome of the campaign in the Ia Drang Valley. Today many of the same units exist in the United States Army and have similar architecture allowing for a quickly deployable unit anywhere around the globe. The Air Assault capability has withstood the test of time. The technology in today's United States Army and Marine Corps may have changed significantly but the premise behind the capability remains largely unchanged and still widely used in conflicts around the globe.

### **A MARINE CORPS APPROACH TO AIR ASSAULT**

It is imperative to continue the successes and glean from the lessons learned in Ia Drang valley. The doctrine, training, education and material available to the Soldiers of the 1st Battalion 7th Cavalry was above reproach. The confidence that the men had was created by an environment of cohesion and trust which was physically present throughout the ranks. When speaking about the Marine Corps and its air assault capability, the institution has better than good platforms to meet and perform the expectations of the mission. The CH-53 E or commonly known as the Sikorsky Super Stallion is a heavy lift cargo helicopter capable of carrying 24 Marines and Sailors in the rear of the aircraft.<sup>20</sup> This aircraft is also capable of sling loading equipment such as M777 155 millimeter howitzer cannon. An adage to this lift capability that is typically said by the community is that if it fits it flies. Recently the Marine Corps has been experimenting with the implementation of the Polaris side-by-side All Terrain Vehicle capable of multiple configurations for radios, Crew Serve Weapons; or computer suites.<sup>21</sup> Another one of the unique capabilities is that the CH-53 E can be refueled mid air by fixed wing C-130 aircraft. This capability allows for a longer endurance and options when planning and executing missions.

The newer V-22 B Tilt-rotor Osprey is the most recent addition to the assault support aircraft family. It can fit 18 personnel in the rear of the aircraft. Its most sought-after

characteristic are the speeds it can reach and the distance it can cover.<sup>22</sup> However, due to the speed and configuration of the aircraft sling loading underneath the aircraft becomes difficult and is not normally done. In December of 2016 the Infantry Officer Course experimented along with Weapons and Tactics Instructor Squadron on updating the personnel in back to better make decisions instead of being another piece of cargo being moved around the battlespace.<sup>23</sup> The idea behind the computer suite capability is to tap into any and all sensors that are viewing the Landing Zone and objective. It can also potentially provide a 3- Dimensional view of the heuristics occurring in the future fight. This can and has allowed personnel to gain a better perspective and change Landing Zones, alter ingress and egress routes, and keep adjacent units up to date on the particulars of the area being viewed.



(Figure 5. CH-53E courtesy Wikipedia)



(Figure 6. MV-22B courtesy YouTube)

Currently the Marine Corps does not have standing units that are dedicated to an Air Assault Capability. The Marine Corps does fulfill a Global Reaction Force that can use helicopters in some portion of the mission but is not necessarily the primary means for insertion. The Global Reaction Force is an operationally ready, manned and equipped unit that can fly into a crisis area and conduct contingency operations. This force is tailorable and shaped for a mission that occurs. Once the Regimental or Division Commander receives notification to deploy such a force, he will then determine the type of force that would best give his chances of success. The forces that are tethered to an alert status must maintain certain criteria answerable to the Commander.

Another Unit that does possess and provide a trained Helicopter Company is the Marine Expeditionary Unit (MEU). Each MEU has a Battalion Landing Team which is made up of three Infantry Companies, a Weapons Company and a Headquarters and Service Company.<sup>24</sup> With everything, there are limitations, one of them is that there are enough helicopters assets to lift a Company of Marines and Sailors at a time off amphibious shipping. The Helicopter Company

does do some training before departing on deployment. The staff at Expeditionary Operations Training Group conduct training and evaluation on the Company selected by the Battalion Commander and his staff to be designated as the “Helo” Company.<sup>25</sup> EOTG currently has three different locations that are capable of providing training and evaluation they are Camp Lejeune North Carolina, Camp Pendleton, and Camp Butler Okinawa, Japan. These locations are strategically placed to facilitate the units that will be tapped for the training and evaluation in conjunction with the amphibious shipping locations, for certain parts and pieces of the training progression. The training that the Infantry Company does is approximately 4 weeks of classroom and practical application. Some of the specialized training evaluated is the ability to conduct a raid, contingency operations, or rapid response from helicopters that can vary from platoon to company size.<sup>26</sup> The Marines and Sailors will also receive training on Tactical Recovery of Aircraft and Personnel in the case that aircraft or personnel are separated from the planned mission or assignment. The month-long training opportunity is very professionally run, and does an excellent job of utilizing the resources and knowledge they have available to train and certify the “Helo” company before departing as a part of a MEU. The crawl, walk, run approach is a tried and true method that EOTG uses. They maintain a cadre of trained professional instructors and are willing to assist units that are not in the MEU training pipeline to meet or exceed the training a unit may be seeking to achieve.

Marine Aviation Weapons and Tactics Squadron One (MAWTS-1), which qualifies Weapons and Tactics Instructor Squadron located in Yuma, Arizona, is the premier school for advanced techniques, tactics and procedures for aviators and ground units seeking to improve their knowledge and employment of there assets. They have also been known to conduct exercises with aviation assets large enough to lift a Infantry Battalion in one wave. This is rarely

seen but completely possible and valuable for not only the pilots, but the ground forces associated with such a large movement. The exercise is normally in conjunction with the qualification necessary for the pilots to successfully complete the curriculum and designated as a Weapons and Tactics Instructions which is a highly sought-after qualification to bring back to a flying squadron, to better train the pilots that have not had the opportunity to go to the resident school. Another qualification that is essential to air assault missions and operations that personnel can get is the Airborne Mission Commander (AMC). An individual that is “AMC” qualified can reroute and assign aircraft to an assigned task. He is also responsible for approving, modifying and denying an insert in concert with combined arms. All of this information into one helmet is a significant and critical aspect to making sure that an air assault is synchronized well and uses all available assets to include surface-to-surface fires and air-to-surface fires in the desired location before the ground forces Commander can get on the deck. Normally the Command and Control aircraft is outfitted with additional communications assets to allow the AMC to have the situational awareness necessary to coordinate all of the moving pieces associated with an air assault. The AMC needs to understand multiple facets of the air assault not only the aviation assets and how he plans to employ them. The AMC must understand combined arms and how surface and air fires are to be conducted and ensure that the desired effects have been reached before landing the ground assault in the Landing Zone. This individual is a valuable asset to the unit conducting the air assault and must be given exceptional Commanders intent in order to fulfill the Commanders vision of how the mission will be accomplished.

Between EOTG and MAWTS-1, a training progression can be timed correctly to have Marine Corps Infantry Battalions or newly named Air Assault Battalions conduct a training progression in which both pertinent school houses can be incorporated. This would qualify the

Marines and Sailors in all their Mission Essential Task List which remain largely unchanged from the current 3400 Infantry Training and Reference Manual.<sup>27</sup> However, the specialized training that the Battalions would not be a coincidence of timing. Each of the Air Assault Battalions would have an opportunity that is rarely provided to a battalion. The beginning of the standard training progression for a deployment would also remain the same. What changes it the familiarity with the aviation assets, to include the newest additions of communications assets to better inform Commanders before they land in their assigned locations. These Air Assault Battalions would also have a heavy emphasis on expeditionary operations with the phrase “light and fast” continuously on their minds. Missilemen and the Anti-Amor capabilities will also be vital to the fight should the unit encounter enemy armored assets. At least one Carl Gustaf M4 rockets as well as one Javelin missile systems per squad will be necessary to be prepared for the unknown in the battlespace. This will allow the “light and fast” Infantry unit to create time and space from them should they become bogged down on the mission site and need to prepare hasty defensive positions while they wait for the extract of there personnel.



(Figure 7. M4 Carl Gustaf rocket Courtesy [www.army-technology.com](http://www.army-technology.com))

The other capability that would enhance the speed and scouting capability is the messenger motorcycle or the Kawasaki KLR 650 diesel fuel variant.<sup>28</sup> The piece of equipment is still in the inventory but not used often. This motorbike capability would allow for a nimble employment of forward reconnaissance and scouts to provide up-to-date information to feed back to the Fire Support Team or the chain of command. It can also be easily hidden and does not have a large audible signature. Once the aircraft has landed within minutes the motorcycle will be disembarked and in route to its next position. The same can be said for embarking the aircraft as it can easily be secured within the cabin of the aircraft safely within minutes. The messenger bikes would be utilized depending on the terrain and mission but at least one per platoon should be provided as an added advantage.



(Figure 8. Kawasaki KLR-650 courtesy nationalmcmuseum.com)

Throughout the mission of an air assault battalion or Company it is also imperative that they are receiving a real-time feed from organic Unmanned Aerial Systems preferably the RQ-20 Puma that can be employed by one Marine and flown by another.<sup>29</sup> The case of a more urban area the current answer the Marine Corps is using is the Squad Quadcopter to quickly terrain map and lessen the uncertainty at the smallest tactical level. The quadcopter can also be implemented to see over high obstacles without putting the Marines at risk of exposure to the

enemy.<sup>30</sup> All of the equipment adds up to be a laundry list to include the Carl Gustaf, Javelin Missile system, Razr ATV, KLR-650 motorcycle, and the Quadcopter. However, all this equipment has been employed before and has a proven success on the battlefield throughout the Range of Military Operations. It also is currently available in the Marine Corps inventory. Providing initial training for these systems is not difficult as Marine Division Schools and resident knowledge from School of Infantry on both East and West Coasts can provide formal instruction. From that point on the onus of incorporating the capabilities rests with the unit leadership. Innovation with the equipment must also be continuous to identify the best methods of employment. Once these methods are consolidated, they must be shared with the Infantry Operational Advisory Group to make them solidified into manuals for future Warfighters to reference and utilize. The Marines associated with the air assault battalions will not be bogged down by what type of aircraft that they will be assigned therefore the helicopter assignment tables will have to be flexible and every Marine will need to be familiar with the plan and understand the role they fill. This is no different from the normal mission type orders they receive in any other battalion in the Marine Corps.

All of the equipment listed above gives the Marine the best opportunity and ability to get to a position of advantage in which the enemy cannot cope with. When a Marine comes from the sky it gives them the opportunity to reshape maneuver through speed and tempo. It also provides the opportunity to get behind the enemy forward line of troops and attack critical infrastructure, equipment or personnel. Ultimately, like in the Ia Drang Valley, surprise becomes a significant part to overwhelming success on the battlefield. A defense cannot be everywhere at once and with the CH-53 E it only takes a 200 foot diameter Landing Zone of offload troops and equipment.<sup>31</sup> If a Landing Zone is not available a fast rope capability exists in which troops can

descend through a aircraft opening via a fiber rope while the helicopter comes to a hover over a building or designated position. These techniques are hard to defend against especially at night from a distance outside the enemy weapons systems max effective range. However, this is difficult execute without the proper guiding doctrine to reference. The Marine Corps Technical Publication “*Helicopterborne Operations*” is not enough to give Marines the advantage in the future fight. Doctrine must also be developed to be the guiding principles for Air Assault Battalions.

Unlike the United States Army, the Marine Corps does not contain a Training and Doctrine Command that has dedicated personnel to creating, modifying and implementing doctrine under one roof.<sup>32</sup> It is certainly an area that the Marine Corps and specifically the helicopterborne experts should be reviewing each year. This conference would reinforce the successes of recent exercises through Battalion After Action Reports. Additionally, the conference should review insight via the Marine Corps Center for Lessons Learned from units deployed all over the globe.

## **COUNTER ARGUMENT**

General Mattis established Task Force 58 prior to the execution of a long range helicopterborne raid into Afghanistan from the sea. The purpose was to build an expeditionary forward operating base, complete with an expeditionary airfield to surge troops and equipment in November of 2001.<sup>33</sup> This base was used for almost an entire year to conduct combat operations out of. The name of the installation was Forward Operating Base Rhino. To come from the sea was thought to be impossible due to the distance to the objective and the capability and state of the Vietnam era CH-46 helicopters used at the time. Additionally, the men and women aboard the amphibious ship had never trained to such a task before. This shows that with determination

you can be successful without firing a shot via helicopterborne operations while at the same time having minimally trained individuals inside the aircraft.

Developing and employing a helicopter Air Assault battalion is going to take some senior leaders to make hard choices. The simple fact is that there are not enough helicopters to go around as it pertains to certifying pilots, training with maneuver elements, and the never-ending deployment cycle. A priority will have to be set in order to allow the Air Assault battalions to get enough “blade time” or time aboard aircraft in a training environment.

Developing doctrine and disseminating it will also have to come from senior leaders to emphasize the importance. This will not be easy to convince most leaders as they have been successfully conducting helicopterborne operations for many years without standing dedicated units. They may not see the specialized concept of the air assault more important than training to high end conventional fight and receiving on-the-job training along the way.

Additionally, another consideration that needs to be analyzed carefully are the weather conditions in order to launch an aircraft without putting the air crew and passengers at unnecessary risk. Winds, precipitation, temperature, altitude all effect the performance of the aircraft and the amount of weight they can carry.<sup>34</sup> Maintenance of the aircraft can not be overlooked, the amount of personnel is well into the hundreds for a Heavy Marine Helicopter Squadron and hours dedicated to monitoring avionics, communications, airframes, and engines is significant to sustain a 24 hour maintenance cycle.<sup>35</sup> The footprint associated with properly maintaining the aircraft includes specific calibration equipment and a large parts inventory to keep the aircraft turning. Petroleum, Oils, and Lubricants are also a large burden to stock given austere environments or at sea. However, all of these issues to include maintenance, weather, availability of fuel and oils can also be found on the ground side of any formation just to a

smaller scale. These hurdles can be overcome in some of the harshest environments for example Vietnam and the last 17 year of the Global War on Terror.

## **CONCLUSION**

Transforming three standing infantry Battalions to Air Assault Battalions is a daunting undertaking. But based off of the standing Task Organizations, Table of Equipment, and methodology of training, the Marine Corps has the capacity to lead and succeed in any environment. A tethered unit or units in this case to a capability such as air assault is one that is focused in nature and pointed in the right direction can face tomorrow's crisis on the high-end conventional fight, counterinsurgency, or hybrid spectrums. History points to helicopterborne operations as a significant capability worthy of the attention of the Marine Corps. The aircraft are available and ready to stand up to the rigors of any environment, the troops that are employed out of them must be as well. The Marine Corps must take a systematic approach just as the United States Army did in the early 1960's to out-cycle the enemy utilizing speed, surprise, and combined arms in order to create an unfair fight in which the adversary cannot cope with. The ultimate sacrifice has been paid by those men who were brave enough to assault into Ia Drang valley in 1965, in which many would agree was the most kinetic fighting we have seen since World War II. It would be a shame if the Marine Corps would ignore the urgency for an improved-approach to helicopterborne operations and be caught off guard in the next fight. The Navy and Marine Corps team have invested in aviation assets to last decades of service life into the future, now the onus is on the well-trained individuals in the back of the aircraft to do the same.

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<sup>2</sup> Jennings, Lew. *19 Minutes to Live -: Helicopter Combat in Vietnam*. Soquel, CA: CreateSpace Independent Publishing Platform, 2017. Pg 94

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<sup>4</sup> Moore, Lt. Gen. Harold G. (Ret.). *We Were Soldiers Once ... and Young*. New York, NY: Ballantine Books, 2002. Pg11

<sup>5</sup> Jennings, Lew. *19 Minutes to Live -: Helicopter Combat in Vietnam*. Soquel, CA: CreateSpace Independent Publishing Platform, 2017. Pg 67

<sup>6</sup> Moore, Lt. Gen. Harold G. (Ret.). *We Were Soldiers Once ... and Young*. New York, NY: Ballantine Books, 2002. Pg10

<sup>7</sup> Jennings, Lew. *19 Minutes to Live -: Helicopter Combat in Vietnam*. Soquel, CA: CreateSpace Independent Publishing Platform, 2017. Pg 67

<sup>8</sup> Moore, Lt. Gen. Harold G. (Ret.). *We Were Soldiers Once ... and Young*. New York, NY: Ballantine Books, 2002. Pg40

<sup>9</sup> Moore, Lt. Gen. Harold G. (Ret.). *We Were Soldiers Once ... and Young*. New York, NY: Ballantine Books, 2002. Pg33

<sup>10</sup> Heilman, William H. *A Pilots Tale: Flying Helicopters in Vietnam*. Hooks, Texas: William H. Heilman, 2008.Pg71

<sup>11</sup> Heilman, William H. *A Pilots Tale: Flying Helicopters in Vietnam*. Hooks, Texas: William H. Heilman, 2008.Pg iii

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<sup>17</sup>Moore, Lt. Gen. Harold G. (Ret.). *We Were Soldiers Once ... and Young*. New York, NY: Ballantine Books, 2002. Pg116

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<sup>19</sup> Moore, Lt. Gen. Harold G. (Ret.). *We Were Soldiers Once ... and Young*. New York, NY: Ballantine Books, 2002. Pg149

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<sup>21</sup><https://military.polaris.com/en-us/mrzz-d4/>

<sup>22</sup> <https://www.newriver.marines.mil/About/Aircraft/CH-53E/>

<sup>23</sup> <https://www.29palms.marines.mil/Units/MAWTS1.aspx>

<sup>24</sup> <https://www.iimef.marines.mil/Units/Expeditionary-Operations-Training-Group/>

<sup>25</sup><https://www.marines.mil/Portals/59/NAVMC%203500.99%20PT%201.pdf>

<sup>26</sup> <https://www.iimef.marines.mil/Units/Expeditionary-Operations-Training-Group/>

<sup>27</sup> [https://www.marines.mil/Portals/59/Publications/NAVMC%203500.44C%20Infantry%20T-R%20Manual%20\(secured\).pdf?ver=2017-03-09-080222-740](https://www.marines.mil/Portals/59/Publications/NAVMC%203500.44C%20Infantry%20T-R%20Manual%20(secured).pdf?ver=2017-03-09-080222-740)

<sup>28</sup><https://www.kawasaki.com/Products/2018-KLR650#specs-scroll>

<sup>29</sup><https://www.avinc.com/uas/view/puma>

<sup>30</sup><https://www.popularmechanics.com/military/a16762519/the-marine-corps-latest-weapon-is-a-quadcopter/>

<sup>31</sup> <https://www.marines.mil/Portals/59/Publications/MCTP%203-01B%20FRMLY%20MCWP%203-11.4.pdf?ver=2017-09-18-132337-730>

<sup>32</sup> <https://www.tradoc.army.mil/>

<sup>33</sup> [https://en.wikipedia.org/wiki/Camp\\_Rhino](https://en.wikipedia.org/wiki/Camp_Rhino)

<sup>34</sup><https://www.newriver.marines.mil/About/Aircraft/CH-53E/>

<sup>35</sup> <https://www.newriver.marines.mil/About/Aircraft/CH-53E/>

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