AIR COMMANDO

A Professional Publication by the Air Commando Association Dedicated to Air Commandos Past, Present, & Future

JOURNAL



Foreword by Eugene Haase, Maj Gen, USAF (Ret)



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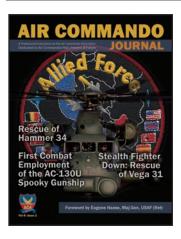
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ON THE COVER

operation ALLied For Ce patch featured in background depicts the multi-national effort to bring peace to easten europe. Air **Commandos participated in the** air war over Serbia, supporting nato's combat operations.



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FOREWORD

The spring of 1999 saw multiple AFSOC units come together once again in support of a major combat operation - Operation ALLIED FORCE (OAF) - the air war over Kosovo.

After deploying to points short of Italy in late February, but recalled after the diplomats thought they had resolved the situation in the Balkans, special operations forces from the States joined their European counterparts and descended on Brindisi in late March and quickly spun up for war.

Crews operating Gunships, Combat Talons, Combat Shadows, Pave Lows, Pave Hawks, and Commando SOLO, and Special Tactics teams planned together at San Vito del Normanni Air Station, Italy. The JSOAC was led by Col John Zahrt and Col Jerry Garlington and, in my opinion, performed as an extremely well-oiled machine. The main effort early on was focused on combat search and rescue in support of the Combined Force Air Component Commander (CFACC). Once again, a special operations force (SOF) that was not specifically organized, trained, or equipped for the CSAR mission set was called upon to deliver in a time of need because Air Combat Command's rescue units did not yet have the right equipment to safely and effectively accomplish the mission. SOF taskings eventually expanded to precision strike ops, leaflet drops, and humanitarian relief operations later in the conflict.



This edition of Air Commando Journal highlights the contributions of AFSOC in OAF to include the AC-130U's first taste of combat and two successful rescues of fighter pilots who were shot down in Serbia. The first shoot-down and rescue of a F-117 stealth fighter pilot happened very early

in the conflict and was an extremely traumatic event for the Air Force. The aircraft was advertised as undetectable by radar and no one could believe it had really been shot down. This rescue was so strategically important to the United States that President Bill Clinton called the crew directly after the mission and personally thanked them for "saving his ass." It was another great demonstration of the flexibility Air Commandos bring to the fight and I was extremely proud to play a small part in the overall effort.

Support of the air war in the Balkans was the last hurral for the 55th Special Operations Squadron which closed shortly after returning home. As the CV-22 Osprey became a reality, the 55th was the first bill payer in exchange for this new tilt-rotor capability – capability that is proving itself everyday in combat operations downrange supporting the joint warfighter. Now that all the helicopters are gone from AFSOC, it seems strange looking out to the flight line at Hurlburt Field or any other base where our assets operate and not seeing a UH-1N, MH-53, MH-60, or even an Mi-17 in the pattern. But time moves on and so does AFSOC in advancing the combat power it delivers to battlefields around the world.

Please enjoy the pages within this edition and another walk down memory lane. My hat is off to all Air Commandos past, present, and future who live at the pointy end of the spear leading and executing to perfection whatever mission they may be tasked with.



Eugene Haase, Maj Gen, USAF (Ret) Former (and last) 55 SOS/DO and AFSOC Vice Commander



CHINDIT CHATTER

his edition of ACJ is themed around Operation Allied Force; more commonly referred to as Kosovo. There was significant involvement of a host of Air Commandos with great results. This edition highlights two unique personnel recoveries with long reaching impacts. One of those rescued is our CSAF, Gen Goldfein. In addition, AFSOC's then newest gunship, the AC-130U, was first tested and set some unique parameters for employment of that great asset. As with Desert Storm these events were not without some growing pains and tests of Command and Control issues. However, as is always the case, Air Commandos demonstrated great initiative,



innovation and perseverance. These missions were no doubt key to the National Objectives being secured and Air Power, arguably, for the first time alone defeated a tyrannical enemy.

As in all our Journals, all of the authors are volunteers and my hat is off to them for donating the time to help us produce, what I believe, is another great testament to our Air Commandos and will help us preserve our great heritage. The authors were contacted "out of the blue" and asked for their inputs. Without fail, they responded and dedicated large amounts of time researching various aspects of their work. I think the results speak for themselves.

In addition, I want to give a shout out to all of our volunteer editors listed on page two of this Journal, their contributions are immeasurable. And of course, Jeanette Moore is the one who puts all of this together and it is her creativity and design capabilities which give all the issues a unique look and feel. If you encounter any of these folks, or any of our past contributors, please give them a hearty pat on the back.

Finally, we are highlighting our annual convention in this edition and it will not be too late to sign up. This year we have opened our aperture more and have a fun and educational four days planned. Among other awards, we are especially proud to induct five more deserving Americans into the Air Commando Hall of Fame. Special congrats to CMSgt Bruce Brandewie, Col Steve Dreyer, Lt Col Jack Drummond, Col Jack Hester, and Col Ben Orrell. All are great Air Commandos and well deserving of this prestigious distinction. Come out and help them celebrate!

Any Time Any Place



Dennis Barnett, Col, USAF (Ret) ACA President and Editor In Chief

OTWASH

C-123 drawing

I received the recent journal. Another great issue, I really enjoyed reading about the training. Reminded me of some of my own air commando training. In the Hot wash section Lt Col Jim Lawrence wrote about Col Joe Jackson in the fall 2012 issue. I have met Col Jackson, when I knew I was going to meet him I drew a picture of a C-123 and asked him to sign it, which he did. I do know I'm not a good drawer. Anyway, I do not have the fall 2012 issue about Col Jackson would you have an extra copy I can attach to the back of the picture frame?

Thank you for the great job you do.

Dave Clark Vancouver, WA

Thank You ACA

Lt Gen Wooley, DB [Col Barnett], Chiefs Norrad & Turner, Hoo-yah and a huge 24 SOW "Thank You" for your gracious support during the 1st ever USAF dual Air Force Cross ceremony! The after ceremony Shrimp Boil was a massive success and we thank you for donating and making that happen. We won't forget your continuing generosity and tight relationship. Thank you again!

> Hoo-yah Team, Col Michael Martin. 24 SOW Commander

Dave.

Thank you for sending a photo of your drawing, it lends a great touch to your story. We are sending a copy of the Fall 2012 Air Commando Journal Vol 2: Issue 1 to you today.

> Jeanette Moore ACA Media Coordinator

Submissions can be e-mailed to info@aircommando.org or mailed to Hot Wash c/o Air Commando Association, P.O. Box 7, Mary Esther, FL 32569. ACA reserves the right to eliminate those that are not deemed appropriate. Thank you in advance for your interest in the Air Commando Journal.











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By Bernard V. Moore II, Col, USAF (Ret)

Once again, America was at war. Eight years after the United States had led a coalition to victory over Iraq in Operation DESERT STORM, American jets were once again leading a coalition in a massive air attack, this time against an entirely unanticipated enemy in Europe. Americans called the war Operation ALLIED FORCE. It was a 78-day air campaign in 1999 during which the US Air Force led a NATO force of nearly 1,000 warplanes in a war against the Federal Republic of Yugoslavia. The purpose of the war was to compel Yugoslavia to stop committing violence against ethnic-Albanian civilians in one of its provinces, Kosovo. NATO won the war and Yugoslavia unconditionally agreed to NATO demands. Yet few Americans today remember anything about an Americanled war in Europe, much less about Yugoslavia or Kosovo, or why we went to war there in the first place. The war against Yugoslavia almost certainly dropped out of the collective memory of most Americans because of the national trauma of 11 Sep 2001, and their subsequent single-minded focus on the Global War on Terrorism. That's understandable, but there are aspects of Operation ALLIED FORCE that are important to remember. It was America's only war against a sovereign European nation since World War II. It was the only war the US has fought entirely with airpower. And, it was the only war America has fought in which it suffered no casualties. The purpose of this article is primarily to provide a brief overview

of the circumstances that led America to war against Yugoslavia in 1999. To understand the complicated background of this conflict it is important to explain the creation, early history and unique nature of Yugoslavia, how that nation disintegrated in the 1990s, and why getting involved in Yugoslavia evolved into a vital national interest worth going to war over.

At the heart of this story is Yugoslavia, a nation created in 1918 after the collapse of the Austro-Hungarian and Ottoman Empires, in the area of southeastern Europe known as the Balkans. The idea that became Yugoslavia was the brain-child of several of the region's political leaders who sought to create a new nation that would combine several territories recently made independent by the disintegration of the old empires with the existing Kingdoms of Serbia and Montenegro. Although the name Yugoslavia means "Land of the South Slavs," the new country would in fact include a number of distinct and disparate ethnic groups each of which had their own sense of identity, culture, language, religion, and political aspirations. The individual constituent members of Yugoslavia included Serbia, Slovenia, Bosnia-Herzegovina, Montenegro, Macedonia, and Croatia. Serbia also included two semi-autonomous provinces called Vojvodina and Kosovo.

It was decided that the new nation would be governed by a monarchy and that the former King of Serbia would become the king of the newly christened Kingdom of Yugoslavia. Although each constituent territory of the kingdom was ostensibly equal to each other, as that action suggests, Serbia tended to dominant the other members of the Yugoslav federation – a case of 'first among equals.'

Despite its disparate constituencies, and the occasional political assassination, the Kingdom of Yugoslavia held together with relative stability during the 1920s and 1930s. Then came Adolph Hitler, Nazi Germany, and a Second World War in Europe. Yugoslavia tried to stay neutral in the war, but Hitler's appetite for its resources and his desire to secure the southern flank for his planned attack on the Soviet Union meant that neutrality was not destined to be. In Apr 1941, Germany and her allies: Italy, Bulgaria, Romania, and Hungary, attacked, defeated, occupied, and carved up Yugoslavia. The king fled into exile and the Kingdom of Yugoslavia ceased to exist.

In Croatia, an ultra-nationalist fascist regime, the Ustaše, took over that territory and became an eager ally of the Germans and Italians. The Croatians then launched a murderous campaign of extermination against ethnic-Serbs, Jews, and Roma (Gypsies) within Croatia that was so horrendous that the area's Nazi German commander sent a protest to his HQ in Berlin. The behavior of the fascist Croatian regime in World War II was an ominous clue to the depth of ethnic tensions lying beneath the surface of Yugoslavia, but not the only one.

Within the rest of what had been Yugoslavia, two powerful armed resistance groups emerged by 1942. One resistance



Serbia, Fall of 1941. Chetniks escort German prisoners of war, a st in Nazi-occupied Europe. (Photo from www. TheKingdomofYugoslaviainWorldWarll)

group, called the Chetniks, was comprised of ethnic Serbs who sought to defeat their occupiers and restore a Serbian-dominated monarchy to power at war's end. The other resistance group, called the Partisans, was led by a tough, hard-core communist named Josip Broz, widely known by his pre-war alias, "Tito." Tito and his Partisans were dedicated to defeating their occupiers and then establishing communist governance in post-war Yugoslavia.

Tragically, the brutal German-led occupation brought into the open simmering ethnic and political divisions within the Yugoslav population. The Serbian Chetniks and communist Partisans not only waged a furious guerrilla war against their occupiers, but against each other as well. It has been estimated that of the 800,000 to 1 million Yugoslavs killed in 4 years of war, as many as half died at the hands of other Yugoslavs.

Gradually, the Partisans became the more popular, larger, and more effective of the two competing resistance groups. Under the strong leadership of Tito, the Partisans crushed the Chetniks and began to drive the German-led occupation forces out of Yugoslavia. With the help of advancing Soviet Red Army troops, the occupation forces were pushed out of Yugoslavia by late 1944. The fascist Ustaše government of Croatia was liquidated and that republic was brought back into the fold.

When the war in Europe ended in May 1945, Soviet Premier Stalin surprisingly withdrew his Red Army troops from Yugoslavia, one of the only cases when Soviet forces did not remain as occupiers of the countries they "liberated." Perhaps Stalin had seen what Tito's guerrillas could do to an unwanted occupation force? By 1946, Tito established the communist Socialist Republic of Yugoslavia with himself as president, and eventually "president-for-life."

For the next 35 years Tito kept Yugoslavia together by maintaining a tight rein on power and quashing simmering ethnic tensions. The disparate populations of Yugoslavia seemed relatively satisfied with the leadership and policies of their charismatic and tough leader. Under Tito, Yugoslavia was also able to steer an independent and "non-aligned" course in foreign policy. He successfully kept Yugoslavia from coming under the control of Moscow, but also refused to join with the West.

Domestically, Tito allowed Yugoslavia's six constituent republics a great deal of autonomy, allowing each significant freedom to govern themselves. Drawing on his wartime experience as an effective guerrilla commander, Tito created a national defense strategy that included a small core of regular forces backed up by a massive reserve force in which each of the six republics had its own heavily armed militia which was trained and equipped for guerrilla warfare. The strong sense of independence within the constituent republics of Yugoslavia and the wide distribution of military capability within its civilian population would come to have unintended and dire consequences in the future.

In 1980 Tito died. After Tito's passing, a new constitution that had been previously designed by Tito, granted even more autonomy to the Yugoslavia's six republics. Unfortunately, the 1980s saw a serious economic downturn throughout the country. Some republics were hurt more than others and individual republics began to blame each other for apparent economic disparities between them. Furthermore, without Tito there to keep the nation united, latent feelings of ethnic-based nationalism and began to emerge in several of the republics, especially in Serbia, Slovenia, Croatia, and in the province of Kosovo.

Then, unexpectedly, the communist regimes that had dominated eastern Europe since the end of World War II began to collapse. During the period 1989 to 1991, the communist governments of East Germany, Poland, Romania, Bulgaria,

Hungary, Czechoslovakia, and even the Soviet Union itself, gave way to democracies. And in Yugoslavia, as economic woes and political squabbling increased, the Yugoslav communist party itself collapsed.

With Tito's unifying influence long gone and the unifying control of the national communist party absent, economic, nationalistic, ethnic and political forces within Yugoslavia's republics began to quickly tear the nation apart. In 1991, Slovenia declared independence. The Yugoslav army initially tried to quash the secession, but after only 10 days of sporadic fighting, the army withdrew. But when Croatia declared its independence in 1991, the Serbian-controlled Yugoslav army was sent in to crush the rebellion at all costs. Serbia was not about to let ethnic-Croats dominate ethnic-Serbs in and around Croatia.

The war in Croatia was extremely violent and destructive. There were atrocities and war crimes committed by both sides and the term "ethnic cleansing" was coined to define the brutal campaigns of extermination being waged by both Croats and Serbs against each other. The brutality of the war in Croatia became a major focus of the media and it was especially horrifying to many in the West that such a hellacious conflict could be happening in a relatively modern and developed European nation. The populations of Europe and America began to demand that "something be done" to stop the violence. Diplomacy was, as usual, the preferred option, but it was understood,

especially among Europeans, that some kind of military intervention loomed in the background in case diplomacy failed.

In the United States, President George H.W. Bush was clearly reluctant to commit American military forces to solve the problems of Yugoslavia. The democratization of virtually all of the former communist countries of Eastern Europe, the disintegration of the Soviet Union, and the dissolution of the Warsaw Pact, all meant that the Cold War was over. The full commitment of US military power to the defense of Western Europe since the end of World War II had been a direct response to a clear threat posed by the communists of the Soviet Union and its Warsaw Pact allies. The protection of Western Europe had been a vital national security interest of the United States since the late 1940s, second only to the defense of the American homeland itself. But when the communist threat in Europe disappeared, the US had no clear or immediate vital national security interests at stake in Europe. Certainly, a civil war in a non-NATO country did not seem to be an obvious threat to America. Bush did not see the need for the US to intervene and he hoped that the Europeans would solve what he and many in the US saw as a "European problem." While the American people were concerned and saddened by what they saw happening in Yugoslavia, they were not ready to get directly involved militarily.

In Feb1992, the United Nations (UN) was able to convince

the Serbs and Croats to allow a 30,000-man UN Protection Force (UNPROFOR) into Croatia to try to protect civilians and separate the combatants. The UN peacekeepers, however, were strictly forbidden from using force except for self-protection



of their own soldiers. Because President Bush was unwilling to put American boots on the ground in this 'war with no good guys,' UNPROFOR did not include any US troops.

In 1992, as bitter fighting continued in Croatia, nearby Bosnia-Herzegovina declared its independence from Yugoslavia. Immediately a three-way war began between Bosnian Muslims, Bosnian Serbs, and Bosnian Croats, with each party desperately fighting to take and hold territory for their own people. Americans could not help but be increasingly concerned about the bloody scenes of slaughter they were watching on their TVs day and night. Credible reports in the media, from intelligence reporting, and from impartial organizations such as the UN revealed that the fighting included an increasing number of atrocities, continuing "ethnic cleansing," and more war crimes. And, it was getting steadily

In Apr 1992, President Bush took the first tentative steps toward American military involvement in the Yugoslav Wars when he directed the Department of Defense to begin Operation PROVIDE PROMISE, a humanitarian airlift by USAF transport planes to provide food and other relief supplies to desperate civilians holed up in the Bosnian capital of Sarejevo, a city surrounded and besieged by Bosnian Serb forces. Over time, transports from 21 other nations also joined in the humanitarian airlift.

Clearly the President was willing to put the US forces

in harm's way for humanitarian purposes even when vital national interests were not at stake (as he would later do in Somalia). But PROVIDE PROMISE was a strictly passive and supposedly a relatively 'safe' operation. Nonetheless, several of the transports were hit by small arms fire although none were shot down.

In Jun 1992, UNPROFOR peacekeepers were permitted to deploy into Bosnia-Herzegovina as well as Croatia, but they still did not have the authority to intervene to stop the fighting. UNPROFOR established a handful of so-called "UN Safe Areas" to protect civilians, but it lacked the authority and the forces to truly defend them. The violence and brutality continued unabated.

One aspect of the fighting in Croatia and Bosnia that had been taking an increasing toll on civilians had been the use of warplanes and armed helicopters by the combatants. In order to try to "do something" about these oftenindiscriminate air attacks, in 1992 the UN passed a resolution forbidding the combatants from using military aviation. The UN resolution authorized an operation beginning 16 Oct 1992 to monitor and report on any violations of the UN edict. The UN operation, called SKY MONITOR, had very strict rules of engagement that absolutely forbade the monitors from engaging any violators. Several European nations used their E-3 AWACS planes to detect these violations. The US was not a participant, and in any case America's AWACS were already fully occupied supporting Operations PROVIDE COMFORT, SOUTHERN WATCH and NORTHERN WATCH over Iraq. If the UN had hoped that Operation SKY MONITOR would deter the combatants from using their airpower it was grossly mistaken as over 500 violations by fixed-wing airplanes were documented. Helicopter violations were too numerous to count.

When Bill Clinton became president in Jan 1993, he initially continued his predecessor's policy of refusing to commit the US to a military intervention in Yugoslavia. In Feb 1993, however, Clinton did expand Operation PROVIDE PROMISE to include parachute drops of supplies to isolated civilians. In

the meantime, Bosnian Serb planes bombed two villages in one of the worst cases of employment of airpower by the combatants. The UN had reached its limit with regard to air attacks in Croatia and Bosnia that were more often than not killing civilians. In April, the UN authorized the establishment of a so-called "No-Fly Zone" over Bosnia that for the first time permitted the use of force to stop the combatants from employing their airpower.

NATO responded with the aptly named Operation DENY FLIGHT. This time President Clinton decided that the United States military would take the leading role. Clinton had been coming under increasing pressure from European members of NATO to get involved in a military intervention to stop the fighting. He began to accept the idea that if the US wanted to retain a leadership role in the post-Cold War "New World Order" and especially in post-Cold War Europe, America could no longer afford to be a bystander in the Yugoslav Wars.

The rules of engagement for DENY FLIGHT authorized the use of force to stop the combatants from using any military aircraft over the war zone. Henceforth, NATO fighter aircraft could engage and shoot down any violators. DENY FLIGHT operations were initiated on 12 Apr 1993, with heavily-armed American and European NATO fighters establishing continuous combat air patrols over Bosnia. Subsequently, there were few violations of the no-fly zone. One of the few, clear violations occurred on 28 Feb 1994, when six Serbian jets bombed a factory in Bosnia. Two US Air Force F-16s intercepted the low-flying Serb jets, quickly shot down four of the six, and caused a fifth to crash.

After this disastrous engagement, the Serbs understood that the NATO nofly zone meant just that. Few Serb pilots ventured over Bosnia again. However, the use by the Serbs of ground-based anti-aircraft artillery (AAA) and surface-to-air missiles (SAMs) against NATO jets began to increase. A British Sea Harrier was shot down by a man-portable SAM and a USAF F-16 was downed by an SA-6 radar-guided SAM. Both pilots were safely recovered.

As more incidents occurred

during which Serbian forces fired on or threatened UNPROFOR troops, the UN authorized NATO to expand DENY FLIGHT rules of engagement to include air strikes to protect the UN peacekeepers. The particulars of this change included a cumbersome air support request process that resulted in very few NATO close air support strikes being executed. The UN did however create a Rapid Reaction Force equipped with artillery to respond to urgent requests from the peacekeepers.

By 1994 the violence in Croatia had diminished due to a UN-brokered ceasefire, but the fighting in Bosnia-Herzegovina was getting worse. And to credible observers it was becoming clear that while Croats and Bosnian Muslims had been guilty of some atrocities, the Serbs were by far the worst offenders. As a consequence, there was a gradual but steadily increasing belief among members of the UN and leaders in NATO that the Serbs were not only responsible for the most egregious cases of brutal behavior, but that Serb leaders, and especially Yugoslav president Slobodan Milosevic, were primarily responsible for starting and continuing the wars in pursuit of their ultra-nationalistic ambitions to acquire territory for a longdesired "Greater Serbia."

On 28 Aug 1995, the Serb forces surrounding Sarejevo fired a mortar round into a crowded marketplace of the city killing 38 Bosnian Muslim civilians. The UN, outraged by yet another deliberate atrocity by Bosnian Serb troops, authorized NATO to take decisive military action. NATO planners had anticipated this possibility and were ready. On 30 August, NATO, with US forces in the lead, launched Operation DELIBERATE FORCE, an air campaign that targeted Serbian military forces throughout Bosnia.

For 11 days NATO warplanes attacked Serbian air defenses, command and control facilities, artillery and equipment storage sites, tanks, ammunition depots, and fielded forces, especially those surrounding Sarajevo. The UN Rapid Reaction Force used its artillery to hit the Serbs whenever they attacked UNPROFOR troops, and Serb attacks against the UN peacekeepers were also struck by DELIBERATE FORCE

close air support aircraft. All of NATO's key targets which were not sufficiently damaged by initial strikes were attacked again in follow-up raids.

NATO initiated a two-day ceasefire on 3-4 September, when it appeared the Serbs were ready to call off their offensives in Bosnia but when diplomacy proved fruitless the airstrikes resumed. By 15 September, the Serbs had had enough and asked for a ceasefire. Although NATO forces stood by to reinitiate air strikes should peace talks fail, this proved unnecessary. Operation DELIBERATE FORCE was over. Eight NATO countries had attacked 338 targets using 1026 bombs or missiles. The Serbs had put up as much AAA and SAM fire as they dared, but only one NATO aircraft, a French Mirage 2000K fighter-bomber, was brought down. Both the pilot and weapons systems officer were captured, but were later released. In the Dayton Peace Accords the Serbs, Bosnians and Croats agreed to stop fighting. To enforce the peace, the UN deployed a large and heavily-armed UN Implementation Force (IFOR) and later, a follow-on Security Force (SFOR). This time with US ground troops were included. Bosnia-Herzegovina was preserved as an independent nation, although it was divided internally into distinct ethic-Muslim and ethnic-Serb republics. But most importantly, the UN and NATO had forced a permanent end to the fighting.

Barely three years after the end of the wars in Croatia and Bosnia-Herzegovina a new war erupted in Yugoslavia. Since 1992, Yugoslavia had been reduced by secessions of Croatia, Slovenia, Macedonia, and Bosnia-Herzegovina to only the republics of Serbia and Montenegro. By 1998, long simmering, but mostly non-violent, ethnic tensions in the Serbian province of Kosovo had accelerated to armed conflict. The opponents were Orthodox Christian Serbians against Muslim Kosovar Albanians. For the Serbs, Kosovo was practically sacred land, having been the territory where the Serbian nation was first established in the Middle Ages, and the site of the historic Battle of Kosovo of 1389 where Serbs fought to block the Muslim encroachment of Ottoman Turks into Europe. The Kosovar Albanians,

however, could also claim to have lived in the region, perhaps since before the Slavic Serbs arrived. In any case, the historical record is clear that at least since the death of Tito in 1980, the Muslims in Kosovo had been the victims of deliberate political repression and economic neglect by the Serbian power base in Yugoslavia. It was by far the poorest region in what was the Soviet Yugoslavia, with its per capita gross national product being one third of the national average for Yugoslavia. But despite Kosovo being grossly underdeveloped, it was coveted by Serbs.

By the 1990s, the Kosovar Albanian population, which had once been a Muslim minority in Kosovo, had increased to the point where they made up 90 percent of the population of the province. The resurgence of Serb nationalism in the 1990s, however, brought policies from Serbian leadership not just to repress Kosovar Albanians but also to pressure them to leave Kosovo altogether. By mid-1998, what had a few years earlier been only sporadic attacks on Serb officials and police by a Kosovar Albanian paramilitary force called the Kosovo Liberation Army (KLA), became open warfare. As KLA attacks increased, so did counterattacks by Serb police and military forces. Civilians were often the casualties, and there were documented cases where Serbs were deliberately killing Kosovar Albanian noncombatants. By late 1998, hundreds of thousands of Kosovar Albanians had fled into Macedonia, Albania, and Montenegro as refugees. The UN and NATO became extremely concerned that the violence in Kosovo could degenerate into another full-blown war.

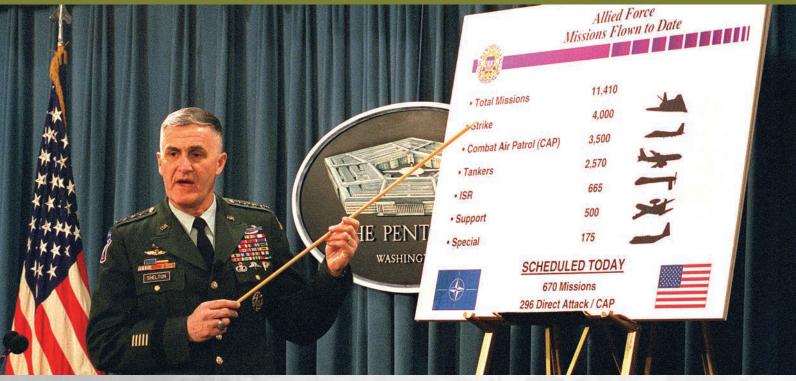
On 23 Sep1998, the UN passed Resolution 1199 which among other things demanded that both sides cease fighting and that Yugoslavia withdraw its military forces from Kosovo. The next day the North Atlantic Council, the supreme political body of NATO, issued an "Activation Warning" to NATO member nations directing them to make preparations for military air operations against Yugoslavia to force compliance with the UN resolution. On 13 Oct 1998, the North Atlantic Council issued "Activation Orders" for NATO to be

ready to begin air strikes within 96 hours. Clearly the political leaders of the NATO alliance, including President Clinton, had decided to take a more aggressive role in the Kosovo crisis than they had in Croatia and Bosnia. NATO let it be known that the alliance was prepared to use significant military force to intervene if a diplomatic solution could not be reached.

Within 24 hours Yugoslavia agreed to a ceasefire and withdrawal of forces. To monitor the ceasefire and Serbian withdrawal, the Organization for Security and Cooperation in Europe (OSCE) deployed a large number of observers, called the Kosovo Verification Mission (KVM), into Kosovo. Also, beginning 30 Oct 1998, several NATO nations began flying surveillance missions overhead to assist the KVM in an operation called EAGLE EYE.

As KVM and Operation EAGLE EYE monitoring got underway, NATO diplomats began meeting with Kosovar Albanian and Yugoslav delegations to work out details for a permanent peaceful solution based initially on UN Resolution 1199. The talks dragged into November and December without a resolution being reached and once again Yugoslav and KLA forces began fighting each other, despite the presence of hundreds of KVM monitors. Civilian casualties increased and again thousands of Muslim refugees began fleeing into neighboring countries. A particularly heinous massacre of Muslim civilians by Yugoslav forces in Jan 1999 indicated that the conflict was again spinning out of control. As the fighting escalated, Yugoslavia began redeploying large army units back into Kosovo to conduct ethnic cleansing operations. NATO again warned Yugoslavia that the Alliance would take action if its delegation did not immediately agree to stop fighting and withdraw its military forces.

A last, desperate round of diplomatic talks was held at Rambouillet, France during Feb and Mar 1999. Unfortunately, on 23 March the senior American diplomat declared that the peace talks had failed because the Yugoslavs would not agree unconditionally to NATO's demands. That night, the NATO Secretary General directed the NATO Supreme



Chairman of the Joint Chiefs of Staff Gen. Henry H. Shelton, U.S. Army, briefs reporters in the Pentagon on nATo operation Allied Force on April 29, 1999. o peration Allied Force is the air operation against targets in the Federal r epublic of Yugoslavia. (DoD photo by Helene C. Stikkel)

Allied Commander Europe to initiate air attacks against targets in Yugoslavia. H-Hour for Operation ALLIED FORCE was set for 1900 Zulu time, 24 Mar 1999.

The salient feature of NATO's strategy for Operation ALLIED FORCE was that only airpower was to be used to coerce the Yugoslavs. There was no intent to use ground forces either in actual combat or to be postured as a potential threat. NATO leaders were loath to become entangled in a ground war in Yugoslavia, and in any case, they were confident that no enemy could resist modern airpower. NATO's air campaign plan called for three phases; the first phase would focus on neutralizing the Yugoslav integrated air defense system. The second phase would strike targets within Serbia, but no further north than 44 degrees latitude. And, the third phase would include targets throughout all of Serbia. This strategy of slowly and incrementally increasing the pressure on the Yugoslav government was intended to allow them to sue for peace before NATO strikes caused significant casualties and damage. In fact, NATO leaders were completely confident that the Yugoslav leadership would give in to NATO's demands after no more than 72 hours of bombing.

On 24 March, NATO attacked. But the first three days of air strikes came and went with no sign whatsoever that the Yugoslav leadership or people were willing to 'give up' Kosovo. The air campaign continued. After weeks of day and night air strikes failed to convince the Yugoslavs to abide by the NATO demands, the Alliance realized it would need to significantly increase the intensity of attacks by expanding the list of targets to be hit and by employing more planes in more strikes per day. The target list which had initially identified only 169 targets was expanded to 973. And the number of aircraft that NATO had been allocated for ALLIED FORCE grew from around 400 to nearly 1,000.

Initially, NATO limited its targeting to strictly military targets such as SAM sites, radar sites, army bases, air bases, and military command centers. As the air campaign dragged on, NATO leaders, after no small amount of angst agreed to begin hitting so-called "dualuse" targets such as electrical power plants, road and railroad bridges, TV and radio broadcast facilities, and an oil refinery. Some targets were in downtown Belgrade, the capitol of Yugoslavia.

And, when it became clear that the Serbs were escalating and accelerating their brutal campaign of ethnic cleansing to rid Kosovo of its Kosovar Albanian population, NATO commanders were pressured to greatly increase air attacks on Yugoslavia's fielded forces in the province. Unfortunately, these forces were well dispersed and well concealed, and proved to be extremely difficult to find, much less attack.

During ALLIED FORCE, the NATO allies did not lose nearly as many planes as expected. Although the Yugoslavs had a relatively modern air defense force with hundreds of SAMs and modern MiG-29 fighters, NATO did well against these defenses. NATO fighters shot down 6 MiG-29s with no losses, and lost only 2 planes to the estimated 600 SAMs launched. On 27 March, a USAF F-117A 'stealth fighter' on a night mission was hit by an SA-3 Goa SAM and shot down. The pilot safely ejected and landed inside Serbia. A USAF combat search and rescue (CSAR) flight comprised of two MH-53 Pave Low helicopters and one MH-60G Pave Hawk helicopter raced into Serbia and rescued the downed pilot before the sun came up. On 2 May, a Serbian SA-6 Gainful SAM hit

a USAF F-16C returning from a night strike mission forcing its pilot to bail out deep in enemy territory. Again, a small force of three USAF special operations helicopters scrambled and headed into Serbia. And one again, the American pilot was rescued before sunrise. These were the only two planes NATO lost during ALLIED FORCE.

By late May, after eight weeks of bombing, the people of Yugoslavia were beginning to express increasing frustration and fear regarding the future of their nation. The number of air strikes and targets destroyed was increasing every week. There were credible rumors circulating that NATO leaders (actually, only the US and UK) were beginning to consider launching a massive ground invasion of Yugoslavia. And while the Yugoslavs continued to be angry and defiant toward NATO, their anger toward Milosevic was also increasing.

By 9 June, the cumulative effect of the damage being done to Serbia by NATO airpower, plus the fear that NATO was making plans for a ground assault, and finally the recent loss of political support from Russia, were too much for Milosevic to bear. Milosevic informed NATO that Yugoslavia was willing to immediately accept the conditions NATO had set forth. NATO stopped the bombing on 10 June. ALLIED FORCE was over.

The Yugoslav government quickly carried out NATO's demands, ceasing all military operations in Kosovo, and withdrawing all military, police and any other armed security forces from the province. A large and heavily-armed NATO peacekeeping force (KFOR) moved into Kosovo to enforce the ceasefire, and the UN took over its administration. Hundreds of thousands of Albanian refugees returned home, while thousands of Serbs who had lived in Kosovo fled the province. It was a tragic situation, but the killing and ethnic cleansing had come to an end. It had taken a long 78 days, but in the end NATO airpower had been the decisive factor in forcing an end to the war. In follow-on negotiations, Yugoslavia tried to hang on to Kosovo, but gradually

it slipped from her grasp. In Feb 2008, after Kosovar Albanians unilaterally declared independence, the US officially recognized the new Republic of Kosovo.

About the Author: Col Bernard V. Moore II, USAF (Ret), served in the Air Force 1977-2005. Bernie was a pilot who tour in the C-130E SOLL, three tours in the MC-130E Combat Talon, and one in the MC-130P Combat Shadow. He did one assignment with the 7th SOS, two with the 8th SOS, and one with the 550th SOS, commanded the 8th SOS, 4411th Rescue Squadron, and 58th Operations Group. Bernie completed staff tours at HQ AFSOC, HQ JSOC, HQ USSOCOM, HQ USPACOM and HQ USAF. Operational deployments included the Bosnian War, Invasion of Panama, Southern Watch, and the Invasion of Iraq. He attended Air Command and Staff College, Armed Forces Staff College, Army War College, and the USAF School of Advanced Airpower Studies. As a civilian Bernie worked for USSOCOM as a contractor 2005-2009, and in Civil Service 2009-2015. He has a BA in History, an MS in Aeronautical Science, and an MS in Airpower Art and Science.



In Operation ALLIED FORCE By Paul Harmon, Col, USAF (Ret)

On the evening of 27 Mar 1999, a US Air Force F-117A stealth fighter, call sign Vega 31, was shot down while conducting combat operations near the city of Ruma, just 30 miles from the heavily defended capital city of Belgrade, Serbia. Within minutes, Air Force Special Operations Command (AFSOC) MH-53 and MH-60 helicopters took off from Tuzla AB, in northeast Bosnia, supported by an AC-130U gunship and an MC-130P Shadow from Brindisi AB in southern Italy, to rescue the pilot. Seven hours later the helicopters returned safely to Tuzla with the very grateful pilot, Lt Col Dale Zelko. The mission's success was heralded in the media and by the White House. Both President Clinton and the Supreme Allied Commander in Europe, General Wesley Clark, called the joint special operations task force (JSOTF) headquarters at San Vito del Normanni AS near Brindisi to extend their hearty congratulations.

In the days that followed, the mission was meticulously dissected by leadership at US Air Forces Europe (USAFE), 16th Air Force, and Special Operations Command Europe (SOCEUR). Comments like, "Better to be lucky than good" and "Amateurish," from these staff agencies were dispiriting, but while some aspects of the mission could have gone smoother the rescue was a strategic success.

It is true that Serbian gunners had shot down the US' stealth fighter, but they were not able to capture and exploit its pilot. In mission execution, the Air Commando crews were bold and tenacious in overcoming adverse weather, a less than optimum command and control (C2) structure, and unreliable communications to bring a fellow American back from enemy territory. All the training and hard work accomplished every day in preparing for war had paid off. A Roman philosopher once said, "Luck is what happens when preparation meets opportunity." Opportunity came again on 2 May when an F-16, call sign Hammer 34, was shot down in the vicinity of Novi Sad and its pilot, Lt Col Dave Goldfein, also found himself on the ground in Serbia. Fortunately for both Airmen, a well-trained and prepared personnel recovery force was ready, willing, and able to go in harm's way when the spotlight of history shone upon them.

Both rescue missions were harrowing and heroic and the stories are best told by the men who flew them. I focused this essay on the planning, preparation, and integration of disparate forces enabling success during Operation ALLIED FORCE (OAF) in Kosovo.

In Jan 1991, the 21st SOS was deployed to Turkey in support of Operation DESERT STORM. The squadron was tasked with combat search and rescue (CSAR), in addition to traditional special operations missions. They participated in the effort to rescue a US F-15E crew shot down in western Iraq. Unfortunately, both Americans were captured and made

prisoners of war. When hostilities ended, the 21st SOS crews delivered aid to the Kurdish refugees living in camps along the border between Turkey and Iraq. The 21st SOS and other squadrons from the UK-based 352nd Special Operations Group (SOG) remained involved in various operations in Turkey providing CSAR coverage for the aircrews enforcing the northern no-fly zone in Iraq until they were relieved by Air Force rescue squadrons.

In 1993, when fighting broke out in the Former Republic of Yugoslavia (FRY), the Air Commandos were tasked to support air operations in Bosnia-Herzegovina as part of the JSOTF2 at San Vito del Normanni AS, Italy. The 352nd SOG was augmented by AC-130H Specter, MC-130P Shadow, and MH-53 Pave Low aircraft and crews from the 1st Special Operations Wing, as well as Special Tactics (ST) teams from the 720th STG to support air strikes.

On 2 Jun 1995, a US F-16 was shot down over Bosnia and the pilot, Capt Scott O'Grady, evaded capture for a week before he was rescued. Ironically,

it was US Marines and not the Air Commandos who recovered Capt O'Grady. Three months later, 21st SOS crews responded when a French Mirage, call sign Ebro 33, was shot down over Bosnia. This time the French airmen were captured after they ejected from their stricken aircraft. Six months later, in April 1996, JSOTF2 crews were tasked in the search and recovery effort of a CT-43 that crashed in Dubrovnik, Croatia. All on board perished, including the US Secretary of Commerce, Ron Brown. A short time later, forces from San Vito deployed to Sierra Leone to assist the US Ambassador in the neighboring war-torn country of Liberia. Additional support from the States arrived and over the course of the next 10 days more than 2,100 people from 76 countries were evacuated to safety. With the Liberia operation complete and Bosnia stabilized, the mission in San Vito grew somewhat mundane even though the JSOTF2 forces were still tasked for combat rescue and support to US and NATO Special Operations Forces searching for persons indicted for war crimes. [Editor's note: All of the operations mentioned in this paragraph are detailed in Air Commando Journal vol. 2, nbr. 2, Spring 2013, at https://aircommando.org/ sites/journal/air_commando_journal_042013.pdf]

In the summer of 1998, the Serbian government began to persecute Albanians living in Kosovo and NATO began preparing contingency plans. JSOTF2 would have the responsibility for CSAR in any pending operation. Lt Col Tim Minish, the 21st SOS Operations Officer, directed his plans office to dust off and update the combat rescue concept of operations (CONOPS) and review options for other anticipated special operations mission tasking. The planning team began developing "spider routes" for Serbia, where most of the anticipated air operations would take place. These routes were a collection of over one hundred pre-planned waypoints, safe areas, and areas of low risk developed after hours of carefully analyzing terrain, threats, and other considerations. The waypoints were stored in the Pave Low mission computers, and allowed the crews to quickly build routes for a rapid CSAR



Alert Alpha and Bravo general area of Vega 31 and Hammer 34 rescues. (Map courtesy of Paul Harmon)

response. The 20th SOS had used the same planning technique during Operation DESERT STORM in 1991.

JSOTF2 was under the operational control (OPCON) of SOCEUR and the commander, Brig Gen Eldon Bargewell, directed that Special Forces (SF) soldiers' capabilities be considered and where value-added have their capabilities integrated into CSAR ground scenarios. The first SF teams to arrive in San Vito were from the 1st Battalion/10th Special Forces Group (Airborne). Col Minish and SF company commander discussed how to best employ the soldiers. The planning team developed a scheme of maneuver and MH-53 aircrews accomplished a complete workup with the SFteams.

The aircrews worked tirelessly with the soldiers to practice fast rope, hoist, rope ladder, and other techniques and procedures that would be used. The SF soldiers added more combat power to the 321st STS' combat controller and PJs for any tactical scenario. All training scenarios culminated with ground and airborne live-fire training on the Glamoc Range in Bosnia. The training included laser target designation and two-ship defensive suppressive fire exercises with the ST and SF teams calling in fires from the ground. Each training event also included the 67th SOS Shadows providing air refueling over the Adriatic Sea and, when available, the AC-130s flew call-for-fire scenarios.

The Combined Force Air Component Commander (CFACC), Lt Gen Mike Short, had overall responsibility for combat rescue during ALLIED FORCE, but he did not have OPCON of the AFSOC helicopters and C-130s assigned to SOCEUR. We sent Capt Shawn Silverman up to Vicenza AB to serve as a liaison officer to the CFACC at the Combined Air Operations Center (CAOC). Shawn spent numerous hours working with the CAOC staff to coordinate the JSOTF2 CSAR operations, resolving numerous planning problems, and in the process taking several pointed questions from the CFACC.

One day, Gen Short asked Silverman, "Why does it take SOCEUR (meaning the AFSOC helicopters) 30 days to get trained on a mission they have been pulling for 5 years from



Pave Low in mountainous terrain enroute to Tuzla AB, Bosnia. (Photo courtesy of Paul Harmon)

San Vito?" A good question. The answer was the Air Force had pared down key C2 forces when major combat operations in Bosnia ended. Additionally, the emphasis on CSAR had waned because the NATO Implementation Force (IFOR, later called Stabilization Force, SFOR) were on the ground inside Bosnia keeping the peace and therefore, there was limited need for Air Force combat rescue forces. So, over time EUCOM's theater CSAR plan suffered natural atrophy because it wasn't used or exercised for several years.

By October 1998, AFSOC, through SOCEUR, was officially tasked with the combat rescue mission and began receiving additional oversight from the SOCEUR commander and staff. Gen Bargewell was not comfortable with us flying with the A-10s. The A-10s have a critical role in any CSAR event and use the call sign Sandy when participating in a rescue mission. Bargewell directed that we do a full trainup so we would be very familiar with the tactics, techniques, and procedures (TTPs) the A-10s use for CSAR missions as well as the C2 of the operation. We took his guidance in earnest and before long we had crew exchanges with the 81st Fighter Squadron (FS). Captain Jim Breck, 21st SOS Chief of Standardization, went up to Aviano AB and the 81st FS sent their senior weapons officers, Major Phil Haun and Captain John Cherrey, to San Vito to discuss TTPs. The pilots provided detailed briefings on their unit capabilities and methods of operation. We videotaped the A-10 briefing for our other crews

who would rotate down from RAF Mildenhall. Following the exchange, Breck began working on our CONOPS and aircrews flew multiple mission rehearsals with the A-10 Sandys. Breck led several of the training sorties and debriefed directly with the A-10 pilots to iron-out details and procedures creating a training guide for our incoming aircrews.

Rumors abound and there was some talk that there was a request for AH-64 Apaches from Germany to fly as our escort. This concerned me for a couple of reasons. First, Pave Low crews had not flown with Apaches since the opening night of DESERT STORM. Second, the weather in Eastern Europe during March was usually marginal and there was high terrain with which to contend. The MH-53s were equipped with a terrain following radar and other systems for flying in poor weather and rough terrain. The Apaches were not. After multiple tours at San Vito, most of our crews had a good deal of experience with the weather and mountains. Our concern was having other aircraft flying with us at low altitude, in the dark, during adverse weather, without them being similarly equipped and crews similarly trained. While the AH-64 Apache crews were enthusiastic, adding them to CSAR operations without extensive training and experience was problematic. Later during ALLIED FORCE, Gen Clark ordered the Apaches to deploy to Albania for combat operations within Kosovo. We sent MH-53s and MH-60s to Tirana, Albania, to assist in their mission training. After several training events, our concerns were sadly proven valid when the Apaches had two mishaps (one fatal) while training for their mission.

As mentioned, the briefs with the A-10s led to multiple training events in Bosnia and our crews got solid training in spite of the weather. Unfortunately, we were not able to schedule the full mission exercise that the SOCEUR commander wanted. Col Johnnie Wauchop, the JSOTF2 commander at the time engaged with the CAOC staff to schedule the necessary C2 assets and tankers for the A-10s and AC-130s, but was told they were not available. Without all the key players we could only practice the tactical events and not realistic mission scenarios as directed by Gen Bargewell. Interestingly, the issue of full mission rehearsal came up in the post-conflict after action report, citing that Air Force special operations forces needed to be better integrated with the Air Force.

From Nov 1998 through Feb 1999, the US and European diplomats tried to negotiate with Serbian President Slobodan Milosevic to no avail. We continued to train with the SF when they traveled to Brindisi and also flew additional training sorties with the A-10s.

We monitored the high-level negotiations through TV reports and the newspapers. As the deadlines came and went, we knew eventually something would happen. We thought hostilities would peak and combat operations could begin in late February. At that time, we were told that the 20th SOS would augment our operations with several aircraft and crews. They got as far as Lajes Field in the Azores, but then were ordered back to Hurlburt Field a day or two later when a new deadline was set for the Serbs.

On Saturday afternoon, 20 Mar 1999, the 352nd SOG was alerted for action and I was told to get two additional MH-53's moving toward Brindisi. Just before 0600 the next morning, the first helicopter departed RAF Mildenhall, with Capt Jim Slife in command. Stopping twice for fuel, Slife and his crew landed at Brindisi after logging more than 10hours in the air. Almost all of the trip was flown in the clouds under instrument flight rules. Capt Jim Breck and his crew flew a second aircraft down the next day in equally poor weather bringing the total to five MH-53Js sitting on the Brindisi flight line ready for action.

I traveled to Brindisi on Mar 22nd aboard a 67th SOS Shadow, leaving my Operations Officer behind to keep things moving forward. Col John Zahrt, the 352d SOG commander, told me that in addition to four MH-53Ms from the 20th SOS there were four 55th SOS MH-60G's enroute from the States. The 55th SOS contingent was a surprise because the unit was scheduled to deactivate in June 1999.

Later that afternoon, a C-5 with the MH-60G Pave Hawks and crews on board landed at Brindisi. I met the commander, Lt Col Steve Laushine and his Operations Officer, Lt Col Eugene Haase, along with some of their crews while they were in-processing at San Vito. One of my crews, led by Capt Steve Plumhoff and his enlisted crew members, did a tremendous job preparing the billeting area for the 20th and 55th. The men cleaned out the rooms in a three-story dormitory known as the "Crack House," making sure each room had beds, linens, and keys. They also worked with the base transportation squadron to get vehicles for the crews. In short, they made the transition easier and helped everyone get settled in after the long flight over from Florida. After settling in, Steve Laushine and I drove out to the flight line to check on the buildup of his helicopters. It was dark on the flight line, but CMSgt Steve Lucky ordered several light carts so his buildup teams could work. They had the helicopters ready for flight checks in relatively short order.

The 20th SOS arrived the next day, on 23 March, and it was like old home week for the guys. Again, the crews settled in quickly and the planners from each squadron began building a consolidated scheduling plan which was sustainable, flexible, and fair. We had a robust force of nine MH-53J/M Pave Lows with eleven crews and four MH-60G Pave Hawks with five crews from the 55th SOS. The team was diverse with a mix several types of helicopters, Special Tactics, and Special Forces so we took on the war time moniker Task Force HELO.

The next couple days were hectic. Gen Bargewell was scheduled to arrive on the 24th and there was a lot to do from a planning perspective. A critical issue was having the ability to forward base the helicopters closer to where the fighters and bombers would be operating. Brindisi was two hours flying time from the primary strike area and our crews we would have to cross the Dinaric Alps and contend with marginal weather to get there. Tuzla AB in Bosnia was the logical choice for a forward operating location (FOL). The base was on the northern side of the mountains and it was close to Serbian border. The issue was Gen Clark did not want forces flying combat sorties from Bosnia because he didn't want to disturb the fragile peace that was in place. Rescue forces are not considered offensive in nature, so Maj Joe Becker, from the SOCEUR staff recommended that Gen Bargewell request the use of Tuzla as a FOL for the CSAR force. European Command approved the

CONOPS, so we planned to send a helicopter force to Tuzla for the first strike period.

Before the first alert we still had to decide how best to employ the mix of MH-53Js, MH-53Ms, MH-60s, and ST and SF operators. After a lot of discussion on strengths and weaknesses of each aircraft, the commanders agreed that a three-ship with two Pave Lows flying chalk one and two and the smaller Pave Hawk flying in the chalk three position offered a lot of combat capability and flexibility on an objective. It goes without saying that the 55th SOS crews were very experienced and very capable, but it only made sense to use the Pave Lows' terrain following radar capabilities at the front of a formation. Lastly, we decided each MH-53 would carry a three-man ST team and a five-man SF site security team (SST). The MH-60 carried their crew of four and a three-man ST team. Finally, we agreed the MH-60 should be the primary pickup aircraft, if the downed pilot was in the open. In this scenario, the MH-60 would land and the two MH-53s would provide airborne security with their combined four mini-guns and two tailmounted fifty caliber machine guns. If the downed pilot was not in the open or was immobile and an extended ground time was anticipated, the flight lead would direct one of the MH-53s to land and deploy the PJs, Combat Controller, and the SST. This allowed the PJs to fully focus on working with the survivor while the Combat Controller and the five-man SST provided a heavily armed force to cover the position until



MH-53 alert crew at Tuzla AB. (Photo courtesy of Paul Harmon)

the survivor could be moved to the helicopter. The remaining two helicopters would remain airborne flying close security. In either case, the A-10s were orbiting nearby for additional firepower, if required.

The final JSOTF2 CSAR posture was three, 3-ship helicopter packages on alert. The A-package would be at Tuzla AB on a 30-minute alert response covering Northern Serbia for the strike period. The B-package remained at Brindisi AB on a notification plus two hours (N+2) response during the strike window. This force could respond to missions in southern Serbia or backfill the alert team at Tuzla. Finally, the C-package was available as a rescue force or support to



Inside alert shack at Tuzla, AB. (Photo courtesy of Paul Harmon)

other core SOF missions, as tasked. This posture left several MH-53s and a MH-60 as spares ensuring 100% launch capability. Additionally, at least one MC-130P Shadow with a medical package and AC-130U gunship were also on alert at Brindisi.

On 24 March, we were told that NATO would initiate airstrikes against targets in Serbia. Later that afternoon, Capt Jim Breck led the first helicopter team to Tuzla AB and assumed rescue alert for the night's strike operations. The night was uneventful and Breck's force returned to Brindisi early the next morning. The next two alert periods were unremarkable, as well. On 27 March, Capt Jim Cardoso, an evaluator pilot from the 20th SOS, took his turn as flight lead of the rescue force at Tuzla, but his night was anything but uneventful. Arriving at Tuzla AB, Cardoso and his fellow Air Commandos refueled their helicopters. Minutes later they were airborne again on their way to rescue the American F-117A pilot shot down by a surface to air missile over Serbia. Five weeks later, Capt Kent Landreth led a second dramatic CSAR mission saving the American F-16 pilot from capture.

In spite of the success, once combat operations ended, there were many questions about why we structured our force the way we did. I believed then, as I do today, the questions go back to the C2 of the JSOTF2 forces during CSAR missions; specifically control of the helicopters. The CFACC was responsible for CSAR but did not have OPCON of all the necessary forces. This was the case in the first Gulf War, as well, and the post-war acrimony was still fresh in the minds' of senior Air Force officers. Our tactical posture was not the standard Air Force CSAR flight of two HH-60s with two PJs aboard and preferring to fly the mission in the day-time as part of a full CSAR Task Force (CSARTF). A CSARTF is comprised of multiple fighters, electronic warfare, and other tactical aircraft for protection of the helicopters.

Back in 1999, few conventional forces were comfortable using or had much experience flying with NVGs for night tactical operations. Within the special operations community, the aircrews were highly proficient using NVGs and the helicopters were optimized for night flying. This was fortunate because most of the strike aircraft were operating at night. We believed delaying a rescue attempt for daylight increased the survivor's risk of capture and put the rescue force in greater danger. Second, the five-man Special Forces SST was integrated on the MH-53s because our commander wanted to make sure the rescue force was prepared for any likely contingency and have the highest probability of success. Also, the MH-53's cabin size allowed us to carry the five soldiers, where the much smaller HH-60 could not.

Unlike DESERT STORM where the distances were great and carrying maximum fuel was critical. For ALLIED FORCE, the times and distances to the primary strike areas along with fuel availability from the Shadows put our force well within capability to carry the soldiers. As circumstances would have it, the Vega 31 and Hammer 34 pilots were not injured and were ambulatory. As a result, the MH-60s landed quickly, spending no more than 45 seconds on the ground for the recoveries. Had the tactical situation been different, though, the special operations rescue force was well prepared and capable of completing missions successfully.

By early June, after 78 days of air strikes, President Milosevic was ready to accept the NATO demands and began the process of withdrawing his forces from Kosovo back to Serbia. When NATO intelligence monitoring confirmed the Serb forces were indeed moving out, operations at San Vito AS began to wind down because it was scheduled to close. The 20th SOS and the 41st RQS flew several more local training



Pave Lows over San Vito AB elephant Cage. (Photo courtesy of Paul

sorties while they waited for their C-5 and C-17 airlift to take them back to the States. For its part, the 21st SOS flew its last two Pave Lows back to England. Departing Brindisi for the last time, they made a low pass over San Vito and its famous Cold War "Elephant Cage" antennae array, as a final salute ending the nearly seven-year relationship with the base.



About the Author: Col (Ret) Paul Harmon retired from the USAF in 2010 after 30 years of service. During his tenure, Col Harmon held several command positions in operations and training including command of the 21st Special Operations Squadron during Operation ALLIED FORCE. He also served several tours as the Director, Special Operations Liaison Element in Central Command's Combined Air Operations Center during Operations ENDURING FREEDOM and IRAQI FREEDOM.

By Steve Laushine, Col, USAF (Ret)

On 2 May of every year a bottle of scotch arrives in the squadron to commemorate the event. Toasts are made and a dram is saved until a new bottle arrives.

The most rewarding period of my career was the opportunity to lead the 55th SOS deployment in support of Operation ALLIED FORCE, the NATO air campaign to halt the humanitarian catastrophe that was unfolding in Kosovo. In March of 1999, the 55th SOS was in the middle of deactivating when the call came to mobilize and deploy to Europe to support CSAR and any other special operation missions directed by leadership.

In a surprising and disappointing move, in the fall of 1998, USSOCOM had decided to close the 55th SOS and eventually hand over all special operations helicopter operations to the Army. It appeared AFSOC had lost the battle with General Doug Brown and the 160th Special Operations Aviation Regiment. This was unfortunate because there was plenty of helicopter work to go around. The immediate task at hand for the 55th deactivation was to build a plan and try to find assignments for all of the outstanding personnel assigned to the squadron. I am probably a bit biased, but we did have a unique and very talented group of people assigned to the unit, so I took great interest in trying to direct them to their first choice of assignments..

In the midst of planning and executing the deactivation plan, events were spiraling out of control in the Balkans and peace talks were ongoing to try to stop the violence. When the peace talks broke down in March 1999, and it became apparent that NATO was going to act, the decision was made to provide a personnel recovery/combat search and rescue (PR/CSAR) capability to support the air campaign. SOCEUR, the US European Command special operations component, was tasked with the PR/ CSAR mission. The decision was made to task elements of the US air, ground, and maritime SOF to support the mission and they were notified on 19 Mar 1999. Elements from all three components were deployed in support with the first element arriving on 22 Mar 1999.

Having received deployment orders at 1600Z on March 19th, the 55th SOS prepared personnel and equipment for immediate deployment. The squadron was well rehearsed for this, having recently completed a dry run of the operation only a month earlier. That iteration was halted when the Secretary of State negotiated a cease fire. Since we were not deploying the entire squadron, the hardest decision for me was who to leave behind. We had no idea of how long the operation would last, nor did we know what, if any, impact the operation would have on squadron deactivation. Some personnel actions were already in the works and in progress. It would have been much easier if we could have taken everyone. The squadron was ready to load at 0200Z on 20 March, but waited a little over a day for airlift before departing. The squadron, on board C-17 aircraft, arrived at Brindisi, Italy at 1700Z on 22 March. The 55th joined other AFOSC forces already on station (21 SOS, 67 SOS) and were joined on the 23rd by elements of the 20th SOS. We deployed with 4 x MH-60G Pave Hawk aircraft, the necessary aircrews, and support personnel.

Upon arrival, we immediately

set to unloading the Pave Hawks and preparing them for flight. There was much other work to be accomplished and little time to do it. As SOF elements closed on San Vito AB, Brindisi, Italy, an employment plan had to be developed that satisfied the joint special operations task force (JSOTF) commander's Intent to "Conduct CSAR... and any other reasonable tactical contingency."

The immediate dilemma was how best to use the forces assembled to plan for and conduct successful special operations. During the course of action development several options were identified and wargamed by the airmen selected to be air mission commanders (AMCs), of which I was one. The others were Lt Cols Paul Harmon, 21SOS/ CC, and Tim Minish, 21SOS/DO, and Lt Col Eugene Haase, my operations officer. The joint special operations air component (JSOAC) commander selected one option, but it was rejected by the JSOTF commander who then proceeded to direct planning for a more robust option. Planning was completed and this time accepted by the JSOTF commander, Brig Gen Eldon Bargewell, the SOCEUR Commander. The more robust plan provided him more options and flexibility.

The new plan included options for either an unopposed recovery or an opposed recovery. The helicopter force included two MH-53 helicopters and one MH-60G. Each MH-53 carried a ground element consisting of five Special Forces soldiers and three Special Tactics (ST) personnel. The lead aircraft (MH-53) also carried the AMC who had direct contact with the ground commander and a linguist. The MH-60 carried a ST team of three. The ground force provided the capability to provide some level of site security if deemed necessary by the situation. Also included in the overall package was an MC-130P to provide airto-air refueling and also a Flight Surgeon, Med Tech and personnel locator system (PLS) interrogator.

The AMCs were involved in every aspect of planning. From the beginning, command and control (C2) and communications proved to be vitally important and were a point of contention throughout the campaign. The JSOAC was under the operational

the likely area of operation for any CSAR mission. In the short time available, several alternatives were considered. wargamed and proposed, but time prevented coordination of any attempt to position the force closer to Serbia. This meant the CSAR package would have to launch from San Vito AB in Italy and fly several hundred miles to Tuzla AB in Bosnia prior to strike packages crossing into Serbia every night. This made for extremely long days for the crews and many unnecessary and costly flight hours on the aircraft.

The first three nights of the air



entire group of special operators directly involved with the recovery of Hammer 34 (Lt Col Dave Goldfein) and was taken at Tuzla AB, Bosnia shortly after the recovery. It includes support personnel who were forward deployed to Tuzla at the time. (Photo courtesy of Steve Laushine)

control of the JSOTF, but under tactical control of the Combined Force Air Component Commander (CFACC) for CSAR execution. This led to issues involving responsibilities and authorities during mission execution. Additionally, although some elements tasked with the mission had trained together, due to the compressed timeline, the majority had not, to include training with conventional forces involved in the CSAR mission.

The NATO air campaign began on 24 Mar 1999, just two nights after the 55th arrived on station and one night after the 20th SOS arrived. This left little time to ready the force for the mission and no time for combined training or area orientation. The planning team immediately recognized the dilemma of time and distance from our base in Italy to

campaign were fairly uneventful for the CSAR team. On the fourth night the CSAR package launched to preposition at Tuzla AB to stand CSAR alert as it did every night. My first turn in the barrel as AMC was on this fourth night of the conflict. Upon arrival at Tuzla, I disembarked and directed the helicopters, led by Capt James Cardoso, to refuel and then prepare for alert. While the helicopter force was still refueling, a mayday call was sent out from a US F-117 aircraft, call sign Vega 31, announcing the pilot had ejected from his aircraft over Serbian airspace. I quickly communicated this news to our forces and started gathering information and mission planning.

Determining the pilot's location was obviously critical to his recovery. Several different locations of the pilot were

passed before I was given the clearance to launch. After launching the helicopter force, the location of the downed pilot was called into question so a decision to hold the force in friendly airspace was made. During this time communications issues continued to hamper the ability to accurately locate the downed pilot and build a recovery plan with supporting forces. At one point, I directed the helicopter flight to land in a field in Croatia and disembark a ST team to attempt to establish communications via SATCOM. This effort also failed and I directed the force to communicate in the clear as it was the only option available.

At one point after being cleared to go, the rescue package was held again because it was feared the downed pilot had been compromised and a trap was being set. After authentication was reconfirmed, the rescue package was again cleared to execute and enter Serbia. In fact, the mission became a series of starts and stops as the Combined Air Operations Center (CAOC) tried to organize and coordinate the recovery effort. A flight or element would have to depart to refuel and just as they returned and it was thought the mission would go, someone else had to depart. The night seemed to drag on forever.

Weather during the mission changed drastically through the night. Initially the weather was clear with a large moon. By the time the rescue package was cleared to execute, the weather was overcast with a low ceiling and no moon. This presented several challenges, but I believe it was also helpful. While visibility was severely restricted for the aircrews, it was also difficult for Serbian gunners to see us. Power lines and other obstacles were difficult to see and at one point while enroute to the objective, one of the helicopter crew members called out wires and the flight nearly hit them. One moment we were flying straight and level and the next we were looking straight up at the stars...if there had been any. The maneuver to avoid the wires was so violent, it overloaded the automatic flight control system, and lights and horns started to flash and wail in the cockpit as the aircraft violently shuddered. At that moment I thought we had actually struck the wires.

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During the lead-up to entry into Serbia it was planned that the A-10 "Sandy" rescue escort aircraft would guide and clear the way for the helicopter package to the survivor's location. Due to the severe weather, the A-10s were unable to conduct the escort and informed the helicopter package "you have the guns" upon entry into Serbia. The helicopters were now on their own as the A-10s could not get under the cloud deck.

By the time the rescue force reached the survivor location the weather had turned ugly. This posed a problem for both the rescue force and the Serbians trying desperately to find the downed pilot before the coalition. The weather hampered both the visibility and the Serbians' ability to hear.

It took some time to locate the survivor because of the weather and the failure of equipment. The PLS on the helicopters was not interfacing with the survivor radio and the survivor's infrared strobe light was inoperative. It seemed Murphy's Law was well in effect this night.

The survivor was eventually instructed to light a flare and was immediately located once he did so, as the force was almost directly over him. The MH-60G, piloted by captains Chad Franks and Matt Glover, landed in a field, just as planned for an unopposed recovery, and the survivor was quickly loaded onto the aircraft and the force departed for friendly territory. Authentication was accomplished in the clear. There wasn't time for much more as Serbian forces were closing in on his position. The return flight was fairly uneventful. The Serbians tried to locate our rescue force with searchlights during our egress, but failed to do so.

As dawn approached, we landed at Tuzla AB where we trans-loaded the recovered pilot to an MC-130 and returned him to his home base. The mission had lasted most of the night and the aircrews had been flying since mid-afternoon the day prior. The team was exhausted, both physically and mentally, as the long night had been an emotional roller coaster with several stops and starts, but adrenaline was pumping as high fives were exchanged.

We learned several lessons from this mission and immediately set about trying to ensure we would not be relearning them any time soon. Training, as always, is paramount, and all anticipated participants should train together under conditions as realistic as possible. Unfortunately we did not have time to conduct any significant training prior to the air campaign. Our biggest concern was validated... that operating out of San Vito on a daily basis was just not tenable. Too much was expected of man and machine so we developed a plan to deploy to Tuzla on a 72 hour alert basis and rotate crews and equipment as required. We did not believe this was an optimal solution, but was definitely better than what we currently were doing.

Five weeks after Vega 31 had been shot down, in the early morning hours of 2 May, the helicopter rescue alert force was sitting alert at Tuzla AB. I was in the barrel again as the AMC. The NATO strike packages were nearing the end of the night's missions and the rescue alert crews eagerly listened to the radio as the strike packages checked out of Serbian airspace one by one. It was thought all had cleared and the alert crews started to head for bed when they caught wind of a Harrier

jet in trouble. It turned out to be a jet over the Adriatic and not within our area of responsibility. We again began to clear crews off alert when we heard another radio call that caught our attention. Another aircraft appeared to be in trouble and was losing altitude. The question was where? We found out in a few more seconds as Hammer 34, piloted by the now Chief of Staff of the Air Force, Gen David Goldfein, declared he was ejecting over Serbian airspace. We once again sprang into action to notify our crews and begin the planning process. The initial mayday call occurred at about 0015Z.

Once again it took some time to attain a survivor location that provided some degree of confidence. After the CAOC felt it had a good location we were cleared to launch (0150Z). At the same time, a CSAR Task Force (CSARTF) was assembled and prepared to launch. While enroute to the Serbian border area, we were directed to hold to allow for the supporting elements of the CSARTF to move into place. I decided not to hold, but press on into Serbia for a couple of reasons. It was already getting very late in the night and dawn was quickly approaching. A daytime mission would have been far more challenging, dangerous, and complex. Additionally, there was already a flight of F-16s in place to escort and provide combat air patrol for the rescue force. Also, there had not been time to adequately train with most elements of the CSARTF, so working with them ad hoc could prove to be problematic. Time was slipping away and the Serbians were actively searching for the downed pilot. Waiting for daylight did not seem like a good idea. As the AMC, I decided it was within my authority to make that call...so I did.

The rescue force pushed forward. As we crossed the border, large flashes lit up the sky in front of us. The crews initially believed that NATO forces were clearing a path across the border for us and cheers went up in the aircraft. Within a few seconds there was an "oh shit" moment, and it became clear the flashes were points of light quickly approaching us. The flashes turned out to be SAM launches directed against our flight of helicopters. The helicopters broke to avoid contact as the SAMs passed through the formation, missing all, but a very close call. After the mission it was estimated that the SAMS were launched using electro-optical targeting so as not to highlight their positions to NATO forces. The weather this evening was very clear with a very large moon almost directly behind the helicopters as we approached the Serbian border. Of course this presented a significant silhouette to the Serbians who were well aware we were approaching the border.

After avoiding the SAMs, the helicopters circled before deciding what to do next. I directed the flight lead, Capt Kent Landreth, to find another route and we decided to proceed a few miles to the south and attempt another crossing. The second attempt worked much better than the first and the rescue force made its way into Serbia.

As the helicopters made their way to the objective area, we continued to be engaged by large caliber machineguns and AAA. The F-16s acting in the Sandy role directed the survivor to activate his IR strobe light as the helicopter force approached his position. The survivor complied, but when the pickup helicopter approached the blinking light it was

discovered not to be the survivor but a blinking farmhouse light. Once again survivor location proved to be a challenge for the coalition forces.

This created another decision point for me and the rescue force. The "Dry Hole" situation report was passed up the chain of command. Daylight was fast approaching and the fuel situation was starting to play a role. Additionally, the rescue package had no idea where the survivor was located and would have to fly holding patterns or land in hostile territory while the situation was sorted out. Return to base, Hold, or Land?

We decided to hold in order to give everyone a chance to sort out the survivor's true location. The flight ended up holding for about 5-10 minutes before we were provided another set of coordinates, further east, deeper into Serbia, and closer to the heavily defended capital city of Belgrade. As any cover of darkness slipped away, these new coordinates would probably be the last chance for the rescue force for the night.

We reached the new location about 0240Z and as we approached we tried to establish radio contact with the survivor. With the help of the F-16s overhead we were able to do so and began the process of receiving vectors to the survivor's location. The Serbs were hot on his heels which he passed on to the helicopters. Once located, the MH-60G, piloted by captains Bill Denehan and Tom Kunkel, was dispatched to pick him up and did so with bullets flying through the air. Again, there was little time for proper authentication so the PJ and combat controllers grabbed him, threw him in the helicopter, and jumped on top of him to provide a little bit of protection. To this day, Gen Goldfein likes to provide some ribbing by pointing out that the bullets were coming from underneath us. The MH-53s provided cover while the MH-60 was performing the pickup and the rest of the Hammer flight maintained an overwatch position. The pick-up bird was not on the ground long and was soon airborne and rejoined the flight.

We continued to encounter AAA as we made our way out of Serbia. We crossed the border out of Serbian airspace at approximately 0305Z and headed for Tuzla. We landed uneventfully at 0330Z and trans-loaded the survivor to a waiting MC-130P for transportation to his home base.

The night proved to be much shorter than the Vega 31 mission, but no less exciting, with bullets, missiles, and AAA flying all around us. We finished the night with several bullet holes in the MH-60 but were otherwise unscathed.

The Hammer 34 mission went much more smoothly than Vega 31, but there were still some important take-aways. It should go without saying, but precise survivor location is a critical component of a successful recovery. Joint training is another critical factor for success. For years it seemed CSAR was always the first to fall off the plate on the "organize, train, and equip" end of responsibilities. Failure could have strategic level consequences and should be treated accordingly. We were operating under unusual circumstances which created some friction between the CFACC and SOF. When I was given execute authority, I believed I had the authority to push into Serbia once we launched. I am not sure the CFACC had the same understanding.

There were many, many people who contributed to

the success of these missions and the overall SOF mission during OAF, not just the aircrews. The maintenance crews for example, were pushed to the max to generate airworthy aircraft and they really showed what they could do. But the aircrews demonstrated remarkable ingenuity, flexibility, determination, and courage to accomplish the mission. It was a supreme honor to be a part of Operation ALLIED FORCE.



About the Authro: Steve Laushine, Col (Ret) is a former USAF helicopter pilot and last commander of the 55th SOS. He currently supports NATO special operations education and training and resides in the Fort Walton Beach area with his wife.







STEALTH FIGHTER DOWN

aescue of Vega 31 By Col Jim Cardoso By Col Jim Cardoso Glass, Glass,

The crew of moccasin 60 the morning after leading the rescue of Vega and Capt Jim

The crew of moccasin 60 the morning after leading the rescue of Glass, and Capt Jim

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Approaching 30 years of uniformed service, my current—and final—active-duty role will be as Commander an Air Force ROTC detachment at the University of South Florida in Tampa. Developing and mentoring these primarily18-22 year old future officers, you realize that what you think of as "career experiences," they refer to as "history." The evening of 27 March 1999 is a prime example of that. On a night that my cadets have either scant memories or no memories at all, a group of Air Commandos successfully executed the combat search and rescue of Vega 31, the pilot of an F-117 shot down over Serbia during Operation

ALLIED FORCE. I was fortunate enough to be on alert that evening as flight lead aircraft commander of a 3-ship helicopter force when that mission arose, and hope to give you an idea of what that night was like.

The complex and violent history of the Balkans throughout the 1990's is a story unto itself, in which Air Commandos distinguished themselves on several occasions. Due to this history, however, Air Commandos already had a wellestablished presence in the region when Operation ALLIED FORCE (OAF) kicked off on 24 March 1999. Joint Special Operations Task Force 2 (JSOTF2) had been headquartered at San Vito AS near Brindisi, Italy since February 1993, at the beginning of Operation PROVIDE PROMISE. In February 1999, as diplomatic solutions fell short, Joint Special Operations Task Force NOBLE ANVIL (JSOTF-NA) was formed using the JSOTF2 baseline to command and control all SOF assigned to support Kosovo operations. Finally, as events pointed clearly to a robust air campaign, in March 1999 the Joint Special Operations Air Component Command (JSOACC) was designated under JSOTF-NA. All Air Commandos, some already in theater, others deploying in, fell under this arrangement. This included MH-53s, MH-60s, AC-130s, MC-130s, HC-130s, and Special Tactics.

My crew and I were part of the "deploying in" piece. At the time, the 20th SOS was organized into three combat flights. The three flights were comprised of 6 Pave Low crews each, and rotated with the Joint Operational Readiness and Training (JORTS) cycle. As OAF approached, B-Flight was on alert as primary to deploy in support of any worldwide contingency; I was the B-Flight Commander and flight lead aircraft commander for the flight. The rest of my crew consisted of:

Copilot Capt John Glass Flight Engineer TSgt Ed Hux Flight Engineer SSgt Bill Clemons Aerial Gunner TSgt John Dubuisson Aerial Gunner SrA Chris Bloomfield

We were naturally very interested as things began heating up in the Federal Republic of Yugoslavia (FRY). Even as events accelerated towards our deployment for the kickoff of ALLIED FORCE, ongoing diplomatic efforts caused the entire process of alert, prep, loading of aircraft/equipment/airmen, and departure to proceed in fits and starts. Then one of the C-5s broke on the Hurlburt ramp with two Pave Lows and other gear onboard, pushing our departure another day to the right. We finally departed Hurlburt and landed at Brindisi-Casale on 23 March 1999—only one day before commencement of the air war.

Fortunately, the 21st SOS had maintained a consistent presence in the region since PROVIDE PROMISE, and as



things moved inexorably towards hostilities, the squadron prepped for the combat search and rescue missions Pave Lows were to assume. They designed a system of spider routes with over one hundred present points around and through Serbia, so we could design time-sensitive route plans to any point in enemy territory, and communicate that plan to other players on the CSARTF. They also trained with the A-10's of the 81st Fighter Squadron, who would play the "Sandy" RESCORT role during any rescue mission. Most importantly, they brought theater expertise and continuity to what became Task Force HELO within the JSOACC.

Interestingly, Task Force HELO not only had both MH-53 Pave Lows and MH-60 Pave Hawks, it had two different types of Pave Low. Since 1998 the 20th SOS had been converting to MH-53M Pave Low IV's that were updated with the Interactive Defensive Avionic System/Multi-Mission Airborne Tactical Terminal (IDAS/MATT). This resulted in a complete cockpit facelift giving unprecedented situational awareness and realtime warning of threat emitters in the AOR. These capabilities have become typical in the current day, but in 1999, the level of SA almost felt like cheating. The 21st SOS still utilized MH-53J Pave Low IIIs, without the IDAS/MATT modification. As the 20th closed its deployment to San Vito AS, the TF HELO commanders got together to determine how we'd employ our forces. It was determined that a three-ship formation, two MH-53s and an MH-60, would comprise the helicopter rescue force. Based on mission requirements, as well as crew and aircraft resources, there were five packages of this 3-helo mix. A Pave Low would lead the formations (PLL!), but there was discussion about which type—the 20th SOS MH-53M crews trained on the advanced IDAS/MATT capability, or the 21st SOS MH-53Js crewed by greater theater experience? In the end, both these factors, as well as overall flight experience of the available aircraft commanders, drove three packages to be led by 21st SOS crews (A/Cs Maj Lou Caporicci, Capt Jim Slife, and Capt Jim Breck), and two led by 20th SOS crews (A/ Cs myself and Capt Paul Pereira).

Each aircraft in the formation, in addition to its crew, had a 3-man STS team, with two PJs and a CCT. The MH-53s also carried a 5-man site security team (SST) from 10th Special Forces Group. Finally, the lead Pave Low would carry the Rescue Mission Commander (RMC) and the Direct Support Operator (DSO). The RMC was a CC or DO from one of the three helicopter squadrons. While this arrangement gave the rescue force tactical flexibility in case additional ground firepower were needed in the terminal area, it loaded 37 people on board the three helicopters. There was some discussion at the crew level that this was too many, and we were sacrificing fuel (i.e., range and endurance) unnecessarily. This concern did eventually get briefed to BG Eldon Bargewell, COMSOCEUR and JSOTF2 Commander, to consider off-loading some of the personnel. However, he made it abundantly clear that this was the way it was going to be, period. The rescue alert force also consisted of an MC-130P and AC-130U on alert; the MC-130P ended up being absolutely critical to Vega 31 mission success by providing timely air refueling, which compensated for the reduced fuel loads.

So, the machines and people were in place, and the tactics were set, when ALLIED FORCE kicked off on 24 March. The first three nights were uneventful. The three-ship formation would depart before the ATO attack windows began to be at Tuzla AB in northeastern Bosnia when airstrikes were underway. This greatly reduced their response time to recover downed airman, especially in northern Serbia. On night four, 27 March, it was my three-ship team's turn as primary alert. Our flight callsign was Moccasin 60, the same as our lead MH-53M, with the crew as previously listed joined by Lt Col Steve Laushine, 55 SOS/CC, as RMC. The other two aircraft consisted of:

Moccasin 61 (MH-53J)

A/C Capt Shawn Cameron Copilot Capt Mark Daley Flight Engineer SSgt Jim Hessick Flight Engineer SSgt Bill Rippert Aerial Gunner TSgt Mike Hopkins Aerial Gunner SrA Mason Minich

Gator 07 (MH-60G)

A/C Capt Chad Franks Copilot Capt Matt Glover Flight Engineer SrA Shawn Swift Aerial Gunner SSgt Gunther Kirsch

We departed Brindisi for Tuzla in the same manner as the previous three nights. However, the evening was, suffice it to say, a bit more eventful.

First was to simply transit to Tuzla, which proved more than just casual for all the helo packages. This included navigating "the Gauntlet," the valley that ran from off Adriatic from Ploce, through Mostar, and up to Sarajevo. Pave Low crews had flown this route for years to ingress towards Sarajevo (and for great TF/TA training), but the jagged terrain and everpresent power lines made it the wrong place for complacency. From Sarajevo, the terrain flattened out some for the rest of the flight to Tuzla AB. At Tuzla, we planned to hot gas at Comanche Base, a FOB about 5 nm from Tuzla AB. First, the formation landed at Tuzla to drop off the RMC and the ground teams at the small TOC we were using. Then, due to limited space at Comanche Base, Moccasin 60 departed single-ship to get gas first while the other two aircraft ground laagered at Tuzla, after which we'd swap.

The first indication it'd be an unusual night occurred after the swap. Moccasin 61 and Gator 07 both heard a broken "Mayday" call while they were prepping for fuel and Moccasin 60 was enroute back to Tuzla. We didn't hear it in Moccasin 60, a harbinger of the communications snafus that would follow the mission all night. However, upon landing at Tuzla, we were met by Lt Col Laushine who informed us that an F-117 had been shot down. We were surprised for two reasons. One, that any aircraft had gone done, as the evening's airstrikes had be severely curtailed due to ever-worsening weather conditions. But even more stunning was that the seemingly invincible Stealth fighter had been successfully engaged by the Serbs.

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The Nighthawk had enjoyed a spotless combat record since their first employment in Panama through incredible success in Operation DESERT STORM. The other two helicopters soon landed at Tuzla as well and all three A/Cs and the RMC gathered in the TOC for time-sensitive planning, along with the two Tuzla-assigned Intel personnel who'd been tasked to support us.

We immediately started getting coordinates and updates for the survivor's position and status. We received info over landline and two different SATCOM nets. Simultaneously, Moccasin 61 was able to establish good SATCOM (they were the only ones who had it all night) while laagering and received updates from Promenade, the JSOACC C2, on a third net. These updates included rendezvous instructions with the Sandy A-10s, as well as launch imperatives based on evolving timelines. These same imperatives were passed to us in the TOC via landline. Unfortunately, there was confusion between the use of local time versus Zulu time (only 1 hour apart in that region), and we ended up departing from Tuzla an hour earlier than we needed to in order to rendezvous with the A-10s. To this day I'm not sure where this foul-up occurred—it's SOP to use Zulu time as the standard, why anyone in the coordination chain would start using local time is beyond anyone's guess.

There was also the challenge of nailing down Vega's exact location. We obviously preferred not to troll around Serbia looking for him. The intent was to use the various assets available to determine his location prior to launch. Even in the days before Blue Force Tracker and other modern capabilities, we had (so we thought) robust options to localize him fairly accurately. However, the multiple sources of info also passed us multiple sets of coordinates: east of Odzaci in northwestern Serbia; near Batajnica Airport just NW of Belgrade; south

of Ruma, a bit further west of Batajnica; even a set of coordinates outside the borders of Serbia! Each time we got new coordinates, we'd scurry back to the maps and revise our plan and routing. During this process, we shared some black humor regarding the radar cross section of the Pave Low—"so, a Stealth fighter got shot down there, and now we're taking a Pave Low to the same place?" Finally, when the coordinates near Odzaci came up a second time with what appeared to be a high level of certainty, coupled with the HHQ directives to "launch now" to meet the A-10s, we returned to our still-turning aircraft. Moccasin 60 Flight departed north from Tuzla at 2115Z to rendezvous with the RESCORT A-10s at X9, a spider route transition point southwest of Osijek, Croatia.

Enroute to X9, comms continued to be a significant limfac. We attempted communications on multiple frequencies, trying to link up with Promenade, ABCCC, AEW (NATO E-3), and the Sandys, all to no avail. We arrived at X9—an hour too early, due to the Zulu/Local time mixup—and held while continuing to attempt contact. For over an hour the only luck we had was Moccasin 61 talking to Promenade briefly over SATCOM; however, they were able to coordinate an air refueling rendezvous with an MC-130P later in the evening. To conserve fuel, we landed in an open field, and deployed the STS team to attempt contact using their SATCOM antenna. It was critical we make contact with C2 agencies because even though we had launched, we did not yet have execute authority to ingress into Serbia to make the pickup. Finally, we overhead Sandy transmitting to Vega over the Personnel Locator System (PLS) primary channel, a non-secure net; apparently Sandy was high enough to have LOS with both of us. We tried to switch to secure radios, but we were unable to attain secure comms with the Sandys. We found out later that the A-10's KY-58s tended





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-- NORTON A. SCHWARTZ, Gen (Ret) Former USAF Chief of Staff

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to overheat and drop their codes, with no way of reloading them. From that point on, except for comms within Moccasin 60 Flight and with the MC-130P, the rest of the mission would be conducted in the clear. This was clearly not the preference, and even using code words and phrases resulted in our having to communicate more than we'd like in the clear. I caught grief for that in the days after the mission from a couple sources, including BG Bargewell. But when it's all that's available, you make do with what you have.

Upon establishing comms with Sandy, we were informed that we had the wrong location; Vega was south of Ruma. This greatly decreased our playtime and drove the need for air refueling. Fortunately, while moving south from X9 to X8 (halfway between Brcko and Bejiljina), we were able to securely contact Ogre 01, the MC-130P launched from Brindisi to provide HAR support. They did a fantastic job of working with a very non-standard and low-level rendezvous to pass all three helicopters needed fuel. We then proceeded to X8, where we held nearly 2 more hours awaiting the "Execute" call. It turns out that by the time we completed HAR, Sandy and other members of the CSARTF had to go find KC-135s for their own air refueling. During this time, we were able to complete various coordination briefs with Sandy, and asked for Vega's PLS codes, as well as intel on ground forces in his vicinity. The PLS codes given to us was incorrect; this would have really come in handy in the terminal area later on. Sandy also spoke to and re-authenticated Vega several times, an activity complicated by enemy troops slowly but surely closing in on his location and his concern of being detected.

We were finally given authority to execute. As we crossed the Bosnia/Serbia border, we were then told to hold for reauthentication of Vega. Intercepted reports said that FRY forces had captured him. To say we were frustrated would be a severe understatement. After over 4 hours of stops and starts, jacked-up communications, and multiples flexes to update our plans, did this American airmen get scooped up by the enemy just as we were finally coming in to get him? After a tense 10 minutes, Sandy was indeed able to re-authenticate Vega, and we were re-issued the "Execute" order at 0158Z.

We ingressed into Serbia at low level, surprised but relieved at the lack of enemy response. The countryside was dark; from our position it appeared not a single village or house had a light on. Of growing concern too was the weather. What had started out as a fairly clear night had degraded to Balkan standard for March—miserable. It was cold and rainy, with low ceilings and visibility reduced at times to ½ mile. I don't know if it was the darkest night I've seen in 17 years of NVG flying, but it had to be top 3. We were able to operate below the weather, but the Sandy A-10s, who were to use their magnificent 30mm cannon to provide fire support, were stuck above it. While they continued to perform superbly in the OSC role, they informed us, "you have the guns." Well, this was not part of the original plan, but with three experienced crews manning six 7.62mm miniguns and two .50-calibers, we could defend ourselves. And the crummy Balkan weather provided additional tactical cover for our formation. As we proceeded towards Vega's position, searchlights stabbed the dark skytwo MH-53s and an MH-60 aren't the quietest things in the world—but couldn't acquire the formation.

Thanks to the IDAS/MATT capability of the MH-53M, we were a lot less concerned about the SAM threat than we normally would be. The Serbian IADS was formidable, with overlapping weapons engagement zones across the country and concentrated around key military and infrastructure nodes, but designed for higher-flying fixed-wing aircraft. Our SA of their location and our well-ingrained TTPs allowed us to routeplan and maneuver as necessary to avoid engagement. By the 4th night of the air war, Serbian missile operators were getting skittish about turning on their radar anyway; the few that did over the course of the evening got a warm response from an F-16CJ-launched HARM. The upgraded cockpit display allowed us to maintain superb SA even as updates to survivor location and routing came up.



21st SoS crew (L-r) SSgt Jim Hessick, TSgt Bill r ippert, SSgt mason minich, Capt mark daley, Capt Shawn Cameron on Vega 31 rescue mission. (Photo courtesy of Paul Harmon)

About 20 nm from Vega's position, TSgt Ed Hux earned free drinks for life when he spotted high-tension power lines from his right scanner position, and called them out. I'll forever kid Ed (who retired as a CMSgt) that he screamed like a little girl, but considering the threat these looming wires presented, it'd have been appropriate. I maneuvered aggressively, hauling both cyclic and collective back and calling "Climb-climbclimb!" over the radio. While we stayed tactically low level, we raised our altitude to about 200' to avoid a repeat. Shortly after that, our DSO confirmed that Serbian police had spotted us—or at least heard us—and were coordinating their response to our presence. We also heard from AEW—passed through Sandy—that there was an unknown helicopter in the vicinity of Vega. About 30 seconds later we were told to "disregard" that report. In talking to Vega later, he confirmed that there was another helicopter flying over him well before the 3-ship arrived. I can only surmise it was part of the "coordinated response", which may have been a blessing in disguise on the objective—more on that in a bit.

About 5 miles out we were able to talk directly to Vega on the secondary PLS freq. Approaching the terminal area, we saw four military vehicles on a major road ½ nm north of his approximate position. As we got closer we could see enemy troops who were closing the noose on him. So we were all in the right general area, and whoever could pinpoint his location first would get the prize. He was supposed to use an IR strobe to mark his exact location to the rescue formation, but he reported his strobe inoperative (this is when having the right PLS code would have come in handy). After some discussion about using an overt signal, he lit off a signal flare; we immediately saw him ½ nm east of us. Hindsight being 20/20, we should have told him to light off the day end, as the smoke is normally visible on NVGs. But we were at the end



Aerial refuling of a Pave Low. (Photo courtesy of Paul Harmon)

of a race that was about to end soon (good or bad), and we needed to locate him and get this done. I'll always admire the sheer chutzpah of this guy, and trust he had in his rescue team to respond quickly to his signal.

We turned and overflew his position; as briefed, Gator 07 dropped out of formation, pretty much autorotated to Vega's position, and landed for the pickup. Vega requested position to approach the MH-60, but the STS team was already out the door to meet him. They did a quick scan to confirm his identity based on his ISOPREP, checked for any serious injuries, threw him in the back of the MH-60, and piled in after him. Gator 07 was on the ground for no more than 45 seconds. During this time, the two MH-53s had turned and set up to provide defensive suppressive fire as necessary, but the MH-60 was in and out so quickly we continued westbound and Gator 07 rejoined the formation after liftoff. Despite the robust enemy force in the area—which had at minimum six crew-served gunsights trained on them the entire time—no one took a shot at us. This defies logic but based on prior events, starts to make some sense; back to the "other" helo. If this was part of the Serbian search effort—which is almost certainly the case—

the ground troops may have taken the return of helicopters overhead to be a continuation of their air support. Three cheers for FRY military trigger discipline.....

As Gator 07 rejoined the formation, we egressed the area towards Tuzla. This provided a different egress point on the border from our ingress point; also, due to the multiple delays, fuel was again becoming a factor. There was muted jubilation on our aircraft; we'd extracted Vega from his predicament, but still needed to get him (and ourselves) all the way home. As on the way in, searchlights came on in response to sound of our machines; again, we were able to avoid them. We also saw anti-aircraft artillery, but it was far enough away that they could have been engaging our assumed position had we retraced our steps on egress, or even another aircraft above the low overcast. We reported the successful pickup per the execution checklist, as well as our intention to land at Tuzla, and departed Serbian airspace at 0246Z.

In the meantime, the CAOC at Aviano AB was coordinating to have Vega transloaded to the Ogre 01 upon our landing at Tuzla, for immediate return to his deployed location. This was carried out without fanfare; in Moccasin 60 we were disappointed we weren't able to meet Vega that evening, but that opportunity would come later when he visited the 20th SOS at Hurlburt after ALLIED FORCE ended. We then went back to Comanche Base for hot gas, and were planning to return to Brindisi that evening (by then it was more like early morning), but were told by JSOACC to shut down at Tuzla. It had been a long day and though the thought of returning to our home location after a successful mission was appealing, so was immediately hitting the rack; besides, ORM didn't support an additional two-hour flight back. The aircraft would stay in place and the crews on alert for the next night would be flown up via MC-130P, as well as team of maintainers to prep the helicopters for alert.

As with any mission, the days and weeks following 27 March would be filled with hot washes, after action reports, and discussions about how to do things better. Many of the lessons learned were applied to the subsequent rescue of Hammer 34, an F-16 piloted by then-Lt Col David Goldfein (now CSAF). They had other challenges—primarily, stiffer enemy resistance—but the significant challenges in C3, secure comms, and coordinating the air campaign to focus on the CSAR effort were, for the most part, not repeated. Our mission was far from perfect, and in fact downright ugly at times. But the Air Commando spirit of overcoming obstacles and flexing as necessary to meet the objective was never more apparent. At the end of the day, we went in with 37 Americans—and we returned with 38. Overall, that made it a good night.



About the Author: Colonel James L. Cardoso is Professor of Aerospace Studies and Commander, AFROTC Detachment 158 at the University of South Florida in Tampa, and will be retiring in June. He previously commanded the 58th SOW at Kirtland and the 27th SOG at Cannon, and activated the 71st SOS (CV-22 training squadron) at Kirtland as its inaugural commander. He is a command pilot with 3,700 hours in the MH-53J/M, CV-22, and several other aircraft, and a lifetime member of the ACA.

SPECIAL TACTICS IN OPERATION ALLIED FORCE

By Bradley Thompson, Col, USAF

The 321st Special Tactics Squadron (321 STS) was assigned to the 352d Special Operations Group (SOG) at RAF Mildenhall, England. The 321st was led by (then) Major Bill Sherman and I was his Operations Officer. The squadron had an enduring presence at San Vito AB, Italy for over four years by the time



Special Tactics alert teams for Vega 31 at Tuzla AB and Brindisi **AB.** (Photo courtesy Brad Thompson)

Operation ALLIED FORCE (OAF) began on 24 March 1999. Like the rest of the 352 SOG, the 321 STS had spun up and "pushed" additional forces down to San Vito in preparation for a NATO response to Serb aggression in October 1998 and again in January 1999; both times we were directed to stand down. The Serbian leader, Slobodan Milosevic, had his forces back off just enough for NATO not to execute combat operations allowing more time for negotiation. As a result, the extra ST forces redeployed home leaving the normal contingent of eleven to fourteen operators in place; enough to cover the long-tasked combat rescue alert as well as other classified missions.

The Serbs continued their aggression against the Kosovar people and on 20 March 1999 the 352 SOG was ordered to deploy forces back to San Vito AB. I, coincidently, had traveled down to San Vito on 19 March via the weekly MC-130 rotator from Mildenhall to take my turn as the ST Mission Commander. This was just a normal swap-out and rotation even though we knew tensions were high and there was talk of hostilities. I'll never forget when the ramp of the MC-130 opened and the officer I was replacing was standing there waiting for me. He said, "The CJSOAC Commander (Colonel Wachop) wants to see you right away – we're going to strike them this time." At that time, including myself, we had just eleven Special Tactics members at San Vito. I reported to Colonel Wachop and he tasked me to draft a plan to cover three CSAR platforms and to figure out what else I needed if hostilities commenced early the following week. Twenty-four hours later I went back to him with what we needed right away and what was necessary to sustain combat operations, if tasked. By the early hours of Tuesday, 23 March, we had nearly eighty combat controllers and PJ's on-station hailing from the 321 STS, 23 STS, 22 STS, 308th Rescue Squadron (Reserve) from Patrick AFB, and the 304th Rescue Squadron (Reserve) from the Portland, OR. Despite only arriving that morning at 0200, our orders were to have everyone spun up and prepared to assume combat rescue alert that very evening. While our plan wasn't perfect I was very proud to report, "Special Tactics was fully operational capable" when we got the execute order.

Over the next few days the dust settled a little and we were able to tighten things up ensuring all ST crews were where they needed to be regarding theater orientation and other necessary training. We also developed a sustainable schedule and manned the alert facilities no matter where the location took us from San Vito to the "Clam Shell" at Tuzla Base in Bosnia.

During these operations, the Special Tactics community had nearly 70 percent of its forces deployed to the area. These operators were pivotal in the rescue of an F-117 pilot (Vega 31) and an F-16 pilot (Hammer 34). The teams were also tasked with and completed multiple air field surveys and took part



in humanitarian relief operations in Albania distributing food, water, and clothing to the Kosovar Albanian refugees driven from their homes by the Serb aggression. "First There, That Others May Live!"



About the Author: Colonel Bradley Thompson is a career Special . He served in multiple command billets at the squadron and group level. Colonel Thompson currently serves as the Inspector General for Air Force Special Operations Command.



By Bill Denehan, Lt Col (Ret) USAF

The footsteps on the wooden planks that joined the alert cabins on Tuzla Airfield, Bosnia sounded more urgent than the normal foot traffic between the "hooches." Our cabin door opened and someone announced that an aircraft had been shot down over Serbia. It was 2 May 1999 at about 0215 local and I had just climbed into my sleeping bag. The Operation Allied Force bombing campaign began on 24 March and was estimated to last about a week before Serbia would sue for peace. Yet here we were at the alert facility in Tuzla five weeks later. Our CSAR force was composed of elements from Joint Special Operations Task Force-Noble Anvil (JSOTF-NA), which consisted of MH-53Ms from the 20th SOS, MH-60Gs from the 55th SOS, both out of Hurlburt Field, FL, and MH-53Js from the 21st SOS out of RAF Mildenhall, UK. Crews were rotated to Tuzla to stand alert for two nights then returned to Brindisi, Italy for other tasking in the AOR. On this particular evening both MH-53 Pavelow crews were from the 20th SOS.

During mission planning crews from the three squadrons had requested a CSAR "package" of just two aircraft, an MH-53 and an MH-60. However, BG Bargewell, the JSOTF-NA Commander, called for the force to include a 10-man Special Forces A-team based on his experience in Vietnam. This requirement demanded the inclusion of an additional MH-53. All three aircraft carried the same load of 2 PJs and a Combat Controller to provide continuity should one of the aircraft have to abort the mission or be shot down. The SF A-team was split between the 2 H-53s thus giving the CSAR force three dozen personnel aboard the 3 helicopters. In addition, the mission

commander Lt Col Steve Laushine, 55th SOS CC, was in the lead MH-53M. As the alarm went up in Tuzla this cast of 36 men scrambled to plan, prepare aircraft and gather gear for the mission.

Capt Kent Landreth (Flight Lead), Lt Col Laushine, myself (MH-60G Aircraft Commander) and Lt Tom Lang (MH-53J Aircraft Commander) examined the wall map with the survivor's coordinates plotted to determine the best ingress route into Serbia. The survivor, Lt Col Goldfein, was the commander of the 555th Fighter Squadron out of Aviano AB, Italy. He was egressing off a target in Novi Sad when his aircraft was hit by shrapnel from an SA-3. Unfortunately, he could not glide the stricken aircraft over the border, and ejected about 16 miles west of Belgrade. The coordinates put the town of Loznica, Serbia in a direct line to the survivor and intelligence reports placed a mechanized infantry unit in and around the town. Because of this threat it was decided the flight would divert to the south of Loznica and cross the border in what appeared to be a much safer area. The biggest factor to the success of the mission was time. Sunrise was only 3 hours away and given the robust Serbian air defenses a daylight rescue mission was not in the cards. Our SOP for the operation was that rescue missions would only be conducted during hours of darkness and given the amount of fire we received that night, a day rescue in Serbia could have proved disastrous.

With the survivor's data and as much information as we could gather, we headed out to the aircraft to prepare Skat flight for the mission. The first indication that things were not going to go as planned manifested itself on the runway before take-

off. During the communications check we discovered that the only operational secure satellite communications (SATCOM) in the formation resided in the chalk 3 MH-60G Pavehawk. The Aerial Gunner sitting in the Pavehawk's left window behind the co-pilot was responsible for the SATCOM since the console was set up next to his seat. This left the responsibility of communicating with command and control agencies and relaying that information to the rest of the formation up to my gunner TSgt Jack Gainer. Jack was a very experienced former Pavelow gunner and undeniably more than up to the task.

As we sat on the runway in Tuzla, we listened to AWACs and Airborne Command and Control (ABCCC) organizing a "Gorilla" package of fighters coming off targets in Serbia and "Sandy" A-10s in transit over Bosnia. From what we could discern, many of the fighters were in need of fuel and were enroute to the tankers. We then heard from ABCCC that the rescue mission would be delayed for two hours in order to refuel and organize the supporting aircraft. This information was relayed to Lt Col Laushine in the lead Pavelow, callsign Skat 11. Because of the fast approaching sunrise, we did not have two hours to wait and Laushine made the decision to launch Skat flight towards the border. The rescue needed to happen now or it would have to wait until the next night leaving Lt Col Goldfein an entire day attempting to evade capture by the enemy. Jack then informed ABCCC that Skat flight was departing Tuzla enroute to the survivor at 0348 local.

Blacked out, Skat flight headed southeast towards the border. We soon noticed that all the lights in the towns we overflew were being turned off. Our helicopters were definitely being tracked. This was no surprise since the media had published in depth information regarding the Vega 31/F-117 rescue, which had taken place on 27 March by our Task Force. The articles described the location from which the rescue force departed, so the Serbians knew exactly where to look for us. In addition, this part of Bosnia was predominately Serb and sympathetic to their kin across the border.

As Skat flight approached the Sava River south of Loznica, which formed the border between Bosnia and Serbia, a blanket of fog could be seen covering the river valley though the surrounding hills were clear. The moon was full and the sky was cloudless, definitely not optimal conditions for a flight of helicopters attempting to slip into enemy territory undetected. The formation flew just above the fog bank and I felt very exposed to visual detection and possible AAA fire from the approaching hills, which lay just over the border in Serbia. When the formation reached the halfway point over the foggy river, two missiles were launched from hills at our twelve o'clock. In conversations with all of the crews after the mission, most of us initially thought that the missiles were meant for allied fighters. We quickly realized that the missiles were meant for us. The formation didn't have any terrain to mask in as we were just skimming the fog, so we deployed chaff and flares as we dashed to the safety of the terrain on the far side of the valley. The radar warning receivers in our Pavehawk remained silent as crewmembers would later report seeing the SA-6 missiles pass overhead. It appeared that the Serbs knew where we were crossing but were either unwilling to turn on their radars and risk exposing their positions to HARM equipped allied aircraft or maybe we were in a position that they could not lock on to us.

As we crossed into Serbian territory, crewmembers in the Pavelows reported seeing some AAA coming from the valley. Because of the attention we were receiving at this ingress point, Kent Landreth turned the formation north as we entered the hills of Serbia. Just after completing the turn my Flight Engineer, SrA Rich Kelley, sitting in the right cabin window behind my seat, announced a missile launch at our 5 o'clock at close range. The terrain favored a left turn and I banked hard and launched a salvo of chaff and flares. The turn was quick and when I rolled out my gunner Jack called out the missile. As he made the call I launched another salvo of countermeasures and dove for the ground to mask in the trees and terrain. I never saw the missile, though the chalk 2 Pavelow tail gunner, SSgt Dan Weimer, later reported that the missile passed over us and behind his aircraft.

Kent Landreth and Steve Laushine then made the decision to cross back over the river into Bosnia to find a better ingress point. Passing back over the river more AAA drifted out of the fog but was unable to find us. Over safe terrain in Bosnia Skat 11 led the formation south. The MH-53M was equipped with



morning after Hammer 34 rescue. Left to right, Lt Col Steve Laushine (mission commander), Capt Tom Kunkel (co-pilot), SSgt Rich Kelley engineer), Capt Bill Denehan (aircraft commander), TSgt Jack Gainer (aerial gunner). (Photo courtesy of Bill Denehan)

an impressive avionics suite which included a digital moving map, common in modern helicopters but state of the art in 1999. Using the moving map and data link information available to him, Kent picked another crossing point further south. This crossing point proved to be undefended and Skat flight safely reentered Serbia and turned toward the coordinates received for Hammer 34.

As Skat flight sped towards the survivor the formation stayed as low as possible using the terrain to mask us from detection and ground fire. While scanning the terrain, Pavehawk Flight Engineer Rich Kelley spotted tracers arcing towards



mH-53 crew Skat 11taken the morning after the rescue. (Photo courtesy of Bill Denehan)



mH-53 crew Skat 12 taken the morning after the rescue. (Photo courtesy of Bill Denehan)



Left to right Rich Kelley engineer, DFC), Bill Denehan (aircraft commander, SS), Jack Gainer (aerial gunner, dFC), Tom Kunkel (copilot, dFC) after the awards ceremony. (Photo courtesy of Bill Denehan)

Skat 14 from the second story of a building at our 3 to 4 o'clock. Without hesitation Rich returned fire with his GAU-17 7.62mm minigun and his 3-4 second burst silenced the ground fire. Pararescueman SSgt Jeremy Hardy and Combat Controller SSgt Andy Kubick both later reported seeing the tracers approaching the aircraft but Rich responded before they could alert the crew. As soon as Rich let off his trigger he called out the threat area and I banked away. Scanning the instruments, everything looked normal and I did not feel any feedback in the controls. Rich reported hearing a whistling sound and thought that we may have taken some rounds in the rotor blades. Given that the aircraft appeared to have escaped major damage, we continued following Skat 11 &

Nearing the survivor's position, we could hear Hammer 33 talking to Hammer 34 on the designated frequency. We were somewhat surprised that we could only hear Hammer 33, but it was possible that we were still too far away to hear Hammer 34. Also, my copilot Capt Tom Kunkel checked the Personnel Locator System (PLS) to insure it was properly coded, but we were not receiving a signal from Hammer 34's PRC-119 radio. Something didn't seem right as we circled the area looking for signs of Lt Col Goldfein. Kent Landreth reported to Hammer 33 that we were over the location, but apparently Goldfein could not hear Skat flight's rotors. While the flight circled, exposing the helicopters to ground fire, there was a radio transmission from what I assumed to be Hammer 33 requesting that the survivor prepare a flare to signal the helicopters. Simultaneously, Jack Gainer called out that he had Hammer 34 in sight at 9 o'clock. I made a 90 degree turn and Jack gave vectors to a bright light about a mile away. The light appeared at the same moment of the radio transmission directing Hammer 34 to prepare a flare. I alerted Skat 11 that we had the survivor in sight and had broken formation. As we approached the bright light we quickly realized that is was a very bright floodlight on a building that had just turned on or was unmasked from behind another building as we flew by.

We quickly reported to Skat 11 that it was not the survivor and Jack got on the SATCOM to ask ABCCC for updated coordinates. As soon as Jack made the request on SATCOM the frequency blew up with traffic. It seemed that every agency listening simultaneously keyed their radios to offer assistance. Not being able to make any sense out of the cacophony and unable to get a word in edgewise, Jack did what gunners do and transmitted for all traffic on the frequency to "clear this f#@&ing net!" Instantly the radio fell silent. Jack then told ABCCC that the survivor was not at the original coordinates and asked for an update. Almost immediately, we received the new coordinates.

The reason for the confusion over Hammer 34's position was that his PRC-119 radio had a self-contained GPS that had not been initialized in theater thus making satellite acquisition difficult. The PRC-119s were new and the 555th Fighter Squadron had received their radios from the US just before the conflict started. I am not sure if the radio ever found its position throughout the course of the

mission. The coordinates that we were being given were from ellipses obtained from electronic warfare aircraft that used direction finding (DF) to triangulate Goldfein's position. I do not know if the final coordinates given were from DF or from another source.

Jack passed the new information to SKAT 11 and the formation continued further into Serbia towards Belgrade. Approaching the new coordinates, we began receiving Hammer 34's transmissions. Goldfein began to hear our rotors as we got closer and gave Skat flight very good vectors to get us within a mile of his position. As we passed to his south he turned on his infra-red strobe. Jack once again called the survivor in sight at the 9 o'clock and this time it was actually Hammer 34. I made another sharp 90 degree turn and saw the strobe dead ahead while calling Skat 11 that we had the survivor in sight. Lt Col Goldfein guided us all the way to the ground. The pick-up zone was sloped downward from the left to right so that the right landing gear strut was fully extended when we touched down. Hammer 34 crouched at our 1 o'clock. Hardy, Kubik and SrA Ron Ellis jumped out of the helicopter, accidentally knocking a box of MREs out the door as they departed. They ran to Goldfein who was on his knees in a nonthreatening posture.

Within a few seconds of interrogating the survivor all four seemed to have heard something and began scanning the area. They suddenly stood up and began running to the helicopter. We later found out that they had heard gun fire in the area which was directed at Skat 11 and 12. After we had broken off from the flight, Skat 11 had directed Skat 12 to orbit east of the PZ while Skat 11 proceeded to our location in order to provide overhead support while we were on the ground and vulnerable.

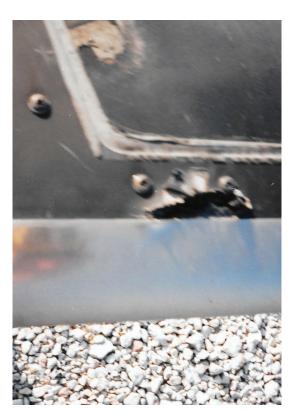
When Goldfein and his guardians returned to the Pavehawk they used the MRE box to assist in climbing into the aircraft as the cabin floor was at chest height because of the sloping terrain. They piled into the cabin with the PJs and combat controller lying on top of Goldfein. Rich Kelley and Jack Gainer assisted pulling them into the cabin. Once inside, they all began yelling "go, go,

go" despite Goldfein's feet hanging out the door. I asked over the intercom if everyone was in the aircraft, but the crew was busy securing the precious cargo and unable to respond. Given the urgency with which they ran back to the aircraft and everyone in the cabin yelling "go", I decided it was a good time to depart. As the helicopter rose to tree top level, I made the departure call as Skat 11 passed in front of us and we turned left to join up. Kent confirmed that we had Hammer 34 on board, then directed Skat 12 to rejoin and we sped towards the border with Skat 12 as chalk 3.

The sun was rising as we flew low over the Serbian countryside. I looked under the NVGs and determined that we could have flown unaided but the NVGs were providing some psychological

comfort in that it still felt like we had the cover of darkness to conceal us. With the engines redlined, the Pavehawk struggled to keep up with the faster Pavelow until we crossed the border. Some of the crewmembers in the flight reported sporadic small arms fire while enroute and once again some AAA as we crossed the river. We dispensed the last of the chaff and flare crossing the river in case the AAA was radar guided.

When we landed in Tuzla the sun was bright as we shook Lt Col Goldfein's hand. He was quickly whisked away to an awaiting MC-130 for his less harrowing flight back to Aviano. We walked around the aircraft looking for damage and surprisingly enough were only able to find two bullet holes. One had punctured the tip cap on one of the blades which confirmed the whistling sound that Rich heard. The other round had entered the right side of the aircraft and came out in the left engine compartment breaking a bracket for the right engine cowl. This bullet could have easily ended the night for us as it was close the engine combustion section. That could have been our golden BB but luck was definitely on



exit hole of bullet in mH-60 main rotor blade looking from top down. (Photo courtesy of Bill Denehan)

our side that night.

The rest of the day was spent going over the night's action and already we were thinking of the lessons learned. There were things that definitely could have gone better, but overall the mission was a success because of the actions of countless airmen. From the maintainers, air battle managers and helicopter crews to PJs, CCT and fighter pilots all doing an outstanding job. And when things didn't go well, we fell back on training and experience to get the job done. Anytime, Anyplace.



About the Author: Bill Denehan, Lt Col (Ret) is the former commander of the 23rd Flying Training Squadron, Pave Hawk instructor pilot, 6th SOS Combat Aviation Advisor . He joined the Armv and AVTEG staff o in 1986 and served as a CWO2 the UH-1H in Desert Storm before earning a commission in the Air Force in 1994. He also served as a Royal Air Force exchange

with 33 Squadron instructing on the Puma HC.1. After commanding the 23rd FTS at Fort Rucker, Alabama he retired to Colorado Springs, Colorado in 2014 where he is currently employed as a medevac pilot based at Memorial Hospital.

By Eric Fiel, Lt Gen, USAF (Ret)

Operation Allied Force, the NATO air campaign in Kosovo began on 23 Mar 1999 and ended - almost as quickly as it started - on 10 Jun. It is hard to believe that what seems to be only yesterday actually happened over 18 years ago for the men and women of the 4th Special Operations Squadron (SOS) and the 4th Aircraft Maintenance Unit (AMU), as they showcased the AC-130U Spooky gunship for the first time in combat. This quick three-month combat operation would set the stage for the tremendous accomplishments the members of the 4th SOS and 4th AMU would experience throughout the coming years while conducting combat operations in Afghanistan, Iraq, and other unnamed places. It would also come to change the configuration on the AC-130s from strictly an aircraft with guns to an aircraft capable of a wide variety of different weapons to include precision guided munitions.

Since the early days of the Vietnam War, the Spooky, Spectre, Shadow, and Stinger aircrews and aircraft have wreaked more havoc on the enemy than any other weapons system and have secured their role as the most feared close air support (CAS) weapons system in the world. The number of unsung heroes within the ranks of the gunship community is absolutely staggering.

Unfortunately, as Vietnam drew down only 10 x AC-130Hs survived and this put a tremendous amount of pressure on the men, women, and families of the 16th SOS and 16th AMU at Hurlburt Field. I still believe that since 1979, the 16th SOS is the longest running, most continuously deployed squadron in the United States Air Force. This is a truly amazing accomplishment. The only way to slow down the high deployment rate of the 16th SOS was to convince the USAF and the United States Special Operations Command (USSOCOM) to buy more gunships. After much heated debate, the decision was made and the 4th SOS and 4th AMU were reestablished with 13 x AC-130U Spooky Gunships at Hurlburt Field, FL. The new aircraft had much needed upgraded electro-optical and infrared sensors (EO/IR), and included a new strike radar capable of tracking and engaging targets through the weather. Additionally, it had upgraded fire control computers and a 5-barrel, 25mm gun instead of the twin 20mm guns, but retained the same 40mm and 105mm guns as the AC-130Hs.

Having a new aircraft is one thing, but standing up a new combat squadron is another. Remember, there was only one gunship squadron in the USAF at the time, therefore, there was only one place to get current and qualified aircrew members, and they were from the nation's most deployed squadron. The commander of the 16th SOS had to make some extremely difficult decisions on how best to ensure he could maintain his squadron's combat capability, their overseas commitments, and overall readiness while still contributing to the stand-up of a new gunship squadron that could eventually relieve him from some of the squadron's constant deployment pressures. From my perspective, Ray Kilgore and Brad Heithold the commanders from the 16th SOS and Rick Spencer and Bob Hudson the commanders from the 4th SOS at that time, along with Mark Transue and Tim Schaefer, the squadron directors of operations (DOs), did a fabulous job working through some very difficult times in making all this happen.

Rick Spencer and Bob Hudson, the first two commanders of the 4th SOS, owe a lot of their success to the men and women of the 16th SOS – most of the initial aircrew members were from the 16th SOS. All the rest came either

from other weapon systems from around the USAF or from new aircrew right out of flight school. What did that mean? Everyone had their own opinions on how best to stand up a new combat squadron. The first squadron building was several doublewide trailers with maintenance just behind them in the same type of trailers. Hard to imagine hundreds of aircrews and hundreds of maintainers occupying such a small place, but as I look back there is no better way to ensure a strong bond between the men and women of both operations and maintenance than close quarter accommodations.

As with any new weapons system, the AC-130U had several growing pains between the new 25mm gun, All-Light Level TV (ALLTV), constant operational flight program (OFP) changes, concurrent developmental test and evaluation/ operational test and evaluation (DT&E/ OT&E), and constant initial and upgrade training. But, under the strong leadership of Rick Spencer and Bob Hudson, superb aircraft commanders, flight commanders, and senior non-commissioned officers (SNCOs) – too many to name -- the 4th SOS came together as a superbly led squadron ready to continue the strong legacy of the Ghostriders.

Sometime in 1995, the 4th SOS began to share deployments to Bosnia with the 16th SOS. It was usually six months on and six months off, with the 4th SOS taking the winter months since the AC-130U could pressurize. The squadrons staged out of San Vito Air Station, just outside of Brindisi, Italy, usually with 2-4 aircraft at a time and flying combat missions into Bosnia supporting Operation JOINT ENDEAVOR as part of NATO's Implementation Force and Stabilization Force. During this operation, gunships would launch every night and patrol the skies over Bosnia in support of NATO ground forces.

> Operation JOINT **ENDEAVOR**

provided an excellent environment for the 4th SOS to hone their combat skills. Deployments were usually 45 days long and provided the squadron the needed time to cycle mission commanders, aircrews. maintenance. support personnel to ensure all were receiving the necessary opportunities to work through operational employment issues. The squadron was part of a joint special operations task force (JSOTF), commanded and staffed by Special Operations Command Europe (SOCEUR). The joint special operations air component (JSOAC) was commanded and staffed by the 352nd Special Operations Group and augmented by the 1st Special Operations Wing (SOW). For the gunship squadrons, missions were mostly pretty quiet with flare-ups only every once in a while, but that was soon to change.

On Tuesday, 23 Mar 1999, when the North Atlantic Treaty Organization (NATO) began airstrikes into Kosovo kicking off Operation ALLIED FORCE, the 4th SOS was in the middle of swapping out aircraft, aircrews, and maintenance. Up to that time, the JSOTF only required 2 x AC-130s but since the squadron was swapping out crews, maintenance, and aircraft, timing worked out for the 4th SOS and they were easily able to provide 4 x AC-130Us to the JSOTF. What was a little frustrating was that when the hostilities began, the Combined Force Air Component Commander (CFACC) shut down the airspace to all commercial traffic, so some of the aircrews and maintenance flying into Brindisi had their flights cancelled and had to take the bus from Rome to San Vito AS.

I cannot emphasize enough the high level of professionalism displayed by the members of the 4th SOS and 4th Aircraft Maintenance Unit (AMU). From executing combat operations every night, to running aircraft through hot fuel-pits so they could gas and go when tankers were not available, to flying interdiction missions, to flying support missions, the aircrews, maintenance, and support personnel generated sortie after sortie with a 100% mission reliability rate.

To be honest, the threat faced by the 4th SOS during ALLIED FORCE was not one that the aircrews had normally

trained for. Most gunship training was focused on support to SOF ground units for either assault missions, armed reconnaissance missions, or airfield seizure operations. This was different. These were interdiction missions against a modern, Soviet-trained air defense system with sophisticated mobile surface to air missile (SAM) systems. Yes, the AC-130U had electronic have seemed counter to doctrine, but SOF has accepted responsibility for theater CSAR in the past and executed the mission with some of the most professionally trained aircrews and equipped aircraft. On 2 May 1999, then Lt Col Dave Goldfein was shot down while flying a combat mission over Serbia. As described in other articles in this issue, three helicopters launched



countermeasures (ECM), but the ECM was designed to help the aircraft survive and escape an engagement by a SAM, not allow it to continue to operate in the area. Unlike most strike aircraft (i.e., fighters and bombers), the gunship is designed to provide persistent over-watch of ground forces or to loiter in a general area to destroy known targets or targets of opportunity. This means that this relatively low and slow-flying aircraft was never intended to fly in a medium or high-threat environment without appropriate support aircraft.

During the three months of Operation ALLIED FORCE several very important lessons were learned that still remain relevant today:

First, Special Operations Squadrons under the command and control (C2) of a JSOAC and led with appropriate rank was imperative to mission success. The same goes for JSOACs under the C2 of a JSOTF as well as a JSOTF under the C2 of a joint task force. The professionalism displayed by the JSOTF, JSOAC, and SOSs during Operation ALLIED FORCE (OAF) was superb.

Second, one of the JSOTF's primary missions was Combat Search and Rescue (CSAR) during OAF. To some this may

from Bosnia and flew directly into Serbia evading several SAMs and were able to rescue Lt Col Goldfein. What is unfortunate is that the 55th SOS, the squadron that conducted the CSAR, was soon deactivated.

Third, on the very first AC-130U strike mission several things became obvious that have directly impacted and improved the capabilities of the AC-130s today:

- · The EO/IR sensors onboard the aircraft could see further then the guns could shoot - this is still true today especially with the newest High Definition (HD) Sensors onboard the current aircraft.
- The guns cannot engage a target until you are approximately 1 - 1.5 nm away from the target.
- Depending on where you align and tweak the guns, the first several shots may not always be accurate, especially if there is a significant difference in terrain elevation and winds.
- · The Serbian air defense forces were launching their radar SAMs optically and while the missiles were in flight they would turn on their radars giving aircraft less time to react during a SAM engagement. For an AC-130

with a large radar-cross section and slow maneuverability there is not much time to react to a radar guided SAM. This means that in a SAM environment, with no dedicated suppression aircraft and limited ECM, the AC-130 is at a distinct disadvantage when you are interdicting targets from ranges about 1 - 1.5 nm

The first target for the AC-130U during OAF was a Serbian border post which had approximately 30-40 Serbian soldiers occupying the target area. As the aircraft approached the target, the IR sensor operator could easily see the target 20 nm out, but the ALLTV could not. The ALLTV still had growing pains from DT&E/OT&E. Also, remember you cannot engage a target at 20 nm so the aircraft had to keep flying towards the target. At approximately 1.5 nm out, the first 105 mm was shot, but came just short of the main structure and was quickly followed by another. However, all the Serbian soldiers ran out of the building and dispersed into trenches or other structures which caused the AC-130 aircrew to stay overhead the target area for an extended period of time to ensure complete target destruction. If we just had had the ability to shoot from farther away that event might have been different.

Because of this, two things became apparent. The AC-130 needed a precision guided munition like the Hellfire missile that would have allowed the aircrew to destroy the target at a much greater distance all while reducing the exposure of the aircraft and aircrew to potential SAM engagements and had enough munitions and fuel left to service other targets. As a result, AC-130s now carry precision munitions to include Laser Guided Small Diameter Bombs (L-SDB) today.

Additionally, the use of parachute illumination flares was also discussed to increase the use of the ALLTV and hide the aircraft. The illumination by the parachute flare would have enable better use of the ALLTV by putting more external lighting in the target area. The flares would have also hidden the aircraft from ground observers and IR SAMs. The USAF has two types in the inventory with one being overt and the other covert. It would have been like standing under a street light and trying to look through the street light to see the aircraft pretty hard to see. Parachute flares were eventually used during Afghanistan, but instead of being dispensed from an AC-130, A-10s were used to deploy the flares during several engagements.

Fourth, the AC-130U was equipped with a strike radar. This enabled the aircrew to not only track targets through the weather, but it also allowed the aircrew to shoot through the weather. During OAF, then Capt Ioannis Koskinas became the first AC-130U navigator to shoot and engage targets solely with the use of the strike radar. Shooting through the weather is one thing, but actually being able to see the target when weather obscures the visual sensor or being able to determine if the target was destroyed is another. Over the next 10-15 years, several different technologies were tested that would enable the AC-130s to better engage targets through the weather to include GPS guided munitions for static targets, to widely employing joint terminal attack controllers (JTACs) in Iraq and Afghanistan, to developing offboard sensors that could be launched and controlled from the AC-130 by the aircrew and either allow the aircrew to use onboard weapons to engage the target or equip the off-board sensor with a munition and use that to strike the target. As a result, the tactical off-board sensor (TOBS) program was started to solve this problem and I believe that AFSOC is currently working to establish it as a program of record for this capability.

Fifth, and in my opinion, probably one of the most significant lessons learned during OAF was installing a "first-phase battle damage assessment (BDA)" capability onboard the AC-130U aircraft. The AC-130U aircraft had the ability to record the onboard sensors like previous versions of the gunship. What was unfortunate was that it was recorded on a 3/4 inch video recorder and only the gunship squadrons had a playback machine and everyone wanted to see the gun tapes to verify BDA. We did change out the 3/4 inch recorder for 1/2 inch VHS recorders, but this did not really fix the problem. We needed the ability to send pictures to the JSOAC so the intelligence imagery analysts could review and report BDA to the Combined Air Operations Center (CAOC). Having to wait for the aircraft to land, transport the tape from the airfield to the JSOAC and then have the analyst review and report was taking too long. So, Lt Trube and SSgt Pratte developed a way to take screens shots from the EO/IR sensor display and send them back to the JSOAC via a PRC-117 SATCOM radio. This provided the JSOAC with a much needed, extremely fast, first phase BDA reporting capability, whereby imagery stills could be sent via email to the CAOC from the aircraft.

Why is this important, these Air Commandos, along with some other folks back at AFSOC continued to work this capability and by 2001 the first ROVER was installed on the AC-130U for operations in Afghanistan. However, this time instead of imagery stills it was full motion video of the AC-130U target engagements.

As I stated at the beginning, OAF, the NATO air campaign in Kosovo ended almost as quickly as it started, but it allowed the men and women of the 4th Special Operations Squadron and the 4th Aircraft Maintenance Unit, to showcase the AC-130U Spooky Gunship for the first time in combat. This quick, threemonth combat operation set the stage for the tremendous accomplishments the members of the 4th SOS and 4th AMU would experience throughout the coming years while conducting combat operations in Afghanistan, Iraq, and other unnamed places.

It would also come to change the configuration on the AC-130 from strictly an aircraft with guns to an aircraft capable of a wide variety of different weapons and set the stage for the AC-130W Stinger II and the new AC-130J Ghostrider. Since the early days of the Vietnam War, Ghostriders have wreaked more havoc on the enemy than any other weapons system and have secured their role in our nation's history as the most feared CAS weapons system in the world!



About the Author: Eric Fiel, Lt Gen, USAF (Ret) served as 4th SOS and AFSOC Commander.



By Ross Victor, Col, USAF (Ret)

Joint Special Operations Task Force 2 (JSOTF 2) was established in 1993 at San Vito del Normanni Air Station (AS) in Italy to support NATO operations in the Balkans. Initially in support of Provide Promise and Deny Flight (Feb 93 – Dec 95), as the geopolitical climate evolved through levels of violence and peace negotiations, the operations saw a number of name and mission changes: Deliberate Force (Aug - Sep 95), Joint Endeavor (Dec 95 - Dec 96), and Joint Guard (Dec 96 - Jun 98). Throughout this time, the 352nd SOG, augmented by the 16th SOW, maintained a constant rotation of crews and aircraft to southern Italy. San Vito AS had no runway or flightline, so the aircraft were based at the airfield in the town of Brindisi, some 12 miles from San Vito AS.

In Jun 1998, I arrived at the 67th SOS, and joined the flow of constant rotations back and forth to San Vito from RAF Mildenhall.

On 20 Jun 98, operations in the Balkans transitioned from Operation Joint Guard to Operation Joint Forge, part of the NATO effort to continue stabilization.

Tensions continued to rise in the region as Serbian President Slobodan Milosevic began his campaign of ethnic cleansing in Kosovo. Milosevic rejected all efforts to find a peaceful solution, and sent 40,000 troops into Kosovo. In response, NATO launched Operation Allied Force on 23 Mar 1999, with the objective to force Milosevic to withdraw his troops from Kosovo. Throughout the 90s, the Combat Shadow fleet had undergone extensive upgrades, termed the Special Operations Forces Improvement (SOFI) modification. These enhancements would receive their first combat test in the Balkans.

VeGA 31

As it became clear that offensive air operations into Kosovo were about to begin, the order was given to deploy additional crews and aircraft to Italy to prepare for what would become Operation Allied Force. The 67th SOS received some augmentation from the 9th SOS and the AFSOC staff, and we worked out the crew mixes and alert schedules to ensure we could sustain the required force structure for CSAR ops indefinitely. The JSOTF2 compound facilitated excellent coordination between all the various units involved in the Balkans operations. There were work areas for each of the weapons systems, Special Tactics, Special Forces, intel, Flight Surgeon, and weather, as well as an ops floor. Lt Col Tim Minish, the 21st SOS Director of Operations, met with our crews to work out pre-planned air refueling tracks for the helicopters (HAR), just outside the Serbian border. The concept was that a track could be set up between any two points depending on where the HAR might be needed. We updated our spider routes with the latest intelligence and went over all the procedures we had honed over the past six years of CSAR alert. Those of us working at the JSOTF2 compound monitored the progress of the air war over the radios and for the first few nights, everything seemed to go smoothly. That all changed on the night of 27 March.

We had two crews on alert that night. Crew 1, call sign OGRE 01,

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consisted of Capt Greg Ervin (aircraft commander), Capt Eric Zimmerman (copilot), Lt Col Jim Pankau (left navigator), Maj Matt Brand (right navigator), MSgt Bruce Kingsbury (flight engineer), loadmasters MSgt Bob Wood and SSgt Billy Wilkins, SSgt Lonnie Allen (communications systems operator), MSgt Mike Moran (direct support operator), Maj John McGuire (flight surgeon), and TSgt Gary Martin (medical technician). Crew 2, call sign OGRE 02 consisted of Lt Col Mike Callan (aircraft commander), Maj Matt Smith (copilot), Capt Darren Vigen (left navigator), Maj Dave Mobley (right navigator), Col Bill Nelson (flight surgeon), and TSgt Dan Stanley (medical technician). The names of the flight engineer, CSO, loadmasters, and DSO have been lost to history.

The crews first assembled at the JSOTF2 compound on San Vito at the start of the alert window to receive information on the night's target packages and the latest intelligence. They checked the special instructions (SPINS) and air tasking order (ATO), updated their charts with the current threat information, and then OGRE 01's crew proceeded to the airfield at Brindisi, where they prepped the aircraft and took their crew stations to sit strip alert. The crew of OGRE 02 remained on standby at the JSOTF2 compound. Just a couple of hours into the alert window, at 1947Z, Vega 31 issued a MAYDAY call which was heard by the CSAR helicopters (2 x MH-53 and 1 x MH-60) forward deployed at Tuzla. This was confirmed by Vega 31's wingman (Vega 32) and the airborne warning and control system (AWACS) aircraft. The word soon spread through the JSOTF2 compound that Vega 31 was missing and presumed shot down. While the CSAR crews were all aware that a shoot down was very possible with the number of aircraft in the target packages and the dense and sophisticated Serbian air defenses, the last thing anyone expected was that the downed aircraft would be an F-117.

Col John Zahrt, the 352nd SOG Commander and JSOTF2 Commander, immediately notified BG Eldon Bargewell, the Joint Force Special Operations Component Commander, and recommended approval of the CSAR mission, which BG Bargewell readily approved. However, final approval for the mission had to come from the combined air operations center (CAOC) at Vicenza. That approval arrived about 45 minutes later, followed almost immediately, at 2050Z, by approval for the Shadow to launch. In the meantime, Col Zahrt directed me to join the crew as the Shadow Mission Commander, so I rushed down to the airfield and boarded the now engines-running Shadow. We took off at 2107Z. As we made our way east, there was a tremendous amount of radio traffic, and there were several different sets of coordinates being passed with the location of the survivor. Copilot Eric Zimmerman, whose spouse was the JSOTF Deputy J2, recalls, "There was a lot of confusion about the location of

the survivor as my wife, Vicky, can attest. The navs kept plotting different locations as we flew east over the Adriatic. It took some time before the mission fully came together." Adding to the confusion was that daylight savings time began in Europe that day and some agencies were passing times in local versus ZULU.

After going feet dry over Croatia, we headed towards Bosnia. We didn't know whether there would be any reaction from the people or government of Bosnia. We flew low over the terrain, radar off, emissions kept to a minimum, varying our route and doing our best to stay clear of any lights on the ground or built up areas. We needed to be close enough to the pre-planned air refueling points along the Serbian border to get there quickly, while staying far enough away from the target tracking radars arrayed around Serbia.

All eyes scanned outside the cockpit and cargo compartment windows, searching for any sign of reaction from the ground, such as searchlights, lasers, or tracers. We orbited for about 90 minutes, as the survivor's location was pinpointed, and the full CSAR package was assembled. By this time, the CSAR helicopters were low on fuel and called for an HAR between two of the pre-arranged points along the Serbian border. The weather had gotten progressively worse as the night went on, and as we approached the area for the HAR, it became clear we would need to do the rendezvous below 1000'. We were also within 5 miles of the Serbian border, and within range of their air defense network. We set 700' as the refueling altitude, and still blacked out and emissions minimized, worked to find the helicopters. Loadmaster Billy Wilkins was the first to see the helicopters. As Eric Zimmerman recalls: "The HAR was a challenge. Weather was bad with clouds and low visibility. We had to get low to get underneath and get the helos their fuel. It's the first time I can remember conducting HAR below 1000 ft." Once the refueling was complete, the helicopters headed back towards the survivor's location in Serbia, and we flew west to put some distance between us and the Serbian air defenses. Now, we were in need of fuel ourselves. Eric Zimmerman recalls there being an issue getting a tanker, so he got on radio and used the brevity word for "need gas" and a tanker magically appeared. We passed word to OGRE 02 to take over lead while we went to get our fuel, so they headed towards the pre-planned HAR points in case the helicopters needed more gas once they had rescued the survivor.

The crew of OGRE 02 had been on standby at the JSOTF2 compound. As Dave Mobley recalls, "We were initially in the planning rooms, then they sent us out after 01 launched to sit strip alert." Matt Smith recalls seeing OGRE 01 taxiing out as they arrived at the airfield. OGRE 02 did not sit for very long before they too were given the order to launch. Mike Callan



said, "SOCEUR wanted more assets in the air for follow-on CSAR options." Callan's crew ran the required checklists, went lights out, and feet dry, then put on their NVGs and proceeded to descend to get below the clouds using NVGs only to fly a lower profile and avoid known threats and proceed to a "spider route location" compatible with the CSAR mission as it progressed. Callan's crew employed similar tactics to OGRE 01, "We monitored the various comm nets, flew the aircraft to avoid detection, and responded via CSO relay to what SOCEUR wanted us to do. We noted several enemy attempts to highlight our aircraft with flood lights, so we continued to move our orbit accordingly."



Front row (kneeling, L-r) Capt Greg ervin, maj matt Brand, Capt eric Zimmerman, maj John mcGuire, SSgt Billy Wilkins. Back row (standing, L-r) mSgt mike moran, SSgt Gary martin, SSgt Lonnie Allen, mSgt Bruce Kingsbury, Lt Col Jim Pankau, mSgt Bob Wood, Lt Col r oss Victor (Picture courtesy of Maj Keith Hedgepeth)

Matt Smith recalls, "We orbited in Serb-dominated Bosnia just outside Serbia awaiting the rescue helicopters, just in case they needed gas. They didn't so we didn't do any AR. We were at about 500 to 1000' and orbited in dark areas to avoid population and possible ground threats. We had an indication of a radar missile launch and reacted accordingly. My sense is that we picked up a real launch or 'almost' launch, but they weren't targeting us."

OGRE 01 took on 30k pounds of fuel and then proceeded back towards their original orbit area. On re-establishing communications with the Vega 31 rescue effort, the crew learned that the CSAR crews had successfully recovered the downed pilot, and were making their way to Tuzla AB. OGRE 01 was asked if they had enough fuel to pick up the pilot at Tuzla and return him to Aviano AB, which they now did.

Setting a course for Tuzla, the crew set up for an NVG self-contained approach to the airfield because the tower was now closed. Approaching Tuzla, the weather got worse. It was snowing and it was hard to see the runway three miles out. We finally picked up the runway on NVGs and the approach

and landing were uneventful. OGRE 02 set up an orbit nearby, standing by to assist as needed. There was moderate snowfall as OGRE 01 taxied towards the transload site and the crew was having difficulty contacting the helicopters. The Serbs had attacked Tuzla just a couple days earlier, so there were also concerns about who we talked to on the radios. The survivor's location on the airfield was finally worked out with Promenade (JSOTF2) and the crew was relieved when a Humvee pulled up with the pilot. Doc McGuire went to meet him and escorted the pilot, Lt Col Dale Zelko, onto the aircraft. OGRE 01 taxied out and took off, but because there was no one to talk to for clearances the crew contacted Magic (NATO AWACS) for clearance to Aviano.

Enroute to Aviano, the medical team attended to Lt Col Zelko. Doc McGuire recalled, "The pilot was very alert and definitely functioning on adrenaline. He had some minor scrapes and bruises that Gary Martin, the medical technician, helped clean up. The pilot had some minor back discomfort typical for an ejection, but overall he was doing very well." Lt Col Zelko kept thanking everyone involved in the rescue and also asked for info on all the crew. Doc McGuire gave the pilot his flag patch so at least he would have that on his uniform when he landed. The Doc also asked Bruce Kingsbury, the FE, to turn up the heat in the back because the pilot was shivering. As the crew flew towards Aviano, their thoughts turned to reflecting on the ordeal that Lt Col Zelko went through and the tremendous courage and professionalism of the CSAR crews that had snatched him from enemy territory.

While the crew and survivor were now safe, there were still challenges ahead. We were heading towards Aviano with the sun coming up and getting updates on the survivor's condition from Doc McGuire. At that point, it seemed most of the excitement was over, however our arrival at Aviano turned out be yet another challenge. Eric Zimmerman recalls, "After taxing off the runway, we noticed a crowd of people along the taxiway and in the parking area; many more than any of us were expecting. Perhaps the most concerning part was when Billy [Wilkins] deplaned and warned that he was really worried that the crowd, in their eagerness to recover the survivor, might run into a spinning prop."

The question came up about whether we should shut down for the offload, but instead we chose to stay running and leave ASAP. After deplaning Lt Col Zelko we taxied away from the crowds and avoided the cameras. As the crowd dispersed, OGRE 01 worked out their flight plan and clearance back to Brindisi, which had to be coordinated through the Italians. They eventually got clearance and took off towards the south. Bruce Kingsbury recalled, "For me the biggest thought that I felt was when we took off from Aviano. The sun was coming up and except for radio traffic, the flight deck was pretty quiet. It spoke loudly of the SOF motto, 'the quiet professionals.' I believe we were all pretty proud of what we accomplished. I flew with Rescue in previous assignments, but had to come to SOF to be part of an actual combat rescue."

On landing at Brindisi, OGRE 01 taxied back to parking and shut down. Maj Keith Hedgepeth, the ADO, met the crew as they deplaned, shook everyone's hand and congratulated them, and took a picture for posterity. The crew proceeded back to San Vito, where they were again greeted and congratulated, and debriefed by intel.

Meanwhile, OGRE 02 was still flying. About the same time as OGRE 01 was landing at Aviano to return the F-117 pilot to his squadron, SOCEUR directed OGRE 02 to return to Brindisi to bring some parts to Tuzla that were needed to repair one of the broken helicopters. After making that run we returned to Brindisi-mission complete. Dave Mobley remembers flying almost eight hours and accomplishing two threat maneuvers that night.

Later that evening, there was a hotwash of the operation with BG Bargewell. President Clinton called and spoke to Col Zahrt. The President thanked the crews for what they did and for averting what could have been an extremely serious situation had Lt Col Zelko been captured.

HAmmer 34

The Shadows continued to sit CSAR alert at Brindisi as the bombing campaign continued throughout March and April. Crews rotated in and out, keeping the crew force as fresh as possible for what we expected to be a prolonged effort. The nightly ritual of sitting in the aircraft on strip alert was soon replaced when we were given an alert facility, nicknamed "the Villa," on the Brindisi airfield, in close proximity to the Shadow parking area. This improvement helped reduce crew fatigue and aircraft wear and tear, with only a minor reduction in response time.

On 1 May, the Shadow alert crew consisted of Maj Rex Reilly (aircraft commander), Capt Chuck Mangold (copilot), Lt Col Jim Pankau (left navigator), Capt Dave Swanke (right navigator), TSgt Dan Moen (flight engineer), MSgt Chris Cully (communications system operator), loadmasters TSgt Mark Thompson and SSgt Mike West, SSgt Ortiz (direct support operator), Capt Greg Osgood (flight surgeon), SSgt Gary Martin (medical technician), and SSgt Brian Oldham (survival, evasion, resistance, and escape (SERE) specialist). At the alert briefing the crew received information on the target packages for that night. The SAM threats seemed more formidable than those faced during Vega 31.

The crew drove to the airfield and assumed alert at the Villa. They were nearing the end of their alert window when they were notified that a US F-16, Hammer 34, had been shot down. The crew gathered their gear and proceeded to the aircraft. At the same time, Maj Keith Hedgepeth was hurrying down from San Vito AS to join the crew as the Shadow Mission Commander (MC). When the left navigator Jim Pankau plotted the coordinates of the survivor he realized they were close to where Vega 31 had been and their routing would be almost the same. He also realized that the helicopter package would probably be able to pick the pilot up without HAR, assuming the coordinates were accurate.

The crew took off at 0120Z and sunrise would be at 0330Z. That did not give the CSAR crews much time to get to the survivor and out of enemy territory. Jim Pankau recalled, "The Close Air Support net was operating this time and communications were 1000% better than the previous

mission. We entered Bosnia-Herzegovina 30 minutes later and proceeded towards the Tuzla area. We heard Hammer 33, Hammer 34's wingman, on the air and he passed coordinates of an SA-3 and SA-6 site that could possibly affect our routing." The crew modified the routing, shifting 20 miles to the west of what was originally planned. The new flight path took them slightly west of Sarajevo and Tuzla.

The crew was on station at 0215Z, orbiting between 500 and 1000 feet AGL, and since the weather was VFR, Jim Pankau turned the radar to "Stand-by" and shut off the navigation radios to reduce electronic emissions. At about the







same time, the Shadow crew heard the "Sandy" rescue escort fighters talking. They had to refuel once more before the rescue. The helicopter package was also airborne and ready to go. The Shadow passed through Croatia and turned short of the Danube River, and were at their closest point, within 5nm of the Serbian border.



The crew: Front row (kneeling, L-r) SSgt Gary oldham, Capt dave Swanke, Lt Col Jim Pankau. Back row (standing, L-r) TSgt dan moen, maj r ex r eilly, maj Keith Hedgepeth, Capt Greg osgood, SSgt Gary martin, SSgt mike West, mSgt Chris Cully, Capt Chuck Mangold, SSgt Ortiz, TSgt Mark Thompson

As the crew listened to the rescue effort, it seemed as if the coordinates were not entirely accurate. There was a lot of talk on the radios between the survivor and the rescue package. They were having trouble locating him and he finally vectored them to his position. When they asked him to "pop smoke," he said no because the enemy was too close. He did use an IR strobe that was seen by the helicopters. Once the Shadow crew heard that the survivor had been picked up, they set a course for Tuzla, which would most likely be the transload base.

Arriving at Tuzla, Rex Reilly flew an NVG self contained approach to the blacked-out field. The SOFI modification gave the Shadow an NVG compatible cockpit, which was a huge improvement over the old configuration which required extensive taping of the cockpit lights before NVG flights. Chuck Mangold recalled, "I think the "taping checklist" was still in our Inflight Guide, so it hadn't been too long since crews had to tape lights at the beginning of every mission and then un-tape them at the end." Additionally, the infrared detection system added during the SOFI gave the pilots an image on a 9" screen, which made runway acquisition easier, reduced unnecessary communications between the pilots and the left nay, and eased the entire self-contained approach process.

We could not get communications with Tuzla Tower that night. Once on final approach, Chuck Mangold tried calling the tower at 10 miles, 5 miles, 3 miles, 2 miles, and 1 mile to get landing clearance. As the aircraft was on landing rollout "a very frantic voice came up on tower frequency asking who we were and if we needed any assistance." The crew proceeded to the preplanned transload site, while trying to get the tower to understand why they were there.

The CSO contacted the CAOC at Vicenza and had them call Tuzla to let them know what was going on. The helicopters arrived and set down a distance away from the Shadow. The crew could see a lot of celebration going on between what we presumed was the survivor and the helicopter crew. The crew deplaned their flight surgeon to go get the survivor. The FSO and survivor, Lt Col Goldfein, walked to the aircraft, boarded, and the Shadow took off at 0333Z.

The departure and flight back to Aviano were uneventful. The flight surgeon looked Lt Col Goldfein over and treated some scrapes on his hands that came from the ejection. SSgt Oldham, the SERE specialist, had Lt Col Goldfein write down his account of all the events while they were fresh in his mind. Upon landing, the Shadow was met by about 500+ people. They crowded around the plane to the point that the crew was concerned someone would get hit by a spinning prop.

Chuck Mangold recalls, "Just after going to Ground Stop, Maj Reilly commanded me to take engines 1 & 2 to Feather so that they would stop spinning immediately. Lt Col Goldfein came up on the flight deck and shook our hands. Then he stepped off the plane and hugged his wife."

Jim Pankau: "We landed at Aviano at 0447Z and I saw the reception committee in the same location as last time. We shut down engines as previously briefed and stopped in parking. The crew entrance door was opened and we deplaned the PC. At that time, I saw the PC's wife and child and they hugged. At that very moment, I was brought to tears thinking of the ordeal that she and her daughter had experienced in the past couple of hours and how proud I was that we had again, saved a life." Witnessing that reunion was Keith Hedgepeth's most vivid memory of the mission as well. Brig Gen Dan Leaf, the 31st Air Expeditionary Wing Commander then came on the flight deck and also shook the crew's hands. Once everyone on the crew was back on the aircraft, they started engines and departed for Brindisi. Despite low ceilings, clouds, and marginal weather, the flight back to Brindisi was uneventful.

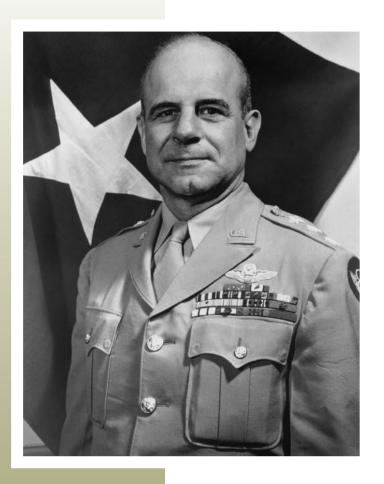
Later that day, the crew heard on the news that the Pentagon was very happy with the rescue of the downed pilot, and noted the professionalism of the rescue team. They stated that the entire effort had been accomplished in less than three hours from being downed to the speedy and professional pick up.



About the Author: Ross Victor, Col, USAF (Ret) spent the bulk of his career in AFSOC, in various operational and staff assignments, and was a navigator in the MC-130P Combat Shadow. He commanded the 67 SOS, and was Deputy Commander of the 352 SOG.

References: I am extremely grateful to the following individuals who were crewmembers a nd participants on these two missions and who graciously contributed their insight and recollections to the telling of the Combat Shadow's role during ALLIED FORCE: Mike Callan, Brig Gen, USAF (Ret); Matt Brand, Col, USAF (Ret); Dave Mobley, Col, USAF (Ret); Matt Smith, Col, USAF (Ret); Darren Vigen, Col, USAF; Eric Zimmerman, Col, USAF (Ret); Keith Hedgepeth, Lt Col, USAF (Ret); Chuck Mangold, Lt Col, USAF (Ret); Jim Pankau, Lt Col, USAF (Ret); Dave Swanke, Lt Col, USAF; Bruce Kingsbury, CMSgt, USAF (Ret); and Dr. John McGuire, M.D. I would also like to thank Mr. William Landau, 352 SOW Historian, for his assistance and the materials he provided.

A (Fictional) Interview with Gen James H. Doolittle



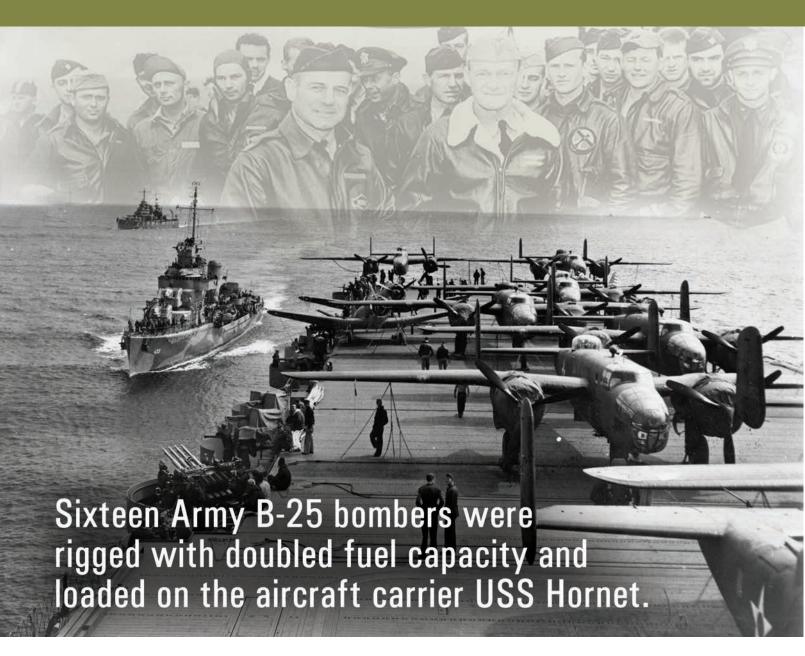
Gen James H. Doolittle was an aviation pioneer, test pilot, aeronautical engineer, air racer, and airmanleader. In April 1984, Congress promoted Doolittle to General on the USAF retired list, making him the first Air Force Reserve officer promoted to fourstars. His awards include the Congressional Medal of Honor and the Presidential Medal of Freedom.

In 1917, while attending the University of California School of Mines, Doolittle became a flying cadet. After earning his pilot wings he was assigned as an instructor pilot. Despite volunteering for combat duty a number of times, the First World War ended before he could be sent to Europe. After the war he became a test pilot for the Army Air Service, at McCook Field in Dayton, OH. In 1923, the Army sent him to Massachusetts Institute of Technology for two years to earn a masters degree in aeronautical engineering. Because he finished the masters in year, he used the second year to earn a doctorate in aeronautical engineering. In 1930, he left the Service to join Shell Oil, where he used his influence to have Shell develop and produce the highoctane aviation fuels needed for high performance engines and aircraft under development. He also gave up his regular commission and joined the Reserves as a major.

In 1940, with the Second World War raging in Europe and Asia, Doolittle returned to active duty and continued testing aircraft for the Army. In Jan

1942, the Chief of the Army Air Service, Gen Henry "Hap" Arnold called Doolittle to Washington, DC, and asked him to head up Special Aviation Project #1, a raid on the Japanese Home Island in retaliation for the attack on Pearl Harbor. The "Doolittle Raid" or the "Tokyo Raid" as Special Aviation Project #1 became known, was a joint special operation conducted by the US Navy and the US Army Air Corps, where 16 highly modified North American B-25B Mitchell medium bombers were launched off the Navy's newest aircraft carrier, the USS Hornet. While the tactical damage to Japanese war industries was relatively insignificant, the strategic effects achieved were more than the President, Franklin D. Roosevelt, had hoped for.

Upon hearing the news, American and Allied morale soared. After months of defeats and setbacks at Wake Island, Guam, Malaya, Singapore, the Dutch East Indies (now Indonesia), Hong Kong, New Guinea, and the Philippines, Doolittle's airmen showed the world that the Allies could and would fight back. Additionally, the raid shattered the Japanese sense of invulnerability and the Imperial Staff pulled hundreds of front-line fighters, crews, and maintainers back to defend the Home Islands. Postwar analysis revealed that Japanese leaders were so angered by the attack that they foolishly decided to extend their defensive perimeter by attacking the US island of Midway. That air-sea battle, less than two months after Doolittle's raid, became the turning point of the war in the Pacific. Japan lost all four of its large deck aircraft carriers and a heavy cruiser. What was worse for Japan, though, was the loss of over 200 front-line aircraft and experienced aircrews.



In Sep 1942, after returning to the US, Doolittle was given command of 12th AF for the North African campaign, Operation Torch. After North Africa, in Jan 1944, Gen Doolittle moved back to the UK and took command of the 8th AF. He held that command until Sep 1945.

Gen Doolittle died on 27 Sep 1993 at the age of 96. He is buried at Arlington National Cemetary, next to his wife of 70 years, "Joe."

ACJ: Thank you, General, for taking the time to share your ideas about the role of air power in special operations. We are especially interested in your perspective as an engineer, test pilot, and combat leader. This year is the 75th anniversary of the Tokyo Raid and it is still considered one of the Air Force's great achievements. If you would, sir, please tell us how you came up with the idea for a "special operation" to strike Japan?

Gen doolittle: Thank you, and while many have given me credit for conceiving of the Tokyo Raid, the idea for the raid was actually CAPT Frank Low's, a submariner on ADM King's staff. In Jan 1942, while Frank was at Norfolk inspecting the Navy's new aircraft carrier, the USS Hornet, he noticed the outline of a carrier deck painted on the runway at the naval air station. Navy pilots used the carrier deck outline to practice landings and takeoffs. Frank watched a group of US Army Air Corps (USAAC) medium bombers fly overhead in a mock bombing run on the carrier deck outline. As the bombers' shadows flew down the simulated deck, he had an idea...what if Army bombers, with their longer range than the Navy's single-engine bombers, could fly off the deck, bomb Japan, and land in Russia or China? That night Frank explained his idea to a very skeptical ADM King. The next day, though, the admiral tasked his senior air officer, CAPT Donald "Wu" Duncan, to see if Frank's idea had any merit.

Wu Duncan and Frank Low spent the next week studying Army technical manuals, past test programs, and the specifications of the Navy's current aircraft carriers. Their conclusion was that the B-25 was the only Army bomber theoretically capable of launching from an aircraft carrier. They briefed this to ADM King, who then sent them to see Hap Arnold. On 17 Jan 1942, three weeks after Pearl Harbor, those two naval officers were in Hap's office. After that briefing, Hap called me and without telling me what the Navy had proposed, asked if there were any bombers in the Army that could take off in less than 500 ft from a space only 75 ft wide, with 2,000 lbs of bombs, and fly 2,000 miles. My research came to the same conclusion as Low and Duncan's, a modified B-25 was the only airplane able to do the job—it was fast, compact, and if modified would have sufficient range. That was when Gen Arnold assigned me to lead Special Aviation Project #1.

Duncan arranged to see if the B-25 really could take off of an aircraft carrier. On 1 February, two B-25s from Langley Field were hoisted aboard the USS Hornet and the ship put to sea. The next day, with the ship steaming into 20 knot headwinds and making more than 20 knots of speed, the two bombers were airborne almost immediately. Although those two aircraft were not heavily loaded, did not have full 5-man crews, and carried no bombs, we knew then it could be done. Now I had to find and train the crews, modify the aircraft, and prepare for the mission, all the while maintaining secrecy.

We had a B-25 unit in Oregon whose job was patrolling for enemy submarines off the west coast. The 17th Bombardment Group (Medium) was the first operational B-25 group in the USAAF and they also had the most experienced crews in the Army. The entire unit was assigned to me and sent to Eglin AFB. I asked everyone: aircrews, maintainers, armorers, intelligence specialists, etc., if they were willing to volunteer for a dangerous mission. To a man, they all said yes.

When we got to Eglin, CDR Hank Miller, a Navy instructor from Pensacola came over to teach us how to take those bombers off in less than 500 ft. He had never seen a B-25 before, so we were all learning. We practiced over and over again until every crew was proficient. We flew long overwater navigation missions at low level. You need to remember, we did not have the navigational aids you have today—everything was dead-reckoning backed up by celestial navigation. We also practiced low-level bombing runs in the hills of the Midwest. I know the boys were not unhappy about having to practice flying at altitudes so low that they would normally be gigged for. While the crews were practicing, learning their targets, and rehearsing their mission profiles, the mechanics and engineers were busy modifying our aircraft for the upcoming mission.

What I think the story of Frank Low's part in the raid shows is that creative, unconventional, and imaginative ideas can come from any quarter. Wu Duncan and I were just the two guys who took the idea, turned it into a plan, and then were given the privilege of executing the plan. We also should not forget the critical roles played by ADM King and Gen Arnold. Despite all the risks the Tokyo Raid entailed, King and Arnold gave us guidance without interfering, ensured we had top-cover and support, and made sure we had all the resources we needed to succeed: aircraft, people, supplies, and training. From innovative idea to execution, there were a whole lot of dedicated and creative professionals who deserve the credit for making that operation succeed.

ACJ: General, a book that has become one of the primary sources for special operators today is ADM William McRaven's Spec Ops, Case Studies in Special Operations Warfare: Theory and Practice. I don't know if you have read the book, but in it he says that a special operations is successful if based upon a simple plan which is carefully concealed, meticulously rehearsed, and executed with surprise, speed, and purpose. The Tokyo Raid is not one of the case studies he used to develop his theory and principles, but in your opinion, do you consider what the Raiders did to be a special operation?

Gen doolittle: That is such a great book and I wish we had had it back in my day. I think every special operations airman ought to read it because it clearly shows that special operations are not defined by Service, domain (land, sea, or air), or by the equipment used. The Tokyo Raid was successful because we all worked together to solve the problem. There were those who thought we were crazy for trying to do what we did. But smart, creative, analytic people figured out how to minimize the risk and achieve the strategic results the President and the nation needed. Even though the Tokyo Raid was not considered in McRaven's book, I think his principles would classify our mission as a special operation. Let me try to explain:

- Speed: The timing from Pearl Harbor until the Tokyo Raid was four months. No one, not even the Allies expected us to respond that quickly. And, as Ted Lawson's excellent book, Thirty Seconds Over Tokyo, suggests, we were only over our targets for a very short time. (Lawson's aircraft, The Ruptured Duck, and crew were the #7 B-25 off the USS Hornet)
- Surprise: Although the Japanese discovered the US Navy task force carrying us to our launch points, we held the initiative. The enemy never knew where we were going and their air defenses had minimal effect on our operation. It was a bright peaceful Saturday in Tokyo and the Japanese were caught completely off-guard by our attack.
- Simple: We had the best intelligence available, some of it provided by naval intelligence officers who had served in Japan before the war. Once we were off the deck, the plan was simple: navigate to Japan, bomb our targets, and make our way to China.
- Repetition: We practiced those short field, heavyweight takeoffs so many times that they became routine. The crews flew overwater mission profiles that matched the intended flight plans, studied the target areas intensely, and went through every possible contingency. We even considered what would happen should the Japanese discover us prior to reaching our optimal takeoff point. Launching early, while unfortunate, was something we had prepared for.
- Security: We chose Eglin Field because it was away from curious eyes. The guys were not allowed to tell anyone what they were doing and I quickly squashed any rumors and speculation. When we left San Francisco with the bombers clearly on board the USS Hornet, the people on the Golden Gate Bridge thought we were going to Hawaii. We waited until the task force was safely at sea before telling anyone the real mission.
 - Purpose: Everyone knew their jobs, had practiced

endlessly, and were completely committed to success. Robert Bourgeois, bombardier of the 13th plane, which attacked Yokosuka, said, "I had looked at the pictures on board the carrier so much that I knew where every shop was located at this naval base. It was as if it were my own backyard."

The principle of simplicity also includes innovative use of available technology. We knew that to succeed we needed to extend the bombers' ranges. The engineers designed and fitted three additional fuel tanks to give us almost 500 more gallons of gas. Because one of the tanks was mounted in the top of the bomb bay, we also had to modify the racks that carried and released our bombs. To lighten the aircraft we removed the air-to-ground radios and the lower gun turret. We were not intending to talk to anyone on the ground and we flew low-

Lt Col Jimmy doolittle and crew on the USS Hornet prior to taking off. From the left, Lt Henry Potter, navigator; Lt Col doolittle; SSgt Fred Braemer, bombardier; Lt dick Cole, copilot; and SSgt P . (Photo courtesy of US Air Force)

level so the bottom turret was useless.

The B-25 does not have a tail gun and we worried that it made us vulnerable to an attacking fighter. Ross Greening, one of the pilots, suggested attaching two broomsticks painted black to the tail cone to simulate a tail gun. Figuring that no Japanese fighter would get close enough to test us, I approved the idea. It worked, and it saved us the weight of guns and ammunition! The other modification we made was to take out the Norden bombsights. These top-secret pieces of equipment were intended for high altitude bombing. Removing them and replacing them with a simple aluminum aiming device saved

us more weight and made sure they did not fall into enemy hands.

ACJ: Sir, you are an aviation pioneer, test pilot, aeronautical engineer, and record setter, but we understand you also had a bit of a reputation as a daredevil, risk taker, and rule-breaker. The 1920s were a completely different time for aviation than today, but still you overcame everything to lead air forces in combat, develop the Air Force Association, and serve on a number of executive boards. How do you balance daring with conforming?

Gen doolittle: That is a great question, but I'm not sure that I have the perfect answer. Yes, I did many things with airplanes that pushed the limits and that some considered foolish. I

crashed a number of times, and my commanders were right to punish me for some of the things I tried to do and failed. But I have three points that may help answer your question.

First, you are right about the 1920s being a different time. We were discovering the potential of air power. Aircraft were made of wood and cloth. Basic aircraft instruments such as the turn and slip indicator, artificial horizon, and gyroscopic compass were just being invented. Aircraft engines were low powered unreliable. Aeronautical science was brand new. Pilots were taught during training to not trust their instruments. I felt that if you were an airman you had a duty to be the best you could be and to fully know your aircraft and your own capabilities. So, I pushed myself. When one is young, you often don't know your own limits, and I'll admit that I was often lucky. Too many of my friends and colleagues were killed in those early days because we were testing and pushing the limits of air power together. It became one of my catch phrases that "skill and daring are

the product of practice and experience." Where I took risks in the air, such as proving that it was possible to fly an outside loop or blind-flying from takeoff to landing, it was only after thorough research, preparation, and considering the possible contingencies.

Which leads me to my second point. Sen Barry Goldwater, himself a retired Air Force general, once called me the "master of the calculated risk." I took that as a compliment from a man I admired. In 1932, I retired from air racing and came out publicly against continued closed-circuit speed racing. That did not endear me to the race sponsors. But by then my views

on the risks associated with speed racing had grown. Racing had done so much to improve the quality of engines and aircraft designs, but at a terrible cost in human lives. At 34 years old, I was one of the older successful racers. My attitude was that the time was right to focus on improving safety and reliability of aircraft and air travel in all sorts of weather conditions. I turned my attention towards research and advocating for higher standards of safety, performance, and reliability.

I tell you that story because it helps to understand how to deal with "rule-breakers." In your business, special air operations, you need people who see possibilities and push themselves and their crews. One of the toughest things for a commander to do is to recognize when an airman is legitimately testing the limits to discover something new and innovative or is being just plain stupid and needlessly endangering the crew and the aircraft. A good special operations airman sees possibilities and we want them to be bold, innovative, and unconventional. But, we should expect them to also have the good sense to do a critical analysis of the conditions and risk factors involved and the personal skills necessary to sell their fully developed ideas to the boss before they go try them in the air.

My third point is that you have to take responsibility for your actions and work every day to be better than you were the day before. Although I was first a pilot, I sought and received professional education and training in engines, electrical systems, and aircraft instrument maintenance at the Air Service Mechanics School. Later, I got to attend the Air Service Engineering School at McCook Field in Dayton, OH, where I learned aeronautical theory, aircraft design, materials, armaments, power plant, and systems engineering. I was also learning to be a test pilot. In September 1923, I was given one of the great opportunities of my career. The Massachusetts Institute of Technology (MIT) had recently started a masters program in aeronautical science. I applied and was accepted. At the end of the two years I was lucky enough to be awarded one of the first doctorates in aeronautical science in the United States. I took my craft, aviation, very seriously, and although I still liked to have fun and push the limits in the air, after my time at MIT I took a much more serious and studious approach to flying.

Related to this is another story I'll share with you. After the Tokyo Raid, Gen Arnold, the Chief of the Army Air Service, put my name forward as one of the two candidates to be Gen Douglas MacArthur's senior airman in the South Pacific. MacArthur did not want me because of my reputation and public image. I accepted his decision and kept working on Arnold's staff. A few months later, I learned that Gen Marshall, the Chief of Staff of the Army, and Gen Arnold had recommended I be the air commander under Maj Gen Eisenhower ("Ike") for the Allies' invasion of North Africa, Operation Torch. I learned that after my first meeting with Ike, he told Marshall and Arnold he wanted someone else. I was very disappointed because this would be the second time my reputation kept me from doing a job where I thought I could make a valuable contribution. Marshall told Ike he could have anyone he wanted, but he still recommended me for the job.



President r oosevelt bestows Congressional medal of Honor on Brigadier General James doolittle for a successful raid on Tokyo. From the left, Gen Henry "Hap" Arnold, mrs Josephine "Joe" doolittle, Brig Gen Jimmy doolittle, Gen George C. marshall. Sitting: President Franklin d. r oosevelt. (FDR Library Photo Collection. NPx. 65-696)

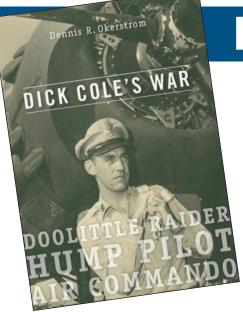
Ike reluctantly accepted me and I resolved then and there to earn his confidence and trust, and to justify Marshall's belief in my abilities. Happily, I was able to do that.

ACJ: It has been a real privilege, sir, and we thank you for your perspectives on special operations and air power. Might you have any closing thoughts you would like to leave with today's Air Commandos?

Gen doolittle: You know, I never was one to give long and flowery speeches. After the Tokyo Raid I never flew another special operation. John Alison, who you know was Phil Cochran's deputy in Burma, was a good friend. My copilot during the Tokyo Raid, Dick Cole, flew for Alison during Operation Thursday. When I commanded the Eight AF, the 492nd Bomb Group, the Carpetbaggers, worked for me. Special operations hold a very prominent and special place when it comes to air power. What I would like to leave you with is that at the end of the day, it is the person, the bold, innovative, and courageous Air Commando who sees possibilities where others do not, critically addresses the requirements and risks, and presents a plan to achieve results in ways the enemy does not expect.

If I have learned one thing from Air Commandos past and present, it is that "special operations" is a mindset that is independent of what aircraft you fly. You have a saying, that "Humans are more important than hardware." I don't think there is anything that says it more clearly. The success of special air operations is because of the Air Commandos who are, I believe, the unifying force between special operations and air power.

BOOK REVIEW By Dr Rick Newton



interest of complete the transparency, I admit up front that I am a fan of Dennis Okerstrom's writing. Professor Okerstrom teaches English at Park University north of Kansas City, MO, and his books, quite possibly because of the subjects he chooses, are alive. I've read two and am now on my third. The books are engaging and instructive, but also fun. While reading this book I felt like I was having a conversation with Dick Cole. As much of the book is based on conversations the author had with his subject and on the private letters and scrapbooks Colonel Cole shared, the very personal tone of the writing is understandable.

Dick Cole grew up in Dayton, OH, the epicenter of aviation research in the United States in the 1920s, 30s, and 40s. Dayton was the home of Orville and Wilbur Wright. Jimmy Doolittle and many of the founders of our Air Force tested aircraft and aeronautical systems for the Army Air Corps at McCook Field. Cole dreamed of flying and through pure force of will he made it happen... working odd jobs, attending Ohio State University, and taking flying lessons through the Civilian Pilot Training program.

In Aug 1940, Cole enlisted in the Army and was accepted into the Aviation Cadet program. His dream of becoming a military aviator had begun. Almost a year later, in Jul 1941, Cole was commissioned as a 2Lt in the Army Air Corps and pinned on his pilot wings. His first assignment was to the 34th Bomb Squadron of the 17th Bomb Group at Pendleton, OR.

dick Cole's War

By dennis r . o kerstrom

University of Missouri Press, 2015, 336 pages

Their unit was the first to receive the new North American B-25 Mitchell, at the time the Army's newest, fastest, and most advanced medium bomber. For the next five months, the he and the squadron practiced tactical air support operations with the ground forces. When the Japanese attacked Pearl Harbor on 7 Dec 1941, everything changed. Within a week the 17th Bomb Group was flying anti-submarine patrols off the north-west coast. In Feb 1942, the group was moved first to Columbia, SC, and then to Eglin Field, FL, where they met Lt Col Jimmy Doolittle. Less than two months later, on 18 Apr 1942, Dick Cole was in the lead bomber taking off from the USS Hornet as Jimmy Doolittle's co-pilot.

After the Tokyo Raid, 28 of the raiders, including Cole, stayed in the China-Burma-India theater to provide needed experience to the new units and crews that were arriving from the US. While waiting for sufficient medium bombers to arrive in theater the pilots were asked to help fly transport aircraft over the Himalayas, from Burma to China, to resupply Chinese forces fighting the Japanese. The transport pilots called that section of the mountains "The Hump" and themselves Hump pilots. Because he wanted to fly and fly often, Dick Cole became a Hump pilot. For a year, he flew airlift missions into China, primarily on Douglas C-47 Gooney Birds, but also the Curtiss C-46 Commando. In May 1943, after two years of war, Dick Cole went

In Sep 1943, while assigned as an Army Air Force acceptance pilot at the Douglas Aircraft factory in Tulsa, OK, Cole got a phone call from Col John Alison and an invitation to go back to Burma and fly on another secret operation. After agreeing to join Alison, he reported to Seymour Johnson Field, NC, and began learning to tow gliders and to snatch the gliders from the ground and return them to the starting base for

reuse. By Christmas 1944, Cole was back in Burma as part of the 1st Air Commando Group.

Dick Cole's War tells the story of one man's perspective on three of the US' special aviation projects during the Second World War. Alone among any other US pilot, he had an aircraft commander's seat in Project 1, the Tokyo Raid; Project 7, creating the air mobility system over the Hump; and Project 9, the 1st Air Commando Group. But there were few who knew the full story of this remarkable man.

In the preface to this book, the author describes the challenge he overcame to allow these stories to be published. Dick Cole is an unassuming and private man. Though he had a remarkable career he was and still is a "quiet professional." To hear him tell it, there was a war on and he was just a pilot doing his job. Cole only consented to this book in order to tell the stories of those who did not return and were unable to tell their own stories.

The book Dennis Okerstrom has written does exactly what Dick Cole wanted. While Cole is the book's central figure, this is very much a book about those who left their homes and families to fly to the end of the earth and do a dangerous and difficult job. In a compelling and clear narrative, Professor Okerstrom offers Dick Cole as a worthy role model for modern Air Commandos. Dick Cole's War is a book that every Airman, not just Air Commandos, will find engaging, enjoyable, and instructive. It is worth your time.



About the Author: Dr Rick Newton is a retired combat rescue and special operations helicopter pilot, planner, and educator in the US and NATO. His most recent article, "SOF, Airpower, and Special Operations Airmen: Limited by Our Own Imaginations", co-authored with Dr Tom Searle, was published by the Special Operations Journal.



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The Special Operations Warrior Foundation ensures full college educations to the surviving children of Army, Navy, Air Force and Marine Corps special operations personnel who lose their life in the line of duty. The Special Operations Warrior Foundation also provides financial stipends to severely wounded special operators.

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