

hen US Air Forces Africa stood up in October 2008, the original vision for the command centered around low intensity conflict scenarios, humanitarian relief missions, and training and advising African partner militaries.

But by mid-February 2011, conflicts had erupted across much of the north

of the continent, and the command's role began to change. After the leaders of Tunisia and Egypt were overthrown in popular revolutions, Libyan dictator Muammar Qaddafi essentially declared war on his civilian population in a bid to stay in power. Officials at Ramstein Air Base in Germany, where AFAFRICA is based, began working closely with US and coalition countries

to prepare for a potential contingency operation there.

Planning lasted until March 17 when the United Nations Security Council approved a resolution authorizing the use of force to protect civilians in Libya, including a no-fly zone over the restive North African state. The measure, which came five days after the Arab League called on the Security



Council to establish a no-fly zone, called for an "immediate cease-fire and a complete end to violence and all attacks against, and abuses of, civilians" targeted by Qaddafi and forces loyal to him.

Opening Days

Two days later, US and British warships based in the Mediterranean launched more than 100 long-range Tomahawk cruise missiles against Libyan air defenses—kick-starting Operation Odyssey Dawn. Three B-2 stealth bombers flew from their home station at Whiteman AFB, Mo., and blew out hardened shelters used to protect Libyan combat aircraft, said Vice Adm. William E. Gortney, Joint Staff director, following the opening assault. Four F-15Es and eight F-16CJs participated in the initial wave of attacks, Air Force officials said. KC-135 tankers from RAF Mildenhall in England and Global Hawk unmanned reconnaissance aircraft flying out of NATO air base Sigonella, Sicily, also supported the strikes.

"Our bombers and fighters performed magnificently," said Maj. Gen. Margaret H. Woodward, commander of 17th Air Force and the joint force air component commander for Odyssey Dawn.

The opening days of the conflict were hectic. It was clear from the beginning that the United Kingdom



US Domination of NATO Comes at a Cost

Brussels, Belgium

The United States will have to cut down its peacetime flying hours and pull funding from other defense programs to cover the rising cost of operations in Libya.

The Pentagon has spent \$715.9 million on military operations and humanitarian assistance in the war-torn African country as of June 3, including some \$270 million from Air Force coffers. However, the total price tag for operations in Libya is expected to exceed \$1 billion, according to a White House report to Congress outlining the Administration's military and political objectives in Libya.

Air Force officials are still working out exactly how they are going to pay the bill. As of mid-June it was not clear exactly what programs would be affected or how many flight hours would be cut, but the bill will be immediately funded through USAF operation and maintenance accounts.

The United States continues to provide the lion's share of NATO resources in some key areas. US forces are providing roughly 80 percent of the aerial refueling capabilities, and about 70 percent of the intelligence-surveillance-reconnaissance capabilities needed over Libya, said Defense Secretary Robert M. Gates in June at NATO headquarters here.

In addition, the US also is providing other unique capabilities, such as strategic lift, personnel recovery and search and rescue, and an alert strike package. The exact breakdown of assets is classified.

US and coalition forces have flown more than 10,000 sorties over Libya since mid-March and struck roughly 1,800 "legitimate military targets," said Italian Adm. Giampaolo Di Paola during a NATO briefing. Di Paola serves as chairman of the NATO committee in charge of Libya operations. NATO officials do not break statistics down by individual countries' participation, so an exact US sortie number is not available.

Only nine of the 28 NATO countries are providing assets and/or support in Libya, and much of that support comes with caveats. For example, Netherlands, Spain, and Turkey are supporting the no-fly zone, which stretches across the northern coast and out into the Mediterranean Sea, but they do not have permission to actually drop bombs. Other major NATO powers, such as Germany and Poland, have opted not to participate at all, increasing the burden on an already strapped US force.

"In the past, I've worried openly about NATO turning into a two-tiered alliance: between members who specialize in 'soft' humanitarian, development, peacekeeping, and talking tasks, and those conducting the 'hard' combat missions," said Gates in his final speech to NATO June 10. "Between those willing and able to pay the price and bear the burdens of alliance commitments, and those who enjoy the benefits of NATO membership—be they security guarantees or headquarters billets—but don't want to share the risks and the costs. This is no longer a hypothetical worry. We are there today, and it is unacceptable."

Gates said "most of the allies are sitting on the sidelines" because they simply do not have the capabilities to participate. ISR assets are particularly lacking.

"The most advanced fighter aircraft are of little use if allies do not have the means to identify, process, and strike targets as part of an integrated air campaign," he said.

The NATO air operations center in Italy was designed to handle more than 300 sorties a day, yet it is "struggling" to launch 150 despite a "major augmentation of targeting specialists," most of whom come from the US.

"Furthermore, the mightiest military alliance in history is only 11 weeks into an operation against a poorly armed regime in a sparsely populated country—yet many allies are beginning to run short of munitions, requiring the US, once more, to make up the difference," Gates said in his speech.

As of June 3, the Pentagon has spent nearly \$400 million on munitions; however, the White House has said it does not intend to ask for supplemental funding to cover any of the costs associated with Libya. Instead, munitions will be replaced as part of the Defense Department's "normal programming and budgeting process," according to the White House report.

Air Force Lt. Col. Tara Leweling, senior policy advisor to the US ambassador to NATO, acknowledged there are some "shortfalls" in dynamic targeting capabilities among the European allies. That's because there is not enough capacity inside of the NATO command structure to be able to properly target mobile systems, such as artillery tanks, said Leweling. However, there has been a significant improvement in the allies' airpower capabilities from the end of operations in Kosovo in the 1990s to the start of operations in Libya today, she added.

"They have a greater ability to drop precision guided munitions instead of dumb bombs. That was a big takeaway" from the battles in the 1990s, she said. "Now we are seeing the investments made over the past 10 years coming to play into Libya," said Leweling in an interview. "It's making it a very precise operation with very, well as far as we know, very few casualties."

NATO leaders agreed June 8 to extend pressure on Libyan leader Muammar Qaddafi's regime for another 90 days, until the end of September, or until the dictator agrees to cease attacks on civilians, withdraw regime forces to its bases, and allow immediate and unhindered humanitarian access.

and France would participate in the operation, but additional coalition partners were coming in nearly every day, offering up support or assets and forcing officials to adjust accordingly. US Africa Command took the initial lead as the coalition worked to figure out who would ultimately take control of the operation. Since 17th Air Force (US Air Forces Africa) was the air component to AFRICOM, that meant the relatively new command was now in charge of a full-scale air war. It was the command's largest contingency operation ever and was certainly nothing like the humanitarian relief missions most expected to dominate attention.

Operation Odyssey Dawn would test the coalition's ability to come together quickly and seamlessly and prove just how important joint exercises really are.

The Biggest Challenges

"I think when you look back, we will see this coalition effort as a historic operation that is a testament to the day-to-day training, exercising, and interoperability we've built with various partners around the world," Woodward said in June. "Without those existing relationships and experience working together, we could not have accomplished the task we were given in so short a time frame."

Early on, the 617th Air and Space Operations Center (AOC), which falls under AFRICOM, joined forces with the 603rd AOC, which falls under US European Command. It was clear that a lot of the air assets participating in the operation would be staged from Europe, so the 603rd became "critically important," said Col. Stephen Hart, commander of the 617th AOC. Plus, its operations floor was nearly twice the size of the 617th's, making room for a growing coalition.

"Our mission and people, over time, have developed and evolved to meet the mission demands you see AFAFRICA execute today," Hart said. "The merged



Marines run electronic checks on a CH-53 helicopter before it takes off on a mission to rescue two downed airmen. The team recovered the F-15E pilot, and the combat systems operator officer was rescued by Libyan civilians and promptly returned to US custody.

Odyssey Dawn AOC was an excellent example of not only how the active could come together to command and control operations, but an example of how the Air National Guard and their emerging [air operations groups] were able, with the regional associations, to step in and operate side-by-side with their active counterparts."

Air Force officials declined to release most of the staging locations, citing operational security, but they did say most of the fighters flew out of Aviano AB, Italy, and the tankers flew out of Moron AB, Spain. That meant that, unlike the wars in Iraq and Afghanistan, time and distance became the biggest challenges.

"We were operating from bases that were a fair amount away from our joint operating area," said Hart. "It's not that there are lessons learned [from Operation Odyssey Dawn]; it just highlights the importance of air refueling, the importance of training, the importance of having good, redundant capabilities, and aircraft that are multirole."

More than 150 US and coalition aircraft, including US fighters, bombers, tankers, airlifters, surveillance, and command and control platforms, participated in the operation. And even though USAF Chief of Staff Gen. Norton A. Schwartz told members of the Senate Armed Services Committee days before the initial assault that he expected the F-22 Raptor to make its combat debut "at least in the early days," the aircraft never got its chance.

It turns out the Raptor just wasn't close enough when the operation came together, Schwartz told lawmakers at the end of March.

"Clearly, had the F-22s been stationed in Europe, both closer in proximity, and therefore, more available, they undoubtedly would have been used," he said in testimony before the SASC defense panel.

Combat-configured F-22s are based in Alaska, Hawaii, New Mexico, and Virginia, and since the operation came together quickly, combat planners made a judgment call "to apply the various tools" already in Europe and operating in the Mediterranean Sea, he said.

Deconflicting

However, Air Force Secretary Michael B. Donley acknowledged in the same hearing that the F-22's air-toground capability is "somewhat more limited" than that of the F-15E, which has seen significant action against ground targets in Libya.

On March 21, an F-15E assigned to RAF Lakenheath, England, crashed about 25 miles from Benghazi, located on the eastern coast of Libya. The aircraft was operating out of Aviano at the time and was on a mission to attack Qaddafi's missile capabilities, Adm. Samuel J. Locklear III, Joint Task Force Odyssey Dawn commander, said during a Pentagon briefing after the accident.

Two Marine Corps CH-53 helicopters, two AV-8B attack aircraft, and two MV-22 Ospreys, launched from the nearby USS *Kearsarge*, successfully recovered the pilot. The aircraft's combat systems operator was rescued by Libyan civilians, who offered him treatment and then almost immediately returned him to US custody. Neither crew member received serious injuries.

As of early June, officials were still deciding whether they would release information from the completed safety investigation board, or whether the Air Force would convene a follow-on accident investigation board, said a spokesman at US Air Forces in Europe, which conducted the investigation.

The number of aircraft in the air fluctuated based on mission needs and time of day, said Hart, but members of the 617th AOC sometimes found themselves deconflicting as many as 25



A sailor guides a USAF HH-60G Pave Hawk to the deck of USS Ponce during evening training operations. The rescue crew was aboard Ponce to provide combat search and rescue coverage for pilots over Libya.

USN photo by Mass. Comm. Spc. 1st Class Nathanael Mille



Left: MSgt. Steve Butler and Capt. Viveca Lane prep for a refueling mission for Operation Unified Protector, the NATO-led mission aimed at protecting civilians during the Libyan civil war. Below: An F-15E taxis prior to departure from RAF Lakenheath, UK, on a mission for Odyssey Dawn.

said. "Every AOC has its functions and they all look the same. The geography may be a little different, and the manning may be a little different, but the processes are all the same. ... If we were different, it was only the total numbers of personnel."

By the time the US handed the reins for overall control of the operation over to NATO on March 31, the coalition had flown 1,990 sorties, of which the US flew 1,206, said an AFAFRICA

aircraft all performing different missions in the same joint operating area.

Despite the AOC's lack of operational experience, Hart said its management of the contingency "was excellent." The key to that success, he said, was the standardized training processes developed at the 505th Command and Control Wing at Hurlburt Field, Fla. All personnel assigned to an AOC, regardless of the center's function or geography, are sent to Hurlburt where they receive specialized training focused on the applicable AOC division they are projected to work in.

Meeting the Objectives

"The Air Force has invested a lot of time and effort in ensuring that the people who get assigned to AOCs are trained mostly the same way," Hart



SSgt. Stephen Paluga works on a KC-135 navigation system. He and other members of the 313th Air Expeditionary Wing carry out NATO's Unified Protector mission.

spokesman. Of the nearly 2,000 sorties, 952 were strike sorties, including 463 conducted by US aircraft.

"We protected thousands of Libyan civilians and significantly degraded the regime's capability to conduct attacks from the air and on the ground," Woodward said. "We met our objectives before handing the lead to NATO forces, and we continue to support NATO under Operation Unified Protector as they carry out the same mandate."

At press time, the Libyan operation was expected to be short-lived, but Qaddafi steadfastly refused to yield power. Loyalist and Libyan rebel forces both dug in, with neither side able to gain a decisive advantage despite NATO's support for civilian populations frequently targeted by Qaddafi's forces. In recognition of the battle ahead, NATO in June extended its Libya mission through September.