LESSON 5

Global Interventions From 1990



Quick Write

Why did Technical Sergeant Timothy Wilkinson receive the Air Force Cross?



Learn About

- how the United States used airpower in Operations Desert Shield and Desert Storm
- the role of airpower in Operation Enduring Freedom
- how airpower was applied in Operation Iraqi Freedom
- the role of US airpower in other military and humanitarian operations

N 1993 FOLLOWERS OF AFRICAN WARLORD Mohammed Farah Aidid shot down two UH-60 Black Hawk helicopters in Mogadishu, Somalia. In the battle that followed, 19 US military personnel and one Malaysian soldier were killed, along with hundreds of Somalis. The US and other troops were in Somalia to support a United Nations peacekeeping mission.

Technical Sergeant Timothy Wilkinson was a member of the combat search-and-rescue team sent to the crash site. When his unit arrived, it got caught in the firefight with Aidid's followers. At the time, it was the longest firefight for US forces since the Vietnam War.

Wilkinson's duty was to treat the wounded. Again and again, he darted into the firefight to retrieve wounded crewmen as well as the bodies of Soldiers who had died.

During one dash, a bullet took a piece of skin off Wilkinson's face. "I learned then that life is a matter of millimeters and nanoseconds. If my head was turned a different way, I might be dead," Wilkinson said later.

"Fortunately, all the bullets missed me, and my scars healed up nice."

Just as the rescue team's ammunition was starting to run out, help arrived. The crew was evacuated safely. Wilkinson was awarded an Air Force Cross for his courage that day. He was the first enlisted person to get this award since 1975.



Technical Sergeant Timothy Wilkinson

Courtesy US Air Force

How the United States Used Airpower in Operations Desert Shield and Desert Storm

The end of the Cold War did not bring the hoped-for peace. Instead, it created new tensions. Some alliances crumbled. The Soviet Union no longer had the might to spread communism. Only the United States remained a superpower.

Some saw opportunity in these changes. Saddam Hussein, the dictator of Iraq in the Middle East, who gained power by force, was one of them. He wanted to grab the oil fields of Kuwait, a tiny country south of Iraq. Hussein assumed no one would interfere with his plan, since Russia and the United States were no longer engaged in the Cold War. He thought the Russians and Americans wouldn't take sides in conflicts outside their borders as they had in the past. He was wrong.

On 2 August 1990 Iraqi forces marched into Kuwait. By 4 August, Iraq controlled its neighbor. Iraq had prepared well for the invasion. With 550,000 troops, it had the fourth-largest army in the world. It had 16,000 surface-to-air missiles (SAMs) and 750 aircraft. But Iraq would not get to keep Kuwait.

Why the United States Got Involved in the Gulf War

On 6 August 1990 Saudi Arabia—a US ally and a major oil supplier—asked its allies to protect it from neighboring Iraq. Saudi Arabia saw what had happened in Kuwait. It feared Iraq would try to take over nearby Saudi oil fields next.

The United Nations responded with Resolution 660, which ordered Iraq to leave Kuwait. The UN also passed Resolution 678, which permitted a coalition of UN troops to force Iraq out of Kuwait if it didn't withdraw by 15 January 1991. A coalition is *an alliance among nations*. The Allies, for example, were a coalition during World War II.

Vocabulary



- sortie
- no-fly zone
- weapon of mass destruction
- insurgent
- genocide
- precision weapons
- strife
- secede





Kuwait, Iraq, and Saudi Arabia

On 8 August the United States sent forces to Saudi Arabia to deter an Iraqi invasion. The military dubbed the mission *Operation Desert Shield*. American and other UN troops "shielded" Saudi Arabia from aggression by placing troops and weapons on Saudi soil. The US Air Force arrived with Airmen, fighter planes, stealth fighters, bombers, gunships, tankers, reconnaissance planes, and transports.

At the same time, US military planners prepared for a second operation in case Iraq didn't meet the deadline to leave Kuwait. The United States called this action *Operation Desert Storm*. Many UN members, including Britain and France, contributed to it.

Iraq did not exit Kuwait as ordered. The stage was set for battle between Iraqi and UN forces.

US Airpower Shows Its Capabilities

The US Air Force, cooperating with the other services, worked out a plan to fight the air battle for *Operation Desert Storm*. Both military strategists and President George H. W. Bush wanted to avoid another Vietnam. They settled on three tactics:

- **1.** Keep the air battle going. Do not pause. In Vietnam, such pauses gave the North Vietnamese time to rebuild and repair.
- 2. Conduct parallel air strikes. In other words, bomb many targets simultaneously. Don't focus on one target at a time.
- **3.** Coordinate air-strike efforts of the US Air Force, US Navy, and other coalition air forces using one overall commander and one unified plan called an Air Tasking Order.

The Targets

The United States and United Nations decided that their air strikes would aim for four kinds of targets. They based their decisions on the theories of a 19th-century European named Carl von Clausewitz. He said that the best targets were at the "center of the enemy's gravity." This meant that US forces ought to begin by taking out the important targets, such as lines of communication. This would prevent Hussein from giving orders to his troops. The targets were Iraqi:

- communication sites,
- air defenses,
- supply lines and enemy troops, and
- threats to UN ground troops.



A formation of F-16s and F-15s flies over oil fields set on fire by the retreating Iraqi army during *Operation Desert Storm*.

Courtesy US Air Force

The Execution

On 17 January 1991 US air strikes on Iraq began. The first air strike was conducted by F-117A Nighthawk fighters. They flew through intense anti-aircraft and surface-to-air missile fire to bomb communications links, such as TV stations and telephone-relay stations in Baghdad, Iraq's capital. In only their second combat deployment and against a modern air defense system, F-117s were so successful that Iraq's command and control communication network never recovered.

The air armada, or large force of aircraft, that flew the first night of *Desert Storm* included every type of aircraft flown by coalition countries. They made parallel air strikes on Iraq's airfields and air-defense systems—such as SAMs and their radar support. They also hit supply lines and warehouses. With air superiority secured, UN ground troops were ready to move into Iraq.

On 29 January 1991 Iraq launched a counterattack against UN forces in Saudi Arabia. This attack failed. Then on 22 February 1991 a 100-hour battle began to drive the Iraqis out of Kuwait for good. US airpower took the skies over Kuwait. UN ground forces followed. Kuwait was at last free of Iraqi rule.

Lessons the Air Force Learned From the Gulf War

The United States had two goals in *Operations Desert Shield* and *Desert Storm*: to protect Saudi Arabia and to free Kuwait.

To achieve these aims, the US military drew up clear tactics and targets. The Air Force based many of these tactics and targets on lessons learned in other wars, such as Vietnam. One important lesson: don't give the enemy a chance to repair and rearm.

Grabbing air superiority early on gave the US and UN forces an edge as well. Once these forces had struck Iraqi air bases and destroyed communication lines, Iraqi pilots couldn't receive directions from commanders or get into the air.

Finally, US technology gave the UN effort the upper hand in the air. The F-117 stealth fighter, for instance, flew 1,271 sorties during *Operation Desert Storm*. A sortie is a flight or an attack by a single combat aircraft. The F-117 was the only aircraft to bomb central Baghdad. In addition, the KC-135 and KC-10 tankers made the long-distance war possible. They refueled more than 14,500 aircraft in midair.

The Right Stuff

Major General Paul T. Johnson: Exceptional Airmanship and Leadership

On 21 January 1991, then-Captain Paul T. Johnson was leading a formation of A-10s assigned to search-and-rescue operations in *Operation Desert Storm*. Captain Johnson was tasked to look for an F-14 crew that had been shot down the night before. During the next six hours he would lead his flight through three aerial refuelings, one attack on a possible missile site, and three hours of intensive searching deep inside enemy territory.

Risking his life, he flew his A-10 at 500 feet above the ground to pinpoint the survivor's location. When an enemy truck appeared to be heading toward his survivor, Johnson directed his flight to destroy it, securing the rescue. It was his superior airmanship and his masterful leadership that made this rescue happen—the first in the history of the A-10 weapons system.

For his extraordinary heroism, superb airmanship, and aggressiveness in the face of the enemy, Johnson received the Air Force Cross. As this book was written, he had advanced to the rank of major general.



Major General Paul T. Johnson
Courtesy US Air Force

Operations in Iraq After Desert Storm

Operation Provide Comfort

Following the 1991 Gulf War, the United States launched *Operation Provide Comfort*. Its purpose was to protect the Kurds, an ethnic minority in northern Iraq, and to provide food for Kurdish refugees fleeing into Turkey. Iraq's Saddam Hussein was fighting a rebellion the Kurds had launched against his government. He was also after Kurdish oil fields. Employing C-130s, the US Air Force delivered thousands of tons of relief supplies, including food, tents, and blankets to Kurdish camps. *Operation Provide Comfort* ended in 1996 and was replaced by *Operation Northern Watch*.

Operation Southern Watch

Starting in August 1992, the United States enforced a no-fly zone over Iraq. A no-fly zone is airspace enemy aircraft aren't allowed to enter. The operation divided Iraq into northern and southern zones. The Air Force E-3 Airborne Warning and Control System (AWACS) provided airborne radar to support coalition aircraft. The coalition flew combat air patrols over southern Iraq to protect the Shiite Muslim population and Kuwait. The effort was titled *Operation Southern Watch*.

Iraqi pilots regularly shot at US aircraft. Sometimes they entered no-fly airspace. This operation ended just before *Operation Iraqi Freedom* kicked off.

Operation Northern Watch

After US and UN troops subdued Iraqi forces operating against the Kurds, they still couldn't go home. They had to make sure Hussein didn't send his troops and aircraft into hostile action again. So the United Nations set up a second no-fly zone in the northern half of Iraq. This was done in part to protect the Kurds. The name of this mission was *Operation Northern Watch*.

Between 1997 and 2003, 1,400 US, British, and Turkish fliers supported the operation with 50 aircraft. The Iraqis shot at them daily, often using SAMs. The UN aircraft would occasionally strike back. The last US aircraft serving in the operation headed home on 17 March 2003. *Operation Iraqi Freedom* began two days later.

The Role of Airpower in Operation Enduring Freedom

Less than a month after the 11 September 2001 attacks on the World Trade Center and the Pentagon (see Chapter 4, Lessons 1 and 4), the US military unleashed *Operation Enduring Freedom* (OEF). The goal was to destroy the terrorists' organization and their bases in Afghanistan, a country in southwest Asia. The terrorists were from a group called Al-Qaeda. The Taliban regime, which ruled Afghanistan at that time, let Al-Qaeda forces train in its country. Therefore, OEF targeted members of the Taliban as well as of Al-Qaeda.

US Aircraft in Afghanistan

OEF began on 7 October 2001, when US Air Force bombers struck terrorist training camps and bases. At the same time, US Navy fighters made strikes from aircraft carriers, and US and British submarines launched missiles at targets in Afghanistan.

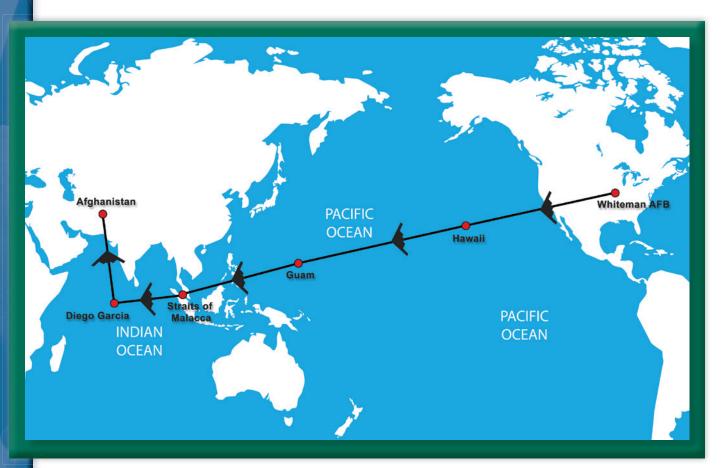
Within 18 months, coalition air forces flew more than 85,000 sorties. They conducted more than 48,000 airlifts of troops and cargo. They dropped more than 9,650 tons of bombs.

The main US Air Force combat aircraft involved were the B-1, B-2, B-52, F-15E, F-16, A-10, and AC-130. OEF began with an attack by eight B-1 Lancers. In the first six months of operations, B-1s accounted for 40 percent of the guided and unguided explosives dropped in Afghanistan.

The Longest Combat Mission in Air Force History

The B-2 stealth bomber flew the longest combat mission in US history supporting OEF on 7 October 2001. Flying from Whiteman Air Force Base, Missouri, two B-2s launched to bomb enemy targets in Afghanistan. The first part of the flight to Afghanistan required the bombers to fly west over the Pacific Ocean. Four air refuelings and 24 hours later the bombers reached their targets. After spending two hours dropping bombs on enemy locations, the B-2s headed south, only to have one redirected back to Afghanistan to bomb more targets.

Finally, after 90 additional minutes and all targets bombed, the bomber was able to head south to Diego Garcia, a small British-ruled island. This footprint-shaped island is located in the Indian Ocean and used by the US Navy and Air Force. The B-2 touched down at Diego Garcia after a little more than 44 hours of flying.



Approximate route of the B-2 bombers

The Hunt for Osama bin Laden

Al-Qaeda's leader, Osama bin Laden, took responsibility for the 11 September attacks. He fled his base in Afghanistan when the US invaded. For years afterward, American military and intelligence personnel worked to find him. Finally, in September 2010, the Central Intelligence Agency (CIA) learned that he was hiding in a large compound in Abbottabad, Pakistan. On 1 May 2011 a joint team of elite Navy Sea, Air, and Land Teams special operations force—commonly known as SEALs—and CIA agents raided the compound. They flew under cover of darkness in specially designed helicopters from Afghanistan. Bin Laden died in the firefight that followed.

Operation Freedom's Sentinel

While the war removed the Taliban regime and led to a new government in Afghanistan, attacks by pro-Taliban fighters have continued. *Operation Enduring Freedom* ended on 31 December 2014. But the United States—now joined by its NATO allies—continues to support the elected Afghan government through *Operation Freedom's Sentinel*. At the end of 2016, about 8,400 US and 6,000 other NATO troops remained in the country. US and NATO forces continued to provide close air support to Afghan soldiers.

The Right Stuff

Technical Sergeant John Chapman: An Exceptional Brand of Courage

Technical Sergeant John Chapman was a combat controller during *Operation Anaconda* in Afghanistan. Air Force combat-control teams support special operations in the field.

It was in the early hours of 4 March 2002, in what became a 17-hour ordeal on top of Tukur Ghar Mountain in southeastern Afghanistan. *Operation Anaconda*—a coalition effort to destroy Taliban and Al-Qaeda units—was just starting.

Sergeant Chapman was attached to a Navy SEAL team. The team's MH-47 helicopter was hit by Al-Qaeda machine gun fire. A rocket-propelled grenade then hit the helicopter, causing a SEAL team member to fall from the aircraft into enemy-held territory.

The helicopter made an emergency landing more than four miles from the fallen SEAL. Chapman called in an AC-130 gunship to protect the stranded team.

Chapman called in another helicopter to evacuate his stranded team. Then he volunteered to rescue his missing team member from the enemy stronghold. He engaged and killed two of the enemy before advancing and engaging a second enemy position—a dug-in machine gun nest.

From close range with little cover, Chapman exchanged fire with the enemy. Finally he died after receiving multiple wounds. Because of his actions, his team was able to move to cover and break enemy contact.

The Navy SEAL leader credited Chapman with saving the lives of the entire team. In gratitude, the Navy named a cargo ship after him. For his bravery and courage, the Air Force awarded him the Air Force Cross. He became the service's highest-decorated combat controller.



Technical Sergeant John Chapman in Afghanistan

Courtesy US Air Force

The Right Stuff

Senior Airman Jason Cunningham: A Display of Uncommon Valor

Senior Airman Jason Cunningham was in the Navy before he decided to switch to the Air Force. He wanted to be a pararescueman. The pararescuemen's motto is "That others may live."

Airman Cunningham was the primary Air Force Combat Search and Rescue medic assigned to a Quick Reaction Force. His team was sent to recover American servicemen in the battle in which Technical Sergeant John Chapman was killed. Shortly before landing, his MH-47E helicopter took rocket-propelled grenade and small-arms fire. This severely disabled the aircraft and caused it to crash land. The assault force formed a hasty defense. Three members were killed immediately; five others were critically wounded.

Despite enemy fire, and at great risk to his own life, Cunningham stayed in the burning fuselage of the aircraft to treat the wounded. As he moved his patients to a more secure location, mortar rounds began to hit within 50 feet of his position. Disregarding this extreme danger, he continued the movement and exposed himself to enemy fire on seven separate occasions.

After a time the second casualty collection point was also endangered. Cunningham braved an intense attack while moving the critically wounded to a third collection point. He was mortally wounded and quickly deteriorating, but he continued to direct his patients' movement and transferred care to another medic.

Cunningham had given medical treatment to the wounded while under fire for seven hours. He was killed saving the lives of 10 service members. The Air Force awarded him the Air Force Cross after his death.



Senior Airman Jason Cunningham (center) with two fellow Airmen in Afghanistan

Courtesy US Air Force

Top US Military Decorations

Medal of Honor

The Medal of Honor is the nation's highest US military decoration for valor or bravery in combat. It is awarded to members of the armed forces. It is given for conspicuous gallantry and courage at the risk of life, above and beyond the call of duty. The Medal of Honor is sometimes called the *Congressional Medal of Honor* because the president awards it on behalf of the Congress. It is awarded rarely, and then only to the bravest of the brave. The recipients' valor must be well documented.



Air Force Cross
Virginia Reyes/Courtesy US Air Force



Bronze Star Virginia Reyes/Courtesy US Air Force

Air Force Cross

The Air Force Cross is second only to the Medal of Honor as an award for valor. The other military services have a similar award. It is awarded to members of the Air Force for extraordinary heroism while engaged in military operations involving conflict with an opposing foreign force or while serving with friendly forces against an opposing enemy force.

Silver Star

The Silver Star Medal is the nation's third-highest award designed solely for valor in combat. It is awarded to members of the military for distinguished gallantry in action against an enemy of the United States or while serving with friendly forces against an opposing enemy force.



Medal of Honor Virginia Reyes/Courtesy US Air Force



Silver Star *Virginia Reyes/Courtesy US Air Force*

Bronze Star

The Bronze Star Medal is awarded to any person in the military who distinguishes himself or herself by heroic or meritorious achievement or service. The service must not involve participation in aerial flight. It must occur while he or she is engaged in an action against an enemy of the United States.

How Airpower Was Applied in Operation Iraqi Freedom

The US military and its coalition partners launched *Operation Iraqi Freedom* (OIF) on 19 March 2003. It began with an air and ground campaign that quickly became known as *Shock and Awe*. Within 22 days, coalition forces reached Baghdad. The coalition met some resistance. But the coalition forces mostly overwhelmed the Iraqis with airpower, tanks, and troops.

The objectives of OIF were to remove Iraqi leader Saddam Hussein from power and to rid the country of weapons of mass destruction (WMD). A weapon of mass destruction is a chemical, biological, or atomic weapon that can kill large numbers of people in one use.

US forces captured Hussein on 13 December 2003. After a long trial, the new Iraqi government executed him on 30 December 2006. Despite their success in capturing Hussein, however, US and coalition forces found no WMDs in Iraq. This led many Americans to question the purpose of invading.

Throughout OIF, insurgents, including members of Al-Qaeda, poured into the country to fight US and allied forces. An insurgent is *a rebel or guerrilla fighter*. In January 2007 President George W. Bush greatly increased the number of US troops in Iraq to help the new Iraqi government fight the insurgency. This "surge" ended in July 2008.

The last US combat brigade left Iraq in August 2010. OIF was renamed *Operation New Dawn* to reflect the reduced American role there. By the end of 2011, all US troops had left Iraq.

The Rise of Islamic State

The remnants of Al-Qaeda in Iraq in 2006 organized a new terrorist organization called *Islamic State in Iraq*. It continued fighting withdrawing coalition troops and the new Iraqi government. Meanwhile, in 2011, a civil war broke out in Syria next door. Islamic State became involved in that fighting and renamed itself *Islamic State in Iraq and the Levant* (ISIL). (It is also referred to in the press as *Islamic State* or *ISIS*.)

ISIL managed to seize a wide swath of territory in Syria and Iraq, including the large Iraqi cities of Mosul and Fallujah. When ISIL attacked the home villages of a religious minority called the *Yazidis*, President Barak Obama ordered air strikes. He wanted to protect US forces sent back to aid the Iraqis and to prevent genocide. Genocide is the attempt to wipe out all members of a racial, religious, or ethnic group.

In September 2014, President Obama announced creation of an international coalition of countries to defeat ISIL. In October 2015, the Defense Department named actions by US and allied forces against ISIL in both Iraq and Syria *Operation Inherent Resolve*. By November 2016, US and coalition aircraft had carried out some 16,000 airstrikes. About 10,000 of these were in Iraq. Both Air Force and Navy aircraft participated.

The Right Stuff

Chief Master Sergeant Kevin Lynn: A Historic Impact on the Future of the Iraqi Army

Meritorious service can involve many types of action. For example, Chief Master Sergeant Kevin Lynn helped establish the first military police academy in Iraq.

He was deployed there from 28 February to 23 July 2004. Chief Lynn and fellow Air Force security forces members renovated a bombed-out former Republican Guard base in Taji, Iraq. They turned it into a new police academy. Lynn served as commandant of the school. Starting from scratch, they developed and taught a course for the academy in just nine days.

At the same time, Lynn was also a battle-tested veteran. He and his team continued to train forces during the "April Offensive." This consisted of 18 days of nonstop mortar and rocket attacks. Overall, Lynn survived 31 mortar and 34 rocket attacks that killed 10 soldiers and injured many others. He continually risked his personal safety to ensure mission success and guarantee his team's safety. He provided security on numerous convoy missions and patrolled East Gate on Taji Military Training Base.



Chief Master Sergeant Kevin Lynn and his team transformed a war-torn environment into a successful military police academy.

Courtesy of Chief Master Sergeant Kevin Lynn

In all, Lynn and his team graduated more than 500 military policemen and 40 military police instructors. For his work, Lynn received the Bronze Star Medal on 14 December 2004.

The Right Stuff

Airman 1st Class Elizabeth Jacobson: An Extraordinary Commitment to Her Country

Airman 1st Class Elizabeth Jacobson, 21, was providing convoy security on 28 September 2005 near Camp Bucca, Iraq, when a roadside bomb struck the vehicle she was riding in.



Airman 1st Class Elizabeth Jacobson
Courtesy US Air Force

The Riviera Beach, Fla., native was assigned to the 17th Security Forces Squadron at Goodfellow Air Force Base, Texas. Airman Jacobson had been in the Air Force for two years and had been in Iraq for more than three months. She was the first female Airman killed in the line of duty in support of *Operation Iraqi Freedom*.

"She was an outstanding Airman who embraced life and took on all the challenges and responsibilities with extraordinary commitment to her country, her comrades, and her family," said Colonel Scott Bethel, 17th Training Wing commander at Goodfellow.

"Her dedication to the US Air Force and serving her country was evident in all aspects of who this young lady was," he said.

US Aircraft in Iraq and Afghanistan

The US Air Force used many aircraft in Iraq and Afghanistan. These ranged from the stealth F-117 fighters flying into Baghdad to hit command and control targets to the giant C-5 Galaxy cargo planes carrying troops and supplies into these theaters of war. All Air Force aircraft have played a significant role in all operations of the longest running war in US history.

McDonnell Douglas F-15 Eagle

The twin-engine F-15 all-weather fighter entered Air Force service in 1974. It was designed to replace the F-4 Phantom. It was the first US fighter with more engine thrust than aircraft weight. This allowed it to gain speed while climbing.

The F-15 has been produced in both a single-seat and a Strike Eagle two-seat version. The two-seat version is an attack aircraft as well as a fighter. Israeli F-15s saw the first combat in 1979, shooting down several Syrian MiG-21s. American F-15s scored 32 of 36 air victories in *Operation Desert Storm* in 1991, and shot down three Serbian MiG-29s during *Operation Allied Force* in 1999.



An F-15 Eagle fires an AIM-7 air-to-air missile.

Master Sergeant Michael Ammons/Courtesy US Air Force

The F-15 is armed with a cannon and can carry eight air-to-air missiles and 15,000 lbs. of bombs. Its maximum speed is more than 1,875 mph and its range is 600 miles. Around 1,600 F-15s have been built. Israel, Japan, and Saudi Arabia also fly F-15s. An Air Force modernization program announced in September 2016 would keep the trusty F-15 flying for many years to come.

General Dynamics F-16 Fighting Falcon

In service since 1979, the F-16 has been produced in both one- and two-seat models. A versatile and highly maneuverable aircraft, it can fly more than 500 miles, deliver its weapons in all weather, and defend itself against enemy fighters. The aircraft can withstand up to nine times the force of gravity.

The F-16 flies as fast as 1,345 mph with a range of 1,407 miles. It carries a 20-millimeter (mm) cannon and up to 16,000 lbs. of air-to-air missiles, air-to-ground missiles, and bombs. Belgium, Denmark, Turkey, Egypt and Israel are among the 25 foreign nations that have purchased the F-16. General Dynamics, now part of Lockheed Martin, has built 4,500 of the planes.



The Air Force Thunderbirds flying F-16s at a 2012 air show at Andrews AFB, outside Washington, D.C.

Chris Parypa Photography/Shutterstock



Czech MiG-29 at a 2012 air show in the Czech Republic

JeP/Shutterstock

Mikoyan Gurevich MiG-29

The Soviets developed the original MiG-29 to meet the challenge of the American F-15 and F-16. It serves as both an air-defense fighter and a ground attack aircraft. It began service in 1983 and features new radar and sensors that can identify aircraft flying below or targets 60 miles away.

Once a MiG-29 pilot can see his target, the plane becomes very dangerous indeed. The pilot's helmet contains tracking sensors so that the pilot need only turn his head, and the helmet locks the missile sensors on the target.

The MiG-29 has a top speed of 1,519 mph and a range of 889 miles. It can climb an astounding 65,000 feet in one minute. Armed with a 30 mm cannon and six air-to-air missiles, it can carry almost 9,000 lbs. of bombs. Mikoyan Gurevich has built 1,625 MiG-29s in different versions. The plane continues to serve in the Russian and many other air forces today.



A-10 Thunderbolt II fires its 30 mm Gatling gun during a competition, 2 June 2016.

Senior Airman Christopher Drzazg/Courtesy US Air Force

Fairchild Republic A-10 Thunderbolt II

The A-10 is the first Air Force aircraft designed specifically for close air support of ground forces. It is named for the famous P-47 Thunderbolt, a fighter often used in close air support during the latter part of World War II. The A-10 is very maneuverable at low speeds and low altitudes to ensure accurate weapons delivery. It carries the systems and armor needed to survive in this environment.

The A-10 is intended for use against all ground targets, but specifically tanks and other armored vehicles. The Thunderbolt II's great endurance allows it to stay over the battlefield longer than most fighters. Its short takeoff and landing capability permits

it to operate from airstrips close to the front lines. The A-10 is armed with a 30 mm seven-barrel Gatling gun that sticks out of the aircraft's nose. It's loaded with armor-piercing ammunition that can penetrate tanks and armored personnel carriers.

The first A-10A was delivered to Davis-Monthan AFB, Arizona, in October 1975.

Northrop Grumman B-2 Spirit

The B-2 merged the "flying wing" technology of the YB-49 (see Lesson 2) with stealth technology. This long-range bomber can deliver conventional or nuclear weapons while remaining virtually invisible to air defense radars.

The B-2 first flew in 1989 and entered service in 1993. It flew missions in *Operation Allied Force* over Serbia, *Operation Enduring Freedom* over Afghanistan, and *Operation Iraqi Freedom* over Iraq. The aircraft has a crew of two people. It typically flies missions nonstop from Whiteman AFB, Missouri, to the target and back.



A B-2 Spirit (*right*) flies in formation with a B-52 bomber.

Courtesy US Air Force

The flights can take more than 30 hours and require several refuelings. The B-2 can deliver 40,000 lbs. of precision weapons. Precision weapons are *guided missiles* and bombs.

Boeing E-3 Sentry Airborne Warning and Control

The E-3 Sentry Airborne Warning and Control (AWACS) provides an accurate, real-time picture of the battlefield airspace. AWACS provides the following advantages:

- situational awareness of friendly, neutral, and hostile activity
- command and control of an area of responsibility
- battle management of theater forces
- all-altitude and all-weather surveillance
- early warning of enemy actions during joint, allied, and coalition operations

The radar and computer systems on the E-3 Sentry can gather and present detailed battlefield information. This includes position and tracking



An E-3 Sentry AWACS lands at Tinker AFB, Oklahoma. Courtesy US Air Force

information on enemy aircraft and ships, and the location and status of friendly aircraft and naval vessels. In time of crisis, data can also be forwarded to the president and secretary of defense.

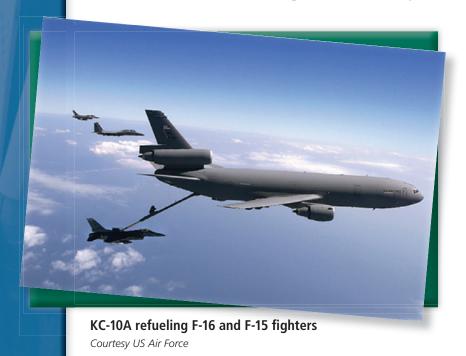


E-8C JSTARS in flightStaff Sergeant Shane Cuomo/Courtesy US Air Force

Boeing E-8C Joint Surveillance Target Attack Aircraft

The E-8C Joint Surveillance Target Attack Radar System (JSTARS) is an airborne battle-management, command and control, intelligence, surveillance, and reconnaissance platform. Its primary mission is to provide theater ground and air commanders with ground surveillance. This supports attack operations and targeting that contribute to the delay, disruption, and destruction of enemy forces.

The radar and computer systems on the E-8C can gather and display detailed battlefield information on ground forces. The information is relayed in near-real time to the Army and Marine Corps common ground stations and to other ground command, control, communications, computer, and intelligence centers.



Boeing KC-10A Extender

The KC-10 Extender is an advanced tanker and cargo aircraft designed to provide increased global mobility for US armed forces. The KC-10's primary mission is aerial refueling. But it can combine the tasks of a tanker and cargo aircraft by refueling fighters and simultaneously carrying the fighter support personnel and equipment on overseas deployments.

The KC-10 can refuel a wide variety of US and allied military aircraft within the same mission. The aircraft is equipped with lighting for night air-refueling operations.

Lockheed AC-130 Gunship

The AC-130 gunship has a combat history dating back to Vietnam. Gunships destroyed more than 10,000 trucks and were credited with many lifesaving close air support missions. During *Operation Urgent Fury* in Grenada in 1983, AC-130s suppressed enemy air defense systems and attacked ground forces. This enabled the successful assault of the Point Salines Airfield.

AC-130s also had a primary role during *Operation Just Cause* in Panama in 1989 when they destroyed Panamanian Defense Force Headquarters and many command and control facilities.



An AC-130 gunship jettisons flares during a training flight.

Courtesy US Air Force

During *Operation Desert Storm*, AC-130s provided close air support and force protection (air base defense) for ground forces. Gunships were also used in operations in Somalia, providing close air support for United Nations ground forces. Gunships also played a pivotal role in supporting the NATO mission in Bosnia-Herzegovina.

More recently, AC-130 gunships have supported *Operation Iraqi Freedom* and have been used in support of *Operation Enduring Freedom*. Finally, AC-130 gunships have played a pivotal role in the recent uprisings in the Middle East. Gunships provide armed reconnaissance and support of ground troops engaged against enemy forces.

Boeing C-17 Globemaster III

The C-17 Globemaster III is the newest, most flexible cargo aircraft to enter the airlift force. The C-17 can rapidly deliver troops and all types of cargo to main operating bases or directly to forward bases in the deployment area. The aircraft can perform tactical airlift and airdrop missions and can transport litters and patients during aeromedical evacuations when required. The flexibility and performance of the C-17 force help the total airlift system fulfill the worldwide air mobility requirements of the United States.



Paratroopers from the 82nd Airborne Division drop from a C-17 Globemaster III into a drop zone 28 April 2010.

Courtesy US Air Force

The Role of US Airpower in Other Military and Humanitarian Operations

In addition to the major military operations you've just read about, Airmen have flown and participated in many other missions since 1991. Some were combat missions. Others were humanitarian. Some were both.

Operation Provide Promise

Yugoslavia was formed from the southern Slav territories of Serbia, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, and Slovenia after World War I. The federation began to fracture in 1992. Ethnic strife, an angry or violent disagreement between two or more people or groups, and civil war had long been a part of this country's history.

The Bosnian Muslims (Bosniaks) and Bosnian Croats wanted to be independent of Yugoslavia. But the Bosnian Serbs and the Serbs in Serbia, under Yugoslav leader Slobodan Milosevic, didn't want them to secede, or *break away*. The Bosnian Serbs fought the Bosniaks and Bosnian Croats to keep Bosnia and Herzegovina in Yugoslavia. In 1992 the Serbs cut off food and other supplies to Sarajevo, Bosnia's capital.

In July 1992, the United States and 20 other countries launched a massive airlift, *Operation Provide Promise*. The United States and other nations flew in 160,000 tons of goods in 13,000 sorties. C-130s, C-141s, C-5s, and C-17s took part in this mission.

It was risky business. The Serbs shot at the cargo aircraft. They hit 10 US planes and shot down one Italian aircraft. The airlift lasted until January 1996. The Dayton Accords, signed 14 December 1995 at Wright-Patterson AFB in the Wright brothers' hometown, brought an end to the fighting.

Serbia

EACH OF THE FORMER YUGOSLAV REPUBLICS contains a mixture of ethnic groups. Serbs were the majority in Serbia, but made up significant minorities in Bosnia and Herzegovina, Croatia, and Montenegro. Likewise, large numbers of Croats live in Serbia and in Bosnia and Herzegovina. Serbia's province of Kosovo contained a large majority of ethnic Albanians. This ethnic mixture made the breakup of Yugoslavia more difficult, because the Serb minorities in the breakaway republics and Kosovo wanted to live under Serbian rule, not that of other ethnic groups. The dictator of Yugoslavia, Slobodan Milosevic, maintained his power partly by stirring up Serbs' fears of what would happen if Yugoslavia broke up.

A Serb is a member of the Serb ethnic group. A Serbian is a resident of Serbia.



Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, and Slovenia

Operations Deny Flight and Deliberate Force

Combined with the *Provide Promise* effort, NATO opened *Operation Deny Flight* over Bosnia. It ran from April 1993 to December 1995. NATO forces created no-fly zones for Serbian aircraft.

US pilots in fighters such as the F-16 shot down Serbian aircraft that violated the no-fly zone. In retaliation, Serbs grabbed UN peacekeepers. So NATO launched a mission called *Operation Deliberate Force*. NATO forces used precision-guided weapons and aircraft to hit the Serbians hard. UN forces also began protecting the peacekeepers. The Serbians gave in toward the end of 1995.

Operations Allied Force and Shining Hope

Despite the end of the Bosnian war, Yugoslavia continued to be a center of conflict. In 1999 Milosevic directed Serbian forces to attack ethnic Albanians in Kosovo. Kosovo was then a province in southern Serbia.

Milosevic didn't heed NATO's warnings to stop his attacks. So NATO launched an air campaign called *Operation Allied Force* in March 1999. NATO air forces flew more than 38,000 sorties. The air campaign succeeded in forcing Milosevic to withdraw his forces from Kosovo after 78 days. No ground forces were involved.

The US Air Force marked two "firsts" in this effort. The B-2 stealth bomber engaged in combat for the first time. And the United States used its 2,000-pound GBU-31 precision weapon for the first time. In fact, the B-2 bombers dropped the GBU-31s. They caused 33 percent of the damage inflicted on the Serbs in the first eight weeks of *Operation Allied Force*.

This operation also marked the only time a stealth aircraft has been shot down in combat. An F-117 was lost in combat to Serbian/Yugoslav forces. On 27 March 1999, a Serbian missile brigade downed the F-117A with a SAM.

The pilot, Lieutenant Colonel Dale Zelko, survived and was later rescued by NATO forces. However, the wreckage of the F-117 was not promptly bombed, and the Serbians are believed to have invited Russian personnel to inspect the remains. This would compromise the US stealth technology. Part of the plane is reportedly on display in a Belgrade museum.

Humanitarian airlifts were key to the success of this campaign. US airlifts, as part of *Operation Shining Hope*, kept Albanian refugees from starving while NATO crushed the Serbian attack on Kosovo.

Milosevic was indicted as a war criminal in 2000 and tried before a United Nations court. He was charged with crimes against humanity in Kosovo, violating the laws of war in Croatia and Bosnia, and genocide in Bosnia. He died in 2006 just before the end of his trial in the Netherlands.

Operations Provide Relief and Restore Hope

Somalia, an East African country, had a severe food shortage in 1992. Its people risked starvation. Beginning in August, the United States, in support of the United Nations, airlifted food through *Operation Provide Relief*. C-141s carried the goods to Kenya, another African nation. Smaller C-130s then flew the food into Somalia.

But there was a snag. Somali warlords often stole the food before it could reach the people. These warlords fired at US cargo planes. The United States shut down *Operation Provide Relief* in 1993. But it soon launched another mission, *Operation Restore Hope*.

Restore Hope had two goals. The first was to distribute food. The second was to go after the warlords and their gangs. *Restore Hope* ended in May 1993, when the United Nations took over the relief mission.

But in mid-1993 a warlord named Mohammed Farah Aidid directed his supporters to interfere with the aid mission. They ambushed and wiped out a Pakistani convoy. During the US effort to arrest some of his top lieutenants, the firefight in Mogadishu—which you read about at the beginning of this lesson—broke out.

In response, the United States started *Operation Restore Hope II*. It airlifted combat forces back into Mogadishu, and stationed AC-130s at bases in Kenya. But many Somalis supported Aidid. The United States abandoned the effort to arrest him and sought a political solution instead. US troops left Somalia in March 1994. Aidid died in 1996 as a result of wounds suffered in battle.



Somalia and neighboring countries in Africa

Operation Uphold Democracy

Haiti is a small country on a Caribbean island. In 1991 a military coup d'état removed its elected president, Jean-Bertrand Aristide, from office. The new leaders suppressed the Haitian people's rights. Many Haitians fled to the United States in boats or anything that would float. They tried to enter the country illegally.

Despite diplomatic efforts, by 1994 no solution was in sight. The Haitian economy was weak. More and more Haitians were trying to make the dangerous, 700-mile sea voyage to US shores. The United States drew up a plan to return Aristide to power. It was called *Operation Uphold Democracy*. In September 60 C-130s packed with US paratroopers headed toward Haiti. When the Haitian military leaders found out that US forces were headed their way, they gave up power. US troops entered Haiti peacefully.

In 1995 the United Nations took over the mission. It put a US commander in charge of UN operations in Haiti, which lasted until mid-1996.



Haiti and neighboring countries

Operation Noble Eagle and NORAD

In addition to fighting terrorists overseas, Airmen have duties back home. Members of the Air National Guard, Air Force Reserve, and active Air Force serve in *Operation Noble Eagle* (ONE). Its goal is to safeguard American soil.

The North American Aerospace Defense Command (NORAD), a joint US-Canadian organization, runs ONE. As its name implies, NORAD has a big job: to defend the skies over the United States and Canada.

ONE began shortly after 11 September 2001. Within 16 months, US aircraft flew more than 27,000 sorties over American cities. They were on the lookout for suspicious aircraft, and they continue this job today. Fighters such as the F-15 Eagle or the F-16 Fighting Falcon shoot flares if they find an airplane flying in space where it is not supposed to be. For example, planes may not fly over the White House unless they have permission. If an airplane enters that airspace, Air Force fighters have the right to shoot it down if it does not respond to warnings and depart.

The tens of thousands of sorties flown under ONE include the following:

- round-the-clock combat air patrols over New York City and Washington, D.C.
- random patrols over urban areas, nuclear power plants, weapons storage facilities, and laboratories
- sorties in response to possible air threats in the United States
- air cover support for special security events such as the Winter Olympics in Utah, the World Series, the Super Bowl, space shuttle launches, United Nations general assemblies, presidential inaugurations, state funerals, and State of the Union addresses



A California Air National Guard F-16 prepares to refuel for an *Operation Noble Eagle* mission over San Francisco's Golden Gate.

Major Robert Couse-Baker/Courtesy US Air Force



Lesson 5 Review

Using complete sentences, answer the following questions on a sheet of paper.

- **1.** What four kinds of targets did US forces want to aim for in *Operation Desert Storm?*
- **2.** What were the two goals of the United States in *Operations Desert Shield* and *Desert Storm*?
- **3.** What was the goal of *Operation Enduring Freedom* and which two groups were targeted?
- **4.** What is the name of the operation by which the United States continues to support the elected government of Afghanistan?
- **5.** What were the objectives of *Operation Iraqi Freedom?*
- **6.** What is the name of the actions against Islamic State (ISIL) in Iraq and Syria?
- **7.** What was *Operation Provide Promise?*
- **8.** What were the goals of *Operation Restore Hope?*

APPLYING YOUR LEARNING

9. Reviewing the operations discussed in this lesson, do you think airpower alone can win a conflict? Or are ground troops always necessary as well?

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