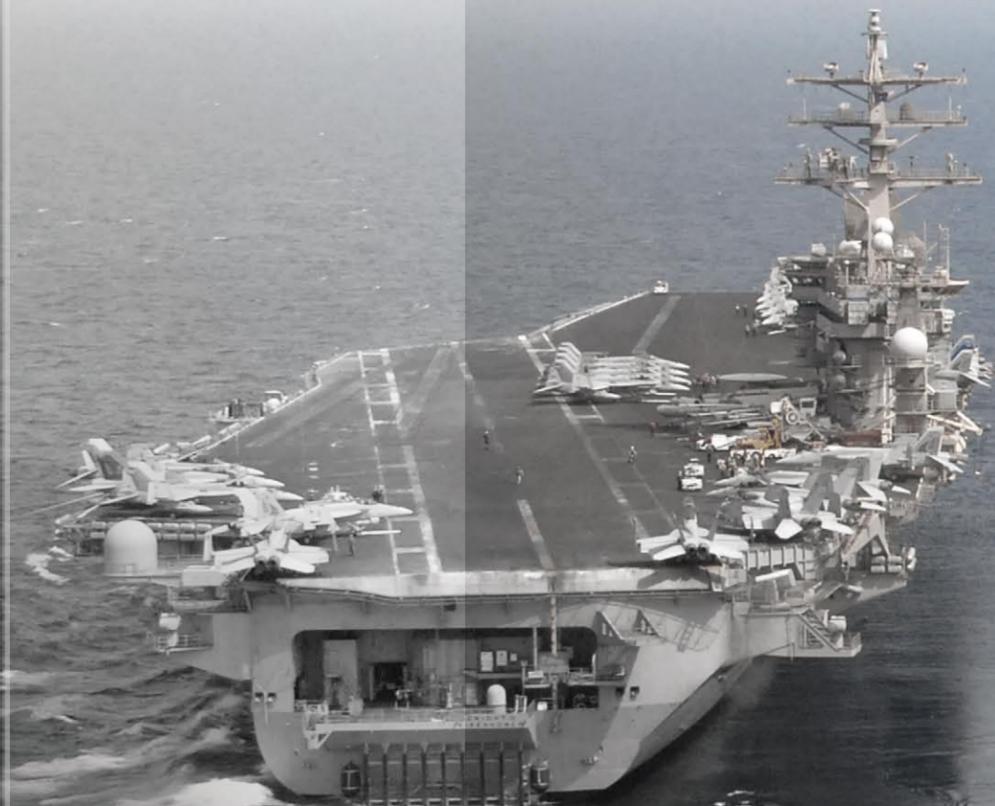


NAVAL AVIATION'S ROLE

SUPPORTING THE SIX CORE CAPABILITIES



“Naval forces are able, without resorting to diplomatic channels, to establish offshore anywhere in the world. . . . Such task forces are virtually as complete as any air base ever established. They constitute the only air bases that can be made available near enemy territory without assault and conquest.”

—Fleet Admiral Chester W. Nimitz, former Commander of U.S. Pacific Forces and Chief of Naval Operations, 1948



Curtiss SOC-1, 1939

Supporting the Six Core Capabilities

The Navy and Marine Corps are maritime forces. The planet is a maritime environment. Our military's ability to operate and execute in this environment is vital to our national interests, and it is the unique province of the Navy and Marine Corps. *A Cooperative Strategy for 21st Century Seapower* defines the Maritime Strategy for the Navy and Marine Corps in collaboration with the Coast Guard.

A Cooperative Strategy for 21st Century Seapower relies on global reach, persistent presence, and operational flexibility to accomplish strategic imperatives considered essential to influence local and global events at sea and ashore. Forward-deployed maritime forces with a regional focus will be in place to demonstrate a commitment to regional security and stability. Those forces will possess the combat power required to limit regional conflicts, deter major power wars, and, in the event that conflict cannot be avoided, convincingly win those wars. As a broad strategic imperative, mission-tailored maritime forces will be available to deploy beyond traditional areas and to execute missions as varied as humanitarian assistance or irregular warfare. These forces will contribute to homeland defense in depth, build and sustain cooperative relationships with international partners, and prevent or contain local disruptions and crises before they affect the global system. This strategy is implemented through expanded core capabilities in which Naval Aviation exercises prominent roles in achieving its strategic imperatives.

These six core capabilities are: forward presence; deterrence; sea control; power projection; maritime security; and humanitarian assistance/disaster relief. Individually and collectively, these capabilities are essential to ensuring the security, prosperity, and vital interests of the United States and its allies. They are at the heart of U.S. maritime power.



U.S. seapower is inextricably linked to and dependent on Naval Aviation. Today, even as Naval Aviation contributes to each core capability, there is a need to develop even greater capability in future platforms to ensure the Maritime Strategy is fully supported. These core capabilities are exercised every day, and the resulting proficiency ensures that Naval Aviation successfully executes its missions and significantly contributes to the implementation of the Maritime Strategy.

- **Forward Presence** establishes maritime forces in regions throughout the world. Permanently or as part of a normal deployment cycle, a maritime presence operating in cooperation with allies or in proximity to areas of interest greatly contributes to the understanding of that environment. This familiarity builds partnerships while also better preparing the United States to deter and defeat threats should they arise. The deployability and expeditionary character of Naval Aviation distinguishes it as the centerpiece of this core capability.
- **Deterrence** is aligned to the national belief that preventing wars is as important as winning wars. Removing conditions for conflict, providing for the protection of forces deployed, and possessing superior military strength all serve to deter aggressors from acting. Naval Aviation forces alone can serve effectively as goodwill ambassadors and simultaneously anchor an aircraft carrier or amphibious ship just offshore to serve as a grim display of national determination and unquestioned lethal potential.
- **Sea Control** protects the ability to operate freely at sea and is an important enabler of joint and interagency operations. Piracy and the increasing number of nations possessing submarines (among other developments) threaten freedom of access for all nations. Establishing and maintaining sea control relies on numerous maritime capabilities, and Naval Aviation is a vital military arm critical to that effort. Surveillance, detection, and attack of coastal, surface, and subsurface platforms are missions readily executed by Naval Aviation assets in support of this capability.

- **Power Projection** from the sea is the essential combat element of the Maritime Strategy. This core capability is uniquely suited to the strengths of Naval Aviation. Operating from aircraft carriers, amphibious ships, or forward operating bases, Navy and Marine Corps forces develop an understanding of an adversary's capabilities, possess superior strategy, commit to disciplined training, and have technological advantages to defeat those who mean the United States and its allies harm.
- **Maritime Security** is the maintenance of security at sea and the mitigation of threats short of war. Combatting terrorism, piracy, drug trafficking, and other threats enhance global stability and protect U.S. shorelines. Naval Aviation assets cooperate with other services and agencies to keep watch, to disrupt, and, when necessary, to destroy those aggressors that seek to limit the sanctuary of the seas for others.
- **Humanitarian Assistance/Disaster Relief** is a human obligation and a foundation of the American character. The majority of the world's population lives within a few hundred miles of the ocean, meaning that access is best achieved by maritime forces. Bringing aid, offering relief and escape from disaster sites, or conducting non-combat evacuations from unsafe situations are results accomplished most effectively through the use of Naval Aviation assets.

U.S. Naval Aviation is an unrivaled maritime force. No other nation has the comparable aircraft, weapons, systems, or personnel to conduct operations as successfully using such a wide variety of capabilities. In uncertain times such as these, those capabilities are required to protect the interests of the United States at home and abroad. Naval Aviation stands ready as an integral part of U.S. seapower in the 21st century. The following section offers a snapshot of how our Marines, Sailors, and aircraft execute the strategy's core capabilities every day.



Sea Control and Maritime Security

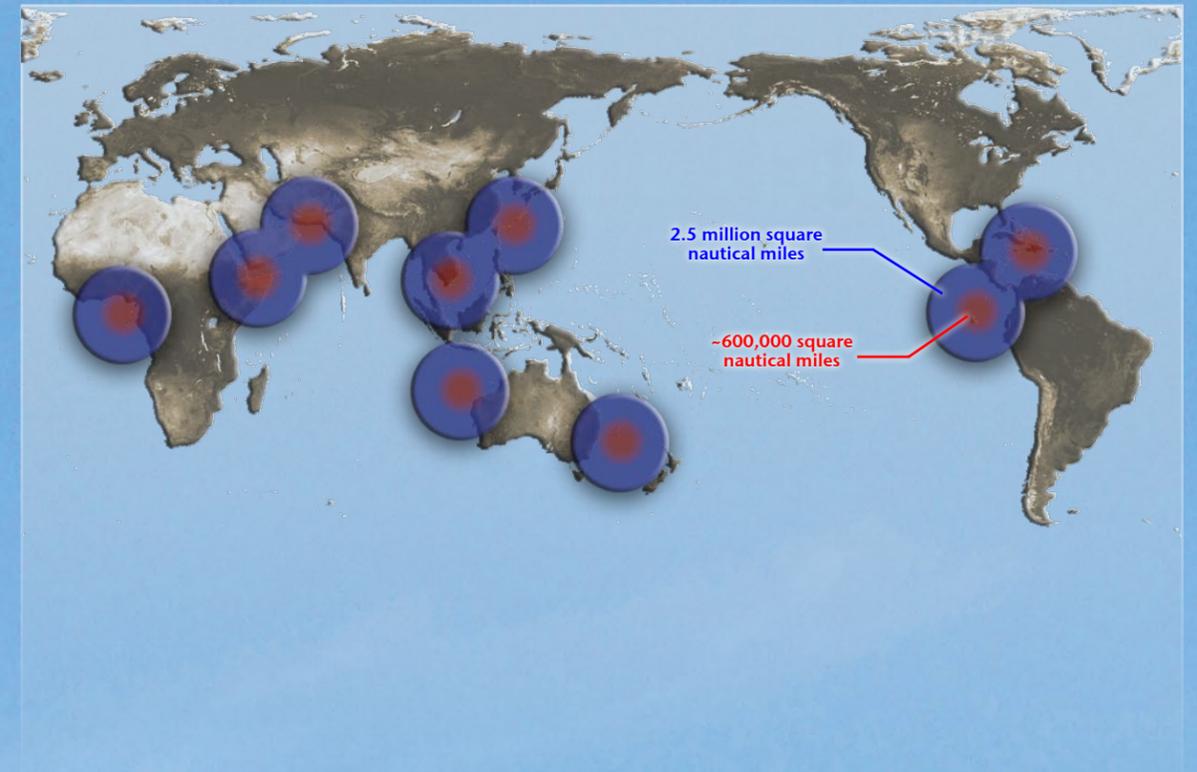
THE "LONG ARM" OF NAVAL AVIATION PROVIDES PERSISTENT PRESENCE

Seas cover more than 70% of the Earth and serve as a vital medium for global trade, energy exploration and shipment, and communication. Naval Aviation is an essential military arm that effectively maintains sea control through persistent presence and long-distance reach. Navy and Marine Corps strike aircraft are capable of sustained reach out to approximately 430 nautical miles and provide operational reach out to 900 nautical miles. This capability allows the Navy to influence an area from 600,000 to 2.5 million square nautical miles of sustained or operational presence around a carrier strike group. In addition, helicopters provide reach out to 150 nautical miles and areas of influence of more than 70,000 square nautical miles around any helicopter-capable ship.

Originally developed as an anti-submarine platform, the P-3 *Orion* continues to prove its value as the silent sentry in the world of persistent maritime security and sea control. In particular, it is a vital part of international counter-drug operations and law enforcement.

On 7 July 2009, a U.S. Navy P-3 and a British warship, HMS *Cumberland*, located, tracked, and seized approximately 10 tons of narcotics with an estimated value of \$70 million. The vessel was boarded by *Cumberland's* crew approximately 150 miles southeast of Salalah, Oman, in the Gulf of Aden. This drug seizure was the largest by coalition naval forces in 2009.

"The seizure of these drugs takes money out of the hands of those financing terrorists in the region," said Commander, Combined Maritime Forces, Vice Admiral Bill Gortney. "The smugglers need to know that coalition forces are patrolling the seas and skies above. These efforts send a message to all would-be smugglers that we are here and we won't tolerate drug trafficking in international waters."



MANNED AND UNMANNED NAVAL AVIATION ASSIST WITH MAERSK ALABAMA RESCUE

On 8 April 2009, the crew of the MV *Maersk Alabama* radioed for help after four Somali pirates using grappling hooks had boarded their vessel. The crew successfully resisted the attack but the pirates took the ship's captain, Richard Phillips, hostage aboard a lifeboat.

Patrol Squadron (VP) 8's P-3 *Orion* aircraft from bases in Qatar and Djibouti were the first Department of Defense assets to come to the aid of *Maersk Alabama* and provided round-the-clock surveillance.

On 9 April, USS *Bainbridge* (DDG 96) and USS *Halyburton* (FFG 40) reached the *Maersk Alabama* to provide aid and begin negotiations for the release of Captain Phillips. *Scan Eagle*, a 40-pound unmanned aircraft system, was launched to provide real-time, continuous surveillance of the pirates and Captain Phillips' position on the lifeboat. This small aircraft provided a significant tactical advantage to the commander on the scene with persistent surveillance of the pirates' activities.

As the pirates attempted to flee by heading for Somali territorial waters, SH-60 *Seahawks* from Helicopter Anti-Submarine Squadron Light (HSL) 46 utilized the hurricane force winds generated by their rotors to disorient and demoralize the pirates. The pirates responded with AK-47 fire to no effect. The SH-60s and surface vessels successfully kept the lifeboat, with Captain Phillips still aboard, from reaching Somali waters.

The commander on scene judged that, with an AK-47 at his back, Captain Phillips' life was in imminent danger and authorized a team of SEALs to eliminate the pirates. Captain Phillips was rescued unharmed and transferred to USS *Boxer* (LHD 4) for medical treatment and transport home.

The *Maersk Alabama* was one of about 140 ships attacked by pirates off the coast of Somalia in the first half of 2009.



A still frame from video taken by a P-3C *Orion* aircraft, 9 April 2009.



A still frame from video taken by *Scan Eagle* unmanned aerial vehicle.



U.S. AND AUSTRALIAN AVIATION COLLABORATE IN TALISMAN SABER 2009

USS *George Washington* (CVN 73) is the Navy's only permanently forward-deployed aircraft carrier. In the summer of 2009, it made its inaugural deployment from Fleet Activities Yokosuka, Japan, after relieving USS *Kitty Hawk* (CV 63). *George Washington*, in concert with the amphibious assault ship USS *Essex* (LHD 2), the 31st Marine Expeditionary Unit, and the Australian Defense Force (ADF), participated in a full-scale amphibious assault off the coast of Australia as part of exercise *Talisman Saber*. More than 20,000 U.S. and 10,000 Australian personnel participated in the exercise, which demonstrated multinational amphibious warfare capabilities and urban and rural combat operations and communications.

The exercise displayed the expeditionary unit's over-the-horizon capability by transporting hundreds of Marines to the beach by landing craft, air cushioned vehicles, and rotary-wing aircraft with the unit's aviation combat element of CH-53E *Sea Stallions*, CH-46E *Sea Knights*, and MH-60S *Seahawks* with Helicopter Sea Combat Squadrons (HSC) 21 and 25 and MH-53E *Sea Dragons* from Helicopter Mine Countermeasures Squadron (HM) 14. Command and control and close air support were provided by AH-1W *Super Cobra* and UH-1N *Huey* helicopters and AV-8B *Harrier* jet aircraft.

During the exercise, aviators from *George Washington*'s Carrier Air Wing 5 flew more than 600 sorties and delivered more than 80 tons of ordnance. Exercise scenarios included humanitarian assistance missions, noncombatant evacuation operations, and insurgent activity both at the ADF's Urban Operations Training Facility and the wooded hills of the Shoalwater Bay Training Area near Rockhampton in central Queensland.

Essex Sailors also opened the ship's flight deck to Royal Australian Army S-70A-9 *Black Hawk* helicopters for a series of deck landing qualifications, further improving the cohesion between Aussie pilots and *Essex* crew members and air traffic controllers.

"Effective cooperation and communication are critical to the success of an amphibious assault," said Captain Brent Canady, *Essex*'s commanding officer. "Today's exercise was an enormous challenge for everyone, but we hit every milestone and met that challenge together."

Forward Presence, Power Projection, and Deterrence

NAVAL AVIATION ASSISTS MARINES IN OPERATION KHANJAR

The Helmand River Valley is a vast and lawless desert along Afghanistan's border with Iran and Pakistan, ideal for opium growing and smuggling, where the Taliban and the drug barons have thrived. In 2009, a combined U.S. and Afghan mission, Operation *Khanjar*, aimed to provide security for population centers along the Helmand River Valley and connect local citizens with their legitimate government. More than 4,000 Marines launched Operation *Khanjar* for one-year deployment rotations, the largest force for such an extended duration since the 2004 battles in Fallujah, Iraq.

Super Cobras from Marine Light Attack Helicopter Squadron (HMLA) 169 and F/A-18 *Super Hornets* from USS *Ronald Reagan's* (CVN 76) Strike Fighter Squadron (VFA) 22, VFA-25, VFA-113, and VFA-115 provided close air support to the Marines on the ground.

In July 2009, F/A-18C *Hornets* and F/A-18E *Super Hornets* were in the vicinity of Now Zad and Musa Qaleh, when it was reported anti-Afghan forces were targeting coalition forces with small arms fire. "Shows of force" were requested to deter the enemy, and anti-Afghan forces were forced to retreat. This effective new method of close air support uses armed aircraft that drop ordnance sparingly and use physical presence and low-altitude flight to deter enemy forces. At Sangin and Lashkar Gah, Navy F/A-18F *Super Hornets* used similar tactics to provide cover for coalition forces taking small arms fire. And near Tarin Kowt, F/A-18C *Hornets* used shows of force during the day on anti-Afghan forces firing rockets on coalition forces. Enemy forces ceased fire after several flares were expended.

In mid-August 2009, Marines from Company E, 2nd Battalion, 8th Marine Regiment and Afghan National Army soldiers waged an intense six-hour battle with Taliban insurgents who opened fire on the patrol just after 0800. After moving only about one mile from their combat outpost, the Marines received a heavy volley of enemy gunfire from multiple directions. The Marines and Afghan National Army soldiers returned fire and called for fire support. Within minutes, an AH-1W *Super Cobra* and a UH-1N *Huey* were on station overhead to help suppress and engage enemy targets. The *Super Cobra* fired several five-inch *Zuni* rockets into one of the compounds from which the patrol was receiving sustained fire. The Marines and Afghan forces eventually maneuvered up to and cleared the insurgent positions initially used to launch the ambush.

"What makes Operation *Khanjar* different from those that have occurred before is the massive size of the force, the speed at which it will insert, and the fact that where we go we will stay, and where we stay, we will hold, build, and work toward transition of all security responsibilities to Afghan forces," said Brigadier General Larry Nicholson, commanding general of Marine Expeditionary Brigade Afghanistan.



PROJECTING POWER FROM SEVERAL ACRES OF SOVEREIGN FORWARD PRESENCE

Carrier and amphibious strike groups continue to be the tip of Naval Aviation's spear, providing constant forward presence around the world and credible power projection to ongoing operations in southwest Asia and other regions of the world. From January 2008 to December 2009, eight carrier strike groups deployed or returned from deployment 12 times, and seven amphibious strike groups deployed overseas (in addition, one Marine expeditionary group deployed directly to Afghanistan). Their presence in any theater brings with it the sovereign territory and will of the United States.

For more than 210 days beginning in March 2008, the 24th Marine Expeditionary Unit's aviation combat element, Marine Medium Helicopter Squadron (HMM) 365, supported Marine and NATO forces on the ground conducting operations across Afghanistan—their focal point being the Garmsir District of Helmand Province. With more than 3,000 combat sorties, HMM-365 performed a multitude of tasks, including battlefield illumination, re-supply, insertion, extraction, casualty evacuation, close air support, and intelligence, surveillance, and reconnaissance. During its deployment, HMM-365 supported Operation *Azada Wosa*, conducting a battalion insertion during low-light level conditions into Garmsir District. This was the first night insert of this magnitude by the Marine Corps since Vietnam. Waves of Marines required insertion into predetermined landing zones by assault helicopters. C-130s provided aerial refueling and battlefield illumination for the Marines on the ground while AV-8 *Harriers* and attack helicopters provided close air support. At one point during the night at least one of every type of airframe in the squadron flew in support of the battalion insertion.

During its September 2008 to April 2009 deployment, crews aboard USS *Theodore Roosevelt* (CVN 71) flew 3,105 sorties in support of Operation *Enduring Freedom*, dropping more than 61,000 pounds of ordnance in support of coalition forces. Electronic Attack Squadron (VAQ) 141 executed 550

sorties, of which 220 (totaling 1,300 flight hours) were combat sorties in support of ground forces in Afghanistan. The squadron's four EA-6B *Prowler* aircraft and flight crews maintained a mission accomplishment rate of approximately 97 percent, and received the Admiral Arthur W. Radford Award for excellence in Naval Aviation and the Naval Air Forces Atlantic Battle "E" for 2008. This is particularly noteworthy since the *Prowler*, now in its fourth decade of service, is the sole U.S. aerial electronic warfare platform available until the EA-18 *Growler* comes on line.

Aboard USS *John C. Stennis* (CVN 74) crews flew more than 7,250 sorties, consisting of approximately 12,747 flight hours with a sortie completion rate of 97 percent, in support of a deployment to the Western Pacific region, which included an undersea warfare exercise with the Japan Maritime Self-Defense Force, exercise *Foal Eagle* with the Republic of Korea, and joint exercise *Northern Edge* 2009.

Aboard USS *Boxer* (LHD 4), the 13th Marine Expeditionary Unit's aviation combat element, HMM-163, flew more than 2,068 sorties during its seven-month deployment beginning January 2009. With them the UH-1Y *Venom* made its inaugural deployment. As U.S. Central Command's floating reserve, the squadron provided a detachment of CH-53E *Super Stallions* to Al Asad, Iraq, to support Operation *Iraqi Freedom*, and also conducted multinational training exercises in the Middle East and the Horn of Africa. The expeditionary unit also provided medical and dental outreach and executed a medical evacuation while in the Maldives. When *Boxer* became the flagship for Combined Task Force 151, they conducted counter-piracy operations in the Gulf of Aden and Indian Ocean, playing a supporting role in the rescue of the crew of the *Maersk Alabama* and rushed to the aid of the German Navy tanker *Spessart*.



MV-22 MAKES FIRST DEPLOYMENT TO IRAQ

In April 2009, the MV-22 *Osprey*—the newest assault support transport aircraft in the Marine Corps inventory—completed an 18-month tour of duty at Al Asad Airbase, Iraq, in support of Operation *Iraqi Freedom*. During its continuous operation in theater, under three different units—Marine Medium Tilt-rotor Squadron (VMM) 263, VMM-162, and VMM-266—the *Osprey* contributed to a dramatic reduction in exposure of coalition forces to small-arms fire and road-side bombs. With its unique combination of rotary- and fixed-wing aircraft characteristics, the *Osprey* provided unprecedented operational flexibility to warfighters by transporting 45,000 passengers and more than 2.2 million pounds of cargo twice as fast and three times as far as the legacy assault support platforms it had replaced.

“The area of operations has, in a number of ways, highlighted the performance of the aircraft,” said Lieutenant Colonel Paul Rock, commanding officer of VMM-263. “Our area of operations is large and the aircraft’s speed and range has been much appreciated.”

VMM-263 marked another milestone in *Osprey* history when, in spring 2008, the squadron embarked aboard USS *Bataan* (LHD 5) with the 22nd Marine Expeditionary Unit for the MV-22’s first amphibious deployment. During the deployment, the *Osprey* had the opportunity to demonstrate its impact on the future of amphibious assault support by conducting its first ship-to-shore emergency medical

evacuation. Transporting a critically injured Sailor from *Bataan*, the aircraft traveled 147 nautical miles in 37 minutes, well within the “golden hour” of recovery, to a regional airport where an ambulance was used to transfer the Sailor to a hospital for further treatment—a feat that could not be replicated by a conventional helicopter.

With major combat operations shifting from Operation *Iraqi Freedom* to Operation *Enduring Freedom*, the MV-22s next milestone was to support ground forces in Afghanistan. MV-22s commenced combat operations in support of the Marine air-ground task force (MAGTF) in Operation *Enduring Freedom* in November 2009.



Humanitarian Assistance/Disaster Relief

LENDING A HELPING HAND BEFORE DEPLOYMENT

In June 2008, while conducting pre-deployment training in Indiana, the 26th Marine Expeditionary Unit's HMM-264 was called to action when a series of storms dumped more than 10 inches of rain on south-central Indiana in less than 24 hours, causing flooding. After receiving the word to mobilize, the Marines rushed to Elnora, Indiana, by way of CH-53E *Super Stallion* and CH-46E *Sea Knight* helicopters. Marines filled sandbags and worked to build and to reinforce levees for almost 14 hours until the effort was halted by approaching thunderstorms. The flood waters eventually reached 29.9 feet — the highest in that part of Indiana since 1913 — but the levees held, protecting the homes of the 736 residents of Elnora. During the unit's subsequent August 2008 deployment aboard USS *Iwo Jima* (LHD 7), HMM-264 supported operations in Iraq and off the Horn of Africa and conducted numerous theater security cooperation exercises designed to bolster international relations and improve the military efficiency of regional allies.

TYPHOON MORAKOT

Two Marine Corps C-130 *Hercules* cargo aircraft landed in Taiwan on 9 August 2009, and dropped off several pallets of supplies to help remote towns cut off by Typhoon Morakot. Two MH-53 *Sea Dragon* helicopters from HM-14, based at Pohang, South Korea, arrived early on 10 August aboard USS *Denver* (LPD 9). The *Sea Dragons* ferried relief supplies and brought heavy earth moving equipment to isolated mountainous areas cut off by mudslides. *Denver* also carried two SH-60 *Seahawk* helicopters from Helicopter Sea Combat HSC-25, based at Guam. Typhoon Morakot, which claimed hundreds of lives and was the worst typhoon to hit Taiwan in 50 years, dropped more than 100 inches of rain on the country, created massive landslides, and forced tens of thousands of people to evacuate their homes.

