

Emergency and Contingency Operations

he Corps' emergency response program falls under the authority of Public Law 84-99, a 1955 amendment to the Flood Control Act of 1941. This law directed the Corps to conduct emergency response activities and provided funding for such operations. As explained in the Philadelphia District's Disaster Response Primer, PL 84-99 "authorizes the Chief of Engineers to provide disaster preparedness, emergency operations, advance measures, rehabilitation of flood control works threatened or destroyed by flood, protection or repair of Federally authorized shore protection works threatened or destroyed by coastal storms, and provisions of emergency water due to drought or contaminated

source." In effect, this is the authority under which the district's Emergency Management Office (EMO) operates in its response to all emergencies within the district's footprint. Public Law 84-99 was later amended under Section 917 of the Water Resources Development Act of 1986, which authorized the Corps, at the request of governors, to respond to state emergencies for ten days without any further disaster declaration.² The district provides a wide array of support under PL 84-99 to state and local governments, supplying services before, during, and after emergency events. At all times, however, the support provided by the Corps of Engineers is supplemental to local efforts.3

Facing page: Conducting damage assessments in New Hope, Pa. in June 2006, after the third major flood event along the Delaware in as many years

Background

At the Philadelphia District, the EMO maintains team preparedness to respond to emergencies and staffs the district's **Emergency Operations Center** when it is activated. It coordinates with local sponsors for inspections of flood works, both federal and nonfederal, and maintains lines of communication for prompt response when needed. When storms strike, the district provides sandbags and innovative flood-fight products to help stem the tide. In the wake of disaster, district personnel provide technical assistance, including structural assessments of buildings before emergency teams conduct search and rescue, and the application of Corps expertise in inspecting flood control structures after a storm has passed. Finally, the EMO assists with executing contracts for rehabilitation, and the Corps provides needed repairs to damaged federal flood-protection works. In situations involving contaminated water or drought, the district provides water for human consumption.4

The Corps of Engineers responds not just locally but nationally and, in some instances, internationally. Under Public Law 93-288, passed in 1974, the federal government can "direct the Corps to utilize its available personnel, supplies, facilities, and other resources to provide assistance" following a presidential disaster or emergency declaration.⁵ In the early 1990s, a federal response plan was created for the use of federal agencies under the Federal Emergency Management Agency (FEMA).⁶ The Corps of Engineers became the "primary agency overseeing Public Works and Engineering," falling under Emergency Support Function #3 of the national framework.⁷

Changes in the Corps' emergency response organization occurred throughout the nation as part of the Corps' Readiness 2000 (R2K) restructuring to address the national need for Army Corps resources. Under R2K, the Corps sought to manage resources "through a national strategy, aligning the readiness community into a corporate Corps team that

shares planning responsibilities and response capabilities."8 An important aspect of this alignment was the creation of planning and response teams (PRTs). Districts around the country staffed teams dedicated to specific response and recovery missions, including debris removal and temporary roofing and housing. The PRT structure enabled the Corps to implement start-to-finish emergency response operations for teams of expertise. This was especially beneficial for sequential storms—instead of redeploying a group from one disaster to another, the Corps could deploy a different crew for each event.9

The Philadelphia District became one of seven to host an emergency power PRT, responsible for prepositioning power resources, assessing critical facilities (with the 249th Engineer Battalion Prime Power) and, through contracting, managing the hauling and installation of generators. Other district personnel serve on national functional PRTs such as Global Information System, Urban Search and Rescue, External Affairs, and Leadership. FEMA regions follow



Emergency equipment on loan from the Philadelphia District pumps down flood waters in Sussex County, Del.

state borders rather than the Corps' watershed structure, so state capitals within a Corps district boundary are the principal responsibility of that district for first response. Thus, the Philadelphia District's primary FEMA response area is in Delaware and New Jersey—FEMA Regions 2 and 3, respectively. 10

The Philadelphia District's EMO is exceptional. It is one of four in the United States that stockpiles innovative flood-fight materials for loan to local governments. 11 The EMO is responsible for storing and maintaining products



designed and developed under

The Philadelphia District is the sole supplier of red and white "visibility items" worn to readily identify Corps personnel during emergency operations, to include (from left) caps, safety vests, polo shirts, sweatshirts and windbreakers

the Corps' Engineer Research and Development Center, headquartered in Vicksburg, Miss. The district EMO delivers those products to emergency response locations and inspects them after deployment for future use. The flood-fight products are designed to offer transportable protection "to critical infrastructure and key facilities," providing an effective temporary barrier against floods. The district maintains responsibility for deployment of these supplies along the entire east coast. 12 The Philadelphia District is the only district that stores Corps visibility items for emergency events, such as emergency operations shirts, hats, safety vests, and rain gear. 13

The district's EMO evolved as the Corps' emergency response duties increased. Although the district provided personnel in support of emergency operations in the period leading up to the 1980s, there was no established office for emergency management. During the 1970s, the district's initial emergency response activities included sending two- and three-person teams into the field in the wake of natural disasters—usually floods or coastal storms—to assess damage and provide situation reports. In 1980 (a year after the creation of FEMA and with Corps officials becoming increasingly aware of the need for a dedicated emergency response staff to answer to national authority when required), the district established the Readiness Branch, whose sole purpose was to keep district personnel trained and equipped for emergency response. Initially reporting to the Operations Division, this small office would see its role and responsibilities

grow in the coming decades.

Yet, as of 2008, the EMO had had only three chiefs, providing stability and continuity to the district's response efforts. 14

The Readiness Branch functioned as a part of the Operations Division for nearly twenty years before a significant reorganization in 1999. Effective 14 June 1999, the Readiness Branch was renamed the Emergency Management Office. With the change in name came a change in organizational affiliation. The EMO now reported directly to the deputy district commander. The change was "consistent with similar reorganizations that have taken place at Corps and division levels." 15 It also paralleled changes taking place at the state and local levels for dealing with disasters, leading to a formalized EMO network and improved disaster response coordination. EMO personnel maintained connections with people on the ground where events occurred; instant situation reports enabled the office to direct its response to the greatest needs in the hardest hit areas.¹⁶

Responses to Natural Disasters

Although not yet operating under a formal emergency office in the 1970s, the district provided personnel in response to disasters that occurred during that decade. The most significant event happened in June 1972, when a hurricane-turned-tropical storm stalled over the central part of Pennsylvania for nearly twenty-four hours. Hurricane Agnes dropped a minimum of five—in some areas as much as eighteen—inches of rain on the state, inundating streams, rivers, and towns.¹⁷ On the evening of 23 June 1972, Agnes moved north

Tropical Storm Agnes left much of downtown Reading, Pa. under water









Flooding due to Tropical Storm Agnes brought much of the Schuylkill Valley to a virtual standstill

across western New York and into Canada, dissipating along the way. In its wake, the storm left "a persistent drizzle and one of the most devastating natural disasters in the history of the United States." ¹⁸

Federal flood control structures constructed by the Philadelphia District successfully accomplished their intended purpose during the storm. Elsewhere, however, floodwaters topped nonfederal flood works and inundated towns, leading the Philadelphia District to mobilize in response. Commencing "around the clock, on 21 June," the district activated personnel before the arrival of Agnes for field monitoring, "maintaining a watch on storm advance, river stages, readiness of reservoirs to store flood waters, and availability of sandbags." On 23 June, as the storm hovered over Pennsylvania, district officials directed that the **Emergency Operations Center** be activated. Shortly thereafter, district personnel posted to Francis E. Walter Reservoir deployed to Wilkes-Barre to help with sandbagging, although their efforts were halted when floodwaters

overflowed dikes and deluged the town. In other areas closer to Philadelphia, the district assisted with the removal of debris from the Schuylkill and Delaware rivers.¹⁹

The district's role ramped up considerably in the aftermath of the storm with the establishment of emergency field offices in Pottstown and Reading. District personnel conducted initial damage assessments, identified and prioritized critical needs, and coordinated and oversaw the deployment of Army Reserve and National Guard units as first responders. The district provided contracted support on a timeand-materials basis, along with onsite inspection and monitoring of that support. In some instances, letter contracts were scoped, estimated, and awarded within five days. With health and safety taking top priority, the district's missions included providing temporary drinking water, repairing water and wastewater treatment plants, restoring electrical power, inspecting and repairing bridges upon request, demolishing structures that had been assessed as

dangerous, removing massive amounts of debris, restoring damaged stream channels, and repairing nonfederal flood control structures under existing authorities. Within a week, the district personnel staffing those two emergency offices were supplemented,

Helping restore electrical power was one of the first orders of business for the Corps in its post-Agnes response



and in some cases replaced, by counterparts from other Corps districts in the North Atlantic Division and elsewhere.²⁰

In addition to these duties, the district assisted with "extraordinary functions." The flooding from Agnes affected an estimated 7,300 homes in the Schuylkill River Valley. Recognizing the need for emergency shelter for those displaced by the storm, North Atlantic Division Engineer Maj. Gen. Richard H. Groves arranged with the state for the preparation of two temporary mobile home sites, which the district contracted under competitive bid, successfully prepping sites for 58 trailers. The

flooding also displaced "a large quantity of sludge remaining from oil-reprocessing operations and stored in open lagoons," sending it into the Schuylkill River. In an effort to mitigate this disaster, the district removed approximately 2,500 tons of "oil-sludge-coated vegetation and debris."21 The district also helped the U.S. Postal Service survey damage to all post office facilities in eastern Pennsylvania, identifying an estimated \$3.6 to \$4 million in damage. As the storm waters receded and the commonwealth of Pennsylvania recovered, the district removed an estimated two hundred thousand cubic yards of debris.²¹ Agnes was one of the worst natural disasters to strike in the district's history.

Although the district's activities in national natural disasters were dramatic, emergency operations were more often undertaken in response to events within the district's boundaries, under the Corps' PL 84-99 authority. For example, in 1979, Acting District Engineer Joel T. Callahan exercised this authority to assist

The aftermath of "Awful Agnes"



Burlington County, N.J., following emergency operations conducted by the district in February. The county's emergency services agency requested assistance from the Corps to deal with "heavy rains, snow melt and high tides." Callahan deployed district personnel to conduct rehabilitation investigations "to ascertain storm related damages" to a local dam and submit a formal situation report. The district was also asked to investigate the county's flood management policies and assess the Corps' "capability to provide technical assistance in the development of a flood preparedness plan for Burlington County."22 Such an emergency response on the part of the district was standard procedure for extraordinary situations.

In January 1996, the district suffered the worst natural disaster within its boundaries since Agnes in 1972. A winter storm affected the entire commonwealth of Pennsylvania, with a wintry mix of snow, rain, and sleet triggering floods throughout the state. Although every county in Pennsylvania was declared a



Filling sandbags for flood-fighting

federal disaster area, district personnel maintained their capability to respond within their home territory. The EMO activated its **Emergency Operations Center on** 19 January 1996 and remained open twenty-four hours a day through 2 February 1996, "fielding requests for assistance from states, counties and municipalities in New York, Pennsylvania, New Jersey and Delaware."23 As with Agnes twenty-seven years earlier, the district's federally constructed flood works performed as planned, despite massive influxes of water from the storm. The reservoir at F. E. Walter Dam surged 100 feet



Flooding in Bucks County, Pa., January 1996

in its water level, yet maintained minimum water release in its floodgates. Flood storage at Blue Marsh Lake kept the Schuylkill River at an estimated two to three feet below its projected flooding level.²⁴ While flooding was not entirely averted, the district's flood control measures prevented extensive damage, and the district made itself available to assist state and local entities throughout the disaster.

Also in response to the 1996 floods, the district repaired

damaged local flood control structures in Allentown and Stroudsburg, Pennsylvania. The work was covered by the PL 84-99 Rehabilitation and Inspection Program, under which non-Corps flood control structures that have been operated and maintained according to certain engineering criteria are eligible for restoration to pre-flood conditions at 75 percent federal funding. The district made similar repairs at Stroudsburg, as well as in East Stroudsburg and Weissport, Pa.,

following high water events in 2004, 2005, and 2006.²⁵

In addition to its postdisaster responsibilities, the district's emergency management role included efforts to reduce the risk of damages from future events. Emergency stream-bank erosion studies were a part of this mission. In cooperation with local sponsors, the district conducted studies to determine best practices and effective measures for the repair—and, in some instances, replacement of eroded stream embankments. Such mitigating construction measures may include placement of supplemental rip-rap, gabions for support of embankments, and backfill. These preventive actions help protect public works, such as roads that follow the course of streams and rivers, from being undermined in significant storm events. In the 1980s, the district completed such projects along Perkiomen Creek and Darby Creek in Pennsylvania, and the Manasquan River in New Jersey.²⁶

While the Corps takes proactive measures to prevent flooding, communities are at the mercy of



Overseeing logistical support following Hurricane Ike, 2005

nature when it unleashes its fury.

Coastal storms striking Delaware
and New Jersey have caused significant damage, requiring a response
by the district. For example,
in March 1984, New Jersey's
governor declared a limited state of

Repairs to a storm-damaged levee at Stroudsburg, Pa., under the Public Law 84-99 Rehabilitation & Inspection Program





Philadelphia District personnel conducting flood damage surveys in Bucks County, Pa.

emergency after a nor'easter struck the shore. The district was involved in surveying damage all along the New Jersey coast, noting beach erosion and damage to streets and structures, and providing estimates of material lost from beaches and debris that collected in the wake of the storm.²⁷

In December 1992, the New Jersey and Delaware coasts were again battered by a storm that caused flooding throughout the mid-Atlantic region. Along the coast, "waves swept over roads, destroying seawalls and battering houses, boats and businesses." The district was involved in reconnaissance surveys to assess damages immediately after the storm.²⁸

Once the surveys were complete, FEMA asked the Corps to compile preliminary damage estimates. Using survey results and other data, President George Bush determined that the destruction inflicted by the storm warranted a federal disaster declaration. The district subsequently went to work for FEMA, developing detailed damage survey reports throughout Delaware and New Jersey. The Corps completed "1,100 of the more than 3,100 damage survey reports for FEMA," identifying \$9 million of an estimated \$35 million worth of damage from the storm in New Jersey alone. 29

The district worked with FEMA after other natural disasters as well. For example, the devastating storm that caused severe damage to Pennsylvania in 1996 was also followed by a presidential disaster declaration. After its initial efforts to staff the Emergency Operations Center and respond to communities within its boundaries, the district assisted FEMA with damage survey reports in the wake of the disaster. District personnel worked with local authorities to

review damage assistance applications and document the extent of destruction. FEMA used the surveys to determine compensation for the state.³⁰

District work in support of FEMA has not been limited to emergency assistance. The district's Flood Plain Management Services Branch has provided Geographic Information System (GIS) services to the federal agency that have been applied to "emergency preparedness, community planning and water resources management." Although not formally part of the district's International and Interagency Services Program (see Chapter Nine), as of 1997 these reimbursable services for FEMA accounted "for close to 60 percent of the branch workload," including the branch's development of an innovative "all-hazards" map covering the entire state of Delaware. The map, "the first such GIS product in the country," provided critical

Surveying damages from a 1992 Nor'easter in Rehoboth Beach, Del.



location information based on the potential for emergency response necessitated by floods, hurricanes, earthquakes, and even nuclear disasters.³¹

On numerous occasions, the Philadelphia District has supported FEMA outside the district's boundaries. In September 2003, the district deployed personnel to support FEMA's response operations in the wake of Hurricane Isabel along the east coast. On 16 September, the district's Emergency Operations Center was activated, and the next day the district's emergency power crew, under the national PRT framework, headed to Virginia. Other district personnel, along with extra supplies of sandbags, were sent to assist with emergency response efforts in Delaware and New Jersey. As the storm subsided and the extent of damage was revealed, the district deployed additional staff to Washington, D.C., to assist FEMA with procuring and distributing ice.³² Hurricane Isabel caused power outages, floods, and debris accumulation along the entire east coast, and the district did its part

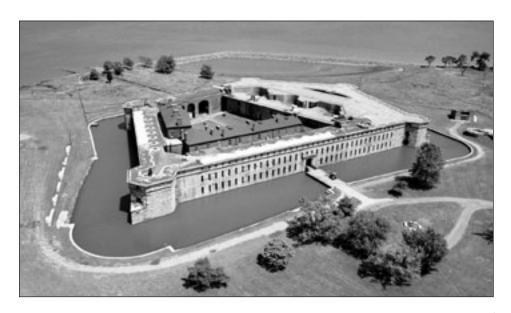
to assist with federal emergency response efforts throughout the affected area.

District deployments in response to hurricanes have extended beyond the borders of the continental United States, including twice to the Caribbean. In 1995, after Hurricane Marilyn, a small district team deployed to the U.S. Virgin Islands and Puerto Rico to help with building rehabilitation and debris removal, and to provide technical inspection services for contract operations.³³ Three years later, another team was in Puerto Rico providing disaster relief in the wake of Hurricane Georges. Fifteen district employees, including the first emergency power team to arrive in Puerto Rico following the storm, worked to mitigate damages. The teams assisted with debris removal, roofing, and onsite logistics. Back in Philadelphia, other district personnel were supporting the response by handling contracting services, running the Emergency Operations Center, and distributing essential Corps visibility items to persons on the ground.34

Other Emergency Responses

In addition to responding to natural disasters, the Philadelphia District has been involved in a number of unique activities related to its emergency response mission. In November 1990, the district's EMO participated in the recovery and extraction of American Civil War era artifacts from Fort Delaware on Pea Patch Island. Del. The fort was built in the early 1800s as part of America's coastal defense system and retained that purpose through the Civil War. However, as the war escalated, the fort functioned less as a defense against seaborne attack and more as a penitentiary for Confederate prisoners of war.³⁵

More than 125 years later, the district received the mission of "coordinating the lifting and transporting of the Fort Delaware artifacts" from the island, which is accessible only by boat. Further complicating matters, historic gun carriages were buried in sand and exposed only at low tide, which restricted the project schedule to six days every two weeks for



In the early 90s, the District worked with the State of Delaware to retrieve and restore a number of Civil War-era gun carriages from Fort Delaware that had been exposed by erosion on the eastern shore of Pea Patch Island

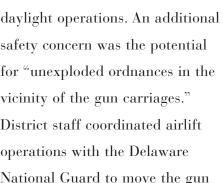


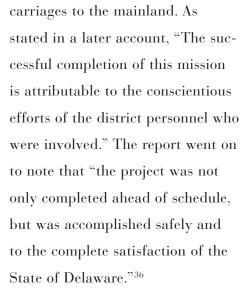


The McFarland on an emergency dredging mission in 1996 to clear North Carolina's Cape Fear River after Hurricane Fran—one of many such missions along the Atlantic and Gulf Coasts

A crane from the Philadelphia District's labor and equipment force removes debris from the Pier 34 site

safety concern was the potential for "unexploded ordnances in the vicinity of the gun carriages." District staff coordinated airlift operations with the Delaware National Guard to move the gun





The district also has responded to emergencies that have involved loss of life. On the night of 18 May 2000, patrons of a Philadelphia nightclub located on Pier 34 along the Delaware River were suddenly plunged into sixty-degree water "amid tons of debris" as a portion of the pier collapsed. The Coast Guard contacted the district for help in debris removal, "both to free up the shipping channel and to facilitate divers' search for bodies."37 The collapse resulted in three deaths and forty-three injuries.³⁸ The district provided the Crane Barge Titan to assist with the removal of debris, the Survey Boat Shuman to inspect the vicinity for "obstructions to navigation," photographic



and videographic support, and technical staff to provide forensic engineering assistance to Philadelphia investigators.³⁹

The district also took part in emergency operations in New York City on 11 September 2001, after terrorists flew airplanes into the World Trade Center towers. Starting "within hours of the terrorist attacks on September 11, when five of the McFarland's crew helped transport thousands to safety across the Hudson River," the district was involved in aiding rescue and recovery efforts over the course of the ensuing weeks. District volunteers helped with "tasks from water transportation and power restoration to structural surveys and administrative and logistical services."40 In Philadelphia, the EMO activated its Emergency Operations Center to assist with relief coordination; the center was staffed continuously for ten days following the attacks. Onsite, the district was tasked with the mission of receiving, staging, onward movement, and integration (RSOI)—processing all Corps personnel deployed to New York to

ensure that everyone was properly credentialed and had personal protective equipment before they engaged in operations.⁴¹

Shortly after the 9/11 attacks and the subsequent heightened scrutiny of homeland defenses, district staff engaged in risk assessment surveys to help the federal government determine the threat to the district's dam infrastructure. The mission was to "improve protection, lower risk and be cost effective" by assessing potential damage and developing "techniques and procedures to mitigate such damage." Following Corps-directed training

Philadelphia District personnel assisted in the initial federal response at "Ground Zero" in downtown Manhattan following the attacks of September 11, 2001





Among those from the Philadelphia District who helped out after 9/11 were five McFarland crew members, in New York City for training, who immediately shifted to ferrying evacuees across the Hudson

in Risk Assessment Methodology for Dams (RAM-D), district teams were sent to conduct the surveys, compile information, and quantify recommendations for Corps Headquarters. As Barry Leatherman, the district's team leader, reported after the operation, "The Team's thorough research and recommendations resulted in final products that were 200 to 500-hundred-page [sic] documents for each site assessed." ²⁴³

The Corps also responded to disasters that were manmade or attributable to human error. The Philadelphia District's footprint covered waterways on which vessels transported petroleum products, inherently running the risk of oil spills. Although the U.S. Coast Guard was the first federal responder for such disasters, the Corps often worked with the Coast Guard to provide expert assistance. For example, on Friday, 26 November 2004, the day after Thanksgiving, the Tanker Athos I spilled approximately "265,000 gallons of crude oil into the Delaware River while en route to its destination." The Coast Guard

called on the Philadelphia District to conduct surveys of the channel in search of obstructions that might have caused the spill. The district performed survey operations over the course of two weeks following the incident and found no objects impeding channel transport. He Ultimately, investigations concluded that nothing in the channel had caused the spill, placing responsibility for the resultant damages on the owner of the craft. He

Support for Military Contingency Operations

The district, like the rest of the Corps, has provided staff in support of the Global War on Terror, the military operations policy promulgated by the Bush administration in response to the 9/11 attacks. The district's EMO was responsible for administering the initial deployment of district personnel in support of this mission, soliciting volunteers, preparing them for deployment, and supporting overseas staff with administrative matters at home.

The district's first task in preparing

volunteers for overseas service involved helping them assemble what EMO Chief Micky Mulvenna referred to as "the Fours": security clearance, an up-to-date passport, a signed volunteer statement, and a preliminary medical statement certifying their capacity to perform their potential jobs. Once volunteers had their papers in order, the EMO put them in contact with the Corps' Deployment Center for assignment overseas.⁴⁶

The first decade of the 2000s closed with the United States embroiled in conflict abroad—the EMO supported 48 district volunteers who took their expertise to the front lines. Many served multiple tours in Iraq or Afghanistan. On the home front, the EMO provided the critical function of maintaining personal connections with the deployed staff's family at home.⁴⁷

Beyond the collective contributions of the Philadelphia District's deployed civilian volunteers, its Contracting Division became a key component of the Corps' support for contingency operations. For example, in 1995



Philadelphia District hydrographic survey crews helped clear the Delaware River for reopening after the December 2004 Athos I oil spill

and 1996, the district's Civil Works Contract Administration Branch handled an estimated \$30 million worth of contracts under its Work for Others Team. The contracts were to help U.S. peacekeeping forces upgrade medical facilities in Croatia and Bosnia. The work involved the installation of local and wide-area computer networks and videoteleconferencing, facilitating communications between overseas field hospitals and their support bases, and "improving the effectiveness of medical care for U.S. troops," an integral component of all military operations.⁴⁸

The district's own contracting specialists also played a vital role



Civilian volunteers from the Philadelphia District have assisted with a wide variety of construction and repair projects in Iraq and Afghanistan since 2002

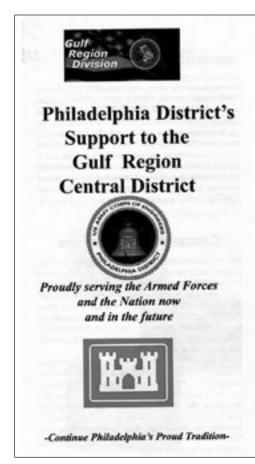


in the Global War on Terror (later redesignated Overseas Contingency Operations) in the 2000s, handling Corps contracts for power missions in support of both civil and military construction. As the district took on the challenge of restoring facilities and infrastructure in Iraq, one of the most urgent tasks was restoring and stabilizing that nation's electrical grid. The Philadelphia District's Contracting Division was selected as the Corps' single procurer of electrical power contracts to backfill the first response efforts of the 249th Engineer Battalion (Prime Power) in Iraq and Afghanistan. Multimillion dollar agreements were managed from the Philadelphia District office to install and operate power plants, construct transmission and distribution lines, and connect installations with electricity in ongoing missions overseas.49

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The district's emergency and contingency operations have varied greatly in its history, but it has retained its fundamental mission of providing assistance to local and state governments and

to other federal entities in time of need. District personnel have served as emergency responders within the district, around the nation, and throughout the world, and have successfully enabled communities to recover and rehabilitate in the wake of natural and manmade disasters. In each instance, the district has answered the call quickly and fully, with numerous volunteers ready and willing to serve. This willingness is part of the very fabric of the Philadelphia District and its people, who prove themselves responsive and reliable when those qualities matter most.



Supporting Gulf Region Central District

In response to the strategically important and growing USACE mission in Iraq, USACE has directed the divisions to directly support a specific Gulf Region District. North Atlantic Division and South Affantic Division are teaming up to provide a surge and the enduring base manning requirement for Gulf Region Central District. Philadelphia District is embracing the sister district's concept and is actively recruiting employees with interest. Deployments are six months in duration with the possibility of volunteer extension, and are expected to begin as early as December 2008 and continue quarterly for the duration of our mission.

Commander's Intent and Vision

Intent: Through a deliberate communication and recruiting program, we're identifying Philadelphia District employees with key skill sets needed now and in the future. There is a high demand for experienced, USACE trained employees. The critical skill sets are project managers, area office engineers, project engineers, construction representatives, resident engineers, and contract specialists. There are many opportunities for employees with this type of experience and those willing to learn these skells.

Vision: My goal is to develop a working slate that projects volunteers for deployments 6, 12 and 18 months from the current date. Philadelphia District has an impressive history of supporting contingency missions like this throughout the world to include Iraq. Afghanistan, and Kosovo as well as responses to natural disasters in the United States. I am confident our Team will continue to demonstrate an expeditionary mindset and the Acmy Values.

A brochure explaining how the Philadelphia District supports the Gulf Region District of the Corps in Iraq, Afghanistan, and Kosovo

The power plant and distribution grid for Bagram Air Field, Afghanistan, contracted by the Philadelphia District and constructed by the 249th Engineer Battalion (Prime Power) and the Corps' Afghanistan Engineer District-North



- ¹ U.S. Army Corps of Engineers, Philadelphia District, "Disaster Response Primer," n.d., 3, Emergency Management Office Storage, Emergency Management Office, U.S. Army Corps of Engineers, Philadelphia District, Philadelphia, Pennsylvania (hereafter referred to as NAP-EMO).
 - ² Act of 17 November 1986 (100 Stat. 4082).
 - ³ Kathleen "Micky" Mulvenna, conversation with Joshua Pollarine, 22 October 2009.
- ⁴ U.S. Army Corps of Engineers, Philadelphia District, "Support to State & Local Governments (Emergency Authorities under Public Law 84-99)" http://www.nap.usace.army.mil/emo/PL8499.htm (21 May 2010).
 - ⁵ "Disaster Response Primer," 2-3.
- ⁶ The Federal Response Plan was renamed the National Response Plan in 2004, and in 2008 became the National Response Framework. Mulvenna conversation, 22 October 2009.
 - ⁷ "Disaster Response Primer," 3.
- ⁸ U.S. Army Corps of Engineers, San Francisco District, "Responding to Emergencies: The Role of the U.S. Army Corps of Engineers in Support of the Nation" http://www.spn.usace.army.mil/infopaper.pdf (21 May 2010) [emphasis in original].
 - 9 Mulvenna conversation, 22 October 2009.
- ¹⁰ U.S. Army Corps of Engineers, Philadelphia District, "The Corps and the Federal Response Plan" http://www.nap.usace.army.mil/emo/nrp.html (21 May 2010); Mulvenna conversation, 22 October 2009; Edward Voigt, Chief, Public & Legislative Affairs, NAP, personal communication with Joshua Pollarine, 8 April 2011.
- ¹¹ U.S. Army Corps of Engineers, Philadelphia District, "Innovative Flood Fight Products Distribution Process" http://www.nap.usace.army.mil/emo/NAP%20Flood-Fighting%20Products.pdf (21 May 2010).
- ¹² Mulvenna conversation, 22 October 2009; U.S. Army Corps of Engineers, Philadelphia District, "Innovative Flood Fight Products Distribution Process" http://www.nap.usace.army.mil/emo/NAP%20Flood-Fighting%20Products.pdf (21 May 2010); U.S. Army Corps of Engineers, Philadelphia District, "Innovative Flood Fight Products" http://www.nap.usace.army.mil/emo/NAP%20Innovative%20Flood%20Fight%20Fact%20Sheet%202007.pdf (21 May 2010).
- ¹³ U.S. Army Corps of Engineers, Philadelphia District, "Corps Visibility Items" http://www.nap.usace.army.mil/emo/shirts.htm (21 May 2010).
- ¹⁴ The three regular EMO chiefs were Richard Nocella, Brian Mulvenna, and Kathleen "Micky" Mulvenna; however, acting chiefs were employed between tenures. Mulvenna conversation, 22 October 2009.
- ¹⁵ "Organizational Update...Readiness Branch Renamed, Reports Directly to Front Office," *The Observer* (May/June 1999): 5.
 - ¹⁶ Mulvenna conversation, 22 October 2009.
 - ¹⁷ Patricia Barnes-Svarney, "Awful Agnes," Weatherwise (May/June 2002): 40.
- ¹⁸ Philadelphia District, "Post-Flood Report, Hurricane Agnes, June 22, 23 1972," n.d., 1, Loose Papers, Box 7, Accession 77-97-0001, RG 77, FRC.
- $^{\rm 19}$ "Post-Flood Report, Hurricane Agnes, June 22, 23 1972," n.d., 92, Loose Papers, Box 7, Accession 77-97-0001, RG 77, FRC.
 - ²⁰ Voigt personal communication.
- ²¹ "Post-Flood Report, Hurricane Agnes, June 22, 23 1972," n.d., 93-94, 96-100, Loose Papers, Box 7, Accession 77-97-0001, RG 77, FRC.
- ²² Joel T. Callahan, Lieutenant Colonel, Corps of Engineers, Acting District Engineer, "Emergency Operations Assistance," 2 March 1979, File 500-1-1q Smithville Dam, Files, Emergency Operations Center, NAP-EMO.
- ²³ "Projects, People Join Forces in Wake of Flooding," *The Observer* (February 1996): 3.
 - ²⁴ "Projects, People Join Forces in Wake of Flooding," 3.

- ²⁵ Voigt personal communication.
- ²⁶ "Continuing Authorities Fact Sheet, Emergency Streambank Erosion, Perkiomen Creek, Hereford Twp.," 30 May 1986, as found in "Philadelphia District Emergency Activities, 1989, Zone 3, Berks County," n.d., File 204-01, Berks County, PA, (Zone 3), Emergency Operations Center, NAP-EMO; U.S. Army Corps of Engineers, Philadelphia District, "Emergency Streambank Erosion Study, Feasibility Report, Manasquan River, Howell Township, Monmouth County, New Jersey," December 1989 (Revised October 1990), miscellaneous reports, unlabeled box, Planning Division, NAP; "Continuing Authorities Fact Sheet, Emergency Streambank Erosion Project, Darby Creek, Lansdowne Borough," 30 May 1986, File 204-01, Delaware County, PA, (Zone 5), Emergency Operations Center, NAP-EMO.
- ²⁷ Untitled document, report of damages to New Jersey communities from 1984 coastal storm, n.d., File Atlantic County, NJ, Emergency Operations Center, NAP-EMO.
- ²⁸ Andrews, Miller & Assoc., Inc., "Post Storm Report: Coastal Storm of 11-15 December 1992, Delaware and New Jersey Coast," November 1993, 1, 7, 70, Emergency Management Office Storage, NAP-EMO.
 - ²⁹ "Work for FEMA Completed," The Observer (April 1993): 7.
 - ³⁰ "District Answers FEMA Call for Damage Surveys," The Observer (March 1996): 4.
- ³¹ "Getting to Know Flood Plain Management Services Branch," *The Observer* (February 1997): 6-7; Voigt personal communication.
- ³² "District Provides Support during Hurricane Isabel," *The Observer* (October/ November 2003): 24-25. For people affected by significant storm events, FEMA supplies such items as bottled water, bags of ice, tarps, and Meals Ready to Eat (MREs). In its response to Hurricane Isabel in Washington, D.C., the district was "mission assigned to provide ice." Kathleen Mulvenna email to Joshua Pollarine, 25 May 2010, copy in possession of the authors.
- 33 "Three from District Take Part in Hurricane Marilyn Cleanup Work," The Observer (December 1995): 3, 19.
- ³⁴ "Volunteers Recognized for Hurricane Georges Relief Role," *The Observer* (January/February 1999): 4.
 - 35 "Saving Pea Patch Island," The Observer (September/October 1998): 8.
- ³⁶ At the time of the project, it was unclear why Emergency Management received this mission. Mulvenna conversation, 22 October 2009; "Justification," document provided by Robert Eckhardt, NAP.
 - ³⁷ "Rapid Response at Pier 34," The Observer (May/June 2000): 3.
- ³⁸ Emilie Lounsberry, "Judge Declines to Jail Pier 34 Owner, Operator," *The Philadelphia Inquirer*, 22 June 2007.
- $^{\rm 39}$ "Rapid Response at Pier 34," The Observer (May/June 2000): 3, 16; Voigt personal communication.
- ⁴⁰ U.S. Army Corps of Engineers, Philadelphia District, "Emergency Management" http://www.nap.usace.army.mil/sb/emerg.htm (21 May 2010).
 - ⁴¹ Mulvenna conversation, 22 October 2009.
 - ⁴² "District Team Supports Homeland Defense," *The Observer* (July/August 2002): 4.
 - ⁴³ Leatherman quoted in "District Team Supports Homeland Defense," 4.
- $^{\rm 44}$ "Survey Team Responds to Delaware River Oil Spill," The Observer (Winter 04/05): 4.
 - ⁴⁵ Mulvenna conversation, 22 October 2009.
 - 46 Mulvenna conversation, 22 October 2009
 - ⁴⁷ Mulvenna conversation, 22 October 2009; Voigt personal communication.
- ⁴⁸ "Contracting Plays Supporting Role in Bosnia Mission," *The Observer* (February 1996): 5.
- ⁴⁹ "Task Order," 27 June 2006, document provided by Bill Bailey, NAP; "Scope of Work," n.d., document provided by Bill Bailey, NAP; Voigt personal communication.