



U.S. COAST GUARD SECTOR UPPER MISSISSIPPI RIVER



YEAR IN REVIEW 2015



FROM THE SECTOR COMMANDER



After more than a year in the Commander's seat, I'm regularly impressed by the dedicated Coast Guard men and women with whom I serve. The work they accomplish over such a vast area of operations is quite remarkable. However, without the support and cooperation of a myriad of federal, state, local and industry partners, we could not effectively accomplish our missions. This publication is a look back at some of the capstone events that demonstrated the cooperative nature of operations across the region and is dedicated to those individuals and agencies who provide faithful support to our missions and to the public.

While 2015 began with fairly uneventful weather conditions for the first half of the year, the summer and late winter proved to be challenging within the Western Rivers. Heavy rainfall in June caused later than normal flooding during June and July resulting in traffic disruptions on the Upper Mississippi and Illinois Rivers. As the winter holidays approached amid unseasonably mild temperatures throughout November and December, heavy rain throughout much of the Midwest in late December brought unprecedented flooding on the Upper Mississippi, Illinois, Missouri and Meramec Rivers. This caused tremendous damage to homes and businesses in Eastern Missouri and forced closure of 108 miles of navigable waterways for several days.

Other incidents highlighted the multi-disciplinary nature of our work. Three major train derailments and a major pipeline rupture along the Mississippi River tested and proved our ability to work effectively with many different response organizations.

This look back at 2015 is a brief summary of the service the Active Duty, Civilian, Reserve and Auxiliary personnel assigned to Coast Guard Sector Upper Mississippi River provided to the public. As we look ahead, we continually strive to build upon our experiences, grow our robust partnerships and leave everything we touch better than we found it.

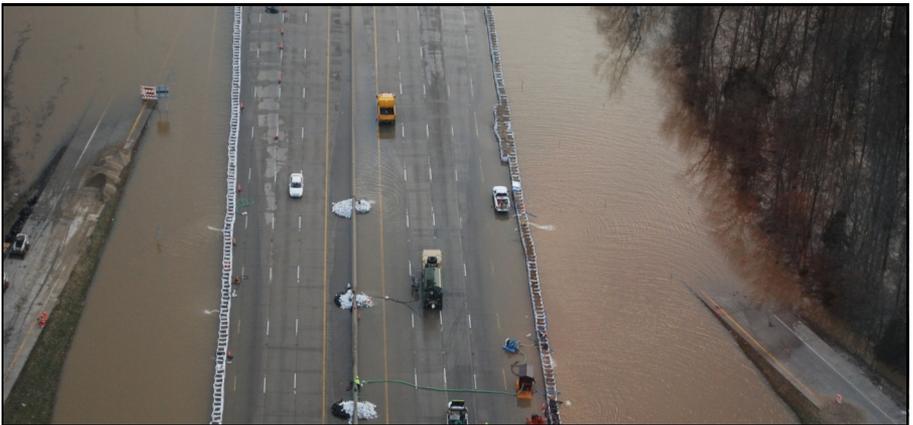
Semper Paratus—Always Ready!

Handwritten signature of M. L. Malloy in blue ink.

M. L. Malloy
Captain, U.S. Coast Guard

TABLE OF CONTENTS

Roles and Missions	4
Area of Responsibility	5
National and Regional Responses	6
Marine Investigations	7
Maritime Security	8
Search and Rescue	10
Boating Safety	11
Waterways Management	12
Maritime Safety	14
Environmental Protection	16
Community Outreach	18
Sector UMR Contact Information	20



Cover photo: The end of 2015 saw unprecedented flooding along the Meramec Upper Mississippi and Illinois Rivers. Hundreds of private residences, government facilities and businesses were inundated by floodwaters during a period of unseasonably heavy rainfall.

Above: MODOT workers sandbagged portions of I-44 along the Meramec River in an effort to keep the roadway open during the flood.

ROLES AND MISSIONS

The United States Coast Guard is the Department of Homeland Security's premier multi-mission, maritime service and one of the nation's five uniformed services. Our core missions on the Western Rivers promote and enhance the safety and security of the Maritime Transportation System and protect the environment.

Coast Guard Sector Upper Mississippi River's Mission

In serving the American heartland, we execute safety, security and environmental stewardship operations to ensure a robust transportation system and diverse use of the rivers.



Above: Coast Guard Cutter CHEYENNE passes the St. Louis Riverfront on a buoy run to maintain aids on the Mississippi, Missouri and Illinois rivers. (Photo courtesy of Jimmy Bernhard, KSDK-TV)

AREA OF RESPONSIBILITY

Sector Upper Mississippi River (UMR) encompasses the largest geographic region of any Coast Guard Sector in the lower 48 states with an area of responsibility comprised of all or parts of 11 states and over 2,200 miles of commercially navigable waterways. The waterway system comprised of the Upper Mississippi, Illinois and Missouri Rivers includes 33 locks and dams, 238 bridges and 7 major population centers. The Sector's missions are accomplished by 257 dedicated Active Duty, Reserve and Civilian personnel assigned to five Inland River Tenders, three Marine Safety Detachments and Sector Headquarters. The Sector is further supported by nearly 900 volunteer Coast Guard Auxiliarists.



- **Sector UMR Headquarters:**
St. Louis, MO
- **Marine Safety Detachments:**
Peoria, IL
Quad Cities/Rock Island Arsenal, IL
St. Paul, MN
- **River Tenders / Commissioned**
CGC CHEYENNE / 1966
CGC GASCONADE / 1964
CGC SANGAMON / 1962
CGC SCIOTO / 1962
CGC WYACONDA / 1965

NATIONAL AND REGIONAL RESPONSES

Sector UMR managed multiple high water events during 2015 beginning with flooding on the Illinois River in June, July and August. The Illinois River set all-time high water records in Meredosia and Lagrange, IL in early July. As a result of the flooding, portions of the Illinois River were closed to recreational vessel traffic while commercial vessel traffic operated under restrictions.

Just a few months later, December brought heavy rainfall accompanied by above average temperatures across the greater Midwest. At the north end of this weather system, the National Weather Service in St. Louis saw daily, monthly and annual rainfall records broken. Overall, nearly 11.75 inches of rain fell on St. Louis during the month breaking the previous record of 7.82 inches set in December 1982.



Left: Sector UMR personnel conducted welfare checks of flooded residences in Valley Park, Arnold and St. Mary, MO during later winter flooding of the Meramec and Mississippi Rivers.

This exceptional rainfall caused widespread flooding that lasted over a month and stretched from northern Illinois to the Gulf Coast prompting flood responses from four Coast Guard Sectors.

Locally, the most significant flood impact was along the Meramec River in eastern Missouri and around Kaskaskia Island near Chester, IL on the Mississippi River. At Valley Park, Missouri the Meramec River broke all previous records when it crested at 44.11 feet, over 28 feet above flood stage, caused extensive damage to homes and businesses and closed Interstates 44 and 55 to traffic for several days.

Coast Guard personnel conducted Urban Search and Rescue, filled sandbags, provided air assets for search and flood survey missions, managed impacted waterways and coordinated response efforts with the Missouri State Emergency Operations Center.

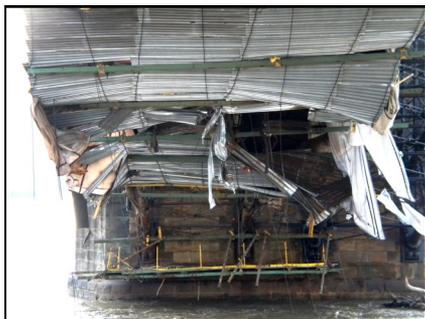
In addition to typical Coast Guard missions, a member of Sector Upper Mississippi River deployed to Coast Guard Headquarters to support an atypical but critical mission to the Coast Guard's success. For two months, the officer served as a member of Coast Guard's Cyber Crisis Action Team Delta (Cyber CAT). The Cyber CAT formed in response to numerous cyber attacks against the federal government. This newly minted team was created to bolster the layers of cyber defenses throughout the Coast Guard's network system and IT infrastructure.

MARINE INVESTIGATIONS

The Marine Investigations Division examines maritime casualties to determine causal factors in order to prevent similar incidents from occurring in the future. During 2015, Sector UMR investigated 316 reported marine casualties, 39 of which resulted in injuries or fatalities – a reminder of the unforgiving and unpredictable nature of working in the maritime industry. Shoaling issues that typically arise after periods of high water highlight the importance of immediately reporting marine casualties or hazardous conditions to the Coast Guard. The Investigations Division thoroughly scrutinized each casualty and used the data to assist with properly marking, surveying and dredging channels to facilitate safe commerce throughout the rivers.

Reported Marine Casualties in 2015

Allision	55	Fire	2
Breakaway	22	Grounding	123
Collision	4	Loss of Life / Injury	2/37
Equipment Failure	70	Sinking	1



Notable Marine Casualties

July 16—*(Left)* A worker on the Eads Bridge in St. Louis was killed when an 1800-hp towboat struck the scaffolding on which he was working. The impact damaged the pilothouse and caused the worker and sections of scaffolding to fall to the deck of the towboat.

July 19—*(Right, file photo courtesy of Mark Haury)* A 1000-hp towboat sank while preparing to move barges in the Port of St. Louis. A deckhand became trapped inside the towboat and drowned. In addition, the vessel discharged approximately 7,000 gallons of diesel fuel.

Strong currents caused by unusually high water are believed to have contributed to both incidents.

MARITIME SECURITY

Interagency Operations

As an Armed Military Service and member of the Department of Homeland Security, the Coast Guard is uniquely positioned to contribute to America's defense and security. During the past year, Sector UMR personnel and port partners were involved in numerous multi-agency operations aimed at improving security throughout the waterways.

Sector UMR actively coordinated with other government agency partners to patrol key port areas ensuring maritime domain awareness and security of nationally sensitive critical infrastructure. Thousands of hours were dedicated to securing these critical sites through combined operations .



Above left: During port security exercises, state and local law enforcement personnel train together to board vessels in response to a variety of security-related incidents.

Above right: Kansas City AMSC members patrol the Missouri River during a full scale preparedness exercise in 2015.

Below: Coast Guard and AMSC-affiliated response agencies train on a wide range of boat operations including basic boat seamanship, search and rescue, law enforcement and pollution response.



MARITIME SECURITY

Area Maritime Security Committees

In 2015, Area Maritime Security Committees (AMSC) in St. Louis, Kansas City, Minneapolis/St. Paul, Quad Cities and Peoria held 20 formal meetings and several sub-committee meetings. The meetings brought federal, state and local partners and industry together to identify and address port-wide security vulnerabilities and review existing risk mitigation strategies to improve the region's maritime security response posture.

Numerous port partners and first response agencies conducted and participated in a variety of inter-agency exercises covering the full exercise spectrum from seminars to full-scale events. In many cases, the regional exercises were created for, and centered on, responses to maritime threats. These committees were very proactive and continue to develop and conduct exercises, with or without federally funded exercise support, far exceeding USCG policy requirements.

Using Port Security Grant funding as a valued resource, the committees focused on developing exercises, conducting interagency training, refining maritime security response protocols and obtaining critical response and prevention equipment. Recent exercises focused on Transportation Security Incident (TSI) Responses to High Risk Critical Infrastructure, hijacked vessels and

Maritime Security Partners

- State and Local Police
- Fire Departments
- Commercial Towing Industry
- Coast Guard Auxiliary
- U.S. Army Corps of Engineers
- Fish and Wildlife Agencies
- Facility Operators
- FBI
- State Emergency Operations Centers
- The Boating Public
- Many, many more....

radiological dispersion devices (RDD) events. Most, if not all, assets procured through the Port Security Grant Program have arrived in port-wide areas and first response agencies are eagerly working with their regional partners to utilize their equipment to support the maritime security mission.



SEARCH AND RESCUE

Throughout history, the Coast Guard has played a vital role in Maritime Search and Rescue (SAR) operations. On the Western Rivers, Sector Upper Mississippi River continually fosters partnerships with state and municipal authorities to provide lifesaving services.

A unique aspect of the SAR mission in the Western Rivers is Sector UMR's capability to respond to flooded areas with the Western Rivers Flood Punts. Designed to operate away from swiftly flowing water, the flood punts are an ideal platform to provide support to flooded homes and businesses during periods of extreme high water.



2015 SAR Statistics

Total SAR Cases:
500

Property Saved & Assisted: \$614
Million

Lives Saved & Assisted: 722

Above: Coast Guard flood punts patrolled flooded towns in eastern Missouri during late December.

Below: Coast Guard Active Duty and Reserve Boat Forces maintain their skills and proficiency through training. Especially hazardous evolutions, like taking a vessel under tow, require effective communications, an eye for safety, line handling skills and boat operations expertise.



BOATING SAFETY

Recreational Boating Safety in the Midwest

Sector UMR works closely with state and local law enforcement agencies to enforce recreational boating safety laws. Coast Guard boarding officers checked 855 recreational vessels for compliance with Federal boating safety regulations in 2015. In addition to enforcement on the Western Rivers, Sector UMR boat crews patrolled Lake of the Ozarks and Table Rock Lake in Missouri during peak recreational boating periods and during major marine events like the Lake of the Ozarks Shootout and Offshore Super Series Races.



Left: Members of MSD St. Paul, the Coast Guard Auxiliary, National Power Squadron and officers of the Minnesota Department of Natural Resources donned lifejackets and conducted a press conference to affirm Minnesota Governor Mark Dayton's signed proclamation of Safe Boating Week.

Coast Guard Auxiliary Improve Recreational Boating Safety

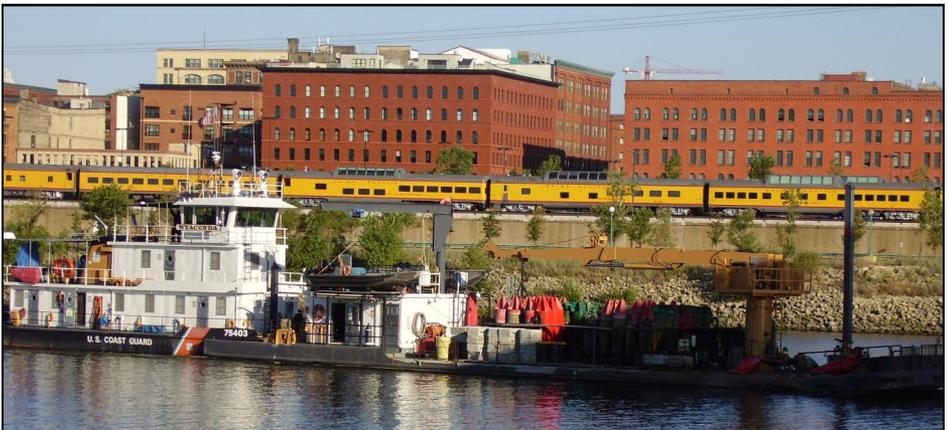
Throughout the region, over 900 Coast Guard Auxiliarists volunteer their time, vessels and aircraft in dedicated public service. In 2015, members of the Auxiliary contributed over 95,000 hours to the recreational boating safety mission. To accomplish this mission Auxiliary members conducted regular marine patrols, performed over 3,200 vessel safety checks and held dozens of recreational boating safety classes. As a result, many lives have been saved as recreational boating enthusiasts have improved the operating condition of their boats and enhanced their knowledge of safe boating operations.

In addition, Auxiliary aircraft supported search and rescue, port security and waterways management missions by providing overflight capabilities throughout the region.

WATERWAYS MANAGEMENT

Aids to Navigation (ATON)

The Coast Guard's Aids to Navigation (ATON) program on the Western Rivers manages, influences and provides access to a safe, secure and efficient navigation system. The program is executed in Sector UMR by five Inland River Tenders (WLRs) which set and maintain over 6,000 buoys and shore-aids on all three major river systems. The WLRs are strategically located throughout the Midwest to respond to navigation concerns arising in the Sector's vast area of responsibility. They are aided by a robust Waterways Management Division that works with government partners and industry to share information and respond to arising navigation concerns. The program facilitates maritime commerce by minimizing disruptions to the movement of goods and people, while maximizing recreational enjoyment and economic reliability on navigable waters, all while maintaining adaptable waterway restoration capabilities when disruptions occur.



Top/Bottom: Coast Guard Cutters WYACONDA and GASCONADE celebrated 50 years in service on the Western Rivers in 2015.



WATERWAYS MANAGEMENT



Regattas and Marine Parades (Marine Events)

The Marine Event Permitting process facilitates the safe and effective management and use of waterways by the river industry and general public. Sector UMR oversaw 83 marine events and reviewed hundreds of permit applications. Working within established partnerships with federal, state and local

agencies, we successfully managed finite resources and mitigated safety and environmental impact concerns associated with these events.

Navigation Safety Assessments

Sector UMR Waterways Management Division works closely with five U.S. Army Corps of Engineers (USACE) Districts throughout the region. While USACE bears approval authority for building permits for structures in, on or over the navigable waters of the U.S., the Coast Guard reviews all permits submitted to USACE for potential impacts to vessel navigation. In 2015, Sector Waterways staff reviewed 323 USACE permits and conducted an in-depth navigational safety assessment for nine projects.

Above: A boat crew member from MSD Quad Cities keeps a watchful eye on hundreds of paddlecraft during the annual Floatzilla regatta in Davenport, IA.

Right: A river tender crew recovers a missing buoy found along the banks of the Mississippi River. (Photo courtesy of Jimmy Bernhard, KSDK-TV.)



MARITIME SAFETY

The Coast Guard's Commercial Vessel Safety program is vital to the Marine Safety mission. The Coast Guard regulates the design, construction, equipment and operational requirements for a variety of commercial vessels. Of particular note is Sector UMR's Uninspected Towing Vessel (UTV) fleet of responsibility. In anticipation of the final ruling on Subchapter M of Title 46 of the Code of Federal Regulations, all of the 353 UTVs under Sector UMR's purview were inspected and found in compliance with pending federal regulations.



Left: Marine Inspectors check hull repairs on a towboat in dry dock.

Bottom: Marine inspectors observe a damaged tank barge as it is moved into position alongside a work platform at one of three shipyards in St. Louis.



MARITIME SAFETY



Above: The popular amphibious passenger vessels known as Duck Boats are built under the watchful eye of Sector UMR Marine Inspectors. Built in Wichita, KS and Branson, MO, the Ducks are shipped worldwide. In 2015, Duck Boats operating in Branson carried over 150,000 passengers on the largest Coast Guard inspected Duck fleet in the world.

Right: The latest in a series of pirate ship-themed passenger vessels built near St. Louis debuted at Lake of the Ozarks in 2015. CALYPSO underwent an extensive plan review process and received regular construction inspections by Sector UMR personnel to comply with federal passenger vessel regulations.



ENVIRONMENTAL PROTECTION

Interagency Cooperation

Protecting the environment is one of Sector UMR's primary missions. In order to protect an extensive 11 state area of responsibility, Sector UMR relies heavily on partnerships with federal, state and local agencies. Sector UMR shares Federal On-Scene Coordinator responsibility with the U.S. Environmental Protection Agency (USEPA) and is a member of Regional Response Teams V, VII and VIII. In addition, Sector UMR works with the Upper Mississippi River Basin Association (UMRBA) and numerous Community Awareness and Emergency Response (CAER) groups to develop, review, exercise and implement oil pollution and hazardous substances response plans.

The energy renaissance in the U. S. and the exploitation of crude oil within the Bakken geologic formation in North Dakota and Montana in recent years has significantly increased the amount of crude oil shipped by rail over and along the rivers. The combination of increased rail traffic and extreme cold temperatures during the winter resulted in three derailments with the potential loss of over 1.5 million gallons of Bakken crude oil or ethanol.

Train Derailment near Galena, IL

(Below/Right): 21 tank cars carrying 630,000 gallons of Bakken crude oil derailed and caught fire along the Mississippi River near Galena, IL on March 6. Personnel from MSD Quad Cities were the first federal officials on scene and took control until U.S. EPA arrived. No oil was spilled into the waterway.



ENVIRONMENTAL PROTECTION

Phillips 66 Hartford Terminal

In April, Sector UMR responded to a major diesel fuel spill on the Mississippi River near St. Louis. A pipeline rupture spilled over 30,000 gallons of diesel onto the bank and into the river. The incident prompted a week-long, multiagency response involving 140 workers including the CG Incident Management Assistance Team, Atlantic Strike Team, and NOAA Scientific Support Coordinator.



Left: Heavy equipment was used to excavate the ruptured pipeline and remove contaminated soil from the incident site so that crews could remove any remaining fuel and repair the pipeline.



Other Train Derailments

(Above Right): MSD Quad Cities personnel responded to a 15 car derailment along a remote stretch of the Mississippi River near Sherrill, IA on February 4. The derailed tank cars carried 390,000 gallons of denatured ethanol. The Coast Guard provided federal oversight of the cleanup for three days.

(Left): In December, MSD St. Paul responded to a 25 car derailment on a manmade embankment within the Mississippi River near Alma, WI. At least 5 cars discharged approximately 18,000 gallons of denatured ethanol into the river and surrounding area.



COMMUNITY OUTREACH

Sector Upper Mississippi River's dedication expands beyond our traditional missions. We are well established in the communities in which we live where we serve as local leaders, volunteers, and active citizens. As servant leaders in the community, we constantly strive to make a positive impact on our neighbors, across the street, across state boundaries and across the country.



Left: Coast Guard personnel honored fallen veterans at countless memorial services, funerals and other events throughout the region such as the Wreaths Across America ceremony in the Quad Cities.



Right: Members of MSD Peoria dedicated their time and skills for building homes for Habitat for Humanity during November, 2015

COMMUNITY OUTREACH



Above: Coast Guard personnel joined the St. Louis District, U.S. Army Corps of Engineers at the St. Louis Science Center and various schools to promote science, technology, engineering and math (STEM) education within the local community.

Below/Right: Coast Guard Active Duty, Reserve and Auxiliary personnel educate the boating public about safe boat operations, Coast Guard Missions and environmental stewardship at safety fairs, boat shows and other events throughout the Midwest.



SECTOR UPPER MISSISSIPPI RIVER CONTACTS

24-Hour Emergency Contacts

Sector UMR Command Center	314-269-2332
National Response Center*	800-424-8802
<i>(*Primary Contact for Oil Spills, Hazmat Releases or America's Waterways Watch)</i>	

<u>Main Phone</u>	314-269-2500
Command Administrative Assistant	314-269-2603
Command Fax Number	314-269-2734
Sector Webpage	http://www.uscg.mil/d8/sectumr/

Sector Departments

24-Hour Public Affairs	314-704-9502
Government Affairs	314-269-2510
Domestic Vessel Inspections	314-269-2621
Investigations Division	314-269-2570
Waterways Management	314-269-2568
Facility Inspections	314-269-2518
Port Security/Enforcement	314-269-2541
Maritime All-Hazards Response	314-269-2546
Contingency Planning	314-269-2591
Intelligence	314-269-2543
Logistics	314-269-2510
Engineering	314-771-6044 x2419

Sector Units

Marine Safety Detachment Quad Cities	309-782-0627
Marine Safety Detachment Peoria	309-694-7779
Marine Safety Detachment St. Paul	952-806-0021
Coast Guard Cutter CHEYENNE	314-771-4325
Coast Guard Cutter GASCONADE	402-451-7681
Coast Guard Cutter SANGAMON	309-694-2319
Coast Guard Cutter SCIOTO	319-524-1657
Coast Guard Cutter WYACONDA	563-582-0211