

# 2018 MYRTLE BEACH FIRE DEPARTMENT ANNUAL REPORT



## MESSAGE FROM THE CHIEF

On behalf of the men and women of the Myrtle Beach Fire Department, I'd like to thank you for taking the time to read our 2018 Annual Report. Contained in this document is just a brief overview of what we do and who we are. As illustrated in this report, our department is involved in a wide array of features. We provide an extremely high level of service and engagement for our residents and visitors. Our mantra is "Earn It," something we believe and practice every day. And while I am extremely proud of the accomplishments we had in 2018, I look forward to continuing to advance in the years to come.



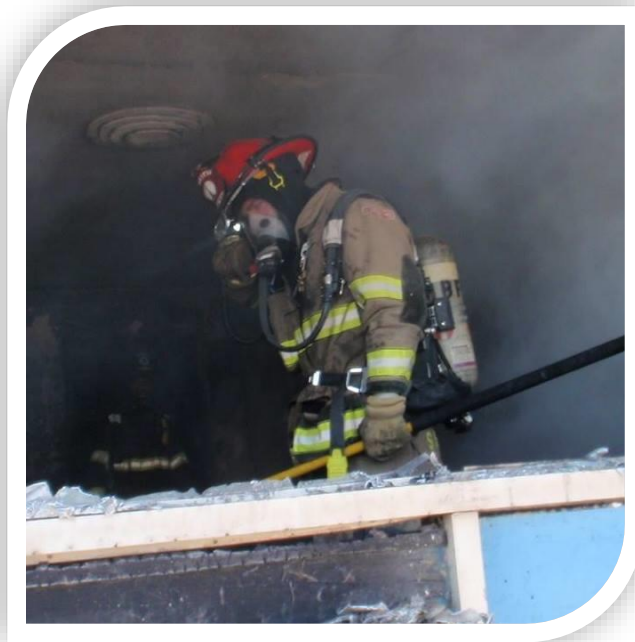
Thomas M. Gwyer, MS, EFO

Fire Chief

### Mission Statement:

**The Myrtle Beach Fire Department is an **E**lite team. We are **A**ccountable, **R**espectful, and **P**roud to honor this **N**oble profession with **I**ntegrity and **T**rust. This earns us the privilege to provide outstanding service to all!**

***EARN IT'***



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### **Myrtle Beach Fire Department**

The Myrtle Beach Fire Department was created as a volunteer effort in the year 1936. Today, our Department has emerged into one of the most outstanding ISO Class 1 Fire Protection Branches in the United States.

#### **Our Principal Goals are:**

- **Life Safety**
- **Incident Stabilization**
- **Property Conservation**

Our Diverse City consists of approximately 17 square miles of land that includes a combination of High Rise Hotels, Residential Neighborhoods, Commercial and Industrial Buildings, Highways, the Intracoastal Waterway, and Beach Access to the Atlantic Ocean. Our population exceeds 30,000 year round residents with more than 15 million tourists visiting annually.

Myrtle Beach Fire responds to more than 15,000 service calls per year! Our more than 180 personnel are made up of the most qualified and highly trained First Responders in the Nation. These dedicated men and women help staff 6 strategically placed Fire Stations and 1 Administrative Office.



Myrtle Beach Fire provides a variety of valuable services including:

*Fire Suppression, Emergency Medical Treatment and Transport, Vehicle Extrication, Elevator Rescue, Rope Rescue, Confined Space, Urban Search and Rescue, Water Rescue, Hazardous Materials Response, and Fire Prevention/Public Safety.*

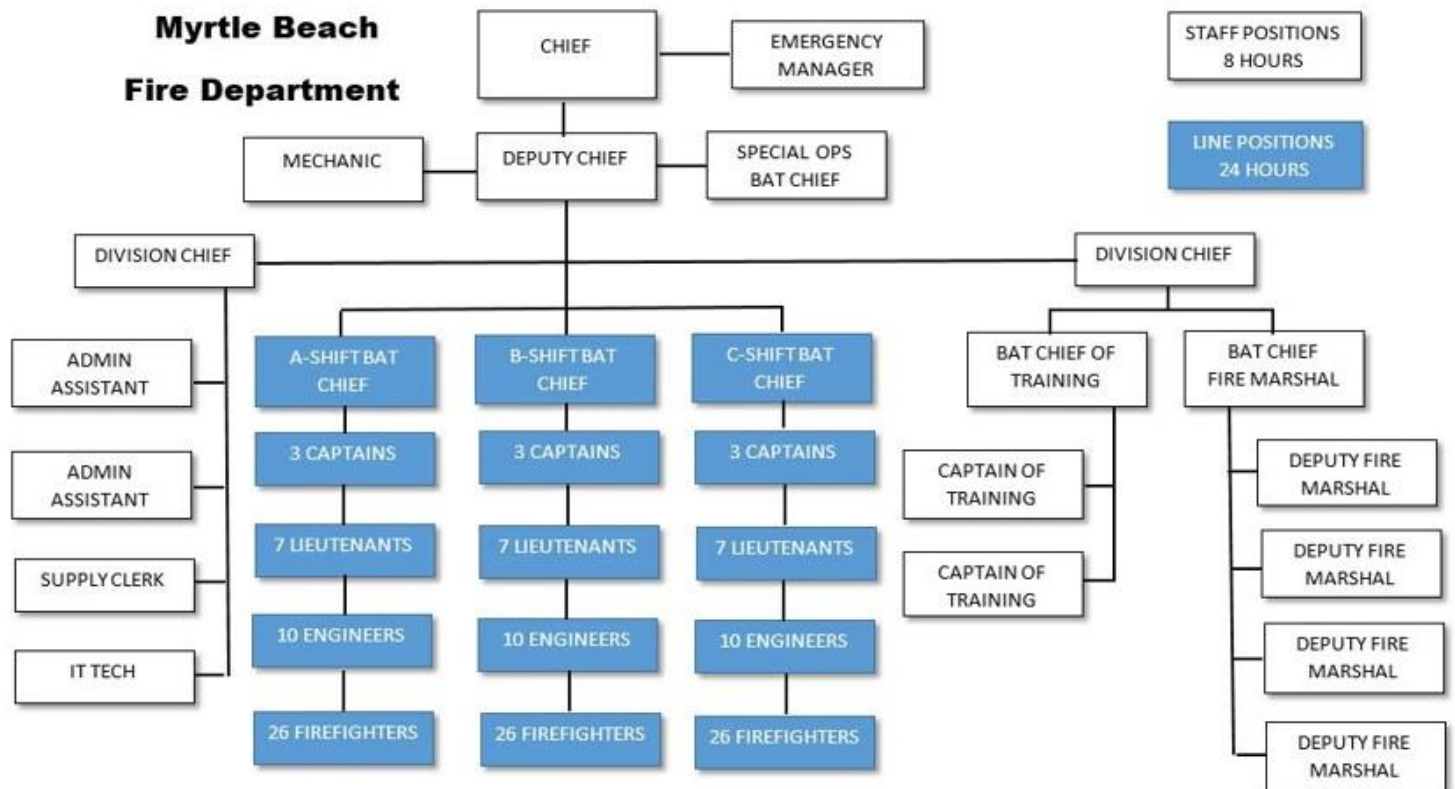


### Myrtle Beach Fire Department Fiscal Year 2019 Budget

Division	Amount	Percent of Total
Administration (350)	\$955,004	5.70%
Emergency Services (360)	\$14,645,599	87.45%
Technical Services	\$1,145,933	6.84%



# Myrtle Beach Fire Department



## Emergency Management – Emergency Manager Bruce Arnel

2018 marked the year the City of Myrtle Beach created the Office of Emergency Management with a full time Emergency Manager Director and a part time assistant. The Emergency Operations center (EOC) was re-organized and was fully staffed in compliance with NIMS standards during the month of October secondary to Hurricane Florence. Emergency management personnel are currently in the process of reviewing and updating the city's emergency operations plans and has established an ad-hoc emergency management committee consisting of representatives from the fire department, police department, public works, and risk management. Director Arnel was tasked with increasing security and accountability measures. They have instituted a restricted access and badge policy as well as adding two full time building ambassadors assigned to city services and city hall.

The Pee Dee Regional incident Management Team (IMT) is now being hosted by the City of Myrtle Beach with Director Arnel and Deputy Chief Maxwell acting as the team administrators. The IMT is a Type III incident management asset with the ability to deploy on a regional, state, or national level to assist with a variety of emergencies and incidents. In the aftermath of Hurricane Michael, the Pee Dee IMT deployed eleven team members, six of which were MBFD personnel, to Tallahassee Florida for two weeks in October to assist the State of Florida Emergency Management Division with the operation of a fully functional basecamp capable of housing 5,000 first responders. Additionally, the IMT deployed four team members during Hurricane Florence, three of which were MBFD personnel, to the City of Dillon for 3 days to assist with EOC operations.

## Training Section – Battalion Chief Martin J Eells

The Training Section is headed by Martin Eells. Chief Eells is assisted by Fire Training Captain Joshua Andrews and Fire Training Captain Karl Schook. The Training Division provides and creates training programs, as necessary, to meet established state and federal mandates each year. The Division ensures that members meet the requirements set forth by the Insurance Services Office (ISO), Occupational Safety and Health Administration (OSHA), the South Carolina Department of Health and Environmental Control (DHEC) and internal requirements as determined by the department. The Training Division strives to provide the highest quality training, instruction, and educational support to our members. This is intended to prepare our Department to serve our community in the most efficient and effective means possible, and to ensure the safety of our personnel and citizens. During the past year, the Training Division also worked with shift personnel to complete the construction of the department's new live-fire training facility. In 2018 the department hosted 19 South Carolina Fire Academy (SCFA) classes, helped with the rollout of Vent, Enter, Isolate Search (VEIS) training, assisted with the re-certifications of 73 EMTs and Paramedics, taught an EMT school for nine of our Probationary Firefighters and delivered an Advanced Cardiac Life Support Class (ACLS) for 39 of our personnel.



Type	Hours
Driver/Operator	2,638.4
EMS	7,747
Fire	35,307
Officer	7,629.6
Rescue	9,416.9
Hazardous Materials	4,597.5
<b>Total</b>	<b>67,336.4</b>



## Community Risk Reduction – Fire Marshal Joe Murrell

The Community Risk Reduction Section is headed by the Fire Marshal Joe Murrell. The remainder of the Division is made up of four Deputy Fire Marshals Steven Marinaro, Jonathan Evans, Christian Sliker and Scott Ordway. Deputy Fire Marshal Jonathan Evans also serves as the Fire departments public information officer. The overall goal of the Community Risk Reduction Division is to protect the lives and property of the citizens and visitors to the City of Myrtle Beach. The Community Risk Reduction Program (CRR) which includes the use of fire inspections, new construction and renovation plans review, public fire and safety education and fire cause determination. The main objective of this task is to gain voluntary compliance with the associated fire codes as adopted by the State of South Carolina. The Deputy Fire Marshals complete annual inspections of all existing commercial properties along with needed follow up inspections. The information below is a collection of our 2018 inspections data:

	Inspections	Violations	Corrections
Deputy Fire Marshals	2,818	2,017	1,861
Shift Personnel	1,383	791	757
Total	4,201	2,808	2,681

### Public Education 2018

**Operation Fire Safe-**The Operation Fire Safe program is a program that was developed to provide local businesses an opportunity to expand the training of their staff, helping to make those businesses safer for their customers.

**Car Seat Program-** Our Car Seat Program has 35 DHEC Safe Kids certified technicians that assisted with over 200 car seat installations at the fire stations and 2 car seat events over the course of 2018.

**School Programs-** the MBFD worked with local schools in 2018 on programs including, Fire Safety Weeks in October, Career Days, Work Study visits with Special Needs Classes, Reading Buddies and afterschool program visits with Pepper Geddings and the Boys and Girls Club.

**Fire and Life Safety Open House-** We had our annual Fire and Life Safety Open House on 10/13/18 that was attended by a few hundred participants from our community.

**PSA and Media Support-** We had another increase in social media response with 16,394 followers on Facebook, 4,194 on Twitter, and 1,976 followers on Instagram and we produced over 20 PSA's and videos in 2018.

**Trade Shows-** We had a presence at the Hotel/Motel Show, the Spring Home Improvements Show and the Dickens Show last year and reached over 7,800 people with fire and life safety information during those shows.

**Volunteer Team-** Our Community Risk Reduction Volunteer Team has 15 members that work diligently to help our department during many of our public safety events



**Community Events-** MBFD takes part in numerous community events throughout the year including Boys and Girls Club Events, the MDA Boot Drive, Charity Baseball and Football games, and various other activities for a multitude of organizations.

**Beach Safety Campaign-**The MBFD strives to keep our beaches safe through brochures, PSA's, and face to face interaction through our beach patrol crews.



### Public Education Contacts 2018:

Public Education Contacts		Installations	
Adult	19,740	Car Seats	212
Child	14,760	Smoke Detectors	105
<b>Total</b>	<b>34,500</b>	<b>Total</b>	<b>317</b>

Media		Public Events	
TV Interviews	106	Events	213
Newspaper Articles	30	Training Classes	54
Radio	10	Neighborhood Watch	108
<b>Total</b>	<b>146</b>	<b>Total</b>	<b>375</b>



## Emergency Services Division – Deputy Chief Ian Maxwell



The primary function of the Emergency Services Division is to carry out the mission of the fire department by delivering outstanding customer service to our citizens in a cost effective and professional manner. This process is systematically executed with a staff of 153 highly trained firefighting professionals. The Emergency Services Division is managed by one Deputy Chief and three line Battalion Chiefs. The Battalion Chiefs are assigned to one of three shifts, which operate on a 24 hour basis. The shift's schedule follows a 24 hours on and 48 hours off rotation.

There are numerous tasks carried out each day by the Emergency Services Division members, but some of the primary responsibilities are: responding to normal emergencies, responding to special operation incidents (Haz-mat, Technical Rescue), handling non-emergency situations (smoke detector checks, public education events, car seat installations), conducting training, and attending community events. When the emergency services staff isn't mitigating emergency calls, they are carrying out required administrative duties (training, fire inspections, pre-incident planning), as well as performing general maintenance and upkeep on the department's vast inventory of equipment.

During 2018 the Emergency Services Division was kept extremely busy responding to emergency calls. As a whole, the department responded to 14,501 calls for service. The chart below demonstrates how the calls were distributed by call type:

Call Types as a Percentage of Total Call Volume:

Medical Calls, Elevator Extrications, Motor Vehicle Accidents (64.35%)

Fire Alarms (12.31%)

Public Service/Assistance (10.82%)

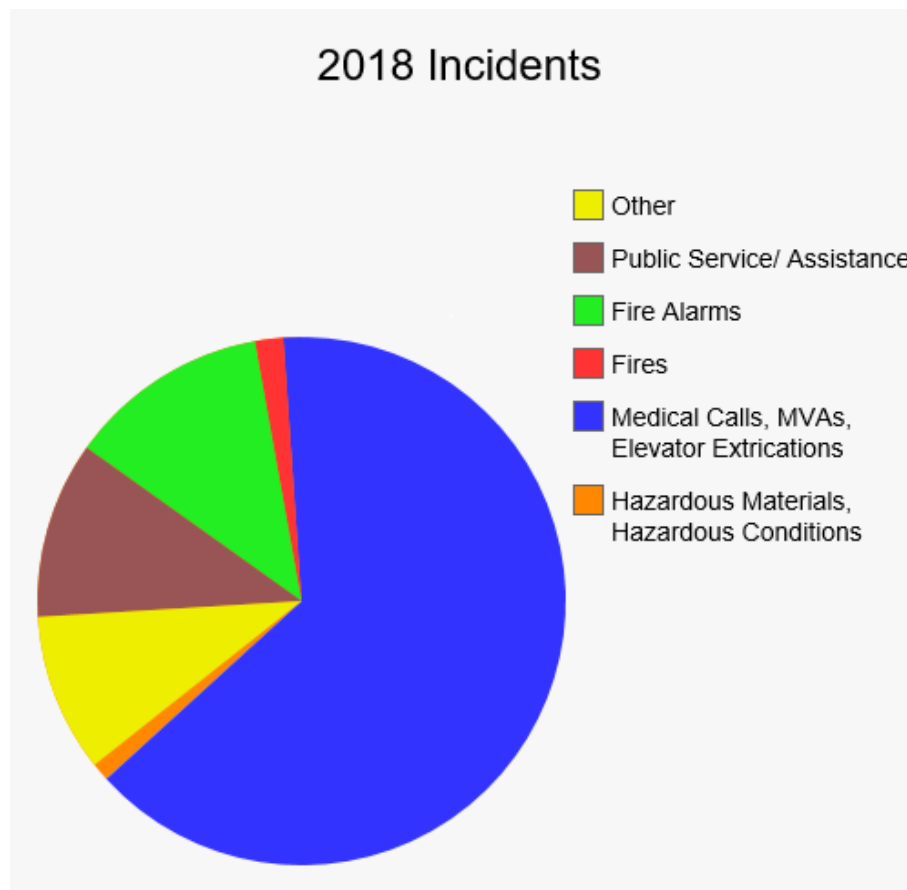
Fires (All Types) (1.72%)

Hazardous Materials, Hazardous Conditions (1.11%)

Other (Good Intent Calls, No Incident Found, Smoke Scares, Lightning Strikes) (9.69%)

Call Type	Number of Incidents
Fires (all types)	250
Medical Calls, Elevator Extrications, Motor Vehicle Accidents	9,334
Fire Alarms	1,783
Public Service/Assistance	1,570
Hazardous Materials/ Hazardous Conditions	162
Other (Good Intent Calls, Smoke Scares, Lightning Strikes)	1,402
<b>Total</b>	<b>14,501</b>

Structure Fires (111)		Fires (111,112,113,116,118)
District	Number	Number
1	30	43
2	8	12
3	13	19
4	3	4
5	11	15
6	10	13
<b>Total</b>	<b>75</b>	<b>106</b>



Station	Location	Number of Incidents
1	Joe White Ave	6,434
2	Pine Lakes	1,,270
3	21 <sup>st</sup> Ave S	2726
4	Market Common	777
5	79 <sup>th</sup> Ave N	1,374
6	38 <sup>th</sup> Ave N	1,875

Incidents Types By Fire Station					
District	Medical Calls	MVAs	Fire Alarms	Structure Fires	Public Service
1	4,026	414	464	43	589
2	763	58	142	12	166
3	1,454	152	412	19	242
4	398	33	143	4	116
5	611	71	346	15	151
6	945	126	276	13	303
<b>Total</b>	<b>8,197</b>	<b>854</b>	<b>1,783</b>	<b>106</b>	<b>1,567</b>

Public Service Calls	
Car Seats	191
Lift Assists	473
Smoke Detector Checks	96
EMS Standby	44
Fireworks Standby	13
Public Education Event	51

## Emergency Medical Services

The City of Myrtle Beach Fire Department began its involvement with EMS in 1986. This started as a two tier system that included an Advanced Life Support (ALS) Medic Unit (ambulance) and Basic Life Support (BLS) first responders on Fire Engines. The first medic unit (Medic- 62) was located at Fire Station 2 (5338 N Kings Highway) and had one Paramedic per shift. In 2002, a second Medic Unit (Medic- 61) was placed in service at Fire Station 1 (1250 Mr. Joe White Avenue). In 2013 a Basic Life Support Unit (Basic- 615) was placed in service at Station 1 on a seasonal basis. In 2015 it was moved to Fire Station 6 (970 38<sup>th</sup> Avenue North).

Basic- 615 is staffed from Easter through Labor Day and is utilized to handle basic life support ambulance calls.





Each medic unit is staffed with a minimum of one Firefighter/Paramedic and one Firefighter/EMT. Two of the First Responder Units are equipped with ALS equipment (Squad-1 at Fire Station 1 and Squad-3 at Fire Station 3). Two additional ALS Medic Units operated by Horry County supplement these three units. One of these is housed at Fire Station 3 (2108 S Kings Highway) and the other is housed at the County Complex located on 21<sup>st</sup> Avenue North. All of these ALS units are also utilized to run emergency calls in adjoining areas of Horry County, which can reduce availability of these units for calls in the city.

Depending on the priority of an emergency medical call, it may receive a response of a Medic Unit, or a Medic Unit and the closest First Responder, or Basic- 615. All Myrtle Beach firefighters are required to maintain a minimum certification of Emergency Medical Technician and provide both fire and emergency medical services to city residents, employees, and visitors. Currently twenty-seven Firefighters and Engineers are certified as paramedics and are routinely rotated between fire apparatus and the medic units.

Medical Calls by type	
Medical Calls	8,232
MVAs	820
Elevator	194
Water Rescue	63
Other	25
<b>Total</b>	<b>9,334</b>

Medic Unit	Responses	Hospital Transports
Medic-61	2981	2099
Medic-62	2021	1374
Basic-615	818	579
<b>Total</b>	<b>5,820</b>	<b>4,052</b>

Ambulance Responses by Month (2018)													
Unit	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
B615	0	0	23	59	130	198	196	191	21	0	0	0	818
MED61	279	231	252	248	282	263	241	239	222	249	238	237	2,981
MED62	169	126	183	186	193	198	174	169	148	160	160	155	2,021
<b>Total</b>	<b>448</b>	<b>357</b>	<b>458</b>	<b>493</b>	<b>605</b>	<b>659</b>	<b>611</b>	<b>599</b>	<b>391</b>	<b>409</b>	<b>398</b>	<b>392</b>	<b>5,842</b>

The department's efforts in STEMIs (ST Elevation Myocardial Infarction), and Sepsis Alerts have helped improve the quality of life for our residents and guests.

A STEMI is a type of cardiac emergency that can be reversed if it is diagnosed in time. In this situation, the definitive treatment is in the Cardiac Catheterization Lab and the placement of stents. Time is one of the most critical factors to making a full recovery. The reperfusion of the heart at an earlier time results in the ability of the heart to return to normal function. The national goal for time from EMS contact until the catheterization begins is less than 90 minutes. From the time we establish patient contact, assess the patient, recognize the specific nature of the heart attack which requires immediate catheterization, alert the hospital, treat the patient, load and transport the patient and deliver the patient to the hospital averages 26 minutes. This allows Grand Strand to have an average time from emergency contact to catheterization of 60 minutes for MBFD patients.

Myrtle Beach Fire Department has also partnered with Grand Strand and our medical director Dr. Thomas Martel on the Sepsis program. Sepsis a serious condition resulting from the presence of harmful microorganisms in the blood or other

tissues and the body's response to their presence, potentially leading to the malfunctioning of various organs, shock, and death. Sepsis Alerts are reducing hospital mortality by allowing us to draw blood labs, administer antibiotics in the field, and begin fluid resuscitation well in advance of arrival at the Emergency Department. Dr. Martel has noted how prehospital recognition, alert, and field treatment of antibiotics has caused the mortality rate of 20 percent to drop ten percentage points. When GSMC was having their accreditation review, the reviewer wanted to speak about the field alert and treatment. She was impressed by the program, the relationship between the hospital and the MBFD, the reduction in mortality, and has not seen anything like this in all of her reviews. MBFD is the first out of hospital agency in the state to administer the program.

The opioid crisis has affected Myrtle Beach just as it has many areas of the United States. In 2017 there were 748 opioid related deaths in South Carolina. The number of deaths for 2018 was not available at the time of this report. Narcan (the medication that reverses the effect of opioids) was administered 397 times in Myrtle Beach in 2017. This puts us in the top 25 per capita nationally. MBFD units administered Narcan 180 times in 2017. The 2018 numbers for Narcan administration were not finalized at the time of this report, but MBFD administered it 191 times. The break down for administration by MBFD in 2018 is as follows:

Narcan Administration by MBFD units per Month (2018)													
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
Narcan	21	13	15	10	11	25	22	14	15	19	12	14	191

MBFD has members that are representing the department on various committees concerned with opiates at the state and local level. Another problem facing our area is human trafficking. One of our members has been asked to serve on the state's regional human trafficking medical committee.

## Special Operations - Division Chief Shawn Pratt



### SC Task Force 2 (USAR) and SC Haz Mat 2 (HM/WMD)

The Myrtle Beach Fire Department (MBFD) is the host agency for SC Task Force 2 (SCTF 2). SCTF 2 is a regional urban search and rescue (USAR) team that operates under the direction and with the support of the state emergency response task force (SCERTF). Task Force 2 is a type II USAR team comprised of 45 active members. Team members are required to train on a bimonthly basis and remain proficient in a myriad of technical rescue disciplines including structural shoring, technical search, breaching/breaking, and high angle rope rescue. SCTF 2 received a federal grant in 2018 that facilitated the acquisition of a rescue boat package, additional personal protective equipment for flood and swift water response, and two technician level rescue courses (Rope Tech II and Trench Rescue Tech I). This team was activated and staged during Hurricane Florence for a 36 hour period and later provided personnel to staff an additional boat crew to be available for mutual aid during the subsequent flooding from the storm.

MBFD is also the host agency for SC Haz Mat 2 (SCHM 2). SC HM2 is the regional Haz Mat and Weapons of Mass Destruction (WMD) team that serves the Myrtle Beach and Pee Dee area. The team is comprised of 27 active members that are specialized in one of five main

working groups. They are entry/recon, decontamination, communications and research, medical, and command/safety. SCHM 2 also received a federal grant in 2018 allowing the team to purchase a 36' trailer to deploy and house mission

critical equipment and staff. Additional evidence collection, air monitoring, and support equipment was also purchased in addition to facilitating advanced training for team personnel. The team trains on a bimonthly schedule opposite of SCTF 2. During 2018, SCHM 2 was deployed twice by the SC Law Enforcement Division (SLED) to handle calls within the Pee Dee region with components of the team deployed four additional times within the city of Myrtle Beach.

## Ocean Rescue

The Myrtle Beach Fire Department (MBFD) Ocean Rescue team wrapped up its third year on the beach since the team's inception. 2018 marked the first year the fire department was the primary agency leading public safety efforts for beachgoers in the city. The ocean rescue team is comprised of 33 team members that meet or exceed the standards set forth by the American Red Cross, United States Lifesaving Association (USLA), NFPA 1006 and NFPA 1670. MBFD remains one of only 16 USLA certified Aquatic Rescue Response Teams (ARRT) in the country, logging 1,420 hours of aquatic rescue training throughout the year. MBFD staffed four ocean rescue crews that were assigned to the beach from Easter to mid-October. These teams assisted with 219 lost children/persons, deployed 33 rescue swimmers to affect 34 rescues and assists, and had a total 5,208 contacts with the public. 23 lifesaving awards have been issued to team members for their extraordinary efforts last year. As the ocean rescue team continues to expand and prosper, our fleet and equipment cache has been upgraded to enhance and continue to provide an exceptional level of service. The Ocean Rescue team bolsters a fleet of four 4x4 Colorado response pickups, three Yamaha UTVs, four jet skis, one rescue boat, three four wheel drive utility trucks and a substantial amount of associated rescue equipment as well. A special operations battalion chief position was created to manage the program after noted growth and additional responsibilities of the team in 2018.



## Incident Management Team

As a result of Hurricane Florence and the flooding that followed, members of Myrtle Beach Fire were deployed to Dillon, SC from September 18-22. Myrtle Beach Fire personnel represented the Pee Dee Regional Incident Management Team. Positions staffed included: Logistics, Planning and Public Information Officer. The team collaborated with the Upstate IMT and worked from 0700-1900 hours each day. The National Guard and USAR Teams from Texas and Virginia responded to assist. The Dillon County Courthouse was the only government building that had not been flooded.

Myrtle Beach Fire personnel were next deployed to the State of Florida to represent the Pee Dee Regional IMT due to Hurricane Matthew during October 16-27. Personnel arrived at the Emergency Operations Center located in Tallahassee, FL and the team was instructed to create and maintain a "Tent City" that would provide shelter and food for over 2,000 emergency workers including FEMA, National Guard, American Red Cross and local emergency responders.





In less than 72 hours, the site was fully operational. The team was informed that this “Tent City” could be used for up to five months as contracted by the Federal Government. Once this monumental task was completed, members were assigned to their specific IMT responsibilities. MBFD personnel staffed the positions of Safety Officer, Logistics, and Medical Unit Leader.

## MBFD Support of State Response

During and after Hurricane Florence in 2018, team members from the Myrtle Beach Fire Department deployed with the South Carolina Emergency Task Force (SCERTF) to support search and rescue missions throughout the state. Team members were deployed for approximately 14 days and executed a number of missions throughout the Pee Dee region of SC. Boat crews searched for and rescued victims day after day while other team members supported the overall mission conducting recon flights and search & rescue missions with the SC Helicopter Aquatic Rescue Team (SCHART).

The Myrtle Beach Fire Department also supported an ambulance task force coordinated by SC DHEC that responded to Panama City, Florida after Hurricane Michael. MBFD team members were attached to USAR teams from Florida and Louisiana operating under the command of the Jacksonville Fire Department for approximately 10 days. They transported multiple civilian patients while providing medical support for the USAR assets they were working with.

## International Fellowship Program- Captain James Clement

During 2018 Myrtle Beach Fire Department was selected to host the 13<sup>th</sup> Cohort of the International Association of Fire Chiefs (IAFC) Fellowship Program. As part of the International Fellowship Program, international firefighters are placed in leading U.S. fire departments for six months to learn best practices and internalize the U.S. fire service culture. Seven firefighters from Saudi Aramco, the largest oil company in the world, were selected to work alongside our firefighters. The Cohort arrived in August and started their skills verification training in September, which was right in the middle of Hurricane Florence. We brought them in to work with our crews during the preparation for a possible direct hit. Fortunately, we were spared but the experience the cohorts had really set the tempo for a positive start to the program.





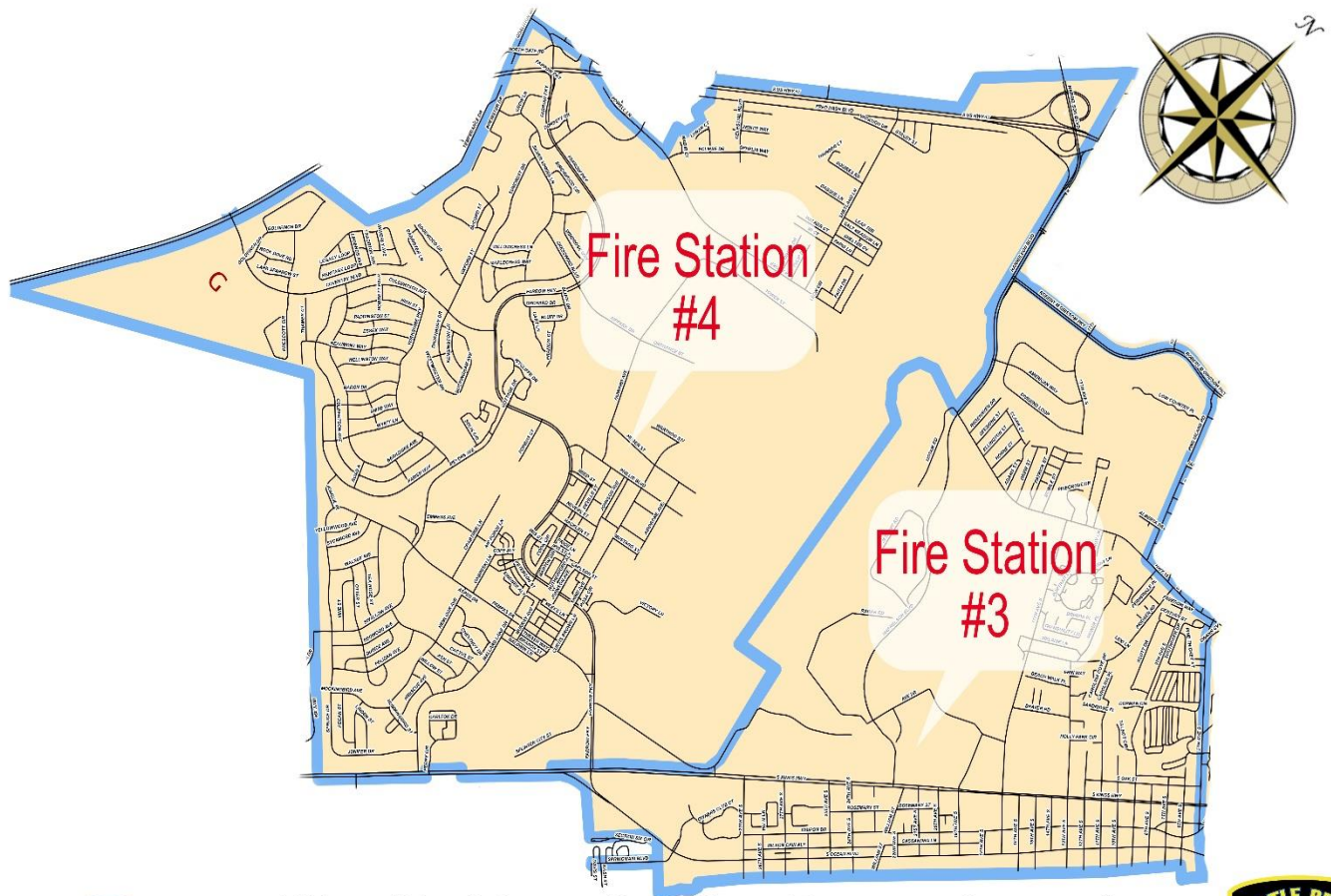
During their shifts the Cohort experienced a variety of emergency incidents to include multi alarm structure fires, EMS calls, fire alarm activations and motor vehicle accidents with entrapment. They also attended public education events, spent time in our 911 dispatch center, shadowed our Deputy Fire Marshals and the Safety officer. They attended the IAFC All Hazards Incident Management Team Conference in Hilton Head and presented a class highlighting the similarities and differences of the IMT's in Saudi Aramco and the United States.

This program was a new experience for our department and at the beginning we were not sure what to expect. The experience was an insight into different cultures and finding out that the fire service is a unique culture of its own. The main take away for all of us was no matter where we are located in the world, firefighters are firefighters, and have the ability to work together for the common cause of helping and serving their communities. The program has exceeded our expectations and those of the Cohort, forming a bond that will last for a lifetime.

#### **Background Information about Saudi Aramco**

- Saudi Aramco largest oil company in world, 80,000 employees worldwide
- Saudi Aramco Fire Protection has 1800 firefighters throughout 48 stations over 100 engines/ trucks
- Some stations are very far apart, the next due station could be 90 kilometers away
- Their company has 4 training facilities throughout the country
- Majority of their calls are industrial firefighting experience with low volume/ high risk, if they have a large scale incident they could be there for 10 days
- As their company continues to grow, their employees need housing that are located on compounds, thus the need to increase interior structure firefighting skills



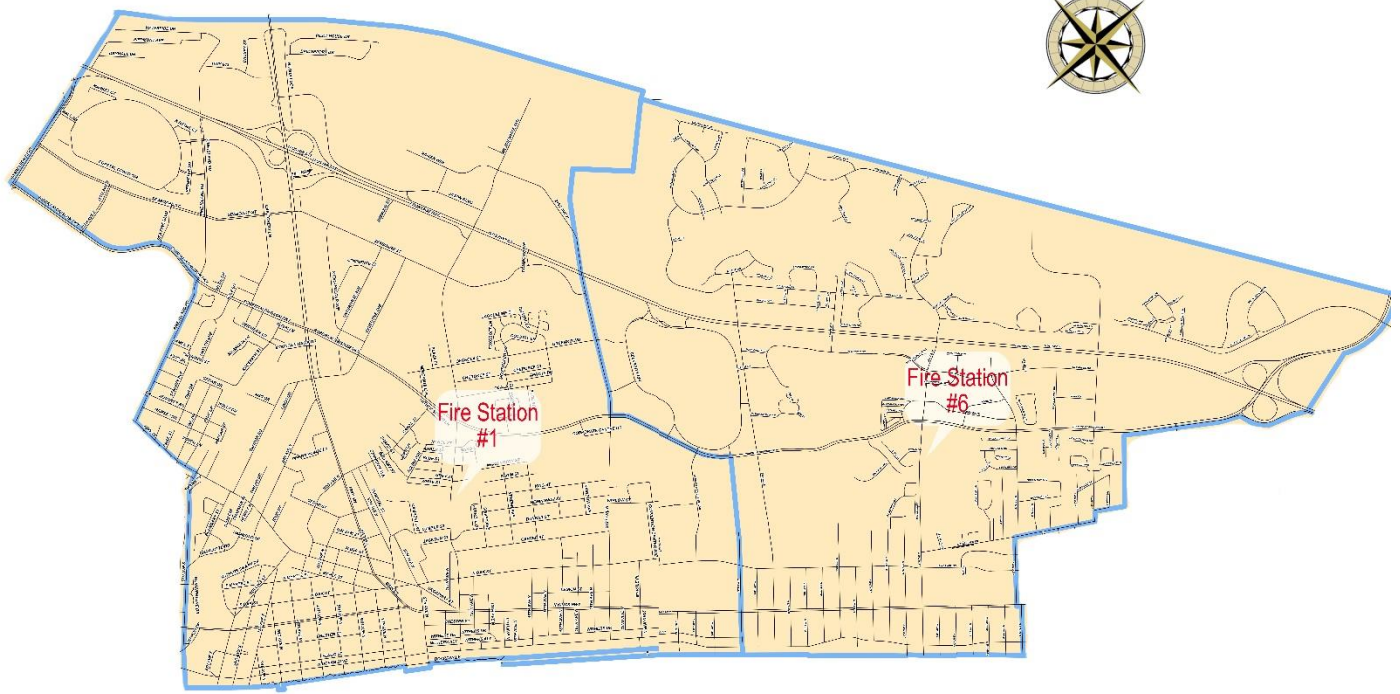


## Myrtle Beach Fire Department

### Station Coverage Areas

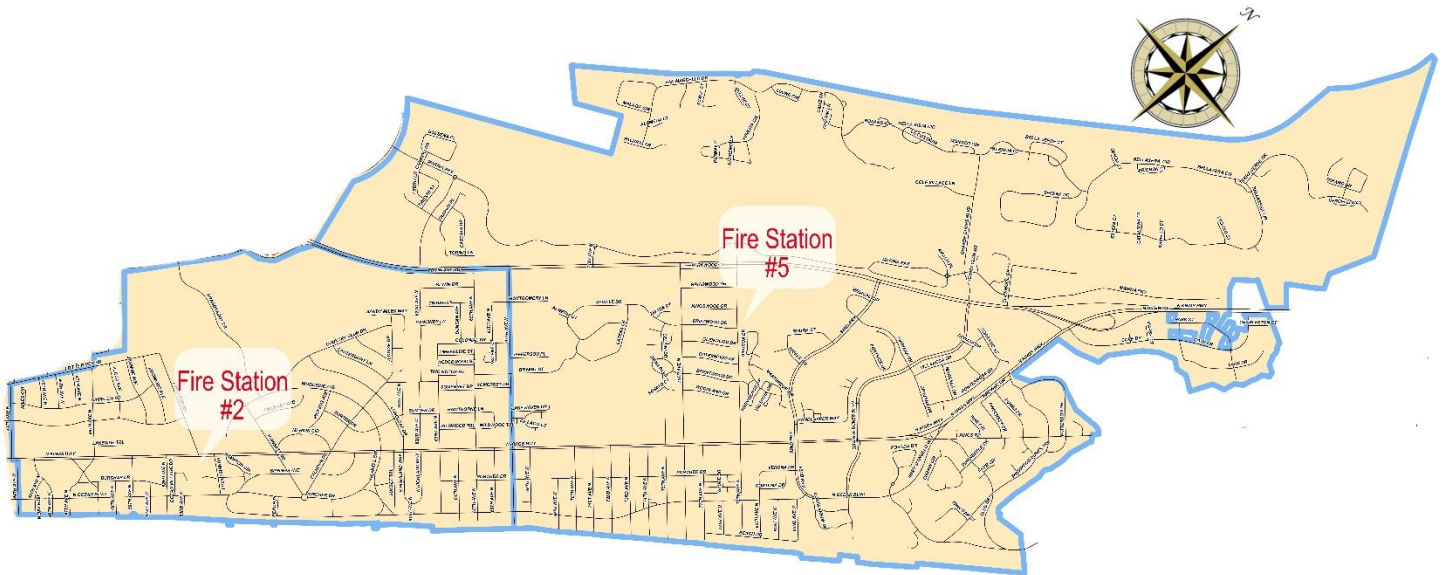






## **Myrtle Beach Fire Department Station Coverage Areas**





## Myrtle Beach Fire Department

### Station Coverage Areas



**Station 2**  
5338 N. Kings Hwy



**Station 5**  
804 79th Ave N