F. Performance Objectives and Measurement

Performance Objectives – Benchmarks

MCFRS has travel time goals and objectives for all operational program areas that generally conform to the industry best practices prescribed in CFAI's 8th edition FESSAM. MCFRS previously had a single set of response time objectives, including a travel time component that did not include both baseline and benchmark objectives as shown in the FESSAM. The MCFRS benchmark objectives are published in the "Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan" adopted by the Montgomery County Council.

The MCFRS objectives are based on prevention of flashover and are similar to NFPA 1710 criteria as applied to our urban density zone. Unlike the travel time objectives in the FESSAM that change with population density but are all set at the 90% performance level, ***the MCFRS travel time objectives were based on the same time (e.g., 4-minute travel time for first arriving engine) regardless of density zone but the performance level varies with the density zone, from 90% (urban), to 75% (suburban), to 50% (rural).***

It is important to note that MCFRS travel time objectives, as well as total response time objectives, were in place before the department sought its initial accreditation in 2007. Since 2007 and subsequent years thereafter, MCFRS has established baseline goals separate from benchmark objectives that are used to evaluate the timely distribution of resources to emergency incidents based upon, not only industry best practices but MCFRS current performance.

Performance Objectives - Baselines

During FY2012, MCFRS established baseline response time goals to bring the department in line with the two-tiered model used by the Commission on Fire Accreditation International (CFAI) whereby fire departments have both "baseline" and "benchmark" response time goals. Baseline response time goals are minimum goals to be met consistently by the department to provide an acceptable and readily achievable level of service to Montgomery County. Benchmark response time goals are more stringent goals the department should strive to meet to achieve the highest desirable level of service to the community. The Fire Chief approved the baseline goals in the fourth quarter of FY2012 and determined that the department's existing set of response time goals, as appearing in the County Council-approved *Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan*, would serve as MCFRS benchmark goals.

MCFRS baseline response time goals were developed collaboratively by the MCFRS Planning Section and Operations Division. Following guidance of the CFAI Program Manager as well as CFAI guidance documents (i.e., 8th edition FESSAM and 5th edition SOC), the first and most important step was to mine and analyze response time data for the most recent fiscal year (i.e., FY2011 at that time). Total response time as well as its component parts (i.e., call processing/dispatch, turnout, and travel time) were examined in the context of first-arriving unit and arrival of the effective response force (ERF) with respect to density zones (i.e., urban, suburban, and rural[1]) where fire-rescue incidents had occurred. Response time data was mined and analyzed for all major emergency program areas, including fire, EMS, hazmat, water/ice rescue, technical rescue, bomb, and aviation fire-rescue. The fire category was originally limited to fire-full assignment but has since been expanded to include fire-full assignment (e.g., structure fire, Metro box, train fire) and fire adaptive (e.g., dumpster, vehicle, brush, alarm bells, automatic fire alarm, odor of smoke), each analyzed separately. The EMS category was divided into ALS (i.e., ALS1 and ALS2) and BLS. The 90th percentile performance was determined for each of these program areas/categories for both first-arriving unit and ERF.

[1] A fourth density zone – "Metropolitan" – was subsequently added in FY2013 to bring MCFRS' model in line with that used by CFAI; although similar to CFAI, the baseline goals for the Metropolitan and Urban density zones are identical. A fifth density zone used by CFAI – "Wilderness" – is not applicable in Montgomery County.

With the FY2011 90th percentile times in hand, the department's baseline goals development group [note: the group had no designated name] performed a comparison with other response time criteria in use by the Operations Division to determine how they might influence the determination of MCFRS baseline goals. These Operations Division "benchmarks" (not to be confused with MCFRS' official benchmark goals appearing in the Master Plan) for fire-full assignment are: 7 minutes 30 seconds for first-arriving engine "(regardless of density zone where the incident occurred), and 11 minutes 30 seconds for the remaining units of the "plan requirement" (regardless of density zone), including 2 additional engines, 1 special service (aerial unit or rescue squad), and 1 chief unit. The 7:30 and 11:30 total response times include a 2 minute 30 second goal for call processing/dispatch and 1 minute 30 second goal for turnout.

The FY2011 90th percentile times were then compared to the CFAI-recommended baseline criteria appearing on pages 70 and 71 of the 8th edition FESSAM.

Upon completing these comparative steps and following discussion with managers of the various emergency program areas and careful deliberation, the baseline goals development group settled upon the specific baseline goals that they believed the department should be able to achieve based on FY2011 performance, while ensuring the goals were reasonably close to the CFAI baseline criteria and the Operations Division's "benchmarks." These proposed baseline goals were then presented to the Fire Chief who approved them.

PERFORMANCE STATEMENTS FOR EMERGENCY PROGRAMS BENCHMARKS AND BASELINES

The Montgomery County Fire and Rescue Service response and deployment standards are based upon the metropolitan, urban, suburban, and rural population density zones and levels of risk. Thirty-six stations provide county-wide coverage; department staffing is based upon station location and incident type and frequency. The targeted service level objectives in the benchmark and baseline statements are based on industry standards, best practices, and actual MCFRS response time performance between FY10 and FY13 Quarter 2.

PERFORMANCE STATEMENTS STRUCTURE FIRE

BENCHMARK

For high and special risk structure fires (i.e., fire-full assignment) in metropolitan and urban areas, the benchmark total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three firefighters, shall be 9 minutes. For structure fires in suburban areas, the benchmark total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 10 mins 30 secs. For structure fires in rural areas, the benchmark total response time at the 90th percentile for arrival of the first unit shall be 15 mins.

The first-arriving unit for all fire-related risk levels shall be capable of providing an uninterrupted water supply of a minimum of 400 gallons of water for 30 minutes with supply lines maintained by the operator at a 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing and advancing an attack line flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations shall be done in accordance

with departmental standard operating procedures while providing for the safety of responders and the general public.

For high risk and special structure fires in metropolitan and urban areas, the benchmark total response time at the 90th percentile for the arrival of the effective response force (ERF), staffed with 24-31 firefighters and officers, shall be 14 mins 30 secs. For structure fires in suburban areas, the benchmark total response time at the 90th percentile for the arrival of the ERF shall be 15 mins. For structure fires in rural areas, the benchmark total response time at the 90th percentile for the arrival of the ERF shall be 16 mins.

The ERF for all high and special risk incidents shall be responsible for: establishing command; providing an uninterrupted water supply; advancing an attack line and a backup line for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two in-two out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. The ERF for high and special risk structure fires will also be responsible for placing elevated streams into service from aerial ladders. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

PERFORMANCE STATEMENT STRUCTURE FIRE

BASELINE (current performance)

The department's baseline statements reflect actual performance from FY2010 to FY2013, Quarter 2. The department does rely on the use of mutual aid from neighboring fire departments to provide its effective response force complement of personnel. The department's actual baseline service level performance for structure fire (i.e., fire-full assignment) is as follows:

For high and special risk structure fires (i.e., fire-full assignment) in metropolitan and urban areas, the baseline total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 9 mins. For structure fires in suburban areas, the baseline total response time at the 90th percentile for arrival of the first unit shall be 9 mins 40 secs. For structure fires in rural areas, the baseline total response time at the 90th percentile for arrival of the first unit shall be 12 mins.

For high risk and special structure fires in metropolitan and urban areas, the baseline total response time at the 90th percentile for the arrival of the effective response force (ERF), staffed with 24-31 firefighters and officers, shall be 13 mins 50 secs. For structure fires in suburban areas, the baseline total response time at the 90th percentile for the arrival of the ERF shall be 15 mins 10 secs. For structure fires in rural areas, the baseline total response time at the 90th percentile for the arrival of the ERF shall be 18 mins 50 secs.

PERFORMANCE STATEMENTS FIRE-ADAPTIVE

BENCHMARK

Fire-adaptive incidents are low to moderate risk incidents typically requiring the response of a single 3-person or 4-person engine. For certain incidents, a 2nd engine and/or special service (i.e., aerial unit or rescue squad) is included in the response assignment. Examples of fire-adaptive incidents include dumpster, debris, brush, vehicle, electrical short, odor of smoke, alarm bells, activate smoke detector, etc.

For fire-adaptive incidents in metropolitan and urban areas, the benchmark total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 9 minutes. For fire-adaptive incidents in suburban areas, the benchmark total response time at the 90th percentile for arrival of the first unit shall be 10 mins 30 secs. For fire-adaptive incidents in rural areas, the benchmark total response time at the 90th percentile for arrival of the first unit shall be 15 mins.

The first-arriving unit for all fire-related risk levels shall be capable of providing an uninterrupted water supply of a minimum of 400 gallons of water for 30 minutes with supply lines maintained by the operator at a 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing and advancing an attack line flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations

Note: ERF benchmarks have not been established for fire-adaptive incidents because a single 3-person or 4-person unit (i.e., first arriving engine) is usually sufficient to handle this type of low-moderate risk incident.

PERFORMANCE STATEMENT FIRE-ADAPTIVE

BASELINE (current performance)

The department's baseline statements reflect actual performance from FY2010 to FY2013, Quarter 2. The department does rely on the use of mutual aid from neighboring fire departments to provide its effective response force complement of personnel. The department's actual baseline service level performance for fire-adaptive is as follows:

For fire-adaptive incidents in metropolitan and urban areas, the baseline total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 12 mins 10 secs. For fire-adaptive incidents in suburban areas, the baseline total response time at the 90th percentile for arrival of the first unit shall be 14 mins 10 secs. For fire-adaptive incidents in rural areas, the baseline total response time at the 90th percentile for arrival of the first unit shall be 15 mins 40 secs.

Note: ERF baselines have not been established for fire-adaptive incidents because a single 3-person or 4-person unit (i.e., first arriving engine) is usually sufficient to handle this type of low-moderate risk incident.

PERFORMANCE STATEMENTS EMS

BENCHMARK

Emergency Medical Services (EMS) incidents consist of advanced life support (ALS) and basic life support (BLS) incidents. ALS incidents consist of ALS1 (requiring 1 ALS provider) or ALS2 (requiring 2 ALS providers) depending upon the severity of the incident as defined in MCFRS/EMD protocols. ALS patients are considered moderate to high risk, while BLS patients are considered low risk.

For ALS incidents – both ALS1 and ALS2 – occurring in metropolitan and urban areas, the benchmark total response time at the 90th percentile for arrival of the first-ALS unit, staffed by at least 1 EMT-P and 1 EMT-B, shall be 11 minutes. For ALS incidents in suburban areas, the benchmark total response time at the 90th percentile for arrival of the first-ALS unit shall be 12 mins 30 secs. For ALS incidents in rural areas, the benchmark total response time at the 90th percentile for arrival of the first-ALS unit shall be 16 minutes. The first-arriving ALS unit shall be capable of: assessing scene safety and establishing command; sizing-up the situation; conducting initial patient assessment; obtaining vitals and patient's medical history; initiating mitigation efforts within one minute of arrival; providing first-responder medical aid including automatic external defibrillation; initiating cardio-pulmonary resuscitation (CPR); and providing intravenous (IV) access-medication administration if required and assisting transport personnel with packaging the patient.

For BLS incidents in metropolitan and urban areas, the benchmark total response time at the 90th percentile for arrival of the EMS unit (ambulance staffed by 2 EMT-Bs or medic unit staffed by 1 EMT-P and 1 EMT-B) shall be 14 minutes. For BLS incidents in suburban areas, the benchmark total response time at the 90th percentile for arrival of the EMS unit shall be 16 mins. For BLS incidents in rural areas, the benchmark total response time at the 90th percentile for arrival of the EMS unit shall be 20 minutes. The EMS unit shall be capable of: assessing scene safety and establishing command; sizing-up the situation; conducting initial patient assessment;

obtaining vitals and patient's medical history; initiating mitigation efforts within one minute of arrival; providing first-responder medical aid including automatic external defibrillation; initiating cardio-pulmonary resuscitation (CPR); and providing intravenous (IV) access-medication administration if required and assisting transport personnel with packaging the patient.

For ALS1 incidents within metropolitan and urban areas, the benchmark total response time for the arrival of the effective response force (ERF), staffed by at least 1 EMT-P and at least 4 EMT-Bs responding in two units, shall be 12 mins. For ALS1 incidents within suburban areas, the benchmark total response time for the arrival of the ERF shall be 13 mins. For ALS1 incidents within rural areas, the benchmark total response time for the arrival of the ERF shall be 14 mins 30 secs.

For ALS2 incidents within metropolitan and urban areas, the benchmark total response time for the arrival of the effective response force (ERF), staffed by at least 2 EMT-Ps and at least 3 EMT-Bs responding in two or three units, shall be 11 mins 30 secs. For ALS2 incidents within suburban areas, the benchmark total response time for the arrival of the ERF shall be 12 mins 30 secs. For ALS2 incidents within rural areas, the benchmark total response time for the arrival of the ERF shall be 13 mins 30 secs.

Note: ERF benchmarks have not been established for BLS incidents because a single two-person unit (i.e., first arriving EMS unit) is sufficient to handle the patient except in rare cases when a manpower unit is also dispatched, usually at the request of the on-scene EMS unit to assist with a heavy patient.

The ERF is capable of: providing incident command and producing related documentation; completing patient assessment; providing appropriate treatment; performing AED; initiating CPR; and providing IV access-medication administration.

PERFORMANCE STATEMENTS EMS

BASELINE (current performance)

The department's baseline statements reflect actual performance from FY2010 to FY2013, Quarter 2. The department does rely on the use of mutual aid from neighboring fire departments to provide its effective response force complement of personnel. The department's actual baseline service level performance for EMS incidents is as follows:

For ALS incidents – both ALS1 and ALS2 – occurring in metropolitan and urban areas, the baseline total response time at the 90th percentile for arrival of the first-arriving ALS unit, staffed by at least 1 EMT-P and 1 EMT-B, shall be 11 mins 30 secs. For ALS incidents in suburban areas, the baseline total response time at the 90th percentile for arrival of the first-arriving ALS unit shall be 13 mins. For ALS incidents in rural areas, the baseline total response time at the 90th percentile for arrival of the first-arriving ALS unit shall be 13 mins 10 secs.

For BLS incidents occurring in metropolitan and urban areas, the baseline total response time at the 90th percentile for arrival of the EMS unit (ambulance staffed by 2 EMT-Bs or medic unit staffed by 1 EMT-P and 1 EMT-B) shall be 13 mins 40 secs. For BLS incidents in suburban areas, the baseline total response time at the 90th percentile for arrival of the EMS unit shall be 14 mins 50 secs. For BLS incidents in rural areas, the baseline total response time at the 90th percentile for arrival of the EMS unit shall be 15 mins 20 secs.

For ALS1 incidents within metropolitan and urban areas, the baseline total response time for the arrival of the effective response force (ERF), staffed by at least 1 EMT-P and at least 4 EMTs responding in two units, shall be 14 mins. For ALS1 incidents within suburban areas, the baseline total response time for the arrival of the ERF shall be 15 mins 10 secs. For ALS1 incidents within rural areas, the baseline total response time for the arrival of the ERF shall be 15 mins 40 secs.

For ALS2 incidents within metropolitan and urban areas, the baseline total response time for the arrival of the effective response force (ERF), staffed by at least 2 EMT-Ps and at least 3 EMTs responding in two or three units, shall be 13 mins 50 secs. For ALS2 incidents within suburban areas, the baseline total response time for the arrival of the ERF shall be 14 mins 50 secs. For ALS2 incidents within rural areas, the baseline total response time for the arrival of the ERF shall be 16 mins 20 secs.

Note: ERF baselines have not been established for BLS incidents because a single two-person unit (i.e., first arriving EMS unit) is sufficient to handle the patient except in rare cases when a manpower unit is also dispatched, usually at the request of the on-scene EMS unit to assist with a heavy patient.

PERFORMANCE STATEMENTS TECHNICAL RESCUE

BENCHMARK

For technical rescue incidents in metropolitan and urban areas, the benchmark total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 10 minutes. For technical rescue incidents in suburban areas, the benchmark total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 11 mins 30 secs. For technical rescue incidents in rural areas, the benchmark total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 15 mins 30 secs. The first unit is capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.

For technical rescue incidents in any/all of the density zones, the benchmark total response time at the 90th percentile for the arrival of the effective response force (ERF), staffed with 36 firefighters and officers including the technical rescue response team, shall be 30 mins.

PERFORMANCE STATEMENT TECHNICAL RESCUE

BASELINE (current performance)

The department's baseline statements reflect actual performance from FY2010 to FY2013, Quarter 2. The department does rely on the use of mutual aid from neighboring fire departments to provide its effective response force complement of personnel. The department's actual baseline service level performance for technical rescue is as follows:

For technical rescue incidents in metropolitan and urban areas, the baseline total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 12 mins 50 secs. For technical rescue incidents in suburban areas, the baseline total response

time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 14 mins 30 secs. For technical rescue incidents in rural areas, the baseline total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 16 mins 40 secs. The first-arriving unit is capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.

For technical rescue incidents in any/all of the density zones, the baseline total response time at the 90th percentile for the arrival of the effective response force (ERF), staffed with 36 firefighters and officers including the technical rescue response team, shall be 30 mins. The ERF is capable of: establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills and abilities during technical rescue incidents; and providing first responder medical support.

PERFORMANCE STATEMENTS HAZARDOUS MATERIALS

BENCHMARK

For hazardous materials ("hazmat") incidents in metropolitan and urban areas, the benchmark total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three firefighters, shall be 10 minutes. For hazmat incidents in suburban areas, the benchmark total response time at the 90th percentile for arrival of the first unit shall be 11 mins 30 secs. For hazmat incidents in rural areas, the benchmark total response time at the 90th percentile for arrival of the first unit shall be 15 mins 30 secs. The first-arriving unit is capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material or explosive device; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing the hot, warm and cold zones.

For hazmat incidents in any/all of the density zones, the benchmark total response time at the 90th percentile for the arrival of the effective response force (ERF), staffed with 20 firefighters and officers including the hazardous materials response team, shall be 30 mins.

PERFORMANCE STATEMENT HAZARDOUS MATERIALS

BASELINE (current performance)

The department's baseline statements reflect actual performance from FY2010 to FY2013, Quarter 2. The department does rely on the use of mutual aid from neighboring fire departments to provide its effective response force complement of personnel. The department's actual baseline service level performance for hazmat is as follows:

For hazmat incidents in metropolitan and urban areas, the baseline total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 11

mins 10 secs. For hazmat incidents in suburban areas, the baseline total response time at the 90th percentile for arrival of the first unit shall be 12 mins. For hazmat incidents in rural areas, the baseline total response time at the 90th percentile for arrival of the first unit shall be 13 mins 20 secs. The first-arriving unit is capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.

For hazmat incidents in any/all of the density zones, the baseline total response time at the 90th percentile for the arrival of the effective response force (ERF), staffed with 20 firefighters and officers including the hazardous materials response team, shall be 30 mins.

PERFORMANCE STATEMENT WATER/ICE RESCUE

BENCHMARK

For water/ice rescue incidents in metropolitan and urban areas, the benchmark total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 10 minutes. For hazmat incidents in suburban areas, the benchmark total response time at the 90th percentile for arrival of the first unit, shall be 11 mins 30 secs. For hazmat incidents in rural areas, the benchmark total response time at the 90th percentile for arrival of the first unit shall be 15 mins 30 secs.

The first arriving unit will:

- Establish command
- Indicate command mode
- Ensure that accountability is established
- Complete victim ID & victim location sheets with any and all information available (ECC, calling party, witnesses).
- Begin formulation of an Incident Action Plan for resolution of the incident.

For water/ice rescue incidents in any/all of the density zones, the benchmark total response time at the 90th percentile for the arrival of the effective response force (ERF) shall be 30 mins. For water rescue incidents that do not involve swift water, minimum effective staffing shall be 14 personnel. For water rescue incidents that do involve swift water, minimum effective staffing will be 19 personnel.

The minimum staffing for a RRATS Strike Team is 2 boat operators and 2 crew members. Each of Stations 10 and 30 can staff an independent strike team deployment. The initial on-scene boat will not depart the launch site until a second boat has arrived on scene. An exception to this may be made if a known life hazard exists, i.e.; priority one patient, multiple persons in the water. This is similar to the Safe Structural Fire Fighting Policy of immediate entry for a known rescue.

PERFORMANCE STATEMENT WATER/ICE RESCUE

BASELINE (current performance)

The department's baseline statements reflect actual performance from FY2010 to FY2013, Quarter 2. The department does rely on the use of mutual aid from neighboring fire departments to provide its effective response force complement of personnel. The department's actual baseline service level performance for water/ice rescue is as follows:

For water/ice rescue incidents in metropolitan and urban areas, the baseline total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 10 mins 20 secs. For water/ice rescue incidents in suburban areas, the baseline total response time at the 90th percentile for arrival of the first unit shall be 13 mins. For water/ice incidents in rural areas, the baseline total response time at the 90th percentile for arrival of the first unit shall be 18 mins.

For water/ice rescue incidents in any/all of the density zones, the baseline total response time at the 90th percentile for the arrival of the effective response force (ERF) shall be 30 mins. For water rescue incidents that do not involve swift water, minimum effective staffing shall be 14 personnel. For water rescue incidents that do involve swift water, minimum effective staffing will be 19 personnel. The ERF will be responsible for: Establishing command, Indicating the command mode, Ensuring that accountability is established, Completing victim ID & victim location sheets with any and all information available (ECC, calling party, witnesses), and Begin formulation of an Incident Action Plan for resolution of the incident.

PERFORMANCE STATEMENT AVIATION RESCUE-FIREFIGHTING

BENCHMARK

For aviation incidents in metropolitan and urban areas, the benchmark total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 10 minutes. For aviation incidents in suburban areas, the benchmark total response time at the 90th percentile for arrival of the first unit shall be 11 mins 30 secs. For aviation incidents in rural areas, the benchmark total response time at the 90th percentile for arrival of the first unit shall be 15 mins 30 secs.

The first-arriving unit will have the capability to: establish command, size-up the situation, place one line in service at either 150 gallons per minute or 250 gallons per minute, comply with the requirements of Two In/Two Out (OSHA 1910.134), initiate mitigation efforts within one minute of arrival, provide first-responder medical aid including cardiac defibrillation.

For aviation incidents in any/all of the density zones, the benchmark total response time at the 90th percentile for the arrival of the effective response force (ERF), staffed with 33 firefighters, shall be 30 mins. The ERF will have the capability to: establish command, size-up the situation, provide an uninterrupted water supply; advance an attack line and a backup line for fire control; comply with the requirements of Two In/Two Out (OSHA 1910.134), rescuing at-risk victims, and provide first-responder medical aid including cardiac defibrillation.

PERFORMANCE STATEMENT AVIATION RESCUE-FIREFIGHTING

BASELINE (current performance)

The department's baseline statements reflect actual performance from FY2012 to FY2013, Quarter 2 (after the establishment of Aviation baseline goals). The department does rely on the use of mutual aid from neighboring fire departments to provide its effective response force complement of personnel. The department's actual baseline service level performance for aviation rescue-firefighting is as follows:

For aviation incidents in metropolitan and urban areas, the baseline total response time at the 90th percentile for arrival of the first unit, staffed with a minimum of three fire fighters, shall be 9 mins. For aviation incidents in suburban areas, the baseline total response time at the 90th percentile for arrival of the first unit shall be 9 mins 40 secs. For aviation incidents in rural areas, the baseline total response time at the 90th percentile for arrival of the first unit shall be 12 mins 10 secs.

For aviation incidents in any/all of the density zones, the baseline total response time at the 90th percentile for the arrival of the effective response force (ERF), staffed by 33 firefighters and officers, shall be 30 mins.

PERFORMANCE STATEMENT EXPLOSIVE DEVICE INCIDENTS BENCHMARK

For explosive device incidents in metropolitan and urban areas, the benchmark total response time at the 90th percentile for arrival of the first bomb squad unit (i.e., Bomb Squad vehicle itself or bomb technician responding in a FM's vehicle) shall be 30 minutes. For explosive device incidents in suburban areas, the benchmark total response time at the 90th percentile for arrival of the first bomb squad unit shall be 35 mins. For explosive device incidents in rural areas, the benchmark total response time at the 90th percentile for arrival of the first bomb squad unit shall be 40 mins. The first-arriving bomb squad unit is capable of: scene assessment, determining the presence of an explosive device, determining the need for additional resources, estimating potential harm without intervention, and establishing hot, warm, and cold zones.

For explosive device incidents occurring in metropolitan and urban areas, the benchmark total response time at the 90th percentile for the arrival of the effective response force (ERF), comprised of 36 personnel including the Bomb Squad, shall be 40 mins. For explosive device incidents occurring in suburban areas, the benchmark total response time at the 90th percentile for the arrival of the ERF shall be 45 mins. For explosive device incidents occurring in rural areas, the benchmark total response time at the 90th percentile for the arrival of the ERF shall be 50 mins.

PERFORMANCE STATEMENT EXPLOSIVE DEVICE INCIDENTS BASELINE (current performance)

The department's baseline statements reflect actual performance from FY2010 to FY2013, Quarter 2. The department does rely on the use of mutual aid from neighboring fire departments to provide its effective response force complement of personnel. The department's actual baseline service level performance for explosive device is as follows:

For explosive device incidents in metropolitan and urban areas, the baseline total response time at the 90th percentile for arrival of the first bomb squad unit (i.e., Bomb Squad vehicle itself or bomb technician responding in a FM's vehicle) shall be 32 mins 40 secs. For explosive device incidents in suburban areas, the baseline total response time at the 90th percentile for arrival of the first bomb squad unit shall be 35 mins. For explosive device incidents in rural areas, the baseline total response time at the 90th percentile for arrival of the first bomb squad unit shall be 37 mins 30 secs.

For explosive device incidents occurring in metropolitan and urban areas, the baseline total response time at the 90th percentile for the arrival of the effective response force (ERF), comprised of 36 personnel including the Bomb Squad, shall be 40 mins. For explosive device incidents occurring in suburban areas, the baseline total response time at the 90th percentile for the arrival of the ERF shall be 45 mins. For explosive device incidents occurring in rural areas, the baseline total response time at the 90th percentile for the arrival of the ERF shall be 50 mins.

MCFRS FIRST-ARRIVING UNIT BASELINE RESPONSE TIME GOALS AT 90th PERCENTILE PERFORMANCE LEVEL

	METROPOLITAN AND URBAN DENSITY AREAS				SUBURBAN DENSITY AREA				RURAL DENSITY AREA			
Service	PtoD	Turnout	Travel	TRT	PtoD	Turnout	Travel	TRT	PtoD	Turnout	Travel	TRT
ALS	2:30	1:30	7:00	**11:00**	2:30	1:30	8:30	**12:30**	2:30	1:30	12:00	**16:00**
Fire-Full Assignment	2:30	1:30	5:00	**9:00**	2:30	1:30	6:30	**10:30**	2:30	1:30	11:00	**15:00**
Fire-Adaptive	2:30	1:30	5:00	**9:00**	2:30	1:30	6:30	**10:30**	2:30	1:30	11:00	**15:00**
BLS	2:30	1:30	10:00	**14:00**	2:30	1:30	12:00	**16:00**	2:30	1:30	16:00	**20.00**
Heavy Rescue/Extrc.	2:30	1:30	9:30	**13:30**	2:30	1:30	11:00	**15:00**	2:30	1:30	14:00	**18:00**
Tanker*	N/A	N/A	N/A	N/A	2:30	1:30	10:00	**14:00**	2:30	1:30	14:00	**18:00**
Hazmat	2:30	1:30	6:00	**10:00**	2:30	1:30	7:30	**11:30**	2:30	1:30	11:30	**15:30**
Water/Ice Rescue	2:30	1:30	6:00	**10:00**	2:30	1:30	7:30	**11:30**	2:30	1:30	11:30	**15:30**
Technical Rescue	2:30	1:30	6:00	**10:00**	2:30	1:30	7:30	**11:30**	2:30	1:30	11:30	**15:30**
Aviation Fire/Rescue	2:30	1:30	6:00	**10:00**	2:30	1:30	7:30	**11:30**	2:30	1:30	11:30	**15:30**
Explosive Device	2:30	1:30	26:00	**30:00**	2:30	1:30	31:00	**35:00**	2:30	1:30	36:00	**40:00**

First-Arriving Unit Criteria:

- ALS incident: Medic Unit or ALS first-responder apparatus
- Fire-Full Assignment: Engine, engine-tanker, quint, aerial unit, or rescue squad
- Fire–Adaptive (Non-full assignment): Engine, engine-tanker, quint, aerial unit, or rescue squad
- BLS incident: Ambulance or Medic Unit
- Vehicle Extrication: Rescue squad or extrication-capable truck**
- Hazmat, Water/Ice Rescue, Technical Rescue, Aviation Fire/Rescue:
- Any unit***
- Aviation Fire/Rescue: Engine, engine-tanker, quint, aerial unit, or rescue squad
- Explosive Device: Bomb Unit (BU700) or a Bomb Technician (FM Unit)****

* Tanker dispatched to fire-full assignment incident in non-hydranted area. ** Extrication-capable trucks include Trucks 706, 710, 716, 725, and 731.

*** Any unit, based upon all IECS-certified personnel minimally trained at Awareness Level for water/ice rescue and technical rescue and Operations Level for hazmat; therefore any unit can initiate scene assessment before arrival of specialty team personnel.

**** Bomb Squad typically responds emergency to bomb/suspicious package incidents (Incident Type BOMB-P), depending upon the level of risk. Suppression, rescue, and EMS units are not initially dispatched on BOMB-P incidents, unless an explosion/detonation has been reported or the Bomb Squad Leader requests the units.

MCFRS EFFECTIVE RESPONSE FORCE BASELINE RESPONSE TIME GOALS AT 90th PERCENTILE PERFORMANCE LEVEL

	METROPOLITAN AND URBAN DENSITY AREAS				SUBURBAN DENSITY AREA				RURAL DENSITY AREA			
Incident Category	PtoD	Turnout	Travel	TRT	PtoD	Turnout	Travel	TRT	PtoD	Turnout	Travel	TRT
ALS-1	2:30	1:30	8:00	**12:00**	2:30	1:30	9:00	**13:00**	2:30	1:30	10:30	**14:30**
ALS-2	2:30	1:30	7:30	**11:30**	2:30	1:30	8:30	**12:30**	2:30	1:30	9:30	**13:30**
Fire-Full Assignment	2:30	1:30	10:30	**14:30**	2:30	1:30	11:00	**15:00**	2:30	1:30	12:00	**16:00**
Hazmat	2:30	1:30	26:00	**30:00**	2:30	1:30	26:00	**30:00**	2:30	1:30	26:00	**30:00**
Water/Ice Rescue	2:30	1:30	26:00	**30:00**	2:30	1:30	26:00	**30:00**	2:30	1:30	26:00	**30:00**
Technical Rescue	2:30	1:30	26:00	**30:00**	2:30	1:30	26:00	**30:00**	2:30	1:30	26:00	**30:00**
Aviation Fire/Rescue	2:30	1:30	26:00	**30:00**	2:30	1:30	26:00	**30:00**	2:30	1:30	26:00	**30:00**
Explosive Device	2:30	1:30	36:00	**40:00**	2:30	1:30	41.00	**45:00**	2:30	1:30	46:00	**50:00**

Effective Response Force (ERF) Criteria:

- ALS-1: Medic Unit + manpower unit , or AFRA + Ambulance
- ALS-2: Medic Unit + AFRA, or 2 AFRAs + Ambulance, or 2 Medic Units
- Fire- Full Assignment: 3 engines, 1 special service (aerial unit or rescue squad), 1 command officer
- Hazmat: Depends on level of incident. Typically involves response of a hazmat unit and hazmat support units; possibly other units.
- Water/Ice: Depends on incident type. Typically involves response of two swift water strike teams; possibly other units.
- Technical Rescue: Depends on level of incident. Will involve response of US&R units, rescue squads, EMS and suppression units.
- Aviation Fire/Rescue:
  - Small Plane: 3 engines, rescue squad, aerial unit, 2 medic units, ambulance, hazmat unit, hazmat support unit, command officer
  - Large Plane: 5 engines, 2 aerial units, rescue squad, 2 medic units, 2 ambulances, 2 hazmat units, 2 hazmat support units, 2 command officers
- Explosive: Depends on level of risk*. Will involve response of BU700 and at least two bomb technicians; possibly other units.

* The MCFRS Bomb Squad has primary responsibility for bomb/suspicious package incidents (Incident Type: BOMB-**P**). When requested by the Bomb Squad Leader, an engine, medic unit, and battalion chief are dispatched to assist. Montgomery County Police (MCP) has primary responsibility for bomb threats (Incident Type BOMB-**T**), with MCFRS Bomb Squad personnel providing technical support services when requested by MCP. Baseline goals do not apply to BOMB-T incidents which typically involve a routine response or no response (i.e., phone consultation with MCP) by Bomb Squad personnel.

Fire Suppression

The MCFRS will provide adequate fire suppression resources in a timely manner in order to prevent loss of life, property and environmental damage from structural fires.

Goal:

This Fire Suppression Operational Program Goal is based on NFPA 1710 *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*. The MCFRS fire suppression operations shall be organized to ensure adequate deployment of personnel, equipment, and resources for the first arriving company and initial full alarm assignment.

Strategies:

The MCFRS will work in strategic partnerships with the community, the county government, bargain units, and local fire/rescue departments to obtain, deploy and utilize adequate fire suppression resources to mitigate structural fires in Montgomery County.

Objectives:

Personnel assigned to the initial arriving engine company will have the capability to implement an initial Rapid Intervention Crew.

Fire suppression resources will be deployed so that the initial full alarm assignment will be capable of providing the following:

- Establishment of incident command outside of the structure of the hazard area
- Establishment of an uninterrupted water supply of a minimum of 400 gpm for 30 minutes with supply lines maintained by an operator
- Establishment of an effective water flow application rate of 300 gpm from two hand-lines by a minimum of two individuals to effectively and safely maintain the line
- Provision of one support person for each attack and backup line deployed to provide hydrant hook-up and to assist in laying of hose-lines, utility control, and forcible entry
- Provision of at least one victim search and rescue team consisting of a minimum of two individuals

- Provision of at least one team, consisting of a minimum of two individuals, to raise ground ladders and perform ventilation
- One person to function as an aerial operator and maintain primary control of the aerial device at all times
- Establishment of a Rapid Intervention Group consisting of at least two properly equipped and trained individuals

Distribution

For 90% of Fire responses within Metropolitan densities for low, moderate, high and special hazards, the first arriving unit will arrive within 9 minutes total response time.

For 90% of Fire responses within Urban densities for low, moderate, high and special hazards, the first arriving unit will arrive within 9 minutes total response time.

For 90% of Fire responses within Suburban densities for low, moderate, high and special hazards, the first arriving unit shall arrive within 10.5 minutes total response time.

For 90% of Fire responses within Rural densities for low, moderate, high, and special hazards, the first arriving unit shall arrive within 15 minutes total response time.

Concentration

For 90% of Fire responses within Metropolitan densities for low, moderate, high and special hazards, the effective response force will arrive within 12 minutes total response time.

For 90% of Fire responses within Urban densities for low, moderate, high and special hazards, the effective response force will arrive within 12 minutes total response time.

For 90% of Fire responses within Suburban densities for low, moderate, high and special hazards, the effective response force shall arrive within 14.5 minutes total response time.

For 90% of Fire responses within Rural densities for low, moderate, high, and special hazards, the

effective response force shall arrive within 15 minutes total response time.

LEVELS OF RISK

Low Risk:

Low hazard events are identified as small scale incidents where a single primary unit can mitigate the incident without any additional resources involved. The minimum response force for these events is three 3-4 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Unit Officer
Pump operator	1	Driver operator
Attack line	1/2	Firefighter

Minimum of 3 personnel

Examples of this category reflected in call types include:

Call Type	Definition
SC/CO	Service call for an activated CO detector with no one sick
SC/LKOT	Service call to assist with a lock out

Moderate Risk:

Moderate hazard events can be classified as fire and/or non-fire events but have the potential for escalation and typically require the establishment of a water source and/or special service to mitigate the incident. The minimum response force for these events is 8-12 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	First arriving unit officer
Attack line	2	First arriving engine
Pump operator	1	1st arriving Driver/operator
Back up line	2/3	2nd arriving engine
Initial water supply	1	2nd arriving engine
Ventilation/truck ops	3	Special service

Minimum of 8 personnel

Examples of this category reflected in call types include:

Call Type	Definition
FIR/ODOR	Odor of smoke
FIR/OUT	Fire reported out
ELEC/SHT	Electrical short
GAS/IN	Gas leak inside

High Risk (Structure Fires):

High risk events are classified as those where a fire or immediately dangerous life hazard (IDLH)is present thus requiring the response of all necessary resources for mitigation including: five (5) engines, two (2) aerial units, one (1) Rescue Squad, two (2) command officers, and one (1) ALS or BLS unit.

It should be noted that in addition to the listed responses to a structure fire, if there is confirmation of a working incident a Rapid Intervention Dispatch (RID) will be sent including one aerial unit, one rescue squad, and one EMS unit (ALS, if one is not already on the scene). To ensure that adequate resources remain available for other incidents, no more than two rescue squads should be dispatched to one structure fire, unless specifically requested by the incident commander.

To meet the demands required at a structure fire, the following capabilities must be met by the minimum staff on scene. The minimum staffing at a confirmed structure fire in Montgomery County, MD is 31 suppression personnel and 2 EMS personnel (a Fire Investigator may be requested by the Incident Commander). At any time during the incident, the Incident Commander can request additional resources as needed to fulfill the strategic mission of the incident.

Tasks can be performed simultaneously or be completed individually allowing crews to be reassigned other functions such as salvage/overhaul, secondary search, etc.

The Effective Response Force for a structure fire includes all types of structure fires, i.e. commercial, residential, and industrial. The Incident Commander has the ability to request a 2nd alarm or greater or a Task Force Assignment (two engines and a special service) at any time during the incident or on the initial dispatch based on dispatch information, building construction, fire protection features, life hazard, etc.

The Effective Response Force, as defined by NFPA 1710 Staffing Standards, will be deployed to an initial alarm assignment and capable of providing the following task:

- Establishment of incident command outside of the structure or hazard area
- Establishment of an uninterrupted water supply of a minimum of 400 gpm for thirty minutes with supply lines maintained by an operator
- Establishment of an effective water flow application of 300 gpm from two hand lines by a minimum of two individuals to effectively and safely maintain the line
- Provision of one support person for each attack and back up line deployed to provide hydrant connections and assist in laying hose lines, utility control, and forcible entry
- Provision of at least one victim search and rescue team consisting of a minimum of two individuals
- Provision of at least one team, consisting of a minimum of two individuals, to raise ground ladders and perform ventilation

Effective Response Force for Structure Fires

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	2	Command Officer
Fire Attack	2 to 3	1st Arriving Apparatus
Pump Operator	1	1st Arriving Driver Operator
Primary Water Supply	1	2nd Arriving Driver Operator
Back-up Line	2 to 3	2nd Arriving Apparatus
Primary Search	2	1st Arriving Rescue Squad
Utilities	1	1st Arriving Rescue Squad Driver Operator

Ventilation/Truck Ops	6	1st and 2nd Arriving Trucks
RIC	3 to 4	3rd Arriving Engine Company
Exposure line	3 to 4	4th arriving Engine
unassigned	3 to 4	5th Engine Company

Total of 24 to 31 Personnel

Examples of this category are dispatched to the following call types

Call Type	Definition
FIR/STR	Structure fire

Special Risk:

This category is for unique responses where resources may need to be increased based upon the geographic location of the incident (*i.e.: rural area*) and the level of risk (*i.e.: high rise structure*). For areas without municipal water supply, the aforementioned response will include three (3) tankers and one (1) additional command officer for a total of three. For high rise structures (buildings in excess of seventy-five feet (75) in height from the lowest fire department access), one (1) additional aerial unit will be dispatched for a total of three (3).

High Rise Special Risk Category

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	2	Command Officer
Fire Attack	2 to 3	1st Arriving Apparatus
Pump Operator	1	1st Arriving Driver Operator
Primary Water Supply	1	2nd Arriving Driver Operator
Back-up Line	2 to 3	2nd Arriving Apparatus
Primary Search	2	1st Arriving Rescue Squad
Utilities	1	1st Arriving Rescue Squad Driver Operator
Ventilation/Truck Ops	9	1st ,2nd, and 3rd Arriving Trucks

RIC	3 to 4	3rd Arriving Engine Company
Exposure line	2 to 3	4th arriving engine
Lobby control	3 to 4	5th arriving engine

Total of 28 to 33 Personnel

Rural Water Assignment Special Risk Category

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	2	Command Officer
Fire Attack	2 to 3	1st Arriving Apparatus
Pump Operator	1	1st Arriving Driver Operator
Primary Water Supply	1	2nd Arriving Driver Operator
Back-up Line	2 to 3	2nd Arriving Apparatus
Primary Search	2	1st Arriving Rescue Squad
Utilities	1	1st Arriving Rescue Squad Driver Operator
Ventilation/Truck Ops	4-6	1st and 2nd Arriving Trucks
RIC	3 to 4	3rd Arriving Engine Company
Dump Site Ops	2 to 3	4th arriving engine
Fill site Ops	3 to 4	5th arriving engine
Tanker ops	3-6	1st, 2nd, and 3rd arriving tanker

Total of 28 to 33 Personnel

Examples of this category are dispatched to the following call types:

Call Type	Definition
MET/FIRE	Fire within the Metro Transit System
*FIR/STR	High rise fire

*There is no separate call type for a high rise fire in CAD; the system is programmed to add an additional aerial to the call type once identified.

Fire Full Assignment - 90th Percentile Times - Baseline Performance			**2013** 1st and 2nd quarters	**2012**	**2011**	**2010**	**2010-2013** 1st and 2nd quarters
Alarm Handling	Pick-up to Dispatch	Metro	2:50	3:00	3:10	4:00	3:20
		Urban	3:20	3:00	2:50	4:00	3:10
		Suburban	2:40	3:10	2:50	3:40	3:10
		Rural	3:00	2:50	3:10	3:50	3:20
Turnout Time	Turnout Time 1st Unit	Metro	2:20	2:30	2:30	2:30	2:20
		Urban	2:10	2:50	3:10	2:30	2:40
		Suburban	2:30	2:30	2:20	2:40	2:30
		Rural	2:30	3:00	2:50	3:00	2:50
Travel Time	Travel Time 1st Unit **Distribution**	Metro	5:20	5:10	5:40	5:20	5:20
		Urban	4:40	6:00	7:30	5:20	5:20
		Suburban	6:20	7:10	5:50	5:50	6:00
		Rural	7:30	8:10	5:20	9:00	8:10
	Travel Time ERF **Concentration**	Metro	13:00	13:00	13:30	15:30	
		Urban	13:30	17:10	13:30	26:50	
		Suburban	13:00	15:00	16:20	15:50	
		Rural	17:30	19:50	19:00	18:50	
Total Response Time	Total Response Time 1st Unit On Scene **Distribution**	Metro	8:20	8:40	9:00	9:30	9:00
		Urban	9:50	9:30	8:40	9:40	9:40
		Suburban	8:40	9:30	9:30	9:50	9:40
		Rural	11:00	11:40	11:50	13:40	12:00
	Total Response Time ERF **Concentration**	Metro	13:00	13:00	13:30	15:30	
		Urban	13:30	17:10	13:30	26:50	
		Suburban	13:00	15:00	16:20	15:50	
		Rural	17:30	19:50	19:00	18:50	

Emergency Medical Services

The Montgomery County Fire Rescue Service (MCFRS) goal for its EMS program is to make available adequate and effective emergency medical resources which provide a continuum of care that assures any 911 call for medical assistance is given the appropriate emergency medical attention necessary.

Objectives

- To utilize a dispatch system which appropriately determines the risk of the incident and send the specific units necessary to mitigate the problem
- To provide adequately trained personnel to the scene of every medical emergency
- To provide treatment of patients as dictated by the State of Maryland EMS Protocols
- To provide rapid transport to an appropriate medical facility
- To promote public awareness of safety and injury control measures to help prevent the 911 call
- To anticipate community needs in the area of emergency medical services and work to meet those needs
- To accurately document all patient encounters
- To have the resources, training, and equipment necessary to respond to mass casualty incidents and integrate into the state disaster plan when needed
- To ensure our EMS providers are adequately trained and certified
- To improve outcomes for illness and injury

Montgomery County Fire Rescue Service (MCFRS) uses an Emergency Medical Dispatch program to categorize all EMS responses into 3 categories, ALS2, ALS1, and BLS. Categories are determined based upon strict questioning protocols that allow us to predict the severity of the patient's condition as well as any scene factors which would require non-EMS units such as fire engines, fire trucks, rescue squads, hazardous material units, etc. Dispatch decisions concerning the number and types of units are based upon which category the incident has been assigned.

MCFRS can utilize both EMS and Fire apparatus on EMS incidents and all operational personnel are minimally certified at the EMT-B level.

Minimum MCFRS apparatus staffing levels are as follows:
**For purposes of this document, an ALS provider may be certified as either an EMT-I or EMT-P and a BLS provider is a certified EMT-B.

- BLS transport units - 2 BLS providers.
- ALS transport units - 2 personnel, 1 ALS provider & 1BLS provider.
- Engines, Trucks and Rescue Squads – 3 BLS providers.
- Paramedic Engines – 3 BLS personnel and 1 ALS provider.

Minimum MCFRS capabilities on EMS incident based on category:
** Dispatches are determined on unit/personnel capabilities rather than specific unit types

- **Low Risk** BLS – 2 BLS providers and a transport unit. (Most times a BLS unit but depending on unit availability an ALS transport unit may be dispatched.)
- **Moderate Risk** ALS1 – 1 ALS provider, 4 BLS providers, and a transport unit.
- **High Risk** ALS2 – 2 ALS providers, 4 BLS providers and a transport unit.

Personnel have the ability to request additional resources to the scene based on the size-up or information received from dispatch.

Distribution of ALS Services

For 90% of ALS responses within Metropolitan densities for low, moderate, and high hazards, the first arriving unit will arrive within 11 minutes total response time.

For 90% of ALS responses within Urban densities for low, moderate, and high hazards, the first arriving unit will arrive within 11 minutes total response time.

For 90% of ALS responses within Suburban densities for low, moderate, and high hazards, the first arriving unit shall arrive within 12.5 minutes total response time.

For 90% of ALS responses within Rural densities for low, moderate, and high, hazards, the first arriving unit shall arrive within 16 minutes total response time.

Distribution of BLS Services

For 90% of BLS responses within Metropolitan densities for low, moderate, and high hazards, the first arriving unit will arrive within 14 minutes total response time.

For 90% of BLS responses within Urban densities for low, moderate, and high hazards, the first arriving unit will arrive within 14 minutes total response time.

For 90% of BLS responses within Suburban densities for low, moderate, and high hazards, the first arriving unit shall arrive within 16 minutes total response time.

For 90% of BLS responses within Rural densities for low, moderate, and high, hazards, the first arriving unit shall arrive within 20 minutes total response time.

Concentration of ALS Services

For 90% of ALS1 responses within Metropolitan densities for low, moderate, and high hazards, the the effective response force will arrive within 12 minutes total response time.

For 90% of ALS1 responses within Urban densities for low, moderate, and high hazards, the the effective response force will arrive within 12 minutes total response time.

For 90% of ALS1 responses within Suburban densities for low, moderate, and high hazards, the effective response force shall arrive within 13 minutes total response time.

For 90% of ALS1 responses within Rural densities for low, moderate, and high, hazards, the effective response force shall arrive within 14.5 minutes total response time.

Concentration of BLS Services

For 90% of ALS2 responses within Metropolitan densities for low, moderate, and high hazards, the effective response force will arrive within 11.5 minutes total response time.

For 90% of ALS2 responses within Urban densities for low, moderate, and high hazards, the effective response force will arrive within 11.5 minutes total response time.

For 90% of ALS2 responses within Suburban densities for low, moderate, and high hazards, the effective response force shall arrive within 12.5 minutes total response time.

For 90% of ALS2 responses within Rural densities for low, moderate, and high, hazards, the effective response force shall arrive within 13.5 minutes total response time.

MCFRS Effective Response Force for EMS Incidents

Low Risk or BLS Response:

Examples of calls that fall into this category include but are not limited to: general weakness, fever, fall, abdominal pain, extremity pain, and headache.

Task Performed	Personnel Needed	Apparatus Supporting Task
Information Gathering/Scene Safety	1	1st Arriving BLS Provider
BLS Patient Assessment/Treatment	1	1st Arriving BLS Provider
Patient Packaging	2	1st (2) Arriving BLS Providers
Transport	2	1st (2) Arriving BLS Providers

Moderate Risk or ALS1 Response:

This category includes but is not limited to calls for difficulty breathing, seizure, altered mental status, overdose, and stable chest pain.

Task Performed	Personnel Needed	Apparatus Supporting Task
Information Gathering/Scene Safety/IC	1	1st Arriving Provider
ALS Patient Assessment	1	1st Arriving ALS Provider
ALS Interventions/Treatment	1	1st Arriving ALS Provider
Patient Packaging and Movement	3	4 BLS Providers
Transport	2	1 ALS and 1 BLS Provider

High Risk or ALS2 Response:

This category includes but is not limited to calls for unconscious/unknown breathing, unconscious/not breathing, chest pain with associated cardiac symptoms, stroke symptoms, fall from height, gunshot wound, stabbing.

Task Performed	Personnel Needed	Apparatus Supporting Task
Information Gathering/Scene Safety	1	1st Arriving Provider
ALS Patient Assessment	1	1st Arriving ALS Provider
CPR	2	2 BLS Providers
ALS Interventions/Treatment	2	1st (2) Arriving ALS Providers
Patient Packaging and Movement	3	4 BLS Providers
Transport	3	2 ALS and 1 BLS Provider

Emergency Medical Services- Motor Vehicle Accidents:

This category, Emergency Medical Services- Motor Vehicle Accidents includes but is not limited to calls for motor vehicle accidents with unknown entrapment, confirmed entrapment, and auto-pedestrian incidents. The minimum response force for these incidents includes 1 medic (2 personnel), one (1) engine/truck (3 personnel), one (1) Battalion Chief, and 1 Summit County Ambulance (2 personnel); for a total of 8 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Information Gathering/Scene Safety/IC	1	Battalion Chief (Batt 6)
Patient Care (ALS/BLS)	2	First Arriving Medic
Fire Protection Line (if extrication) or Hazard Assessment	1	1st Arriving Engine/Truck
Patient Extrication (if required)	2	1st Arriving Engine/Truck
Treatment/Transport	2	Summit County Ambulance

ALS 1 - 90th Percentile Times - Baseline Performance			**2013** 1st and 2nd quarters	**2012**	**2011**	**2010**	**2010-2013** 1st and 2nd quarters
Alarm Handling	Pick-up to Dispatch	Metro	3:10	3:20	3:30	4:00	3:40
		Urban	3:20	3:20	3:50	4:10	3:40
		Suburban	3:10	3:20	3:40	4:40	3:40
		Rural	3:00	3:10	3:30	4:00	3:30
Turnout Time	Turnout Time 1st Unit	Metro	2:10	2:10	2:10	2:10	2:10
		Urban	2:10	2:10	2:10	2:10	2:10
		Suburban	2:10	2:10	2:20	2:20	2:20
		Rural	2:10	2:10	2:10	2:20	2:20
Travel Time	Travel Time 1st Unit **Distribution**	Metro	7:00	6:50	7:20	7:50	7:20
		Urban	;50	8:00	8:30	8:40	8:20
		Suburban	8:30	8:10	8:40	9:30	8:40
		Rural	8:50	8”30	9:30	10:10	9:10
	Travel Time ERF **Concentration**	Metro	8:30	8:40	8:50	9:20	
		Urban	8:40	9:00	9:10	9:40	
		Suburban	9:50	9:30	10:00	11:00	
		Rural	11:10	11:00	11:20	11:30	
Total Response Time	Total Response Time 1st Unit On Scene **Distribution**	Metro	6:60	11:00	11:30	12:40	11:30
		Urban	7:10	12:10	12:50	13:30	12:50
		Suburban	7:30	12:00	12:50	14:20	13:00
		Rural	7:40	12:20	13:20	14:40	13:10
	Total Response Time ERF **Concentration**	Metro	13:00	12:50	13:30	14:30	
		Urban	13:20	13:20	14:20	14:50	
		Suburban	14:20	13:50	15:10	17:10	
		Rural	15:10	15:00	15:40	16:30	

ALS 2 - 90th Percentile Times - Baseline Performance			2013 1st and 2nd quarters	2012	2011	2010	2010-2013 1st and 2nd quarters
Alarm Handling	Pick-up to Dispatch	Metro	2:50	2:50	3:00	3:40	3:10
		Urban	2:50	2:50	3:00	3:50	3:10
		Suburban	2:40	2:40	2:50	3:30	3:00
		Rural	2:30	2:50	3:10	3:30	3:00
Turnout Time	Turnout Time 1st Unit	Metro	2:10	2:10	2:10	2:10	2:10
		Urban	2:10	2:00	2:20	2:20	2:10
		Suburban	2:10	2:10	2:20	2:20	2:20
		Rural	2:20	2:20	2:20	2:20	2:20
Travel Time	Travel Time 1st Unit **Distribution**	Metro	6:30	6:30	7:10	7:30	7:00
		Urban	8:40	7:10	8:20	9:30	7:50
		Suburban	8:10	7:20	7:40	8:50	8:00
		Rural	8:30	8:30	8:40	9:30	8:40
	Travel Time ERF **Concentration**	Metro	9:30	9:30	9:20	10:10	
		Urban	8:20	9:00	10:10	11:20	
		Suburban	10:40	10:30	9:20	11:40	
		Rural	12:20	12:40	13:30	12:30	
Total Response Time	Total Response Time 1st Unit On Scene **Distribution**	Metro	10:00	10:10	11:10	11:50	10:50
		Urban	9:50	11:00	11:30	13:40	11:50
		Suburban	11:10	11:30	10:50	13:10	11:40
		Rural	12:00	12:10	12:30	14:00	12:50
	Total Response Time ERF **Concentration**	Metro	13:00	13:30	13:10	14:40	
		Urban	13:20	12:20	14:00	16:10	
		Suburban	14:40	14:40	13:30	16:30	
		Rural	16:00	16:00	17:00	16:20	

BLS - 90th Percentile Times - Baseline Performance			**2013** 1st and 2nd quarters	**2012**	**2011**	**2010**	**2010-2013** 1st and 2nd quarters
Alarm Handling	Pick-up to Dispatch	Metro	3:30	3:40	4:00	4:30	4:00
		Urban	3:40	3:50	4:20	5:00	4:20
		Suburban	3:40	3:40	4:10	4:30	4:10
		Rural	3:40	3:40	4:00	4:30	4:00
Turnout Time	Turnout Time 1st Unit	Metro	2:00	2:10	2:10	2:20	2:10
		Urban	2:10	2:10	2;10	2:20	2:10
		Suburban	2:10	2:10	2:20	2:30	2:20
		Rural	2:10	2:10	2:10	2:20	2:10
Travel Time	Travel Time 1st Unit **Distribution**	Metro	8:20	8:20	8:40	9:00	8:40
		Urban	8:00	8:10	8:10	N/A	8:40
		Suburban	9:20	9:20	10:10	N/A	10:00
		Rural	10:20	10:30	10:50	11:00	10:50
	Travel Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					
Total Response Time	Total Response Time 1st Unit On Scene **Distribution**	Metro	12:40	12:40	13:20	14:20	13:20
		Urban	12:40	12:50	15:30	15:30	13:40
		Suburban	13:20	13:50	15:10	15:50	14:50
		Rural	14:40	14:40	15:20	16:30	15:20
	Total Response Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					

Hazardous Materials

Due to its transportation links and proximity to our nation's capitol, Montgomery County has attracted many businesses which use, store, and dispose of hazardous materials. Therefore, responding to hazardous material emergencies has been a priority mission of the Montgomery County Fire and Rescue Services even prior to the implementation of SARA Title III..

The department maintains a well staffed and highly trained Hazardous Team consisting of over 120 members assigned to four primary (consolidated) response stations and non-consolidated stations throughout the county sharing multi-discipline response missions including Fire, Rescue, EMS, WMD, and Hazardous Materials Response. The amount of personnel and apparatus responding to a hazardous materials event is determined by a tiered response level plan throughout the county and to mutual-aid events in surrounding jurisdictions. The Hazmat Team also offers assistance to other neighboring departments throughout the national capital region and is an active member of the Council of Governments (COG) mutual-aid response plan.

The Department of Fire and Rescue Services has been training first responders to the hazardous materials operations level or higher for hazardous materials events since the implementation of 29 CFR 1910.120 (Final Rule) thru the Public Safety Training Academy and continues this training using NFPA 472 approved programs delivered by certified instructors. This has enabled the department to accomplish and maintain 100% compliance with federal regulatory requirements (29 CFR 1910.120(q)) and national consensus standards (NFPA 472) when responding to hazardous materials events.

Currently, the Hazmat team consolidated stations operate out of geographical areas providing acceptable response times to 90% of Montgomery County's citizens. Fire Station 7, Chevy Chase, and 28, Derwood, operate FEMA Type I hazmat units and are supported by additional technicians at station 20, Bethesda, and 25, Aspen Hill.

On a daily basis, the Hazmat team maintains a minimum of 13 staff members assigned to four consolidated stations.. This complement of staffing allows the Hazmat team to have an Operations Officer, a Decontamination Officer supervising two Decontamination personnel, a two-member entry

team, a two-member backup team, a Logistics Officer, and a Research Officer to operate at an event. Safety is normally handled by the MCFRS Safety Officer who is also trained to the hazardous materials technician level. Since the inception of Hazmat team in 1983, the department has experienced fluctuations in membership (due to personnel transfers, promotions, and retirements) requiring concurrent retention and recruitment programs.

Goals

For a Hazmat event, personnel and apparatus are dispatched in a tiered manner according to information obtained by PSCC call takers. For calls not fitting into the standard criteria ECC may consult with an on-duty hazardous materials officer assigned to one of our hazardous materials response stations (Fire Stations 7 & 28). The majority of responses require a standard response of one Hazmat unit and one Hazmat support company. The Hazmat units can be augmented by additional fire and EMS units based on the ECC Hazmat flow chart . Major events require a full structure fire box assignment which includes two Battalion Chiefs, five Engines, two Trucks, Rescue Squad, four EMS units and a Hazmat response. (See Hazmat team Critical Task Response Specification).

MCFRS first responder personnel arrive on the scene of all reported hazardous materials events trained to the Hazardous Materials Operations level of training as defined by 29 CRF 1910.120 (q)(6)(ii). All primary engine, aerials, and rescue squads are equipped with four gas air monitoring instrumentation, small capacity (1%-3%) foam delivery systems and reference materials (DOT Guidebook and NIOSH Pocket Guide).

Distribution

For 90% of Hazmat responses within Metropolitan densities for low, moderate, high and special hazards, the first arriving unit will arrive within 10 minutes total response time.

For 90% of Hazmat responses within Urban densities for low, moderate, high and special hazards, the first arriving unit will arrive within 10 minutes total response time.

For 90% of Hazmat responses within Suburban densities for low, moderate, high and special hazards, the first arriving unit shall arrive within 11.5 minutes total response time.

For 90% of Hazmat responses within Rural densities for low, moderate, high, and special hazards,

the first arriving unit shall arrive within 15.5 minutes total response time.

Regardless of incident type, the Department expects the first-responding 4-person company to have the capability to:

- Establish Command.
- Size-up the situation.
- Isolate the hazard area, deny entry, and to evacuate as needed.

Concentration

For 90% of Hazmat responses within Urban densities for low, moderate, high and special hazards, the effective response force will arrive within 30 minutes total response time.

For 90% of Hazmat responses within Metropolitan densities for low, moderate, high and special hazards, the effective response force will arrive within 30 minutes total response time.

For 90% of Hazmat responses within Suburban densities for low, moderate, high and special hazards, the effective response shall arrive within 30 minutes total response time.

For 90% of Hazmat responses within Rural densities for low, moderate, high, and special hazards, the effective response shall arrive within 30 minutes total response time.

Levels of Risk

Low Risk:

This category, Hazmat Investigation, is used for small scale spills and incidents were a unit on-scene requests the hazardous material officer consultation. The minimum response force for these events is four (4) personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Hazmat Unit Officer
Hazard Control	3	Hazmat Unit Crew

Total of 4 personnel

This category is dispatched to the following call types:

Call Type	Definition
HM/WATER	A spill into or reported substance in a creek or other body of water with no vapor, fumes, flames or injured people
SC/FIRE	An event to assist a unit already on-scene

Moderate Risk:

This category, Hazmat Local Alarm, is for responses to hazardous material incident that do not involve fire, five or more sick people, a transportation of dangerous goods vehicle or a natural gas or propane leak. The minimum response force for these events is 19 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Certified Chief Officer
Scene Assessment & Decon	3	Engine
Scene Control	3	Special Service
Patient Care	2	BLS Unit
Hazmat Branch Supervisor	1	Hazmat Unit Officer
Research / Logistics	3	Hazmat Unit
Entry	2	Hazmat Support Unit
Backup	2	Hazmat Support Unit or Special Service
Hazmat Crew Assessment/Care	2	ALS Unit

Total of 19 personnel

This category is dispatched to the following call types:

Call Type	Definition
HM/SPILL	An emergency involving the spilling or leaking of a hydrocarbon or other fuel product when there are no vapor,

	fumes, or flames visible and four or less sick persons involved
HM/PWDR	An emergency involving an powder spill or leak when there are no vapor, fumes, or flames visible and four or less sick persons involved regardless of the container the package is or is not in
HM/MERC	An emergency involving a spill of mercury with no active fire conditions.

High Risk:

The category, Hazmat Street Alarm, is for responses to hazardous material incidents that do not involve fire, a natural gas or propane leak but do involve five or more sick people. The minimum response force for these events is 28 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Certified Chief Officer
Scene Assessment	3	1st Engine
Water Supply	3	2nd Engine
Rapid Intervention	3	3rd Engine
Ventilation and Support	6	Aerial and Rescue Squad
Patient Care	4	BLS unit and 1 ALS unit
Hazmat Branch Supervisor	1	Hazmat Unit Officer
Research / Logistics	3	Hazmat Unit
Entry	2	Hazmat Support Unit
Backup	2	Hazmat Support Unit or Special Service
Hazmat Crew Assessment/Care	2	ALS Unit

Total of 20 personnel

This category is dispatched to the following call types:

Call Type	Definition
HM/CHEM	An emergency involving an chemical spill or leak when there are no vapor, fumes, or flames visible and four or less sick persons involved
HM/UNK	An emergency involving the spill, leak or escape of a suspected hazardous material when there are no vapor, fumes, or flames visible and four or less sick persons involved and the caller cannot provide more detailed information

EMD CO Call Types	An emergency involving signs and symptoms of multiple sick people with possible indications of carbon monoxide exposure.

Special Risk:

The category, Gas Box Alarm, is for responses to hazardous material incidents that involve fire. The minimum response force for these events is 48 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Certified Chief Officer
Safety Officer	1	Safety Officers or CCO
Scene Assessment	3	1st Engine
Water Supply	3	2nd Engine
Rapid Intervention	3	3rd Engine
Ventilation and Support	9	Aerial (2) & Rescue Squad
Suppression Duties as Assigned	6	4th & 5th Engines
Patient Care	6	Two (2) BLS units & 1 ALS unit
Hazmat Branch Supervisor	1	Hazmat Unit Officer
Research / Logistics	3	Hazmat Unit
Entry	4	Hazmat Support Unit
Backup	4	Hazmat Support Unit
Technical Decon	2	Hazmat Support Unit
Hazmat Crew Assessment/Care	2	ALS Unit

Total of 48 personnel

This category is dispatched to the following call types:

Call Type	Definition
Gas/BOX	An emergency that is primarily a hazardous materials incident but involves fire or smoke inside a structure.

Hazmat - 90th Percentile Times - Baseline Performance			**2013** 1st and 2nd quarters	**2012**	**2011**	**2010**	**2010-2013** 1st and 2nd quarters
Alarm Handling	Pick-up to Dispatch	Metro	3:40	3:20	4:00	5:00	4:00
		Urban	4:00	3:20	5:20	5:40	4:20
		Suburban	2:50	4:30	5:10	4:50	4:30
		Rural	3:20	3:40	4:20	6:00	4:102:20
Turnout Time	Turnout Time 1st Unit	Metro	2:30	2:30	2:40	3:10	2:20
		Urban	2:00	2:40	3:10	2:50	2:20
		Suburban	2:10	2:40	3:10	3:30	2:20
		Rural	2:30	2:40	2:50	3:20	2:20
Travel Time	Travel Time 1st Unit **Distribution**	Metro	6:20	6:40	6:30	7:00	6:40
		Urban	5:10	7:00	9:50	5:30	6:00
		Suburban	7:10	5:50	6:50	9:00	7:10
		Rural	9:00	8:40	9:30	10:00	9:00
	Travel Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					
Total Response Time	Total Response Time 1st Unit On Scene **Distribution**	Metro	10:30	10:50	11:00	12:20	11:10
		Urban	10:00	10:20	14:40	11:30	11:40
		Suburban	10:40	11:30	12:10	19:30	12:00
		Rural	12:20	12:20	13:30	16:10	13:20
	Total Response Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					

Technical Rescue

Locally, in Montgomery County and the surrounding jurisdictions, the Team responds to emergencies involving trench collapse, structure and building failures, confined space incidents, urban victim search, rope rescue, and any incident in which their specialized equipment or expertise may be needed. Each member of the Team trains at least once a month in their specialty but often cross-trains in another discipline. The Team's equipment cache is located at Fire Station 31 in Darnestown. The team has the ability to draw upon the FEMA team equipment cache located at the Dover Road warehouse if needed..

The FEMA team and technical rescue team maintains the Rescue Mall at the Montgomery County Public Service Training Academy. The Rescue Mall is a specialized urban search and rescue training facility that includes: specialized props to simulate building collapses and confined spaces; vertical and horizontal concrete breaching stations; and "Da Spider", a series of masonry tubes arranged in a maze to simulate different confined space training evolutions. Additionally, the Rescue Mall is used for training search canines to locate victims in collapsed structures.

In addition to specialized rescue responses, the Team has been involved in a number of major incidents that did not involve direct search and rescue intervention. The Team's Logistics Section was an integral asset in the Travillah Road Dump Fire, a long duration fire fighting operation. Members of the Team built shelters and provided other infra-structure support as well as provided supplies and equipment in order to support the fire fighting operations. In the winter of 1996, the Team provided strategic planning and logistical support during the Silver Spring Train Collision. In January 2000, the team responded and provided search and rescue operations to a major train accident in Alleghany, MD.

Goal

MCFRS will try to increase the specialty team certifications of personnel throughout the County to increase the number of on-duty qualified specialists and minimize the need for off-duty members for long term incidents.

MCFRS will continue to strive to provide additional staffing on rescue apparatus. The rescue truck concept provides a stop gap solution but significantly reduces Extrication response time.

MCFRS will continue to support and assign staffing for the Technical Rescue Team.

Distribution:

For 90% of Technical Rescue responses within Metropolitan densities for special hazards, the first arriving unit will arrive within 10 minutes total response time.

For 90% of Technical Rescue responses within Urban densities for special hazards, the first arriving unit will arrive within 10 minutes total response time.

For 90% of Technical Rescue responses within Suburban densities for special hazards, the first arriving unit shall arrive within 11.5 minutes total response time.

For 90% of Technical Rescue responses within Rural densities for special hazards, the first arriving unit shall arrive within 15.5 minutes total response time.

Concentration:

For 90% of Technical Rescue responses within Metropolitan densities for special hazards, the effective response force will arrive within 10 minutes total response time.

For 90% of Technical Rescue responses within Urban densities for special hazards, the effective response force will arrive within 10 minutes total response time.

For 90% of Technical Rescue responses within Suburban densities for special hazards, the effective response force shall arrive within 11.5 minutes total response time.

For 90% of Technical Rescue responses within Rural densities for special hazards, the effective response force shall arrive within 15.5 minutes total response time.

Levels of Risk

Should the Technical Rescue Team be dispatched, essentially there will be no "Low," "Moderate" or, "High" risk categories due to the nature of incidents and the level of training and special equipment required to mitigate the event. All technical rescue incidents are categorized in the Special hazard classification.

Special Risk:

This category is used for initial response and the accuracy of information received for technical rescue events, types of events outlined below. All initial responses will have personnel dispatched from consolidated stations. The technical rescue team is based in three consolidated stations (Stations 25, 29, and 31) with non-consolidated personnel available, if need be, throughout the County. If fire rescue personnel arrive on scene and determines that the event may be extended, they may initiate and deploy non-consolidated personnel to supplement staffing already on the scene. This will bring roughly 15 to 18 more technical rescue personnel to the scene.

The minimum effective response force for these events is 36 personnel (based off of 4 person-staffing on engine apparatus and an additional medic unit). Additional equipment needed and/or taken to the scene of an event is at the discretion of the personnel at the Fire Station 31 Officer and/or the Special Operations Chief depending on the call as dispatched and any additional information given. The additional specialty units are transported by personnel at Station 31 with their front line apparatus left in quarters. For all call types listed below the dispatch compliment is as follows: Engine, Truck/Tower, two Medic units, Rescue Squad, Ambulance, Battalion Chief, LFRD Officer, Recon 731, Support Unit 29 and Special Operations 25 as well as the Technical Rescue Team.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Certified Chief Officer
Scene Assessment & Control	7	Engine & Aerial
Initial Scene Stabilization	3	Rescue Squad
Patient Care	6	BLS & 2 ALS Units
Tech Rescue Branch Supervisor	1	Tech Rescue Duty Officer
Tech Rescue Safety	1	Co 25 / 29 / 31 Unit

Logistics	2	Co 31 Units
Entry / Team 1	3 to 5	Co 25 / 29 / 31 Units
Backup / Team 2	3 to 5	Co 25 / 29 / 31 Units
Team 3	3 to 5	Co 25 / 29 / 31 Units

Minimum number of personnel is 36

This category is dispatched to the following call type:

Call Type	Definition
RES/CONF	Person(s) trapped in a confined space
RES/HIGH	Person(s) trapped at heights greater than 25’
RES/LOW	Person(s) trapped below grade
RES/CLPS	Person(s) trapped in a collapsed structure
RES/OTH	Person(s) trapped in other
RES/TRNC	Person(s) trapped in a collapsed trench/excavation

In addition to the initial dispatch compliment, the following apparatus also goes to the event at the discretion of the personnel at Station 31**:

Trench Pod for all trench events

Confined Space / Building Collapse Pod for all Confined Space and Building Collapse events

Wood Trailer

Compressor

** The only call type that would not get any of these units is RES/HIGH

Technical Rescue - 90th Percentile Times - Baseline Performance			**2013** 1st and 2nd quarters	**2012**	**2011**	**2010**	**2010-2013** 1st and 2nd quarters
Alarm Handling	Pick-up to Dispatch	Metro	3:10	3:20	3:30	4:20	3:30
		Urban	2:00	3:10	3:10	3:10	3:10
		Suburban	7:00	3:00	3:30	7:00	5:40
		Rural	4:30	5:20	16:00	4:10	5:20
Turnout Time	Turnout Time 1st Unit	Metro	2:10	2:10	2:10	2:20	2:10
		Urban	2:00	4:00	2:10	2:00	4:20
		Suburban	4:20	3:40	4:20	4:00	4:00
		Rural	4:20	4:00	5:00	4:10	2:10
Travel Time	Travel Time 1st Unit **Distribution**	Metro	7:40	7:30	8:20	9:10	8:20
		Urban	7:20	8:40	7:30	7:00	8:30
		Suburban	10:30	10:50	11:50	6:20	10:30
		Rural	10:00	9:40	8:30	10:40	9:40
	Travel Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					
Total Response Time	Total Response Time 1st Unit On Scene **Distribution**	Metro	11:40	11:40	13:20	14:10	12:50
		Urban	11:20	13:30	12:30	12:50	12:50
		Suburban	12:50	14:30	15:10	12:10	14:30
		Rural	13:50	17:10	41:20	15:20	16:40
	Total Response Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					

Water/Ice Rescue

The River Rescue and Tactical Services (RRATS) team is a 100 person team providing emergency service for swift water, ice, and water related rescues requiring their expertise. The team has developed its own rigorous training program consisting of both classroom knowledge and field skill. The detailed qualification packages are pending accreditation from the University of Maryland. Specific packages have been developed for each level of certification. These include:

- Water Rescue Specialist
- Swift water Operator
- Airboat Operator

With the potential need to deploy the team to multiple areas of Montgomery County and the State of Maryland, the RRATS team maintains a constant state of readiness and training. To date, RRATS operates the following:

- Three (3) Airboats
- Four (4) 17 foot inflatable rescue boats with jet drive outboards
- Three (3) 14 foot inflatable "sleds" with jet drive outboards
- Four (4) 14 foot aluminum "V" hull Jon boats
- Boat support units
- Brush trucks
- Pick ups

The RRATS team will be the team dispatched for water rescue events. In the case of localized flooding due to weather, there are five boats assigned throughout the county at stations 14, 25, 29 and 31 which will be dispatched without the river strike teams to mitigate incidents in low lying areas.

Distribution

For 90% of Water or Ice related Rescue responses within Metropolitan densities for low, moderate, high and special hazards, the first arriving unit will arrive within 10 minutes total response time.

For 90% of Water or Ice related Rescue responses within Urban densities for low, moderate, high and special hazards, the first arriving unit will arrive within 10 minutes total response time.

For 90% of Water or Ice related Rescue responses within Suburban densities for low, moderate, high and special hazards, the first arriving unit shall arrive within 11.5 minutes total response time.

For 90% of Water or Ice related Rescue responses within Rural densities for low, moderate, high, and special hazards, the first arriving unit shall arrive within 15.5 minutes total response time.

The minimum staffing for a RRATS Strike Team is 2 boat operators and 2 crew members. Each station 10 and 30 can staff an independent strike team deployment..

Concentration

For 90% of Water or Ice related Rescue responses within Metropolitan densities for low, moderate, high and special hazards, the effective response force will arrive within 30 minutes total response time.

For 90% of Water or Ice related Rescue responses within Urban densities for low, moderate, high and special hazards, the effective response force will arrive within 30 minutes total response time.

For 90% of Water or Ice related Rescue responses within Suburban densities for low, moderate, high and special hazards, the effective response force shall arrive within 30 minutes total response time.

For 90% of Water or Ice related Rescue responses within Rural densities for low, moderate, high, and special hazards, the effective response force shall arrive within 30 minutes total response time.

The first arriving unit will

- Establish command
- Indicate command mode
- Ensure that accountability is established
- Complete victim ID & victim location sheets with any and all information available (ECC, calling party, witnesses).
- Begin formulation of an Incident Action Plan for resolution of the incident.

The initial on scene boat will not depart the launch sites until a second boat is arriving on scene.

An exception to this may be made if a known life hazard exists, i.e.; priority one patient, multiple persons in the water. This is similar to the Safe Structural Fire Fighting policy of immediate entry for a known rescue.

For 90% of all large scale water rescue incidents that do not include swift water, the minimum effective staffing shall be 14 personnel.

For 90% of large scale water rescue incidents that do include swift water effective staffing will be a minimum of 19 personnel.

Levels of Risk

Low Risk:

This category will be used for an incident requiring consultation with a RRATS team duty officer. This can be for both water and ice rescue. This response will be only one duty officer

Moderate Risk:

This category is used for fixed bodies of water, lake or pond, which does not involve ice. The minimum response force for these events is 15 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Certified Chief Officer
Scene Assessment & Control	6	Engine/Special Service
Patient Care	4	BLS & ALS Unit
Primary Boat	2	1st Boat
Safety Boat	2	2nd Boat

Total Personnel is 15

This category is dispatched to the following call type:

Call Type	Definition
LAKE	A person fallen into or stranded on a lake when the caller specifically refers to the location as a lake and the call does not involve a person fallen thru or stranded on ice.

High Risk:

This category involves any water rescue event on still or moving water to include the operations of people on, through, or under ice. The minimum response force for these events is 19 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Certified Chief Officer
Scene Assessment & Control	6	Engine/Special Service
Patient Care	4	BLS & ALS Unit
Primary Boat	2	1st Boat
Safety Boat	2	2nd Boat
Swift Water Operations	4	Strike Team

Total Personnel is 19

This category is dispatched to the following call types:

Call Type	Definition
FERRY	An incident involving White's Ferry where the Ferry is reported to be stuck.
RIV/STIL	An emergency involving a person(s) that are injured on or have fallen into the river or person(s) who are injured where the primary access point or rescue access will be via the river ABOVE RILEY'S LOCK
WATER	An emergency that involves a person(s) trapped in water that is not the Potomac River and is either still or moving, that is outside of a structure, not in a swimming pool, regardless of depth, or water speed. This includes persons(s) trapped on or under ice.

Special Risk:

This category involves any water rescue on swift water. MCFRS defines swift water as any water which presents surface features such as: standing waves, surface holes, eddies or hydraulics will be determined to be swift water. Swift water will create these noticeable features around any fixed object in the path of the flow (sign posts, person, tree, vehicle, etc). Also, water should be classified as swift when a person cannot stand or move in the flow without assistance from any device or other person.

The minimum response force for these events is 19 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Certified Chief Officer
Scene Assessment & Support	3	Engine/Special Service
Patient Care	4	BLS & ALS Unit
Swift Water Operations	8	Two (2) Strike Team

Total Personnel is 19

This category is dispatched to the following call types:

Call Type	Definition
RIV/SWFT	An emergency involving a person(s) that are injured on or have fallen into the river or person(s) who are injured where the primary access point or rescue access will be via the river. –BELOW RILEY'S LOCK

Water/Ice Rescue - 90th Percentile Times - Baseline Performance			**2013** 1st and 2nd quarters	**2012**	**2011**	**2010**	**2010-2013** 1st and 2nd quarters
Alarm Handling	Pick-up to Dispatch	Metro	8:20	9:40	3:00	5:10	8:20
		Urban	3:00	N/A	N/A	N/A	3:00
		Suburban	2:00	5:30	N/A	N/A	5:30
		Rural	3:30	5:40	5:00	12:10	10:10
Turnout Time	Turnout Time 1st Unit	Metro	4:20	4:00	4:20	4:40	4:20
		Urban	3:30	N/A	N/A	N/A	3:30
		Suburban	3:50	6:40	4:20	5:10	5:50
		Rural	5:30	5:50	4:40	5:00	5:10
Travel Time	Travel Time 1st Unit **Distribution**	Metro	4:00	3:50	5:00	6:10	6:00
		Urban	9:00	N/A	N/A	N/A	3:40
		Suburban	3:40	2:50	00:10	9:40	9:40
		Rural	10:20	7:30	9:30	10:40	10:20
	Travel Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					
Total Response Time	Total Response Time 1st Unit On Scene **Distribution**	Metro	10:20	27:50	9:50	16:00	16:00
		Urban	10:20	N/A	N/A	N/A	10:20
		Suburban	13:00	8:20	N/A	N/A	13:00
		Rural	16:10	12:20	14:40	25:30	18:00
	Total Response Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					

Aviation

The Montgomery County Fire and Rescue Services (MCFRS) provides the primary fire protection to the Montgomery County Airpark (GAI) and Davis Airfield.

Dispatch to reported aircraft emergencies and/or incidents is guided by the Public Safety Communications Center (PSCC). There are two call types: small plane or big plane. Depending on how the reports of the downed plane come in, PSCC will dispatch a full box assignment and Hazmat resources. MCI resources and/or a tanker assignments can be dispatched at the discretion of the first due engine on the scene and/or first arriving command officer.

A policy outlining critical elements of responding to an aircraft incident is currently in the finalization process. This policy will provide critical safety information to support the personnel's action while respond, arriving, or on-scene of an aircraft event.

Distribution

For 90% of Aircraft related responses within Metropolitan densities for high and special hazards, the first arriving unit will arrive within 10 minutes total response time.

For 90% of Aircraft related responses within Urban densities for high and special hazards, the first arriving unit will arrive within 10 minutes total response time.

For 90% of Aircraft related responses within Suburban densities for high and special hazards, the first arriving unit shall arrive within 11.5 minutes total response time.

For 90% of Aircraft related responses within Rural densities high, and special hazards, the first arriving unit shall arrive within 15.5 minutes total response time.

Concentration

For 90% of Aircraft related responses within Metropolitan densities for high and special hazards, the effective response force will arrive within 30 minutes total response time.

For 90% of Aircraft related responses within Urban densities for high and special hazards, the

effective response force will arrive within 30 minutes total response time.

For 90% of Aircraft related responses within Suburban densities for high and special hazards, the effective response force shall arrive within 30 minutes total response time.

For 90% of Aircraft related responses within Rural densities for high, and special hazards, the effective response force shall arrive within 30 minutes total response time.

Regardless of incident type, the Department expects the first-responding 4-person company to have the capability to:

- Establish Command.
- Size-up the situation.
- Place one line in service at either 150 gallons per minute or 250 gallons per minute.
- Comply with the requirements of Two In/Two Out (OSHA 1910.134).
- Initiate mitigation efforts within one minute of arrival.
- Provide first responder medical aid including cardiac defibrillation.
- Request additional resources, including specialized support elements.

Levels of Risk

High Risk:

The category, Small Plane, is for responses to small plane events that have four people or less on the plane. The minimum response force is indicated below (based on four person-staffing for all engine apparatus) for these events is 33 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Certified Chief Officer
Scene Assessment	4	1st Engine
Water Supply	4	2nd Engine
Rapid Intervention	4	3rd Engine
Ventilation and Support	6	Aerial and Rescue Squad
Patient Care	4	BLS unit and ALS unit

Hazmat Branch Supervisor	1	Hazmat Unit Officer
Research / Logistics	3	Hazmat Unit
Entry	2	Hazmat Support Unit
Backup	2	Hazmat Support Unit or Special Service
Hazmat Crew Assessment/Care	2	ALS Unit

Total Personnel 33

Special Risk:

The category, Large Plane, is for responses to large plane events that have five or more passengers. The minimum response is indicated below (based on four person-staffing for all engine apparatus) for these events is 57 personnel.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	3	Certified Chief Officer
Scene Assessment	4	1st Engine
Water Supply	4	2nd Engine
Rapid Intervention	4	3rd Engine
Ventilation and Support	9	Aerial (2) & Rescue Squad
Suppression Duties as Assigned	8	4th & 5th Engines
Patient Care	6	Two (2) BLS units & 1 ALS unit
Hazmat Branch Supervisor	1	Hazmat Unit Officer
Research / Logistics	6	Hazmat Unit (2)
Entry	4	Hazmat Support Unit
Backup	4	Hazmat Support Unit
Technical Decon	2	Hazmat Support Unit
Hazmat Crew Assessment/Care	2	ALS Unit

Total Personnel 57

Aviation Firefighting/Rescue - 90th Percentile Times - Baseline Performance			**2013** 1st and 2nd quarters	**2012**	**2011**	**2010**	**2010-2013** 1st and 2nd quarters
Alarm Handling	Pick-up to Dispatch	Metro	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	N/A	N/A	3:20	3:00	3:20
Turnout Time	Turnout Time 1st Unit	Metro	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	2:40	2:20	2:20	2:50	2:40
Travel Time	Travel Time 1st Unit **Distribution**	Metro	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	3:50	5:40	7:20	2:20	4:40
	Travel Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					
Total Response Time	Total Response Time 1st Unit On Scene **Distribution**	Metro	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	6:50	N/A	12:10	6:00	12:10
	Total Response Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					

Bomb Squad

The Montgomery County, Division of Fire/Explosive Investigations, Bomb Squad is committed to providing the highest level of service to our community. Preservation of life and property will he achieved through the use of sound judgment, rapid intervention, and timely mitigation of a potentially deadly situation involving explosives and bombs.

The Bomb Squad's mission extends beyond the scope of bomb mitigation, with emphasis in providing education to increase the public awareness of this heinous crime of destruction.

The Bomb Squad will maintain the highest standard of customer service traditionally upheld by the Montgomery County, Department of Fire and Rescue Services. Through this effort, a creation of a safe environment for both public safety officers and the community will be achieved.

Goals:

Render safe suspected improvised explosive devices, incendiary devices, explosives, explosive chemicals, pyrotechnics, ammunition, and/or hazardous devices; as well as to provide legal, proper and safe transportation, disposal and/or storage of explosives and other items as described above.

Conduct post blast crime scene investigations in a systematic manner and collect and preserve crime scene evidence and to prepare and provide appropriate court room testimony.

Properly maintain and inventory of bomb squad equipment assigned so that we may be able to provide and assist with dignitary protection when requested.

Prepare and participate in explosive related training programs and stay familiar with a technical library of FBI Bomb Data Center publications and other explosive related journals, periodicals, and materials.

Maintain a professional liaison with other state and local bomb squads, military, "Explosive Ordnance Disposal (EOD) units, Federal agencies and professional associations. We will report or properly dispose of recovered military ordnance to military EOD units as appropriate.

Properly compile and report to the FBI Bomb Data Center technical data on all explosive devices and incidents.

Continuously develop emergency response plans for a bomb threat, actual improvised explosive devices, and bomb crime scenes. Educate, develop and promulgate bomb threat awareness and safety programs for public and private organizations.

Provide technical support services to other law enforcement agencies and Montgomery County Police specialty units (SWAT, SID, SOD).

Distribution

For 90% of Explosive Device responses within Metropolitan densities for low, moderate, high and special hazards, the first arriving unit will arrive within 50 minutes total response time.

For 90% of Explosive Device responses within Urban densities for low, moderate, high and special hazards, the first arriving unit will arrive within 50 minutes total response time.

For 90% of Explosive Device responses within Suburban densities for low, moderate, high and special hazards, the first arriving unit shall arrive within 60 minutes total response time.

For 90% of Explosive Device responses within Rural densities for low, moderate, high, and special hazards, the first arriving unit shall arrive within 70 minutes total response time.

Concentration

For 90% of Explosive Device responses within Metropolitan densities for low, moderate, high and special hazards, the first arriving unit will arrive within 60 minutes total response time.

For 90% of Explosive Device responses within Urban densities for low, moderate, high and special hazards, the first arriving unit will arrive within 60 minutes total response time.

For 90% of Explosive Device responses within Suburban densities for low, moderate, high and special hazards, the first arriving unit shall arrive within 70 minutes total response time.

For 90% of Explosive Device responses within Rural densities for low, moderate, high, and special hazards, the first arriving unit shall arrive within 80 minutes total response time.

The first arriving bomb technician's responsibility is to:

- Report to Operation Sector Commander.
- Obtain detail description of the suspected package (Polaroid photograph as applicable).
- Obtain as must intelligence and background information from the on-scene personnel witnesses.
- In "non-life threatening" situation, no attempt shall be made to disturb or "render safe" any suspicious device or packages during the initial size-up. Whenever possible, confirmation of the location of the suspected device will be accomplished without an approach. The "initial approach" will be performed with a bomb technician in the bomb suit or robot (availability/applicability) in "life-threatening" situation, the primary objective will be to create a "non-life threatening" situation. Once this has been accomplished, "non-life threatening" procedure shall be implemented.
- Review addendum defining Life-Threatening and Non-Life Threatening situations.
- Prior to any entry operations, the bomb technician assuming the sector will be evaluated for his/her medical condition by the on scene medic unit. The medic unit will provide the · Operation Sector Commander with pre and post operation vitals, consisted of EKG, pulse rate, respiration, and BIP. The paramedic in charge has the authority to ground the bomb technician for failure to meet the required vital assessment criteria.
- During hot weather operation, temperature exceeding 85 degree F (humiture 90 degree F), donning of a cool vest under the bomb suit will be instituted. Hydration will be required during pre and post operations.
- Maximum of two approaches will be conducted by the bomb technician assuming the sector, due to fatigue and prolong exposure to extreme heat.
- No operation will commence until all necessary resources/equipment is in place and prepare for intervention (FJR units and crew on standby).

Levels of Risk:

Low Risk:

This category, *Threat*, is used for incidents deemed to be of low level of suspension and/or accidental. These incidents are police matters and are monitored by two bomb technicians who will respond if requested. The bomb technicians are available for consult and typically do not respond to the scene.

Medium Risk:

This category, *Plant*, is used for incidents deemed to be suspicious enough to require technical investigation. The minimum response for these events is two bomb technicians.

Task Performed	Personnel Needed	Apparatus Supporting Task
Device Investigation	2	Bomb Unit

This category is dispatched to the following call types:

Call Type	Definition
SUSP/PKG	Suspicious/Abandoned Package

High Risk:

This category is for a known explosive device. The minimum response for these events is thirty-six personnel.

Ventilation and Support	6	Aerial and Rescue Squad
Patient Care	4	BLS unit and 1 ALS unit
Hazmat Branch Supervisor	1	Hazmat Unit Officer
Research / Logistics	3	Hazmat Unit
Entry	2	Hazmat Support Unit

Backup	2	Hazmat Support Unit or Special Service
Hazmat Crew Assessment/Care	2	ALS Unit
Bomb Group Supervisor	1	FEI Vehicle
Bomb Safety Person	1	FEI Vehicle
Bomb Entry	2	Bomb Truck
Bomb Intel	1	FEI Vehicle
Bomb Support	1	Bomb Support Vehicle

This category is dispatched to the following call types:

Call Type	Definition
Device	Known explosive device.

Special Risk:

This category is for responses to incidents with known explosive devices and potential for substantial loss of life. The minimum response force these events is forty-one personnel not to include a mutual aid bomb team.

Task Performed	Personnel Needed	Apparatus Supporting Task
Incident Commander	1	Certified Chief Officer
Safety Officer	1	Safety Officers or CCO
Scene Assessment	3	1st Engine
Water Supply	3	2nd Engine
Rapid Intervention	3	3rd Engine
Ventilation and Support	9	Aerial (2) & Rescue Squad
Suppression Duties as Assigned	6	4th & 5th Engines
Patient Care	6	Two (2) BLS units & 1 ALS unit
Hazmat Branch Supervisor	1	Hazmat Unit Officer
Research / Logistics	3	Hazmat Unit
Entry	4	Hazmat Support Unit
Backup	4	Hazmat Support Unit

Technical Decon	2	Hazmat Support Unit
Hazmat Crew Assessment/Care	2	ALS Unit
Bomb Group Supervisor	1	FEI Vehicle
Bomb Safety	1	FEI Vehicle
Bomb Entry	2	Bomb Truck
Bomb Intel	1	FEI Vehicle
Bomb Support	13	Bomb Support Vehicle

This category is dispatched to the following call types:

Call Type	Definition
Hazmat Box Alarm w/Bomb Squad Activation	Known explosive device with potential for substantial loss of life

Bomb/Explosive - 90th Percentile Times - Baseline Performance			**2013** 1st and 2nd quarters	**2012**	**2011**	**2010**	**2010-2013** 1st and 2nd quarters
Alarm Handling	Pick-up to Dispatch	Metro	5:50	7:10	6:40	6:10	6:40
		Urban	7:10	6:00	8:20	5:10	7:10
		Suburban	7:40	5:50	6:10	3:00	6:10
		Rural	3:40	6:10	5:30	3:40	5:30
Turnout Time	Turnout Time 1st Unit	Metro	4:10	1:50	16:50	00:40	16:00
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	1:20	3:20	N/A	2:20
		Rural	N/A	4:30	N/A	N/A	4:30
Travel Time	Travel Time 1st Unit **Distribution**	Metro	19:00	21:40	24:00	28:40	24:50
		Urban	N/A	12:50	8:10	N/A	12:50
		Suburban	N/A	11:40	15:50	11:50	11:50
		Rural	11:50	31:10	17:30	26:00	26:00
	Travel Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					
Total Response Time	Total Response Time 1st Unit On Scene **Distribution**	Metro	50:40	2:13:30	1:21:50	40:10	1:06:20
		Urban	N/A	N/A	32:40	N/A	32:40
		Suburban	N/A	1:23:30	1:18:40	19:40	1:23:30
		Rural	13:20	27:00	N/A	37:30	37:30
	Total Response Time ERF **Concentration**	Metro					
		Urban					
		Suburban					
		Rural					