

# Wildland Fire Response Plan

## COVID-19 Pandemic

### Southern Geographic Area

July 09, 2020



#### Southern Area

Alabama  
Arkansas  
Florida  
Georgia  
Kentucky  
Louisiana  
Mississippi  
North Carolina  
Oklahoma  
South Carolina  
Tennessee  
Texas  
Virginia  
Puerto Rico  
U.S. Virgin Islands

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### COOPERATING AGENCIES:



Forest Service  
Department of  
Agriculture



Bureau of  
Indian Affairs  
Department of  
Interior



U.S. Fish and  
Wildlife Service  
Department of the  
Interior



Southern Group  
of State Foresters



Federal Emergency  
Management Agency  
Department of  
Homeland Security



National Park  
Service  
Department of  
the Interior



Bureau of Land  
Management  
Department of  
the Interior



Firefighters Corps  
Commonwealth of  
Puerto Rico



Fire Service  
Government of  
the Virgin Islands



National Weather  
Service  
Department of  
Commerce

# 1 PREFACE

This Wildland Fire Response Plan (WFRP) has been developed to provide guidance and considerations for maintaining continuity of wildland fire response in the presence of the COVID-19 pandemic for the 2020 fire year in the Southern Geographic Area (GA). The plan is intended to be a single point of reference and provide considerations for those tasked with management of wildland fires. This document provides guidance for managers to safeguard resource availability during the pandemic of all wildland fire response personnel at all organizational levels in all areas across the country.

The WFRP is constructed for applicability at all levels. However, some of the information presented here may not have the same utility for all participating agencies and organizations. For example, many practices and protocols listed here for consideration may only be acceptable for use by federal agencies and not by state and local governments. In other cases, more specific practices and protocols may be developed and implemented at local levels.

**NOTE:** protocols, policies, direction, other guidance set forth by your agency or leadership, are your overarching standards and overshadow this WFRP, and should be strictly adhered to.

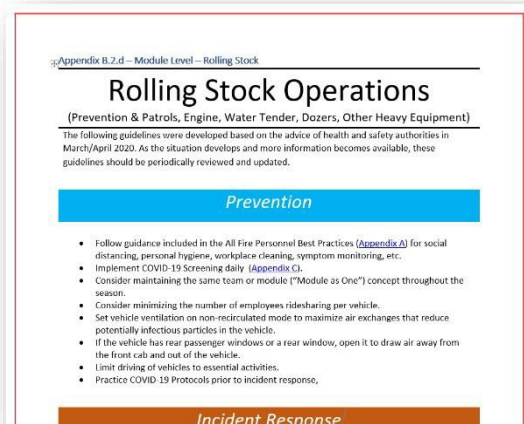
**This WFRP is designed with two main sections:**

Information that is **“Strategic”**

Information that is **“Tactical”**

**Strategic information** is intended for all levels of wildland fire response – from national level, regional level, local level, to module level – there is applicable information for everyone in the Strategy portion of the document. Strategic information is found throughout the document but occurs primarily in the main body of the document on pages 7-18.

**Tactical information** is intended for local area fire managers, Incident Management Organizations, and the “boots on the ground” in the format of Best Management Practices (BMPs). The BMPs are found in [Appendix B](#) of the Document. The BMPs have been designed to be concise, to the point, easily understandable, and printable as stand-alone documents for use by the respective resource; very similar to an Engine Captain focusing their attention to the pertinent ICS-204 Division Assignment from an Incident Action Plan (IAP). [Appendix A – All Fire Personnel Best Practices](#) – is a companion to Appendix B and should be reviewed and referenced concurrently with Appendix B.



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Readers are encouraged to review the entire document and to use the [Contents](#) page to assist with identifying information most applicable to their needs.

BMPs may not offer the detail that some personnel would like. This detail can be supplemented by locally prepared information (see NOTE at the end of this Preface). It must be remembered that the COVID-19 pandemic is an evolving situation that has never been encountered before in wildland fire management. All the answers are not known at the current time and new information and experience will continue to emerge throughout the fire season.

The WFRP was developed by Sexton's Area Command Team 2 in coordination with as many of the appropriate agencies, organizations, and individuals in this Geographic Area as possible. The team worked directly with the Geographic Area's Coordinating Group Chair, all participating agencies and organizations, dispatch/coordination centers, and various local units. This comprehensive coordination enabled clear communication with all involved participants and fostered improved awareness and understanding of the purpose and intent of the WFRP. It also reduced possible duplication of effort, ensured a coordinated effort and synchronization with other efforts in the GA, and promoted support and endorsement at all levels.

**NOTE:** This plan is intended to provide a higher-level framework of considerations and not specific operational procedures. It is not written in terms of "how to" but instead provides considerations of "what," "why," and "where" with a focus on the "mob to demob" time period. As more information becomes known, the plan should be supplemented by development of more specific operational procedures by agencies and local level units. This continued addition of practical information is strongly encouraged. The Best Management Practices provided in the Appendices are intended to offer information to help reduce the likelihood of COVID-19 spread during wildland fire suppression operations. But, in order for them to be effective, they will need to be strictly followed. Because of potential changes from past experiences and practices, local personnel are strongly encouraged to practice, repeat, and understand the information provided in each BMP

## Record of Changes

The uncertainty associated with the COVID-19 pandemic and the ongoing development of standard protocols and practices, - and other changes to existing standards for wildland fire response - necessitates that this Wildland Fire Response Plan be a living document and subject to updates as new or more current information emerges. The following **Record of Changes** represents the process to log the dates, source of change, details of the modification, and the date that the modification was added/updated in the plan. This will be the single point source for documentation of WFRP version updates. The first version of this document was published on April 22, 2020 and all subsequent version changes are documented in the table below.

Date	Source	Change	Date Added to WFRP
4/22/20	ACT2	ACT2 (Sexton) delivered completed Southern Area WFRP to GBCG Chair Jim Prevetie	4/22/2020
5/5/2020	ACT2	ACT2 (Sexton) added update to Preface, Section 2.2, 2.3, 4.2, SharePoint link for documents in Section 9, Appendix A first section, and Appendix G	5/5/2020
5/14/2020	MPHAT/CDC/NMAC	SAMAC (Demas) added updates from MPHAT - recommended definition of PPE, added CDC Wildland Firefighter FAQ link to Appendix A (first section General Information), updated COVID Screening Tool - Appendix C, and created Appendix H - Interagency Checklist for Mobilization of Resources in a COVID-19 Environment	05/14/2020
06/09/2020	NMAC	SAMAC (Demas) added updated NMAC Correspondence 2020-22 which rescinds and replaces NMAC Memo 2020-17, Appendix H. Added link to Appendix B.4.b.2. – Extended Attack/Complex Fires – Medical. Link is to Medical Unit COVID-19 Concept of Operations Plan, Emergency Medical Committee	06/09/2020
06/24/2020	SACG	SAMAC (Demas) added updated Appendix G (introductory paragraph) approved by SACG	06/24/2020
07/09/2020	FMB/MPHAT/NIMO	SAMAC (Demas) added FMB & MPHAT COVID19 Testing Guidance as Appendix I, deleted original Appendix G (Northern Rockies Remote Situation Unit) and reformatted appendices. Created Appendix J -- COVID-19 Response Action Process from a NIMO product	07/09/2020

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## 2 INTRODUCTION

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### 2.1 Background/Situation

Coronaviruses are a large family of viruses that cause illnesses ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). Coronaviruses comprise an entire branch of the virus family tree that includes the disease-causing pathogens behind SARS, MERS and several variants of the common cold that infects humans. A new variant of this family has arisen over the last few months and has spread around the world. SARS-CoV-2 is the name of the virus that's spreading; COVID-19 is the disease it causes.

Information regarding current risk and threat of COVID-19 is updated continuously on the [Centers for Disease Control and Prevention's](#) (CDC) website.

### 2.2 Issue

Like other coronaviruses, the SARS-CoV-2 virus infiltrates the airways of its hosts. At worst, these pathogens cause severe forms of viral pneumonia, which in some cases leads to death. The vast majority of COVID-19 cases — [about 80 percent](#) — appear to be mild, causing a spate of cold-like or flu-like symptoms like coughing, shortness of breath, and fever. Many people are suspected to carry the virus without presenting any symptoms. COVID-19's spread rate suggests the virus is more contagious than any of its predecessors, as well as most strains of the distantly related influenza virus.

According to the World Health Organization (WHO), individuals with underlying medical issues including respiratory and heart conditions, as well as smokers, are among those at highest risk. Despite some reports to the contrary, children can be infected, but [appear less vulnerable](#).

The virus is capable of moving directly from person to person through droplets produced by coughs or sneezes that travel through the air to settle directly on skin or frequently touched surfaces, like doorknobs or cell phones. After a person is exposed, symptoms can take weeks to appear, if they do at all. Those who carry the virus without showing signs of illness can still spread the disease.

Projections have been made for significant numbers of individuals in America to become infected with COVID-19. The World Health Organization has declared the widely dispersed geographic spread of COVID-19 a pandemic. The President has declared a national emergency; additionally, all 50 States, the District of Columbia, and all territories have declared states of emergency as well. Current mitigation measures have resulted in business closures, reductions in commercial travel, grocery supply shortages, and restrictions on all types of gatherings with even moderately small numbers of individuals.

Wildland fire response has been ongoing and increasing in activity. Advance planning is a necessary part of ongoing efforts to prepare for the potential impacts of this pandemic upon wildfire response and management. It will be necessary to ensure that as fire activity increases and demands for firefighters and equipment expand, all steps have been taken to ensure the ability to sustain an effective wildfire response while ensuring the maximum safety of all personnel.

In addition, any exacerbating effects that wildfire smoke may have on COVID-19 are not well known at this time. Although not directly researched or tested, the exposure to wildfire smoke appears to potentially lead to increased susceptibility to COVID-19, may worsen severity of the infection, and may pose more risks to those who are recovering from serious COVID-19 infection. These concerns are based on research into the respiratory effects of acute and long-term air pollution and specifically respiratory effects of biomass burning smoke and subsequent infection with influenza and other viruses (see [Appendix G](#)).

## 2.3 Scope

The National Area Command Teams (ACT) and one Geographic Area Incident Management Team (IMT) were tasked by the National Multi-Agency Coordinating Group (NMAC) to coordinate with Federal, State, County, and Tribal officials to identify all issues related to the COVID-19 pandemic and wildland fire response in the United States. Their mission entailed direct work with all Geographic Areas in the US, Geographic Area Coordinating Groups (GACGs), Geographic Area Coordinating Centers (GACCs), the National Multi-Agency Coordinating Group, and the National Interagency Fire Center (NIFC) External Affairs Staff to develop Wildland Fire Response Plans for each of the ten Geographic Areas (GA). The teams did not independently prepare the plans but worked in concert with the Geographic Areas and all member agencies and organizations to ensure a coordinated plan development. Considerable input came from sources within the GA and this plan would not have been possible without that coordinated effort and comprehensive involvement.

These plans specifically reference and provide direction on maintaining continuity of wildland fire response; sustaining, to the extent possible, the highest degree of resource availability; and ensuring safety and protection of all wildland fire response personnel at all levels in all areas across the country.

Information in this plan is designed to provide considerations that help guide all wildland fire agencies and organizations in maintaining continuity in all aspects of wildland fire response at all levels (national, geographic, and local). Specifically important are areas of initial attack, extended attack, and large fire response, as well as coordination and support functions (dispatch, cache, etc.). This plan outlines potential scenarios that may be encountered at all levels involved directly or indirectly in wildfire response, provides general strategies useful at national levels, general strategies and implementation considerations pertinent to geographic area/regional/state levels, and recommended best practices highly relevant at local levels and various functional areas of wildfire response activities during this pandemic.

An important component of planning for COVID-19 wildland fire response that is not included is a “scale-down” feature. As the pandemic diminishes there will be threshold conditions that allow for discarding practices designed to limit exposure and spread of COVID-19. Our current understanding of the pandemic in the United States indicates that we are months away from those threshold conditions. Additional work is needed by experts in epidemiology to help us address the “scale-down” issue.

Although COVID-19 occurrence may currently be negligible (or completely absent) in some counties where wildland fire response occurs, it should not be assumed that risk of exposure is negligible and that BMPs can be discarded. Our interagency wildland fire response is based on a total mobility concept. Firefighters and support personnel (including caterers, sanitation services, and others) may come from anywhere in the United States. Consequently, our firefighters and support personnel may bring the virus to those areas with

low COVID-19 occurrence. The BMPs in this plan are intended to limit spread within wildland fire response personnel as well as to and from those communities near where the wildfire occurs. It is essential that fire managers continue to use BMPs until experts advise that they can be discarded.

This Wildland Fire Response Plan for the COVID-19 Pandemic for the Southern Geographic Area is a living document and will be managed (continually reviewed and updated as appropriate) by the Southern Area Coordinating Group.

### 3 OBJECTIVES

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This Wildland Fire Response Plan for the COVID-19 Pandemic for the Southern Geographic Area was prepared with the following objectives:

- Identify issues that relate to the COVID-19 pandemic and wildland fire response. Liaise and identify these issues through coordination with Federal, State, County, and Tribal health officials.
- Develop Wildland Fire Response Plans that address wildland fire response strategies, considerations for implementation actions, and responsibilities of all involved participants from the point of mobilization to demobilization. This information is presented in a format useful for national level management groups, geographic area/regional/state level management groups, and local level operational units and functional staffs involved in response implementation. Specific response capabilities addressed in this plan include:
  - Maintaining continuity in response capability for:
    - initial attack,
    - extended attack/complex fire management,
    - dispatch, support, and coordination.
  - Identification and documentation of procedures to mitigate impacts due to potential exposure to COVID-19 during an incident.
  - Identify, define, and document protocols on how to manage potential COVID-19 exposure incidents for initial and extended attack incidents.
  - Identify, define, and document protocols for Incident Management Teams (IMT) to mitigate COVID-19 exposure concerns and provide to IMTs and all units.
  - Identify, define, and document protocols for wildland fire response to areas with known exposure to COVID-19.
- Develop Wildland Fire Response Plans without contradicting any currently developed protocols by any Agency.
- Ensure that the Wildland Fire Response Plans are developed to promote interagency coordinated response to wildland fire management regarding COVID-19.

## 4 PROJECT OVERVIEW

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### 4.1 Purpose and Function

Three Area Command Teams and one Incident Management Team were mobilized with responsibility to develop COVID-19 Wildland Fire Response Plans for specific GAs. The respective assignments per team were:

- **ACT 1 Stutler:** Rocky Mountain, Northwest, Alaska
- **ACT 2 Sexton:** Southern Area, Great Basin, Northern Rockies
- **ACT 3 Jalbert:** Southwest, Southern/Northern California
- **Eastern Area T2 IMT Goldman:** Type 2 IMT worked under ACT 2 to develop a COVID-19 Wildland Fire Response Plan for the Eastern Area.

The four teams developed Wildland Fire Response Plans with the goal of coordinating with as many agencies, organizations, and individuals in each Geographic Area as practical. They worked directly with each Geographic Area's Coordinating Group Chair, various dispatch/coordination centers, and various local units. They also worked under direction and supervision of the NMAC through a Team Coordinator (Joe Reinarz) and maintained frequent contact and communication through multiple daily briefings to the NMAC.

All plans were developed using a standardized template and process for national standardization; but development included attention and inclusion of all specific concerns for the Geographic Area covered by the plan.

The teams' coordination with the GA during development of plans enabled clear communication with all involved participants and vastly improved awareness and understanding of the purpose and intent of the WFRP. It also reduced some, but not all, potential duplication of effort, ensured a coordinated effort, and ensured support and endorsement at all levels.

All four teams worked in this role as a support function, had no control responsibilities, and to the fullest extent possible, did not transfer additional work to any participating Geographic Area organizations.

### 4.2 Potential Effects on Wildfire Response

The rapid spread rate of COVID-19 indicates how highly contagious it is. Exposure of uninfected individuals to infected individuals triggers a near exponential spread and proliferation of the disease.

Wildland fire incident management activities create an ideal environment for the transmission of infectious diseases: high-density living and working conditions, lack of access to and use of soap, disinfectants and sanitizers, and a transient workforce. These and other environmental and occupational factors (e.g., smoke, heat, plants, insects, fungus, fatigue, and physically demanding work) can increase the likelihood of disease transmission. Often, fire camp situations cause rapid increases in the number of symptomatic fire personnel and suspected cases, resulting in an infectious disease outbreak on an incident. An outbreak is the occurrence of more cases than would normally be expected in a specific place or among a group of people over a given time period.

Working conditions frequently involve smoky conditions and any effects that wildfire smoke may have on COVID-19 spread are not well known at this time. This could also potentially increase the occurrence of COVID-19 cases or seriousness and raises additional concerns.

The wildland fire response system is unique regarding its structure, capability, and function compared to the first responder system throughout the country. Wildland fire response is initiated at the local level with a finite number of firefighting resources. Should these resources be unable to take care of all needs, additional resources are ordered from neighboring units and ultimately, additional resources can be mobilized from anywhere in the country. What makes this system unique is that no base or location has enough backup resources to cover responsibilities during high fire activity periods. In the event of substantial personnel absences, even for a scenario of a small to moderate percentage of individuals becoming unavailable due to exposure to COVID-19, additional resources from other units and areas will be necessary. In the event of a high disease spread scenario with a high rate of infection, the associated loss of individuals from service will, in even a moderately active fire season, severely tax the ability to maintain an adequate wildfire response.

These plans were prepared to define strategies to assess risks, develop recommendations for implementation actions, and identify immediate, mid-term, and long-term needs to ensure that continuity of wildfire response capability can be maintained across the country. Exposure prevention, exposure mitigation, equipment and facility maintenance and care along with strategies for ensuring resource availability are addressed in these plans.

A letter was sent to the Southern Geographic Area on March 21 requesting their assessment of potential impacts from the spread of COVID-19. A summary of responses to this request is contained in [Appendix E](#).

## 5 COVID-19 WILDLAND FIRE STRATEGIC SCENARIOS

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Wildland fire response information and considerations are not presented in a prescriptive format. Since some information is more applicable from a management standpoint and useful by decision makers, strategic considerations for national and geographic area/regional/state considerations are presented in the main body of the plan. Other information more useful and applicable to local level implementers and functional groups who may be on the first line of exposure to the disease is presented in [Appendix A](#) and [Appendix B](#) as best management practices and is suitable for direct adoption and implementation.

During the course of wildfire response and management, there are potential scenarios that may be encountered by all levels involved directly or indirectly. These are shown in Figure 1. Information shown for these scenarios is applicable at all response levels and all organizational levels. This information illustrates strategic response considerations and actions employable at national, geographic area/regional/state, and local levels.

Figure 1 shows five possible scenarios that could be encountered during wildfire response in the COVID-19 pandemic. The first is the pre-exposure scenario where operations are functioning. Exposure in this chart and this plan refers to contact with the coronavirus responsible for COVID-19. Key strategic elements include prevention and containment. Prevention refers to limiting of exposure to individuals while containment means preventing the spread of the disease beyond an individual or a small group of

people to the broader community. The second scenario involves exposure with strategic elements of prevention, containment, and quarantine. Quarantine separates and restricts the movement of people who were exposed to COVID-19 to see if they become sick.

The third scenario is one in which fire-response personnel have become infected. Strategic elements include prevention, containment, treatment, management, and isolation. Isolation involves separating positive infected people from those who are not infected. The fourth scenario includes recovery with strategic elements of prevention, containment, treatment, and management. The final scenario involves preparation for return to service following recovery from the disease.

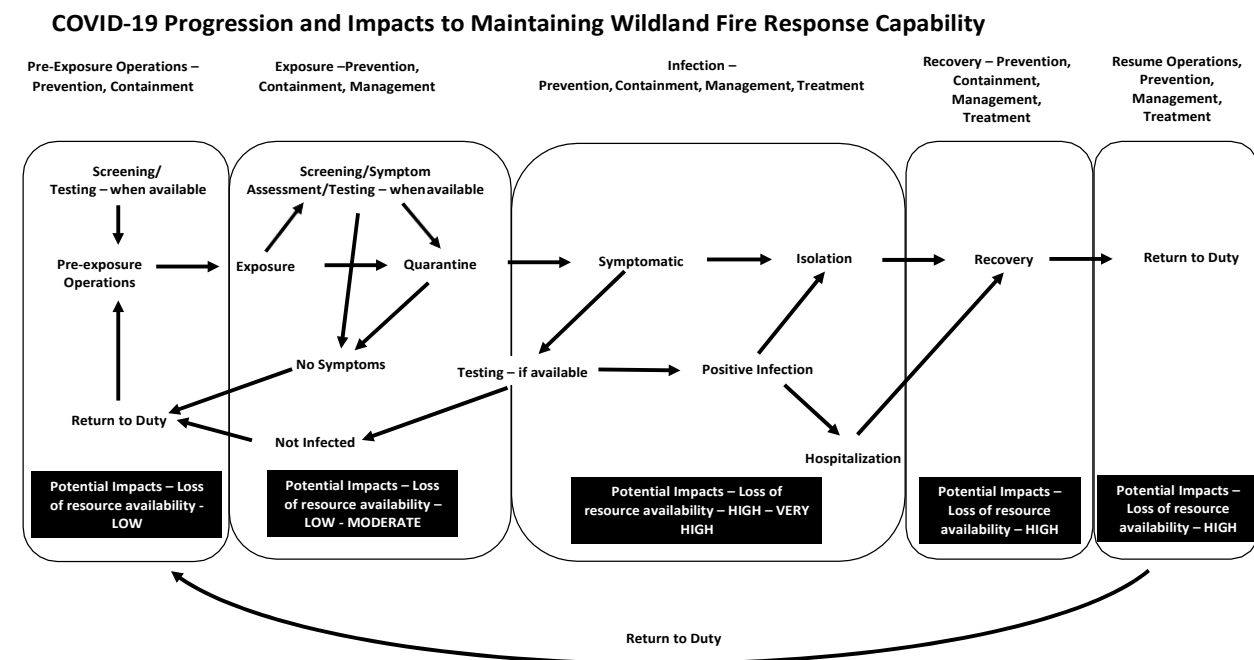


Figure 1: COVID-19 Wildfire response operations, scenarios that may be encountered, and strategic planning elements for each.

Following Figure 1 is a table that provides more detailed information regarding strategic issues, immediate needs, prevention/containment actions, and management/treatment actions. This table is by no means the complete authority on strategic responses to this disease but contains considerations useful at management levels. More specific information on these topics that is relevant to local level implementers and functional groups is provided in the sections on Best Management Practices ([Appendix A](#) and [Appendix B](#)).

**Table 1.** Recommended management level issue points for COVID-19 wildfire response including basic strategies, immediate needs, avoidance/containment action considerations, and management / treatment action considerations.

Strategies	Immediate Needs	Prevention/Containment	Management/Treatment
<ul style="list-style-type: none"> <li>Develop long-term planning to mitigate and respond to COVID-19 spread to prevent the loss of wildland fire response capability, exposure of wildland fire resources to the disease, and potential contamination of initial attack resources by exposed individuals.</li> <li>Ensure that all personnel are cared for in the safest possible manner and subjected to prevention, containment, management, and treatment as needed. Incorporate social distancing standards into day-to-day operations.</li> <li>Maintain functioning wildland fire response operations from bases with regular crews.</li> <li>Identify available commercial laundry businesses for cleaning of PPE and clothing.</li> </ul>	<ul style="list-style-type: none"> <li>Definition of new protocols/standards for personal hygiene.</li> <li>Definition of processes for equipment disinfection.</li> <li>Acquisition of necessary equipment and/or support to disinfect equipment.</li> <li>Obtain additional handwashing stations as needed.</li> <li>Contingency planning if not covered by existing COOPs, <ul style="list-style-type: none"> <li>Designation of 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> alternate bases.</li> <li>Designation of 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> alternate staffing units.</li> </ul> </li> <li>Obtain Level B or Splash Protective Suits for use in disinfecting equipment as needed.</li> <li>Determination of availability and acquisition of disease testing kits.</li> <li>Determination of proper responsibility for testing exposed personnel.</li> <li>Determination of process and appropriate products to use for cleaning/disinfection of equipment with special reference to hand tools, vehicles, aircraft, computers, radios, pumps and chain saws, etc.</li> <li>Determination of protocols for isolation and removal from active duty and locations.</li> </ul>	<ul style="list-style-type: none"> <li>Close operating base to the public and all non-essential personnel.</li> <li>Provide recommended social distancing guidelines.</li> <li>Practice personal hygiene.</li> <li>Screen all personnel when entering base area, before starting work – check temperature, check for overall feeling, check for coughing, and other symptoms.</li> <li>Configure and set up testing capability for firefighters at local unit or local health facilities, when it becomes available.</li> <li>Prioritize firefighters for testing and vaccination.</li> <li>Enhance personal hygiene.</li> <li>Isolate firefighters as much as possible.</li> <li>Disinfect equipment on a regular basis.</li> <li>PPE laundry – clean on a regular basis.</li> <li>Develop a plan for prioritizing fires for response, especially if COVID-19 spread is high and fire season activity is high.</li> <li>Plan for shifts in wildfire response strategy, ranging from highly prioritized IA to reducing overall firefighter exposure by prioritizing responses.</li> </ul>	<ul style="list-style-type: none"> <li>Determination of protocols for sending exposed individual home or to medical facilities.</li> <li>Determination of quarantine protocols in conjunction with local, county, and State officials.</li> <li>Determine quarantine oversight responsibility.</li> <li>Determination of protocols to determine when individuals are available to return to active duty.</li> <li>Provide incident laundry unit if available, if not use commercial services.</li> </ul>

## 6 STRATEGIC CONSIDERATIONS

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Specific recommended management considerations for Multi-Agency Coordinating Groups (MAC) at the national, geographic area, and sub-geographic area are provided in this section. This information is also applicable to agency units and local levels although some of it will not have the same utility for all participating agencies and organizations. Some practices and protocols listed here for consideration may only be acceptable for use by federal agencies and not by state and local governments. In other cases, more specific practices and protocols may be developed and implemented at local levels. Strategic considerations of importance include, but are not limited to the following points:

### 6.1 MAC Strategic Considerations

#### **Fire Personnel Readiness**

##### ***Consider:***

- ✓ Managing qualifications and training by adding flexibility/waivers, conducting training on-line or via other remote methods, and including training on COVID-19.
- ✓ Expanding prevention activities: expanding public information campaigns and closures and consider virtual opportunities.
- ✓ Pre-identifying potential control locations for aggressive response.
- ✓ Expanding use of emerging technology: leveraging remote operations, briefings, sensing and surveillance.
- ✓ Rapidly contracting and focusing on specific needs: exploring opportunities for greater use of MREs, medical equipment, PPE, and remote sensing.
- ✓ Increasing and maintaining response capacity:
  - Include the use of agency, non-fire personnel.
  - Provide employee support for emotional well-being.
- ✓ Tracking situational awareness - build tracking systems for situational awareness of firefighter exposure and infections.
- ✓ Practicing social/physical distancing.
- ✓ Enhancing personal hygiene.
- ✓ Ensuring personnel have more than one set of PPE, making laundering possible on a regular basis.
- ✓ Monitoring personnel for symptoms.
- ✓ Testing personnel when tests become available and in accordance with [Appendix I](#).

#### **Modifying Strategies, Tactics, and Logistics.**

##### ***Consider:***

- ✓ Strategy and Tactics:
  - Pursuing opportunities for monitoring of low-risk fires.
  - Making full use of the range of available tactics and preparing for more discriminate use of resources, especially for fires that occur in high-risk areas.
  - Exploring opportunities for more indirect attack, focused use of heavy equipment, and designation of management action points using natural barriers.
  - Planning for the potential for increased smoke loads to communities and planning and implementing early warning/communication for likely events.
  - Utilizing suppression strategies that will minimize the number of assigned personnel and incident duration.

- Implementing swift initial response to minimize possibility of large fire occurrence, while not employing higher-risk tactics to keep fires small.
- Within agency protocols and to the degree possible, augmenting fire-response resources with non-fire staff to help sustain fire-response capability.
- Considering opportunities for application of aviation and mechanized assets to reduce assigned personnel.
- Using a prioritization process to assure the effective use of resources:
  - Initial attack remains the highest priority, including the use of aviation assets.
  - Extended Attack/Complex Fire Management:
    - Using a prioritization processes for assigning resources to large fires.
  - Emphasizing containment strategies and evaluating magnitude and duration of mop-up to help minimize duration of assignment and potential exposure time.
- Expanding use of Decision Support Centers in all GACCs.
- Utilizing Predictive Services and professional judgement to balance assigned resources and incident duration.
- Preparing and implementing virtual incident management appropriate for the situation by IMT's - GA's consider conducting simulated virtual IMT incident management prior to most active fire season periods.
  - Identify and obtain necessary technology.
  - Designate IMT sections/personnel that can complete work virtually and what minimum requirements are for managing incidents safely.
- Closely evaluating large fire response to ensure best practices for prioritization are used, especially where life is imminently threatened.
- Evaluating the need for additional catering/showers/washing stations.
- Expanding medical support.
- Separating "Module as One" in camps.
- Closed camps with security, no leaving camp to travel into communities.
- ✓ More vehicles may be needed during crew transports if possible, to support the Module as One concept.
- ✓ Having personnel carry extra PPE.
- ✓ Following recommended guidelines for disinfecting fire equipment on a regular basis.

#### **Drawdown Projections and Contingency Opportunities:**

##### **Consider:**

- ✓ Recommending that local units prepare contingency plans for resource drawdown during fire seasons.
  - Considering how existing staffing and management will be affected by a 10, 30, or 50% reduction in resource availability.
  - Identifying options available for maintaining continuity in resource levels during drawdown periods.
  - If resource numbers decrease due to COVID-19, consider base closing and/or consolidation.
- ✓ NMAC and GMAC consider addressing availability issues as resources are assigned to wildfires, or are unavailable due to COVID-19.
- ✓ Determining opportunities to obtain international assistance:
  - Identifying sources of additional resources.
  - Identifying potential types and numbers of resources needed at escalating preparedness levels.

- Considering early use of and consultation with Australian fire managers involved in 2019-2020 Australian fire season to draw on recent experience in working with limited and declining resource numbers.
- Consider early contact with Canadian fire managers to prepare for potential assistance and to coordinate mutual support efforts.
- Pre-planning any international agreements, waivers, funding, and other administrative requirements and have them complete by start of active fire seasons.

#### **Leveraging Best Available Information Management and Technology:**

##### **Consider:**

- ✓ Communication:
  - Expanding the use of technology and local networks for remote/virtual community meetings and updates.
  - Expanding communications focus by developing COVID-19 communications tool kit and strategies for two-way virtual communications with communities.
- ✓ Technology:
  - Preparing for more remote operations, briefings, sensing, and surveillance.
  - Identifying technology needs, costs, and proactively implement actions.
  - Identifying and using the best technology to reach affected communities.
  - Pursuing increased use of UAS (seek waivers).
  - Expediting contracting of UAS equipment.

## **6.2 Public Information**

Consider national and geographic direction on Information releases regarding COVID-19-specific issues on wildland fire incidents managed by IMTs (type 1-3). All releases must be consistent and follow the Delegation of Authority the team is working under. Local unit(s) who delegated the incident to the team approve all releases of information. Local unit Public Affairs offices will maintain close contact with Regional, National and Department Offices and be able to guide Public Information Officers (PIO) on what can/cannot be released.

Many remote communities are not well served by virtual information dissemination and social media in general. Agencies have traditionally relied on community meetings and staffed information boards to allow personal dialogue in these impacted communities. This plan foresees that, in almost every case, these tools will be unavailable to PIOs in areas impacted by COVID-19. Communities should be identified and be briefed in advance of fire season to manage expectations and explore alternatives.

The [Fire Information BMP in Appendix B](#) provides new and existing information dissemination methods to maximize social distancing. Host units should evaluate and update contact lists and e-traplines in advance and provide to team PIOs within in-briefing packages. In addition, that BMP provides more detailed information regarding the best practices for the Information function.

## **6.3 Transportation**

General items related to transportation are shown below:

- ✓ Protocols given by CDC to prevent the spread and to reduce the possibility of catching COVID-19 should be utilized to the extent possible, as related to each specific mode of travel.
- ✓ FAA has specific COVID-19 Interim direction issued for all aircraft operators.

- ✓ Passenger information and travel itinerary for any type of travel should be kept by chief of party in the event of an exposure while traveling. [SAFO](#)
- ✓ Personnel should be checked for symptoms prior to boarding/travel as part of the manifest check.
- ✓ Ensure that all aircraft has been disinfected as recommended by [FAA/CDC](#).
- ✓ Ensure latest agency protocols for contract carriers are followed.
- ✓ Drivers should consult their fleet manager for agency-specific policy on cleaning and disinfecting vehicles. Ground support will have guidelines for team operations.
- ✓ Ensure vehicles have been cleaned and disinfected following agency, GSA and CDC standards.
- ✓ Ensure vehicles have been cleaned and disinfected prior to rental. Follow appropriate agency, CDC and GSA protocols for daily cleaning of vehicle.

#### 6.4 Cooperator Response

- ✓ Determine opportunities for use of military resources.
  - Identify how military resources can be used to augment existing firefighting resources.
  - Identify accelerated training capabilities to advance readiness earlier in fire season.
- ✓ Consider all opportunities for staffing MAC functions remotely.
- ✓ Consider the most efficient ways to manage multiple large fire situations (i.e., oversight, span of control, numbers and types of incident organizations).
- ✓ Consider working pre-season with cooperators, partners, and stakeholders to identify how COVID-19 may affect existing agreements and operating plans. Ensure changes in agreements and operating plans are communicated to all fire personnel
- ✓ Establish contact each Governor's State Forester/Fire Chief representative to determine travel restrictions and closures.

## 7 RESPONSE PLAN DISTRIBUTION

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The Southern Geographic Area will distribute this plan to all agency cooperators and will maintain and update this plan as events warrant.

## 8 GLOSSARY OF TERMS

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**Active monitoring:** Refers to when the state or local public health authority assumes responsibility for establishing regular communication with potentially exposed people to assess for the presence of fever, cough, or difficulty breathing. For people with high-risk exposures, CDC recommends this communication occurs at least once each day. The mode of communication can be determined by the state or local public health authority and may include telephone calls or any electronic or internet-based means of communication.

**Afebrile:** Not feverish.

**Asymptomatic:** Not showing any signs of having the disease.

**Close contact:** being within approximately 6 feet (2 meters) of an individual for a prolonged period or, having direct contact with infectious secretions from an individual (e.g., being coughed upon).

**Cluster:** An aggregation of disease cases grouped in place and time that are suspected to be greater than the number expected, even though the expected number may not be known.

**Conditional release:** A set of legally enforceable conditions under which a person may be released from more stringent public health movement restrictions, such as quarantine in a secure facility. These conditions may include public health supervision through in-person visits by a health official or designee, telephone, or any electronic or internet-based means of communication as determined by the CDC Director or state or local health authority. A conditional release order may also place limits on travel or require restriction of a person's movement outside their home.

**Confirmed COVID-19 infection:** positive determination of COVID-19 infection from a laboratory test. Also referred to as a Positive COVID-19 infection.

**Congregate settings:** Crowded public places where close contact with others may occur, such as shopping centers, movie theaters, stadiums.

**Containment:** A public health strategy in which officials aim to prevent the spread of an infectious disease beyond a small group of people to the broader community. Containment actions include restricting travel from affected regions, identifying infected people and tracking down everyone they live with or have spent time with (contact tracing), and asking those who have been exposed to the virus to stay at home for a period of time.

**Controlled travel:** Exclusion from long-distance commercial conveyances (e.g., aircraft, ship, train, bus). For people subject to active monitoring, any long-distance travel should be coordinated with public health authorities to ensure uninterrupted monitoring. Air travel is not allowed by commercial flight but may occur via approved noncommercial air transport. CDC may use public health orders or federal public health travel restrictions to enforce controlled travel. CDC also has the authority to issue travel permits to define the conditions of interstate travel within the United States for people under certain public health orders or if other conditions are met.

**Coronavirus:** A family of viruses that cause illness ranging from the common cold to more severe diseases, such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory

Syndrome (SARS-CoV). The novel coronavirus recently discovered has been named SARS-CoV-2 and it causes COVID-19. Source: [WHO](#).

**COVID-19:** The name of the disease caused by the novel coronavirus, SARS-CoV-2. “CO” stands for “corona,” “VI” for “virus,” and “D” for disease. Formerly, this disease was referred to as “2019 novel coronavirus” or “2019-nCoV.”

**Drive through testing:** Individuals remain in their vehicles, and medical staff in protective gear come to administer the swab test and the swabs are sent to a laboratory for testing.

**e-ISuite:** A software program used to manage incident resources. The e-ISuite system is a web browser (e.g. Internet Explorer) enabled application for use at the Incident Command Post (ICP) and in agency offices to manage emergency incidents and planned events. No software licenses are required to use e-ISuite. A web browser is all each user will need to run the application. The e-ISuite Enterprise System is hosted on the USFS Fire and Aviation Management National Enterprise Support System (NESS) General Support System (GSS) at the National Information Technology Center (NITC), Kansas City, MO and will support all incidents at an enterprise level.

**Endemic:** The constant presence and/or usual prevalence of a disease or infectious agent in a population within a geographic area.

**Epidemic:** An increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area. Source: [CDC](#).

**Essential Activities:** Tasks essential to main health and safety, such as obtaining medicine or seeing a doctor. The CDC provides further [guidance](#) on the following:

- Shopping for food and other household essentials.
- Accepting deliveries and takeout orders.
- Banking.
- Getting gasoline.
- Going to the doctor or getting medicine.
- Essential businesses are defined differently within different States, refer to local guidelines for more information.

**Exposure:** Contact with someone infected with the coronavirus responsible for COVID-19.

**FirstNet:** The First Responder Network Authority (also referred to as FirstNet) is the independent authority within the National Telecommunications and Information Administration (NTIA), established by Congress in 2012 to develop, build and operate a nationwide, broadband network dedicated to public safety. The purpose of FirstNet is to have an interoperable public safety network so first responders don't have to compete for bandwidth, including cellular bandwidth, with non-public safety users. In 2017, through a public-private partnership, AT&T was awarded a 25-year contract to deploy and operate the FirstNet network including the use of 20 MHz of federally owned spectrum. Since 2017, Verizon has launched a private core of their own dedicated network for public safety and first responders, not directly connected with the NTIA FirstNet Authority or the federally owned spectrum. For more information refer to <https://firstnet.gov/>.

**Flattening the curve:** Slowing a virus' spread to reduce the peak number of cases and related demands on hospitals and infrastructure (Source: [CDC](#)).

**General purpose facemask:** A loose-fitting, disposable device that creates a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment. Facemasks do not seal tightly to the wearer's face, do not require fit testing, but do provide the wearer with a reliable level of protection from inhaling smaller airborne particles (not suitable for close contact with a known or suspected COVID-19 infection).

**Home isolation:** Persons with COVID-19 who have symptoms or laboratory-confirmed COVID-19 who have been directed to stay at home until they are recovered. Source: [CDC](#).

**Incident Within an Incident (IWI):** any accident, injury, or medical emergency during an incident directly affecting Incident Management Team personnel and assigned resources. An IWI may also be a situation involving civilians not associated with the incident but occur in or near the wildland fire or all-hazard event that responding or assigned agency personnel assist with. Protocols for IWI should be predetermined and understood by all incident managers.

**Incubation period:** The length of time between when an infection begins and when there are apparent signs of the disease. Most indications give the coronavirus an incubation period of 2-14 days with symptoms most commonly showing at about 5 days after infection (World Health Organization).

**Isolation:** Separating sick people with a contagious disease from those who are not sick. Source: [CDC](#).

**Mitigation:** Slowing the spread - taking measures to cause the rate of increase of the number of cases to be slowed to low levels.

**"Module as One":** The consideration of a module of firefighters as a single individual for purposes of potential COVID-19 exposure and transmission. Modules may range from 2-10 individual firefighters. A "Module as One" rides together in the same vehicle and consequently cannot practice social distancing during vehicle transport. A "Module as One" works together in relatively close proximity while conducting fire assignment duties. Fire managers, IMTs and fireline supervisors should consider all module members exposed if one of the module members has been exposed. During a mobilization (i.e., departure from until return to home unit) a module must remain intact (i.e., no replacements to or from the module).

**N95 respirator (face mask):** A fitted mask for trained medical personnel to use when treating patients. The CDC does not recommend that the general public wear N95 respirators to protect themselves from respiratory diseases, including COVID-19. Those are critical supplies that must continue to be reserved for health care workers and other medical first responders, as recommended by current CDC guidance.

**Outbreak:** Carries the same definition of epidemic but is often used for a more limited geographic area.

**PACE:** primary, alternate, contingency and emergency plan.

**Pandemic:** An epidemic that has spread over several countries/continents, usually affecting a large number of people. Source: [CDC](#).

**Physical distancing:** also called social distancing - measures taken to keep physical space between one or more individuals outside of homes, businesses, and other buildings with a goal to stop or slow the spread of a contagious disease. Measures can include:

- not gathering in groups and staying out of crowded places and avoiding mass gatherings.

- working from home.
- closing offices and schools.
- canceling events.
- avoiding public transportation,
- staying at least 6 feet (2 meters) from other people.

**Positive COVID-19 infection:** positive determination of COVID-19 infection from a laboratory test. Also referred to as a Confirmed COVID-19 infection.

**Positive screening:** Defined in this plan as a person with indications of illness based on Wildland Fire COVID-19 Screening procedures ([Appendix C](#)).

**[PPE] Personal protective equipment:** In addition to standard clothing (Nomex pants and shirts) and equipment (e.g. hardhat) used to protect fire personnel from workplace hazards, COVID-19 PPE is expanded to include items to protect against exposure to SARS-CoV-2. The types of PPE required during a COVID-19 outbreak will be based on the risk of being infected with SARS-CoV-2 while working and job tasks that may lead to SARS-CoV-2 exposure. Any workers, including those who work within 6 feet of patients known to be, or suspected of being, infected with SARS-CoV-2 and those performing aerosol-generating procedures, need to use respirators and comply with the OSHA respirator standard. N95 filtering facepiece respirators are critical supplies that must continue to be reserved for healthcare workers and other medical first responders. Disposable face or surgical masks should be worn by personnel with known or suspected COVID-19 to contain secretions during interaction with other personnel or during transport. They cannot be used in place of a respirator. Additional information on [PPE for patients and healthcare providers is available from the CDC](#). Cloth face coverings are recommended for all fire personnel to reduce the spread of the virus from individuals who may have the virus and are asymptomatic or pre-symptomatic. **Because they do not necessarily protect the wearer from infection, cloth face coverings are not considered PPE by the CDC and are a form of source control.**

**Public health orders:** Legally enforceable directives issued under the authority of a relevant federal, state, or local entity that, when applied to a person or group, may place restrictions on the activities undertaken by that person or group, potentially including movement restrictions or a requirement for monitoring by a public health authority, for the purposes of protecting the public's health. Federal, state, or local public health orders may be issued to enforce isolation, quarantine or conditional release. COVID-19 meets the definition for "severe acute respiratory syndromes" as set forth in Executive Order 13295, as amended by Executive Order 13375 and 13674, and, therefore, is a federally quarantinable communicable disease.

**Quarantine:** In contrast to isolation, quarantine applies to people who have been exposed and may become infected but are not yet infected. In these cases, the people exposed (or potentially exposed) are separated and have restricted movement imposed. Quarantine can be voluntary or mandated. Source: [CDC](#).

**SARS-CoV-2:** The name of the novel coronavirus that causes COVID-19 disease. Source: [WHO](#).

**Self-monitoring:** People monitoring themselves for fever by taking their temperatures twice a day and remain alert for cough or difficulty breathing. If they feel feverish or develop measured fever, cough, or difficulty breathing during the self-monitoring period, they should self-isolate, limit contact with others,

and seek advice by telephone from a healthcare provider or their local health department to determine whether medical evaluation is needed.

**Self-observation:** Refers to people remaining alert for subjective fever, cough, or difficulty breathing. If they feel feverish or develop cough or difficulty breathing during the self-observation period, they should take their temperature, self-isolate, limit contact with others, and seek advice by telephone from a healthcare provider or their local health department to determine whether medical evaluation is needed.

**Self-quarantine:** Staying home and away from other people as much as possible after exposure through voluntary separation.

**Shelter in place:** All residents must remain at their place of residence, except to conduct essential activities, essential business, and essential government functions.

**Social distancing:** also called physical distancing - measures taken to keep physical space between one or more individuals outside of homes, businesses, and other buildings with a goal to stop or slow the spread of a contagious disease. Measures can include:

- not gathering in groups and staying out of crowded places and avoiding massgatherings.
- working from home.
- closing offices and schools.
- canceling events.
- avoiding public transportation,
- staying at least 6 feet (2 meters) from other people.

**Spike Camp:** a secondary or temporary camp away from the main camp, that can be indoors or outdoors.

**Suppression:** Where the rate of increase of the number of cases has been slowed to low levels and is maintained for a period of time, potentially up to 18 months.

**Symptom:** A sign or indication that someone has a disease.

**Symptomatic:** Showing signs of the disease like fever, cough, and shortness of breath.

**Vaccine:** A biological preparation that provides active acquired immunity to a particular disease.

## 9 REFERENCES, RESOURCES, WEBSITES

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During the development of the COVID-19 pandemic, pertinent information has been continuously emerging and likely will continue to do so after release of the first version of this WFRP. Many references have become available that provide useful information and these are being continually updated in an effort to disseminate the best available information regarding this national emergency.

References, resources, and websites have been a principal source of information useful in the development of this plan. All references have been documented, but the list continues to grow and has become too long for inclusion here. As a result, in lieu of providing a comprehensive list in this document, all references have been logged into a central storehouse that can be accessed through the link listed below.

This reference storehouse consists of a master list of all references, resources, and websites. It is in the form of an Excel spreadsheet with tabs along the bottom that allows rapid sorting of the references by topic. Topics available for sorting include: by document name, all, dispatch, fire response, information, liaisons, logistics, medical response, plans, quarantine, transportation, virtual operations, and web references.

To visit the WFRP “COVID-19 References\_Resources\_Websites” repository within FireNet please click the link below; depending on your browser, you may have to copy/paste the entire URL into your browser address bar:

### **[COVID-19 References\\_Resources\\_Websites](https://firenet365.sharepoint.com/:x:/s/2020_COVID-19_GeographicArea_WRP168/EfygkzSDAHJOMTGw7eh2wxkB-VTb-4H0PD7TkjVX20fLA?e=481kAa)**

Or, copy and paste the following URL into your browser address bar:

[https://firenet365.sharepoint.com/:x:/s/2020\\_COVID-19\\_GeographicArea\\_WRP168/EfygkzSDAHJOMTGw7eh2wxkB-VTb-4H0PD7TkjVX20fLA?e=481kAa](https://firenet365.sharepoint.com/:x:/s/2020_COVID-19_GeographicArea_WRP168/EfygkzSDAHJOMTGw7eh2wxkB-VTb-4H0PD7TkjVX20fLA?e=481kAa)

<https://www.cdc.gov/coronavirus/2019-ncov/community/wildland-firefighters-faq.html>

## 10 ACKNOWLEDGEMENTS

The Southern Geographic Area and the National Multi-Agency Coordinating Group would like to express their appreciation to Sexton's ACT 2 for their rapid mobilization and adaptation of processes to develop this Wildland Fire Response Plan. To achieve the objectives as described in the Delegation of Authority, Area Commander Sexton and his staff were challenged with the significant task of coordinating with all cooperators to develop a strategic plan for an event that has neither been addressed nor experienced before - and completing the work in a relatively short time; entirely in a virtual working environment.

All Area Command Teams and the Eastern Area IMT, in close cooperation with the assigned Geographic Areas, worked collaboratively to develop plans that were consistent and applicable at all levels, while capturing the best-available information and protocols at the time of publication. Sexton's ACT 2 sincerely appreciates the staff of the Southern Geographic Area for taking the time to engage in this process and their investment in reviewing, commenting and providing feedback to the team in the development of this WFRP.

ACT 2 would like to acknowledge the time and efforts of the members of the SA Coordinating Group and their colleagues to provide input, feedback, agency and area specific information, and review of the WFRP. Without this support and active engagement, this plan would not be as complete a product and would not provide the necessary information and value throughout the GA.

The following members of the Area Command Team 2 assisted with the development of this Plan:

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## Appendix A – All Fire Personnel Best Practices

### **General Information**

- Follow the most current direction from the Centers for Disease Control and Prevention (CDC) <https://www.cdc.gov/coronavirus/2019-ncov/community/wildland-firefighters-faq.html> and local health authority, which currently includes the following: Some personnel (e.g., emergency first responders) fill essential (critical) infrastructure roles within communities. Based on the needs of individual jurisdictions, and at the discretion of state or local health authorities, these personnel may be permitted to continue work following potential exposure to COVID-19 (either travel-associated or from close contact to a confirmed case), provided they remain asymptomatic. Personnel who are permitted to work following an exposure should self-monitor under the supervision of their employer's occupational health program including taking their temperature before each work shift to ensure they remain afebrile. On days these individuals are scheduled to work, the employer's occupational health program could consider measuring temperature and assessing symptoms prior to their starting work.
- Ryan White HIV/AIDS Treatment Extensions Act (2009) has been expanded to include COVID-19. The Act (Part G) provides emergency response employees (EREs) with notification (normally a violation of the Health Insurance Portability and Accountability Act (HIPAA) regulations) when they are at risk of exposure to potentially life-threatening infectious diseases through contact with victims during emergencies. This information allows EREs the opportunity to seek timely medical care and to make informed decisions about addressing potential health issues arising from their exposures. Health/medical personnel may be unaware of this provision and reluctant to provide information due to HIPAA regulations.
- We now know from [recent studies](#) that a significant portion of individuals with coronavirus lack symptoms (“asymptomatic”) and that even those who eventually develop symptoms (“pre-symptomatic”) can transmit the virus to others before showing symptoms. CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain (e.g., grocery stores and pharmacies), especially in areas of significant community-based transmission.
- Although not directly researched or tested, the exposure to wildfire smoke may potentially increase susceptibility to COVID-19, may worsen severity of the infection, and may pose a risk to those who are recovering from serious COVID-19 infection. These concerns are based on research into the respiratory effects of acute and long-term air pollution and specifically respiratory effects of biomass burning smoke and subsequent infection with influenza and other viruses.

### **Best Practices**

- Social/physical distancing
  - Avoid physical contact with co-workers and the public; maintain a 6’ spacing.
  - Consider appropriate mitigation measures or PPE (plastic shields, facemasks) for personnel that have greater potential for close contact with incoming responders.
  - Assign vehicles to firefighters and avoid cross-over of employees and belongings.
  - Discourage shared use of phones, radios, office supplies and pens, or other work tools and equipment.

- Conduct group meetings virtually with available video- and tele-conferencing and file sharing applications or limit groups to numbers in compliance with state and local health authority direction (some states are limited to smaller groups).
  - Limit access to facilities for all non-fire personnel.
  - Require personnel to keep a log of close contacts and submit to supervisors daily. Close contact is defined as being within approximately 6 feet of an individual for a prolonged period or having direct contact with potentially infectious secretions from an individual (e.g., being coughed or sneezed on).
  - Wear a facemask, bandana, or other suitable cloth covering when social distancing is compromised (e.g., in vehicles, briefings).
- Face coverings
- As of April 3, 2020, CDC has updated its recommendation on the use of cloth [face coverings](#) to help slow the spread of COVID-19.
  - Voluntary use of cloth face coverings is now recommended for use in public settings where other social distancing is difficult to maintain, especially in areas of significant community-based transmission.
  - Face coverings should be maintained in a sanitary manner (i.e., laundered without damage or change to shape) and should not be distracting or offensive to others.
  - Face coverings should fit snugly but comfortably against the side of the face; be secured with ties or ear loops, include multiple layers of fabric; allow for breathing without restriction; and be able to be laundered and machine dried without damage or change to shape.
- Personal hygiene
- Wash hands frequently for at least 20 seconds, with soap, after coughing or sneezing, when hands are visibly dirty, or after touching common surfaces (doorknobs, desk tops, etc.).
  - Provide handwashing stations near frequently entered facilities.
  - Consider the number of dedicated wash stations and/or portable restrooms needed to support each bullet above.
  - Use hand sanitizer when getting in and out of vehicles and after fueling.
  - Do not touch eyes, nose, mouth with gloved or unwashed hands.
  - Cover nose and mouth (e.g., use crook of the elbow) when coughing or sneezing. If using a tissue, immediately dispose the tissue and wash or sanitize hands.
- PPE laundry – regular basis
- Ensure clothing/PPE is kept clean and replaced when suspected contamination occurs.
  - On assignment, change PPE as often as practical (dependent on availability, laundry service, etc.).
  - Wipe down all non-laundered apparel (shoes, wristwatches, jewelry, etc.) with disinfectant.
- Workplace/equipment cleaning procedures
- Develop routine daily cleaning procedures for places of work and rest, vehicles, and other equipment. Consult CDC guidance for everyday [cleaning/disinfection](#).
  - Use disinfectants on the list of [EPA approved cleaning supplies for COVID-19 prevention](#).

- Follow label instructions and use PPE (e.g., gloves, eye protection) appropriate for the disinfectant being used.
  - Designate a trained employee to oversee daily cleaning procedures.
  - Ventilate vehicles during and after transport.
  - Disinfect all “high-touch” surfaces in rooms and on equipment. In vehicles, these may include keys, door handles, steering wheel, gear shifter, radio and temperature controls, seatbelts, window controls, seats, and dashboard.
  - If surfaces are noticeably dirty, clean soiled surfaces with detergent or soap and water before disinfecting them.
  - Follow CDC and local protocols to mitigate contact with bodily fluids, including the cleaning or disposal of PPE and equipment.
  - Use disposable paper towels with appropriate cleaning solutions, or wipes, for cleaning; towels/wipes – not sprays – are recommended to avoid aerosolizing germs on contact.
  - Thoroughly wet surfaces with cleaning solution and air dry; do not actively dry surfaces.
  - Wash hands thoroughly after cleaning equipment, surfaces, etc.
- Travel/transportation
- Minimize contact with non-fire personnel and time in public areas while travelling.
  - When using public transportation such as commercial aviation, use proper PPE to minimize exposure.
  - Follow guidelines for cleaning/disinfecting surfaces when staying in motels/hotels.
  - Stay in your hotel room to the extent possible and wipe down high touch areas.
  - Consider eating in your hotel room, utilizing take out or delivery. Maintain social distancing when eating while on the road.
  - Follow guidelines for cleaning/disinfecting vehicles.
  - Disinfect nozzles and keypads before fueling vehicles.
  - Consider use of rental RVs that can also be used for office space.
  - Have a three-day supply of water and MREs for each person if driving.
  - Maintain a manifest if travelling with others.
  - Expect fewer restroom facilities as you travel to an incident. Some states have closed visitor centers while others remain open. Many food service businesses are now drive thru only. Most vehicle service stations are open.
  - When using public facilities, be reminded that there is nothing to indicate the health of those there before you.
- Work under the “Module as One” concept
- Minimize exposure by not mixing personnel (e.g., same personnel assigned together for the entire season, on same schedule, to same vehicle, on same assignments, in same camp).
  - Use the Module as One concept when assigning vehicles to firefighters and during transit to and from incidents.
- Other steps to reduce personal risk
- Eat smaller, more frequent meals that include fruits and vegetables to maintain blood sugar and support the immune system.
  - Consume appropriate calories to support activity levels and regular body function.
  - Stay hydrated; drink water at regular intervals throughout the day.

- Avoid stimulants near bedtime.
  - Provide a sleep environment that promotes sleep quality (i.e., comfort, cool temperatures, and low noise).
- Symptom monitoring/COVID-19 screening (*refer to [Appendix C](#) for screening, [Appendix I](#) for testing*)
- **Emergency warning signs** for COVID-19 include trouble breathing, persistent pain or pressure in the chest, confusion, and/or bluish lips or face. If these or other symptoms that are severe or concerning present, **get medical attention immediately**. If possible, put on a cloth face covering before medical help is administered.
  - General symptoms include fever (100.4° F or greater), cough, and/or shortness of breath, but may also include fatigue, chills, aches, sore throat, or loss of taste and/or smell, or otherwise unexplained gastrointestinal issues.
  - Monitor the temperature of all personnel and watch for symptoms (fever is the most commonly presented). Ensure touchless infrared thermometers are available for use.
  - Implement *Wildland Fire COVID-19 Screening* ([Appendix C](#)) when entering on duty at the home unit or arrival at the incident.
  - If screening yields a positive result (positive screening), those Individuals should be removed from work and tested as soon as possible. If testing shows positive, those individuals should be released from the assignment until they meet the return to work criteria as described by CDC. Refer to the following sections on Testing and Positive Infection for further details.
  - Individuals who test negative were probably not infected at the time the sample was collected and can return to work, although a negative test result does not rule out getting sick at a later date.
  - If an individual who is part of an established module screens positive, the entire module should be tested as soon as possible. The same process for removal or return to work applies for the module for negative or positive results.
  - Prior to release and return to home, positive screenings should be isolated in a separate location. This may require separate, dedicated and staffed areas/facilities to ensure that individuals with potential COVID-19 infection do not come in contact with other fire personnel.
  - Next steps, including testing, should be coordinated with unit leadership, the medical unit and/or local health authority.
  - Use appropriate PPE and social distancing protocols when entering the environment or in the presence of symptomatic personnel or positive screenings.
  - The NFES 1660 – *Individual Infectious Barrier Kit* or NFES 1675 – *Multi-Person Infectious Disease Barrier Kit* (as needed) should be used by workers engaged in screening, workers helping to manage sick and/or asymptomatic personnel with recent COVID-19 interaction, and workers helping to sanitize infected areas, or any areas suspected of infection. Training and/or education for workers on donning, doffing, and disposal of such PPE is recommended.
  - Develop a contact plan that includes a medical evaluation (e.g., COVID-19 testing) for symptomatic/positive-screening off-duty personnel.
  - Provide any quarantined individual with a home thermometer, check in daily by phone to monitor symptoms, help with any logistical needs such as groceries, and give encouragement.

- Monitor employees for symptoms for a 14-day period following a suspected COVID-19 contact or exposure. Follow up with suspected exposure source. Have individuals tested and, if negative, allow personnel that had close contact to return to duty.
- Testing (refer to [Appendix I](#))
  - Use approved and recommended testing procedures and guidelines.
  - If testing is available, ensure personnel are tested as soon as symptoms appear.
- Positive infection (test result)
  - Isolate and evacuate to a pre-determined site or hospitalize (as conditions warrant).
  - Require appropriate PPE for all interaction with infected individuals. Except in the case of specially trained medical/decontamination personnel, employee contact with known infection should be limited to only absolutely necessary instances.
  - Transport of infected individuals should be via qualified EMS personnel or fire personnel in full PPE recommended for protection from COVID-19 by federal, state, and local health authorities.
  - Notify immediate supervisor of the situation.
  - Review contact log and follow-up appropriately (i.e., contact tracing).
  - Follow local agency and cooperator guidelines for notification procedures.
  - Consider using a text alert system to notify personnel who have had possible contact with an infected person.
  - Decontaminate equipment, including vehicles, used by infected individuals. Recognize that proper PPE use for COVID-19 decontamination requires training by an experienced instructor.
  - Options for contaminated facilities include (1) time: close affected facility for 7 days to allow any virus to attenuate naturally, (2) use of a qualified contractor to clean facility, (3) use of a pre-identified, specially trained team of local agency personnel to decontaminate facility.
- Recovery
  - Follow CDC, local health authority, or attending physician guidelines for recovery.
  - Maintain regular phone contact with recovering individuals.
  - Return to service following recovery, but do not assume a recovered individual is immune to the virus.
  - Returning-to-service employees will continue to follow all guidelines.
- Contingency planning
  - Determine and monitor availability of COVID-19 testing kits.
  - Determine and communicate state and local guidelines for testing personnel.
  - Determine and acquire a supply of approved products for use in decontamination/sanitation of equipment. [CDC](#)

## Appendix B – Best Management Practices - Outline

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# Mobilization Operations

(GACC/Dispatch)

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Be aware of response areas that are hotspots for COVID-19.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Reduce exposure by conducting as much work as technology allows virtually ([Appendix F](#)).
- Be aware of response areas that are hotspots for COVID-19.
- Consider mobilizing resources using (“Module as One”) concept and in smaller numbers to minimize exposure potential.
- Develop contingency plans to address a shortage of dispatchers.
- Ensure neighboring dispatch centers have access to computer programs for back up dispatchers in need of support.
- Consider Interagency Resource Representatives who are knowledgeable of COVID-19 protocols.
- Have a pool of backup dispatchers/support personnel in case of shortages.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention, and local health authorities. Implement local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- Implement contingency plans (COOP) if GACCs/dispatch center must be temporarily closed.

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Updated: (04/19/2020)

# Cache Operations

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Arrange for additional space to be used for storing and disinfection of returned items separate from the main cache.
- Ensure detailed personnel are aware of the receiving cache COVID-19 protocols
- Consider stocking the cache with increased amounts of hand sanitizer, disinfectant wipes, etc.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Use electronic devices for filling orders, tracking orders and receiving supplies.
- Use minimum personnel staffing levels to limit exposure.
- Implement supply delivery and receiving protocols to reduce face-to-face encounters where possible. Use direct-drop shipping model whenever possible.
- Maintain adequate amounts of extra supplies for anticipated IMT orders (MREs, NFES 1660 – *Individual Infectious Barrier Kit*, NFES 1675 – *Multi-Person Infectious Disease Barrier Kit*, and sanitation items, etc.).
- Consider ALL returned cache items as being exposed and contaminated.
- Ensure personnel follow protocols established for cleaning and disinfection of returned supplies and equipment.
- Have a pool of backup personnel in case of shortages. Extra consideration should be given to personnel with special licenses such as CDL truck drivers and forklift operators.
- Maintain a record of actions taken for information-sharing and lessons learned.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- Hold equipment suspected of contamination in a secure location for a prescribed amount of time to reduce virus survival.

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Updated: (4/19/2020)

# Cooperator Response

## (Local Government/Contractor/International Support/Military Support)

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The Southern Geographic Area includes 13 States, the Commonwealth of Puerto Rico; the U.S. Virgin Islands; federal agencies, tribal, county, timber industry cooperators; as well as municipal and rural volunteer fire departments, non-governmental organizations, military installations and other resources that cooperate in wildland fire management. This Geographic Area's reliance on cooperation among these organizations is critical to successful protection of resources and the public from wildfires. COVID-19 adds a significant layer of complexity that directly impacts all cooperators' ability to respond to wildfires. Impacts include, but are not limited to travel restrictions between states, canceled gatherings for training and strategic planning, fewer personnel available to respond, shelter-in-place orders, and other factors. These factors require fire managers and programs at all levels to consider innovative ways to respond to wildland fires while also protecting firefighters from being exposed to or inadvertently spreading COVID-19. Suggested best practices for more tactical aspects of wildfire response are available in other Appendices. While by no means comprehensive, this document is intended to be used as a tool to support wildland fire response during the ongoing COVID-19 pandemic. As the situation evolves and more information becomes available, these guidelines should be periodically reviewed and updated.

### *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Reduce exposure by conducting as much work (briefings/meetings/gatherings) as technology allows virtually. ([Appendix F](#)).
- Practice COVID-19 protocols prior to incident response.

### *Incident Response*

- Cooperators, contractors, military (including National Guard), and international resources should understand the respective jurisdictional agency's COVID-19 wildfire response protocols.
- If commuting back and forth from home bases is essential, cooperators should continue to use COVID-19 mitigation measures.

### *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding "positive screening".

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**Updated: (4/19/2020)**

# All Fixed-Wing Operations

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Utilize video conferencing, texting, messaging, radio or loudspeaker, etc., for briefings and meetings. ([Appendix F](#)).
- Limit who enters the aircraft to essential and maintenance personnel.
- Limit sharing of headsets, helmets, knee boards, gloves, flight suits, tools, etc.
- Ensure the aircraft has been disinfected as recommended by [FAA/CDC/GSA/OEM](#) as applicable. Any mitigating measures that may change the contract specifications will require contracting officer coordination.
- After each flight the pilot or the contractor's personnel should follow [FAA/CDC/GSA/OEM](#) guidance as applicable to disinfect the aircraft interior including handles, interior seating, seat harnesses and the cockpit. Recognize that State and Federal Agencies could differ in contract requirements.
- After maintenance/fueling, disinfect the aircraft per [FAA/CDC/GSA/OEM](#) guidance as applicable.
- Work closely with the GACC to return tactical (LEAD, ATGSs, ATs, etc.) and flight support crews to the same base every night to eliminate travel induced exposure for flight and maintenance crews, when possible.
- When appropriate, have crews respond from their hotel/isolated crew location if the response time meets fire management's need.
- Use call-backs during periods of low activity.
- Consider increasing the use of UAS to mitigate the exposure risk to aviation personnel when it is appropriate and available.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Use electronic forms rather than paper for the dispatching of aircraft.
- Consider minimum crew staffing levels to limit exposure.
- Consider consolidating ATGSs under one fixed-wing GACC coordinator to manage incident assignments.

- If support staffing allows, utilize multiple bases during high activity - even though other bases may be farther from the incident - to reduce numbers of personnel at any one location.
- Maintain situational awareness of firefighters being transported and working on the fireline and report any indications of personnel with symptoms following local or team protocols.
- Work closely with the Dispatch Offices and the GACC to return pilots and flight crews to the same base every night, preferably home, to eliminate travel-related exposure for flight and maintenance crews, when possible.
- Consider assigning Fixed-wing and Airspace Coordinators prior to the start of the fire season.

## *Exposure Response*

- Place aircraft out of service until properly disinfected per [FAA/CDC/GSA/OEM](#) guidance as applicable.
- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- Separate aircraft and personnel from active operations and other personnel.
- Notify Controlling Aircraft or dispatch of status change.
- Contact maintenance inspector after disinfecting the aircraft.
- Contact Contracting Officer/Agency for further guidance.

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**Updated: (4/19/2020)**

# All Rotor-Wing Operations

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Utilize video conferencing, texting, messaging, radio or loudspeaker, etc., for briefings and meetings. ([Appendix F](#)).
- Limit who enters the aircraft to essential and maintenance personnel.
- Work with minimum crew staffing levels to limit exposure.
- Consider putting helicopters into limited status, and 2:1 management when possible.
- Consider one-hour call backs during periods of low activity.
- Evaluate allowing vendors to stage at their home base with a 24-48-hour call back.
- With approval of the Contracting Officer, consider reimbursing vendors for transporting relief pilots and crews by vehicle and or light aircraft versus commercial airlines. Agencies/State contract regulations may vary.
- Consider increasing the use of UAS to mitigate the exposure risk to aviation personnel when it is appropriate and available.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Use electronic forms rather than paper for the dispatching of aircraft.
- Consider assigning a Rotor-wing Coordinator early in the season at the GACC to increase efficiency.
- Maintain situational awareness of firefighters being transported and working on the fireline and report any indications of personnel with symptoms following local or team protocols.
- Pilot and mechanic should disinfect the interior and exterior of the aircraft between missions per [FAA/CDC/GSA/OEM](#) guidance.
- Consider establishing multiple helibases at the incident to separate crews to limit the potential spread of the virus when staffing allows.
- Limit sharing of equipment such as headsets, helmet, knee boards, gloves, flight suits and tools.

- Due to the limited number and critical need for T-3 short haul mission qualified helicopters, consider using other aircraft for general passenger transport or recon to prevent exposure.

## *Exposure Response*

- Place aircraft out of service until properly disinfected per [FAA/CDC/GSA/OEM](#) guidance as applicable.
- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- Separate aircraft and personnel from active operations and other personnel.
- Notify Controlling Aircraft or dispatch of status change.
- Contact maintenance inspector after disinfecting the aircraft.
- Contact Contracting Officer/Agency for further guidance.

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**Updated:** (04/19/020)

# Airbase/Helibase Operations

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The following guidelines were developed based on the advice of health and safety authorities in March/April of 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Utilize video conferencing, texting, messaging, radio or loudspeaker, etc., for briefings and meetings. ([Appendix F](#)).
- Airbases should identify the number of resources that can be staged at existing facilities to maintain social distancing and separation.
- Utilize alternate locations on the airfield or adjacent airports to stage aircraft and crews, if necessary, to maintain social distancing.
- Due to the dynamic situation of the COVID-19 pandemic, airbase operations at times may not meet policy requirements. In these cases, prior to the deviation, it will be reported to supervisors who in conjunction with aviation managers will analyze the risk and determine if the operation should continue.
- Limit who enters the aircraft/airbase to essential and maintenance personnel.
- Work with minimum crew staffing levels to limit exposure.
- Follow [FAA/CDC/GSA/OEM](#) disinfection guidance after each flight or after maintenance/fueling operations.
- Consider contracting a block of rooms or apartments for the season for agency and contractor flight crews to use. Disinfect the rooms prior to and after each use.
- Work closely with the Dispatch Office and the GACC to return ATGSs, ATs, LEADs, and flight crews to the same base every night to eliminate travel induced exposure, when possible.
- Consider using one-hour call back to reduce the number of personnel at the airbase.
- During periods of high use, consider options such as double crewing on aircraft and callup additional CWN services.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Use electronic forms rather than paper for the dispatching of aircraft.
- Consider the use of multiple bases - even though some may be farther from the incident - in order to limit the amount of personnel at each airbase.

- When possible assign retardant loaders to individual pits with proper PPE for the shift duration to limit hose and nozzle contacts.
- Communicate with other bases and dispatch to ensure positive coordination (airspace, closest forces concepts, radio frequencies, supervision assigned, etc.) as multiple aircraft from different bases and agencies may be present during initial attack.
- Due to the limited number and critical need for T-3 short haul mission qualified helicopters, consider using other aircraft for general passenger transport or recon to prevent exposure.

## *Exposure Response*

- Place aircraft out of service until properly disinfected per [FAA/CDC/GSA/OEM](#) guidance as applicable.
- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- Separate aircraft and personnel from active operations and other personnel.
- Notify Controlling Aircraft or dispatch of status change.
- Contact maintenance inspector after disinfecting the aircraft.
- Contact Contracting Officer/Agency for further guidance.

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**Updated: (04/19/2020)**

# Rolling Stock Operations

## (Prevention Patrols, Engine, Water Tender, Dozers, Other Heavy Equipment)

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

### *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Consider maintaining the same team or module (“Module as One”) concept throughout the season.
- Consider minimizing the number of employees ridesharing per vehicle when occupants are not part of a “Module as One”.
- Set vehicle ventilation on non-recirculated mode to maximize air exchanges that reduce potentially infectious particles in the vehicle.
- If the vehicle has rear passenger windows or a rear window, open it to draw air away from the front cab and out of the vehicle.
- Limit driving of vehicles to essential activities.
- Practice COVID-19 Protocols prior to incident response.

### *Incident Response*

- Vehicle and mechanized equipment operators should clean and disinfect all frequently touched surfaces before and after each use following established cleaning protocols.
  - EPA registered list: [EPA2](#)
  - Centers for Disease Control and Prevention guidance on cleaning of EMS/Law Enforcement vehicles: [CDC3](#)

### *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- When a vehicle has been exposed to COVID-19, follow established protocols for disinfection.
  - Centers for Disease Control and Prevention guidance on cleaning of EMS/Law Enforcement vehicles: [CDC3](#)

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Updated: (04/20/2020)

# Crew Operations

(IHC, T2IA, T2, WFM)

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Consider video/virtual/radio meetings and briefings using available technology for groups of 10 or more. ([Appendix F](#)).
- Be prepared to be self-sufficient for several days including potential remote/spike camp location.
- Minimize group physical training (PT) activities unless they honor social distancing. PT should be outdoors when possible: run, hike, bike.
- Consider maintaining the same team or module (“Module as One”) concept throughout the season.
- Manage access of non-crew personnel to facilities, vehicles and equipment.
- Vehicle and mechanized equipment operators should clean and disinfect all frequently touched surfaces before and after each use following established cleaning protocols.
  - EPA registered list: [EPA2](#)
  - Centers for Disease Control and Prevention guidance on cleaning of EMS/Law Enforcement vehicles: [CDC3](#)
- Establish laundry protocols appropriate with the work environment that allows for cleaning of uniforms and PPE as often as possible.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Implement COVID-19 Screening daily ([Appendix C](#)) prior to mobilization and at the beginning and end of every shift.
- Consider driving to incidents to accommodate increased inventory needs (self-sufficiency for 3 days, additional clothing, etc.).
- Be self-sufficient during mobilization and demobilization to and from incidents (food, hydration, and lodging) to avoid general population exposure.
- Use protective measures at fueling stops, rest areas, and other necessary business areas.

- Minimize crew personnel involved in check-in.
- Maintain separation from other resources in briefing areas, sleeping areas, food service, supply, staging and other areas of typical congregation.
- Consider ordering additional cache items (e.g. MREs, PPE, sanitation supplies) to maintain self-sufficiency.
- During tactical operations, maintain social distancing between resources as much as possible.
- Maintain social distancing within crew during suppression operations.
- Avoid sharing tools, water, radios, etc.
- Rely on electronic communication in place of face-to-face, when possible.
- Maintain reasonable personal hygiene throughout the operational period (recognizing that the firefighting environment is inherently dusty and dirty).
- Allow time for washing and cleaning of tools and equipment at the end of shift.
- Expect changes in how business is conducted, time frames and methods will be different.
- Exercise patience and maintain vigilance on the health of crew members ([Appendix A](#)).
- Consider the “Module as One” approach limiting a module to groups of 10 or less.
- Ensure fire personnel have more than one set of PPE making laundering possible on a regular basis.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.

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**Updated: (04/19/2020)**

# Initial Attack Operations

The following mitigation guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidelines included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Include COVID-19 mitigation in briefings and safety messages.
- Consider maintaining the same team or module (“Module as One”) concept throughout the season.
- Conduct virtual briefings using available technology (such as radios, computer tablets, Teams, Zoom, etc., ([Appendix F](#)), or brief maintaining social distancing.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Consider video/virtual briefings and maintain social distancing. ([Appendix F](#)).
- Consider limiting briefings to key overhead positions; include COVID-19 measures in all briefings and AARs.
- Consider limiting on-scene personnel through judicious use of heavy equipment and aircraft.
- Consider limiting the number of personnel on scene by developing and prioritizing tactical missions based on Values at Risk, COVID-19 risk to responders, and other fire-scene hazards to which responders may be exposed i.e. snags, rocks, extreme fire behavior, etc.
- Fireline supervisors will monitor assigned personnel using the COVID-19 Screening ([Appendix C](#)) at the beginning and end of shift.
- Consider the use of suppression modules of 10 or fewer personnel.
- When evaluating mop-up standards, consider reducing close interpersonal contact and smoke exposure.
- Consider measures to limit congregation of resources.
- Be vigilant against transfer of risk as an unintended consequence of mitigating virus spread.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.

# Operations

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Identify opportunities for incident personnel to work virtually. Consider simulations testing remote activities. Possibly engage IMTs, AAs, cooperators and partners to test and evaluate remote system technologies, processes and systems to be proficient remotely, including video/virtual meetings & briefings. ([Appendix F](#)).
- Be prepared to be self-sufficient for several days including potential remote/spike camp locations.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Consider limiting the number of personnel on scene by developing and prioritizing tactical missions based on Values at Risk, COVID-19 risk to responders, and other fire-scene hazards to which responders may be exposed i.e. snags, rocks, extreme fire behavior etc.
- Utilize fewest resources necessary to accomplish mission to minimize exposure to COVID-19.
- Maintain social distancing of suppression modules on the fireline and during off shift periods. Consider staggering resource shifts to avoid congestion points.
- Consider the ability to operate more than two shifts to reduce exposure and increase rest hours (using the same number of personnel).
  - An example, consider a three-shift configuration to reduce the numbers at briefings, meals and shift change while providing more rest. These shifts could be 12-14 hours duration with staggered start/end times (e.g., 0500-1900, 0700-2100, and 0900-2300).
- Factor in time for resources to accomplish COVID-19 mitigations during operational and off shift periods when developing plans.
- Reduce exposure by conducting as much work (briefings/meetings/gatherings) as technology allows virtually (Teams, Zoom, phone, radio communication, etc.).
- Consider utilizing computer tablets and other suitable devices to gather and disseminate 201, 215, IAP, etc. to brief incoming resources.
- Maintain contingency plans that will be implemented in the event of remote technology failure.
- Consider restricting Operational Briefings to supervisory fireline personnel or those indirect support, maintaining social distancing.
- Implement COVID-19 Screening daily ([Appendix C](#)).

- Ensure COVID-19 Prevention and Screening Protocols are provided in the IAP and COVID-19 is evaluated in the 215-R.
- Establish Command and Control communication protocols utilizing methods consistent with COVID-19 mitigation measures.
- Consider available reconnaissance technology (UAS, satellite, MMA) to reduce personnel numbers and close quarters environments such as helicopter cabins.
- Be vigilant against transfer of risk as an unintended consequence of mitigating virus spread.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.

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**Updated: (04/19/2020)**

# Logistics Section Chief

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- When evaluating all ICPs, staging areas, spike camp locations and facilities, refer to the guidelines in [Appendix A](#). Ensure your logistics staff understands these guidelines.
- Encourage local units to discuss potential feeding, lodging and laundry needs with local businesses prior to wildfire season.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- If motel lodging is to be used for travel to and during assignment, contact receiving unit to ensure that local motels/restaurants are open and willing to provide service to fire personnel.
- Consider assigning one person to a room except for “Module as One” personnel.
- If using restaurants for feeding, consider ordering take out rather than dining in.
- Consider virtual or off-site work for as many functions as possible. Consider utilizing alternate options of communication such as radio, video, etc. for briefings and other meetings. ([Appendix F](#)).
- Work with Command and General Staff on considerations for a closed camp to control flow.
- Implement social distancing for workstations, sleeping, briefing, feeding, medical, etc. for group/unit separation.
- Suggest and review work areas and supply sites that allow ease of cleaning.
- Consider minimizing the number of individuals in ICP’s and base camps by utilizing spike camps.
- Recognize that additional portable toilets, hand wash stations, trash collection equipment, and shower units may be needed to accommodate modified or dispersed camp footprints.
- Provide sanitation facilities in the field when possible.
- Consider the impacts on Logistics Section if more staging areas are utilized.
- Recognize additional medical units may be necessary and should be identified and separated from each other and arranged in more remote areas of camp.
- Ensure cleaning and sanitizing schedules at end of each shift are implemented for all facilities.
- Train personnel in procedures, supply handling and disposal.

- When face to face briefings and other gatherings are imperative, limit attendance to 10 or less and ensure social distancing is practiced.
- Consider alternate work schedules that reduce the number of on-duty personnel.
- Check with local unit to discuss potential availability of feeding, lodging and laundry services with local businesses.
- When considering hotel/motel lodging:
  - For motel lodging, ensure that adequate COVID-19 CDC prevention measures are in place and inquire if any infected individuals have been guests of the property within the past 7 days.
  - Ensure that motel cleaning products used meet CDC standards, (most common EPA registered household disinfectants should be effective). CDC advises that after 7 days, additional cleaning and disinfecting for COVID-19 visited sites is not necessary. [EPA2](#).
- Utilize mobile and/or commercial laundry service to clean PPE, uniforms and clothes as often as possible.
- Stagger demobilization of equipment and personnel to limit personal interaction.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.
- If motel was used before, during or after assignment, notify motel if any fire personnel on the assignment became ill from COVID-19, include dates of lodging and room number.

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**Updated: (4/19/2020)**

# Ground Support Unit

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Ensure personnel, including vendors, are fit for duty and not feeling ill when accepting an assignment; use COVID-19 screening ([Appendix C](#)).
- Use wipes not sprays to disinfect frequent touch surfaces, including cab areas in vehicles. Ensure used wipes are disposed of properly.
- Use appropriate PPE while refueling and wash hands before entering vehicle.
- Refer to the Centers for Disease Control and Prevention guidance on cleaning of EMS/Law Enforcement vehicles: [CDC3](#)
- Consider increasing vehicle numbers to enhance social distancing except for “Module as One” personnel.
- Consider the need for additional vehicles required for support of dispersed crews/modules, e.g. food delivery, trash backhaul, supply/tool delivery, etc.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Consider alternate working shifts to reduce the number of simultaneously on-duty personnel as a means of limiting potential COVID-19 transmission.
- Ensure workspaces adhere to social distancing recommendations.
- Set up separate tent/gathering areas for assigned drivers and ensure adherence to social distancing recommendations.
- Set up mechanic inspection areas that provide adequate room for vehicles and mechanics to enable social distancing recommendations.
- Schedule vehicle inspections to limit the number of personnel demobing at one time.
- Consider drop points for possible meal or supply delivery where only crew or division representative is allowed to pick up.
- If mobile repairs are needed on the line, maintain social distancing from any fireline personnel.
- Increase ventilation in all vehicles by operating the system in non-circulating mode.
- Have clearly marked drop points and road signs.
- With a focus on social distancing, develop transportation plans that avoid congestion, limit contact with other personnel, and provide multiple parking areas.

- Ensure work areas are disinfected at the end of each shift.
- Document and maintain the daily vehicle assignment and itinerary in the event of COVID-19 contamination.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.

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**Updated:** (4/19/2020)

# Medical Unit

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated. For updated guidance refer to <https://www.nwccg.gov/committees/emergency-medical-committee/medical-unit-covid19-cop>

Responders should expect different agency, team and health department protocols as they accept assignments. The protocols from health officials can be expected to change as new information becomes available regarding COVID-19. Develop team protocols as directed by agency and federal Health Insurance Portability and Accountability Act (HIPAA) requirements for those who have been exposed or have COVID-19. The areas of concern are protection of personnel from COVID-19, reducing the spread of the virus, and taking care of those who have been exposed or contracted the virus. Be aware that there may be personnel who have the virus but show no symptoms.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Assist with development of team protocols for personnel who have been exposed or affected with the COVID-19 virus.
- Medical unit personnel (EMTs) assigned should expect to be isolated from other team personnel and sites being physically separated from ICP and basecamp.
- Incidents should have a contingency plan for Medical Unit staffing; Medical Unit Leaders (MEDL) are expected to be in high demand and may not be available for incident assignments.
- Have contingency plans for the Medical Unit for incident locations and local medical support (e.g. hospitals and ambulances).
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Upon deployment, the MEDL should contact the State Emergency Medical Services office for contact information for state and county health departments to determine requirements and protocols for procedures, including PPE. Phone numbers are supplied under the Resource tab in the following link: [Directory](#)
- Contact local hospitals and EMS services for their medical support capabilities along with their COVID-19 protocols.
- IMT's should consider establishing multiple separate camp medical stations. Examples could be:

- Station utilized for the typical illness/injuries associated with incident related work assignments.
  - Station for possible COVID-19 triage, isolate and demob.
- There should be an EMT assigned to each medical station, however, expect a possible shortage of EMTs.
- Identify alternative methods other than face-to-face, including a physical barrier (Plexiglas, plastic) to do the initial COVID-19 triage in base camp. Medical Unit personnel should be familiar with COVID-19 diagnostic criteria.
- Work with incident facilities to determine if each medical site could have separate sanitation facilities, (i.e. toilet, no touch handwash stations and trash receptacles).
- Medical stations should be well signed and located to reduce accidental contact.
- Consider including pulse oximeters and touchless infrared thermometers. Be aware that it's anticipated that shortages will continue, and hospitals will be the priority for supplies.
- Clothing worn by Medical Unit personnel should be changed or laundered daily. All disposable PPE should be disposed of properly.
- Distribution of N95 masks should prioritize Medical unit staff.
- Medical unit staff should arrive self-sufficient with PPE and equipment for the first 5 shifts due to potential supply shortages.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- Transport of infected individuals should be via qualified EMS personnel or fire personnel in full PPE recommended for protection from COVID-19 by federal, state, and local health authorities.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.
- Useful websites:
  - CDC recommendations for prevention and control of patients with suspected or confirmed coronavirus disease. [CDC](#)
  - NWCG guidance for Wildland Fire Incidents: [NWCG FF](#)

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Updated: (4/19/2020)

# Supply Unit

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Ensure an adequate quantity of COVID-19 PPE and sanitation/hygiene supplies are available including hand sanitizer, disinfectant wipes etc.
- Follow any updated cache recommendations on how various supplies will be handled and what PPE will be used and mitigations to be followed.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Consider scheduling shifts that can overlap for continued support of incidents and possibly reduce the number of personnel working the same shifts.
- Limit the number of personnel at receiving and distribution sites.
- Identify supply delivery protocols, use radio/phone/computer for ordering to reduce handling and face-to-face encounters.
- Consider expanding the supply site footprint to ensure social distancing and exposing inventory to open air/sunlight.
- Ensure restock orders of items with longer lead times are completed before supply is exhausted.
- Adjust minimum stocking/reorder trigger points to accommodate for backorder and longer lead time delivery of critical items.
- Develop return cache protocols for cleaning, sanitizing, and re-issue, respective to each cache especially items of clothing.
- Consider maintaining adequate amounts of extra supplies for anticipated IMT orders (MREs, NFES 1660 – *Individual Infectious Barrier Kit*, NFES 1675 – *Multi-Person Infectious Disease Barrier Kit*, etc.).
- Ensure the handling of used PPE has all mitigation in place to prevent infection.
- Ensure drivers and materials handlers implement recommended sanitizing and disinfecting practices for vehicles and equipment.
- Ensure proper disinfecting and or sanitizing practices of forklift(s) assigned to supply is completed between use when there is more than one operator.

- Identify state and local closures/restrictions and their impacts on camp support.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- Consider ALL returned cache items as being exposed to COVID-19. Follow protocols on handling equipment suspected of being contaminated.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.

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**Updated: (4/19/2020)**

# Food Unit

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Ensure food service contractor, caterers and vendors are implementing COVID-19 practices and following health department standards and guidelines.
- Increase capacity of self-sufficiency by using fresh foods, bag lunches, and/or MRE's.
- Identify local businesses that are available to provide meals. Encourage take-out from restaurants that are not mobile in nature to avoid conflict with National catering contract.
- Practice COVIDS-19 protocols prior to incident response.

## *Incident Response*

- If restaurants are to be used during the assignment, determine which local restaurants are open and willing to provide service to fire personnel.
- Consider delivery system(s) to provide meals that depart from the conventional serving line. Consider “box” or “bagged” meals.
- Identify methods of meal pickup that enable social distancing.
- Discontinue use of salad bars and other unpackaged self-service food pickup in camps.
- Increase sanitation efforts around catering units.
- Ensure there are alternate methods available for delivering drinking water in case of bottled water shortages.
- Consider utilizing self-contained feeding protocols similar to fire use modules, self-sufficient, independent.
- Consider more spike/satellite camps to limit personnel numbers at ICP/Base Camp.
- Consider designating areas outside of ICP for fireline personnel food and supply drop off, ensuring limited personnel are involved in pickup and delivery and social distancing is maintained.
- Develop standard protocols for “cubies” plastic water containers that comply with [CDC](#) guidelines.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.

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**Updated: (4/19/2020)**

# Communications/IT Section

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Communications and Information Technology (IT) are key components to operations on an incident. In some cases, incident duties can be done remotely but, in many cases, personnel are required on-site. Communication Technicians and Information Technology Specialists are required to distribute communications and IT equipment to incident personnel and maintaining, installing and repairing equipment. Potential for close interactions with incident personnel is inherent with these positions.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Communications Unit Leaders (COML) and IT Specialist develop plans for effective use of communications and IT equipment, including evaluating positions and tasks that can be done remotely. ([Appendix F](#)).
- Develop standards for cleaning radio kits, repeaters, IT hardware and storage labeling. Include best practices information with kits for care, use and return.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Comm tech (COMT) should have proper PPE and follow disinfecting/sanitizing protocols for day-to-day incident work, such as radio cloning and repair.
- Communications Unit Leaders (COML) and IT Specialist develop plans for effective use of communications and IT equipment, including evaluating positions and tasks that can be done virtually.
- Consider cloning one radio for a crew and have crew or resource clone the remainder of their radios; use gloves. Provide information with directions and tip or tricks for programming.
- Consider modes of travel when selecting equipment (repeater, phone equipment) locations to minimize potential for exposure.
- Consider utilization of storage devices such as assigned/non-return USB drives to share information and programming to reduce handling of hardware between incident personnel
- Develop strategies for distribution of batteries and communication supplies.
- Set up pick up and drop stations for supplies and waste, consider exposing supplies to open air/sunlight to limit virus exposure and spread when possible.

- Expand communication/IT footprint to ensure social distancing in facilities or other structures.
- Consider having RADOs work from remote off-site locations.
- Box accounts can be set up on a central server for the base camp and used as a repository for each team to transfer data without use of equipment that would need to be handed off from person to person.
- Document cleaning of devices during an incident and prior to demob. For radio repair/replacement, control access to one person at a time.
- All returned equipment should be treated as if it has been exposed to COVID-19. Equipment should be cleaned as prescribed in an approved Communications/IT plan. Personnel will wear required PPE to handle and clean equipment to be returned to service.
- Develop feedback loops to evaluate and improve BMPs.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- When equipment has been identified as used by personnel with COVID-19, communication/IT personnel will use prescribed handling techniques and protocols to secure equipment. It may be prudent to hold equipment out of service for a prescribed amount of time to reduce virus survival on equipment.

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**Updated: (4/19/2020)**

# Facilities Unit

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Safety Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Consider the guidelines in [Appendix A](#) when evaluating all ICP, staging areas and spike camp locations and facilities.
- Encourage local units to discuss potential lodging and laundry needs with local businesses prior to wildfire response.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Consider virtual work for as many functions as possible ([Appendix F](#)).
- Work with MEDL to determine if additional medical units should be identified and separated from each other and arranged in more remote areas of camp.
- Increase frequency of cleaning and disinfecting schedules for all facilities.
- Proper training in procedures as well as supply handling and disposal should be done for all personnel involved.
- Proper PPE for specific assignment should be supplied and required to be used.
- When face to face briefings and other gatherings are imperative, limit attendance to 10 or less and maintain social distancing.
- Consider workstations and supply sites to allow ease of cleaning while adhering to social distancing recommendations.
- Keep in mind, additional portable toilets, hand wash stations, trash collection equipment, and shower units may be needed to accommodate modified or dispersed campfootprints.
- Provide sanitation and disinfecting facilities in the field when possible.
- Consider alternate work shifts for camp crews that allow for incident support and can possibly reduce the number of on-duty personnel. This may require additional crews/squadbosses.
- If motels are to be used during assignment, contact receiving unit to inquire about which local motels are open and willing to provide service to fire personnel.
- For motel lodging, ensure that adequate COVID-19 CDC prevention measures are in place and inquire if any infected individuals have been guests of the property within the past 7 days.

- Ensure that motel cleaning products used meet CDC standards, (most common EPA registered household disinfectants should be effective). CDC advises that after 7 days, additional cleaning and disinfecting for COVID-19 visited sites is not necessary. Source: [EPA](#).
- Consider assigning one person to a room except for “Module as One” personnel.
- Utilize mobile and/or commercial laundry service to clean PPE, uniforms and clothes as often as possible.
- Stagger demobilization of facilities equipment and personnel to limit personal interaction.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.
- If any fire personnel on assignment become ill from COVID-19, notify motel of room number and dates of lodging.

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**Updated: (4/19/2020)**

# Security Unit

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Develop a Security-specific Incident Within an Incident (IWI) Plan prior to assignment.
- Determine if the ICP/ Base is to be in or near a security high-risk area.
- Establish virtual section meeting and interview methods. ([Appendix F](#)).
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Restrict access to all incident facilities to only necessary personnel.
- Consider badging or using crew manifests for check in/check out at ICP, Base Camp and other satellite facilities.
- Consider coordinating with MEDL for security of medical supplies, if necessary.
- If available, have supplies of masks at security check points.
- Coordinate with local law enforcement on issues of public unrest.
- Determine what closures/restrictions are in place by Federal, State and local officials.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.

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**Updated: (4/19/2020)**

# Planning Section

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Identify opportunities for incident personnel to work virtually.
- Consider simulations that test remote activities. Consider engaging IMTs, AAs, cooperators and partners to test and evaluate remote system technologies, processes and systems to be proficient in a virtual environment. ([Appendix F](#)).
- Conduct video/virtual meetings and briefings using available technology.
- Be prepared to be self-sufficient for several days, including at potential remote/spike camp locations.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Reduce exposure by conducting as much work virtually (briefings/meetings/gatherings) as technology allows ([Appendix F](#)).
- Maintain multiple contingency plans in the event of technology failure.
- Conduct Check-In and Demobilization by electronic device. Otherwise, limit exposure by maintaining social distancing and have disinfection protocols in place.
- Utilize electronic applications for gathering, disseminating, and storing information (e.g., IAPs, maps, QR codes, etc.).
- Ensure COVID-19 Prevention and Screening Protocols are in the IAP and COVID-19 is included in the 215-R, and that these topics are adequately covered during briefings.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.

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**Updated: (4/19/2020)**

# Finance Section

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)), for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#))
- Use electronic documentation instead of paper, when possible. This could include restricting system access to authorized users only and cloud-based document sharing. See [Appendix F](#), Virtual Operations.
- Consider establishing remote units to provide virtual support to multiple incidents. Ensure finance personnel are prepared and trained in how to accomplish their duties with and without technology in case the internet connectivity/technology support is not available.
- Assure there is workable, functioning technology support when available. Although the e-ISuite Enterprise System is currently useable in a virtual setting, system enhancement would improve performance.
- Test processes, systems and applications before actual deployment using simulations.
- Acceptance of electronic signatures or the ability to accept electronic imaging of signed documents would enhance the success of a virtual environment.
- Consider creating Command and General Staff protocols for information sharing and communicating to maintain team cohesion.
- The availability of vendors with pre-season agreements may be limited. Items such as yurts, handwash trailers, computers, shower units and caterers may require Emergency Equipment Rental Agreements, completed by an authorized procurement/contracting officer.

## *Incident Response*

- For finance personnel who cannot work virtually, use social distancing within section (desk/people spacing, not sharing office supplies).
- Develop protocols for using smartphones and other platforms to scan and send documents. Consider submitting finance-section documents (CTRs, Shift Tickets, OF-288s, etc.) electronically.
- Develop procedures and best practices for protecting PII for personnel working in a virtual environment.

- Consider modification of business practices to allow for electronic signatures and virtual exchange of information. Ensure electronic protocols are accessible to all incident resources, including vendors who may not be familiar with collaboration software.
- Limit person-to-person interactions for any issues that can't be resolved via phone or email.
- Establish virtual/electronic procedures with clinics/hospitals/pharmacies to limit Compensation Unit Leader person-to-person contact.
- Land Use Agreements for facilities that regularly house responders (e.g., schools, conference centers, office space) may require services above and beyond standard restoration (e.g., complete professional decontamination). Sanitizing should also be considered prior to occupancy.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding "positive screening".
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.
- Take necessary precautions to comply with Health Insurance Portability Accountability and Act (HIPAA) and to protect Personally Identifiable Information (PII).

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**Updated: (4/20/2020)**

# Fire Information

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Identify opportunities for incident personnel to work virtually.
- Consider simulations that test remote activities. Consider engaging IMTs, AAs, cooperators and partners to test and evaluate remote system technologies, processes and systems to be proficient in a virtual environment. ([Appendix F](#)).
- Conduct video/virtual meetings and briefings using available technology. ([Appendix F](#)).
- Be prepared to be self-sufficient for several days, including at potential remote/spike camp locations.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Remote work assignments and virtual workspaces should be used as much as possible.
- Conduct video/virtual/online public meetings using available technology. Some applications enable questions from online viewers to presenters in real time. Consider investing in quality equipment (e.g., cameras, tripods, microphones) to improve quality for live-streamed events.
- Conduct interviews via online/video conferencing applications, if possible.
- Use existing systems such as Inciweb, social media and email publication tools (e.g., Constant Contact) to fullest extent. These tools should be prioritized over in-person traplines and information booths.
- Consider the use of email lists as much as possible to distribute daily updates. Contact by telephone trapline locations such as stores and other public places instead of visiting in person. Use email distribution lists to share information.
- Media and visitor contacts should be limited to virtual interactions as much as possible.
- Do not allow media to “mic-up” fire personnel for interviews or place microphones in the faces of fire personnel. Consider telephone interviews as the first option.
- Coordinate COVID-19 messaging with local public health authorities and cooperating agencies.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.

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**Updated: (4/19/2020)**

# Safety

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Configure layout/spacing of assigned work area to incorporate social distancing.
- Practice social distancing and utilize daily disinfection procedures for all equipment and work areas.
- Identify opportunities for incident personnel to work virtually.
- Consider simulations that test remote activities. Consider engaging IMTs, AAs, cooperators and partners to test and evaluate remote system technologies, processes and systems to be proficient in a virtual environment. ([Appendix F](#)).
- Ensure Safety Officers and Line Safety Officers have technology to support a virtual environment.
- Conduct video/virtual meetings & briefings using available technology. ([Appendix F](#)).
- Be prepared to be self-sufficient for several days including at potential remote/spike camp locations.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Consider COVID-19 Screening as part of the check-in process; and implement COVID-19 Screening daily ([Appendix C](#)).
- When possible, keep the same line safety officers with their originally assigned divisions/groups.
- Avoid large groups (rule of 10), maintain social distancing ([Appendix A](#)).
- Practice COVID-19 mitigation cleaning and disinfecting procedures for equipment and work surfaces daily (ICP/Base Camp functional areas).
- Include COVID-19 risk and mitigation in the development of the 215-R.
- Ensure facilities are adequate to meet COVID-19 social distancing protocols ([Appendix A](#)) for all base camp activities (sleeping area, briefings, showers, hand washing, etc.).
- Recognize potential for transfer of risk as an unintended consequence of mitigating virus spread.
- Limit public access to Base Camp to reduce the risk of COVID-19 spread from personal interactions.

- Encourage mitigations that limit the sharing of electronic devices, IAP's, phones, radios, water bottles, PPE, snacks, etc.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.

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**Updated:** (4/19/2020)

# Liaison

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

When on an incident during a pandemic, the number of cooperators and assisting agencies will expand. Atypical agencies could include local hospitals and clinics, local and/or county public health officers, regional healthcare coalitions, local, regional or state EOCs and MACs, some of which may never have encountered an IMT. The Liaison might be the initial contact. Given the potential exposure and spread of COVID-19 the intent is to adapt to a virtual work environment understanding that there will be variations to virtual work based on incident complexities.

Liaisons should consider developing a pre-incident plan that incorporates virtual working opportunities. In-person contact should be minimized and follow appropriate social distancing guidelines.

## *Prevention*

- Follow guidance included in the All Fire Personnel Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Ensure you are properly equipped/trained to accept virtual assignments.
- Be prepared to be self-sufficient for several days including potential assignments at remote/spike camp locations; bring extra clothes, food, water, etc.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Conduct as much work as possible utilizing technology ([Appendix F](#)) to attend virtual cooperator meetings and share information with participating agencies. Ensure communications technology links are available to participating agencies (e.g., Teams, Zoom, Skype, Facebook, etc.).
- Consider recording presentations to deliver to stakeholders and partners in lieu of in-person cooperator meetings.
- Practice social distancing or virtual Command and General Staff meetings.
- Consider designating an incident specific phone number for Liaison for external contacts in case internet technology fails or is unavailable.

- Consider use of additional Liaisons and trainees to manage virtual work activities including assignment to other virtual locations where direct linkage to the Incident Command Post (ICP) is necessary (e.g., Emergency Operations Centers (EOCs), Command Centers, regional Multi-Agency Coordination Centers, Joint Field Office (JFO), etc.).
- Identify and establish close working relationships with cooperators including health departments and local Emergency Operations Centers.
- Ensure telecommunication connectivity with ICP.
- Ensure participating agencies and cooperators have a copy of and understand COVID-19 protocols, best practices, etc.
- Assist Safety Officer and Medical Unit Leader to gain information regarding the capacity and integrity of the local and regional healthcare system(s).
- Support Safety, Medical, Inter-agency Resource Representative, and home unit as requested when personnel assigned to the incident are treated for COVID-19.
- Consider ordering a Liaison with ESF8 experience.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.

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**Updated: (4/19/2020)**

# Incident Commander

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be periodically reviewed and updated.

## *Prevention*

- Follow guidance included in the All Fire Personnel Safety Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Consider Incident Management Team (IMT) participation and identify positions that can work virtually to minimize exposure without compromising safety. ([Appendix F](#)).
- Plan for resource dispersal as logistically feasible; avoid large fire camp configurations.
- Develop an Exposure Response Plan for COVID-19 exposure (Incident within an Incident).
- Ensure that the IMT is properly equipped and trained to accept virtual assignments.
- Be prepared to be self-sufficient for several days including potential remote/spike camp location.
- Develop an IMT Continuity of Operations Plan with pre-identified backups for critical positions.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Reduce exposure by conducting as much work (briefings/meetings/gatherings) as technology allows virtually, e.g. Teams, Zoom, phone, radio communication, etc. ([Appendix F](#)).
- Consider conducting virtual (Teams, Zoom, etc.) or socially dispersed In-briefings.
- Coordinate use of virtual positions with Agency Administrator during initial mobilization.
- Consider virtual locations for some sections.
- Incident Commanders should remain separated from Deputy Incident Commander to ensure continuity of command.
- Develop alternative strategies, conduct trade-off analyses, and select the alternative that best limits COVID-19 transmission, limits risk to firefighters, and achieves objectives.
- Consider the ability to operate more than two shifts to reduce exposure and increase rest hours (using the same number of personnel).
  - An example, consider a three-shift configuration to reduce the numbers at briefings, meals and shift change while providing more rest. These shifts could be 12-14 hours duration with staggered start/end times (e.g., 0500-1900, 0700-2100, and 0900-2300).

- Consider including the All Fire Personnel Safety Best Practices ([Appendix A](#)) and/or team protocols in the IAP.
- Mop-up should be carefully considered and terminated when risk of escape is low and (if escape occurs) low likelihood of damage to high value assets and/or public safety.
- Ensure operational briefings are conducted either virtually, or in small groups, maintaining social distancing and limited to assigned overhead personnel.
- Ensure Base Camp and the Incident Command Post are configured in a manner that minimizes exposure for all incident personnel.
- Encourage electronic documentation.
- Use technology to interact with partners, stakeholders and the public.
- Develop virtual means for monitoring team performance.
- Be vigilant against transfer of risk as an unintended consequence of mitigating virus spread.
- Ensure IMT is aware of protocols and coordinating with local health departments.
- Consider the impacts of COVID-19 on evacuations and evacuation centers. Have discussions early on with law enforcement, local health care providers, and shelter personnel. Minimize the duration of time that citizens are displaced.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- When medical care may be needed for contract resources, follow vendor agreement/contract language provisions when supporting ill or injured contractors.

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**Updated: (4/19/2020)**

# Agency Administrator

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The purpose of the Best Management Practices (BMPs) for Agency Administrators is to list practices for mitigation of the COVID-19 virus before and during incident response. It is recognized that normal activities of wildland fire may be further complicated with the COVID-19 pandemic. Agency Administrators should communicate with employees, communities and cooperators sharing information prior to and throughout the fire season.

The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

It will be important for Agency Administrators to stay current with updated information regarding virus spread. Leader's Intent should be updated and shared to ensure a common operating picture for responders and the public.

## *Prevention*

- Follow guidance included in the All Fire Personnel Safety Best Practices, ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Ensure all incident personnel, including IMT members, support team members, Prevention Teams, Critical Incident Stress Management Teams (CISM), Buying Teams, Incident Business Advisors, and all other supporting individuals regardless of whether they are working on-site or virtually, are fully aware of and practice recommended safety and health measures as listed in the All Fire Personnel Best Practices for COVID-19. ([Appendix A](#)).
- Implement COVID-19 Screening daily ([Appendix C](#)) and assure employees do as well.
- Consider teleworking and virtual environments, as much as possible, recognizing that fire responses require some personnel to travel to an incident and take suppression actions. See [Appendix F](#), Virtual Operations.
- Recognize that wildland firefighters have the right to turn down an assignment due to concerns about COVID-19 exposure.
- Discuss and arrange for potential feeding, lodging and laundry needs with local businesses prior to wildfire response.
- Provide Leader's Intent and support for the "Module as One" concept.
- Consider an increased emphasis on fire prevention. Consider closures of areas where there is a high risk of human-caused fires.
- Communicate with jurisdictional partners routinely to maintain a shared situational awareness and a current common operating picture.
- Manage public and political expectations for wildland fire response, recognizing potential resource shortages and implications.

- Utilize social media as well as traditional media to communicate with the public and key contacts.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Ensure local Fire Management and Initial Attack ICs are provided with agency COVID-19 related procedures in the emergency response environment.
- Include COVID-19 mitigation procedures and priorities in Delegation of Authority and/or Leaders Intent documentation for all Incident Commanders.
- Initiate discussions with Incident Commanders regarding the increased use of virtual positions prior to arrival and throughout the incident.
- Mop-up should be carefully considered when risk of escape is low and (if escape occurs) low likelihood of damage to high value assets and/or public safety.
- Recognize that the availability of incident support staff may be reduced. Pre-planning, based upon local conditions and resource skills, may be useful.
- Consider including COVID-19 in the risk tradeoff analysis when evaluating alternative strategies for response and management of all wildfires.
- Engage with interagency partners on multijurisdictional incidents regarding consistent practices for COVID-19 management in the incident environment.
- Prepare WFDSS decisions that articulate how the incident strategy or course of actions are influenced by COVID-19 avoidance/management factors.
- When deciding to use fire camps, consider non-traditional camps such as spike camps, coyote tactics and virtual positions to support the "Module as One" concept.
- Support and authorize the use of militia (other non-primary fire personnel) to respond to incidents.
- Wildfire emergency rehabilitation (e.g. BAER for federal agencies) activities should follow same protocols and principles as wildfire suppression activities to reduce employee exposure to COVID-19.
- Use the minimum resources necessary to achieve objectives.
- If fire exceeds initial attack, consider using analytics to determine the best location for containment that uses the least number of resources while achieving objectives.
- If fire exceeds extended attack, use decision support assistance to determine the most efficient use of resources to contain the fire while achieving public safety and protection objectives. Develop alternative strategies for achieving objectives and use tradeoff analysis to determine which strategy has the highest likelihood of success in achieving objectives while limiting firefighter exposure to hazards (including COVID-19 exposure).
- Be vigilant against transfer of risk as an unintended consequence of mitigating virus spread".
- When Critical Incident Stress/Peer Support is needed, consider the following:
  - Decisions regarding how to respond to a peer support request in the event of an incident will be made on a case by case basis and in coordination with regional/agency CISM coordinators.
  - When appropriate and recommended by CISM coordinator, the team will interact using virtual platforms such as Teams or Skype with a tele-health accredited clinician.

- Conduct the support sessions at the site of the event or meet the employees at their home unit upon their return.
- Best practices for social distancing and sanitation as outlined in [Appendix A](#) will be observed.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities.
- Develop and implement your own local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.
- If notified by employee or Health Department of positive COVID-19 test results, inform appropriate groups including home Agency Administrator and others (i.e. IC, home unit, Contracting Officer etc.), without disclosing PII and in compliance with agency policy, Health Insurance Portability and Accountability Act (HIPAA) regulations and the Ryan White Act.

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**Updated:** (4/19/2020)

# Fire Management

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The following guidelines were developed based on the advice of health and safety authorities in March/April 2020. As the situation develops and more information becomes available, these guidelines should be reviewed and updated.

Fire managers may need to consider alternative strategies to Initial Attack in order to limit number of personnel needed to suppress fires and to reduce exposure to COVID-19. With a need to reduce human contact through the use of technology on large incidents there may need to be a new strategic approach when it comes to multiple fire incidents.

## *Prevention*

- Follow guidance included in the All Fire Personnel Safety Best Practices ([Appendix A](#)) for social distancing, personal hygiene, workplace cleaning, symptom monitoring, etc.
- Implement COVID-19 Screening daily ([Appendix C](#)).
- Use suppression strategies that limit inter-unit (squad, module, engine, etc.) human contact to the greatest extent possible.
- Ensure local coordination with cooperators through updating local operating plans that communicate local strategies.
- Improve fire prevention effectiveness by enhancing relationships with stakeholders, cooperators, and the public.
- Consider updating dispatch run cards to reflect changes in dispatch strategies.
- Consider closures and fire restrictions to reduce the number of human-caused wildfires
- Reassess draw-down levels and the impacts if resources may be out of service after a possible COVID-19 exposure.
- Initial response and extended response shifts should emphasize and promote prevention measures, cleaning/disinfection and individual care considerations.
- Consider implementing a saturation patrol strategy when PSA(s) are at high risk / probability of large fire growth.
- Encourage local units to discuss potential feeding and lodging needs with local motels and restaurants prior to wildfire response.
- If motels and restaurants are to be used during assignment, contact receiving unit to inquire about which local motels/restaurants are open and willing to provide service to fire personnel.
- For motel lodging, ensure that adequate COVID-19 CDC prevention measures are in place and inquire if any infected individuals have been guests of the property within the past 7 days.
- Ensure that motel cleaning products used meet CDC standards, (most common EPA registered household disinfectants should be effective). CDC advises that after 7 days, additional cleaning and disinfecting for COVID-19 visited sites is not necessary. Source: [EPA](#)
- Consider assigning one person to a room except for “Module as One” personnel.

- When using restaurants for feeding consider ordering take out rather than dining in.
- If any fire personnel on assignment became ill from COVID-19, notify motel of room number and dates of lodging.
- Practice COVID-19 protocols prior to incident response.

## *Incident Response*

- Consider limiting the number of personnel on scene by developing and prioritizing tactical missions based on Values at Risk, COVID-19 risk to responders, and other fire-scene hazards to which responders may be exposed i.e. snags, rocks, extreme fire behavior etc.
- Fires in which a long-term monitoring strategy will be used should consider the ability to monitor from afar.
- Consider utilizing line spike and small spike camps when feasible and effective.
- Consider decentralized staging areas to limit face to face contact among resources and require social distancing.
- Use minimum number of resources necessary to achieve objectives.
- If fire exceeds initial attack, consider using analytics to determine best location for containment that uses least resources while achieving objectives.
- If fire exceeds extended attack, consider using decision support assistance to determine most efficient use of resources to contain fire while achieving public safety and protection objectives. Develop alternative strategies for achieving objectives and use tradeoff analysis to determine which strategy has the highest likelihood of success in achieving objectives, while limiting firefighter exposure to hazards (including COVID-19 exposure).
- Mop-up should be carefully considered and terminated when risk of escape is low and (if escape occurs) low likelihood of damage to high value assets and/or public safety.
- Be vigilant against transfer of risk as an unintended consequence of mitigating virus spread.

## *Exposure Response*

- Follow the most current direction from the Centers for Disease Control and Prevention and local health authorities. Implement team or local unit exposure response plan(s).
- Refer to [Appendix A](#) and follow guidelines regarding “positive screening”.

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**Updated: (4/19/2020)**

## Appendix C – COVID-19 Screening

### WILDLAND FIRE COVID-19 SCREENING TOOL

<https://sites.google.com/a/firenet.gov/fmb/home/covid19-portal/wildland-fire-covid-19-screening-information>

Today or in the past 24 hours, have you had any of the following symptoms<sup>1</sup>?

Symptom
Cough more than expected?
Shortness of breath or difficulty breathing?
Fever?
Chills?
Muscle pain outside your normal for firefighting?
Sore throat?
New loss of taste or smell?
<i>* Take temperature with no-touch thermometer, if available *</i>

#### Instructions for Screening

Item	What to Do
If resource has a cough that is more than expected, shortness of breath or difficulty breathing, or any other symptoms listed.	DO NOT MOBILIZE
At Entries: Consider adequate number of personnel needed for screening. Although medical personnel are ideal, screeners do not have to be medically trained. If resource has cough, shortness of breath or difficulty breathing, or any other listed symptoms including fever (over 100.4) at entry.	DO NOT ANNOUNCE Ask individual to step aside and follow the steps below.

#### Steps to follow

Escort symptomatic individual to isolation area.
Isolation support personnel should begin documentation.
Have symptomatic individual contact Supervisor for further direction.
Notify public health officials.
Have individual transported as appropriate.
Protect and secure any collected Personal Identifiable Information (PII) or Personal Health Information (PHI).

<sup>1</sup> Symptoms of Coronavirus  
<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

**To:** Fire Management Board and Non-Federal Wildland Fire Partners  
**From:** COVID-19 Wildland Fire Medical and Public Health Advisory Team (MPHAT)  
**Date:** 04/15/2020  
**Subject:** COVID-19 Interim Screening Protocol for Wildland Fire Personnel

*Purpose:*

The interagency wildland fire community is committed to preventing the spread of COVID-19 and promoting the health and wellness of all wildland firefighters and support personnel. Consistent and continual monitoring of personnel is the first step in preventing the movement of potentially infected individuals and the spread of COVID-19. This memorandum establishes interim standard operating procedures and protocols for screening of wildland fire personnel at duty stations and during incident management activities to protect all personnel, appropriately manage potential COVID-19 infection, and reduce risk.

*Background:*

In December 2019, a novel (new) coronavirus known as SARS-CoV-2 was first detected in Wuhan, Hubei Province, People's Republic of China, causing outbreaks of the coronavirus disease COVID-19. The virus has now spread globally. Across the U.S., public health authorities have issued significant restrictions on public gatherings and implemented social distancing practices.

This disease poses a serious public health risk and can cause mild to severe illness; especially in older adults or individuals with underlying medical conditions. COVID-19 is generally thought to be spread from person-to-person in close contact and through exposure to respiratory droplets from an infected individual. Initial symptoms of COVID-19 can show up 2-14 days after exposure and often include: fever, cough or shortness of breath. Recent studies indicate that people who are infected but do not have symptoms likely also play a role in the spread of COVID-19

With the intent to sustain a viable, safe and effective wildland fire management workforce, (Federal, State, local and Tribal assets) during the COVID-19 pandemic, a preliminary measure is to establish common infection screening protocols utilized across the wildland fire community. The MPHAT has been established by the FMB with concurrence of the Fire Executive Council to address medical and public health-related issues specific to interagency administration of mission critical wildland fire management functions under a COVID-19 modified operating posture. The MPHAT includes interagency representation and interdisciplinary expertise (including CDC-NIOSH and medical professionals from USFS and DOI) to advise on all medical and public health related aspects of COVID-19 planning, prevention and mitigation. To that end an interim standard operating procedure has been developed and recommended by MPHAT for immediate adoption and utilization by wildland fire personnel at duty stations and wildland fire incidents to reduce the risk of disease through common screening protocols.

*Rationale:*

The scale and potential harm that may be caused by this pandemic meets the American Disabilities Act *Direct Threat* Standard.<sup>1</sup> Therefore, routine screening in the workplace is justified and warranted to prevent further community spread of the disease. By identifying, properly triaging, and managing personnel with exposures and these symptoms, personnel can reduce the spread and better mitigate COVID-19 infections among their workforce.

## **Instructions:**

The following screening guidance is recommended for adoption and implementation at duty stations and for all incident management activities across the interagency wildland fire community, **as frequently and extensively as possible**. Supervisors and incident managers should plan and resource accordingly to support the following SOP:

### Pre-Mobilization

Supervisors should ensure personnel have no present symptoms of illness using the *Wildland Fire COVID-19 Screening Tool* prior to consideration of incident assignments. In addition to this initial screen, Supervisors should inform personnel going on assignments of ongoing routine daily screening on all incidents during COVID-19.

### Arrival/Entry to Location

All resources accessing any entry point location will wash their hands. If soap and water are not available hand sanitizer may be used. Each resource will proceed to receive verbal screening using the *Wildland Fire COVID-19 Screening Tool* and if possible, have their temperature assessed using a touchless thermometer. Supervisors and incident managers should determine the number of personnel required to support the screening process and consider scheduling and/or staggering resource arrival times to minimize crowding at arrival/entry locations.

### Daily Screening

All resources should be encouraged to report any emerging symptoms to their supervisor (Crew Boss, Unit Leader, Module Leader, Duty Officer, Division Supervisor, Floor Supervisor, etc.). In addition, supervisors should assess subordinates' health daily using the *Wildland Fire COVID-19 Screening Tool* to ensure no emerging symptoms. It is recommended the screening questions are asked of all personnel routinely throughout the day.

### Positive Screenings

Persons with indications of illness prior to mobilization should be excluded from incident assignments until they meet the return to work criteria as described by CDC (7 days after the start of symptoms and at least 3 days after the last fever not requiring fever reducing medications, and symptoms are improving). Persons found meeting sick criteria or found to be with fever on arrival at an incident entry location should not be allowed entrance and, as above, should be excluded from incident assignments until they meet the return to work criteria as described by CDC. Next steps should be coordinated with unit leadership, the medical unit and/or local health authority. Prior to release and return to home, individuals with signs or symptoms of illness posing a risk of COVID-19 transmission should be isolated in a separate location. This may require separate, dedicated and staffed areas/facilities to ensure that individuals with potential COVID-19 infection do not come in contact with other fire personnel.

### Confidentiality of Medical Information:

Any medical information gathered is subject to ADA confidentiality requirements <sup>[3]</sup> <sup>[4]</sup>.

### Tools and Supplies

- Verbal Screening - use the *Wildfire COVID-19 Screening Tool*
- Temperature Checks - use only touch-less infrared thermometer if available.
  - Incident management personnel involved with screening should consider purchasing touchless thermometers prior to assignment. Incident emergency medical personnel are strongly encouraged to bring their personal touchless thermometers if available.
- Mask or Face Barrier - Current CDC guidance includes wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain, especially in areas of significant community-based transmission. The use of simple cloth face coverings is

recommended to slow the spread of the virus and help people who may have the virus and do not know it from transmitting it to others. As of April 2020, masks made from cloth material are considered acceptable facial barriers.

- Isolation - use separate facility, yurt or personal tent.
- Dedicated Wash Stations - Consider the number of dedicated wash stations and/or portable restrooms needed to maximally support each bullet above.

#### Personal Protective Equipment

The NFES 1660 – *Individual Infectious Barrier Kit* or NFES 1675 – *Multi-Person Infectious Disease Barrier Kit* (as needed) should be used under the following circumstances:

- Workers engaged in screening at arrival and entry location
- Workers helping to manage sick and/or asymptomatic personnel with recent COVID-19 interaction.
- Workers helping to sanitize infected areas, or any areas suspected of infection

Note: Appropriate techniques for using personal protective equipment including donning and doffing can be found at:

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html>

## Appendix D – Contact List

<b>State Fire Chief Contacts</b>	
<b>Southern Group of State Foresters – Chair</b>	Jim Prevette
<b>Alabama Forestry Commission</b>	John Goff
<b>Arkansas Forestry</b>	Robert Murphy
<b>Florida Forest Service</b>	John Fish
<b>Georgia Forestry Commission</b>	Frank Sorrells
<b>Kentucky Division of Forestry</b>	Brandon Howard
<b>Louisiana Dept of Ag and Forestry</b>	Don Smith
<b>Mississippi Forestry Commission</b>	Randy Giachelli
<b>North Carolina Forest Service</b>	Gail Bledsoe
<b>Oklahoma Dept of Ag Forestry Division</b>	Andy James
<b>South Carolina Forestry Commission</b>	Darryl Jones
<b>Tennessee Division of Forestry</b>	Wade Waters
<b>Texas Forest Service</b>	Mark Stanford
<b>U. S. Virgin Islands</b>	Clifford Joseph
<b>Virginia Dept of Forestry</b>	John Miller
<b>Federal Fire Contacts</b>	
<b>Bureau of Indian Affairs</b>	Forrest Blackbear
<b>Bureau of Land Management</b>	Michael Boomer
<b>US Fish and Wildlife</b>	Vince Carver
<b>National Parks Service</b>	Shawn Nagle
<b>US Forest Service</b>	Dave Martin
<b>State and County Health Department Contacts</b>	
<p>Health Department contacts can be found using this link and going to the Resources list. This directs you to the State Emergency Services who can provide contact numbers for State and County Health Departments.</p> <p><a href="https://www.nwcg.gov/committees/emergency-medical-committee/infectious-disease-guidance">https://www.nwcg.gov/committees/emergency-medical-committee/infectious-disease-guidance</a></p>	
<b>Puerto Rico Fire Contacts</b>	
<b>Federal Affairs Director DHS Program Manager Wildland FMO</b>	Lt. Joel R. Figueroa
<b>Fire Dept Commissioner</b>	Alberto Cruz
<b>Health Dept Emergency Coordinator</b>	Jessica Cabrera
<b>Health Dept Emergency Coordinator</b>	Mariluz Melendez
<b>Public Safety Secretary</b>	Pedro Janner

## Appendix E – Southern Area Responses to Engagement Letter

### **SOUTHERN AREA POTENTIAL IMPACTS FROM COVID-19 SUMMARIZED**

- Work at home, following CDC guidelines, more conference calls
- Close offices, dispatch centers, etc. or have minimum staffing, or open by appointment only to decrease exposure
- Increase separation of workspaces, no sharing phones, radio consoles, office equipment
- Have plans in place to increase mobilization internally and externally
- Alternate office locations and increase utilization of technology for remote work
- Limit the number of people per vehicle
- Stage equipment at employees' homes
- Manage risk using the best science, tools and methods available
- Share resources with cooperators (state, local, private, federal)
- Issue burn permits on-line only, no agency prescribed burns
- Cancel in-person Information and Education events, training, meetings, non-essential functions
- Aggressive IA to limit size and responder exposure
- Crew leadership has open discussions with temporary staff to ensure they are confident that if they become ill that there will be no repercussions or negative impacts to their position
- Clean and sanitize facilities, vehicles and equipment daily or more frequently
- Individual PT, mandatory showers, daily uniform laundering
- No outside instructors; group training held outside with appropriate social distancing
- Look for guidance on N95 mask/respirator use (medical, fit test, use)
- Have incoming IMTs make contact with the State Fire Chief to obtain contact information for the appropriate State and County Health Departments
- Realize there may be unavailability of some crews (inmates NC)
- All outside area resources should travel by ground unless the situation involves emergency demobilizations
- Responders can expect different communication flow (i.e., briefings, check in/out...etc.), camp life (i.e., more spikes, less social meals, using remote functions (i.e., GIS/IMET/FBANS) ...etc.), and tactics may be different. Maybe nontraditional strategies as well.

### **ASSISTANCE AND INFORMATION SOURCES**

- Generally, respondents mentioned some combination of CDC, State OEM/Homeland Security, State and Local Health Departments, Governor's Office

### **PLANS FOR WORKFORCE EXPOSURE TO COVID-19 IN RELATION TO SHORT AND LONG-TERM FIRE STRATEGY**

- Plan for significantly reduced wildfire personnel
- Expect fewer personnel in initial dispatches
- If the virus starts to significantly affect response capability, we will have to rely on resources from other wildland fire agencies. We will need to figure out how to bring resources into the state and ways to support those resources as restaurants are closed due to executive order
- Review tactics laid across multiple existing plans and organizational practices
- Discuss burn bans and work with partners
- Prioritize fires

## **CURRENT PROCEDURES IN PLACE TO MITIGATE COVID-19 EXPOSURE DURING AN INCIDENT**

- Working on plans to mitigate impacts due to exposure, with primary focus on social distancing, cleaning and disinfecting common areas, separation of work and rest space, use of technology to work remotely and other recognized mitigation strategies
- The agency Safety Officer is currently working on SOPs for potential exposure
- Pull all incident responders with the potential exposure to have them self-quarantine until confirmation can be made one way or the other

## **WITH POTENTIAL LOSS OF CAPABILITY FROM FEDERAL, STATE AND COUNTY AGENCIES WHAT ARE THE SHORT AND LONG-TERM CAPABILITIES WITHIN THE GACC TO SUPPORT INCIDENTS**

- Use a collaborative approach to utilize available resources to the best of our abilities and assist other states and our federal partners when resources are available
- Safety of our firefighters and protection of our area will be our first priority at all times. Out of state travel for state employees will be decided on by our State Forester on a case by case basis
- In state responses should maximize available resources, prioritize fires, and include a public relations campaign. Out-of-State responses-- provide resources when available
- Resource availability will be reduced at some level for the upcoming western season
- Would have to ensure the requesting state has supplies and procedures in place to facilitate responder safety

## **IDEAS SURROUNDING HOW WE MANAGE THE LARGE/LONG TERM FIRE ENVIRONMENT AND DIRECTION TO IMTS**

- Utilize commercial lodging and food services when possible to avoid camp environment, ensure social distancing is maintained. Consider and prepare for more vehicles to reduce/eliminate ride sharing
- Increase severity and preposition resources to keep fires smaller. Compartmentalize ICP into smaller personnel groups in a camp setting as well as reduce herd scenarios in camp (meals, showers, large briefings, etc.) Utilize technology to digitally transmit documentation (CTRs, 213, 214, IAP, etc.)
- Branch tactical planning, maybe even divisional level tactical planning would all help to maintain some degree of separation

## **PRIORITIES IN TERMS OF PLAN DEVELOPMENT AND DISSEMINATION**

- Provide guidance on how to maintain effective social distancing for responders; maintaining an effective level of cleanliness at the ICP and Incident Base; how to handle responders who have potentially become exposed to COVID-19 during the course of the incident.
- Take into account that incidents may take longer to control since we can't do business as usual
- Develop and implement standards for escalating incidents so agencies and responding resources feel secure in their participation on small to large scale incidents outside of their home unit

## **OTHER**

- Several respondents mentioned that discussions were just beginning and they were unable to answer with any certainty at this time.

## Appendix F – Virtual Operations - Incident Technology

Incident management teams have become more and more reliant on the use of technology that requires a more robust network with internet access. High-speed internet availability is essential to supporting an incident especially when working remotely.

### Internet/Intranet Access

- Mobile Broadband Networks (ATT, Verizon etc.)
- ISP (cable, fiber, DSL providers)
- Satellite Systems

The use of readily available Internet Service Providers (ISP) have the equipment and staffing to support a range of connectivity needs at an ICP. Mobile broadband networks and satellite system providers also provide similar services. Deciding on what type of service to use will depend on availability, requirements and costs. Remote users have the same options at a smaller scale. The use of portable network systems can use broadband, cable, fiber or satellite technologies. These methods and size of equipment depend on the amount of bandwidth needed. One user or small group might only need a USB modem or hot spot depending on cellular availability. The use of a local provider at an office, school or business can be the best solution if available. Remote users without cell coverage or local connectivity would require satellite equipment.



*Figure 2 examples on internet access*

Once connectivity has been established, the functionality for voice calls, virtual meetings and access to necessary applications can be made.

### Voice Communications

- Cellular Networks
- Landline
- VoIP (voice over Internet protocol)
- Radio
- PTT Applications

Voice communications provides a basic way to connect with team members and cooperators. This can be as simple as an office landline or voice over IP (VoIP) phone. Smart phones and radios provide mobility, but radios can be limited if not connected via an application or specialized equipment. Push-to-talk (PTT) applications are available to use with or without radios on most smart phones. Many off the shelf VoIP phone systems are available to use over the internet and are very inexpensive. SAT phones are the most expensive but provide mobility in a small package that covers most of the country.



Figure 3 examples of voice communications

### Virtual Meetings

- Skype, Zoom (basic, simple, easy to use)
- MS Teams, WebEx (intermediate, easy to use, license restrictions)
- Adobe Connect (robust, available across agencies, requires support)

Virtual meetings have become the way we are conducting much of our interaction and collaboration. It is cost effective, efficient and reduces travel exposure.

While on assignment to the Paradise Fire in Washington State, The National Incident Management Organization utilized two portable satellite systems that delivered data, telephone and broadband connectivity to users at the fire. Prior to the deployment firefighters only means of communication was through a two-way radio system that was used to give radio briefings. Delivery of incident action plans, maps and other material were driven to the helibase and flown to helispots daily. These trips took over three hours to get to firefighters on the line and most of the time flights were delayed due to weather.

Once the portable satellite systems were in place, the passing of information could be accomplished through emails, and phone call via laptops and smart devices. Additionally, daily briefings were held using Adobe Connect. This conferencing software allowed for the delivery of audio, video and engaging content across devices. Use of these technologies reduced exposure and costs while improving capability, efficiency and redundancy. The design, development and deployment of these types of technologies are outside the norm and if available are limited in scope and vary in cost.

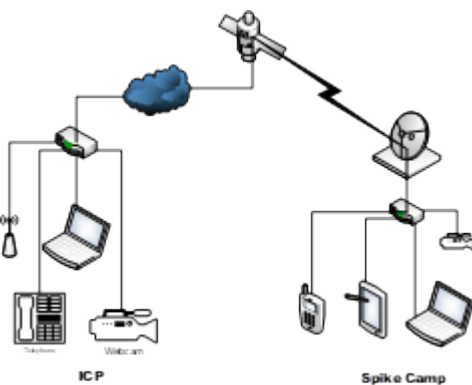


Figure 4 Paradise Fire spike communications

### Applications & Software Access

- Incident Applications (e-ISuite, FireNet, IROC, ArcGIS, etc.)
- Resource tracking

- Email
- Box, OneDrive, SharePoint
- WFDSS, SIT-209, WIMS
- Facebook, Periscope

### Application & Software Considerations

Units will need to define task purpose and need to conclude appropriate tool/applications for use.

- Number in audience and purpose of meeting. Video platforms have participant limits.
- Is there a need to display/share information? Will Agency firewalls limit use or sharing?
- Will other entities such as county agencies or the public be able to access the applications and do the tool/applications have a good feedback loop or ability to comment?
- Use of virtual tools may require time to train and learn. Some tools require multiple presenters to handle presentations and coordination of feedback. Access to platform on Govdevices?
- Can tools/applications record presentations or save data for required documentation?
- Licenses may be limited or need purchased, or passwords require time to acquire.
- Does the tool/application have the ability to encrypt video or data sharing for security?
- Have capabilities been explored for tools/applications we currently have? Are there low-tech solutions that could be used that would be effective in a virtual environment?
- What equipment is needed to use the tools virtually and be effective, i.e. cameras, monitors, portable printers, scanners headsets, hotspots, MiFi.

It goes without saying that the need for applications and software are essential to meeting team's missions. The way we gather and share information, develop plans, order support needs and execute operations are in some way passed through applications.

### Necessary Support Services (dependent on location)

- ITSS, COML
- Internet Service Provider
- Satellite Service Provider
- Broadband Service Provider
- Mobile Communications Services
- Local network support (school, business, etc.)

### Comparison of live streaming services. All programs have free trials.

Program	Cost	Live Stream	Availability	Account Sharing	Special Needs
Be Live Very Popular	\$30/mo.	Facebook, YouTube	Anyone	Connected to ONE-Facebook account  Maybe create Facebook profile everyone can access and like every fire page	Initiate with desktop, not mobile (chrome, safari) Guests can be mobile Can refresh, see comments Can schedule-sends Facebook post/reminder  Records to Facebook, not comp, can manipulate screens in real time (orientation, make one bigger than the other)
Zoom	\$15/mo./host \$55/mo. to stream	Facebook, YouTube	Personal/agency accounts	Each person needs an account	Webinar platform is additional \$40 Must have webinar to live stream Video quality Can record to comp  No comments visible
Streamyard		Facebook, YouTube, Instagram	Anyone		Free-20 hours/mo. Broadcast from desktop/laptop, no mobile ****Still in Beta testing
Blue Jeans	\$40	Facebook	Anyone	One account	Has phone number people can call in Limited, \$\$ Video is framed/squished when side by side

Ecamm Live	\$79 one time	Facebook, YouTube, Periscope, Twitch			Must have a Mac, tech know how Utilizes skype up to 5 guests Can use pre-recorded video during live
Teams	Free		Anyone with Office 365	No	
Facebook Multi-person	Free	Facebook	Currently unavailable	Uses personal account to stream to Group	Limited to personal acct/groups (no pages)
WebEx Meet					
Go to Webinar					
				Loola, Webinar Jam, OBS, Wirecast,	Programs that do not have streaming capabilities or too expensive/ high tech

## Appendix G -- Wildfire Smoke and COVID-19

### Wildland Fire Smoke in the COVID – Unplanned vs Planned Fire

Fire is a **natural** and **essential** component of maintaining healthy forests and grasslands. Wildland fire (aka forest/brush/grass fire) has inherent risk to safety and health, but different types of wildland fire are more dangerous than others. There are two general types of wildland fire: wildfire (unplanned) and prescribed fire (planned). Wildfires tend to cause more damage and produce more smoke because they start when conditions are driest, burn for long durations regardless of wind direction. Prescribed fires are ignited when environmental conditions moderate the fire behavior and smoke production/direction which can reduce much of the risk. Prescribed fires remove hazardous fuels under these moderated conditions before a wildfire burns them in extreme conditions that significantly increased the potential for negative impacts.

### Background on Wildfire Smoke and COVID-19 Risks

Community exposure to wildfire smoke has been directly linked to deaths in the United States. A Washington State study attributed 600 deaths to wildfire smoke in 2017 and a US Environmental Protection Agency study estimated annual mortality from wildfire smoke to be between 1500-2500 deaths.<sup>1,2</sup> In addition to an increased mortality risk, exposure to smoke (from wildfire and biomass burning) may affect lung health and has been found to be associated with respiratory infections (influenza, bronchitis, and pneumonia).<sup>3,4,5</sup> Although research has not been conducted on how exposure to wildfire smoke is associated with COVID-19, it may lead to an increased susceptibility to COVID-19 infection, worsen the severity of the infection and pose a risk to those who are recovering from serious COVID-19 infection. These risks from wildfire smoke and COVID-19 combined are an important consideration for both the health and safety of communities and fire personnel.

### Wildfire Smoke and COVID-19 Response Plan

As part of the Interagency Wildland Fire Air Quality Response Program (IWFAQRP), the Forest Service began assessing the implications of wildfire smoke combined with presence of COVID-19 in March 2020, leading to the initiation of a smoke response plan. The IWFAQRP ([wildlandfiresmoke.net](http://wildlandfiresmoke.net)) was created to directly assess, communicate, and address risks posed by wildfire smoke to the public as well as fire personnel as recognized and authorized under the Dingell Act of 2019. The program depends on four primary components: 1) specially trained personnel called Air Resource Advisors (ARAs) who are deployed to incidents to address smoke issues, 2) air quality monitoring capability through a cache of deployable instruments, 3) smoke concentration, dispersion modeling, and public air quality prediction outreach tools, and 4) coordination and cooperation with agency partners. Although the Dingell Act directs use of ARAs to the maximum extent practicable on federal wildfires with Type 1 teams, wildfires of all organization levels with smoke impact issues may also benefit from ARA assistance. States and tribes use ARAs as well and are anticipated to have similar needs in 2020. Dispatches are similar to the IMET program by name request in coordination with the IWFAQRP as outlined in Regional Mob Guides.

All elements of the response plan are subject to change as new science emerges surrounding wildfire smoke and COVID-19 and as operational needs develop/evolve throughout 2020. In order to address both concerns for communities and fire personnel, the IWFAQRP and its partners are developing tools to address the challenge of wildfire smoke and COVID-19. Tools under rapid development are: 1) a Smoke Ensemble Forecast Tool (SEFT) to improve ARA and partner operational smoke forecasting, 2) a Smoke Early Warning System (SEWS) that integrates fire outlooks and potential for significant fire growth with emissions to provide extended warnings to communities, and 3) a Community Assessment of Prescribed fire Smoke Risk (CAPSR) tool for COVID-smoke vulnerability and at-risk populations. At the national level, IWFAQRP is coordinating with the Centers for Disease Control and Prevention, National Institute for Occupational Safety Health, Environmental Protection Agency-Office of Air Quality Planning Standards, Environmental Protection Agency-Office of Research and Development, National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, and Federal Emergency Management Administration to ensure alignment, coordinated and consistent messaging, and to leverage efforts addressing potential risks posed by wildfire smoke and COVID-19.

Key activities of the IWFAQRP and ARAs are highlighted below.

#### Interagency Wildland Fire Air Quality Response Program

- Ensure the national cache of smoke monitoring instruments is adequately stocked, well managed, and ready for dispatch.
- Ensure there will be a prepared cadre of ARAs who are well trained in smoke/COVID-19 issues, prepared to use new analysis tools, and work closely with health agencies on public messaging and outreach.
- Prepare ARAs for collaboration with agency administrators and teams on best management practices for reducing smoke exposure of personnel.
- Assess and maintain a roster of ARAs available for remote assignment.
- Create talking points and guidelines for ARA use when engaging with partner agencies and the public on smoke/COVID-19 health issues.
- Create analysis tools for ARAs and train them to better assess smoke effects to communities at heightened risk of, and/or dealing with COVID-19 outbreak and individuals recovering from COVID-19.
- Develop approaches to have ARAs promote individual and community awareness of interaction of smoke/COVID-19 and how to be more smoke ready.

#### Air Resource Advisors

- Forecast smoke dispersion and concentrations for fire camps and downwind communities.
- Work with MEDL and local health agencies on smoke issues
  - Relay information about smoke predictions (expected concentrations and duration).
  - Characterize vulnerability of community to COVID/smoke.

- Design and implement locally appropriate outreach and messaging.
- Promote smoke ready community concepts and inform the public and health agencies where to get additional information.
- Establish key lines of communication with IMT, Planning Section, PIO and AA as appropriate based on IMT guidance.
- Order and deploy smoke monitoring equipment as needed.
- Develop smoke projections from active wildfires.
- Work with local health departments to inform of predicted smoke concentration and duration.
- Use dispersion modeling to help identify best locations to minimize smoke for ICP and remote camp locations.
- Use approved messaging to inform the public about smoke/COVID-19 concerns.
- Collaborate with agency administrators and teams on best management practices for reducing smoke exposure of personnel.

## **Best Management Practices for Wildfire Smoke Considerations**

### **General**

- Based on the concerns regarding wildfire smoke and COVID-19, consider having all fire personnel watch the NWCG *Smoke: Knowing the Risks* video (<https://www.nwcg.gov/publications/training-courses/rt-130/hazards/haz508> )
- Each Geographic Area should establish “leads” (by state if applicable) to plan for and communicate on potential wildfire smoke interactions with COVID-19. Such leads should have practical smoke experience and/or training.
  - Assess local smoke monitoring capability for PM2.5.
  - Inventory federal, state and local agency PM2.5 monitor cache status of equipment, personnel availability and policies for deployment.
  - Communicate expected needs for IWFAQRP Cache equipment.

### **Agency Administrators**

- Establish relationships and contacts with state and local health departments and air regulatory agencies for use when smoke impacts are anticipated and for use by ARAs when assigned to incidents. Promote smoke ready community concepts and where the public and health agencies can go to get information. See: <https://www.epa.gov/smoke-ready-toolbox-wildfires>
- Consider assignment of ARAs to an incident (assigned to the IMT) as early as possible to help address smoke issues including smoke and COVID-19.
- Discuss wildfire smoke and COVID-19 when in-briefing IMTs and/or developing delegations of authority with clear expectations for addressing smoke (e.g.: close coordination with Air Quality Agencies and State/County Health Department).
- Establish guidelines for mop-up standards and other administrative and engineering controls to minimize smoke exposure.

## Incident Management Teams

- Locate Incident Command Posts, modular base camps and spike camps in areas with least smoke exposure practicable. Use ARAs for assistance on smoke dispersion and smoke accumulation predictions.
- Consider use of hotels with AC/air handling ability or use of air filtration devices to house teams and crews if smoke will be a persistent problem in camps.
- Consider placing an air quality monitor or sensor in camps to track smoke levels.
- Consider providing medical units with air filtration for isolation of COVID-19 patients.
- Use *Six Minutes for Safety* to discuss smoke impacts on firefighter health.
- Discuss ways to reduce working in smoke on a daily basis.
- Rotate personnel in and out of situations where smoke exposure is unavoidable (mop-up, holding, and firing operations) or use other techniques to reduce smoke exposure.

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## Appendix H – Interagency Checklist for Mobilization of Resources in a COVID-19 Environment

### National Multi-Agency Coordinating Group

3833 South Development Avenue; Boise, ID 83705

NMAC Correspondence 2020-22

June 08, 2020

To: Geographic Area Coordination Group Chairs

From: National Multi-Agency Coordinating Group (NMAC)

Subject: NMAC Checklist Memorandum - Interagency Checklist for Mobilization of Resources in a COVID-19 Environment

This memo rescinds and replaces NMAC Memo 2020-17. The National Multi-Agency Coordinating Group (NMAC) has produced the attached Interagency Checklist for Mobilization of Resources in a COVID-19 Environment. The checklist is an optional tool to help agency administrators, fire managers and duty officers have appropriate conversations for interagency mobilization (ordering and/or sending) for severity, pre-position, and fire response resources while working in the COVID-19 environment.

Those responsible for ordering and sending resources, typically duty officers, will likely be expected to answer and ask questions related to the checklist items. In addition, it is probable that active geographic areas and incident management teams will need assistance in ways we are not accustomed to. With that in mind sending/receiving units should consider bringing in additional assistance to allow for fire managers to focus on firefighting efforts and to have points of contact for Covid-19 questions and situations, supporting clear and deliberate communications.

As we move further into the 2020 fire year and wildfire response across the country increases, we must be able to allow the current coordination system to work as it is intended, keeping in the forefront the complications that COVID-19 has brought to the situation. Fire managers and agency administrators through utilizing tools such as the checklist and best management practices, guides and plans, will need to continue making decisions relative to the fire environment while at the same time keeping the health and safety of our fire personnel in mind. This includes FMB memorandum 20-008/20-008a, from the following site: <https://sites.google.com/a/firenet.gov/fmb/home/covid19-portal>.

While discussions have occurred around keeping wildland fire resources within unit or geographic boundaries to avoid exposure to COVID-19, we must realize that no single unit or geographic area can stand alone in fire response. We have a robust interagency coordination system that has served us well for many years. We must consider the most effective methods to sustain availability and allow mobilization across boundaries which we feel this checklist will aid in doing during the COVID-19 environment.

Thank you for your support and cooperation in this unprecedented time we are facing together.

/s/ Joshua  
Simmons Chair,  
NMAC



## **Interagency Checklist for Mobilization of Resources in a COVID-19 Environment**

The following checklists are designed for interagency mobilization (ordering and/or sending) for severity, pre-position, and fire response resources while working in the COVID-19 environment.

Best Management Practices outlined in current COVID-19 guidance, such as (guidelines for social distancing, disinfecting procedures, facial coverings, remote/small briefings, incident level medical screening plan, lodging and isolation/quarantine plan) should be in place to mitigate COVID-19 for resource mobilization for both sending and receiving units. Any resource deemed to be a high risk, per the CDC guidelines have the option to decline the assignment.

**ORDERING UNIT** -- Provide the following information in "Special Instructions" in resource order

		Yes	No
1	Confirm Best Management Practices are in place to mitigate COVID-19.		
2	Description of any additional supply/equipment needs (self-sufficient, food, water, extended camping equipment, etc.)		
3	There is a medical plan in place with identified care facilities for COVID-19 patients.		
4	Describe the level of COVID-19 outbreak in the county where the fire is located from the following website: <a href="https://coronavirus.jhu.edu/us-map">https://coronavirus.jhu.edu/us-map</a>		

**SENDING UNIT** – Is the following met?

		Yes	No
1	All individuals filling the order have been screened using the MPHAT Wildland Fire Screening Tool or their employing agency's equivalent.		
2	The resource is equipped with PPE and supplies required to adhere to COVID-19 mitigation protocols during mobilization and for at least three operational periods.		
3	The resource is prepared to be self-sufficient regarding food and water for at least the first three operational periods if driving.		
4	The resource can meet any additional supply/equipment needs identified in the Special Instructions section of the resource order.		
5	There is an isolation/quarantine plan in place to use upon return to the home unit that can be implemented if deemed necessary.		

## Appendix I -- COVID-19 Testing Guidance



## Fire Management Board

## FIRE MANAGEMENT BOARD

FMB Memorandum No. 20-012

2 July 2020

TO: Fire Management Board Members

FROM: Leon Ben Jr., Chair, Fire Management Board

LEON

Digitally signed by LEON  
BEN  
Date: 2020.07.02  
15:51:01 -06'00'

SUBJECT: Updated guidance on Laboratory Testing for Coronavirus Disease (COVID-19)

The purpose of this memo is to release updated guidance on laboratory testing for Coronavirus Disease (COVID-19) of Wildland Fire Management Personnel and recommendations for payment of COVID-19 tests.

The COVID-19 Wildland Fire Medical and Public Health Advisory Team (MPHAT) released the attached Memorandum for Record for wildland fire management personnel to the Fire Management Board (FMB) on June 14, 2020. This memo follows Centers for Disease Control and Prevention (CDC) guidance on laboratory testing for COVID-19. Wildland fire personnel should continue to follow guidance from MPHAT and local medical and public health and safety professionals. When COVID-19 is known/suspected in the workplace or on an incident, managers should engage with those professionals on the best course of action for that local situation.

Workers who are symptomatic upon arrival at work, or who become sick during the day, should immediately be separated from others and sent to a health care facility to be evaluated and tested. Co-workers may be identified as close contacts through case investigation and contact tracing which will evaluate the proximity and length of contact with the individual with COVID-19. Co-workers on the same “module as one”, or those working the same or overlapping shifts in the same area may be identified as a close contact based on an employer’s assessment of the risk in the workplace. Contact tracing is the responsibility of State Health Organizations; the individual’s home unit and incident personnel can provide support to this effort.

Testing practices should aim for rapid turnaround times in order to facilitate effective action. Testing at different points in time, also referred to as serial testing, may be more likely to detect acute infection among workers with repeat exposures than testing done at a single point in time.

With symptomatic or asymptomatic close contact employees, rapid Viral (nucleic acid or antigen) testing is recommended; the cost of this testing is covered by the government. This approach is in the best interest of both the employee and the government.

For COVID-19 testing to be effectively implemented, options for payment must be straightforward and supported by responsible incident and agency personnel. To achieve this goal, the FMB developed these recommendations to assist responsible incident management and agency employees:

- Employees should engage in daily self-screening to monitor condition, and employers will promote a reporting culture, where potential COVID-19 can be identified quickly and without adverse consequence.

- Testing should be focused on symptomatic and CDC Tier 1 exposure employees<sup>a</sup>. Payment is the responsibility of the government when employees are advised to test by incident or agency medical/public health professionals or they meet agency specific testing criteria:
  - Testing of employees on wildfire incidents may be paid with purchase card under Agency Provided Medical Care (APMC) process or through other mechanism established by the incident.
  - Payment for testing of wildland fire employees at the home unit is the responsibility of the home unit; consult agency specific guidance and payment procedures.
  - Reasonable efforts should be made to utilize FDA approved testing.
- Wildland fire responders receiving a positive test result should adhere to Public Health recommendations and may be eligible for alternative housing arrangements paid for by the agency for up to two weeks.

Employees on an incident assignment, who are isolated while awaiting test results, will be guaranteed base hours per agency specific guidelines. FMB memoranda are available on the [website](#). This is an unprecedented time and we continue to work diligently with our interagency, state, and local partners to meet these challenges while responding to wildfires.

Attachment

**Distribution:**

Fire Management Board Members  
 Fire Executive Council Members  
 National Multi-Agency Coordinating Group  
 Members National Wildfire Coordinating Group  
 Members COVID-19 Coordinators

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<sup>a</sup> CDC Critical Infrastructure Tier 1

- Coworkers identified as close contacts through case investigation and contact tracing evaluating proximity and length of contact of co-workers with the individual with COVID-19
- Coworkers who work during the same shift or overlapping shifts, in the same area, for example on the same line and same room, as one or more of the workers with COVID19 based on the employer's assessment of risk in the workplace

**To:** Fire Management Board and Non-Federal Wildland Fire Partners

**From:** COVID-19 Wildland Fire Medical and Public Health Advisory Team (MPHAT)

**Date:** July 2, 2020

**Subject:** Laboratory Testing for Coronavirus Disease (COVID-19), Wildland Fire Management Personnel

Wildfire incidents may be an ideal environment for the transmission of infectious diseases due to work and environmental factors such as close living and working conditions, limited access to hygiene supplies, and a workforce that constantly travels and carries out emergency response activities across the country. The purpose of this memo is to release updated information and guidance regarding laboratory testing to diagnosis SARS-CoV-2 COVID-19 in the wildland fire work environment.

To-date, two types of tests exist to assess current or past COVID-19 infection:

- **Tests for current infection (viral tests)** – Viral tests collect samples from the respiratory system (such as swabs of the inside of the nose) and can tell an individual if they currently have an infection with SARS-CoV-2, the virus that causes COVID-19.
- **Tests for past infection (antibody tests)** – Antibody tests check an individual's blood by looking for antibodies, which can show if they had a past infection with the virus that causes COVID-19.

**As of June 14, 2020:**

**The MPHAT recommends following [CDC guidance for prioritizing SARS-CoV-2 testing for wildland firefighters based on:](#)<sup>1</sup> (1) individuals with signs and symptoms consistent with COVID-19 and (2) asymptomatic individuals with recent known or suspected exposure to SARS-CoV-2 (exposure being defined as within 6 feet for 15 minutes or more)**

**The MPHAT advises agencies to utilize CDC guidance: [Testing Strategy for Coronavirus \(COVID-19\) in High-Density Critical Infrastructure Workplaces after a COVID-19 Case Is Identified.](#)<sup>2</sup>** This new guidance is for workplaces for testing after a COVID-19 case is identified. It includes considerations for using testing strategies of exposed co-workers to help prevent disease spread, to identify the scope and magnitude of SARS-CoV-2 infection, and to inform additional prevention and control efforts that might be needed. As this is new guidance, MPHAT is currently working to understand how the CDC recommendations could be incorporated and will work with our agencies to provide recommendations for developing a testing strategy.

**The MPHAT recommendations are consistent with CDC [guidance](#) and advises agencies that testing should not supersede existing recommended prevention and mitigation measures.** Testing strategies can aid in identifying infectious individuals with the goal of reducing transmission of SARS-CoV-2 in the workplace. These strategies augment and do not replace existing guidance. In order to maximize compliance with recommended mitigation measures MPHAT strongly recommends that employers implement non-punitive sick leave and testing policies where all disincentives are removed for reporting symptoms and self-isolating and undergoing testing when recommended (i.e. paid sick leave, employer-paid for testing regardless of the results).

**MPHAT recommendations are consistent with CDC [guidance](#) that antibody testing should NOT be used to diagnose COVID-19 as a standalone test and should NOT be used for diagnostic purposes or used to make workplace decisions such as returning a firefighter to work.** While antibody testing may be useful in a research setting, it currently is not useful for identifying infections.

### **Considerations for Testing:**

- Viral tests used to detect current infections, are only a “snapshot” in time. A negative test indicates an individual was likely not infected at the time the sample was collected. Individuals may test positive later (SARS-CoV-2 incubation period following an exposure is 2-14 days) or could have an exposure after the test result.
- All testing devices produce false positive results (tests result is positive, but the individual DOES NOT have a disease) and false negative results (test results are negative, but the individual DOES have the disease).
  - Individuals with COVID-19 who are given a false-negative result will not be isolated and can infect others.
  - Individuals who do not have COVID-19 but are given a false-positive result may be subject to unnecessary isolation and further disease investigation, and operations may be unnecessarily impacted.
- If testing is used, all tests used should aim for rapid turn-around-times (e.g., less than 48 hours) to minimize exposures and facilitate effective action from fire managers and public health departments. Individuals with COVID-like symptoms must isolate away from other workers or NOT come to work while waiting on test results.
  - All test results must be reported to local public health agencies.
- Collecting an acceptable sample at a wildfire incident will be challenging and sample collection and preservation is critical for accurate test results.

**Conclusion:** The MPHAT does not recommend utilizing universal COVID-19 laboratory testing as a standalone risk mitigation or screening measure among wildland firefighters at the time of this issuance. If agencies choose to pursue a testing program for firefighters, a plan for should be developed in conjunction with pertinent agency offices (e.g. Budget, Legal, Human Resources) using the considerations outlined above. The MPHAT supports current CDC guidance to use testing strategies for individuals with signs and symptoms of COVID-19 and directly exposed co-workers to help prevent disease spread, to identify the scope and magnitude of SARS-CoV-2 infection, and to inform additional prevention and control efforts that might be needed. Incorporating this guidance by an agency will require an implementation plan including remote areas, funding, and public health department contacttracing.

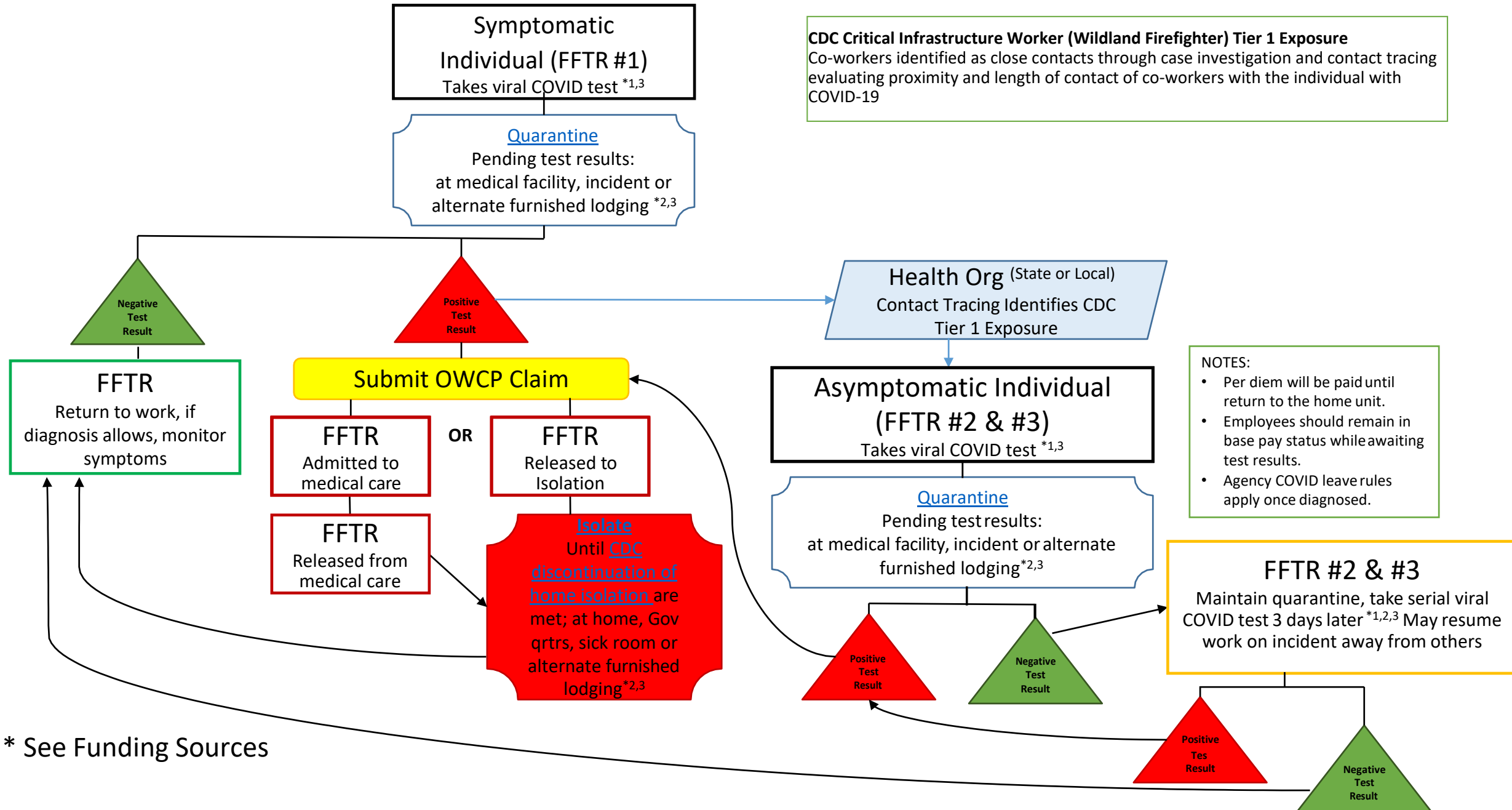
**Regardless of test results, all fire personnel must take preventive measures to protect themselves and others (refer to [MPHAT Prevention and Mitigation Recommendations](#)).**

<sup>1</sup> <https://www.cdc.gov/coronavirus/2019-ncov/hcp/testing-overview.html>

<sup>2</sup> <https://www.cdc.gov/coronavirus/2019-ncov/community/worker-safety-support/hd-testing.html>

# COVID Testing For Critical Infrastructure Worker - Wildland Firefighter (FFTR)

July 2, 2020



## COVID Testing For Wildland Firefighters –Funding Sources

### Testing at Home Unit

1. Viral Test expenses will be charged to local purchase card and redistributed according to Bureau/Agency direction. If exposure occurred on an incident, obtain S number for documentation.
2. If employee is unable to quarantine/isolate at home or gov quarters “sick room,” alternate furnished lodging (rental, hotel etc.) on the behalf of the employee. Pay with purchase card or BPO and redistribute charges according to Bureau/Agency direction. If appropriate to charge back to incident where exposure occurred, obtain S number for documentation.
3. If OWCP adjudication finds contraction of disease was through performance of duties, OWCP will pay for associated care costs. If this is the case, reconcile expenses with OWCP. **OWCP may not pay for quarters.**

### Testing at Incidents:

1. Incident uses Agency Provided Medical Care (APMC) process and use local purchase card. Charge to appropriate accounting code according to Bureau/Agency direction.
2. If the Incident is unable to provide quarantine/isolation “quarters”, employees may use travel card for these expenses and will redistribute charges according to Bureau/Agency direction. If an employee does not have a travel card, use a local purchase card to pay for these expenses and redistribute the charges according to Bureau/Agency direction.
3. If OWCP adjudication finds contraction of disease was through performance of duties, OWCP will pay for associated care costs. If this is the case, reconcile expenses with OWCP. **OWCP may not pay for per diem or quarters.**

### Testing in Travel Status:

1. For travel *to or from* an incident, charge to local purchase card and redistribute according to Bureau/Agency direction. Obtain S number for documentation.
2. If quarantine/isolation “quarters” are required, pay with travel card and redistribute charges according to Bureau/Agency direction.
3. If OWCP adjudication finds contraction of disease was through performance of duties, OWCP will pay for associated care costs. If this is the case, reconcile expenses with OWCP. **OWCP may not pay for per diem or quarters.**

## Appendix J -- COVID-19 Response Action Process



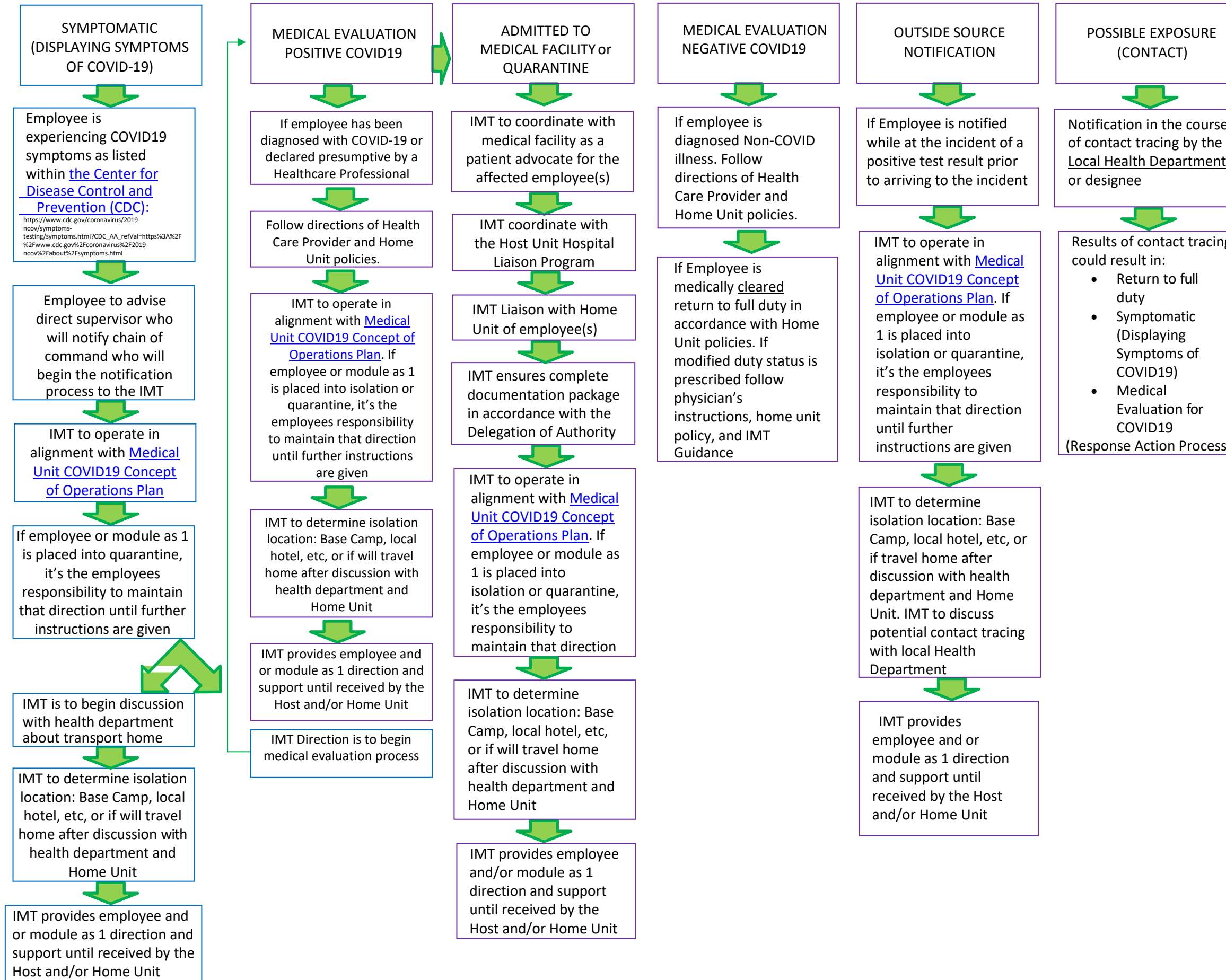
# COVID-19 INCIDENT MANAGEMENT TEAM RESPONSE ACTION PROCESS

Current as of July 6 2020

Incident Management Remote Response (IMRR)



## COVID-19 Response Action Process



### IMPORTANT NOTES

- **Medical Unit COVID19 Concept of Operations Plan:** <https://www.nwcg.gov/committees/emergency-medical-committee/medical-unit-covid19-cop>
- **Notification Process at the Home Unit-** Single resource (affected) employee or Supervisor of affected employee to advise Home Unit direct supervisor and Home Unit Official. The Home Unit Official will notify chain of command at the Home Unit who will begin the notification process in accordance with the local health department guidance.
  - If single resource is unable to make the proper notification to the home unit, the IMT will initiate Home Unit contact.
- **Medical Unit Leader (or COVID19 Incident Management designated Staff)**
  - to advise local Health Department of patient and status
  - evaluates the patient and determines if immediate medical attention is required, isolation, quarantine or demob is necessary to the Home Unit in accordance with local health department or agency having jurisdiction
  - Provides incident communication and documentation for patient status.
- **Safety-** monitoring efficiency and effectiveness of sectional disciplines for the incident and monitoring for potential enhanced risk to additional resources
- **Contact Tracing –**
  - **Internal IMT-** to determine the possible exposure to the incident resources
  - **Local Health Department- Official Contact Tracing** to determine contacts of patient
- **Site decontamination –** In cases of suspected/confirmed COVID-19 **Logistics Section** Site Managers should ensure that proper cleaning and appropriate sanitization of fixed/semi-fixed facility sites including equipment and third-party vendors are undertaken in compliance with agency or CDC guidance.
- **Public Information Officer-** Control/maintain information flow from IMT to the out-going incident information messaging.
- **Logistics Section Chief-** Coordination of supplies and equipment to support any quarantine or isolated facilities including human needs such as food and sanitation including health and comfort items.
- **Finance Section Chief-** Coordinates the administrative flow of required forms and processes for the affected employee and/or module of 1 (CA1, CA2, Hospital, Comp and Claims)
- **Plans Section Chief-** Ensure proper documentation in accordance with agency policy to provide a complete documentation package for the Host Unit and Agency Administrator. Coordination of demobilization of patient and affected module of 1 to the Home Unit.
- **Incident Commander-** Maintains command and control of the IMT. Ensures that proper and timely notifications are made in accordance with the Delegation of Authority.