



APPLE FIRE LESSONS LEARNED

San Bernardino National Forest, August 14, 2020

ABSTRACT

A compilation of Lessons Learned during the Apple Fire. From the perspective of the COVID Advisor, Agency Administrator, Incident Management Team and Forest IMO.

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Background

This document will explore some of the successes and challenges encountered on the Apple Fire related to COVID-19. The Apple Fire occurred on and adjacent to the San Bernardino National Forest. California Interagency Incident Management Team 2 (IMT) entered Unified Command with the Riverside Ranger Unit of CAL Fire on August 3, 2020. The fire eventually grew to 32,905 acres, spread across two counties and had approximately 2600 personnel assigned. Due to the location and complexity of the incident, multiple cooperating agencies participated in the response.

Due to the rapid growth of the fire and the immediate need to provide operational, planning and logistical support to those engaged in the fire fight, the Incident Command Post (ICP) was established in the same manner and location as on a number of previous incidents. As such, the ICP was set up without implementing some of the best practices described in the concept of operations plans and the Pacific Southwest Area COVID-19 Pandemic Wildland Fire Response Plan. This tested the IMT to come up with solutions to meet the numerous challenges in limiting responder exposure to COVID-19.

Responders have the expectation of a safe work environment when being assigned to an incident. As leaders, we have the obligation to do the absolute best we can to meet that expectation. We shouldn't allow ourselves, or others to encroach on the employee's freedom to work safely. Considering this, we must set the example by which we expect others to follow.

-California Incident Management Team 2

COVID Advisor

In response to the COVID-19 pandemic, Region 5 has been working tirelessly to ensure a safe work environment and create safe work practices for its employees during this crisis. In an effort to address the potential of an outbreak in fire camp and relieve the pressure on the Agency Administrator during such incident Region 5 has created the COVID Advisor position. At this point the minimum qualification for this position is a working level Agency Administrator. This position works directly for the Agency Administrator and should be provided a delegation of authority to provide specific guidance on the expectations and needs of the forest and fire respectively.

This section of the document will provide information on the COVID Advisor role on the Apple Fire. It will provide observations, describe “Successes” and “Challenges” in addition to recommendations and lessons learned during this assignment.

The Apple Fire as it relates to COVID is truly a success. Mitigations were put into place, management and the Incident Management Team (IMT) were open to suggestions and immediately took action to address any concerns presented.

Successes:

First and foremost was the forest’s commitment to the learning culture that is paramount to our success as an agency. The Apple Fire was the first assignment in the region for the newly created COVID Advisor position. It was readily apparent that the forest was appreciative for the assistance.

Forest Leadership and the IMT were both receptive to ideas and suggestions to further the mitigations that were in place on the incident. The Forest Incident Management Organization (IMO) was very open to suggestions and requested information on a regular basis in order to strengthen their team. The Forest IMO was looking at the big picture and not focusing entirely on single incidents. The incident Agency Administrator was available and followed up on concerns brought to him immediately.

I had daily meetings with the IMT COVID team and daily calls with the IMO set up if needed.

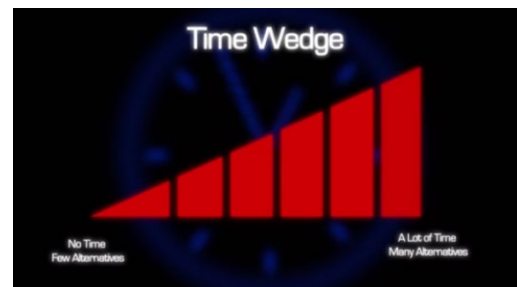
The IMT had a COVID dedicated team consisting of a Medical Unit Leader (MEDL) and Safety Officer (SOF) with additional support personnel lead by the Deputy Incident Commander. This was instrumental in coordinating with the Agency Representatives (AREPs) from CALFIRE, California Governor's Office of Emergency Services (CalOES), and the COVID Advisor. This also provides relief for the team SOFs and MEDL who still have to manage situations presented from fire suppression activities.

Clear roles and expectations were created and implemented. This may have provided the most relief for both the IMT and Forest IMO. The IMT readily accepted changes in processes that

they were provided. Example: Switching from the NMAC guidance to the Region 5 Response Action Process.

The IMT created the IMT COVID Response Plan which covered Prevention; Incident Response; Notifications; Definitions; References and Resources. This is a living document that was frequently update in response to new concerns.

This incident was able to demonstrate 2 different models of setting up fire camps which will be discussed in more detail. There is a risk management decision tool referred to as the Time Wedge. In this model, the closer you are to the apex those time critical decisions will be to meet the immediate need of the situation. The immediate need is an attempt to put out the fire. With these fires that grow at an enormous rate in the first couple of operational periods COVID is not on the forefront of responders' minds. As that wedge widens, we have more decision space and time to create as better product. As we saw in the 2 different camp configurations Noble Creek Park was set up in a manner that it would be in any given year without COVID. Yucaipa Regional Park is what we would like to see during a pandemic with particular attention paid to restricting access, providing a COVID check point and isolation areas, and spreading out the facilities to incorporate social distancing.



The IMT established off site isolation areas where incident personnel who were not feeling well or were symptomatic could go and the medical team would respond to their location to perform an assessment.

At the Yucaipa camp the IMT set up a 2-step access process to enter the ICP. First step was clearing security and the second step was being stopped to answer COVID related questions by giving a thumbs up if you have no symptoms and thumbs down if you were presenting symptoms. This was a simple and understandable process that was easily accepted by incident personnel.

Both camps had dining areas that were covered and open air. Tables were spaced out properly and chairs were limited and staggered to encourage limited social eating. Modules were asked to eat together. This is likely the most controversial item that I noted. It also appeared that crews and staff eating had staggered eating times to reduce the capacity at the tables. In addition, the camp crews immediately cleaned the tables as people would leave. The Food Unit Leader and he explained that if everyone were to go eat wherever they wanted he could not ensure that the areas



would be cleaned properly. So, keeping people in a familiar environment and having it immediately cleaned could reduce the potential spread of the virus. The rationale for this type of eating situation during a pandemic may be debated but it was successful on this incident.

Standard COVID mitigations were abundant around the camps. Items such as hand sanitizer stations and handwashing stations were easily accessible around both camps. Forest Service employees set the standard in wearing facemasks.

Shared drink coolers were not present in most camp locations. Rather, they had tables set up with camp crew members wearing gloves and masks handing out drinks to reduce physical contact by multiple individuals.

Frontline Medical had trailers, isolation tents and personnel at both camps. They were also able to test individuals onsite which reduced the exposure of taking symptomatic individuals to testing sites.

CALFIRE had a hotel manager onsite to assist with finding rooms if we had to find accommodations for sick individuals.

Frequent COVID reminders were brought up during morning briefings.

Challenges:

Managing for the COVID pandemic during a rapidly evolving fire incident that is being managed in Unified Command. This fire burned through several Designated Protection Areas (DPA) and two counties. The fire was initially managed by the State and then taken over by a Federal Type 1 Incident Management Team.

Having numerous cooperators on an incident with different COVID guidance and policies regarding face coverings creates a challenging environment.

Unified Command provides other challenges such as accepting donations from the public and companies that want to provide some comfort to responders. While the Forest Service does not allow donations, other agencies allow this and even encourage it.

IMT's have numerous documents and guidance pertaining to COVID-19 from NMAC and NCWG. They were not familiar with the Region 5 Response Action Process. There are several differences in these documents and they also use different terminology. This is problematic.

Both the IMT and Forest IMO cannot assume that the other has a process to deal with COVID cases on a fire. There needs to be negotiations early to clearly set the expectations for both teams. Clearly define the process that the Forest wants to use to process these cases.

The Forest IMO was overwhelmed by having a Type I incident on forest and the influx of over 2700 personnel assigned to the incident.

Local capacity to isolate a large group of individuals if an outbreak were to occur in camp. Hotels are not as likely to want isolation cases staying in their facilities during their peak season. Booking a room for one COVID positive isolation case may require the agency to have to pay for all rooms on a floor.

Contact assessment with incident personnel on the fireline. The team required that the ICS-204 Division/Group Assignment form be filled out and updated as changes were made to assist in the tracking of crews and modules. Personnel were also asked to keep their unit log updated to reflect individuals and crews that they had contact with. This was only as good as the information that was provided.

Recommendations for future incidents:

Include County Health Officials as part of the IMT in brief. These officials can provide a detailed current situation report and can describe the types of service that they can provide an incident. They can also communicate what their trigger points are for their engagement if an outbreak were to occur.

Have the Forest IMO and IMT meet to determine protocols that each will follow if cases involving federal employees occur. Share what capacity each has and what they can do for each other.

Consider either embedding a member or two from the IMO during the 2 days preceding IMT DEMOB or having the IMT leave one of it's COVID Team members for transition for 2 days after the IMT leaves. This would serve to transfer cases to the forest and provide the IMO members the knowledge to find documents that could provide information in individuals that are released and become symptomatic. Need to include CalOES and other Agency Representatives to ensure appropriate follow up can occur.

Consider additional camps early to reduce numbers and provide more opportunity to apply COVID mitigations. Recommended camp size should not exceed 1000 personnel.

Provide all IMO employees basic Incident Command System (ICS) training to provide an understanding of the structure of an incident. Embed some members of the local IMO in an incident camp to start understanding the structure and make up of complex camps.

Have clear and concise protocols and/or recommendations for the team relating to COVID during in brief and include county health professionals.

Building relationships with County Health Departments and other resources that may be able to aid.

Consider adding a colored sheet in the DEMOB process with contact information for the Forest IMO for a resource to contact if they present symptoms 48-72 hours after leaving the incident.

-David Andersen, COVID Advisor

Forest COVID Incident Management Organization (IMO)

The Forest IMO was NOT prepared to handle a major COVID outbreak associated with a Type 1 incident, or otherwise. Nobody was clear on whose role it was – IMO, IMT or Public Health (Counties) to facilitate and oversee a major outbreak response. The NMAC IMT documents the IMO had received both before and at the beginning of the incident seemed to suggest a significant role by the IMT, and the IMT thought the IMO was in charge of the response. The NMAC IMT documents apply a bit differently in R5 where we have dedicated IMOs. In some other regions, yes, the IMTs do a LOT, and those documents were the only ones I had seen regarding COVID response in relation to a large team-activated incident.

Questions and words matter. I had asked multiple people: “Whose responsibility is it to respond to COVID in relation to team-activated incident?” or “What do we need to do to prepare for team-activated incident in time of COVID?” Nobody (CERT, R5 BOD, Forest FAM) had a good answer or any answer. The questions we needed to ask and didn’t ask were specific, operations-oriented and risk management focused: Who leads COVID response if more than 5 people symptomatic or exposed on an incident? Where and how will we secure mass lodging needs? What needs to happen if we have hundreds of incident resources affected by COVID and thousands of hotel rooms booked, largely due to the incident itself? I don’t believe any of us were boldly asking or thinking through these risk management types of questions.

What helps? - Having a COVID Advisor on-site to facilitate communication between IMO and IMT!

- As much planning in place ahead of time as possible, and shared understanding between Line, Fire and IMO of who is doing what
- Know your County POCs for Emergency Services or Infection Control – will be different titles elsewhere
- Identify trigger points for engaging County Public Health
- Have in mind back-up mass lodging sites, or be prepared to engage GSA Emergency Services
- Know where to get emergency personnel tested. Counties may have own testing for essential workers and can facilitate quick turnaround testing
- Have dedicated and trained contact assessors
- Have an Expanded IMO in place – we identified additional contact assessors, purchase card holders, and people to support logistics for hotel research as well as driving

-Forest IMO Incident Commander Kay Wiand

Agency Administrator

- Having a Covid Agency Representative was invaluable in the success of Covid Management on the Apple incident.
- Allowing the IMT to manage the incident must be the priority, **Covid is NOT the incident**. The Covid advisor embedded in the incident is key for this to function correctly.
- Key roles of the Covid advisor include:
 - Connecting the “dots” between the Forest IMO, IMT, and Cooperators and managing the coordinated efforts throughout the incident.
 - Overall observation of the incident management, raising concerns and providing solutions to the Agency Administrator, IMT and IMO. It is important that the COVID advisor NOT function as the “COVID police”.
- Forests and Agency Administrators need to recognize that IMT’s have safety and medical personnel, with operational plans in place, on how to manage any medical incidents. The change that Covid brings is how contagious the virus is and how rapidly it could spread through an incident. Because of this, the IMT, Covid advisor and Forest IMO needs to focus on how to stop the spread by implementing preventative measures (hand washing stations, masks, spacing throughout ICP, etc.) and manage cases as they begin to surface.
- As stated above, individual roles need to be identified early and detailed. One example is: Who will maintain the list of employees tested and isolated, and who will follow up with employees or modules daily to check on status and provide updates? How will this be carried over through transition?
- Engaging cooperators at the appropriate level is critical to reduce COVID cases. There has to be a recognition that various municipalities have different cultures and perspectives regarding COVID that range from taking all precautions seriously to not following any precautions. To ensure all partners at the ICP and working on the incident are following preventative measures implemented during the incident, the Forest IMO needs to engage with partners prior to incidents and reengage through the Agency Administrator and COVID advisor during the incident.
- Tracking the amount of “camp crud” during incidents may help IMT’s tell the story of the unintended consequence of managing incidents during a pandemic. This may also inform best practices for future incidents.

-Marc Stamer, Agency Administrator

Incident Management Team (IMT) Challenges

Mobilization- The Apple Fire was a large fire that rapidly grew in complexity and size during the first operational periods. As such, multiple agencies from multiple jurisdictions with differing

policies and procedures related to COVID-19 reported directly to the fire line. This included agencies with personnel that had COVID-19 exposures prior to mobilization.



While the Module of One concept is widely practiced by wildland fire agencies, many cooperators do not have the same practices. This led to instances in which personnel required isolation, testing and early release to the home unit.

Delegation of Authority- As a part of delegation of authority between the Forest and the Incident Management Team, the IMT was the requested to “develop and provide a plan” for COVID-19 to ensure alignment of policies. To support this request, and to interface with both internal and external stakeholders, an ad hoc “IMT COVID Support Team” was established with two dedicated Safety Officers and one Medical Unit Leader. This team directly reported to the IC.

The IMT COVID Support Team interfaced with, and provide support to, the various cooperators assigned to the incident including CAL Fire, CAL OES, and the Forest IMO. The direction to develop a COVID-19 plan was complicated by the differing expectations and policies by the Forest IMO, CAL Fire and CAL OES. This was further complicated by operating across county lines and engaging with separate county health departments that have differing organizational structures and capabilities.



Through the collaborative efforts of all involved agencies, a working document was developed to address the specific notification and support requirements of each of these stakeholders.

Lesson Learned

Camp Layout- The original layout of a camp is integral to the success of COVID-19 prevention and mitigation. While every location is different, certain precautions should be put into play prior to setting up. These should include:

1. Identify choke points and crowd potential.
 - a. Throughout this incident there were constant and obvious chokepoints where social distancing was not practiced or regulated. Areas identified include Check-in, Demob, OES Check-in, radio cloning and food service.

2. Wash Stations

- a. Portable handwash stations with hot and cold running water should be utilized in place of the “foot pump” wash stations at the entrance and exit of Main Street as well as other heavily populated areas of camp. The foot pump style wash stations do not provide a constant supply of water and require significant contact to operate.

3. Sanitizing Stations

- a. Sanitizing stations should be located at the entrance of every trailer, yurt, or common-use structure and throughout briefing areas. Signage with instruction for use before entering the building and after exiting the building should be included.
 - b. Every desk or table should have the smaller hand sanitizers available for use.
 - c. Smaller (6-8 oz) hand sanitizers should be available for everyone to carry in their pockets for use throughout the day.
- ## 4. Consider setting up the camp in modules to avoid overcrowding and to provide sufficient distances between areas. Personnel occupying the same enclosed space for longer than 2 hours is defined as close contact. If someone were to become sick, everyone in the shared space would require testing and isolation.
- a. More trailers and yurts than usual should be considered.
 - b. Alternate sites should be pursued, and virtual work encouraged.
- ## 5. Consider hiring a contractor to spray/clean trailers, yurts, common touchpoint 2-3 times per day.



Personnel-Consider best management practices to limit personnel exposure to COVID-19.

1. The consistent message of minimizing personnel in camp to only essential personnel is important.

2. Consider splitting the IMT sections into 2 different areas. In the event of a COVID-19 incident, this would allow for the section to continue to operate and alleviate the need to quarantine an entire IMT section thus crippling the IMT capabilities.
3. Cooperators and visitors to the camp need follow the same COVID-19 precautions set in place by the IMT.
4. Understand that different people have different levels of concern and understanding related to the COVID-19 pandemic. Respecting the concerns of others and attempting to address their concerns creates a stronger, more cohesive team and camp environment. Every responder on the incident has the right to a safe work environment.
5. Serious consideration should take place to limit the number of personnel in camp, on Main Street, and in trailers.
 - a. The same 6' physical distancing practiced outdoors should be adhered to inside all areas as well.
 - b. Incident personnel should wear masks inside when unable to maintain social distancing.
6. The sharing of personal communication devices such as iPads and cell phones should be discouraged.

Security

1. Security should be on duty 24/7 at every entrance and a “closed camp” policy should be enforced.
2. No outside food and/or drink donations can be accepted without approval from Safety and Medical.
3. Donated food was brought to multiple drop points and shared by multiple individuals.



Signage

1. COVID-19 signage throughout the camp should be abundant.
2. COVID-19 related messaging should be simple and consistent throughout the fire organization. Messages should not be dense and difficult to understand.
3. “Masks Required” signs should be placed on every trailer, yurt, entrance, and exit.



Cleaning Frequency

1. The cleaning schedules for the portable toilets should be doubled if possible.
2. CCC crews should clean all frequently touched parts (doorknobs, etc.) on a constant basis throughout the day.
3. CCC crews should be assigned one task, i.e. refer duty, and not allowed to comeingle with crews assigned to clean other areas of camp.
4. Ensure crews have been trained on appropriate cleaning measures. Confirm the disinfectant used is appropriate for COVID-19. Review SDS information to ensure proper use.

Sleeper Trailers

1. Sleeper trailer should have any cloth/carpeting removed from inside to mitigate possible COVID-19 spread. Semi-permeable or absorbent curtains should not be used.
2. Module of One should be enforced when assigning trailers and sleeping bunks.

Watering Station(s)

1. A single location for water distribution should be established.
 - a. This can be staffed by the CCC's who distribute cold water without cross contamination.
2. The practice of placing coolers and water outside of each trailer should be eliminated in a COVID-19 environment.



IMT

1. All members of the team should lead by example and not only adhere to the COVID-19 prevention measures in place but also encourage others to follow suit. We must set the example.
2. Team members should take the time to complete their own daily self-assessment procedures and encourage others to do the same.



Testing

1. It is vital to establish a clear and concise assessment and testing processes for the incident.
 - a. Each agency has their own policies and procedures that play a role in how to care for COVID-19 cases that arise.
 - b. CAL Fire has a system in place for their employees.
 - c. Cal OES can provide the procedures and contacts for local government.
2. Contact with Cooperator home units for direction was difficult, particularly after hours and on weekends.
3. Working in conjunction with the local health department is imperative.

- a. Inquire into whether or not they have a First Responder method for more rapid testing in the area.
- b. Work to identify alternate testing sources that can provide quick turn around on SARS-CoV-2 rt-PCR testing.

Medical Support Units

1. Medical Support Units that have the capacity for assessment, testing, and isolation for possible COVID-19 cases. They are a valuable resource that should be ordered to be placed into service as a jumping off point for all potential cases.

Glidepath

1. The COVID-19 Glidepath should be established early and used as a visual tool and indicator for tracking all COVID-19 related cases.

Dining

1. Clearly identify and enforce the 6' spacing for the entire dining area.
 - a. One person at a time should approach the food "delivery window."
 - b. Clearly marked 6' separation indicators should be located at the line for handwashing as well as food distribution.
 - c. Each 6-8' table should only have 2 chairs and only 2 people per table when dining.
 - i. Chair should be located on opposite sides and ends of the table.



Task Force

1. Having a dedicated "COVID-19 IMT Support team" creates an avenue in which all potential issues and cases can be referred.
 - a. At a minimum, the team should have a Safety Officer and a MEDL.

Contact Assessment

1. The best 2 methods of tracking personnel through an incident are 214s and IAPs.
 - a. It should be emphasized that 214s should be more detailed than usual and should include locations, times, and interaction with other personnel.

- b. A modified ICS 214 was created to capture Employee Contact Assessment information.
- c. The IAP should be corrected and accurate to ensure successful tracking
 - i. T-cards and Resource orders should be complete and accurate with assignment and contact information.