

Leadplane Training Lesson Plan

Southern California Endorsement

12-08-N9065-HO

Objective:

To familiarize and develop the student's proficiency with the procedures and differences of Southern California operations and operations in similar environments.

Content:

Southern California can be a complex area to fight fire in but complexity is not a place on a map. Complex fires can happen in many locations where firefighting activities take place. The same fire behavior, urban interface, political considerations and resistance to control do occur in other geographic areas. However, complex fire situations tend to happen more frequently in Southern California and there are some unique differences that are important to note.

Radio Frequencies

Fixed wing air to air is identified as air tactics and is utilized on an FM radio.

Rotor wing air to air is identified as rotor air to air, or simply victor and is on a victor radio.

Victor frequency 122.925 is monitored continuously by all fixed wing and rotor wing assets.

Number of Aircraft

Generally there are going to be more aircraft assigned to a given fire.

The state of California has its own fleet of S2's and ATGS platforms.

Several of the county and local governments have helicopters that are used for fire suppression.

Tankers

LAT/VLAT

During the majority of fire season, the LAT/VLAT fleet is committed to multiple geographic areas. This tends to minimize the number of air tankers on any one incident. The height of fire season in Southern California tends to happen later in the year, after the fire danger has gone down in the rest of the country. More of the LAT/VLAT fleet can be consolidated for Southern California's fire season.

SEAT's

SEAT's are being used more in Southern California which can increase the aerial supervision workload due to the varying tanker airspeeds.

S2's

The state of California, CalFire, has a fleet of S2's that are highly utilized during initial attack. Although the S2's primary mission is initial attack, the aircraft are available for all fire assignments.

Scoopers

There are two CL-415's based in LA County. These aircraft can also increase the aerial supervision workload due to the different tanker airspeeds, patterns and quick turn arounds.

Helicopters

Many of the local governments have their own helicopters that are used for firefighting. The city of Los Angeles as well as LA, Kern, Ventura, San Bernardino, Orange and San Diego Counties have helicopter programs and routinely interact on Federal and CalFire incidents. All of the county helicopters are tanked, and will often "ground fill" from fire engines, instead of a snorkel; especially where suitable snorkel sites are a distance away. This can lessen turnaround times considerably.

Law Enforcement

Law enforcement agencies have aviation programs that can and do impact firefighting operations. The FTA does not pertain to other aircraft that have legal access within a TFR (Medevac, Law Enforcement, Media, VFR airport traffic, IFR traffic cleared by the FAA).

News Agencies

News agencies utilize helicopters for reporting and are sent to fires routinely. Most of these aircraft have powerful camera lenses and are content to be cleared in above the FTA to collect video and audio footage of the fire activities. The FTA does not pertain to

other aircraft that have legal access within a TFR (Medevac, Law Enforcement, Media, VFR airport traffic, IFR traffic cleared by the FAA).

Cooperator Aircraft

Local cooperators with aviation programs may initially be operating on incidents with their own agency frequencies while federal and state aircraft assigned to the same incident may be working on different frequencies. Although this situation is happening less frequently, it is important to note. It is essential for aerial supervision to have all incident aircraft operating on the appropriate frequencies.

Hazards

Due to the large population base, Southern California has a large concentration of high tension power lines.

With the coastal and desert influence, there can be strong localized winds and turbulence. The canyons and passes can funnel very strong winds that create hazardous situations for aircraft.

There is a large concentration of military, airline and general aviation air traffic in Southern California. This makes it all the more important to stay heads out and see and avoid.

There can be localized visibility issues due to marine layers, haze, smog and smoke. It is not uncommon to have VFR conditions over the fire and IFR conditions coming back into the airport. It is important to consider these possible situations when planning for fuel reserves and which airport to recover at.

Human factors play a large role in wildfire suppression activities. There can be fundamental tactical differences between fire firefighting agencies as opposed to land management agencies. There are many places in Southern California where wildfires have enormous economic and political impacts as well as potential for injury, loss of property and loss of life.

Southern California experiences a localized weather phenomenon known as “Santa Ana” or “Sundowner” winds. These wind events tend to heighten fire potential and increase fire behavior. When these conditions occur, they create off shore winds that can be as strong as fifty to seventy five miles per hour. The relative humidity is substantially lower as well. With those wind velocities, there is strong potential for moderate to severe turbulence in valleys and on the lee side of ridges.

ATC and Airspace

It is common for fire operations to be conducted in and near controlled airspace in Southern California. KLAX and KSAN Class B airspace and multiple Class C airspace airports are in the wildland urban interface. These fires may require some negotiations

with ATC for aircraft routing. The FTA does not pertain to other aircraft that have legal access within a TFR (Medevac, Law Enforcement, Media, VFR airport traffic, IFR traffic cleared by the FAA).

SoCal, Bakersfield, Santa Barbara and Joshua approaches can provide VFR flight following as well as IFR routing, making it safer and more efficient getting to a fire. They can lower the pilots work load maneuvering around and getting cleared through airspace.

Air Tanker Base Proximity

It is quite common to have multiple airtanker bases' reloading airtankers for a single incident. This can minimize turnaround times by reducing congestion at the tanker bases. This will increase aerial supervision workload due to increased routing coordination.

Aerial Supervision

Helicopter coordinators are used much more frequently in Southern California. With the large number of helicopters used on Southern California incidents, HLCO's can be a valuable resource to aerial supervision, but can also contribute to complexity if a leadplane or ASM is unfamiliar working with them.

There are a large number of ATGS's in California and it is rare to not have an ATGS over an incident.

Any or all combination of these conditions can and will escalate the pace and workload for aerial supervision. It is incumbent on all aerial supervisors to maintain vigilant and constant situational awareness of the environment at the incident. It is possible and often likely that the pace of the operations may need to be adjusted or stopped entirely if conditions exceed your ability to maintain a safe and effective working environment. Aerial supervisors must maintain awareness of their individual capabilities and experience with regard to highly complex environments.

This information can be applied to many other areas outside of Southern California. The Oakland Hills in Northern California, the Sierra Front near Reno, NV, the Phoenix metropolitan area as well as other areas in the US can all have complex fire environments. This training can be applied in areas outside Southern California and documented to meet training needs. Incidents south of the Tehachapi Mountains and west of Palm Springs tend to meet the general complexity issues in this document.

Completion Standards:

The lesson is complete when the student can demonstrate proper operational knowledge of the procedures and differences of Southern California operations in a fire environment. Safety will never be in question and the operations will be accomplished without the reliance on the evaluator.