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National Wildfire
Coordinating Group



LPIL PHASE CHECK ORAL QUESTIONS

PMS 505a

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This document supplements the *NWCG Standards for Aerial Supervision*, PMS 505,
<https://www.nwcg.gov/publications/505>.

Phase 1

What is the role of an Air Tactical Group Supervisor (ATGS) over a fire and how does this position interact with the Leadplane Pilot (LPIL)?

What is the role of a Helicopter Coordinator (HLCO) over a fire and how does this position interact with the LPIL?

What is the role of an Aerial Supervision Module (ASM) over a fire?

What is the role of an Incident Commander (IC) on a fire and how does this position interact with the LPIL?

What is the primary role of the LPIL?

What is the difference between the terms required and ordered as they relate to incident aerial supervision requirements?

When is LPIL required over a fire?

When is an ATGS required over a fire?

What is the purpose of the LPIL Coach program?

What are the personal protective equipment (PPE) requirements while flying a LPIL mission?

How often are LPILs required to attend recurrent flight and ground training (RT-9065)?

What is a Fire Traffic Area (FTA) and how does it differ from a Temporary Flight Restriction (TFR)?

What is the standard procedure for entering and exiting the FTA for the LPIL?

At what altitude should the air tankers come into the FTA?

What factors might cause this altitude to change?

Consider flying over a fire near the north end of Lake Chelan in Washington. Plot the fire location on a sectional. N 48 20 44 / W 120 43 14.

- What information on the sectional should be reviewed prior to arriving over the fire?
- Discuss the terrain around the fire and what conditions may exist over the fire.
- Discuss the airspace over the fire.
- What are some concerns about using retardant in this area?
- What other frequencies should be monitored?

What are the different types of power lines that may be encountered on a fire and can retardant be dropped over or on power lines?

What is the safest area to cross over a set of high-tension power lines?

What is the minimum drop height for a very large airtanker (VLAT), large airtanker (LAT), and Single-Engine Airtanker (SEAT)?

Why is there a minimum drop height?

Can you drop next to crews on the ground?

Describe coverage levels and how they are used.

When would an inbound tanker be briefed and what information would be given?

What is the purpose of a show-me run?

Describe the information to be communicated to the airtanker during a show-me run.

Describe ways to join up with an airtanker.

During a join up who has responsibility for separation?

What should be done if sight of the airtanker is lost during the join up?

What is expected of the leadplane in the event of an overrun?

What is an initial point (IP) and when would it be used?

Discuss mountain flying weather, terrain, and techniques.

What is the maximum angle of bank when exiting a run? Is there any time this bank angle can be exceeded?

At what point during the final approach to the drop area should the leadplane start to accelerate? When should the leadplane be cleaned up after the drop?

What criteria should be used to evaluate a tanker's drop? When should the evaluation be given?

What are some possible distractions a LPIL might incur while operating over a fire?

What are some conditions that may warrant shutting down airtanker operations?

Phase 2

Discuss flight following policies and options when dispatched to an incident. How does this differ in Alaska?

What is the transponder code that is used for firefighting aircraft? Can the code be used while en route to and from the fire?

Describe the differences between a variable flow, a constant flow, and a pressurized tank system.

List each operational airtanker type and identify its tank system.

Describe the variations between SEAT tank systems and their coverage patterns.

Discuss the individual strengths and weaknesses of SEATS and heavy airtankers while building retardant line.

Discuss the factors that might cause the coverage level on the ground to be different from the coverage level selected by the pilot.

How can the leadplane's radios best be managed and what should the pilot be listening to?

How would the way the radios are managed change when dispatched to California?

What tasks should be considered while en route to a fire?

What information should be passed on when giving a fire size-up?

Whom might the LPIL contact with a fire size-up?

Where would the locations of airtanker bases be found for each state?

What is the difference between a temporary and a reload base?

What is an example of a retardant and a suppressant and what are the differences?

What is the difference between fugitive and non-fugitive retardant, and where might they be used?

What are some concerns with working helicopters and fixed-wing aircraft in the same area?

What are some techniques in ensuring separation of helicopters and fixed-wing aircraft working in the same area?

When diverted to a different fire, what information should be gathered from dispatch? What may be some concerns when diverted?

What should be done in the case of an aircraft accident or ground personnel accident?

Give some examples of anchor points and describe the use of them.

What is a tactical frequency and how is it used on a fire?

Describe natural firebreaks and how they are incorporated in the construction of retardant line.

Discuss unique hazards associated with dropping over flat terrain.

Describe the air and ground resources needed to control a small fire with a high rate of spread in grassy flat lands.

Describe the air and ground resources needed to control a small fire with a high rate of spread in mountainous terrain with heavy timber.

While on final approach for a retardant drop, crews are spotted working in the drop area that the ATGS said was clear. What can be done? What if a house were about to burn?

When on a base leg for a retardant drop, another tanker calls 12 miles out. What can the LPIL tell the inbound tanker?

What is considered a standard pattern for the airtanker? When would a non-standard pattern be used and what might be some concerns for using a non-standard pattern?

While on final approach for a retardant run, the Airtanker Pilot says there is a problem with the aircraft. What should be done? Should the airtanker be followed back to the tanker base?

A drop is made that is way off target. How should the evaluation be given to the airtanker crew?

Identify some factors that may influence when relief is ordered.

Discuss how to brief a relief LPIL arriving over the fire.

What side of a fireline should be treated with retardant while supporting a burn out?

A fire has made a run up the slope and is approaching the ridge line. Where should the retardant be placed in relations to the ridge top?

What problems may be created if retardant drops and water drops are mixed together to build line?

Describe the difference between a simplex and a duplex frequency for the FM radio.

Where would you find information for a specific airtanker base?

What are the advantages or disadvantages of dropping retardant into the wind, with the wind, or crosswind?

What are some of the difficulties and concerns when you fly a pattern that has a tail wind on base?

What are some issues to be aware of during downwind drops in relation to groundspeed climb gradient, etc.?

Discuss how the different airspace around an airport might influence your operations over a fire.

Describe methods to maintain aircraft separation with a mix of airtankers over an incident.

How is the minimum visibility and wind speed while over a fire determined?

Describe the difference between a fixed tank and bucket on a helicopter. How will this affect the type of dip site the helicopter might need?

Discuss the tactics for a fire that is spotting out in front of the head.

How would you change your tactics if there were structures threatened?

Consider if communications with the ground is lost but not with the airtanker. No one else in the air is having trouble communicating with the ground. Can the retardant drop still be made as planned?

While on final approach for a live retardant run, the frequency being used for airtanker operations suddenly becomes congested with other traffic. What should be done

A significant gap in the retardant load is noticed as it exits the airtanker. What could have been the cause and how might it be solved?

What are some ways to get a quick evaluation of the drop prior to flying back over the drop?

What is the difference between a Level 1 and a Level 2 SEAT?

What specific authorizations does a LPIL have after taking the certificate of waiver training for the Grand Canyon Park Special Flight Rules Area?

Phase 3

- While over a fire with no ATGS, a media helicopter calls wanting footage of the fire.
- Can the helicopter be allowed over the fire?
- If so, at what altitude will the helicopter be brought in at?
- Does the helicopter have the right to enter the FTA?
- Does the helicopter have the right to enter the TFR?

While over a fire with no ATGS, a law enforcement helicopter calls wanting to evaluate the fire.

- Can the helicopter be allowed over the fire?
- If so, at what altitude will the helicopter be brought in at?
- Does the helicopter have the right to enter the FTA?
- Does the helicopter have the right to enter the TFR?

Can a General Aviation (GA) aircraft come into an FTA or a TFR?

What should be done if there is an intrusion in the TFR? What would be done differently if there were no TFR in place?

While on final approach with an airtanker, a ground crew calls and says that they are deploying their shelters and are about to be burned over. What can be done?

How can more air or ground resources be ordered with an ATGS on scene? With no ATGS on scene? With no ATGS or ground resources?

Describe a use of the guard frequency while over a fire with other aviation resources.

The leadplane, along with a jump ship and three airtankers are dispatched to a fire. The LPIL is the first aircraft on scene. The jump ship is 3 minutes out and the airtankers are 5 minutes out. Describe ways to coordinate the air resources.

While working with an ATGS on a fire. The ATGS requests the LPIL take over air tactical duties.

- Can an LPIL take over for the ATGS?
- What information should the LPIL get from the ATGS prior to departure?
- Whom should the LPIL inform of this transfer of duties?
- What liabilities are the LPIL taking on?

What are some of the concerns with mixing large airtankers and SEATS into the same pattern?

What frequency should the LPIL monitor when flying near the Canadian border?

Can a United States (U.S.) LPIL lead a Canadian airtanker in the U.S.?

Can a Canadian Bird Dog lead a U.S. airtanker in the U.S.?

At what wind speed is it generally ineffective to drop retardant.

What is the Grant of Exemption 392?

Describe the terms and conditions of this Grant of Exemption.

What are the general differences between the flight crew duty day, and flight hour policy phase 1, 2, and 3 restrictions?

Can an ATGS direct a Modular Airborne Fire Fighting System (MAFFS) aircraft for a retardant drop?

When are LPILs required to attend MAFFS training?

What are the cut off time parameters for large airtanker operations? How do the cut off times differ for single-engine aircraft? How do the cut off times differ for aircraft in Alaska?

You have five airtankers over a fire and they are all released back to the tanker base due to excessive wind over the fire. How should you release them back to the base? What factors will you take into consideration?