

# Command Corner: Safe helicopter operations

By Chief Tim Murphy, US Forest Service Africa Disaster Management Technical Advisor

Certain helicopter missions push the limits of the aircraft's performance capabilities. Items that reduce the effectiveness and increase the risk of the mission include weight, temperature, altitude and visibility.

- Helicopter missions that transport external loads increase risk.
- Helicopters performance/ lift capabilities decrease as temperature and/or altitude increase. Be watchful of conditions that are high, hot and heavy!
- All helicopters have different maximum performance capabilities, so be aware of the capabilities of the specific helicopter that you are working with.
- Low-level helicopter operations often occur in heavy smoke where hazards (eg trees, powerlines, antennas, visibility, turbulence and other aircraft) increase the risk level significantly.
- Determine the risk level for every mission. Is the risk level acceptable? Can the risk be mitigated? If the risk is not acceptable or it cannot be mitigated, then the mission should not be flown.
- A large part of the success of a helicopter mission is the result of good communications between the pilot and the user

on the ground.

- Accurate target and hazard descriptions are essential to a safe mission. Locate this information and relay it to the pilot. Things to consider in the target description include:
- Have you considered what the target would look like from the air?
- Are you located where the pilot can see you?
- Do you have a signal mirror?
- Are you using cardinal directions or clock directions in relation to the track of the aircraft?
- What is the wind direction? Provide this information to the pilot. Put out ribbons.
- Are all firefighters clear of the drop area?
- Is there a safer way to carry out an effective suppression action?



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Activity: If available, have a pilot explain how the load calculation is done and the effects of density altitude on the aircrafts' capability and allowable.

