



Aviation Specialty Group

Issue Paper



NIGHT FLYING GUIDELINES

Issue

Provide operational guidelines for the use of aircraft at night on all hazard emergency incidents. The guidelines are intended to enhance safety, operational effectiveness, and fiscal prudence.

A component of the recommendations from the Governor's 2004 Blue Ribbon Commission Section 1: Jurisdictional and Operational Barriers; Multi-Jurisdictional Recommendations; Item 5: The Commission Recommends that all federal, state and local forest firefighting agencies review their aircraft operation cut-off times and determine if there can be a window of flexibility to expand incident operations times, while at the same time taking into consideration flight crew safety. Additionally, these agencies should review technological capabilities to extend available aerial emergency response capabilities.

Background

Lives, property, and natural resources are threatened on a 24 hour basis. Helicopters perform fire suppression, rescue, reconnaissance, and support missions during all types of incidents. With the recent terrorist acts and threats of weapons of mass destruction, fire and law enforcement agencies have joined together to become united emergency services responders. Agencies must work in harmony to effectively support operational objectives within all risk environments.

The Problem

Unfortunately, when night falls, aerial assets are normally grounded due to the pilot and crew's limited ability to clearly see, define and avoid hazards when operating close to the ground (below 500 AGL) in unimproved areas.

Additionally, Federal, State and Local Government agency's flight operational guidelines (Interagency Helicopter Operations Guide {IHOG}, Section 6) limit the use of aircraft at night. The criteria identify 30 minutes before sunrise through 30 minutes after sunset as normal flight operational periods. In specific situations, limited night flights for all hazard type incidents can be performed by public safety and natural resource agencies. These are agency-specific allowances.

Alternatives

The following are alternatives that each agency will need to consider;

1. Agencies may consider flying during daylight hours only and not develop a night flying operational program.
2. Agencies may elect not to use Night Vision Imaging Technology and continue to fly night operations using visual references as outlined in the Federal Aviation Administration Regulations.
3. Agencies may use current Interagency Helicopter Operations Guide (IHOG) – guidelines taking advantage of Night Vision Imaging Technology to develop an agency specific night flying program

Fiscal Impact

Agency specific

Recommendations

Risk assessment and risk management principles coupled with the use of Night Vision Image Technology can reduce the risk factors and increase the mission effectiveness of night flying operations.

Agencies considering establishing night flying operations may use the information contained in this document to develop safe and effective night flying operational procedures. A component of that program should include the evaluation of Night Vision Goggle (NVG) Image Technology to decrease the inherent risks of night flying and to enhance the pilot and flight crew's ability to see and avoid hazards while performing night flying operations.

Agencies who, in the past, have discounted the possibility of a night flying program based upon older generation Night Vision Goggles, may want to reconsider this decision due to the tremendous changes in the effectiveness of new generation NVG technology.

Conclusion

To evaluate the operational effectiveness of night aerial operations, agencies must consider the benefits as well as the risks that would be encountered. All hazard incidents have the ongoing need for aerial assets (reconnaissance, rescue, EMS, fire suppression, and support missions, etc.) around the clock. Aerial asset capabilities are increased by a factor of two or more over normal daytime operations, while at the same time, maintaining safety, operational effectiveness, and fiscal prudence.