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July 11, 2024

TO: FIRESCOPE Board of Directors
23300 Castle St.
Riverside, CA 92518

FROM: FIRESCOPE Operations Team, Task Force & Aviation Operations
Subcommittee

SUBJECT: Night Helicopter Coordinator (HLCO) White Paper

APPROVAL: **The FIRESCOPE Board of Directors approved this document on July 11, 2024**

As aerial firefighting operations have advanced to include routine night operations, the need for standardized safety, communications, and deconfliction protocols has become urgent. Our safety trend analysis and operator surveys have revealed that the Fire Traffic Area (FTA) congestion poses a significant threat to our collective aerial resources. To ensure an appropriate aircraft span of control, agencies must develop and maintain Helicopter Coordinator (HLCO) standards that operate seamlessly from day to night. Such standards would enhance situational awareness, identify unseen hazards, and significantly reduce the inherent risk for ground operations.

To build HLCO standards, clear and concise requirements must be established. The HLCO, both during the day and at night, is pivotal in facilitating the air-to-ground interface to execute the incident objectives and priorities. In addition to these foundational responsibilities, the HLCO can also recommend fire suppression tactics for ground resources and provide consistent updates on conditions – a crucial aspect currently lacking during night operations. As airspace congestion increases, the need to track, manage, and evaluate the performance of aerial resources becomes even more critical. The HLCO can provide real-time reconnaissance to Incident Commanders, enabling them to make informed decisions.

The following course plan outlines the steps we propose to take to enable the development of night HLCO standards, ensuring a systematic and comprehensive approach to developing and implementing the standards.

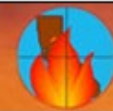
Night HLCO Prerequisites:

1. Completion of C-374 or C/S-378 and
2. Qualified HLCO by agency requirements and
3. Agency-endorsed candidate

Upon completing the Night HLCO prerequisites, a candidate may attend the Night HLCO Course.



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Table 1. Night HLCO Qualification Plan

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Event	Hours
Night Vision Goggles (NVG) Curriculum	8
NVG Initial Flight	3
Night HLCO Curriculum	4
NVG Training Flight – 3 Evolutions	9
NVG HLCO Qualification Flight	3
Minimum Total Training Hours	27

Note: A minimum of 10 hours of flight time is required. See * items below.

Table 2. NVG Curriculum

Table 2 NVG Curriculum

Course Outline	Hours
Course Introduction	0 + 15 hrs
NVG Nomenclature & Physiology	1 + 30 hrs
Spatial Disorientation & Visual Illusions	1 + 30 hrs
NVG Terrain Interpretation	1 + 00 hrs
Night Fire Suppression Policy & Procedures	1 + 00 hrs
NVG Preflight, Use, and Maintenance	1 + 00 hrs
Crew Resource Management (CRM) & Emergency Procedures	1 + 00 hrs
Aircraft Lighting & Systems	0 + 45 hrs
Total	8 + 00 hrs

Table 2.1 NVG Initial Flight

Table 2.1 NVG Initial Flight

Night Aircraft Preparation/Orientation	1 + 00 hrs
NVG Introductory Flight	2 + 00 hrs *
Total	3 + 00 hrs

Table 3. Night HLCO Curriculum

Table 3 Night HLCO Curriculum

Course Outline	Hours
Introduction & Orientation	0 + 15 hrs
Roles, Responsibilities, & ICS Organization	0 + 30 hrs
Pre-Mission Assignment	0 + 30 hrs
Helicopter Capabilities & Limitations	0 + 15 hrs
Airspace Coordination & FTA	0 + 30 hrs
Helicopter Strategies & Tactics	0 + 30 hrs
Incident Within an Incident (IWI)	0 + 15 hrs
Navigation	0 + 15 hrs



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Communication & Avionics	0 + 15 hrs
Military Helicopter Use Operations	0 + 15 hrs
Aircraft Safety	0 + 30 hrs
Total	4 + 00 hrs

Following the HLCO Curriculum, an NVG training flight is conducted.

Table 4. NVG Training Flight – 3 Evolutions

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Aircraft Coordination	
Aerial Resource Tactics & Strategies	
Target Description	
Routes & Patterns	
Hazard Identification	
Off-Airport Landing Zones	
Confined Area Landing Zones	
CRM Development	
Inadvertent Instrument Meteorological Conditions (IIMC)	
Emergency Procedures	
Total (3 training evolutions 3 x 2 = 6 flight hours)	6 + 00 hrs *
NVG Training Flight After Action Review	3 + 00 hrs

Following the NVG Training Flight, an NVG qualification flight is conducted.

Table 5. NVG HLCO Qualification Flight

Table 5 NVG HLCO Qualification Flight

Night Aircraft/Flight Crew Introductions & Orientation	
Night Air Operations Briefing (OSC or AOBD)	
NVG & Aircraft Preparation for Night Flight	
Flight Risk Assessment Tool (FRAT)	
Review Air Operations Maps, IAP, & associated documents	
Adherence to NVG policy & procedures	
FTA coordination	
Ground resource coordination	
Execution of incident priorities, strategies, & tactics	
Coordination of Incident Within an Incident (IWI)	
Assist with and execute an NVG emergency procedure	
Total	2 + 00 hrs *
NVG Training Flight After Action Review	1 + 00 hrs

Standardized NVG equipment to operate as a Night HLCO:

The NVG aircraft lighting and night vision device specifications are listed in the Night Flying Guide ICS-800, published in July 2023.

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