



**Low-Level Flight Operations**  
Wednesday, November 13, 2019  
Fairmont Waterfront Vancouver  
Vancouver, BC  
08:00 – 1700

***Where's the Line?***  
**Safe Helicopter Operations in the Wire Environment**

**Presenters: Norbert Kilroe, Phase to Phase Powerline Services**  
**Ken Etmanski, Vortex Helicopters Inc.**

The objective of this presentation is to bring experience and knowledge together to learn, to share experience, and to develop another tool that can be used in all types of low-level operations to understand **where the line is**.

Flying and operating at low altitudes is what helicopters do. They go places and do things beyond the capability of conventional aircraft, but in so doing, their exposure to the inherent hazards associated with low level flight operations is exponentially higher. Operating at altitudes below 1,000 feet introduces pilots to a hazard-rich environment requiring an elevated level of situational awareness. Welcome to the "Yellow Zone".

Likely the most significant hazard associated with low level flight operations is collision with wires and other obstructions. Understanding the complexities of the wire environment is essential in hazard identification and mitigation, but there are other less obvious lines that also need to be considered. Knowing a hazard exists is only one element of survival; how we manage operations can be quite different. The threats posed by the wire environment change with the activity performed, and this course re-enforces the need for effective Crew Resource Management skills to prevent us from crossing the line between a successful mission or having an incident or accident.

Low-level operations require another skill set in addition to those associated with flying a helicopter. Operating at low ground altitudes exposes pilots and aircrews to a hazard-rich environment, and this session is intended to assist them to navigate safely in this aerial mine field.

Safe Helicopter Operations in the Wire Environment is presented by two industry professionals from the utility and aviation industries with diverse experience working in this potentially hazardous environment. In this course, topics of discussion include:

- Two distinct hazard / risk profiles associated with utility and non-utility flight operations
- Key CRM breakdowns and impact to safe operations
- A brief description of the electrical grid and the elements that represent the greatest risk.
- Defining the Wire Environment
- Wire visibility – now you see it and now you don't
- Hazards associated with the wire environment
- Key strategies to aid pilots and crew to operate safely in the wire environment.

Norbert Kilroe - as over 45 years of experience in the utility industry, and has been involved with many aspects of helicopter operations in the wire environment. Ken Etmanski - brings 30 years and over 11,000 flight hours to the table performing a wide variety of missions.



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**REGISTRATION FEE – \$499.00 ea.**

### PRE-REGISTRATION IS REQUIRED

Return form to: HAC, 2210 Prince of Wales Drive, Unit 502, Nepean, Ontario Canada K2E 6Z9  
 Fax: (613) 369-5097 Email: [barb.priestley@h-a-c.ca](mailto:barb.priestley@h-a-c.ca)

Attendee Name 1		Title	
Attendee Name 2		Title	
Company Name			
Address			
City	Prov/State	Postal/Zip Code	
Contact Phone# (     )	Fax# (     )		
Contact Email:			

**NOTE: SEPARATE FEE FROM CONVENTION REGISTRATION**

**All registrants will be notified 3 weeks prior to class date if sufficient class size for commencement.  
 Payment by credit card will be required only after sufficient class size has been determined.**

No. of Registrations		@	Rate – CAN \$499.00 ea.	
<b>CANCELLATION POLICY - Registration may be cancelled by notifying HAC Administrative Services IN WRITING ONLY. Cancellations received after October 31, 2019 will NOT be reimbursed.</b>				Sub-Total
				5% GST
				Total

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