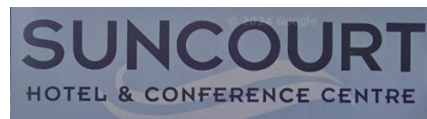


NZ Visit - Vuichard Recovery Aviation Safety Foundation (VRASF)

V:201 23May25

Thanks to our sponsors so far:



The NZHA is excited to bring Claude Vuichard to New Zealand a global helicopter safety expert to deliver safety modules adapted to the New Zealand environment. We are collating the NZ accident statistics so Claude can deliver targeted seminars and flight training that will enhance safety in New Zealand.

Course Dates

Wanaka

11 Aug - 1/2 day classroom 1/2 day flying. Avail 1 of 3 flights of 60 min each

12 Aug - 1/2 day classroom 1/2 day flying. Avail 1 of 3 flights of 60 min each

Taupo - classroom at the Suncourt Motel

15 Aug - 1/2 day classroom 1/2 day flying. Avail 1 of 3 flights of 60 min each

16 Aug - 1/2 day classroom 1/2 day flying. Avail 1 of 3 flights of 60 min each

Overview

The Vuichard Recovery Aviation Safety Foundation (VRASF) offers comprehensive seminars designed to enhance helicopter safety through knowledge and skills development. This syllabus outlines multiple modules focusing on various aspects of helicopter operations, aiming to prevent accidents and improve decision-making.

The seminars are tailored to the operator. i.e. is it a flight school or more specialised in passenger transport operators or EMS operators and specialized aerial work operators.

Course Structure

VRASF offers seminars structured in half day segments of 3 to 3.5 hours each. We will schedule these seminars in the morning. A flight training component will be in the afternoon. This flight training provides participants with practical, hands-on experience to complement the theoretical knowledge gained during the seminars. The flight training is limited to flight instructors, Flight Examiners will be prioritised.

The modules will be selected based on New Zealand accident statistics and incidents that those companies attending have had over the previous 3 years. These incidents will be collated by the NZHA Executive Officer to keep them private and then the modules can be adjusted each day.

It is suggested that each pilot attend both days if possible, as they will be different. You can fly one day or both days. BYO helicopter, we will also try and have one available for hire. Claude is rated on many aircraft types: AS350, Robinson, Bell, A109 and AW to name a few.

Modules

Module 1: Human Factors Accidents in Helicopter Operations

- **Description:** Understanding the causes of accidents from a human factor's perspective.
- **Goals and Objectives:**
 - Provide insight into control and decision errors.
 - Focus on preventing negative transmissions.

- **Learning Objectives:**
 - Explain accident causes from a human factor perspective.
 - Highlight primary causes and teach preventive measures.
- **Instruction Method:** Frontal presentation with slides and videos, supplemented by group discussions.
- **Syllabus Topics:**
 - Introduction to Human Factors
 - Control and Decision Errors
 - Negative Transfer
 - Case Studies and Practical Exercises
- **Target Audience:** Student Pilots, CPL (H), ATPL (H), CFI (H), safety officers.
- **Length:** Approx. 3.5 hours

Module 2: The Vuichard Techniques

- **Description:** Comprehensive knowledge and practical skills regarding Vuichard Techniques.
- **Goals and Objectives:**
 - Equip participants with techniques to prevent helicopter accidents.
- **Learning Objectives:**
 - Understand vortex avoidance and autorotation techniques.
 - Master recovery procedures in adverse weather.
- **Instruction Method:** Frontal presentation with interactive discussions.
- **Syllabus Topics:**
 - Vortex Avoidance and Vuichard Recovery Technique
 - Safe Autorotation Techniques
 - Dynamic Rollover Avoidance
 - UIMC/IIMC Procedures
 - Quick Stop Techniques
- **Target Audience:** Student Pilots, CPL (H), ATPL (H), safety officers.
- **Length:** Approx. 3.5 hours

Module 3: Lessons Learned from accidents in External Load, Hoist or Human Cargo Operations

- **Description:** Understanding accident prevention strategies in various helicopter operations.
- **Goals and Objectives:**
 - Detailed knowledge about accident prevention in external load operations.
- **Learning Objectives:**
 - Analyze accident causes and gain insights into safety practices.
- **Instruction Method:** Frontal presentation with discussions.
- **Syllabus Topics:**
 - Accident Analysis
 - Swing Load Operations
 - Hoist Operations Hazards
 - UMIC Avoidance Procedures
- **Target Audience:** CPL (H), ATPL (H), safety officers.
- **Length:** Approx. 3.5 hours

Module 4: Aerology and Performance

- **Description:** Understanding the impact of wind conditions on helicopter performance.
- **Goals and Objectives:**

- Equip participants to navigate adverse wind conditions effectively.
- **Learning Objectives:**
 - Identify dangers of adverse wind conditions.
- **Instruction Method:** Frontal presentation with interactive elements.
- **Syllabus Topics:**
 - Effects of wind on HIGE or HOGE operations
 - Understanding power and performance of a helicopter
 - Effects of up- and downwash on the helicopter
 - Best approach angle depending on wind/gusts and terrain configuration
 - Case studies of accidents in which performance was severely affected by wind or gusts or up- and downdraft's
- **Target Audience:** PPL (H), CPL (H), mountain pilots, safety officers.
- **Length:** Approx. 3.5 hours

Module 5: Unintended IMC or VFR into IMC and loss of visual references during operation

Description: Understanding accidents caused by Unintended IMC.

- **Goals and Objectives:**
 - Recognize risks associated with UIMC and learn recovery techniques.
- **Learning Objectives:**
 - Develop understanding of operational stress impacts.
- **Instruction Method:** Frontal presentation with group discussions.
- **Syllabus Topics:**
 - UIMC Accidents Overview
 - Weather Situations Leading to UIMC
 - Preventive Measures for Operators
 - Loss visual references
 - CFIT in VMC and IMC
- **Target Audience:** PPL (H), CPL (H), mountain pilots, safety officers.
- **Length:** Approx. 2.5 hours

Module 6: What You Don't Know About the Vortex Ring State

- **Description:** Fundamentals of Vortex Ring State (VRS) prevention and recovery techniques.
- **Goals and Objectives:**
 - Provide in-depth knowledge about VRS prevention as a core habit.
- **Learning Objectives:**
 - Recognize signs leading to VRS and adopt prevention techniques.
- **Instruction Method:** Frontal presentation with ample discussion opportunities.
- **Syllabus Topics:**
 - Review of VRS Recovery Techniques
 - Physics and Fundamentals of VRS
 - Prevention Methods
- **Target Audience:** Certified Helicopter Pilots with student licenses or higher.
- **Length:** Approx. 2 hours

Module 7: Safe Autorotations

- **Description:** Addressing the main causes of autorotation accidents, especially during training.
- **Goals and Objectives:**
 - Prevent autorotation accidents with operational techniques.

- **Learning Objectives:**
 - Identify human errors in autorotation and implement countermeasures.
- **Instruction Method:** Frontal presentation with practical discussions.
- **Syllabus Topics:**
 - Causes of Autorotation Incidents
 - Best Techniques for Safe Landings
 - Human Factors Errors in Autorotation
- **Target Audience:** Certified Helicopter Pilots, flight instructors, trainees.
- **Length:** Approx. 2 hours

Module 8: Vuichard Flight Training

- **Description:** This module offers hands-on flight training sessions led by Claude Vuichard, focusing on practical application of the techniques discussed in the theoretical safety seminar.
- **Flight Training Structure:**
 - Duration of Each Flight: 60 to 75 minutes
 - Maximum Flights per Day: 4 flights can be scheduled.
 - Start Time: Approximately 8:00 AM
- **Prerequisites:**
 - Flight training will be conducted exclusively for qualified flight instructors, chief pilots, and examiners, adopting a train the trainer approach.
- **Aircraft Arrangement:**
 - Aircraft for the flight training will be fully covered by participants through a local operator or
 - Type ratings for which training can be offered R22, R44, R66, Gabri G2, Bell 206, Bell 505, Bell 407, AS350/EC130, AW109
- **Goals and Objectives:**
 - Provide participants with practical experience in applying Vuichard Techniques in real flight scenarios.
 - Enhance pilot skills and decision-making in various flight conditions.
- **Target Audience**
 - Participants who are in the role of flight instructors, chief pilots and examiners and who have completed the seminars and are looking to gain practical flight experience under the guidance of Claude Vuichard

