

SUSTAINABILITY AND THE SEMINAR SERIES

Unmanned Aerial Vehicle (UAV) Industrial Applications

Demonstration & Presentation

Date: Thursday Sep 23rd, 2010
Time: 5:30pm - 7:30pm
Location: Lambton College - 1457 London Road
Room: Lambton Residence—Ballroom A
Cost: **Free**



Introduction

Maike Luiken, Ph.D., Chair, IEEE London Section,
Dean, Applied Research & Sustainable Development

Keynote

Unmanned Aerial Vehicle (UAV) Industrial Applications
5:30pm - Presentation
6pm - Demonstration (weather permitting) & Questions

Keynote Speaker

Ron Tedball - Pilot/CEO Digital Aerials Limited

Beverages will be provided

www.bluewatersustainabilityinitiative.com

www.digital-aerials.ca

london.ieee.ca



Abstract

Due to extreme heat, oil refinery flare stack tips are prone to warp and distort affecting their performance over time. Digital Aerials Limited specializes in providing a cost-effective remote photographic inspection service to the oil industries using their radio controlled helicopter (UAV). They are currently pioneering a photographic inspection service for wind turbine rotor maintenance which they expect will become a regular part of wind turbine maintenance programs.

The business began in 2002 when Ron and partner Mark Poissant fastened a digital camera to a radio controlled helicopter with elastic bands and outfitted a motor home with computer equipment. They travelled around Southwestern Ontario providing a mobile aerial photography service to realtors and property owners.

In 2006, their flight activities caught the attention of Transport Canada who compelled them to apply for Specific Flight Operation Certificates in advance of each flight. This SFOC requirement curtailed their ability to work spontaneously rendering this aspect of the business no longer financially viable and alternatively, they began to focus on the flare tip inspection business. Working with TC this year, they were granted a "non-specific site location" SFOC which enables their work to proceed outside of controlled airspace with a 400 foot altitude limit.

For his presentation, Ron will tell the story of how he developed his early interest in radio technology; their unique travel adventures and adversity experienced along the way; how they found paying customers and; how they were eventually caught by TC and his efforts to obtain a UAV pilot license or endorsement to replace the SFOC.



Bio

Ron Tedball grew up on a farm near Sarnia, Ontario where he developed a keen interest in radio repair and mechanics. As young man he obtained his Commercial Pilot License and then perused a career in real estate where he took many aerial photographs for his sales presentations. After a number of years in real estate, Ron saw a business opportunity for the entrepreneur who could develop a lower cost approach to conventional aerial photography. Leveraging his knowledge of real estate, aerial photography and mechanical aptitude, Ron developed a business strategy and incorporated Digital Aerials Limited. He assembled a Hirobo R/C model helicopter in his basement work shop and fastened a digital camera to it with elastic bands. During the development phase, Ron became acquainted with Mark Poissant who assisted with the building of the first helicopter and eventually partnered with Ron.

Ron has a son and daughter both computer professionals. His son Tony built and maintains their web site www.digital-aerials.ca.

Ron is an avid old time fiddler who has competed in the Canadian Open Old Time Fiddle contest in Shelburne, Ontario and regularly volunteers to entertain at senior's retirement homes and hospitals.