### A REVIEW OF THE WILDLAND FIRE BEHAVIOUR SPECIALIST COURSE, 1995-2014

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Department of Renewable Resources and Alberta School of Forest Science & Management, University of Alberta, Edmonton, AB

#### Dick Bon

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#### **Scott Elliott**

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#### **Dave Finn**

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#### Dana Hicks

Wildfire Management Branch, British Columbia Ministry of Forests, Lands, and Natural Resource Operations, Prince George, BC

### **Kris Johnson**

Forest Management Division, GNWT Department of Environment and Natural Resources, Fort Smith, NT





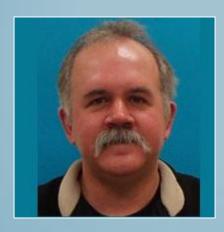
## AUDIENCE PARTICIPATION TIME!

# Get out your wallet...





### **ME ALEXANDER**



Department of Renewable Resources and Alberta School of Forest Science & Management, University of Alberta, Edmonton, AB





### THE CLASS OF 1996: THE 25 "TEST" SUBJECTS







### THE CLASS OF 1997: 2-WEEK COURSE AND NEW EXAM FORMAT







### THE CLASS OF 1998: SMALLEST GROUP YET (THE "REMEDIAL STUDENTS)"







### THE CLASS OF 1999: THE CONCEPT OF GROUP MENTORS INTRODUCED







### THE CLASS OF 2000: 3 WFBS REFERENCE MATERIAL BINDERS REDUCED TO 1 CD







### THE CLASS OF 2001: THE LAST OF THE YEARLY COURSES







### THE CLASS OF 2002: THE ALUMNI REFRESHER 1996-2001







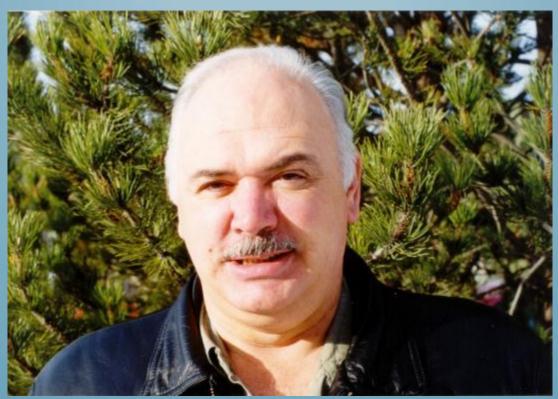
### THE CLASS OF 2004: FIRST OF COURSES HELD ON A BI-ANNUAL BASIS







### 2004 LAST COURSE FOR FOUNDING COURSE LEADER AND INSTRUCTOR TERRY VAN NEST (ALBERTA)







### **BILL DROOG**



### Aviation, Forest Fire and Emergency Services Branch, Sault St. Marie ON





### THE CLASS OF 2006: SUCCESCION PLANNING

Wildland Fire Behaviour Specialist Hinton Training Centre February 5 - 17, 2006







### 2006 LAST COURSE FOR "REVEREND" RICK LANOVILLE (NT)







### THE CLASS OF 2008: VIDEOTAPING AND SHADOWS

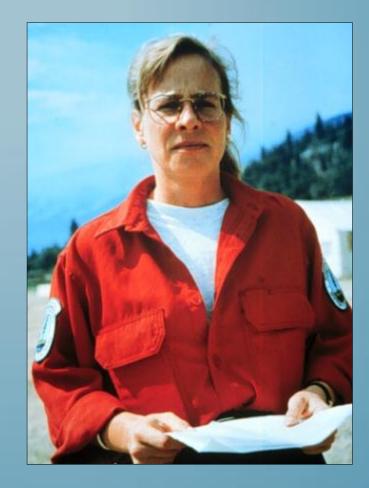






### 2008 AL BEAVER (YK) AND FOUNDING INSTRUCTOR JUDI BECK (BC)









### **KRIS JOHNSON**



Forest Management Division Department of Environment and Natural Resources, Fort Smith, NT





### THE CLASS OF 2010: DOWN TO ONE BINDER!







### 2010 LAST COURSE FOR CLASS OF 96 GRAD/SENIOR INSTRUCTOR STAN HARVEY







### **THE CLASS OF 2012:**







### **NEW EXAM AND IAWF AWARD**





Kris Johnson, IAWF vice president and S591 course chair (left), awards Micheal Vincent Fialkowski a one-year IAWF membership for best representing the spirit of the Canadian national 2012 Wildland Fire Behaviour Specialist Course graduating class.



International Association of Wildland Fire

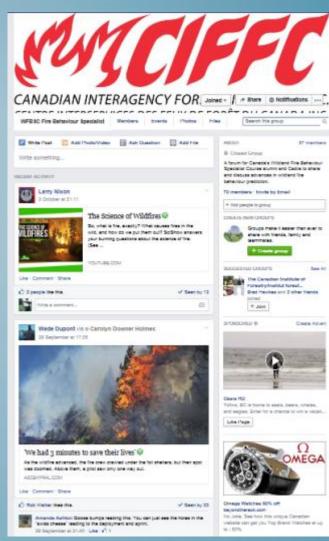
From page 6 of May/June 2012 issue of **Wildfire** magazine







### THE 'REVEREND' AWARD & COURSE ALUMNI FACEBOOK PAGE



https://www.facebook.com/groups/ 234305576656104/ Or just type WFBSC Fire Behaviour Specialist





### **DANA HICKS**



Wildfire Management Branch, British Columbia Ministry of Forests, Lands, and Natural Resource Operations,

Prince George, BC





### **THE CLASS OF 2014:**







### **NEW TOOLS**



The Project: REDapp Team Get REDapp Contact Forums Library WLFC2012 Logis REDAPP.ORG The Universal Fire Behaviour Calculator First Steps Add content Invite someone to REDapp.org Chat Messages Mass Contact User Directory Logout 9 Outline Track View About the Project Our Mission: The development and distribution of a modern fire calculator that meets the needs of Canadian Interagency Forest Fire Centre (CFFC) agency members. CIFFC's Fire Science and Technology Community of Practice supports the development of a modernized fire calculator that will be freely distributed to the fire community. The project will occur in two phases and over two fiscal years. The first phase will see the creation of a REDapp technology preview ready for distribution during the 2012 fire season. This deliverable will be limited to an English interface and Windows operating systems supported by Nicrosoft. This deliverable will also be heavily leveraging the existing capabilities in Prometheus, the Canadian Wildfire Growth Nodel and so the technology preview will be dependent on Prometheus. To

existing capabilities in Prometheurs, the Canadan Wildfire Growth Model and so the technology preview will be dependent on Prometheurs. To run the technology preview, you will need to have the latist Prometheur installed and working on your 32 or 64 bit wholews computer. The technology preview is intended to facilitate 2012 operational needs of fire community only and will be "thrown away" when we move to the second phase.

The second phase will see the development of a universal fire behaviour calculator, with an open source graphical user interface, and an extensible API to allow future expension and development.

122 /#ads

#### CIFFC FS&T joint project





t chat (0)

### TO THOSE THAT HAVE GRADUATED: CONGRATULATIONS FROM THE WFBSC FACULTY!







### HOW IT CAME TO BE







### **1994 PROPOSAL TO CIFFC COD: DEVELOP A NATIONAL TRAINING COURSE**

academic qualifications for a **Fire Behaviour** Officer (FBO) – now **Fire Behaviour** Analyst (FBAN) – as outlined in the **CIFFC** Resource Catalogue.







### **COURSE OBJECTIVES**

Students will be able to apply state-ofthe-art methodologies to forecast fire behaviour in support of decision-making with respect to: • Fire assessment of multiple fire situations

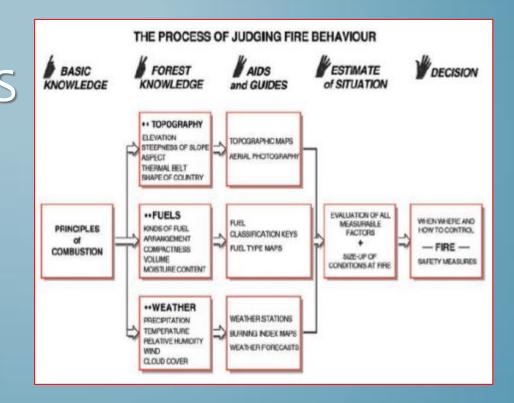
- Long-range projections of limited action fires
- Evaluation of regional fire situations

Managing of campaign fires



# **1995: AUGUST PLANNING MEETING**

Terry Van Nest, HTC Marty Alexander, CFS Bill Bereska, AB Rick Lanoville, NT Judi Beck, BC Paul Maczek, SK Rob French, ON







### HINTON TRAINING CENTRE: 1996 TO 2014





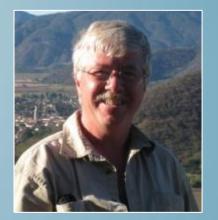


### **HTC COURSE LEADERS 1996-2014**



Terry Van Nest, Alberta 1996-1999





Rob Thorburn, Alberta 2000-2003



Scott Elliott, Alberta 2011-2014



Howard Herman, Alberta 2004-2010

### **SPECIAL RECOGNITION**



### Rose Costucci Team Leader, Administrative Support Hinton Training Centre





### WHERE ARE WE NOW AND WHERE ARE WE GOING?

FUTURE





### PRINCIPLE COURSE PREREQUISITE



Nominees must have passed the Advanced Wildland Fire Behaviour Course (AWFBC)





## **COURSE BASED ON SIX UNITS**

- 1. Roles and responsibilities of the Fire Behaviour Specialist
- 2. Characteristics and prediction of extreme fire behaviour
- 3. Fire environment monitoring
- 4. Fire behaviour calculations
- 5. Fireline safety and operational strategy considerations
- 6. Fire behaviour forecasts and briefings





#### **LEARNING BY DOING**









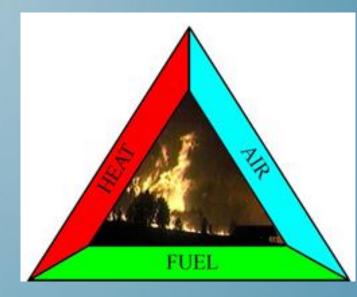






## SUCCESSFUL COMPLETION DEPENDEDS ON:

- Pre-course assignments
- Written fire behaviour case study
- Oral fire case study presentation
- In-class exercisesClass participation







## **WFBSC BY THE NUMBERS**



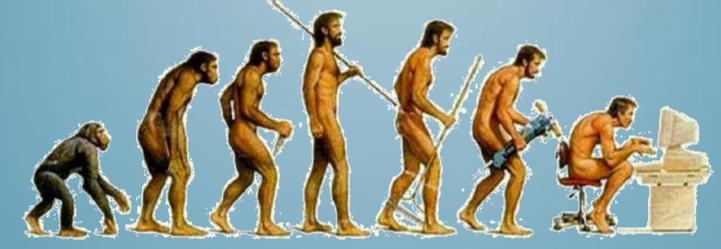
 12 course deliveries • 277 graduates • 253 Canadian students • 24 international students: • Portugal, Sweden, Switzerland, USA and New Zealand





### **COURSE EVOLUTION**

Review and improvement of the WFBSC is ongoing as the nature of the wildland fire business continues to evolve.



# A major internal course review was began in June 2014.





Feedback received to date suggests the WFBSC is meeting the needs of the varied roles that a practicing fire behaviour analyst (FBAN) or specialist find themselves in today.



### NEW STUDENTS REQUIRE DIFFERENT TEACHING STYLES

- Restructure binder and presentations
- Emphasis FBAN products
- Less late nights more learning opportunities







#### **NEXT GENERATION**







#### THE FBAN OR WILDLAND FIRE BEHAVIOUR SPECIALIST WILL UNDOUBTEDLY PLAY A MAJOR ROLE IN FIRE MANAGEMENT IN CANADA IN THE FUTURE







#### YOU NEVER KNOW WHERE WFBSC TRAINING IS GOING TO LEAD YOU





Jeff Weir (Parks Canada) in Victoria, Australia – 2007



#### **LEGENDS WERE MADE**

#### Old Cowboys, Cows, and Fire Behavior Forecasting: Supplementing Models With Local Knowledge

Tim Greer

n August 2003, I accepted an assignment as a wildland fire behavior specialist in the interior of British Columbia. This was my first assignment in mountainous terrain. After receiving the customary orientation, I was assigned to the Venables Fire near Cache Creek, BC. The Venables Fire had started in the Venables Valley and made about a 6-mile (10 km) run north along an eastfacing slope.

The area of concern was in a north-facing bowl at 5,000 feet (1700 m) elevation. The fire behavior prediction system indicated an impending blow-up: the fire was going to burn up everything for miles around, but day after day passed without any significant fire activity. I took a copy of the fire map and visited the meteorologist who was supplying the spot forecasts. What I needed to know was: "When is the wind going to get into the bowl and move this fire?" He did his best to give me an answer and I did mine. but still, most days the fire was quiet and our forecasts weren't borne out by reality.

Tim Greer is a wildland fire behavior specialist with the New Brunswick Department of Natural Resources.



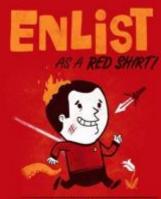
Venables Fire near Cache Creek, British Columbia, on the afternoon of August 31, 2003. Photo: Tim Greer, New Brunswick Department of Natural Resources.

I realized that I desperately needed some knowledge of local weather patterns. Thinking about who would have such knowledge, I thought that some of the loggers in the area might include a person who could give me such information. Further thought brought me to the realization that today's loggers don't mingle much with the weather while working in modern harvesting machinery, with its climate-controlled cabs. Then it hit me! There are cows grazing throughout the area, and cows need regular tending: I needed to find an old cowboy!

To find one, I went down to the home of the owner of the biggest ranch in the area. I drove into the yard, shook off a couple of nipping cow dogs, and knocked on the door. A young man in cowboy attire answered. I introduced myself and told him what I was



#### Tim Grier, NB



It only harts for a second!

# The WFBSC is proof that you can in fact teach old dogs new tricks.





Al O'Connor, Ontario



#### Class Photo from the Canadian Wildland Fire Behaviour Specialist Courses - \$590

In Dame Han, Niller Exhemin Artikev of Forein, Land, and Raticel Research Operation, Willier Hampson Rater, Nico George, W. Mark Jamaso of Land Lanna & Hampson, Georgi, Armondy of Marks, Missionen, All Jand Biller, Holen Foreing, Land, Marke Festivation and Arman Science, State Science, States & Romeson & of Landard & Romer, Roberty and Rater, Market Marks, Science Frank, Science Festivation, Hong, Willier, Science, States & Romeson & of Landard & Romer, Roberty and Rater, Mark Mark, Science Festivation, Festivation, Hong, Willier, Science Festivation, Science Festivation, Willier, Science Festivation, Science Festivatio, Science Festivation, Science F



Class of \$995

Class of 1997



Class of 1993



This Wildland Fire Behaviour Specialist Course (WFBSC) is the final stage in the national fire behaviour training module. The WFBSC training is oriented towards providing students with an in-depth knowledge of fire behaviour and proficiency in the use of oth the Canadian Forest Fire Weather Index (FWI) System and the Canadian Forest Fire Behaviour Prediction (FBP) System. Such skills will enable the student to better plan for the occurrence or management of wild and; or prescribed fires on the landscape. The target audience/application for the WFBSC includes, but is not limited to



Class of 2004

Class of 1010



Case of 1998

Care of 2005

Class of 2004

Data of 2012



- + TireSmart planning · Fuel management planning

Widfer management **Fire Behaviour Analyst (FBAN)** 

- Long Terris File Debaviour Analyst (ULIN)
- Duty Officer/Jane Managers
- For research
- Fire inactigations hanges and calety/accide-
- **Fire Behaviour Service Centers**
- Education Knowledge base - The Weather Meteorologist

Total of 277 students have completed the course 255 Canadians and 24 International







Case of 2014



If you are a member of the alumni of the course, please sign near your state pl most now all makers



# POSTER PRESENTATION

Come by and sign your name near your class photo

Studde, ma





## The next offering is JAN 30 - FEB 11 2016







# **A SPECIAL THANKS TO:**

- Marty Alexander U of A
- Dick Bon CIFFC
- Bill Droog ON
- Scott Elliott HTC
- Dave Finn AB
- Derek Lemke ON
- Dustin Oikle NS
- Terry Van Nest retired



