

CANADIAN FOREST FIRE WEATHER INDEX SYSTEM: TRAINING NOW AVAILABLE ON CD-ROM



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Centre

Paul St. John and Martin E. Alexander

“Understanding the Fire Weather Index (FWI) System” is the latest CD-ROM-based wildland fire training course produced by Alberta’s Hinton Training Centre in concert with Christie Communications* to utilize interactive multimedia technology (Alexander and others 2002). The course, completed in August 2002, also involved the Canadian Interagency Forest Fire Centre’s National Training Working Group and was produced in association with the Canadian Forest Service.

Course Content

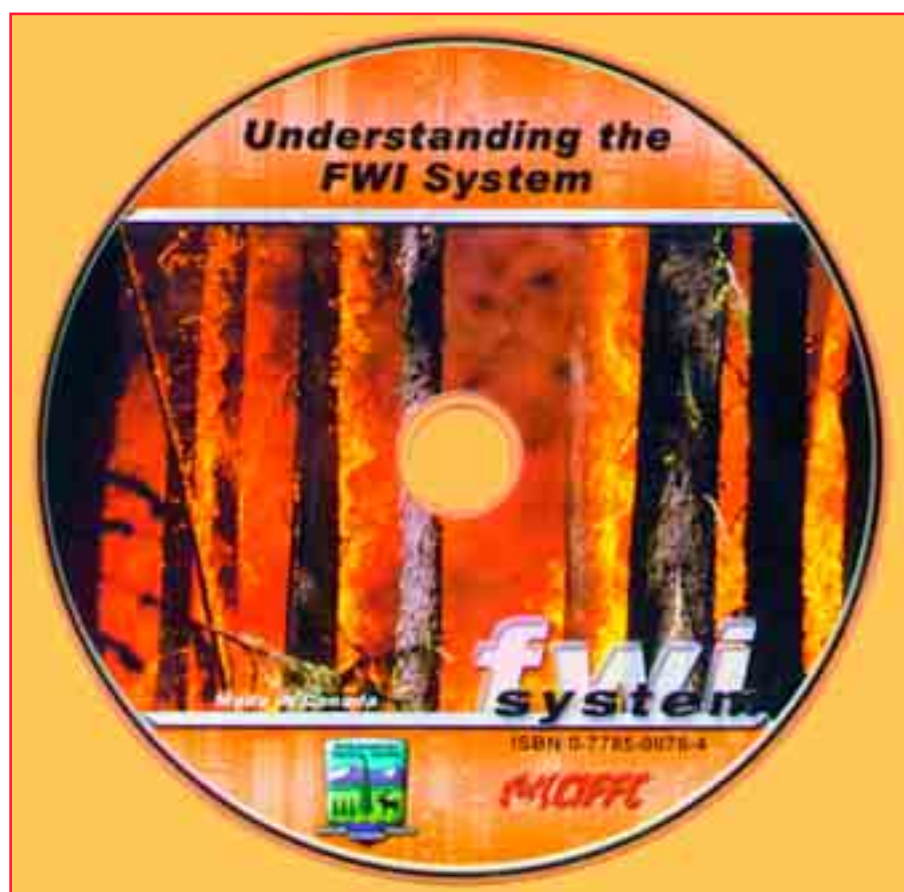
The course offers a comprehensive introduction to the Canadian Forest Fire Weather Index (FWI) System, one of the major subsystems or modules of the Canadian Forest Fire Danger Rating System. The FWI System consists of three fuel moisture codes and three fire behavior indexes that provide relative numerical ratings for six aspects of wildland fire potential—ignition, duff consumed, smolder-

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ing/persistence, spread rate, total fuel consumption, and intensity—based on four weather observations.

“Understanding the Fire Weather Index (FWI) System” contains:

- 14 video clips, 219 audio clips, and 656 graphics/photos;
- Online help and a glossary;
- An SI-to-imperial-unit conversion calculator;



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* The use of trade, firm, or corporation names in this publication is for the information and convenience of the reader. Such use does not constitute an official endorsement of any product or service by the U.S. Department of Agriculture. Individual authors are responsible for the technical accuracy of the material presented in *Fire Management Today*.

The CD-ROM training course “Understanding the Fire Weather Index (FWI) System” encapsulates more than three decades of knowledge and experience with the FWI System in Canada. Photo: M.E. Alexander, Canadian Forest Service, Northern Forestry Centre, Edmonton, AB, 2002.

The course was developed and reviewed by a national team of fire danger rating specialists representing research, operations, and training.

- The “FWI Calculator,” which allows for the calculation of the six standard components of the FWI System for two broad regions in both the northern and the southern hemispheres; and
- A calculator allowing for the overwinter adjustment to the spring starting value of the Drought Code component of the FWI System.

The course was developed and reviewed by a national team of fire danger rating specialists representing research, operations, and training. The four main sections (Overview, Fuel Moisture Codes, Fire Behavior Indexes, and Applications) are each followed by a test in preparation for a final exam that is tracked by the computer. User success on the section tests is shown by lit matches: For each correct answer, a match goes out; for each incorrect answer, a match rekindles. When all the matches are out, the user has finished the test.

Time Commitment and System Requirements

“Understanding the Fire Weather Index (FWI) System” takes approximately 6 hours to complete. Users can take the course in installments using the bookmarking feature that allows them to return where they have left off.



A training session in progress using the “Understanding the Fire Weather Index (FWI) System” CD-ROM. Photo: N. Merrifield, Alberta Sustainable Resource Development, Hinton Training Centre, Hinton, AB, 2003.

The course can be run on a stand-alone computer or over a network. Minimum system requirements include:

- A Pentium 133 MHz processor (with Windows 95) or greater, to run under Windows 95, Windows 98, Windows NT, Windows 2000, or Windows Millennium;
- 32 MB of total RAM memory and 100 MB of free hard drive space (4 MB actually required for the software);
- Color SVGA monitor (set for 800 x 600, 16 bit color);
- 16-bit sound card (SoundBlaster);
- 16X or greater CD-ROM; and
- A mouse, as the primary means of input.

For a copy of this and other wildland fire training CD-ROMs (Alexander and Thorburn 2001; Thorburn and others 2003), visit

the Hinton Training Centre Website at <http://www3.gov.ab.ca/srd/forests/resedu/etc/mmp.html>.

References

- Alexander, M.E.; St. John, P.; Thorburn, R.W.; Simons, P.; MacMillan, A. 2002. CD-ROM based training course *Understanding the Fire Weather Index (FWI) System* now available! In: Viegas, D.X., ed. Forest Fire Research & Wildland Fire Safety, Proceedings of the IV International Conference on Forest Fire Research/2002 Wildland Fire Safety Summit; 2002 November 18–23; Luso-Coimbra, Portugal. Rotterdam, Netherlands: Millpress.
- Alexander, M.E.; Thorburn, R.W. 2001. Fireline safety training course available on CD-ROM. *Fire Management Today*. 61(2): 45.
- Thorburn, R.W.; MacMillan, A.; Alexander, M.E.; Nimchuk, N.; Frederick, K.W.; Van Nest, T.A. 2003. “Principals of Fire Behavior”: A CD-ROM-based interactive multimedia wildland fire training course. *Fire Management Today*. 63(2): 43–44. ■

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THE TEN AND EIGHTEEN— A MEMORY AID



Fight Fire Aggressively,
Having Provided For Safety

FIRST



United States Department of Agriculture
Forest Service

On the Cover:



One of a series of images by artist and firefighter Kari Cashen to help fellow firefighters remember the 10 Standard Fire Orders and 18 Watch Out Situations. See the story by Kathy Murphy beginning on page 4.

The FIRE 21 symbol (shown below and on the cover) stands for the safe and effective use of wildland fire, now and throughout the 21st century. Its shape represents the fire triangle (oxygen, heat, and fuel). The three outer red triangles represent the basic functions of wildland fire organizations (planning, operations, and aviation management), and the three critical aspects of wildland fire management (prevention, suppression, and prescription). The black interior represents land affected by fire; the emerging green points symbolize the growth, restoration, and sustainability associated with fire-adapted ecosystems. The flame represents fire itself as an ever-present force in nature. For more information on FIRE 21 and the science, research, and innovative thinking behind it, contact Mike Apicello, National Interagency Fire Center, 208-387-5460.



Firefighter and public safety is our first priority.

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