

CD-ROM based training course *Understanding the Fire Weather Index (FWI) System* now available!

M.E. Alexander

Canadian Forest Service, Northern Forestry Centre, Edmonton, AB, Canada

P. St. John & R.W. Thorburn

Alberta Sustainable Resource Development, Environmental Training Centre, Hinton, AB, Canada

P. Simons & A. MacMillan

Christie Communications, Edmonton, AB, Canada

Keywords: Canada, Canadian Forest Fire Danger Rating System, Canadian Forest Fire Weather Index System, computer applications, fire behavior, fire danger, fire danger rating, fire potential, fire training, fire weather, fire weather observations, fuel moisture

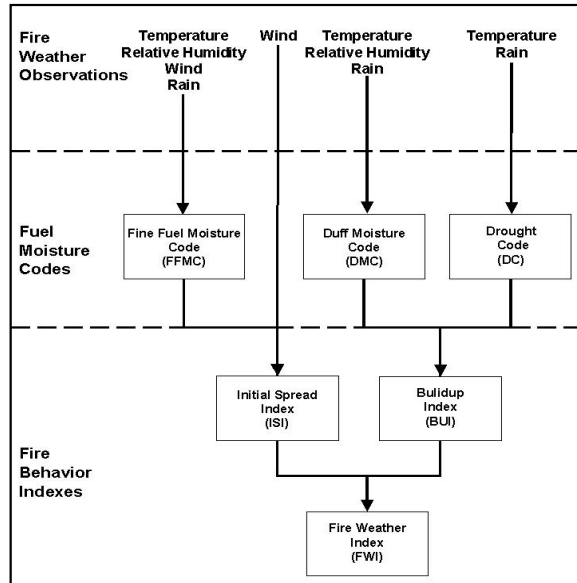
ABSTRACT: *Understanding the Fire Weather Index (FWI) System* is the latest CD-ROM based wildland fire training course produced by Alberta's Environmental Training Centre (ETC) in concert with Christie Communications that utilizes interactive multimedia technology. The course, which was completed in July 2002, also involved the Canadian Interagency Forest Fire Centre (CIFFC) National Training Working Group and was produced in association with the Canadian Forest Service (CFS).

The course *Understanding the Fire Weather Index (FWI) System* focuses on offering 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 as developed by the CFS. The FWI System consists of three fuel moisture codes and three fire behavior indexes that provide relative numerical ratings of various aspects of wildland fire potential (i.e., ignition, duff consumed, smoldering/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, on-line help, a glossary, a SI-to-imperial unit conversion calculator, and the "FWI Calculator" that allows for the calculation of the six standard components of the FWI System for both two broad regions in both the northern or southern hemispheres. There is also a calculator that allows for the over-winter adjustment to the spring starting value of the Drought Code component of the FWI System.

The course *Understanding the Fire Weather Index (FWI) System* was developed and reviewed by a national team of fire danger rating specialists representing the interests and expertise of research, operations and training. The team members were: P. St. John (ETC) -- the project coordinator, M.E. Alexander (representing the CFS), R.W. Thorburn (ETC; representing the CIFFC National Training Working Group), W.N. Droog (Ontario Ministry of Natural Resources, East Fire Region, Garson, ON), N. Nimchuk (Alberta Sustainable Resource Development, Provincial Forest Fire Centre, Edmonton, AB), R.A. Lanoville (Government of Northwest Territories Department of Resources, Wildlife and Economic Development, Forest Management Division, Fort Smith, NWT), and S.V. Wasylenchuk (Saskatchewan Environment and Resource Management, Fire Management and Forest Protection Branch, Prince Albert, SK).

Structure of the Canadian Forest Fire Weather Index System



Each of the four main sections comprising the course (Overview, Fuel Moisture Codes, Fire Behavior Indexes and Applications) is followed by a test in preparation for a final exam that is tracked by the computer. The section tests involve a “match” game methodology where in for each correct answer, a match goes out and for each incorrect answer, a match will rekindle. Once all the matches are out, the user has finished the test. Scores on all tests (i.e., section tests and the final) are recorded by a performance tracking system which can be used by course administrators for certification purposes.

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. The course can be run on a stand alone computer or over a network. All computers, workstations, local computers, etc. where a course will be run should have: Pentium 133 MHz processor (with Windows 95) or greater, to run under Windows 95, Windows 98, Windows NT, Windows 2000, or Windows Millennium; a minimum of 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.

To order a copy of **Understanding the Fire Weather Index (FWI) System** and other wildland fire training CD-ROMs, contact: UBC Press, Georgetown Terminals Warehouses, 34 Armstrong Avenue, Georgetown, Ontario, Canada L7G 4R9; Tel: 1-877-864-8477; Fax: 1-877-864-4272; E-mail: info@ubcpress.ca; website: <http://www.ubcpress.ca> (cost: \$CAN 98.95 + shipping charges).

A copy of the poster associated with this presentation is available for viewing at the ETC website (<http://www.gov.ab.ca/env/resedu/etc/mmp.html>).