

Minutes

Spring ACFIRE Advisory Meeting

April 3, 2008

Edmonton, AB

In Attendance:

Daniel Guimier	FPInnovations Feric	Kris Johnson	GNWT
Marv Clark	FPInnovations Feric	Chris McGuinty	Alberta SRD
Ray Ault	FPInnovations Feric	Rich Just	Thermo-Gel
Greg Baxter	FPInnovations Feric	Rob Hyslop	Thermo-Gel
Dave Schroeder	FPInnovations Feric	Tom Wells	BCTC
Jim Thomasson	FPInnovations Feric	Mark Ackerman	U of A
Rex Hsieh	FPInnovations Feric	Matt Myers	Ontario Fire Management
Wally McCulloch	FPInnovations Feric	Mark Campbell	Astaris Canada
Colleen Mooney	FPInnovations Feric	Dave Bokovojy	CIFFC
Gary Dakin	FPInnovations Feric	Lorne Harris	Yukon Govt Fire Management
Rory Thompson	FPInnovations Feric	Rob Thompson	ALPAC
Juri Agapow	FPInnovations Feric	Kevin Lediem	ALPAC
Colin Bamsey	FPInnovations Feric	Con Dermott	Vanderwell & AFPI
Chris Matthewson	FPInnovations Feric	Wally Born	SRD – PFFC
Scott Murphy	Parks Canada	Rick Pedersen	Conair Group Inc.
Doug Higgins	Wildfire Group	Jeff Berry	BCFS Protection Br.
Mike Guterson	Wildfire Group	Shawn Bethel	SEI Industries Ltd.
Warren Kehr	West Fraser Mills	Peter Willette	Canadian National Railways
Kerry Anderson	Canadian Forest Service	Arwa Hozaima	Canadian National Railway
		Renne Cavchie	AAMD & C

Meeting started at 0830.

Marv Clark began introduced himself as the Acting General Manager of the Forest Resource Division of FPInnovations and introduced the new Vice President, Daniel Guimier.

Marv Clark introduced the Wildland Fire Operations Research Group and set the agenda. He also tentatively announced the fall ACFIRE meeting of this group will take place on October 7, 2008.

Aviation – Wally McCulloch

Wally presented the projects he has been working on:

- Product evaluation; fire retardant gels
- Flash 21 – web report being finalized. SRD approached Feric to investigate ignition agents that do not ‘flash’ following an incident burning pine beetle trees. Feric knew the Product Flash 21 may be a solution and so they investigated its use.
- Strategic Air Cooperation (SAC) Western – fires documented from 2003-2007 for fires within 100 km of border. The Strategic Air Cooperation project is looking at fires within 100km of the AB/BC border where the potential is there for the sharing of air support to reduce travel times and thus the costs of fighting fire.

- Quality Products List (QPL) – corrosion test is critical for product approval. Paprican can help by pre-screening products for corrosiveness before entering QPL process at the lab in Missoula Montana. This project is not an official project, but is being monitored by Feric to keep up on innovations.
- Conair Drop tests – tested new tank design. Completed Jan, 2008.
- Mars drop tests – scheduled for late April/early May.
- 802 Drop tests – for Alberta Sustainable Resource Development scheduled for mid-summer.

Resource Tracking Utility – Jim Thomasson

- This is a new project, currently developing a work plan for the project.
- Look at RTS HW platforms and expansion capability
- Look at user data requirements and how expansion would benefit operations (Temp vs. Altitude, Environmental Lapse Rate)
- Trade off Expansion for different data vehicle (separate radio channel)

NWT Sprinkler – Ray Ault

This project focuses on the use of sprinklers to reduce the ignition of forest fuels and to build a barrier to fire spread in the wildland fire environment.

- Report of one structure protection case study on the website. The case study compares cabins protected by sprinklers and gels.
- Three other sprinkler case studies are complete with reports to be written.

FPInnovations Corporate Update –Daniel Guimier

Daniel Guimier presented an overview of what is taking place at FPInnovations with the merger.

- Daniel is the new VP of the Forest Resource Division. Other divisions include Wood Products and Pulp and Paper.
- Three Divisions – with restructuring each now have one VP.
- More of a National Program for each division.
- Fire Group will work toward serving Canada – now stretch over to Ontario.
- VP will stay in Point Claire. Official announcement of the General Manager position located in Vancouver will be made in April 2008.
- Forest Resource Division will handle the forest and wood supply. Wood Fibre Centre (CFS) still exists.

Automated Detection using the Forestwatch Software Package - Ray Ault

SRD has asked Feric to investigate new technologies that could aid in the detection of forest fires.

- This project has been the biggest undertaking by the Fire Group. It began in 2002 and continued through 2007. The findings of this project using Forestwatch are:
 - System inconsistent due to high amount of false alarms.
 - System good for an 8 – 12 km range, had hoped for a 20 -40 km range.
 - System is not operational at this time.

The project however showed that the camera system could be used for assisting towers by placing cameras in strategic locations to view blind spots. The cameras would be run by the tower person.

Q) Jeff Berry (BC) – could this project go in another direction such as aircraft, satellites?

A) Would be good to have another workshop in 2010 to look at new technologies – things change very fast in this industry and system may be operational at that time.

Comment – Sask.; satellite technology advancing. Manitoba and Saskatchewan using these for monitoring Observation Zones.

Q) ALPAC – could this technology be used to monitor log decks?

A) Yes – very well suited for this type of ‘surveillance’.

Chisholm Blind Area Monitoring – Jim Thomasson

Feric, CN and the SRD worked together to put up a portable camera in the summer of 2007 to monitor a blind spot near Chisholm.

- Tested the camera system last year with positive results.
- In 2008 we will increase effectiveness of the monitor display by using more powerful streaming of data – will allow a better streamed video.
- Plan to test the system with the new monitor mount in the Chisholm tower cupola in 2008.

Comment – because there is no canopy due to the fire is this a good test of the camera system when using the smoke generator.

Personal Tracking Devices – Jim Thomasson

SRD had asked Feric to investigate tracking devices that could be used in emergency situations or tracking devices that could be used to locate a person working alone.

- Objective – investigate tracking devices for the lone forestry worker.
- Two types: short (reflector, phone line, VHF beacon) and long range (IDEN/GSM/GPRS Cell, satellite and beacon)
- Some are locators while others are alerters.
- Advantages for specific functions depending on what you are doing, but process for use is critical.
- Report out soon with recommendations based on activity.

Remote Start Pump – Jim Thomasson

This research project will look only at the reliability of the remote start system on the pump

- Project put forward by Ontario.
- Fire Group to develop a methodology, document and report while Ontario will field test the pumps.
- Pumps: BB4 with Remstar (primary study)
- Wildfire Sprinkler Inc: Wireless Remote Start Pump – Possible
- Report at fall meeting

Surge Buster Baffle – Jim Thomasson

This project was to test the effectiveness of baffles that could be placed in non-baffled tank. Results show that driving with a full tank at reasonable speeds is the best approach. A small difference in performance resulted with using baffles – but not more significant than safe driving and hauling practices.

Heli-torch – Gary Dakin

Feric was asked to design prototype and develop proof of concept for an aerial ignition helitorch for Saskatchewan (SERM). The key to this model is the use of Flash 21 A and B. These two fuels can not be pre-mixed so an ‘in-line’ mixing system was required.

- Project funded by Saskatchewan
- Used Flash 21 with ‘in-line’ mixing. This worked well.
- Jeff Hancock is building a prototype at this time. Will use 2 pumps to mix Flash21 A and B.
- The Venturi system without a pump will also be tested.
- Working model by end of year. Runs on a 12V system.
- Advantage of in-line mixing – faster getaway and no waste of product.
- Ignition system is electric propane system.

Comment – system not tested with Jet A or other fuels – just gels. This can be added to system easily.

Terra Torch – Dave Schroeder

This projects objective was to test the use of the Propane Terra-torch for igniting dry and green debris piles.

- Tested the Propane Terra-torch for igniting debris piles at Slave Lake.
- The torch was mobile and worked well when there were sufficient fine fuels in the piles to ignite.
- More difficult to ignite aspen.

Q) How did green piles ignite? A) Tend to have more holdover fires in green wood.

Mountain Pine Beetle – Colleen Mooney

A mountain pine beetle study has been established at Archer Lake, north of Fort MacMurray. The objective is to burn the plots at the same time to determine the influence that dead/dying trees have on fire behaviour.

- ASRD directed research for ignition and spread rates.
- Have site at Archer Lake with 6 plots (treated and control).

Timeline:

- May 2008 – burn green attack stands
- August 2008 – burn red attack stands

Fuel Break Effectiveness – Colleen Mooney

- Directed research for Saskatchewan Forest Protection
- Objective – determine options for community protection
- Literature review, interviews and workshop.
- Identify knowledge gaps for boreal fuel type.
- Effectiveness – largely theoretical – models and case studies following fire.
- Many variables involved – need to be tailored for each site.

Smoke Management Vancouver Island – Greg Baxter

- Have 5 study areas on island with three piles at each site – two covered and 1 control pile.
- Have collected moisture contents for one year.
- Burned piles late March 2008.
- Covered piles ignited faster, reached full involvement faster and burned down faster. Less residual smoke following days. Compared handheld moisture meter data to the metre used by the group. This can benefit contractors.
- Collected moisture contents on piles contractor was unable to ignite – this may provide a go-no go threshold.

- Companies interested in monitoring mc% from freshly harvested wood until it can be burned effectively.

Masters Project – Kelsy Gibos, presented by Dave Schroeder

- Working with Mike Wotton (CFS) at U of Toronto.
- Researching the effect aspect and elevation has on fuel moisture.
- Research may help with: fire behaviour prediction, prescribed burn planning and with Precision Forestry with greater flexibility for operations.

Survival Zones – Greg Baxter

- Exploratory Research. Established a working group to look at various aspects of the project.
- Defined survival vs. Safety Zones.
- U of A will investigate: human survival, PPE, model fire behaviour, provide instrumentation and collect data.
- Marty Alexander will collate case studies on fire behaviour and entrapments.
- Gary Dakin – data collection, fire behaviour.
- Will begin in grass fuels to refine data collection techniques then move to forest fuels in NWT or planned prescribed burns.

San Dimas Trip Report – Jim Thomasson

- Traveled to San Dimas at end of January 2008.
- Talked to San Dimas about spark arrestors and causes of railroad fires.
- Also visited a night-time firefighting helicopter in Los Angeles.
- Established an agreement with San Dimas for paper reviews and potentially other collaboration.

FPInnovations – BC Safe Companies Certification – Chris Matthewson

- What is a ‘Safe Companies’:
- This certification program distinguishes BC forestry employers who meet industry safety standards and demonstrate true leadership and commitment to building a culture where the health and safety of all workers is an overriding priority.
- Will also function as a pre-qualification standard for companies to operate within the BC forestry sector.
- Similar to the AFPA –Partners in Injury Reduction, certificate of recognition process in Alberta
- Feric needs to be certified as a ‘Safe Company’.
- Status:
 - Registered
 - Currently developing and implementing audit friendly safety management system
 - Certification audit deadline: June 19, 2008

Species Flammability – Greg Baxter

The objective of this study is to identify vegetative species that could be planted to reduce fire spread potential within linear disturbances.

- Third year of ignition testing taking place in Vegerville.
- Three species selected for testing in the ‘field’.

- Working with ATCO to find test site.
- Species selected were: plateau fescue, yarrow and white clover.

BC Transmission Corporation Debris Trials – Greg Baxter

BCTC approached Feric to put together a Directed Research Project to determine what size of pile can be burned safely under their transmission lines.

- Directed research project. BCTC looking for debris removal techniques for use under their transmission lines.
- Burned piles in NWT in 2007 and presented results to BCTC.
- BCTC wants to continue pile burning and add windrows and firebreak widths to the research.

CN Work Plan – Jim Thomasson

Project involves looking at three methods to protect bridge structures. Protecting the structures from direct radiation, using less flammable species around the bridge structures and the use of detection cameras (which includes visible area, support to towers and communications).

- Three main work areas: bridge timber protection; maintenance – less flammable species and knowledge transfer
- Ignition tests at U of A burn lab to determine protection measures.
- Bridge timber Protection is utilizing low intensity grass fires – work will continue
- High intensity burns will also be conducted on bridge timbers as well as ignition tests.
- Protective measures include: retardant paints; gels; radiation protection (blankets, screens)
- Less-flammable species: find test site in 2008.
- Knowledge Transfer: San Dimas tech transfer, document database and Workshop in spring 2009.

Other Projects – Ray Ault

- Low Altitude IR Scanning – April 27 – May 3 2008.
This project is to field test rotary wing infrared scanning services.
- Fly-in-equipment project.
Objective of this research is to determine what can be flown into remote fires to build fire line. This equipment is to assist and/or replace some hand crews. A second objective is to determine what helicopters are able to fly in the mulcher

Rex Hsieh handed out CD's that contained all research activity of the group since 2001. This CD was available to all in attendance. The CD will be updated each spring.

Meeting Adjourned