Digital Wildfire Reporting

OPS Ideas & Innovation Fund Project

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Fire Detection
Improving Communications - Radio

2. Copy & Transcribe Report
3. Receive Report, Interpret & Relay Dispatch Decision
4. Copy Dispatch
Digital fire Reporting Communications

1 Collect

Distribute

Enhance

2 Review & Dispatch
The Equipment & Software

- Existing Equipment
- Data sent 20 character string
- Enhanced by ground PC
Doing the Job in the Aircraft

Start a new fire report

Real Time Mapping of Aircraft Location
Collecting Fire Information
Enhanced Fire Report Information

**Location**
- Sector Response Zone: W06
- Fire Management Zone: Boreal Zone
- Location: 15 58555 40 82
- Township: GTP BLOCK 10 LOT: N/A CON: N/A

**Condition**
- Approx Size: 0.5-1 ha
- Fire Rank: 5
- Fuel Type: Mixedwood-50 %
- Observed Values: Railway, Timber
- Mapped Values: 32
- Water Source Distance: 179 meters
- Detection Agent: DAM
- Reporting Tool: DP
- Contact Info: D2 - C-FBNX

**Response Notes**
- DIST Slk FIRE# 104
- McCord Crew dispatched, 14:05
- Fire responding & being held at 19:20
- Request for addition 400’ hose @ 15:45

**Wx Damage Legend**
- Light Blowdown
- Light Snow
- Moderate Blowdown
- Moderate Snow
- Severe Blowdown
- Severe Snow
Designing the two components

In the Air
Alignment of Multiple Tools Needed for Detection patrol

**Navigation Map**
**GPS**
**Camera**
**Fire Report Form**
**Fire Size Aid**
**Fire Behaviour Aid**
8 - 10 min of Radio Time

Multi-Function Hardware
GPS, Camera, Windows Based Applications

VB.NET programming
Scripting custom digital versions, sets attributes for display

Single point user interface

On the Ground
Alignment of Multiple Data Sources

Available Information for decision support

**Network**
**Internet**
**Local**

Communication Methods
Radio, Email

VB.NET programming
Scripting pulls from databases, calculates values, sets attributes for display

Spatial Display
- Single application window
- Multiple manual sources pulled - interactive

Single point user interface
Data is entered only once
Populates data recording tables
Decision maker has all reference material at hand

Alignment of Subject Matter Experts

- Decision requirements
- Model parameters
- Ongoing research & refinement
  - Agreement for notifications of change to model parameters
Beta Testing Results

Improved:

• Data collection Aircraft cockpit management
• Timeliness of data transfer (66% faster)
• Removed redundancy of data transfer
• Methods for the analysis & interpretation of data
• Aircraft will spend less time in the air while providing the same level of service.

• Showcase Ontario Diamond Award – Innovation Category I&IT
Open to Questions