2010 INFRARED OPERATIONS REVIEW

Providing Safe and Efficient IR Reconnaissance.
2010 INFRARED OPERATIONS

This is a Fire!
FIRST FIRE FLOWN:
Beaver Fire Colorado – May 24. 2010
Last Fire October, 02 Utah
Twitchell & Coffee Pot Fire
2010 IR TRIVIA:

- Number of Different States Flown in 1 Night: 3
- Number of Different Fires/Complexes Flown in 1 Night: 7
- Longest Duration Flight 8 hours Ogden to Fairbanks
- Most Northern IR Operation: Alaska
- Most Southern IR Operation: Texas
- States / Provinces Flown During 2010 Fire Season:
  - AK, AZ, CA, CO, ID, MT, NM, OR, TX, UT, WA, British Columbia, Alberta
- Total Combined Flight Hours – 460
- Below Normal Fire Season
2010 Percentages of I.R. filled 44z & 49z:
Total Number 436
Data Source Nirops Summary

May - October
2010

Note: IR Requests for AK included as one flight in above Summary.
2006 - 10 & Comparison filled:
Total Number 2010 (384) (52)
Data Source Nirops Summary

Multiple IR Requests for Alaska single entry in the above summary.
2006 - 10 & Comparison Percentage filled:
Data Source Nirops Summary

IR requests processed by NICC

IR Requests for Alaska shown as single order in the above summary.
2010 ORDERS:
Distribution per Aircraft

- October
- September
- August
- July
- June
- May
2010 British Columbia Operations 49z

Total Number Fires Flown: 75

Hours Flown – 70.4
Total Operating Cost - $149,548.78
Total Acres Flown:

Alberta = 73,500
BC = ?

![Bar chart showing acres flown in 2010](chart.png)
N149Z 2010 STATISTICS
N149Z:

Hours Flown – 300
Total Aircraft Operating Cost - $276,000.00

May - October 2010

Aircraft Hourly Flight Rate 2010: $978.00
Aircraft Hourly Flight Rate 2011 Projected: $990.00
N149Z:

- April 24 – May 21, Left Engine Hot Section
- May 24, Scanner Install
  - May 25, Phoenix Calibration check flight BOI
  - May 28, Dispatch to AK
  - June 12, ATG 5000 Install / continue to ELP
- June 19-24, FCU
- July 26-30, Phase II
  - Removed from service to complete Maintenance,
    - All IR coverage provided by 44z

Hobbs time between phase for BE200 200 hours.
N149Z:

- August 26, WOW switch landing Gear
- October 02 - 04, Fuel Check Valve / AC
- October 21, Scanner Removal
  - October 22, AirCell Subscription Termination
- Time Remaining till next phase 44.5

Hobbs time between phase for BE200 200 hours.
N144Z:

Hours Flown – 160.0
Total Aircraft Operating Cost - $214,400.00

Aircraft Hourly Flight Rate 2010: $1340.00
Aircraft Hourly Flight Rate 2011 Projected: $1680.00
N144Z:

- April 15, Scanner Install
  - Phoenix Calibration check flight BOI
  - April 27, ATG 5000 install
- July 01, Right Generator
  - Recover OGD 1 fire UTF
  - July 26, right Generator 1 fire UTF
  - August 09 Replace GCU
- September 23 – October 05, Phase I & II
- Time Remaining till next inspection 102.2
- January 2012, Engine Replacement

Hobbs time between phase for C550 150 hours.
Aircell Down Link
New ATG 5000
Diminished Personnel Risks

- Travel exposure to Aircraft (IRIN)
- Drive Time Expense
- Reduced File Access Delay
  - quicker access to the fire files for crews OTG
- Air Crew Low Level Exposure
- Eliminate need for Air Drop
  - no air drops in 2 years
Aircell ATG5000

- Increased Mission Data Efficiency Time 2010
  - 26 KB average downstream to FTP site
  - 208 kbits/sec average or downstream to FTP
  - Typical Phone Modem
    - 48 kbits/sec upstream / receive
    - 40 kbits/sec downstream to FTP

  - This is 4 x faster than standard modem speed
  - This is 2 x faster than a INMAR Sat four modem configuration
Transfer time in mins. For 327.59 MB compressed at various data rates

![Graph showing transfer time in mins for WinZip 94.2MB, FreeARC 54.8MB, and Tensor 21.8MB at different transfer rates.]
NATIONAL INFRARED OPERATIONS GUIDE
CHAPTER 4 - Policies

4.2 FLIGHT AND DUTY LIMITATIONS

Flight and duty limitations for IR aircraft are specified in FSH, sec. 11.27a, 15.12, and National Mobilization Guide 24.16.
Pilot Flight and Duty Limitations

- 14 hour duty day
- 10 hours rest before beginning next duty day
- 8 hours flight time in a day
- 36 hours flt time in 6 consecutive days = following day off
- 42 hours flt time in 6 consecutive days max
- 2 days off in any 14-consecutive day period
# Pilot Start Time for Fire Season

<table>
<thead>
<tr>
<th>Early Season/ Low Activity</th>
<th>Normal/High Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1130-1230 (duty day ending 0130-0230)</td>
<td>1330-1500 (duty day ending 0330-0500)</td>
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</tbody>
</table>
Duty Day Can be Adjust for Specific Incidents?
Considerations for Adjusting Aircraft Crew Duty Start Time

- Can take up to 24 hours to facilitate change

- Ability to make change dependent on other fire activity
REVIEW ITEMS

- Staffing:
  - Pilot Staff
    - 2011 Hiring
  - Pilot Schedule
    - http://fsweb.r4.fs.fed.us/unit/faa/aviation.htm

- I.R. Operations:
  - Canada
    - NAFTA operating certificate
  - Sensor Grid BOI
  - Nirops Ordering
    - Delivery Time (Define)
REVIEW ITEMS

- Nirops Guide Update:
  - Operational
  - Review Update for 2011
Any Questions?