Advanced Fire Environment Learning Unit Webinar:
"Fire Season Primer 2018"
February 28, 2018

Questions Log

"National Infrared Operations – Workflows and Data" By Tom Mellin:

Q: can we have acreage id for each type of heat. It would be valuable for smoke and emission modeling [Gary Curcio]

A: The delineation on scattered vs intense heat or scattered vs isolated heat is affected by a number of factors. It is a qualitative, not quantitative, assessment by the IRIN and it can differ depending on the individual IRIN (lumpers vs splitters), how big the fire is, how much heat there is, and how much time they have to do the mapping. Therefore we do not report acres for intense and scattered heat as that would imply a level of precision and consistency that wouldn't be accurate.

Q: Do analysts use other remote sensing data available, such as satellite data, to make a call with signals that are unclear? [Robyn Heffernan]

A: Most other satellite data that captures fire is at a much coarser spatial resolution and so is of little help for our mapping. We do use aerial photography (primarily NAIP) to look at terrain and vegetation features that may be affecting the thermal imagery signals.

Q: Tom, you mentioned a log. Are we able to see that in WFDSS? If so, where? [Karin Riley]

A: No, the logs are posted with the rest of the IR products in the incident folder on the NIFS ftp site.

Q: Any possibility of UAVs in the future? [Derek Williams]

A: These are already being used in fire and their use will continue to grow, particularly small UAVs. But I don't foresee them becoming a part of the NIROPS mission anytime in the near future for a number of reasons.

Q: Can you address the replacement of aging equipement? [Nancy Veres]

A: The scanners are kept very up to date with new components and advancements. The age of the aircraft is a major concern especially the King Air 200. WO FAM is aware of the issue and working on solutions.

Q: What can you tell us about Aircraft 3? It seems the products delivered when Aircraft 3 is utilized are not on par with products from NIROPS platforms [Jon Rieck]

A: There are a lot of factors that can affect the accuracy of products, both with NIROPS and Aircraft 3. However, because communication between the incident and the interpreters does not happen directly with Aircraft 3 it can be hard to know what the issues are. Aircraft 3 is a term used to refer to DoD capabilities that can sometimes be leveraged to supply fire mapping where or when NIROPS would otherwise be unable to provide support.

Q: are there examples of products one would receive from other resources, such as flir, DRTI, etc? if so, where? [Justin Sharpe]

A: Sometimes those are posted in the incident folder but not always. If you know of an incident where a particular resource was used, you can look there.

Q: Aircraft 3 seems like its not as accurate [Jon Rieck]

A: Again, there are many factors that can affect accuracy that we will typically not be aware of when working with Aircraft 3. But it is better than not receiving any information on the fire. A few side by side tests that have been done with NIROPS sensors and Aircraft 3 have indicated very close agreement between the systems

Q: Not a question but would like to follow up with Tom on smoke challenges and where IR information can be benefical. Thanks.[Gary Curcio] [gary.curcio@gmail.com]

A: Feel free to email me at tmellin@fs.fed.us.

Q: Re Aircraft3 product standards: It seems the GIS folks need to get much more "hands on" when products are produced by the military interpreters. Specifically, many IMETs and FBANs will use the shapefile/KMZ products produced by the LM interpreters [Jon Bonk]

A: Agreed. All IR products, whether NIROPS or Aircraft3 or others, should be viewed as one source of intel and vetted like all other sources. The final "truth" should be the official perimeter produced by the incident. Using other products would be done with these caveats in mind.

"UAS Usage on Incidents" By Steve Stroud

Q: How does someone get into the pilot program? [Lonnie Cawston]

A: Go through your local Aviation manager and they will prioritize nominations with the National Aviation manager.

Q: FTP Site - Right now, it seems like UAV teams seem to appear and disappear when someone knows the right phone number. [Mike Beasley]

A: True, we are being ordered a THSP on fires....then we are managed by priority. Establishing ROSS qualifications will help with the ordering process. We are working on it!

Q: For historical fires; is information available on the NIFC FTP site? [Rich McCrea]

A: It depends on the GACC. Some have info going back to 2010 while others only appear to go back to 2014. Also, when the current ftp site was set up a few years ago not all data copied over. Sometimes you will see a folder but no data inside.

Q: Can non BLM Part 107 pilots participate in your credentialing process or training? [Jeff Pricher]

A: Yes, it would take a cooperator letter of approval for both the aircraft and pilot. If you are federal we can help get you on the same page as our current policy and procedures. ie carding of aircraft and pilots

Q: Is it possible to standardize the products supplied by the Aircraft3 interpreters and the regular interpreters? [Jon Bonk]

A: We have worked to standardize as much as possible. What specifically is the issue?

Q: Hi Steve - any plans/ thoughts about using drones with fire weather sensors (i.e. measuring and georeferencing wind speeds in complex terrain) ? [Kevin Maier]

A: We can put any sensor on the aircraft as long as it meets weight and balance limitations. We have a payload approval process in place.

Q: How do we get contact info on the 10 DOI employees that are able to operate the UAS's? [Lonnie Cawston]

A: Contact UAS program manager, Gil Dustin. gdustin@blm.gov, or you can go through us at OAS as well.

Q: ping pong machine is great! how much will they cost to build? and how long to train operator? [nancy wilson]

A: The aircraft and payload combined are estimated at $25,000-$35,000. The operator, as a prerequisite, needs to be FAA part 107 certificated, then needs to attend DOI remote Pilot course A-450. Beyond that they need to become proficient in the aircraft and payload being flown.

Q: The ordering process for UAVs seems a little vague, unlike NIROPS standardization both on the ordering (A#) and data dissemination end [Mike Beasley

A: We have positions developed with a PTB that is going to NWCG for approval in the near future. Once implemented, It will be the same as any other position on a fire.

Q: The ordering process for UAVs seems a little vague, unlike NIROPS standardization both on the ordering (A#) and data dissemination end [Mike Beasley

A: Right now we are being name requested as a THSP with Drone and IR sensor.

"NFDRS 2016 Rollout Plan" by Clint Cross

Q: How will training be provided to users of NFDRS? [Rich McCrea]

A: Training will be tiered from the Geographic Area Leadership groups to the local users over the course of the next year. S491 will be in Alpha version in the Fall and will be made available early next year. Bridge material will be available by the end of the year

Q: hi Clint, Is there a paper or writeup on analysis on these changes? [Gary Curcio]

A: Matt in still finalizing the tech document and additional info will be made available on the NWCG site

Q: will there be a problem with only having a few years of solar radiation data on a particular wx

station? [Mike Haasken]

A: We have built a specialized data set for long term analysis each RAWS which will be helpful. The new model does need hourly data to run correctly. If a station only has a few years, then only those years would use the nelson dead fuel moisture model

Q: I guess I need to go to the NWCG Fire Danger website. Thanks. GC [Gary Curcio]

A: Yep, but more info will be uploaded over the next few weeks.

Q: wouldnt the nelson model tech paper in about 2012 have alot of the changes being incorporated into the new application? [nancy wilson]

A: Yes, that is certainly good information

Q: Re NFRDS: What role does the NWS take in the new NFDRS structure? Will forecasted data still be relevent and drawn from the National Forecast Database or from the daily RAWS specific forecast FWM product which is ingested in to WIMS. [Jon Bonk]

A: Currently the standard NFRDS forecast will still be used in the new model and there is a strong desire to utilize the NDFD as a gridded forecast product in the future.

Q: Who are the southern contacts again? [Gary Curcio]

A: Allan Hepworth, Jon Wallace

Q: With increased automation in NFDRS 2016, will we still be able to edit observations? [Justin Sharpe]

A: Yes, you will still be able to edit observations in WIMS

Q: Would like to read more about these changes? URL or reference? [Joel Curtis]

A: the NWCG Fire Danger Subcommittee website will be the source for current information as we go through the rollout

Q: found nelson paper. WiMS technotes 2010-01 [nancy wilson]

A: that's it -

"Use of FSPro and a Quantitative Wildfire Risk Assessment to create Exceedance Probability Curves to Aid Incident Prioritization" by Rick Stratton

Q: what can be done at the local unit level to have a leg up if and when ep curves are needed [Trevor Miller]

A: If I remember correctly, I answered this in the recording.

Q: How early did the EP show the strong negative return for Chetco Bar? My memory is a NIMO team was on that fire for upwards of 4-6 months before suppression was started?[Ryan

Walbrun]

A: The first time I did the EP curves for the NW MAC, I did not include Chetco because we did not have an FSPro run that was appropriate. HOWEVER, it was the #1 priority at that time. The next offering, I had it in there and yes it showed a very negative loss (i.e., The FSPro outer bands were reaching into the greater community of Brookings). NIMO was on the fire about a month before it really started to move. The EP curve will ONLY show the loss IF the FSPro run is large enough to capture the values of concern.

Q: What do you see as the relationship of this to what is usually expected from a SOPL?[Ken Loda]

A: I see the SOPL using and facilitating this information with the team and Line to promote discussion and action.

Q: I may have missed it, but where did the values at risk come from in the 2017 fire prioritizations by Region? WFDSS? Agency Administrators/READS/local unit? It seems like resource value can be awfully subjective depending on the local unit leadership.[Melissa Sartor]

A: The values came from the risk assessment process and were a collection from federal and state reps. LINE weighed in on HOW to prioritize the HVRAs. When things got really busy in the GACC, the NW MAC narrowed the focus to just ALL ASSETS and TIMBER only.

"Update on Fire Weather Initiatives from the National Weather Service" By Larry Van Bussum

Q: Would the smoke dispersion matrix for surface smoke, superfog potential table, superfog index or wind profile analysis smart tools or products be benefical to develop? Whereby personnel agencies know that critical weather affecting smoke or fire are at critcal thresholds. Identifying that critical fire weather conditions are in alignment are present! [Gary Curcio]

A: I think overall that we as a fire environment community (weather and fire) need to think more in terms of our products and services addressing the fire environment and get land managers and firefighters the information they need to assess all aspects of the fire environment in a much more user friendly format than separate weather, separate danger, separate topographical, separate behavior products (normally long text products that may or may not serve the purpose of actually communicating the message we want to send). Certainly smoke needs to be part of that discussion.

Q: Why can't the conversion to the new RFW happen in 1-2 years instead of 10? [Mike Haasken]

A: Some of the plan can be done on a shorter time-frame. Other portions will take longer depending on the user group that needs to be engaged and the tools/science that need to be in place. For instance, in order to get meaningful criteria to determine thresh holds for extreme fire behavior we need to be able to model extreme fire behavior, which may be a few years down the road before that is accomplished.

Q: So does the Smoke Com approach Fire weather SC to initiate dialogue and development? How would you like to proceed from ideas to products? [Gary Curcio]

A. The NWS is making the same presentation at a few fire conferences this spring to see what kind of support there is for change for the RFW program. Not necessarily the exact change that was presented, but whether folks want to see some change at all. If there is a compelling case, then NWS will reach out to FENC and Smoke Committee for input. RFWs criteria is done with cooperation of the NWS and land management agency partners and any change to the program will be developed and vetted with both groups at the table.

Q: how will the GOES sateltite data you are talking about be accessed? Only NWS or agencies can see it? [Steve Paes]

A. The raw data will be available to anyone who wants it through the National Environmental Satellite, Data, and Information Service (NESDIS). The NWS will work with partners to gather requirements and seek solutions to access to derived data.

--