

**National Wildfire Coordinating Group
Fire Environment Working Team
Fire Behavior Committee
Meeting
NIFC – Boise, ID
April 8 – 10, 2008**

4/8/08

Boise Meeting Began

Present:

John Barborinas (by phone)

Kyle Cannon

Dan Jimenez

Risa Lange-Navarro

Rich McCrea (for J. Barborinas)

Punky Moore

Tami Parkinson

Larry VanBussum

Robert Ziel

Risa opened the meeting with an overview and expectations. Agenda was modified.

FENWT:

Paul Schlobohm updated the committee about the new NWCG re-organization and how it affects the committees under FENWT. Important to note; the sub-committee proposal is flexible and evolving toward the future with many duties to be determined in addition to relationships between groups. Committee members discussed issues regarding the proposed reorganization:

- Combining Fire Behavior & Fire Dangers committees into one sub-committee
- Committees working on projects exclusive of each other – are there projects we could be working on together?
- Better communication/sharing between committees
- Anticipating when fire behavior and fire danger modeling will be integrated
- How Fire Occurrence fits under Fire Environment
- Understanding the workload of other committees
- 2009/10/11 budgets will be built upon new structure
- Continued representation from other committees (Smoke, Fuels, etc.) on FENWT projects/issues (RAWS/Roman for example)
- Suggested having at least one meeting per year for all committees/sub committees under FENWT to interact
- Recommended Fire Behavior & Fire Danger committees remain separate entities for now
- Recommended standing steering committees for S190 thru S490

Paul requested that FBC considers the new Organizational Support component of the reorganization and provide feedback what FBC needs or expects from NWCG. Paul also

requested FBC identify the amount of agency support we are using and provide this info to FENWT. The transition is expected to happen by Oct. 2009.

Organization Support Discussion:

Organizational management:

NWCG as the clearing house, bringing all of the information together in a standard format

Communication:

Consistency, continuity among the groups, formats, templates
Sharing expertise and exchanging ideas among the Executive Secretaries

Administrative Assistance:

Taking care of meeting logistics for large committee meetings

Strategic Planning:

Assistance every 4 years to ensure alignment with committee goals

Exec. Secretary:

- Need to understand the time commitment, work in between meetings, communication necessary for the position beyond that of a note taker.
- If there is a vacancy, we need someone with a fire background who knows the business, understands issues and supports the org.
- Funding needs to be appropriated to select the right person for the job.
- Consider a way to support the level of commitment that is currently being provided.
- Different levels of proficiency are required depending on the organization.

Budget:

Procurement remains an issue. Support is needed:

- Getting contracts set up
- Product development
- Colorless money idea for easier spending

Communications:

NWCG Website

- Is it possible to have something similar to TWT's website listing issues and decisions?
- We need help advertising our business
- We would like to have links to products, MFC, etc. (NICC, GACCs)
- Web Conferencing
- Banners
- How to outreach?
- It is important to get our business out to our public
- What role will MFC play?
- How we use MFC, can NWCG use it for similar business practices?
- Developing a communication strategy

Publications/Writer Editor/Product Management:

Infrastructure and funding in place to develop, update and maintain what the field is asking for
IRPG, Field Ref Guide, Firefighter Math – posters, banners, flyers

Communication Plan:

Develop a means to better communicate and distribute committee agenda items. Likewise, we are interested in agenda topics from other committees. There is a need for better cross pollination between committees – better communication, sharing and coordination. Our continued representation at FENWT meetings has been challenging. It is valuable to have our Fire Behavior rep on the Fire Weather committee with us this week. It was suggested that we try to coordinate with other committee's meeting schedules and when appropriate participate on meetings/calls and bring back information to FBC. What are the 3-5 biggest issues/projects that the committees are working on?

Action Item #345: FBC will identify our top 3-5 projects as a starting point to better communicate with other groups, due date 4/10/08.

Budget:

How to spend money remains an issue. We have lost funding in the past. There is no process outlined to get projects approved and funds transferred. State travel includes FBC and FENWT meetings. We need to develop 2009/10/11 budget request.

Budget Priority List:

- Firefighter Math
- FLAME
- Fire Beh. Workshops
- S492/493 redevelopment
- COMET S290
- Field Reference Guide

Firefighter Math:

Committee discussed proposal to complete project including finishing edits, eliminating redundancy, improving graphics, website security and advertising. Finishing edits is the first priority. Considered ways to solicit expertise to complete the project. Also discussed possible costs for the project. This information will be posted on MFC. MFC could also be used for chat area.

Action Item #346: Inquire of math or education departments to find person(s) to take edits, proofread and evaluate for errors; due date 5/29/08

FLAME:

No budget request at this time. Needs to be out by fall in time for spring courses. Discussed possible workshops/training sessions.

Action Item #347: Zeke will contact Jim Bishop about research paper and COMET, due date 5/29/08

Action Item #348: Contact COMET about making FLAME a stand alone product by Oct. 1, due date 5/29/08

COMET:

No budget request at this time. National Science Foundation is the mechanism for transferring money. FBC will discuss persistent steering committee concept on Thursday (see Larry's memo)

Advanced Fire Behavior Assessment:
Budget request may be forthcoming

Field Reference Guide:

Risa has the edits available from S490. A recommendation was made to develop a back-up budget obligating funds in case there are leftovers. FBC discussed possible JFSP project or joint effort with Fuels Group.

Rick Ochoa (for John Saltenberger) joins meeting

Curriculum:

Advanced Fire Behavior Risk Assessment (AFBRA)

Laurie Kurth updated the committee

- Steering Committee is meeting next week (April14) focusing on course development
- Hope to have topics, draft titles and objectives, draft agenda and course title
- What material and format will be used
- People identified for instructors, reviewers, beta testers
- NIFC will host online portion thru Univ. of Idaho and provide an editor, no cost
- Searching for funding avenues
- Budget request = \$122,000.00
- Need to contact McClellan regarding course administration in 2009 and beyond
- There may be material for FBC to review after next week's meeting
- Requesting an Instructional Design Specialist
- Proposing one class and online courses that could be held several times a year to reach more people
- Looking at methods to refresh those who took training years ago
- Should FBC resubmit budget request thru FENWT?
- Many models are planned for incorporation into WFDSS – FARSITE, BehavePlus, etc. Not supporting desktop applications of Flammap, etc.
- Online material should be ready in the fall, classroom material ready spring '09
- Identified Introductions, Mechanics and Interpretation groupings

Laurie explained the learning pathway for FBAN/LTAN/Fuels/Planners. Skills are identified as necessary or not required for the various positions. Comments received so far are primarily from those interested in course development; no comments were received from the MFC discussion topic. Can FBC facilitate a way to encourage more input?

Action Item #349: FBC will provide feedback to steering committee about proposed learning pathway, due date 4/11/08.

Timeline:

There is direction to the steering committee to teach new course or old S492/493 courses in spring '09. It is a realistic goal to have the new course ready to go. A lot of material already exists, just needs to be pulled out and realigned. There will be a lot of work involved in the Spatial Analysis section.

FBC spent considerable time talking about WFDSS users, production and qualifications. Included in the discussion was the two tiered approach for supervised or unsupervised applications, providing products without interpretation. Rob Seli joined meeting by phone to provide further information about qualifications/standards required for WFDSS users.

Action item #350: FBC will develop a position paper regarding WFDSS use, interpretation and applications, draft by 5/29/08.

S590:

There is a renewed focus to reduce the length of the course using distance learning methods. It is important to work together to forge the path for the FBAN given the tasks FBANs are being asked to do in the field and how that feeds into S590. Information is being provided about the mentoring process and having 2 fire seasons to be mentored before the next course offering. Dave Whitmer is stepping down as co-chair. Tim Sexton will be interim co-chair with Lisa Elenz.

Fire Research Report:

Rob Seli - WFDSS:

Kansas facility is up & running, contracting with Eros (production system) and increasing capacity. Training is still a prototype due to rapid change to system (every 2 wks)

Highlights:

- User need inconsistent
- Use built in Help system once trained
- Eliminate classroom training
- Fire Behavior Perspective
- Send experts to location (hands-on)
- Missoula class = 0 users
- Hands On = 90% users (what are the protocols?)
- Web/gotomeeting updates – cont'd ed

WFDSS.NWCG.gov

FBC asked whether products generated out of WFDSS are going to be available. Rob emphasized the need for input from users. There will be restricted access to the prototype, WFDSS/WFSA replacement this year

What does validation of the WFDSS products mean? FSPro validation process is being worked on; will follow fires this season real time. WFDSS will train pushing the buttons; teaching the fire behavior concepts still has to happen.

Fire Behavior products on 2 tiers:

- Unsupervised run; all the settings will be decided on within the program
- Supervised run; questions go to fire behavior specialist to modify inputs.

Is there support or a need for some kind of qualification standard for users? What are the roles & responsibilities of WFDSS users? If we think this is going to create a huge demand for FB skills, how are we going to meet the demand? How does moving all of the analysis tools to one environment affect users?

FBC Recommends:

- Engage in a discussion about necessary qualifications to run and interpret products.
- Approach managers on the ground and alert to not having qualified personnel interpreting the products.
- There are basic assumptions when the products are available on NWCG.gov website.

Research Overview:

Viegas Review:

Dan is lead, lab response memo will be provided to FBC, hopefully before fire season

Rx Cadre – could turn into a long term project:
Combustion – Atmospheric – Dynamics – Research experiments
Compare remote sensed heat environments of prescribed burns

AK Fuels treatments Study:
Fire behavior analysis between different fuels treatments

Safety Zone Study:
Fire Lab has funding to expand the current guidelines. Would like to be invited out on fires. FBC is asked whether this is worthy of a committee endorsement?
Action Item #351: FBC will address this issue during next conference call, due date 5/29/08

Dept of Justice Proposal:
Fire Origination Study

JFSP funding for New Fire Model:
Jack Cohen is the lead. Developing the threshold between convection and radiation improved fire spread and propagation model.

Core Fire Science Portfolio A

WindWizard Update:
Sales have not been what was expected – 10 bought at the lab
Corporate license has not gone forward
Validation project at the Hanford site this season – Ninja and WindWizard

Mark Finney:
WFDSS – FSPro
Automatic forecast from NWS
Validation at lab this summer
With & without suppression
Predicting Wildfire Containment paper

Pat Andrews:
BehavePlus 4.0 Release
3.0 vs. 4.0 (see word.doc)
Example course guidelines

Forthofer:
WindNinja
Tiled Wind Fields
Prototype of SW (Gila)

Sopko:
Ignition Probability Map - LAL
New model focuses on positive ignitions

Matt Jolly:
New FF Plus
Nelson FM calculator & comparison

Batch processor
Wind Rose
Variable custom yearly green up dates
Africa NFDRS
Florida Rx burns – fuel treatments
Great lakes Fire Potential system – gridded weather to calculate fire danger & fire behavior
GTR – Live fuels interactions w/Rothermel ROS

Note: FBC needs to continue to identify research areas we are interested in and provide this to Fire Research.

Bin Items:

- 1) Identify 3-5 top projects
- 2) Memo to FENWT re: Proposed Organizational Support
- 3) Comm & subcomm – what kind of interaction/timelines
- 4) Position/Statement on production, interpretation & use of WFDSS products
- 5) 2008 & 2009 Budget

Yellowstone & Beyond Conference:

Ideas for poster:

- FBC members
- Training courses
- Goals
- Projects (FLAME, Firefighter Math)
- Logo
- Workshops/Conferences

FENWT Meeting Schedule:

Posted on NWCG website

- June 24-26 (FF)
- September 16-18
- December 9-11 (FF)
- March 17-19

FENWT:

Paul provided the revised FY '08 budget. FBC will continue to work thru Forest Service/Fire lab to spend funds. Allocated = \$21,500.00

End of day 1

April 9, 2008

Matt Rollins joined via Gotomeeting. Matt is the lead scientist on the Landfire project. Matt updated the committee on Landfire Status including:

- What kind of data is available
- How it can be accessed
- Calibration procedures
- Rapid refresh/refresh schedule
- Landfire schedule for future – 2011 and beyond
- Website = www.landfire.gov

Data products that are produced:

- Vegetation data products
- Fire regime data products
- Fire Behavior data products (FARSITE)

The transition phase includes evolving from one organization into two groups: 1) one in charge of production, upkeep, distribution and tech transfer, 2) one in charge of research & development.

After Action Review was held in SLC, UT in 2007. The critiques are available for review. Who will be responsible for future calibration workshops? Chartered Landfire milestone is 9/30/08. AK and HI milestone is 9/30/09. There is a plan to conduct additional workshops. DVDs are available. There will be another review after the season, like the SLC review.

NIFTT sponsors online FOR437 and classroom FOR438. Teach how to manipulate the data for local applications. NIFTT is responsible for Refresh and Rapid Refresh. There is a need for bridge methodology until Landfire biennial updating is operational

Plan of work:

- Guidebook based methodology for individual FPU's to update the Landfire fuel products
- Incorporate local information about treatments or disturbances not captured nationally
- Support provided by refresh team (NIFTT)

Refreshed layers will be available for WFDSS next fire season. Group asked how outreach was done for SLC workshops. The FBAN/LTAN/IMET directory was used; compiled a participant list from that in addition to WFDSS analysts. Calibration workshops 08-09, should be posted on Landfire webpage.

Top 3-5 Priorities/Projects:

Short Term: Comet S290
Firefighter math
Yellowstone Conference
AFBRA
Fireline Refresher
FLAME

Long Term: Course maintenance
Field Ref Guide (other publications)
AFBRA
Fireline Refresher
FLAME
FB Workshops

2009 Fireline Safety Refresher:

Scott Anderson NWCG Project Leader

The fundamentals of fire at the strategic, tactical and support levels

There is a focus on teaching the fundamentals of fire at the strategic, tactical and support levels to ensure fireline safety reaches all personnel involved in fire activity. Importantly, some people farthest removed from the activity often receive the least amount of information about the fire activity. There is a challenge to be able to present the refresher for all the different audiences in a meaningful way.

We discussed human factors including an attitude of awareness and thinking independently. It was agreed that the Standard Fire Orders may need to be framed in a different context that supports personal responsibility.

Timeline:

2009 refresher process is beginning earlier than usual. Tami Parkinson will be the point of contact. FBC is tasked with developing subject matter content that focuses on providing all personnel fire safety.

Some recommendations include:

- Simulations
- Exercises that get people thinking outside their own area of expertise.
- Identifying what questions need to be asked depending on the situation
- Providing guidance about where to find information necessary for personal safety
- IMT function and interaction
- John Krebs – opening motivational section

Action Item #352: Tami will contact John Krebs for possible inclusion in 2009 refresher. Tami, Kyle & Kelly will develop subject matter content addressing key points above.

JFSP Topic:

Tim Swedberg, John Cissel

JFSP has \$14 million this year for projects. Each JFSP project is getting a story written about it with a manager's viewpoint added. They are available online. (Rothermel & Finney examples). The group discussed where we are going in the next generation of fire modeling.

\$2 mil investment in smoke management – Smoke Mgmt & Air Quality Roundtables

Collaborative Platforms

1. Science Delivery products
2. What are the right questions
3. Conducting the science work – no scientists on staff, expertise obtained thru centers, labs, geo areas, private contractors.

Roundtable Approach was explained to the committee.

- Focus group figures out a topic of interest
- Context for the issues
- Information needs
- Barriers
- Develop a problem statement
- Identify science needs

Information on model validation & evaluation

- Solicited proposals, went thru peer review
- Out of the proposals, one stood out, Smoke & Emission Model in a Comparison Project

- Establishing repositories of independent data sets to validate the models
- Develop case scenarios how to evaluate the models in operational situations
- Define validation parameters and standards

Could support validation/evaluation work by other people in the future.

Roundtables (30 people at a time) are facilitated by invitation, choosing representatives from various geographic areas, gender, different points of view, and few scientists.

Take the science pieces that come out of the process and put them together in a cohesive line of work.

Is the proposal review process the same as it has been – inviting SMEs, reviewing and prioritizing? Have made an effort to improve the technical review with emphasis on more thorough description of methods in the proposals. Scoring mechanism has been changed to group review to share perspectives. Goes forward to the Board where reviewed again.

Collaborative Platform:

Look at existing software systems to develop an integration of the tools. We don't often know how good the tools are. There are some models how tools can be integrated: Bluesky example.

Bring data sets and tools together to get the results you want for your specific situation.

Phase 2:

- Identify primary set of existing software tools
- Help people focus on training & investment
- Which tools to group into collaborative platform
- Identify where there are validation needs in the tools
- Group into domains where the collaborative platform makes sense

Phase 3:

- Push Bluesky forward based on web, accessed thru thin client, use from desktop also
- Web based, common interface
- Commissioning independent evaluations of Bluesky and how portable the structure may be to other domains.
- Put together a system design in the fuels treatment, fire behavior, fire effects realm
- Looking for assistance in identifying the right tools and right functions of the tools
- There are points of intersection between platform and what WFDSS is doing

Action Item #353: Identify point of contact for JFSP proposal review and collaborative framework, due date 4/11/08

Core Fire Caucus:

Next generation approach to fire modeling

Development of a fire science plan (1st draft done)

Fire Lab lead – develop proposals

Mission – applied science

Investments in fire science – improved approaches to field application

Action Item #354: Synthesize a problem statement and key questions on extreme fire behavior issues for JFSP proposal, due date 4/11/08.

FBC asked how unsolicited proposals work. It is important to remember the science piece vs. management piece. It was recommended to keep it short, extract key points out of formal JFSP and emphasize interagency priority. **May 10-12 deadline**

PROS – Potential Rate of Spread:

Tom Leuschen, retired FS, Fuels Mgmt-FBAN, FUMA, OSC2, Instructor, Consultant

Tom presented the PROS product and associated pocket cards. The cards are not necessarily based on when we see rapid rates of spread, but when we see potential for extreme fire behavior. What can we do to heighten awareness/knowledge about rapid rate of spread? . Discussion included amount/type of training should be/should not be included in S290. Specifically, where does FLAME fit in the curriculum?

Discussed common conditions on fatality fires:

Drought

- Temps
- RH teens & single digits
- Fine fuel moist 2-5%
- Ignition probability 70-100%
- Frequent spotting
- Unburned fuels between fire and firefighters
- Minutes & seconds are the difference between life and death

The tool can be used at briefing to illustrate minimum and maximum conditions for operational period. Discussed applicability in south, southeast, Alaska. A technical report was submitted to the Fire Lab; B. Butler provided feedback.

The charts are framed differently from the inception, between disengaging and changing behavior before extreme conditions happen.

Further discussion:

- Directly ties back into what is and what is not taught in S290
- What level of judgment/experience is needed to apply the charts/graphs?
- Discussion about what level FLAME should be taught
- Discussion about material required and appropriate in S290/390/490.
- How do we teach what questions to ask and when to change behavior?

Communication Plan Exercise:

Identified audiences, methods, timeline, roles & responsibilities – see separate document

John Barborinas:

John provided an update on Webinar/Interagency access. The issue has been elevated to IRM working team. John will keep the committee informed. Sheri Shetler is checking further. We need to keep the issue in the forefront – people are using it and some are being left out because they are not allowed access. This will be included in committee's Communication Plan with a recommendation on web conferencing tools available.

End of day 2

April 10, 2008

Predictive Services Presentation:

Rick Ochoa provided information to committee about what's new with Predictive Services.

- Logo and Predictive Services handbook
- Handbook on NICC website – google “Predictive Services handbook”
- Changes to 7 day outlook
- Changes to monthly/seasonal outlook
- New NWS/Fire Agencies agreement & annual operation plan
- Chartered by NFAEB (NMAC in future)

Risa made a recommendation that an updated directory would be helpful.

Changes were made in differences between ignition triggers and burn environment.
Triggers= lightning, recreation (high risk of sig. fire potential due to mass ignitions)
Burn = unstable atmosphere, winds (high risk of sig fire potential due to extreme burning conditions)

Value added seasonal products were developed from feedback by local units.

- Fire Potential – Day 1, 2 - 7day, monthly, seasonal outlook
- Working on pocket cards
- Links to geo areas,
- Experimental standardized ERC 14 days out
- Growing season index

New agreement with Fire Agencies (NOAA still looking at agreement – legal, financial) is not signed yet. Still working under 2002 agreement. No changes in field personnel.

Risa: Commented about differences between geographic areas – is there a push to have some consistency between GACCs? Handbook identifies standardized staffing levels, but funding is always an issue

Not an expectation from NWS to make up for shortfalls. Encourage more familiarization assignments for IMETs when seasons allow. Discussed analysts working in the GACCs:

- Adhoc, aimed at incident support
- Fire Service Center:
- Interagency support – do we want to tie up IMETs to do predictive services, dealing with limited resources
- FBAN, LTANs get used for other positions – are we using to the best of their ability
- Who you get drives what you do

Taskbook issue:

Who is responsible for the coordination effort to ensure enough qualified personnel for the need on incidents and at Service Centers? We have enough people but they are not made available. Standard staffing is two IMETs at each GACC

Note: Each geographic area determines their need; incident support not necessarily predictive services. After the season, doing a review and deciding how to operate the next

year. Do we want Predictive Services to get more involved with long term analysis? There is interest, maybe not agreement. Most Predictive Services IMETS do not have the skills to run FSPro.

Sharing resources was explored. Examples were given of sharing resources with Australia and Canada. We have opposite seasons which works well, but there are hiring/budget issues.

Continuing Ed:

- Support for more regional fire behavior workshops
- Identify what groups we could encourage.
- There are links to PS, talk about outlooks, training, feedback from the geo area. Encourage remote participation – widen distribution, include more people
- Travel funding is an issue – can you include people without having to travel?
- Videoconferencing is a good and growing option.
- A combination of distance training and face to face is the ideal.

Discussed options for Predictive Services to co-sponsor other geographic areas to have workshops that will boost fire behavior training.

Action Item #355: Risa will contact Tom Wordell, chair of Predictive Services, to explore co-sponsor options for fire behavior workshops, especially in geographic areas that don't have them, due date 5/29/08.

Action Item #356: Risa will tie in with Fire Wx Team & Predictive Services for a weather course that can be incorporated into Fire Behavior workshops.

Action Item #357: Committee will address issue to better utilize Predictive Services especially as it relates to long range planning.

Further discussion whether there are mutually beneficial things we can be doing together such as the Yellowstone conference.

Action item #358: Contact Paul about Fire Environment grouping at the Yellowstone Conference, due date 4/10/08

FB abstract is completed but could be revised to incorporate FENWT if there is interest in all of the committees participating. Paul agreed it would be beneficial to include FENWT. Recommendation was made to not have too many posters, may want to consider an Interactive area: computer loops, video, etc.

Budget: 2008	\$21,500
Comet	(Larry)
FF Math	10,000 (Dan, Larry, Kyle)
Comet will send proposal for FF Math to FBC (\$10,000)	
might be negotiable	
Will consider other sources still –	
from the educational/math field	
 Yellowstone Conf.	 1,000 (Dan, Tami)
AFBRA	6,000 (Zeke)

Fireline Ref.		
FLAME	4,000 (Zeke)	
Misc.	500 (Dan)	
Business cards, thumb drives, pens		
		21,500
Long - 2009,	\$21,500	
Course maint.		5,000
Field Ref. Guide	3,500	50,000
AFBRA	5,000	120,000
Fireline Refresher		
FLAME	5,000	
FB Workshops	5,000	
Fire Wx (S290, S591)		
Conferences	3,000	

Nelson Fuel Moisture Model:

Matt Jolly joined via Gotomeeting)

Mat provided an introduction comparing old and new methods. Updates included:

- Link BehavePlus to FireFamily Plus calculated
- New tables for the fireline handbook
- New tables for fireline handbook – no longer consistent with other tools – paper calcs for handbook
- Integrate FireFamily Plus and BehavePlus into one user interface
- Need to simplify model so it can be used in other tools
- Solar radiation = different times of the year, automatically integrated in the model
- Unify all fire behavior predictions tools into a single interface – wouldn't have to duplicate everything
- Build linkages between programs
- Adding sets of tables by latitude is the biggest change
- A local unit could build their own fuel moisture tables built on their own data.

FBC asked about a white paper on the Nelson Fuel Model. Matt & Larry are working on a GTR, should be available in the next few weeks. Is there something on the LLC site? Risa will check and forward to Matt.

Matt added that work is being done to integrate FFPlus and BehavePlus for the next version. How does WFDSS play into this? Suggestion was made to focus on Nelson Fuel Moisture Model and encourage others to use it (phase out the Appendix B).

4/10/08

NWCG Training Development Meeting

Committee was joined by:
Paul Schlobohm
Deb Epps

Mark Koontz
Tim Sexton
Cyndie Hogg (by phone)
Laurie Kurth (by phone)

R. Ziel started the meeting by reinforcing committee goals with direction and assistance from FENWT.

Committee goals:

- Education
- Science & Technology
- Decision support

Who we are:

Introductions were made emphasizing the make-up of the committee, our wide ranging experience and interest in fire behavior training including curriculum, fire refreshers and workshops.

Spatial Analysis & Risk Assessment:

Laurie Kurth updated the group about the new course(s) that will be offered by spring '09. She described the support from NIFTT and the focus of the steering committee meeting next week: objectives will be written, timeline finalized, unit content grouped, preparers, reviewers and testers identified, agenda for in-class work developed, etc. Mark requested a copy of the Learning Pathway. The classroom portion will be administered thru McClellan. There are funding issues involved with the use of teams, travel, editing, etc.

Deb will write the issue paper to TWT for the new course number. Deb also stated that editorial support is available from the Standards Unit and Instructional Design staff.

Timeline:

- Online material will be available Oct./Nov. at the latest
- In class offering – Spring 2009
- Critical to have something ready in 2009 for next group of students to get into S590
- Steering committee is focused on offering new course, not old courses.
- Mark is forwarding info to TWT as progress is being made.

S490 Certification Status:

The group discussed the current situation and voiced concerns about the state of the course. Several participants asked how recent changes are being reviewed, i.e., crown fire lesson. Some good improvements have been made, some things need fixed. The age of current rewrite is 2003. The course was held in Boise in March. The changes were brought back to the development group. GATRS demanded the course be published. It was decided to publish with errata sheet and fix later. Group also discussed electronic materials versus printed hard copies.

Note: Committee asked how we can work in the future to make it a better system.

Quality of materials helps or hinders how the course is put on and whether the students are prepared to move forward. The 40 Fuel models need to be incorporated. Is there a core set of competencies that stay a part of the package? One third of the S590 students failed the

pre-work. The regions that have taken more effort teaching Behave skills get better results. Are we doing enough to foster blended learning courses (some online, others in class)?

Some key units need constant updating, maybe others do not. How are current FBANs staying up to speed with new technology? Group considered if building some expectations for currency is an issue paper. One idea raised was having four hours of continuing education to keep qualifications.

The group agreed that a representative from each cadre will review one more time and provide comments to Deb Epps in 3 weeks.

Future maintenance was considered. We need a process in place to keep it current. Main considerations for FBC are: having a last review, developing a process to update and maintaining continuing education.

Deb, Mark K., Mark C., Paula and Zeke will brainstorm a long term plan before fall.

We need a point of contact with cadres, FBC and development group. It was agreed that Risa will be the point of contact.

Action Item #359: Risa will contact Deb and request current updated version of S490, establish turn around time. Contact Tim to get a list of cadre members
This could facilitate other courses being updated – not just FB

SMEs:

We discussed many issues surrounding SMEs including maintenance issues, needed changes between online and classroom course and FBC's role in this steering committee proposal. FBC recommended using Comet S290 project as the start to the process to identify a group responsible for overseeing S190-390.

Comet has asked for SME help. The group will update the course each year. This is an opportunity to have an SME designated per chapter or group working with Comet to keep updating cycle ongoing. How are the SMEs going to be selected for Comet/S290? The group agreed that FBC has a huge role in selecting SMEs.

- FBC – expertise for chapter content
- NWCG – standards/process vs. content

Deb informed the group that a contractor is looking how courses are revised, using areas of responsibility more appropriately and fostering consistency. The report should be presented to TWT by Sept.

NWCG FLAME stand alone course is supposed to be ready in June. Comet is ready to go now. It was decided to give present FLAME material to Comet and let them go with it.

FBC will help identify SMEs for Comet (TWT, IOSWT included) but would like to formalize the continued process furthering consistency and longevity on SME groups.

- Get the group together by May/June
- Do an outreach, work with 590 SC, identify subject areas

- Need a Wx person and Development person now.

Can someone help Sheri with \$\$\$ transfer thru National Science Foundation (BLM issue)
If the \$\$ transfer does not happen, need to identify whether FLAME will happen and in what order.

More FLAME discussion:

- Dissention in the field whether FLAME belongs in S290
- Instructors are saying they can not teach the tool
- GATRS say it should not be in S290
- TWT will need to make a decision what to do with it
- Handoff courses were misunderstood or misinterpreted
- 6 hours is a considerable part of the course
- Is it appropriate in the course or as a stand alone tool?

Mark and Deb will notify FBC if there is an opportunity to engage in the FLAME discussion during the joint meeting.

Action item #360: Draft & forward FLAME issue paper to Mark before the meeting, due date 5/1/08

It was decided that Comet will hold off on FLAME until more discussion takes place.

FBC said it was a mistake not having the 6 hours imbedded throughout the course. This would have resulted in a 2 hour end with fuels in the fuels lesson and weather in the weather lesson. Students have expressed that having the intro and then online to hone skills works. Also, wanted the lesson imbedded in the course.

Recommendation: Continue the process to finalize FLAME with an evaluation done after handoffs, online, and teaching it.

IRPG:

Our stand was IRPG supports S290 and fireline assessment tool. It was developed to give firefighters a basic tool in the field. The guide should include:

- FLAME references
- Fuel moisture tools
- Fuels group description

There needs to be FENWT support for changes/input sent to IOSWT to be considered. Are there limits to what can be inserted into IRPG? Training should lead to action in their jobs.

Change in 310-1 emphasizes need for fire behavior assessment skills in S290. In the past, S390 had been positioned as the fb course for fireline leaders. Strike Team Leader, Task Force Leader, Line Safety Officer no longer required to take S390, so S290 needs training in fb processor.

Field Reference Guide:

In the development of S490, the field reference guide was eliminated. It is still integral to S490. FBC is making efforts to bring it back. Mark commented if it needs to be back in the course, do it. TWT will not do the update.

Note: FENWT will have to be the advocate to support it and ask for funding to bring it back. Electronic, online version supports easy and quick updates.

The old S290 was a reference book –
The new S290 is all text except 2 graphics –
A reference cd could accompany new student workbook.
Graphics are labor intensive

The changes in this course are another example to support consistent SME groups where there is regular interaction, reviewing and answering comments with a realistic timeline for feedback.

Our point of contact, Risa, will manage comments to and from Development Group. Further, it was agreed that when updates are posted and the note is sent to TWT, Deb will notify FBC when there are fire behavior updates that are of interest to the committee.

FBC: Can we develop a maintenance process to address issues in the curriculum?

S491:

We need to get back on track with S491 to have a better coordinated effort without surprises. Online updating has been working. GATRS are the ones having trouble putting on the courses. Needs re-evaluation and maybe this is the path for updating S490. S491 steering committee is meeting in Boise May 20-22.

Big issue: S492/493 timeline developed and adhered to will be a model of how future curriculum issues can be handled.

FENWT	June 24-26 Sept. 16-18 Dec. 9-11 Mar 17-19	Missoula Virtual, Boise DC Virtual, Boise	
Fall	Dec. 8-12	Wash., DC	With FENWT
Spring	April 6-10 April 13-17	Portland	

Conference Calls:

May 29	Conference Call	12 Eastern
June 26	Conference call	12 Eastern
July	Schedule if needed	
August	Schedule if needed	

Sept. 18	Conference call	12 Eastern
Oct. 16	Conference call	12 Eastern
Nov. 13	Conference call	12 Eastern

Will check on getting a Toll Free Number for Conference Calls through fire season.