JFSP NASA Brief

March 2, 2016

John Cissel

Ed Brunson

JFSP – What do we do?

Identify Research Questions

- Sensing, multiple sources
- Annual Governing Board, FEC process
- Science reviews
- Investment strategy

Fund Studies

- Open, competitive process
- Independent peer review
- Federal research labs & universities

Exchange & Apply Results

- National fire science exchange network
- Science reports & manuscripts
- Syntheses & briefs
- Website (www.firescience.gov)
- Social media

Investment Strategy
FY 16 Research

Lines of work (5+ years)

- Fuels treatments (FTSP)
  - Changing fire & fuel regimes
  - Social & policy barriers to prescribed fire
- Smoke management (SSP)
  - Climate change effects on smoke – synthesis
- FASMEE

Research focus areas

- Great Basin – restoration vegetation treatments
- Fire effects – tree mortality

Emerging management needs

- Post-fire landscape management
- Regional needs - three FSEN regions

New science initiative

- Resilient landscapes – ecological & social dimensions

GRIN

- Graduate student supplement awards

Smoke Line of Work

Roundtables

↓

Problem statement

↓

Science plan - themes

- Emissions inventory
- Model validation
- Human populations
- Climate change

↓

Funded proposals (FY 08 – 15)

- PM, ozone, regional haze
- Model comparison (SEMIP)
- Public perceptions, mega-fires, health
- Black carbon, future smoke effects

Fire and Smoke Model Evaluation Experiment (FASMEE)

- What
  - Large-scale field experiment
  - Four-eight prescribed fires
  - 500-1500 acre units
- Purpose
  - Model evaluation and improvement
  - Integrated datasets for fuels, meteorology, fire behavior, & smoke
- Partners
  - JFSP, DOD, FS, EPA, NOAA, NASA, multiple universities (UM, UNR, UW, SDSU, UU)
  - Coordination Committee

Fire and Smoke Model Evaluation Experiment (FASMEE)

- When
  - 2016-2017 – Detailed study plan (measurements, safety, logistics, data management, budget)
  - 2018-2019 - Implementation
  - 2019-2020 – Archive data, model evaluation
- Where (tentative)
  - SE – Savannah River, Ft. Stewart
  - SW – North Kaibab RD, Fish Lake NF

Fuels Treatment Effectiveness Initiative

- OMB concerns
- OWF supplemental funding
- Large set of peer-reviewed projects
  - Effectiveness across landscapes (6)
  - Effectiveness of past wildfires (5)
  - Economic efficiency and effectiveness (8)
  - Restoration effectiveness (7)
- Synthesis and outreach
- Workshops at Fire Behavior and Fuels Conference (April 2016, IAWF, Portland)

JFSP Fire Science Exchange Network

Goal – Accelerate the delivery and adoption of fire science findings

Key characteristics

- Boundary spanning partnerships
- End-user and science driven
- Active engagement

JFSP Fire Science Exchange Network

FSEN Goal – Accelerate the delivery and adoption of fire science findings

NASA 2016 Team meeting objective- "**…..** improve how NASA can increase awareness and use of its data by the Wildland Fire community"

JFSP Fire Science Exchange

Connecting with the Fire Community:

Webinars, field tours, tech training

Friday Flash subscribers - 2,150

Facebook followers – 4,000

Twitter followers – 3,419

Evaluation

Survey data show 10%-30% improvement

- Increased access to fire science
- Improved use of fire science
- Improved communication
- Improved fire management policy

JFSP Fire Science Exchange

FSEN Partnerships

Prescribed Fire Councils

Landscape Conservation Cooperatives,

NGOs –TNC

state foresters

university extension programs

Science Exchange Policy Assessment

- Purpose: Determine if there is a need to better support the integration of fire science into policy deliberation

- Udall Foundation agreement
  - Stage 1 – Stakeholder assessment
  - Stage 2 – Recommendations

- Stakeholder interviews
- Working group provides guidance
- Reports and briefings