

USDA Forest Service

National Aeronautics and Space Administration



Tactical Fire Remote Sensing Advisory Committee (TFRSAC)

The Twentieth Meeting!!!

Hosted By:

USDA – Forest Service (USFS)

NASA - Applied Sciences Program

Great Basin Training Building NIFC

5 November 2013

Boise, Idaho.

WebEx Conference Web Presence



Webex Information

Participant Link:

<https://fs-rsacevent.webex.com/fs-rsacevent/onstage/g.php?t=a&d=661311320>

passcode: rsac123

Meeting is called TFRSAC-NIROPS

CBP Predator B

Conference Call

We **will not** be using Webex for the audio portion of the meeting. Please use the following conference call number/passcode for both meetings:

Phone number: 1-888-858-2144

Access code: 7691819#

TFRSAC Schedule (AM)



7:30 am **Breakfast on your own**

8:30 am **Meeting start / Introductions / Memorial to Steve Wegener**



Morning Presentations

- | | |
|---|-----------------------------|
| 1. Welcome and Introductions (10 min) | Vince & Everett |
| 2. FS inside the beltway remote sensing update (10 min) | Everett |
| 3. NASA Outlook /Budget and focus (10 min) | Vince |
| 4. UAS activities conducted on the Rim Fire (15 min) | Sean Triplett & Brad Quayle |
| 5. USFS/DoD QRT (30 min) | Jeff Huisingh/Steve Perry |
| 6. CalFire Update (15 min) | Dave Sapsis/Tiffany Meyer |
| 7. International partners activity update (15 min) | Enric Pastor |
| 8. FS – NASA Activities / Status (15 min) | Vince & Brad |
| a. Vineyard flight/testing update | |

10:30 Break (15 min)

10:45 am **Resume**

- | | |
|--|------------------|
| 9. One Rain | Ilse Gayl |
| 10. Wide Area Imager Update (30 minutes) | John Green |
| 11. CHIRP (15 min) | Lt. Frankie Lugo |

12:00 pm **Lunch (1 hour)**



TFRSAC Schedule (PM)

1:00 pm

NASA A35 Wildfire Projects (10 to 15 minutes each)

Vince Ambrosia – Moderator

2:30 pm Break (15 min)

2:45 pm Resume

NASA A35 Wildfire Projects (10 to 15 minutes each)

New areas of opportunity for NASA-FS collaboration allowing

Vince Ambrosia - Moderator

Open Discussion / time

5: 00 pm Dinner plans and adjourn

6:30 pm Meet for dinner @ nearby restaurant (TBD)

Steve Wegener Memorial Page



Login 

Celebrating the life of Steven Scheer Wegener

[Home](#) | [Lifestories](#) | [Gallery](#) | [Contribute](#)



September 23, 1946 - August 14, 2013

A Celebration of Life will be held at 11am on Saturday, September 7th at the NASA Ames Conference Center.

To help the family, please let us know if you hope to attend: click on "Contact Whitney" below, or email her at

[more...](#)



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In lieu of flowers, donations to The UC Davis Comprehensive Cancer Center (Dr. Gandara's research) or Cancer Research Institute are suggested.

Website: <http://steve-wegener.muchloved.com>

A satellite image showing a landscape with a river, green fields, and brown terrain. The text "NASA Outlook, Budget, and Focus" is overlaid in white.

NASA Outlook, Budget, and Focus

Earth Science


Science Mission Directorate

Earth Science Division

New Fire Support Efforts at NASA



- ROSES 2011 A.35 Wildfires solicitation (Applied Science Program)
- 17 projects selected for Phase 1 “Feasibility” studies (1-year)
- New Positions as Associate Program Managers – Wildfires named in NASA Applied Sciences Program
 - Vince Ambrosia (NASA-Ames Research Center)
 - Amber Soja (Langley Flight Research Center)
- Interface with Fire Community / Sister Agencies; develop collaborations, possible joint solicitations; Manage project efforts and metrics
- Grow / Expand TFRSAC to include information sharing from NASA A.35 – Wildfire Projects

A satellite image showing a landscape with a prominent river winding through it. The terrain is a mix of green, brown, and tan, with several dark, irregular shapes that appear to be fire scars or burn areas. The river is a dark blue line cutting through the land.

Applied Sciences Program
ROSES-2011: A.35 Wildland Fires

Earth Science
Science Mission Directorate
Earth Science Division



Solicitation (Section 2)

The objective of this solicitation is to select applications and applied research projects to improve decision-making activities and actions on topics related to wildland fires, such as wildfires, rangeland fires, and prescribed fires.

Successful projects will advance organizations' use and application of Earth observations in analysis and assessments, management strategies and actions, business practices, and policy analysis and decisions associated with wildland fires.



Solicitation (Section 2)

The solicitation expects strong involvement and partnership with the organization(s) that will ultimately adopt the application in their decision-making activities and/or in their products and services to end users.

The explicit, eventual goal in Stage 2 projects is transitioning feasible, beneficial applications to an operational status with the partner organization and/or end users.



Total Amount of NASA Funding (FY12-16)	\$6 M total (Stage 1: ~1.5M; Stage 2: ~4.5M)
Anticipated Number of Stage 1 Awards	9-13 projects
Expected Range of Stage 1 Award per project	\$120K - \$170K
Period of Performance (Stage 1)	1 year
Expected Project Start Date (Stage 1)	6 months after proposal due date.
Contributions from Partner Organizations (Stage 1)	Strongly encouraged. However, partner funding does not count toward funding level guidelines.
Anticipated Number of Stage 2 Awards	4-6 projects
Expected Range of Stage 2 Awards per project (NASA funding)	\$275K - \$450K (per annum funding scenarios depend on partnerships/cost sharing levels)
Period of Performance (Stage 2)	3 years
Expected Project Start Date (Stage 2)	18-20 months after proposal due date
Contributions from Partner Organizations (Stage 2)	Transition plan with resource commitments from partner organizations is expected

Selections: 17 Feasibility (Phase 1) Studies

RECOVER: Rehabilitation Capability Convergence for Ecosystem Recovery

Daily Forecasts of Wildland Fire Impacts on Air Quality in the Pacific Northwest: Enhancing the Air Indicator Report for Public Awareness and Community Tracking (AIRPACT) Decision Support System

Utilization of Multi-Sensor Active Fire Detections to Map Fires in the US. The Future of Monitoring Trends in Burn Severity

Enhanced Wildland Fire Management Decision Support Using Lidar-Infused LANDFIRE Data

Enhancing Wildland Fire Decision Support and Warning Systems

Applications of satellite measurements to improve prescribed fire management

Improving national shrub and grass fuel maps using remotely sensed data and biogeochemical modeling to support fire risk assessments

Improving agricultural and wildland fire source emission products and access to information for atmospheric science and smoke modeling applications

Linking remote sensing and process-based hydrological models to increase understanding of wildfire effects on watersheds and improve post-fire remediation efforts.

Classification of Whitebark Pine and Spruce-fir Forests to Improve Wildland Fire Decision Support Tools in the USFS Northern Region

A Prototype System for Predicting Insect and Climate-Induced Impacts On Fire Hazard in Complex Terrain

An integrated forest and fire monitoring and forecasting system for improved forest management in the tropics

Wildland Fire Behavior and Risk Prediction

Wildfire risk and treatment effectiveness of protecting highly valued resources and assets with fuels management

Development of New Geospatial Tools for Wildland Fire Management and Risk Reduction

AFTEERS: Automated Fuels Treatment Effectiveness Evaluation Using Remote-Sensing Information

Development and application of spatially refined remote sensing active fire data sets in support of fire monitoring, management and planning



Feasibility-to-Decision Support Projects

A two-stage approach to identify more high-reward projects with strong commitment by partner organizations. **Start with multiple feasibility studies** of possible applications ideas. After a year, **the Program selects a subset** of successful studies to pursue as **in-depth applications projects**.

Approach generates numerous applications ideas and focuses investments on those with high-reward potential.

Approach prioritizes partners' "skin-in-the-game" to increase their involvement in project and commitment to adopting the project results.

Year	Stage	Activity	NASA Share		Partner Share	
Year 1	Feasibility	Prove out application potential		100%	Optional	
Year 2	Decision Support	Develop application		~80%	~20%	
Year 3	Decision Support	Continue development		~60-70%	~30-40%	
Year 4	Decision Support	Complete application and transition		~30-40%	~60-70%	



The Program will include the following factors in its determination of projects to continue:

- Applicability of Earth observations to address the fire-related topic
- Measurable, potential impact to decision-making activity
- Partner interest, involvement, and commitment
- Viability of necessary science and technology
- PI and team expertise, influence, and experience
- Quality of preliminary Stage 2 Plan, including a transition approach with clear objectives to develop and transfer the application into sustained use
- Viability of partnership agreements and financial plan

Government Shutdown (~17 days) affected project reporting schedule

- **Phase 1 Reports / Phase 2 Plans:**
 - Originally due 11 October 2013;
 - Rescheduled for 31 October 2013
- **Mail Reviews to Panel Review Members:**
 - Original schedule: ~end of Oct;
 - Rescheduled for ~2nd Week of November
- **Convene Review Panel / Project Oral Debrief by PI:**
 - Original schedule: 18 November 2013;
 - Rescheduled for ??
- **Notify Successful Phase 2 Efforts:** January X, 2014
- **Successful Project Budget Augmentations:** 1 January 2014

A.35 Wildfire Presentations



1:00 PM	Vince Ambrosia		Attend	Introduction of NASA A.35 Wildfire Program
1:15 PM	Karyn Tabor	Conservation International	Virtual	An Integrated Forest and Fire Monitoring and Forecasting System for Improved Forest Management in the Tropics
1:30 PM	Mary Miller	MTRI	Virtual	Linking remote sensing and process-based hydrological models to increase understanding of wildfire effects on watersheds and improve post-fire remediation efforts
1:45 PM	Yuhang Wang	Georgia Tech	Virtual	Applications of satellite measurements to improve prescribed fire management
2:00 PM	James Vogelmann	USGS - EROS	Virtual	Improving national shrub and grass fuel maps using remotely sensed data and biogeochemical modeling to support fire risk assessments
2:15 PM	Matt Thompson	USFS - RMRS	Virtual	Wildfire risk and treatment effectiveness of protecting highly valued resources and assets with fuels management
Break (2:30-2:45 PM)				
2:45 PM	Birgit Peterson		Virtual	Enhanced Wildland Fire Management Decision Support using Lidar
3:00 PM	Keith Weber	ID State U.	Attend	The RECOVER Post-Fire Planning Product
3:15 PM	Sher Schranz	NOAA Affiliate	Attend	Wildland Fire Behavior and Risk Prediction
3:30 PM	Wilfrid Schroeder	NOAA Affiliate	Attend	Development and application of spatially refined remote sensing active fire data sets in support of fire monitoring, management and planning
3:45 PM	Son Nghiem	NASA JPL	Attend	Enhancing Wildland Fire Decision Support and Warning Systems
4:00 PM	Stacy Drury	Sonoma Tech	Virtual	AFTEERS: Automated Fuels Treatment Effectiveness Evaluation Using Remote Sensing Information
4:15 PM	Linda Vance	MT Nat. Heritage Program	Virtual	Mapping whitebark pine mortality and regeneration in southwest Montana
4:30 PM	Zack Holden	USFS - Missoula	Virtual	TOPOFIRE: A system for monitoring insect and climate induced impacts on fire behavior in complex terrain
4:45 PM	Siamak Khorram (Vince)	UC - Berkeley	Virtual	Wildland Fire Emission Estimation, A Remote Sensing Approach
5:00 PM				



Questions?

Vince Ambrosia

Assoc. Program Manager – Wildfires

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