INSPYRE Science Team Meeting
By Invitation Only
University of Iowa Memorial Union
Feburary 18-20 2026
Updated 2-10-26

Wednesday, 18 February 2026				
Time CST	**Length**	**Topic**	**Presenter / Rm**	**Brief #**
8:00 AM	30	Registration - Coffee and Pastries	Big Ten Lobby/Herky Room	
Session 1: Mission Overview (Moderator: Salazar)			Big Ten Theatre	
8:30 AM	5	INSPYRE Intro and Welcome	Peterson	1
8:35 AM	10	University of Iowa Welcome	Kevin Kregel / Jun Wang	
8:45 AM	5	NASA HQ Overview and ESSP Welcome	Jucks / Olson	
8:50 AM	5	NRL Perspective (virtual)	Hansen	
8:55 AM	5	Meeting Logistics	Milano	
9:00 AM	30	INSPYRE Overview and Science Objectives	Peterson / Lareau / Kalashnikova	
9:30 AM	15	INSPYRE Campaign Logistics	Salazar	
9:45 AM	10	RAF Ops Center Logistics	Wolff	2
9:55 AM	10	INSPYRE Data Repository and Requirements	Shook	3
10:05 AM	25	Coffee Break and Icebreaker	Herky Room, Lareau POC	
Session 2: ER-2 Team (Moderators: Kalashnikova / Yorks)			Big Ten Theatre	
10:30 AM	8	ER-2 Introduction and Overview	Kalashnikova / Yorks	0
10:38 AM	8	**MASTER:** MASTER characterization of fire energetics	Ichoku	1
10:46 AM	8	**EXRAD, CRS:** High Altitude Airborne Radars for INSPYRE	McLinden	2
10:54 AM	8	**CPL:** CPL ER-2 for INSPYRE	McGill	3
11:02 AM	8	**AirHARP-2:** The science applications of the AirHARP2 suite of instruments	Martins	4
11:10 AM	8	**LIP / EFCM:** Investigation of kinematic, microphysical, and electrification processes within Pyrocumulonimbus clouds with NASA's Lightning Instrument Package (LIP)	Shultz / Quick	5
11:18 AM	5	**iSTORM:** Investigations of Pyrocumulonimbus Convection, Lightning, and Energetic Radiation	Shy	6
Session 2.1: Instruments flying on the ER-2 and GV			Big Ten Theatre	
11:23 AM	8	**BBR:** Aircraft Broadband Shortwave & Longwave Measurements During INSPYRE	Bucholtz	7
11:31 AM	5	**POPS / MOUDI:** Harvard's Mini-MOUDI (both) and Optical Particle Counter (ER-2)	Abou-Rizk / Keutsch	8
11:36 AM	5	**Mavo Edge Camera** (virtual)	Fitzgerald	9
11:41 AM	24	ER-2 Score Card Discussion	Kalashnikova / Yorks	10
12:05 PM	80	Lunch on your own		
Session 3: Forecasting and Modeling (Moderators: McHardy / Saide)			Big Ten Theatre	
1:25 PM	10	Weather Forecasting and Modeling Overview	McHardy / Saide / Mallia / Baijnath-Rodino	0
1:35 PM	8	**Weather / PyroCb:** NRL Monterey Forecasting team overview	McHardy	1
1:43 PM	8	**Plume / PyroCb:** Forecasting Pyrocumulonimbus Events for the 2026/2027 INSPYRE Field Campaign	Mallia	2
1:51 PM	8	**Nowcasting / UTLS Smoke:** Monitoring and forecasting pyroCbs and UTLS aerosols during INSPYRE	Fromm	3
1:59 PM	8	**Fire Scale / Fuels Modeling** (virtual)	Kochanski	4
2:07 PM	8	**Fire Wx / Smoke Forecast:** UCLA forecasting and modeling	Saide / Baijnath-Rodino	5

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2:15 PM	8	**Smoke Emission Modeling (GSFC):** Effective use of regional and chemistry-climate modeling, and remote sensing to support INSPYRE flight Planning, execution, and data analysis	Sampa Das	6
2:23 PM	8	**Smoke Emission Modeling (U. Iowa)**	Wang / Zhou	7
2:31 PM	20	Afternoon Break	Herky Room	
2:51 PM	5	**Warn-on-Forecast:** Potential Applications of WoFS in INSPYRE	Jones	8
2:56 PM	5	**Satellite products / WRF:** CIRA Imagery, Optical Flow, and Modeling for INSPYRE (virtual)	Hilburn	9
3:01 PM	5	**E3SM:** PyroCb simulations using km-scale E3SM-RRM	Tang	10
3:06 PM	5	**Mesoscale Modeling:** Toward Accurate Simulations of Pyrocumulonimbus Development: The Role of Aerosols and Cloud Microphysics (virtual)	Liu	11
3:11 PM	24	Forecasting/Modeling Score Card Discussion	McHardy / Saide	12
3:35 PM	10	Day 1 Closing Remarks, Thursday Plan, and Poster Session Overview	Peterson	13
3:45 PM	20	University of Iowa Dean of Engineering Welcome: Dean Ann McKenna	R. Wayne Richey Ballroom	
4:05 PM	130	**Poster and Networking Session** Posters providers will find their name and number during morning registration; lists will be posted.		
6:15 PM		Dinner on your own		

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Thursday, 19 February 2026				
Time CST	**Length**	**Topic**	**Presenter / Rm**	**Brief #**
8:00 AM	30	Registration - Coffee and Pastries	Big Ten Lobby/Student Leadership Room	
Session 4: GV Team (Moderators: Schwarz / Wolff)			Big Ten Theatre	
8:30 AM	10	GV Introduction and Overview	Schwarz / Wolff	0
8:40 AM	8	**Cloud Probe Suite:** Coarse Mode and Cloud Observations during INSPYRE	Weinzierl / Woods	1
8:48 AM	8	**PUTLS / CAPS-SSA:** In-situ Measurements of Aerosol Microphysical and Optical Properties for INSPYRE	Brown / Ziemba	2
8:56 AM	8	**SP2:** Black carbon in pyroCb - some of what we want to learn	Schwarz	3
9:04 AM	5	**Mini-Aerosol Package** (virtual)	You / Li / Chakrabarty	4
9:09 AM	8	**TILDAS / Picarro:** NSF NCAR Facility Measurements of In Situ Gas Phase Tracers (with Harvard)	Pittman / Campos / Wofsy	5
9:17 AM	5	**VCSEL Hygrometer** (virtual)	Campos / Kruse	6
9:22 AM	8	Other NCAR instruments, BBR, Cameras, MOUDI	Wolff / Schwarz / Kruse	7
9:30 AM	20	GV Score Card Discussion	Schwarz	8
9:50 AM	20	Coffee Break and Poster Viewing	Student Leadership Room	
Session 5: Ground Team (Moderator: Lareau)			Big Ten Theatre	
10:10 AM	8	Ground Introduction and Overview	Lareau	0
10:18 AM	10	**Radar Suite, Lidars, Balloons:** Multi-frequency radar observations of plume dynamics during INSPYRE (virtual)	Clements	1
10:28 AM	7	**G-Band Radar** (JPL) (virtual)	Clements	2
10:35 AM	20	Ground Score Card Discussion	Lareau	3
Session 6: Collaborators (Moderator: Peterson)			Big Ten Theatre	
10:55 AM	22	**NASA FireSense:** FireSense Coordination with INSPYRE and Logistics	Fowler	1
11:17 AM	12	**USFS:** Wildland fire field perspectives from the U.S. Forest Service	Piña	2
11:29 AM	8	**NOAA S-HIS** (virtual)	Taylor	3
11:37 AM	8	**Landing Zones Canada:** Use of the Eagle Advanced Payload Delivery System for In-Situ pyroCb Measurements - Going Where Manned Aircraft Cannot Go!	Glenesk	4
11:45 AM	5	**SAGE III / ISS:** Products to support INSPYRE (virtual)	Flittner	5
11:50 AM	5	**MPLNET** (virtual)	Adams	6
11:55 AM	5	**Balloons:** Balloon measurements during the INSPYRE project	Vernier	7
12:00 PM	10	Summary of other collaborators and discussion	Peterson	8
12:10 PM	10	GROUP PHOTO		
12:20 PM	80	Lunch on your own and Poster Viewing		

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1:40 PM	15	**Breakout Session Overview** ***Focus on operations for each team:*** - staffing, timelines for in field deliverables - needs from forecasting team - tools/NRT data we plan to use - go/no calls, real-time adjustment protocols, and who has final authority	Big Ten Theatre	
1:55 PM	60	**Breakout Sessions (Individual Teams)** ER-2 Team (Kalashnikova / Yorks) GV Team (Schwarz / Wolff) Ground Team (Lareau) Forecasting and Modeling Team (McHardy / Saide)	**ER-2:** Big Ten Theatre **GV:** MGC Rm **Ground:** Student Leadership **Forecast:** 47 Things Rm	
2:55 PM	30	**Breakout Sessions Continued** - ER-2 and GV joint discussion - Forecast and ground can join the aircraft teams or continue separately	**ER-2 & GV:** Big Ten Theatre **Ground:** Student Leadership **Forecast:** 47 Things Rm	
3:25 PM	25	Afternoon Break and Poster Viewing	Student Leadership Room	
3:50 PM	40	Breakout outbreifs by session leaders	Big Ten Theatre	
4:30 PM	10	Day 2 Closing Remarks and Friday Plans	Peterson	9
4:40 PM	50	INSPYRE Leadership Team Meeting and other side meetings	All open rooms	
5:30 PM		Dinner on your own		
5:00-6:00 PM	60	Iowa Spaceflight Lab Tour: Please sign up if you are interested.		

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Friday, 20 February 2026

Time CST	Length	Topic	Presenter / Rm	Brief #
8:00 AM	30	Coffee and Pastries	Student Leadership Room	
Session 7: Flight Planning and Logistics (Moderators: Peterson / Salazar)			Big Ten Theatre	
8:30 AM	10	Flight planning session objectives and daily deployment schedule/plans	Peterson / Salazar	1
8:40 AM	10	What will be included in INSPYRE forecasting and nowcasting support?	McHardy / Saide	2
8:50 AM	10	What information and deadlines does the ER-2 crew require?	Kalashnikova / Yorks / Reid	3
9:00 AM	10	What information and deadlines does the GV crew require?	Wolff / Markowski	4
9:10 AM	10	How will ground teams develop plans and coordinate with mission HQ?	Lareau	5
9:20 AM	30	Air Space and Fire Incident Coordination: US and Canada	Lareau et al.	6
9:50 AM	20	Coffee Break	Student Leadership Room	
10:10 AM	90	**Airborne breakout sessions: focus on flight planning details!** ER-2 (Kalashnikova / Yorks / Reid) GV (Schwarz / Wolff / Markowski)	ER-2: Big Ten Theatre GV: 47 Things Rm Forecast/Ground should split	
11:40 AM	20	Breakout outbreifs by session leaders	Big Ten Theatre	
12:00 PM	80	Lunch on your own (leadership working lunch meeting)		
1:20 PM	20	What are the science and technical requirements for coordinated flights?	Leadership Team	7
1:40 PM	30	What set of flight modules will be developed over the next few months?		
2:10 PM	20	Flight planning tools for the ER-2 and GV	Yorks / Wolff	8
2:30 PM	20	MTS tools and content discussion	Duley / Leadership Team	9
2:50 PM	20	Afternoon Break	Student Leadership Room	
3:10 PM	30	April dry run plans	Peterson / Leadership Team	10
3:40 PM	10	Media training discussion	Salazar / Peterson	11
3:50 PM	10	Outreach plans and recruitment of leaders	Peterson / Salazar	12
4:00 PM	10	Recruiting pool for students and postdocs	Lareau	13
4:10 PM	10	Meeting wrap-up and schedule through September 2026	Peterson / Lareau / Kalashnikova	14
4:20 PM	0	**Formal Meeting Ends**		
4:20 PM	70	Extra time for side meetings	Big Ten Theatre	
5:30 PM		Dinner on your own		

In-Person Posters			
#	Last	First	Poster Title
1	Arnold	Mackenzie	*Evaluating and improving modeled smoke vertical distribution and surface concentrations for the 2020 western US wildfires.*
2	Chutia	Lakhima	*Repartitioning CESM Fire CO and CO2 Emissions Using Satellite-Based Modified Combustion Efficiency*
3	Colarco	Peter	*The Stratospheric Radiation and Chemistry Response to Wildfire-sourced Smoke Injections: Australian New Year (ANY) PyroCb Events 2020*
4	Das	Rubel	*Climatological Analysis of pyroCb events in North America (2013-2023): Insights into transport and potential impacts*
5	Dean-Day	Jonathan	*Advancing Airborne 3-D Wind and Heat Flux Measurements on the NCAR G-V using NASA's MMS Calibration and Analysis Framework*
6	Gapp	Nick	*The Broad Capabilities of the Coupled Ocean Atmosphere Mesoscale Prediction System (COAMPS)*
7	Helms	Charles	*NASA Goddard High Altitude Radar Level 2 Products*
8	Julstrom	William	*Satellite Detection of Potassium Emission Lines for Fire Phase Characterization with TROPOMI and OCO-2*
9	Kablick	Pat	*Forecasting stratospheric pyroCb plumes with NAVGEM*
10	Kingsmill	David	*Airborne Radar and In-Situ Observations of Wildfire-Induced Pyroconvection*
11	Kruse	Christopher	*Orographic-like flows over plume tops, GW breaking, and implications for Trop-Strat Exchange*
12	McBride	Brent	*In-Flight Performance Maintenance and Vicarious Calibration Recommendations for AirHARP2 during INSPYRE*
13	Petrusevski	Cameron	*Flying into Fiery Skies: An Inspiring NASA team mission*
14	Porter	Lauren	*Pyrocumulonimbus Nighttime Detection Algorithm*
15	Remington	Jackson	*Investigations of Pyrocumulonimbus Convection, Lightning, and Energetic Radiation*
16	Smith	Rachel	*Retrieving Liquid Cloud Size Distribution from the Polarized Cloudbow from HARP*
17	Vernier	Jean-Paul	*Balloon measurements during the INSPYRE project*
18	Vernier	Hazel	*Unraveling the Organic and Inorganic Composition of PyroCb-Generated Plumes in the UTLS via Balloon-Borne Aerosol Sampling*
19	Wang	Jun	*New satellite data product on smoke layer height and combustion efficiency*
20	Wilson	Lance	*Pyrocumulonimbus Early Warnings from NUCAPS Thermodynamic Profiles*
21	Xu	Xiaoguang (Richard)	*AirHARP2 Suite Instruments for Aerosol and Cloud Characterization*
22	Xue	Zhixin	*UNL-VRTM: recent development of radiative transfer modeling for remote sensing aerosols and fires with visible light from moon and fires*
23	Zhang	Jessie	*Improving WRF-Fire initialization using the FILDA-2 fire product*
24	Zhou	Meng	*Introducing the Monte Carlo Biphasic Estimation of Fire Properties (McBEF) algorithm for subpixel fire characterization*
Virtual Posters (shown on a projection screen)			
1	Clouser	Benjamin	*In-situ measurements of the HDO/H2O Isotopic ratio in the North American Summer Monsoon trace strong convective activity*
2	Dennison	Phil	*Real-time AVIRIS-3 Active Fire Data*
3	Li	Yaowei	*Enhanced Radiative Cooling by Large Aerosol Particles from PyroCb*
4	Liu	Fei	*Detecting diurnal cycle and lifetime of pyrocumulonimbus using GOES-19 infrared data with a machine learning model*