



ECOSTRESS Science and Applications Team Meeting, August 18-20, 2026

Tuesday, Aug 18, 2026

Time (Pacific)	Title	Speaker	
7:30	Registration/arrival		<i>Start</i>
8:00	Welcome to ECOSTRESS team meeting	Simon Hook (15 minutes)	
8:15	Ice breaker	Kerry Cawse-Nicholson (45 minutes)	
9:00	HQ update (science and applications)	Kelsey Bisson/Keith Gaddis (10 minutes)	<i>HQ Update</i>
9:10	HQ update (budget and programmatic)	Jamie Wicks/Mike Obland (10 minutes)	
9:20	EAGLE update	Simon Hook (10 minutes)	
9:30	<i>DISCUSSION - 30 min</i>		<i>HQ Q&A</i>
10:00	<i>BREAK - 15 min</i>		
10:15	Collection 2 and 3 update	Dana Freeborn (15 minutes)	<i>Team Update</i>
10:30	ECOSTRESS applications update	Christine Lee (15 minutes)	
10:45	ECOSTRESS Collection 3: L1 geolocation update	Mike Smyth (15 minutes)	
11:00	ECOSTRESS Collection 3: L2 refinements and improvements	Glynn Hulley (15 minutes)	
11:15	ECOSTRESS Collection 3: L3/4 refinements and improvements	Gregory Halverson (15 minutes)	
11:30	Panel Discussion (ECOSTRESS Team) Q&A	ECOSTRESS Team (Dana Freeborn, Veljiko Jovanovich, Mike Smyth, Glynn Hulley, Gregory Halverson, Kerry Cawse-Nicholson)	
12:00	<i>LUNCH BREAK - 1h30 min</i>		
	Joint ECOSTRESS/EMIT oral session		
13:30	EMIT and EAGLE-VSWIR update	Rob Green (15 minutes)	<i>Joint EMIT session</i>
13:45	Mapping Urban Heat to Its Source: EMIT-ECOSTRESS Material Attribution for LA28 Olympic Games	Glynn Hulley (15 minutes)	
14:00	imageRy: A Statistical Framework for Exploring Spectral Imagery	Duccio Rocchini (15 minutes)	
14:15	ECOSTRESS 30m gridded emissivity product for Geological and UHI applications	Federico Rabuffi (15 minutes)	

14:30	Integrating joint VSWIR-TIR derived Snow Products into Operational Workflows and Decision Making for Water Resources	Niklas Bohn (15 minutes)	
14:45	Mapping Urban Biodiversity in LA County for Heat and Carbon Mitigation	Raissa Estrela (15 minutes)	
15:00	<i>BREAK - 15 min</i>		
15:15	Joint ECOSTRESS/EMIT poster session (2 hour 15 minutes)		
	Characterizing ECOSTRESS performance since deployment	Bill Johnson	<i>Poster session</i>
	Detecting Pre-Fire Vegetation Stress using ECOSTRESS and Machine Learning	Swati Suman	
	TBD	Alvaro	
	The ECOCO3 Data Product: Monitoring Plant Solar-Induced Chlorophyll Fluorescence and Evapotranspiration from OCO-3 and ECOSTRESS on the ISS	Thomas Kurosu	
	How Hot is Happiness?	Juliet Holmboe	
	Does Underlying Water Use Efficiency Buffer the Amazon Biomass Ceiling? A Framework Combining GEDI and First Spaceborne ECOSTRESS iWUE	Paul Green	
	Wildfire severity reshapes remotely sensed surface temperature and vegetation phenology in a Western Cascades forest ecosystem	Daniel Griffith	
	Air Pollution Aeroallergen monitoring and Identification	Dheeresh Kumar	
	Assessing pre-fire fuel stress and post-fire fuel recovery in southern California forests using ECOSTRESS	Caroline Juang	
	Identifying LST Hotspots During the FIFA World Cup 2026 using ECOSTRESS	Charis Adams	
	VITALS	Mahsa Jami	
	ECOSTRESS-Derived Vegetation Moisture Stress as a Pre-Fire Predictor of Pyrocumulonimbus Intensity in the Pacific Northwest and California	Lauren Kim	
	A trade-off between carbon gain and water loss among wet and dry tropical forests under elevated CO2	Lianlei Fu	
17:30	End		

Wednesday, Aug 19, 2026

Time (Pacific)	Title	Speaker	
7:30	Registration/arrival		
8:00	Group Discussion Topics: 1) Increasing use of ECOSTRESS data in applications / end users; 2) Building relationships with industry	Moderators: Simon Hook, Vicky Espinoza, Glynn Hulley	Breakouts
9:00	High resolution Sea Surface Temperature from ECOSTRESS	David Wethey (15 minutes)	Science Team Talks
9:15	From Global Trends to Local Microclimates: Assessing NOAA Coral Reef Watch Alerts and ECOSTRESS Thermal Imagery in Belize	Ileana Galdamez (15 minutes)	
9:30	Global High-Resolution Soil Moisture from Knowledge-Guided Machine Learning with Integrating Satellite Embedding, Optical, Thermal, and Microwave Observations	Sheng Wang on behalf of Kaiyu Guan (15 minutes)	
9:45	Flowing Insights: Unraveling Crop Water Use with Sap Flow Sensors	Kyle DeLong on behalf of Brian Hornbuckle (15 minutes)	
10:00	DISCUSSION - 15 min		
10:15	BREAK - 15 min		
10:30	Structural and environmental controls on urban-forest cooling in New York City from ECOSTRESS	Nicholas Steiner (15 minutes)	Science Team Talks
10:45	Harnessing ECOSTRESS to Assess Diurnal Urban Thermal Dynamics and Their Impacts on Heat-Related Health Risks	Leiqiu Hu (15 minutes)	Virtual Science Team Talks
11:00	Fire-driven changes in seasonal and diurnal basin water balances in California	Mandy Lopez on behalf of Madeleine Pascolini-Campbell (15 minutes)	
11:15	Using ECOSTRESS to determine the effects of a large-scale enhanced rock weathering field trial on evapotranspiration	Greg Goldsmith (15 minutes)	Community Presentations
11:30	OCO-3 Meets ECOSTRESS: Insights into ecosystem diurnal water-use efficiency from co-located solar-induced fluorescence and thermal observations	Zoe Pierrat (15 minutes)	
11:45	DISCUSSION - 15 min		
12:00	LUNCH BREAK - 1h30 min		
13:30	Quantifying ecosystem sensitivity to drought with ECOSTRESS: spatial gradients and heterogeneity	Jen Diehl on behalf of Andrew Feldman (15 minutes)	Science Team Talks
13:45	Integrating ECOSTRESS and Landsat Observations for Improved Evapotranspiration Mapping	Yun Yang (15 minutes)	
14:00	Thermally Sensitive ECOSTRESS Evapotranspiration Model Ensemble Evaluation and Development	Gregory Halverson (15 minutes)	

14:15	Semi-arid forest restoration	Julia Tatum on behalf of Temuulen Sankey (15 minutes)	<i>DAAC Updates</i>
14:30	I.C.E. C.R.E.A.M.: Integrating Communication of ECOSTRESS into Community Research, Education, Applications, and Media	Josh Fisher (15 minutes)	
14:45	LP DAAC update and website demo	Mahsa Jami (10 minutes)	
14:55	ORNL DAAC update	Rupesh Shrestha (10 minutes)	
15:05	<i>DISCUSSION - 10min</i>		
15:15	<i>BREAK - 15 min</i>		
15:30	ECOSTRESS hackathon! Create the best ECOSTRESS image - winner to be featured on our webpage!	All (2 hours)	<i>Workshop</i>
17:30	End		

Wednesday no-host happy hour - Dog Haus Biergarten, 93 E Green St, Pasadena

Thursday, Aug 20, 2026

Time (Pacific)	Title	Speaker	
7:30	Registration/arrival		
8:00	TRISHNA pre-launch experiment with resolution thermal remote sensing (virtual)	Bimal Bhattacharya (15 minutes)	Virtual Community Presentations
8:15	Assessment of Geometric Accuracy and Radiometric Consistency Between ECOSTRESS and OroraTech Thermal Observations (virtual)	Rania Sahnoun (15 minutes)	
8:30	Hydrosat: A new satellite constellation for global, daily, 25 m thermal infrared measurements	Josh Fisher (15 minutes)	
8:45	NASA’s ECOSTRESS satellite reveals widespread midday depression in ecosystem evapotranspiration	Jingfeng Xiao (15 minutes)	
9:00	Heat Exposure and Deprivation - the use of ECOSTRESS DATA	Monika Kuffer (15 minutes)	
9:15	Integrating ECOSTRESS Thermal Observations with Energy System Planning for Urban Heat Resilience and Distributed Energy Storage in Indian Cities	Manan Pathak (15 minutes)	
9:30	Temporal Dynamics of Ecosystem Carbon Fluxes in the HJBL Lowland, Canada	Md Saifuzzaman (15 minutes)	
9:45	TBD - virtual talk	Cesar Valbuena (15 minutes)	
10:00	DISCUSSION - 15 min		
10:15	BREAK - 15 min		
10:30	Update on "Towards Enhancement of NASA ECOSTRESS ET Products for validation at Forest Sites in the SE US"	Devendra Amataya, Sudhanshu Panda, Akash Atnurkar (15 minutes)	Science team presentation
10:45	Diffuse light impacts on evapotranspiration: From acute events to long-term changes	Allison Steiner (15 minutes)	
11:00	Uncertainty Quantification of the NASA Jet Propulsion Laboratory 500-Series Near Nulling Thermal Radiometer	Savannah Cooley (15 minutes)	Community Presentations
11:15	A Needs Assessment of American Cities' Use of Earth Observations to Address Urban Heat	Jacob Ramthun (15 minutes)	
11:30	HEAT28: Extending ECOSTRESS Urban Heat Science Toward Decision-Ready Heat Intelligence for LA28 and Los Angeles	Duane Waliser (15 minutes)	
11:45	Widespread Urban Heat Disparities across 100 US Cities	Yi Yin (15 minutes)	
12:00	LUNCH BREAK - 1h30 min		
13:30	(C.O.N.N.E.C.T. - S.B.G.: Collaborative Nexus for Networking, Education, and Career Training in Surface Biology and Geology)	Gabriela Shirkey (15 minutes)	Community Presentations
13:45	Wildfire Succession Diurnal Thermal Buffering	Megan Ward-Baranyay (15 minutes)	

14:00	2023 La Crau Ground to Orbit Comparison of LST and Emissivity from Radiometer, HyTES, ECOSTRESS, and ASTER	Andrew Alamillo (10 minutes)
14:10	Validation of ECOSTRESS-derived Air Temperature against CIMIS & NOAA ground stations: predictor sensitivity and station footprint effects for 2028 Olympics heat mitigation	Avitej Akula (10 minutes)
14:20	Marine heatwaves, candidate refugia, and maritime traffic in Mediterranean marine protected areas	Julia Krider and Hansa Mukherjee (10 minutes)
14:30	Designing Cooler Communities with ECOSTRESS: Guiding Climate-Resilient Infrastructure Planning in Allensworth, California	Vicky Espinoza (10 minutes)
14:40	ECOSTRESS Fire Detection: A Radiance-First Pathway for High-Resolution Wildfire Evidence	Fares Alhezaimi (10 minutes)

14:50 *DISCUSSION - 10 min*

15:00 *BREAK - 10 min*

15:10	Double Machine Learning for Causal Estimation of Prescribed Burn Effects on dNBR	Josh Fuery (10 minutes)	<i>Community Presentations</i>
15:20	End-User Tools for Geolocation Assessment, Quality Control, and Correction	Jake Longenecker (10 minutes)	
15:30	ThermO Net: Near-surface thermal observation network	Jen Diehl (10 minutes)	
15:40	Cal/Val of Thermal Infrared Radiometers at Lake Tahoe and Salton Sea: Modeling Bulk-to-Skin Temperature Corrections	Matthew Goodman (10 minutes)	
15:50	The Cooling Efficiency Factor Index (CEFI): A New Satellite-Based Dataset for Research and Operational Monitoring of Land Surface Processes (virtual)	Matteo Zampieri (10 minutes)	
16:00	How does contaminated water affect the ESI of plants nearby?	Ryan Chi (10 minutes)	
16:10	Wildfire drivers impacting an elephant sanctuary in South Africa	Maia Nicholson (10 minutes)	<i>Breakouts</i>
16:20	Breakout Sessions: Perspectives Across Career Stages	Gabriela Shirkey (40 mins)	

17:00 *DISCUSSION AND WRAP-UP - 30 min*

17:30 End