

WELCOME TO

  
CIRCS  
Rendezvous2021

hosted by  
  
CIRCS MEMBERS' COUNCIL



[cires.colorado.edu/about/institutional-programs/cires-members-council](https://cires.colorado.edu/about/institutional-programs/cires-members-council)  
[cires-cmc@lists.colorado.edu](mailto:cires-cmc@lists.colorado.edu)



**Please submit questions you have now or throughout the morning. There will be a Q&A at the end of this morning's presentation.**

Please comment in the YouTube chat directly  
or  
Email [ciresrendezvous@gmail.com](mailto:ciresrendezvous@gmail.com)

# What have you celebrated in the last 2 months?



# It takes a (virtual) village...

\*CMC Member

## CMC Rendezvous Committee



Dawn Umpleby,\* Meg Tilton,\* Linda Pendergrass,  
Nate Campbell

## Other key players

Lornay Hansen, Lucia Harrop, Dave Zakavec, Katy Human, Kathy Bogan, Dan Keane, LuAnn Line, Jasmine Moore, Matt Price, Kelly Robbins

## OPA co-chairs



Jonathan Kofler\* and  
Gabrielle Petron\*

## Other CMC Members

Eric Adamson, Janice Bytheway, Antonietta Captondi, Ryan Cassotto, Yelena Pichugina, Jimena Ugaz, Man Zhang

## Poster Session Shepherds



Molly Hardman,\* Eric James,\* Ian Geraghty,  
Joe Katich,\* Aleya Kaushik



Linlin Pan, Gabrielle Petron,\* Aaron Sweeney,\*  
Ken Tanaka, Mistia Zuckerman\*



Cooperative Institute for Research in Environmental Sciences

UNIVERSITY OF COLORADO BOULDER and NOAA



# Staff

Spring 2021: 872 people

Visiting Scientist	11
Faculty	22
Postdoctoral Researcher	39
Administration	79
Undergraduate Student	40
Graduate Student	93
Research Scientist	249
Associate Scientist	292
Temporary & Retirees	38

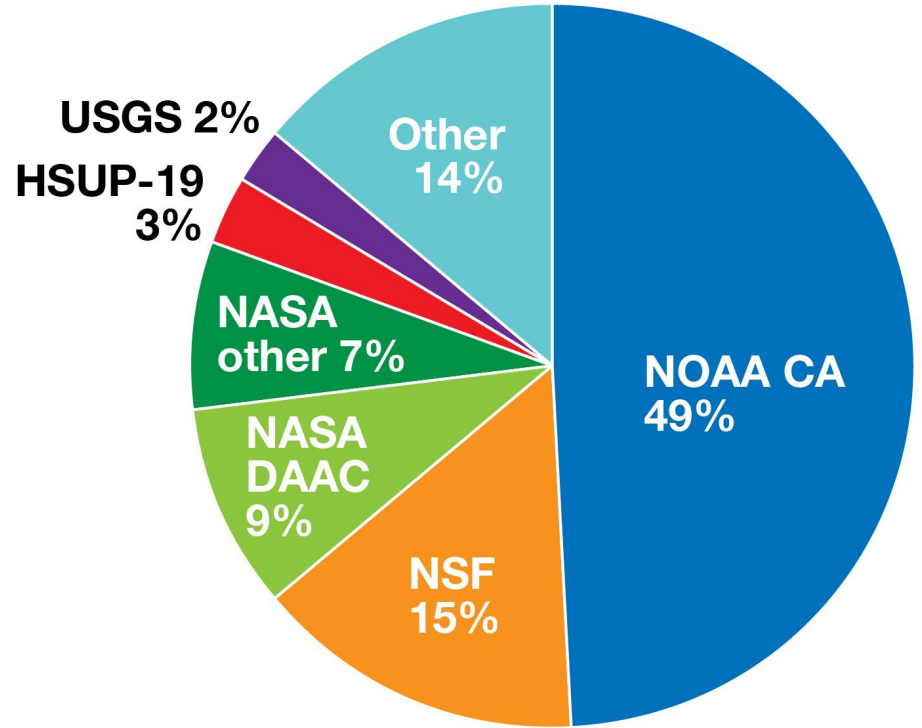
# Funding sources

July 1, 2020 - April 30, 2021

**Total funding:**

**\$75,755,775** (10 months)\*

\*annual numbers are not yet finalized by CU Boulder



# Diversity & Inclusion

- a year of important work
  - racial equity course & follow-up
  - groups working to make a difference
- Susan Sullivan, Director of Diversity & Inclusion
  - CIRES, CU, & broader geosciences community
  - New vision, mission, strategic plan
  - Training, engagement, data, evaluation
  - poster in Admin section



## What's Happening in Diversity and Inclusion at CIRES?

Susan M. Sullivan (CIRES)



University of Colorado  
Boulder

**CIRES Diversity and Inclusion**  
The CIRES Diversity and Inclusion (D&I) program is focused on the CIRES workforce.

**5 year Vision**  
Justice, equity, diversity, and inclusion are core values at CIRES. Our lived commitment to these values shapes our work culture and is essential to how we practice excellence and integrity in environmental research.

**Mission**

- Continue to build an inclusive, respectful culture that recognizes and embraces the diversity.
- Increase CIRES' ability to successfully seek, hire, and retain a diverse workforce.
- Increase partnerships with organizations that serve underrepresented and marginalized groups in environmental sciences.

The new strategic plan is being operationalized in preparation for a CIRES-wide comment period.

**A nested network for change**

Multiple CIRES groups are working on diversity and inclusion and anti-racism.

- CIRES D&I Community of Practice
- Inter-Institute BIPOC and Ally meetups First Fridays
- DSRC working groups CIRES/CSL, GML, SWPC, NCEI
- National Snow and Ice Data Center Working Group
- Earth Lab and NC CASG
- Education and Outreach
- And more...

[URL: CIRES DEI Working Group Contracts](https://bit.ly/CIRES_DEI_Working_Group_Contracts)

**Build community by building skills**

Events help CIRES employees build skills and find like-minded colleagues.

- Cultural Collisions (Donna Mejia)
- Authentic Partnership with Tribal Communities (James Rattling Leaf)
- Picture a Scientist (Collaboration)
- Racial Equity Challenge for Institutes (Inter-Institute)
- D&I Search and Hire (with CU HR)
- Setting Team Norms (with OIEC)
- Community of Practice meetings

**SOLESS** [https://bit.ly/SOLESS\\_1](https://bit.ly/SOLESS_1)

<http://ciresdiversity.colorado.edu/>

# In 10 words or less: What has the crazy last year taught you?







# Science Highlights



# Science...



Eos, Scott Christy

# Science Highlights

## Article

### A decline in global CFC-11 emissions during 2018–2019

<https://doi.org/10.1038/s41586-021-03260-5>

Received: 1 July 2020

Accepted: 11 December 2020

Published online: 10 February 2021

 Check for updates

Stephen A. Montzka<sup>1,2</sup>, Geoffrey S. Dutton<sup>1,2</sup>, Robert W. Portmann<sup>3</sup>, Martyn P. Chipperfield<sup>4,5</sup>, Sean Davis<sup>6</sup>, Wuhu Feng<sup>1,6</sup>, Alistair J. Manning<sup>7</sup>, Eric Ray<sup>2,3</sup>, Matthew Rigby<sup>8</sup>, Bradley D. Hall<sup>1</sup>, Carolina Siso<sup>1,2</sup>, J. David Nance<sup>1,2</sup>, Paul B. Krummel<sup>9</sup>, Jens Mühle<sup>10</sup>, Dickon Young<sup>8</sup>, Simon O'Doherty<sup>8</sup>, Peter K. Salameh<sup>10</sup>, Christina M. Harth<sup>10</sup>, Ronald G. Prinn<sup>11</sup>, Ray F. Weiss<sup>10</sup>, James W. Elkins<sup>1</sup>, Helen Walter-Terrinoni<sup>12</sup> & Christina Theodoridi<sup>13</sup>

The atmospheric concentration of trichlorofluoromethane (CFC-11) has been in decline since the production of ozone-depleting substances was phased out under the Montreal Protocol<sup>1,2</sup>. Since 2013, the concentration decline of CFC-11 slowed unexpectedly owing to increasing emissions, probably from unreported production, which, if sustained, would delay the recovery of the stratospheric ozone layer<sup>1–12</sup>. Here we report an accelerated decline in the global mean CFC-11 concentration during 2019 and 2020, derived from atmospheric concentration measurements at remote sites around the world. We find that global CFC-11 emissions decreased by  $18 \pm 6$  gigagrams per year ( $26 \pm 9$  per cent; one standard deviation) from 2018 to 2019, to a 2019 value ( $52 \pm 10$  gigagrams per year) that is similar to the 2008–2012 mean. The decline in global emissions suggests a substantial decrease in unreported CFC-11 production. If the sharp decline in unexpected global emissions and unreported production is sustained, any associated future ozone depletion is likely to be limited, despite an increase in the CFC-11 bank (the amount of CFC-11 produced, but not yet emitted) by 90 to 725 gigagrams by the beginning of 2020.







<https://cires.colorado.edu/spheres>

Photo: John Cassano

# Recognition



Cooperative Institute for Research in Environmental Sciences  
UNIVERSITY OF COLORADO BOULDER and NOAA



# 2021 Career Track Promotions

## **Associate Scientist II**

Matthew Gentry  
Christian Herrera

## **Associate Scientist III**

Michael Brandt  
Ratina Dodani  
William Diment  
Thomas Falkowski  
Matthew Fisher  
Jessica Henley  
Gaelle Hervieux  
Zhuxiao Li  
Laura Melling  
Paul Moth  
Jay Patel

Erin Reeves  
Molly Smith  
Adam Woods  
Mistia Zuckerman

## **Senior Associate Scientist**

Andrew Barrett  
Kimberly Baugh  
Nathan Campbell  
Kelly Carignan  
Finn Dahl  
Kathryn Heightley  
Erin LeFevre  
Evan McQuinn  
Elizabeth Ossowski  
William Rowland

Aaron Sweeney  
Ken Tanaka

# 2021 Career Track Promotions

## Research Scientist II

Adam Ahern  
Christopher Amante  
Alison Banwell  
Ilann Bourgeois  
Kai-Lan Chang  
Yaosheng Chen  
Jake Gristey  
Meng Li  
Courtney Peck  
Matthew Rossi

Hannah Vagasky  
Isaac Vimont

## Research Scientist III

Hazel Bain  
Laura Bianco  
Matthew Druckenmiller  
Benet Duncan  
Jason English  
Mariusz Pagowski

## Senior Research Scientist

Barry Eakins  
Maria Capotondi  
Michael Hobbins  
Siri Jodha Singh Khalsa  
Manoj Nair

# 2021 Career Track Promotions

## **Administrative Associate III**

Anna Fudale

LuAnn Line

Rebecca Stossmeister

## **Senior Administrative Associate**

Kathleen Bogan

Lone Hansen

Karin Vergoth

# 5 Years of Service

as of April 30, 2021

Eric Adamson

Seth Arens

Athanasios Boudouridis

Mary Ellen Byers

Susan Cobb

Matthew Coggon

Finn Dahl

Candida Dewes

Hui Ding

Michael Erickson

Matthew Fisher

Dominic Fuller-Rowell

Audrey Gaudel

Guoqing Ge

Benjamin Green

Anne Handschy

Gaelle Hervieux

Kristopher Karnauskas

Michael Laxer

Erin LeFevre

Wen Wei Liao

Kathryn McKain

Julia McMillen

Paul Moth

John Mund

Matthew Price

Erin Reeves

Richard Saltus

Kenneth Schuldt

Daniel Seaton

Sang-Ik Shin

Laura Slivinski

Lawrence Spencer

Diana Stovern

Kristy Tiampo

Daniel Wilkinson

Christina Williamson

Li Zhang

Mistia Zuckerman



# 10 Years of Service as of April 30, 2021

Pedro Campuzano-Jost

Daniel Crumly

Patrick Cullis

Douglas Day

Raina Gough

Shilpi Gupta

Emiel Hall

Jessica Henley

Eric James

Larisa Krista

Matthew Love

George Millward

William Moninger

Donald Murray

Timothy Newberger

Dusan Odstrcil

Gopakumar Padmanabhan

Jocelyn Turnbull

Adam Woods

Takanobu Yamaguchi

# 15 Years of Service as of April 30, 2021

Rainer Bleck

Xinzhao Chu

Marc Cloninger

Molly Crotwell

Curt de Koning

Irina Djalalova

Ratina Dodani

Barry Eakins

Mariangel Fedrizzi

Fred Fehsenfeld

Noah Fierer

Andrew Jacobson

Justin Mabie

Carrie Morrill

Jeffrey Peischl

Gabrielle Petron

Naomi Rempel

Sonja Wolter

Photo: Evan Kalina

# 20 Years of Service

as of April 30, 2021



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20 Years of Service

Elizabeth Cassano

John Cassano





20 Years of Service

Peter Molnar



20 Years of Service

# Betsy Sheffield



20 Years of Service

William R. Travis





20 Years of Service

Richard Grubb  
Robert Pincus



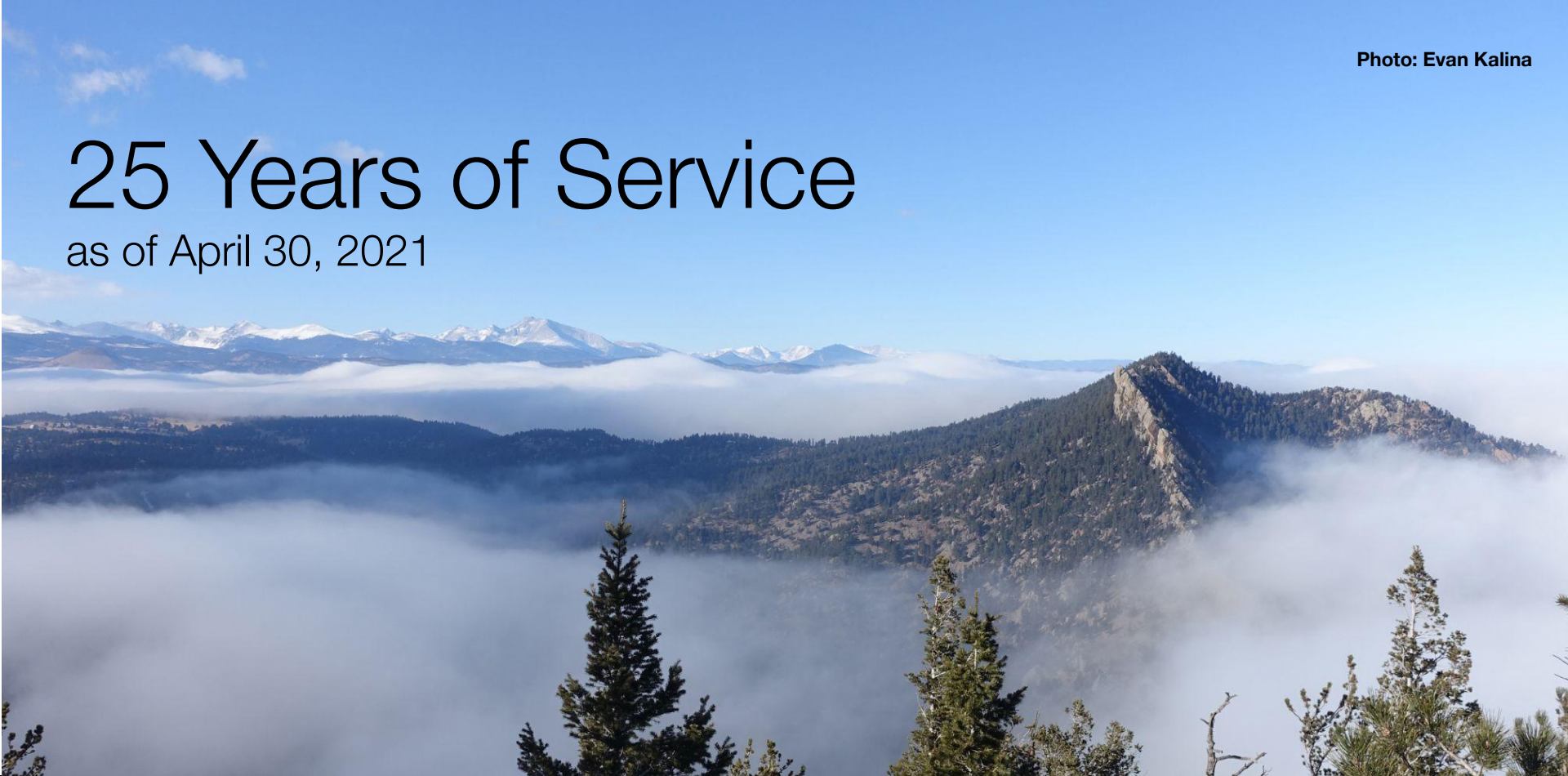
Photo: Matt Newman



Photo: Evan Kalina

# 25 Years of Service

as of April 30, 2021



Cooperative Institute for Research in Environmental Sciences  
UNIVERSITY OF COLORADO BOULDER and NOAA



25 Years of Service

# Florence Fetterer



25 Years of Service

# Christoph Senff





25 Years of Service

Fred Moore



Photo: G. Garrett Campbell

Photo: Lynne Harden

# 30 Years of Service

as of April 30, 2021



Cooperative Institute for Research in Environmental Sciences  
UNIVERSITY OF COLORADO BOULDER and NOAA





30 Years of Service

Paul Johnston



30 Years of Service

# Tim Fuller-Rowell





Photo: Michala Whitmore

# 35 Years of Service

as of April 30, 2021



Cooperative Institute for Research in Environmental Sciences  
UNIVERSITY OF COLORADO BOULDER and NOAA





35 Years of Service

# Don "Hoop" Hooper



35 Years of Service

Duane Kitzis





Photo: Darrel Kingfield

# 40 Years of Service

as of April 30, 2021



Cooperative Institute for Research in Environmental Sciences  
UNIVERSITY OF COLORADO BOULDER and NOAA



40 Years of Service

# Robert E. Sievers



# CIRES Outstanding Performance Awards

Science & Engineering

Service



Cooperative Institute for Research in Environmental Sciences  
UNIVERSITY OF COLORADO BOULDER and NOAA





# CIRES Outstanding Performance Awards: Science & Engineering

## Patrick Alken, NCEI

for successfully leading the development, validation, and release of an international reference geomagnetic model used widely in academia, government, and industry.



CIRES Outstanding Performance Awards: Science & Engineering

**Douglas Day, Hongyu Guo,  
Pedro Campuzano Jost, Demetrios Pagonis,  
Donna Sueper**

CIRES/CU Aerosol Mass Spectrometry team, Jimenez Group

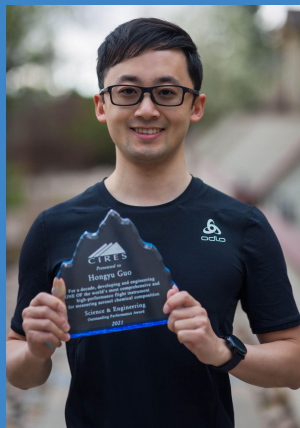
For a decade developing and engineering ONE OF the world's most comprehensive and high-performance flight instrument for measuring aerosol chemical composition.



# CIRES Outstanding Performance Awards: Science & Engineering



Doug Day



Hongyu Guo



Pedro Campuzano  
-Jost



Demetrios Pagonis



Donna Sueper

# CIRES Outstanding Performance Awards: Science & Engineering

## **Ravan Ahmadov, Eric James, Stuart McKeen, GSL/CSL**

for leading a multi-year effort to implement a biomass burning module in an existing hourly Numerical Weather Prediction system to predict smoke movement.





# CIRES Outstanding Performance Awards: Science & Engineering



**Ravan Ahmadov**



**Eric James**



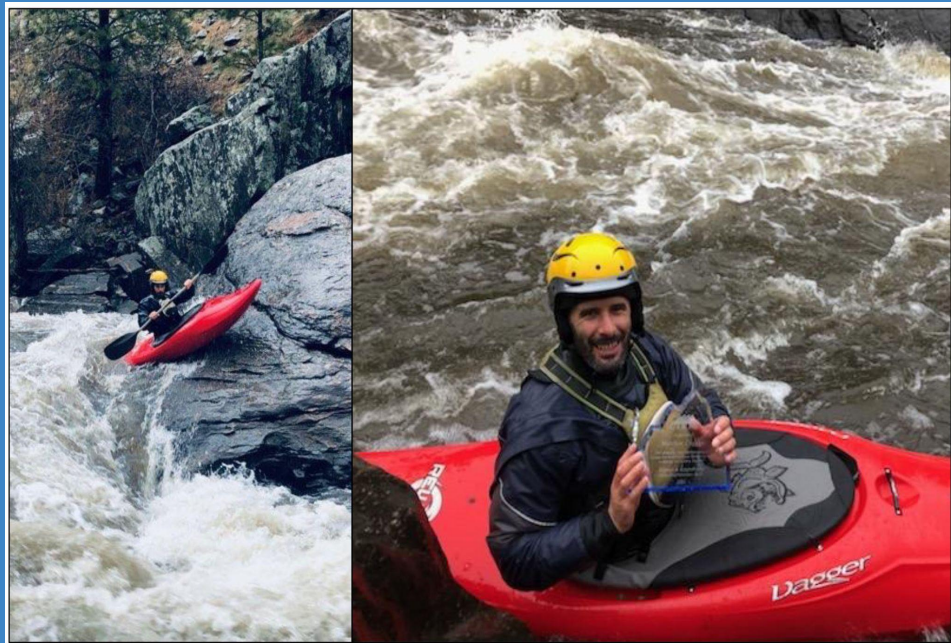
**Stuart McKeen**



# CIRES Outstanding Performance Awards: Science & Engineering

## Matthew Coggan, CSL

for changing our understanding of urban and wildfire ozone formation and resulting “air quality impacts”



CIRES Outstanding Performance Awards: Service

**Rebecca Batchelor, Alicia Christensen,  
Annie Fudale, Meghan Henderson,  
Amanda Morton, Christine Okochi**

For remarkable work supporting the Research Experience for Community College Students (RECCS) program, changing the academic trajectories and lives of many.



# CIRES Outstanding Performance Awards: Service



**Bec Batchelor**



**Alicia Christensen**



**Annie Fudale**



**Meghan Henderson**

CIRES Outstanding Performance Awards: Service

**Kathleen Bogan, Jon Griffith, Lynne Harden,  
Lianna Evans Nixon, Matthew Adam Price,  
Matthew D Shupe, Katherine Lucille  
Weeman**

For creative, high-impact outreach, education, and communications work in support of the year-long MOSAiC Arctic research expedition.





# CIRES Outstanding Performance Awards: Service



**Kathy Bogan**



**Jon Griffith**



**Lynne Harden**



**Matt Price**



**Matt Shupe**



**Katie Weeman**



# CIRES Outstanding Performance Awards: Service

## John Mund, GML

For exceptional skill and service as a data manager, programmer, and IT specialist supporting national and international atmospheric monitoring and research.



CIRES Outstanding Performance Awards: Service

# Catherine Rasco, Megan Melamed, Chelsea Thompson, CSL

For redesigning the Chemical Sciences Laboratory website and orchestrating excellent use of ESRI “Story Maps” in support of the 5-year laboratory review.



# CIRES Outstanding Performance Awards: Service



Catherine Rasco



Megan Melamed



Chelsea Thompson

# About the CIRES Medals

CIRES scientists are often integral to NOAA award-winning science and engineering teams but cannot be given certain federal awards, such as the prestigious Department of Commerce Gold, Silver, and Bronze Medals. The CIRES Director recognizes the extraordinary achievements of CIRES scientists working in partnership with federal colleagues.





# CIRES Gold Medal

## Philip Pegion

For development and accelerated implementation of NOAA's flagship Global Forecast System GFSv15.1, a foundation for FV3 based Unified Forecast System.



# CIRES Gold Medal

**Geoff Dutton, Lei Hu, J. David Nance,  
Debra Mondeel, Fred Moore, Ben R. Miller,  
Eric Ray, Carolina Siso**

For discovering the recent production and release of CFC-11, indicating a major violation of the Montreal Protocol.



# CIRES Gold Medal



**Geoff  
Dutton**



**Carolina Siso**



**Hei Lu**



**David Nance**



**Debra Mondeel**

# CIRES Gold Medal

**Finn Dahl, Barry Eakins, Erin LeFevre,  
Elliot Lim, Brian Meyer, Rick Saltus**

For successful orchestration of seafloor mapping & data science initiatives imperative to fulfill U.S. Extended Continental Shelf (ECS) project goals.





# CIRES Gold Medal



Rick Saltus



Elliot Lim



Barry Eakins



Brian Meyer



# CIRES Gold Medal

**Juan V. Rodriguez,  
William Rowland,  
Margaret Tilton**

For innovative engineering and science approach that avoided \$28M in repair cost to deliver NOAA instruments to Metop-C to improve weather forecast.



**Juan V. Rodriguez**



# CIRES Gold Medal SWPC Group Plaque

**The CIRES SWPC Team including:  
Hazel Bain, Ratina Dodani, Mariangel Fedrizzi,  
Dominic Fuller-Rowell, Kiley Gray, Jeffrey  
Johnson, Ben Rowells**

For the planning, development, and implementation of a brand new space weather forecast service to support international aviation requirements.





# CIRES Gold Medal SWPC Group Plaque



Hazel Bain



Ratina Dodani



Mariangel Fedrizzi



Kiley Gray



Jeff Johnson



Ben Rowells



# CIRES Silver Medal

**Gilbert P. Compo, Don “Hoop” Hooper,  
Chesley McColl, Prashant D Sardeshmukh,  
Laura C. Slivinski, Catherine Smith,  
Lawrence J. Spencer**

For creating a 200-year Historic Reanalysis dataset of global weather and extremes from only surface pressure and sea surface temperature observations.



# CIRES Silver Medal



Gil Compo



Don 'Hoop' Hooper



Chesley McColl



Laura Slivinski



Cathy Smith



Larry Spencer

# CIRES Bronze Medal

## Matthew Martinsen

For eliminating any potential Mauna Loa Observatory sources of CFC-11 and other trace gases to ensure integrity of long-term data records.



# CIRES Bronze Medal

**Adam Ahern, Ravan Ahmadov, Kenneth Aikin, Ilann Bourgeois, Wyatt Brown, Pedro Campuzano-Jost, Matthew Coggon, Douglas A. Day, Zachary Decker, Frank Erdesz, Ale Franchin, Georgios Gkatzelis, Hongyu Guo, Jose-Luis Jimenez, Joseph Katich, Aaron Lamplugh, Macy Morgan, Benjamin Nault, J. Andrew Neuman, Demetrios Pagonis, Jeff Peischl, Derek Price, Pamela Rickly, Michael A. Robinson, Mindy Schueneman, Donna Sueper, Nicholas Wagner, Carsten Warneke, Ann Weickmann, Caroline Womack, Michael Zucker**

For outstanding execution of the FIREX-AQ mission, a joint venture with NASA to improve understanding of air quality and climate impacts of fires.





# CIRES Bronze Medal



**Adam Ahern**



**Ravan Ahmadov**



**Ken Aikin**



**Pedro Campuzano-Jost**



**Doug Day**



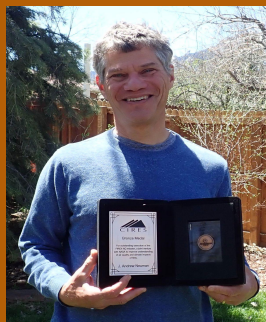
**Michael Zucker**



**Brian Meyer**



**Derek Price**



**Andy Neuman**



**Mindy Scheuneman**



**Carrie Womack**



**Carsten Warneke**



**Hongyu Guo**

# CIRES Bronze Medal

**Terence Bullett,  
Justin Mabie, Brian Meyer**

For securely relocating environmental records from Colorado to North Carolina, preserving and ensuring accessibility to the data and reducing costs.



**Brian Meyer**



# Administrator Plaques

## David Allured, Irina Djalalova

For implementing and upgrading NOAA's Air Quality Forecasting Capability for improving the lives of Americans and saving billions of dollars per year.



David Allured



Irina Djalalova





# Administrator Plaques

Adam Ahern, Kenneth Aikin, Megan Bela, Ilann Bourgeois, Matthew Coggon, Zachary Decker, Karl Froyd, Maxwell Holloway, Joseph Katich, Aaron Lamplugh, Brian McDonald, Stuart McKeen, Macy Morgan, J. Andrew Neuman, Jeff Peischl, Catherine Rasco, Pamela Rickly, Michael A. Robinson, Kyra Slovacek, Troy Thornberry, Richard Tisinai, Nicholas L. Wagner, Carsten Warneke, Laurel Watts, Ann Weickmann, Christina J. Williamson, Caroline Womack, Michael Zucker

For the planning and conduct of the largest interdisciplinary research project ever to study wildfire smoke composition, chemistry, and evolution.





# Administrator Plaques



Adam Ahern



Ken Aikin



Max Holloway



Jeff Peischl



Catherine Rasco



Troy  
Thornberry



Carsten Warneke



Carrie  
Womack



Michael Zucker



# Administrator Plaques

**Christian Bethge, Athanasios Boudouridis, Samuel Califf,  
Stefan Codrescu, Jonathan Darnel, Kevin Hallock,  
J. Marcus Hughes, Fadil Inceoglu, Brian Kress,  
Larisa Krista, Anna Liao, Paul Loto'aniu, Janet Machol,  
Courtney Peck, Juan V. Rodriguez, William Rowland,  
Daniel Seaton, Jason Shapiro, Margaret Tilton,  
Pamela Wyatt, Erika Zetterlund**

For achieving a fully operational GOES-R constellation, culminating a decades-long effort.

# Administrator Plaques



**Christian Bethge**



**Athanasios  
Boudouridis**



**Sam Califf**



**Stefan  
Codrescu**



**Juan  
Rodriguez**



**William  
Rowland**

# Technology Transfer Plaques

## Richard McLaughlin, Hagen Telg, Troy Thornberry, Laurel Watts

For creating a unique instrument to measure atmospheric particles and helping a small company successfully commercialize it to yield \$1M+ in sales.



Richard McLaughlin



Hagen Telg



Troy Thornberry



# George C. and Joan A. Reid

**Award:** Made possible by the Reids' generous contributions, the Reid Award celebrates intellectual contributions to CIRES and leadership within the broader University of Colorado Boulder community.

**2021's Recipient:**

## Jackson Jandreau

For an extraordinary passion for science discoveries and technology breakthroughs.



# Your turn! You get to say congratulations to these award winners, in your own words



# Your turn. Questions? Comments?

Please comment in the YouTube chat directly  
or  
Email [ciresrendezvous@gmail.com](mailto:ciresrendezvous@gmail.com)

# See you in Topia starting at 12:30pm!

<https://topia.io/cires-rendezvous-2021>

To avoid congestion, please enter Topia at the time assigned to your division as listed below. A CMC Shepherd will be available to direct you to your division when you enter.

- 12:30 - 12:33 Environmental Chemistry (EC)
- 12:34 - 12:37 Education and Outreach (E & O) and Environmental Observations, Modeling and Forecasting (EOMF)
- 12:38 - 12:41 Weather and Climate Dynamics (WCD) and Western Water Assessment (WWA)
- 12:42 - 12:45 Cryospheric and Polar Process (CPP)
- 12:46 - 12:49 Ecosystem Science (ES) and Admin (ADM)
- 12:50 - 12:53 Solid Earth Sciences (SES) and additional guests

Poster Sessions start at 1pm

## Need help?

Find a **CMC Shepherd** in Topia  
or **Zoom Help Room** (669) 900-6833, Meeting ID: 979 5550 0729 or  
**Email: ciresithelp@colorado.edu**