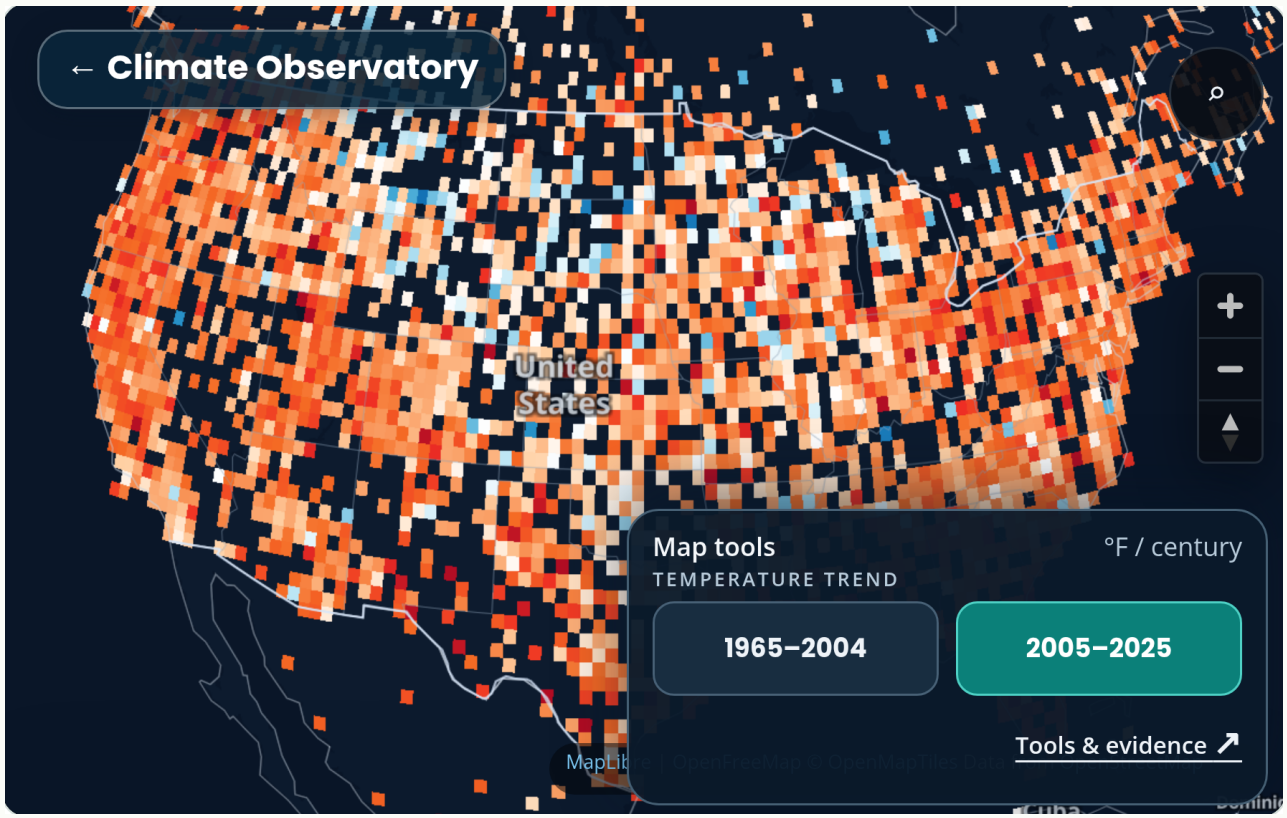
THE OBSERVATORY

GSOP Climate Observatory

International media kit for journalists covering climate evidence and the GSOP proposal.



Actual reporting interface from the supplied November 2 media kit. Selected view: 2005–2025, °F per century. This screenshot illustrates the interface, not an independently audited regional finding.

The GSOP Climate Observatory lets a reporter explore historical temperature trends by place, period and source. Its map links a geographic view to the observations, methods and coverage information behind a result.

The Observatory is an experimental demonstration, not a peer-reviewed attribution product or a forecast. Its purpose is to help users identify evidence worth checking and questions worth reporting.

Start here: the journalism workspace

INSIDE THIS KIT

02 Understanding the Observatory
03 Methods / 04 More press questions
05 GSOP origins
06 GSOP proposal and outreach
07–08 Publications and people
09–10 Media resources and contact

PRESS QUESTIONS 1 TO 5

Understanding the Observatory

What the product shows, where the inputs come from and who develops it.

01

What exactly is the GSOP Climate Observatory?

An experimental mapping and investigation interface for selected historical temperature trends. It allows a reader to identify a geographic cell, period, source and observational support. It is not a forecast or a finished peer-reviewed climate attribution system.

02

What data does it use?

The default station-derived view documents NOAA Global Summary of the Year, Version 1 annual station observations. Original GSOP authored analyses and the NOAA GHCN-CAMS analyzed grid are separate products. Confirm the dataset, version, period and calculation for the view being cited.

03

How is it different from other climate-monitoring tools?

The interface brings a selectable geographic footprint together with period-specific trends, source notes, station counts, usable years and coverage warnings. These features help a reporter inspect the basis of a result. They do not establish that the Observatory is unique or superior to other research tools.

04

Is this a finished product or a prototype?

It is a working experimental demonstration. Scientific evaluation, source verification and reconciliation between views remain important. A rate displayed on a map should not be described as a peer-reviewed finding merely because it appears in the interface.

05

Who is developing it?

Maps + Apps, LLC, led by Brita Austin, developed the GSOP Climate Observatory prototype and website for GSOP Climate Collaboration, Inc. The development credit identifies the software and geospatial work. It does not by itself determine scientific authorship or legal ownership.

USE THE APPROPRIATE SOURCE RECORD

NOAA Global Summary of the Year Version 1

NOAA GSOY is the documented annual station input; GHCN-Daily is a separate daily product. Analyses sharing station observations do not automatically provide independent corroboration. Check input overlap and methods before treating agreement as independent confirmation.

METHOD AND GEOGRAPHIC CONTEXT

How the evidence works

Start with the selected area and source. A colored cell is the end of a calculation, not a thermometer reading.

STATIONS Annual observations → **SOURCE & PERIOD** Eligible records → **METHOD** Derived cell estimate → **MAP** Trend and coverage

Conceptual workflow for the default station-derived view. Diagram is explanatory; it contains no measured values.

01 **Choose the place and period.** Use the map or place search, then record the selected cell, time window, source and units. A place name locates the search; it does not define the observation boundary.

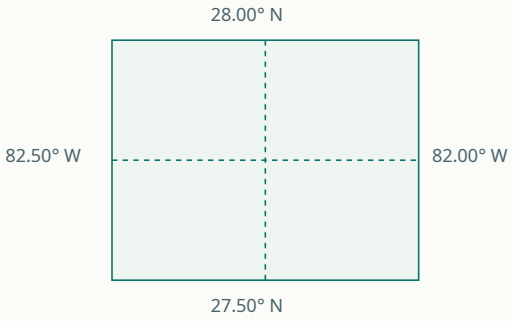
02 **Inspect the observational support.** Check contributing stations, usable years and low-coverage warnings. The default annual input is NOAA Global Summary of the Year, Version 1. The documented refresh excludes incomplete current-year records.

03 **Read the method for that view.** The default disclosure describes a station-specific fixed-effects method. It accounts for station baseline differences, but does not homogenize records or resolve every station move or instrument change.

04 **Keep the sources distinct.** Original GSOP analyses and NOAA PSL GHCN-CAMS are separate comparison products. A result, annual series or export from one view must not be substituted for another without checking its method.

05 **Verify a reporting claim.** Check the source and calculation with GSOP before publishing a number. Claims about flood damage, health, crops or infrastructure require matched evidence and appropriate expertise beyond a temperature map.

READING THE GEOGRAPHIC FOOTPRINT



Example footprint G55_-165

27.50–28.00° N, 82.50–82.00° W. A fixed half-degree cell is an area, not Tampa, a county, a watershed or a weather station. The center identifies geography, not a sensor location.

A cell without a qualifying result is not evidence of zero warming. Geometry illustration only; not to scale.

PRESS QUESTIONS 6 TO 10

Using the evidence responsibly

Questions about rights, geography, reporting and participation.

06

Who owns the technology and the data?

NOAA source records, application code and derived outputs have different provenance and rights. A source citation is not a transfer of application ownership or permission for every downstream use. Ask GSOP about the relevant agreements and reuse permissions before redistributing assets or derived material.

07

What does the grid mean?

The station-derived reporting view uses fixed 0.5° latitude by 0.5° longitude cells. Each cell is a geographic area rather than a municipality, watershed or thermometer location. Coverage varies by source and period. An empty or insufficient-data cell does not mean that temperatures stayed the same.

08

What can a journalist actually do with it?

Explore an area, identify the selected footprint and period, inspect trend and observation-support information, and develop questions for further reporting. Verify the selected view before quoting or comparing rates. Claims about rainfall, flooding, agriculture or health need additional primary evidence and expert checks.

09

What is GSOP trying to accomplish beyond the Observatory?

GSOP proposes an international effort to evaluate climate, energy, economics and social feasibility together through its Wicked-Problem Approach. The intended outcomes of that proposal are different from the temperature evidence the Observatory displays. The proposal is described on pages 5–7.

10

How can journalists participate or learn more?

Contact Tom Rehm, GSOP's Media Action Team point of contact, at tom@tomrehm.com for interviews, clarification, corrections or interest in volunteering. The October 28, 2026 media presentation is linked from the GSOP presentations page. See pages 9–10 for the recording, resources and contact details.

BEFORE COMPARING RATES

The 1965–2004, 2005–2025 and 1986–2025 windows differ in length and can overlap. Subtracting their fitted rates does not establish acceleration. A historical °C/century or °F/century rate is not a prediction of the next century.

ORIGINS 2019 TO 2020

How GSOP began

A chronology of the collaboration, based on co-founder Tom Rehm's account.





Tom Rehm and Dick Hutchinson

Their discussions brought climate-solution outreach together with Hutchinson's work on decision-making for wicked problems.

MARCH 31, 2019

AIChE launches its Climate Solutions Community

The American Institute of Chemical Engineers launched the community at its Spring Meeting in New Orleans. Rehm was its inaugural chair. Its stated objective was to identify viable ways to mitigate, adapt and become resilient to climate change, and to develop technical and policy solutions for industrial and community challenges.

OCTOBER 1–2, 2019

The first exchange

Phil Westmoreland, a North Carolina State University chemical engineering professor and 2013 AIChE president, copied Rehm on an email to Dick Hutchinson. Hutchinson had sent his 2019 book to Peter Fedkiw, then chair of the NCSU Chemical Engineering Department. Rehm contacted Hutchinson the next day; they began discussing the Wicked-Problem Approach and agreed to work together about a year later.

AUGUST 22, 2020

Climate Solutions Symposium

Rehm chaired the virtual symposium hosted with the Engineering, Science and Technology Council of Houston. The official AIChE event record identifies Rehm as host and documents the date.

OCTOBER 30, 2020

Climate Collaboration Virtual Workshop

Rehm hosted the workshop. Following it, Rehm and Hutchinson developed the ideas that became Global Solutions and Outreach Programs.

Read the original AIChE symposium event record

For archival materials or questions about this first-party chronology, contact Tom Rehm.

PROPOSAL AND INTERNATIONAL OUTREACH

From proposal to Observatory

GSOP's proposal and outreach history, as described by co-founder Tom Rehm.

THE PROPOSAL

Evaluate options and trade-offs

THE COLLABORATION

Bring disciplines and countries together

THE OBSERVATORY

Explore historical temperature evidence

GSOP's Wicked-Problem Approach is a proposed way to organize international, integrated-systems analyses and develop country, regional and global action plans. The Observatory provides a tool for exploring evidence; it does not establish that those plans will succeed.

2021–2022

Building the proposal

In January and February 2021, Rehm hosted webinars on Hutchinson's Wicked-Problem Approach and the GSOP proposal. Volunteer teams followed. Rehm's account describes about two dozen volunteers and four presentations: two at AIChE Annual Meetings, a regional meeting in Chicago and a virtual meeting with a local AIChE Climate Solutions Community chapter in Nigeria. In November 2021 he spoke in Boston; in November 2022, in Phoenix, he addressed student and Management Division audiences on human bias in climate-solution decisions.

2023

Establishing the organization

Rehm repeated the human-bias presentation for the AIChE South Texas Section, the Engineering, Science and Technology Council of Houston, a Texas A&M regional student conference and the Louisiana Nuclear Society. GSOP reports that it established GSOP Climate Collaboration, Inc. as a 501(c)(3) nonprofit in March 2023 and launched its first website that fall. October and November outreach reached El Paso, Texas, and an AIChE student chapter in Basrah, Iraq, with "Integrated-systems Analyses to Resolve Global Warming."

2024–2025

International outreach

A March 2024 progress meeting preceded an October open letter to the UN Secretary-General and the U.S. Senior Advisor on Climate Policy. Rehm reports 127 endorsements from multiple regions. In July and October 2025, Rehm and Eric Townsend presented to the Ontario Society of Professional Engineers' Climate Crisis Task Force and wider membership.

2026

The Observatory and media presentation

GSOP engaged Brita Austin, a geospatial consultant and founder of Maps + Apps, to develop the Observatory prototype and new website. On October 28, GSOP presented the work to international media.

PUBLICATIONS

The written basis of the proposal

The publications develop GSOP's approach. Their titles and arguments should not be treated as independent validation of the Observatory.



Global Solutions & Outreach Programs: Humanity's best chance to resolve global warming, Part 1: Global warming challenges



Global Solutions & Outreach Programs: Humanity's best chance to resolve global warming, Part 2: Global warming solutions

Two-part journal series

Richard W. Hutchinson and Thomas E. Rehm
Journal of Policy and Society, 2025

Global Solutions & Outreach Programs: Humanity's best chance to resolve global warming

Article title pages © 2025 Richard W. Hutchinson and Thomas E. Rehm, CC BY 4.0. Reproduced at reduced size; article links below. License: Creative Commons Attribution 4.0.

Part 1 Global warming challenges

Journal of Policy and Society, 3(1), article 2800. March 2025. DOI 10.59400/jps2800.

Part 2 Global warming solutions

Journal of Policy and Society, 3(2), article 2919. May 2025. DOI 10.59400/jps2919.

The Wicked-Problem Approach

Hutchinson, R. W., English, S. L., and Mughal, M. A. (2002). "A General Problem Solving Approach for Wicked Problems: Theory and Application to Chemical Weapons Verification and Biological Terrorism." *Group Decision and Negotiation*, 11, 257–279.

Publisher record · DOI 10.1023/A:1015638832080

The paper sets out the approach that GSOP applies to climate-policy questions. Tom's account relates it to Hutchinson's earlier U.S. Army work on chemical-weapons verification and biological terrorism.

People's Assessment of Global Warming

Tom's history describes Hutchinson's 2019 book as a bridge between his earlier work and the GSOP proposal. It followed a community problem-solving initiative in Penobscot, Maine. The GSOP publications page provides a way to request the book and find related documents. The full title is People's Assessment of Global Warming, Plus Adaptations for Advancement and Survival; the 2025 bibliography lists Hutchinson and D. Smith Jr. as authors.

GSOP publications and book requests

PEOPLE

Leadership and development

GSOP leadership and the Maps + Apps developer of the Observatory and website.



Dick Hutchinson

GSOP CO-FOUNDER

Profile

Retired chemical engineer, PhD. Co-author of *People's Assessment of Global Warming*, developer of the Wicked-Problem Approach and lead author of GSOP's Program and Execution Plans.



Tom Rehm

PRESIDENT AND CO-FOUNDER

Profile

Retired chemical engineer, PhD and AIChE Fellow. President of GSOP Climate Collaboration, Inc. and the point of contact for press and the Media Action Team.



Eric Townsend

VICE PRESIDENT

Profile

Retired chemical engineer. Contributes to GSOP proposal review, presentations and outreach, including the organization's international collaboration.



Bob Romero

TREASURER

Retired oil-industry professional with 30 years in research and development. Treasurer and officer of GSOP Climate Collaboration, Inc., and a certified Texas Master Naturalist.



Balaji Ramarao

MEMBER AT LARGE

Profile

Chemical engineer, BS, P.E., MBA. Member at Large of GSOP Climate Collaboration, Inc. and co-author of the GSOP Program and Execution Plans.



Brita Austin

MAPS + APPS

Profile

Founder and Principal of Maps + Apps, LLC, and GSOP geospatial consultant. Developer of the GSOP Climate Observatory prototype and website.

Brita Austin is based in Bowling Green, Kentucky. Her work spans GIS, environmental programs, engineering and public-information systems, with custom software for commercial operations, conservation and research. She also founded the nonprofit initiative My Community Data.

Maps + Apps

MEDIA RESOURCES

Presentation and visual assets

Start with the journalism workspace for outreach, reporting guidance and source checks.

Start here: the journalism workspace



Original title slide from the October 28, 2026 international media presentation. Speakers shown: Eric Townsend, Brita Austin and Tom Rehm.

Watch the October 28 international media presentation

The presentations page carries the revised recording and related GSOP material, including earlier presentations and the organization's outreach history.

GSOP identity

Global Solutions and Outreach Programs (GSOP)
A Safer, More Sustainable Tomorrow

GSOP Climate Observatory
Evidence for People. Data for Action.

Use the organization name **GSOP Climate Collaboration, Inc.** and the product name **GSOP Climate Observatory**. For publication-sized logos, portraits or permissions, contact Tom Rehm. Image inclusion in this kit does not grant unrestricted downstream reuse.

Observatory

Explore the map and source context.

For journalists

Reporting guidance and evidence.

The proposal

Read GSOP's broader program.

CONTACT AND SOURCE GUIDE

Contact GSOP

For interviews, source clarification, corrections and Media Action Team inquiries.

Tom Rehm

GSOP co-founder and President
Media Action Team point of contact

tom@tomrehm.com
+1 832 331 6491

GSOP Climate Collaboration, Inc.
9910 Emnora Ln
Houston, TX 77080, USA

Public source guide

Start here: journalism workspace

Reporting guidance, evidence and source checks for outreach.

The GSOP Climate Observatory

Interactive project and current view-specific method context.

GSOP publications

The GSOP proposal, book, articles and related source documents.

GSOP presentations

October 28 media presentation and earlier events.

NOAA Global Summary of the Year Version 1

Official annual station dataset record; documented input for the default station-derived view.

NOAA GHCN-Daily

Official daily-station product for separate source investigations. Do not confuse it with the annual input or analyzed grids.

NOAA PSL GHCN-CAMS

A separately analyzed gridded temperature product used for comparison; inspect its own methods and documentation.

Edition note. The Observatory remains an experimental demonstration. This kit distinguishes the organization's first-party history and proposal from scientific findings; it does not represent independent scientific approval.