



# CATASTROPHISM RESEARCH ASSOCIATION

— AN INDEPENDENT RESEARCH ASSOCIATION —

## The Association

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catastrophism.org · members@catastrophism.org This introduction is for readers meeting the Association for the first time.

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### I. The Association studies the cyclical transitions in Earth's history.

Catastrophism is the recognition that Earth's history is shaped by cyclical, large-magnitude state transitions as a complementary effect alongside traditional uniformitarianism. The framework studies the mechanisms behind those transitions: solar-terrestrial coupling and the propagation of space-weather state into Earth-system dynamics; exothermic core-mantle decoupling and the Dzhanibekov-type rotational instabilities that follow; geomagnetic excursion dynamics; the paleomagnetic and paleoclimatic record of past catastrophic events; and the contemporary observational signals that connect them.

For decades, this discipline has been carried by independent researchers operating outside the mainstream institutional system. What has been missing is institutional form: a shared methodological standard, peer review under those standards, a community of paying supporters who fund and develop the work directly, and the convening function this community has long needed.

The Catastrophism Research Association exists to provide that form. It publishes original quantitative and theoretical research from the Association's researchers under documented methodological doctrine, and it keeps a working library for its members. Its later functions, set out in section 7, include grants for independent researchers and convenings that bring the field together.

The catastrophism framework is accumulating empirical support faster than the institutional system is adapting to it. The cost of being wrong about the dynamics studied here is asymmetric. The Association exists to do this work properly while there is time to do it properly: under public methodological standards, with falsification criteria, with named contributors and transparent governance, and funded by the people who care about the answers.



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## 2. The research program runs along six lines

- **Solar-terrestrial coupling.** Disconnection events, geomagnetic response to solar activity, and the mechanisms by which space-weather state propagates into Earth-system dynamics.
- **Core-mantle dynamics and polar motion.** Quantitative time-series analysis of Earth orientation parameters, length-of-day variation, and the geophysical signals of core-mantle coupling state.
- **Rotational instability and core-mantle decoupling.** Mechanisms of catastrophic planetary state transition, spanning thermal decoupling at the core-mantle boundary and the rotational instabilities of spinning bodies.
- **Paleomagnetic and historical evidence.** The geomagnetic excursion record, paleoclimatic transitions, and the deep-time evidence base for catastrophic Earth-system transitions.
- **Rapid climate transitions.** Threshold dynamics, regime changes, and the mechanisms behind cyclical climate behavior.
- **Methodological doctrine.** Structured analytic standards adopted by the Association: epistemic labeling, falsification criteria, and the discipline of publishing findings that contradict prior work.

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## 3. The work is held to published standards

The Association's standing rests on a single claim: that its research can be checked. Its governing documents are published openly on the methodology page of [catastrophism.org](http://catastrophism.org): the Methodology Standards (CRA-STD-METH-1.2), the Operating Procedures SOP-1 through SOP-6 (CRA-SOP-1..6-1.3), and the Contributor Field Guide (CRA-FG-1.1).

- **Every claim is labeled.** Established Finding, Working Hypothesis, or Open Question. Readers know what kind of claim they are being asked to evaluate, and unknowns are named.
- **Every hypothesis carries falsification conditions.** Observable outcomes which, if they occurred, would require revision or withdrawal, published with the hypothesis itself. Outcomes are published whether or not they favor prior work.
- **Every source carries a grade.** A four-tier source discipline, from primary instrumental data to uncorroborated material, with the evidentiary bar scaling to the weight of the claim.
- **Every model earns its standing.** Model outputs enter Association work only through published model cards and a maturity ladder from conceptual to live-scored; predictive claims may rest only on the published, cumulative record of registered forward claims.
- **Figures carry measured data only.** Schematics are labeled as such, sources appear on the figure itself, and captions pose the open question.

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## 4. The evidence comes from independent measured records

Catastrophism is a multi-disciplinary science, evaluated against measured records maintained by independent observational programs:

| Discipline                          | What is measured                                                           | Source programs                       |
|-------------------------------------|----------------------------------------------------------------------------|---------------------------------------|
| Geodesy and Earth orientation       | Polar motion and length-of-day variation, measured continuously since 1846 | IERS · Earth Orientation Centre       |
| Geomagnetic observation             | Field strength, declination, and secular variation                         | INTERMAGNET · IGRF                    |
| Paleomagnetism and archaeomagnetism | Dipole moment reconstructions and excursion chronologies                   | GEOMAGIA50 · CALS10k                  |
| Glaciology and ice cores            | Layer-counted chronologies of abrupt transitions                           | Greenland and Antarctic core programs |
| Sedimentology and stratigraphy      | The bedded record of high-energy events                                    | Marine and lacustrine core archives   |
| Heliophysics                        | Solar activity and the solar wind                                          | Satellite and ground observation      |
| Radiocarbon and cosmogenic isotopes | Production spikes recording extreme solar particle events                  | IntCal · dendrochronology networks    |
| Rotational dynamics                 | Free and forced wobble and the stability of spin states                    | Theoretical and numerical analysis    |

The Association's data repository holds this record in working form: twenty-one prepared packages, each documented and checksummed, including a cross-indexed master database. They span Earth orientation, the geomagnetic field, solar and heliospheric activity, seismicity and volcanism, sea level, paleoclimate and angular momentum, with 3,388,058 records in all, and every file is reproducible from its named institutional source. The catalog is open to read at [catastrophism.org](http://catastrophism.org), and the packages themselves are in the member library.

## 5. Members choose between two monthly memberships

Membership is an explicit alternative to the closed-access model of mainstream science and the entertainment model of independent media. The Association is funded by membership and disclosed giving; it accepts no advertising.

**Standard Membership: \$10 per month.** Access to the member pages, the library and the podcast.

**Premium Membership: \$100 per month.** Everything in Standard, plus:

- Credit in the Association's publications, on the website and at events
- Access to the private Signal chat with the researchers
- One free ticket to the annual live event

Both memberships are billed monthly, and members join at [catastrophism.org](http://catastrophism.org). A member can cancel at any time and keeps access to the end of the month paid for. Membership payments are not refunded, except where the law requires a refund.

Each Premium member can claim one ticket per event. The member must hold active Premium at the moment of claiming, so a member whose renewal is past due claims once the payment clears. Comped Premium accounts can claim too.

## 6. The Association opens to the public on 28 September 2026

The launch runs in this order:

| When                      | What happens                                                                                                                                   |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Ahead of the announcement | The updated catastrophism.org goes up, with both memberships on it                                                                             |
| Monday 28 September 2026  | The Association makes its public announcement on the website and on its X account, and members join at catastrophism.org from the announcement |
| Around 1 October 2026     | The first podcast and its companion notes go into the member library                                                                           |

## 7. A Wyoming company operates the Association

The Association is operated by Catastrophism Research Association LLC, a Wyoming limited liability company led by its two Founders, Ben Davidson and Zacharias Lorange. Zacharias Lorange is Managing Partner, responsible for operations. The Founders and the Affiliated Researchers are named publicly at catastrophism.org, and the roster grows only as agreements are signed. The Association publishes its methodological standards at catastrophism.org and documents its editorial decisions and material policies. A 501(c)(3) foundation arm is in formation to carry the research grant program and tax-deductible giving once IRS determination is received. In the years ahead the Association's functions extend, on a published schedule, to open submissions reviewed under its standards, research grants for independent researchers, convenings, and sponsored research conducted under the Association's standards rather than the sponsor's.

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