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**Write two paragraphs on the anomaly in temperature since 1945 and how that relate...**

EngineHouse Analysis

Generated 13 April 2026

## Key Findings

# Temperature Anomaly Since 1945 and Atmospheric Forcings The indexed EngineHouse sources contain limited direct evidence on temperature anomalies since 1945 specifically. The dataset records provide monthly land-ocean temperature anomalies from 1945, showing small fluctuations around baseline (ranging from  $-0.092^{\circ}\text{C}$  to  $+0.18^{\circ}\text{C}$  across the year). However, the sources do not provide a coherent narrative of the long-term anomaly trajectory from 1945 to present, nor do they contain systematic analys...

Synthesised by EngineHouse Interface

## SECTION 2

# Evidence

5 claims · 8 passages retrieved

# Scientific Claims

- ["Research published in Science Advances by Kim et al. (2026), titled 'Nonlinear increase of compound drought-heatwave e...
- global mean temperature anomalies
- Failure of aerosol cooling accelerates warming.
- Past 20 years averaging temperature reflects conditions 10 years ago
- Sulfate aerosols temporarily cool the atmosphere but their reduction leads to accelerated warming.

# Key Passages

- The authors explain that the increase in heatwave-led CDHEs is related to rising global temperatures, but that this does...
- ures were 3° warmer. Sea levels were 20 to 25 m higher. >> There was no ice on Greenland and beach trees were growing in...
- are many other things like salinity fingerprints etc that also uh point to the slowing of the AMO is already ongoing. He...
- 40 or so. >> Yeah. So um so this 1.5° C arrived earlier than IPCC projections, right? >> How did they get it? Did they g...
- Mainstream climate science has an increasingly poor record of making accurate predictions because it is ...

## SECTION 3

# Data & Evidence

8 structured records

## Berkley Earth



[diagram]

Knowledge item 'Berkley  
Earth' has linked ASIP  
variables

ASIP variables: { "source": "pdf", "location": "global cities, focus on C40 network", "timeframe": "medium\_term", "signals": { "temperature\_increase": "20-30% average increase in Cooling Degree Days by 2050, 50-100% in African and European cities", "urban\_heat\_island": "city-level temperature extremes beyond regional averages", "energy\_demand\_spike": "6x potential increase in cooling electricity demand in African cities" }, "system\_effects": { "energy\_grid\_stress": "massive cooling demand increases straining electrical infrastructure", "emissions\_acceleration": "117 Mt CO2 from cooling alone across C40 cities", "infrastructure\_capacity\_gap": "existing grid and

generation capacity insufficient for projected demand" }, "human\_consequences": { "energy\_affordability\_collapse": "exponential cooling costs making survival unaffordable", "heat\_mortality\_risk": "grid failures during extreme heat creating deadly conditions", "economic\_displacement": "energy poverty forcing relocation from unaffordable cities" }, "intensity": 8 } temperature and urban\_heat\_island drive energy\_grid\_stress, creating energy\_affordability\_collapse and heat\_mortality\_risk through infrastructure\_capacity\_gaps and emissions\_acceleration feedback loops

# EngineHouse Context

- Berkley Earth: EARLY ACCESS 2026 Climate projections, localized. localized. 45 400+ 0.25° 5 8,000+ B E R K E L E Y ...
- Test PostgreSQL Content: Climate change is accelerating global temperature rise, leading to increased mortality from heat exp...
- Lane Test Item: This is a test item for verifying lane controls work correctly in the EngineHouse platform. It has s...

**SECTION 5**  
**Consequences**

# Ecological

Atmospheric CO2 persistence means thermal inertia continues even if emissions plateau.

consequence\_overlay.json

# Ecological

Sink saturation risk: ocean and terrestrial carbon sinks may weaken under sustained warming.

consequence\_overlay.json

# Human

Increasing fraction of months above  $+0.3^{\circ}\text{C}$  anomaly reduces recovery windows between heat events.

consequence\_overlay.json

# Summary

- Query: write two paragraphs on the anomaly in temperture since 1945vand how t...
- Sources retrieved: 24
- Question type: semantic
- Generated by EngineHouse Interface