

Global Heat Hazards Outlooks

Date of Issuance: 18 Feb 2025

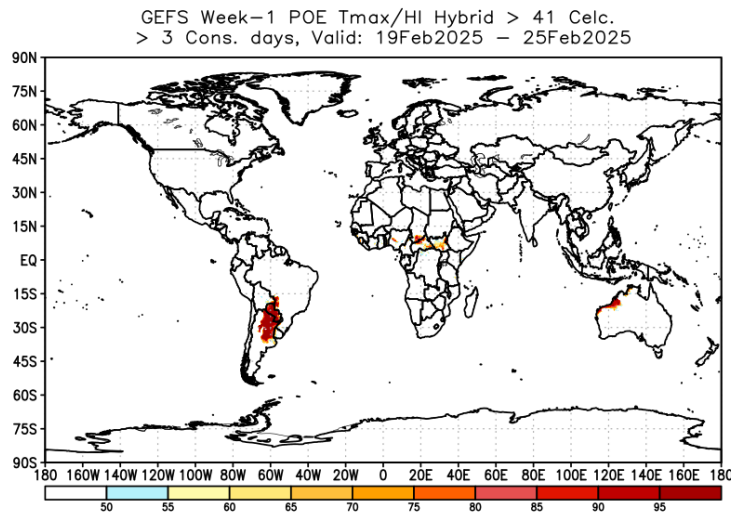
Week-1 Valid: 19 Feb 2025 – 25 Feb 2025

Week-2 Valid: 26 Feb 2025 – 04 Mar 2025

Numerical Weather Prediction Model: NCEP GEFS

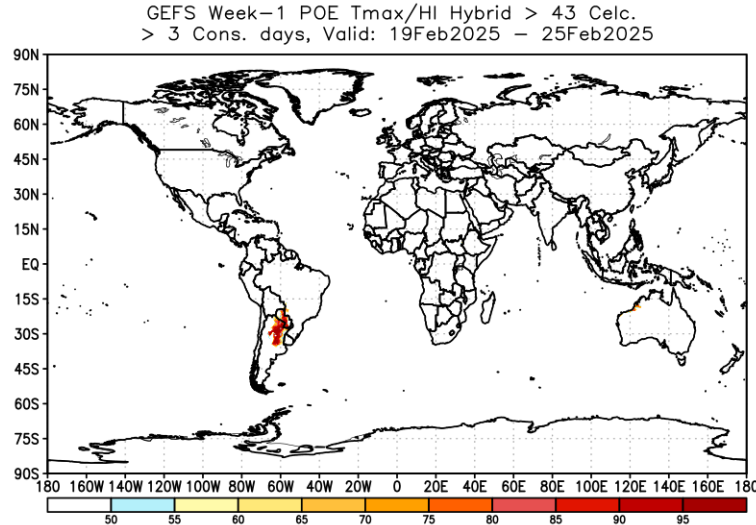
GEFS Week-1 HI/Tmax Hybrid POE with Respect to Fixed Thresholds

>41°C & > 3 Consc. Days



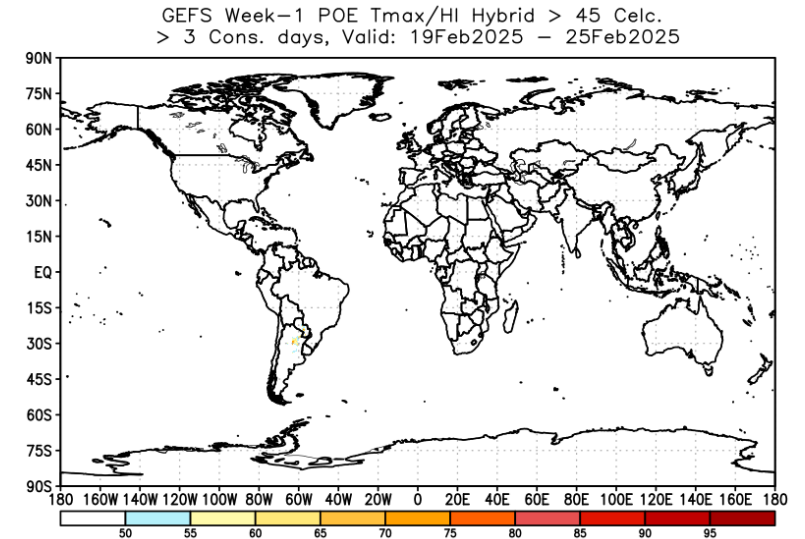
https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week1_prob_hybrid_3_glb_41.png

>43°C & > 3 Consc. Days



https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week1_prob_hybrid_3_glb_43.png

>45°C & > 3 Consc. Days



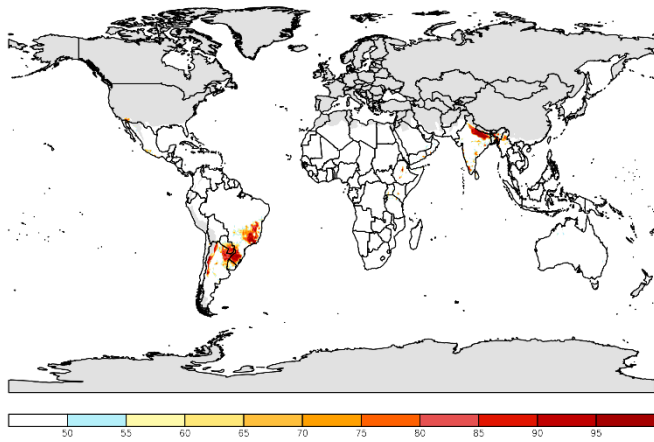
https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week1_prob_hybrid_3_glb_45.png

- Probabilities exceed 85% for the hybrid index to exceed 41°C for at least three consecutive days in Paraguay, northeastern Argentina, and northwestern Australia.

GEFS Week-1 POE, Tmax/HI with Calmer Wind (< 5m s-1) and less Cloud Cover (< 50%)

>80th & > 3 Consc. Days

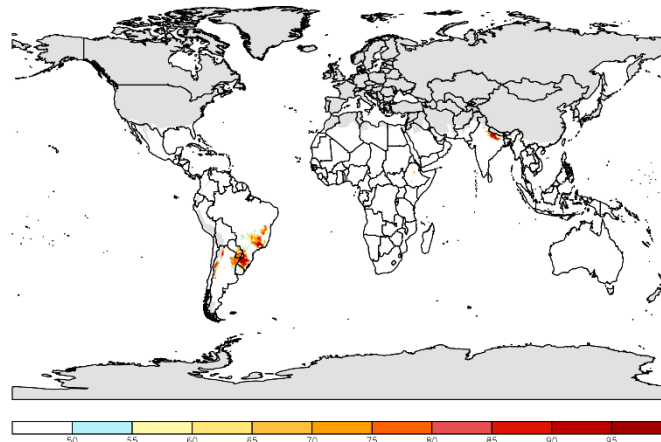
GEFS Week-1 POE Tmax/HI > 80th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 19Feb2025 – 25Feb2025



https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_comb3_week1_glb_prob_80.gif

>90th & > 3 Consc. Days

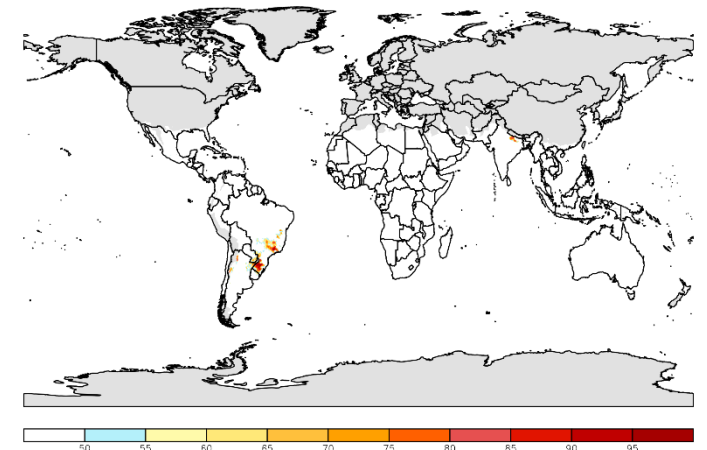
GEFS Week-1 POE Tmax/HI > 90th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 19Feb2025 – 25Feb2025



https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_comb3_week1_glb_prob_90.gif

>95th & > 3 Consc. Days

GEFS Week-1 POE Tmax/HI > 95th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 19Feb2025 – 25Feb2025

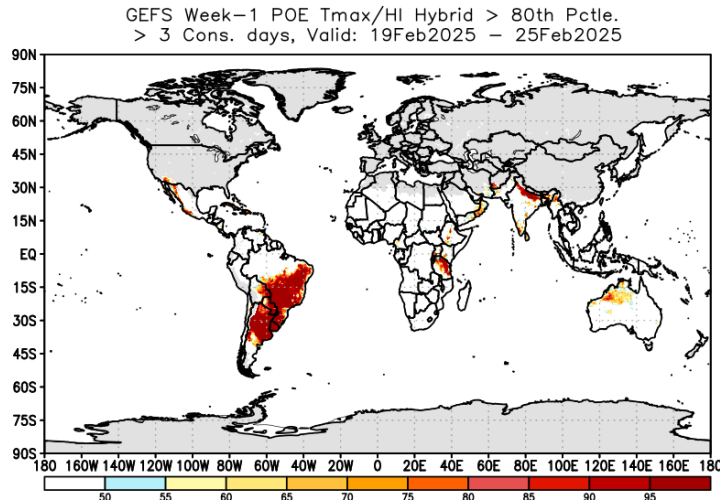


https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_comb3_week1_glb_prob_95.gif

- Probabilities exceed 80% for the hybrid index with calmer wind and less cloud cover to exceed the 80th percentile for at least three consecutive days in southern Brazil, southern Paraguay, northeastern and far western Argentina, and northern India.

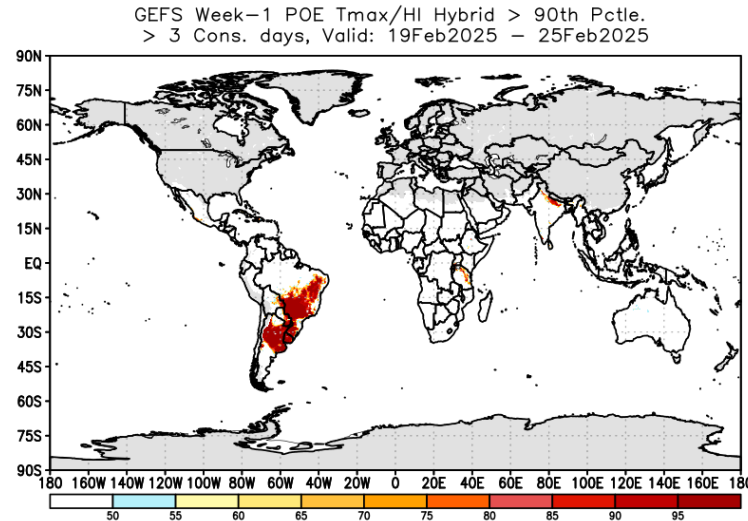
GEFS Week-1 HI/Tmax Hybrid POE with Respect to Percentile Climo. Thresholds

>80th & > 3 Consc. Days



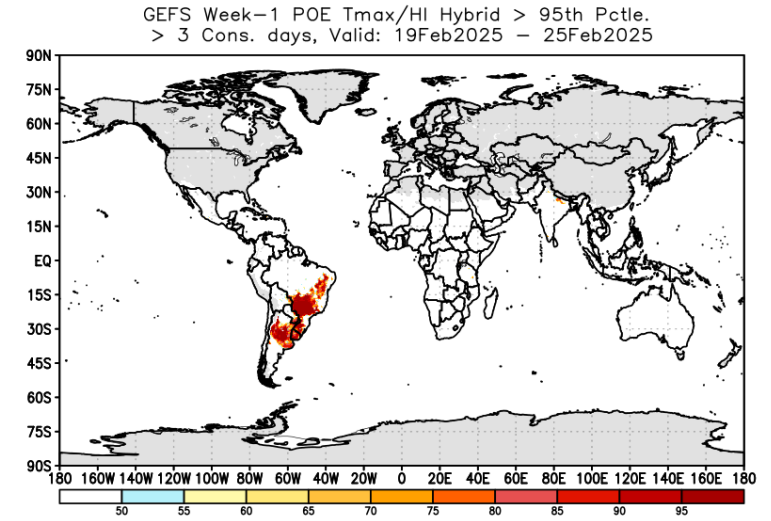
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>90th & > 3 Consc. Days



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>95th & > 3 Consc. Days



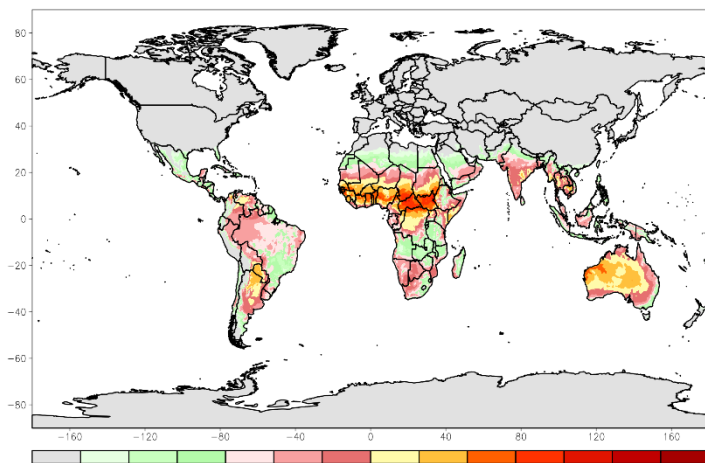
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- Probabilities exceed 90% for the hybrid index to exceed the 90th percentile for at least three consecutive days in southern and eastern Brazil, Uruguay, southern Paraguay, northeastern Argentina, northern Tanzania, and northeastern India.

GEFS Week-1 Tmax Percentile Climatology (°C)

Tmax 80th Percentile

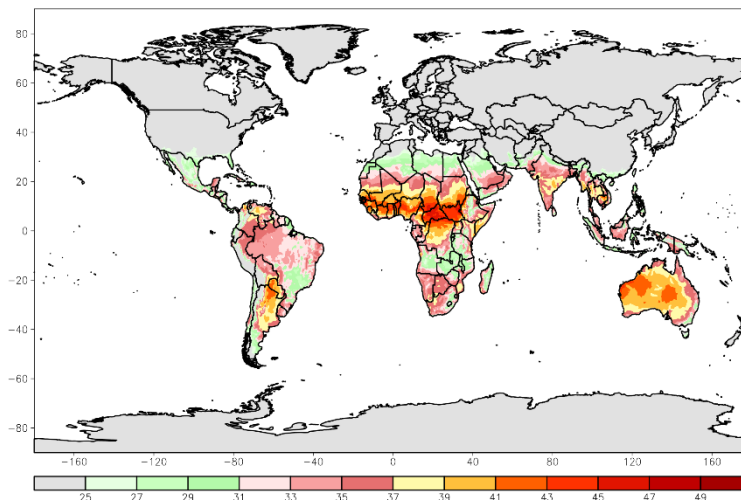
GEFS Week-1 Tmax Percentile Climo (Cels.), 80th Pctle.
Valid: 19Feb - 25Feb



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Tmax 90th Percentile

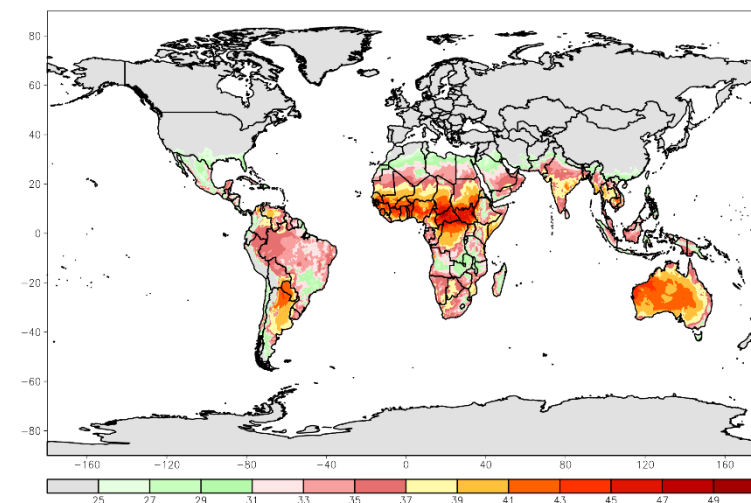
GEFS Week-1 Tmax Percentile Climo (Cels.), 90th Pctle.
Valid: 19Feb - 25Feb



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Tmax 95th Percentile

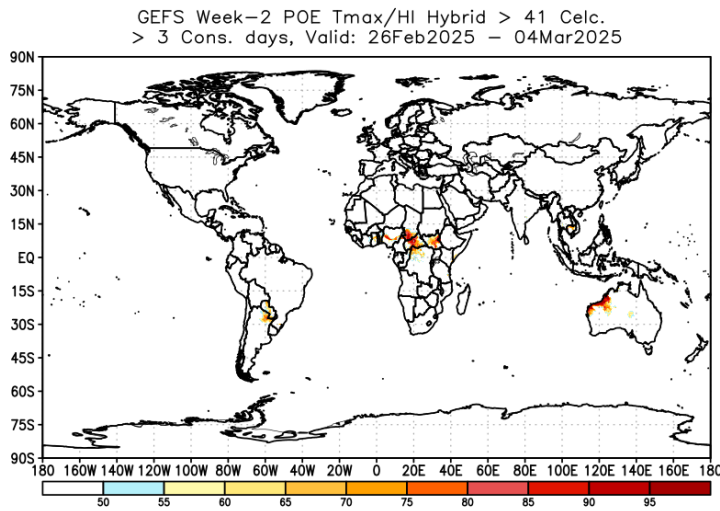
GEFS Week-1 Tmax Percentile Climo (Cels.), 95th Pctle.
Valid: 19Feb - 25Feb



https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_hybrid_week1_glb_clm_95.gif

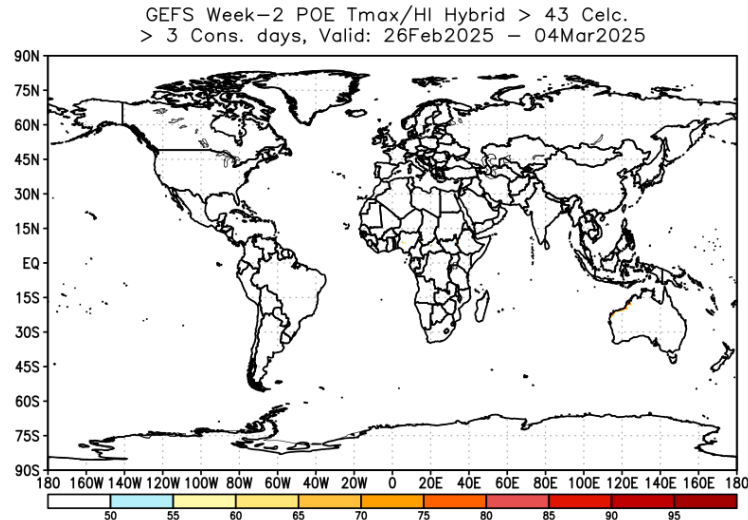
GEFS Week-2 HI/Tmax Hybrid POE with Respect to Fixed Thresholds

>41°C & > 3 Consc. Days



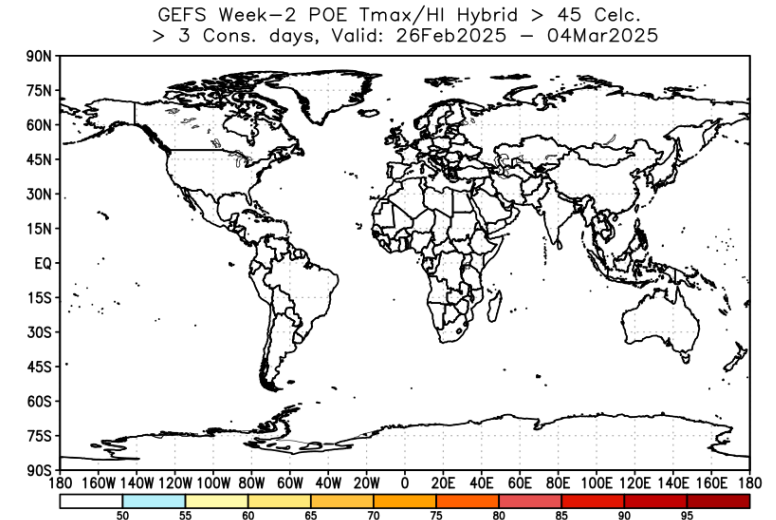
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>43°C & > 3 Consc. Days



https://ftp.cpc.ncep.noaa.gov/International/global_heat/gefs_week2_prob_hybrid_3_glb_43.png

>45°C & > 3 Consc. Days



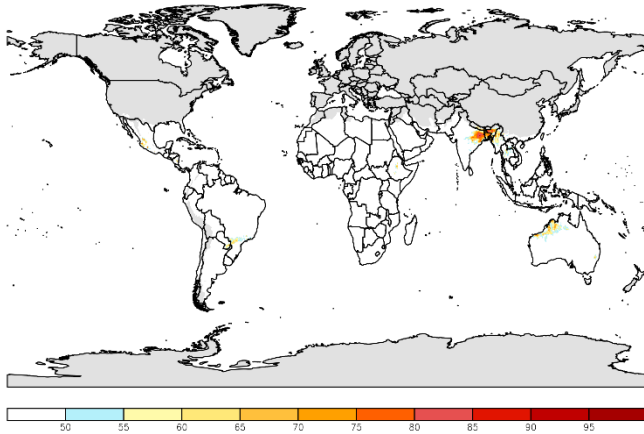
https://ftp.cpc.ncep.noaa.gov/International/global_heat/gefs_week2_prob_hybrid_3_glb_45.png

- There is an increased chance for the hybrid index to exceed 41°C for at least three consecutive days in southern Chad, western Central African Republic, eastern South Sudan, and northwestern Australia.

GEFS Week-2 POE, Tmax/HI with Calmer Wind (< 5m s-1) and less Cloud Cover (< 50%)

>80th & > 3 Consc. Days

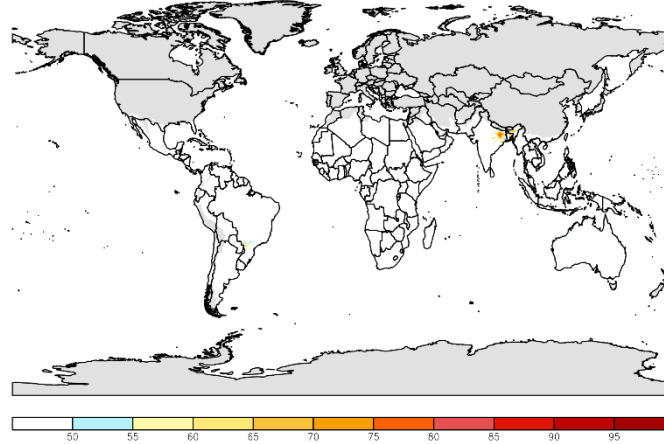
GEFS Week-2 POE Tmax/HI > 80th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 26Feb2025 - 04Mar2025



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>90th & > 3 Consc. Days

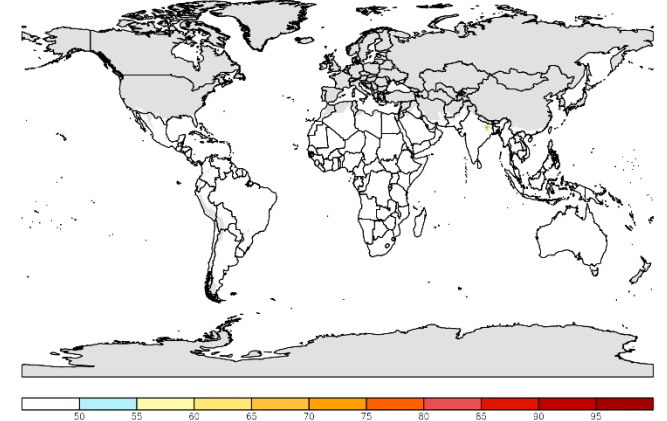
GEFS Week-2 POE Tmax/HI > 90th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 26Feb2025 - 04Mar2025



https://ftp.cpc.ncep.noaa.gov/International/extreme_fcst/gefs_heat/gefs_comb3_week2_glb_prob_90.gif

>95th & > 3 Consc. Days

GEFS Week-2 POE Tmax/HI > 95th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 26Feb2025 - 04Mar2025



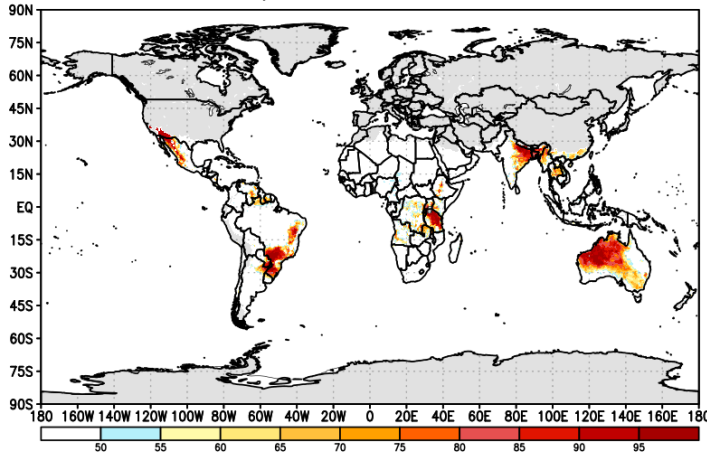
https://ftp.cpc.ncep.noaa.gov/International/extreme_fcst/gefs_heat/gefs_comb3_week2_glb_prob_95.gif

- There is an increased chance (> 80%) for the hybrid index with calmer wind and less cloud cover to exceed the 80th percentile for at least three consecutive days in northeastern India.

GEFS Week-2 HI/Tmax Hybrid POE with Respect to Percentile Climo. Thresholds

>80th & > 3 Consc. Days

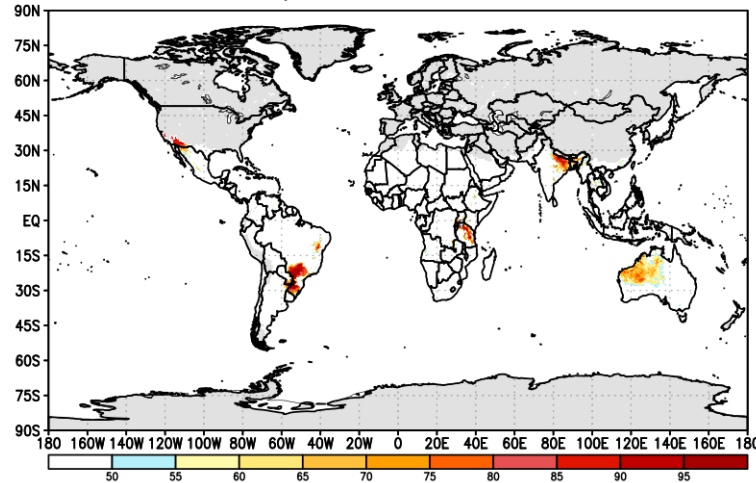
GEFS Week-2 POE Tmax/HI Hybrid > 80th Pctle.
> 3 Cons. days, Valid: 26Feb2025 - 04Mar2025



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>90th & > 3 Consc. Days

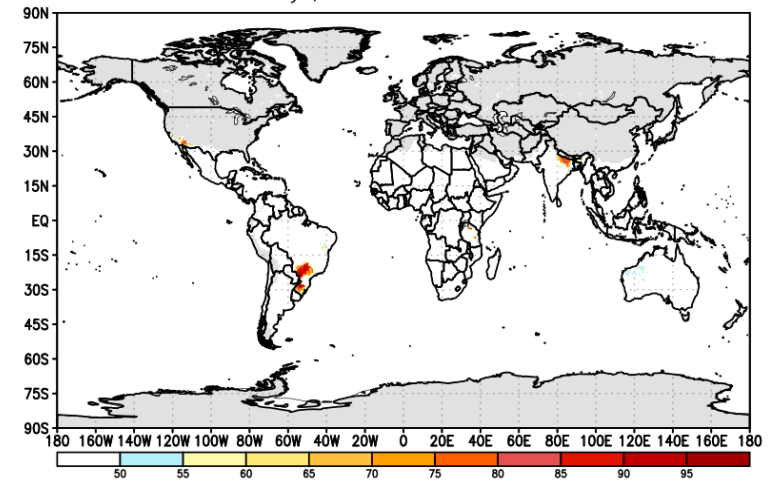
GEFS Week-2 POE Tmax/HI Hybrid > 90th Pctle.
> 3 Cons. days, Valid: 26Feb2025 - 04Mar2025



https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week2_prob_hybrid_3_glb_90.png

>95th & > 3 Consc. Days

GEFS Week-2 POE Tmax/HI Hybrid > 95th Pctle.
> 3 Cons. days, Valid: 26Feb2025 - 04Mar2025



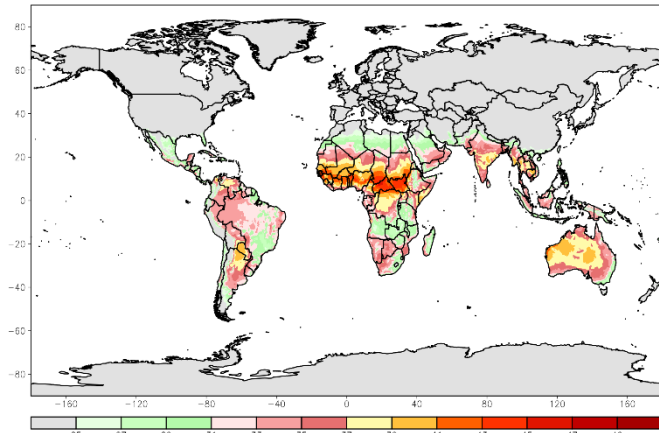
https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week2_prob_hybrid_3_glb_95.png

- There is an increased chance (> 80%) for the hybrid index to exceed the 90th percentile for at least three consecutive days in southern and eastern Brazil, northern Tanzania, and northeastern India.

GEFS Week-2 Tmax Percentile Climatology (°C)

Tmax 80th Percentile

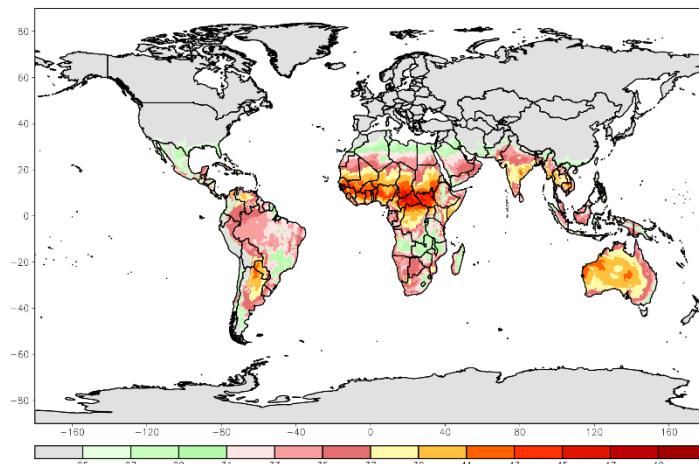
GEFS Week-2 Tmax Percentile Climo (Cels.), 80th Pctle.
Valid: 26Feb - 04Mar



https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_hybrid_week2_glb_clm_80.gif

Tmax 90th Percentile

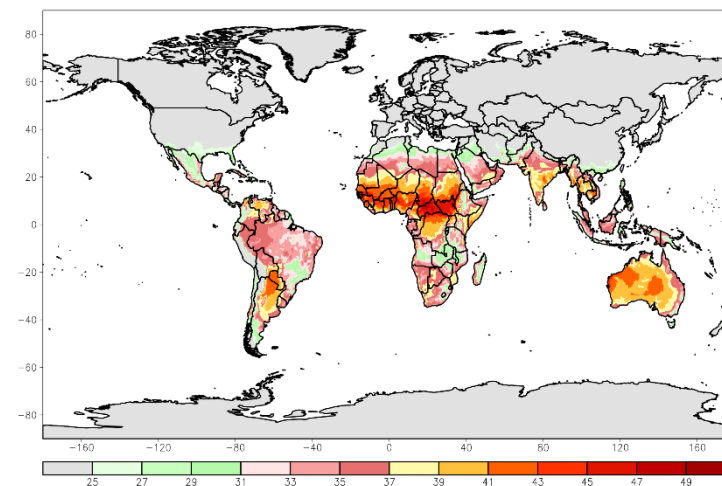
GEFS Week-2 Tmax Percentile Climo (Cels.), 90th Pctle.
Valid: 26Feb - 04Mar



https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_hybrid_week2_glb_clm_90.gif

Tmax 95th Percentile

GEFS Week-2 Tmax Percentile Climo (Cels.), 95th Pctle.
Valid: 26Feb - 04Mar

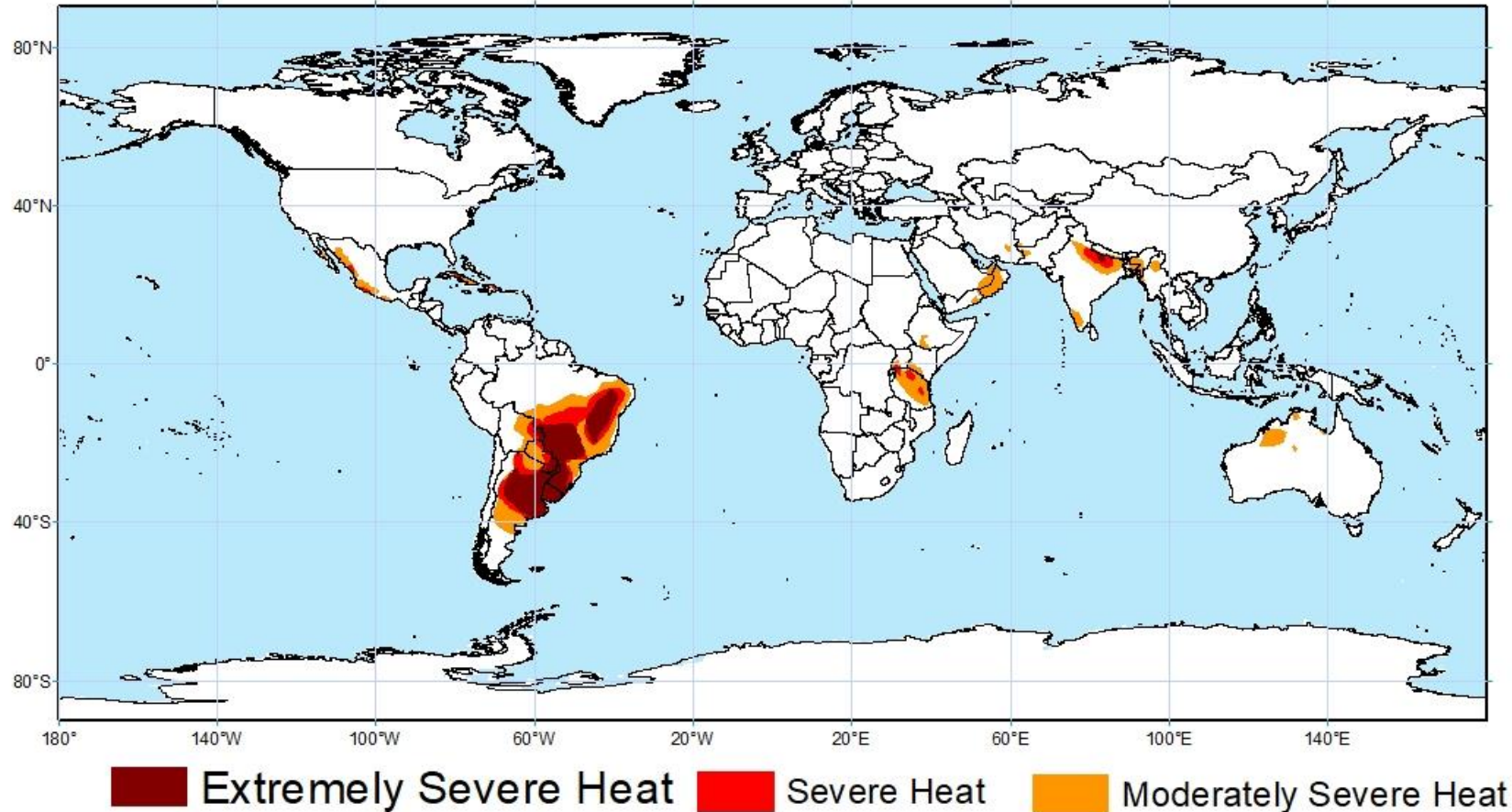


https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_hybrid_week2_glb_clm_95.gif

Week-1 Experimental Global Heat Hazard Outlook

Issued: 18 Feb 2025

Valid: 19 Feb 2025 - 25 Feb 2025



- There is an increased chance of *moderately severe heat* in far western Mexico, southern and eastern Brazil, Uruguay, Paraguay, northern Argentina, northern Tanzania, Oman and northeastern India, Bangladesh and Myanmar. and western Australia.
- There is an increased chance of *extremely severe heat* in eastern Brazil, Uruguay, Paraguay, northern Argentina.

Extremely Severe Heat: Tmax/HI are among the 5% highest values over the 30-year period 1991-2020

Severe Heat: Tmax/HI are among the 10% highest values over the 30-year period 1991-2020

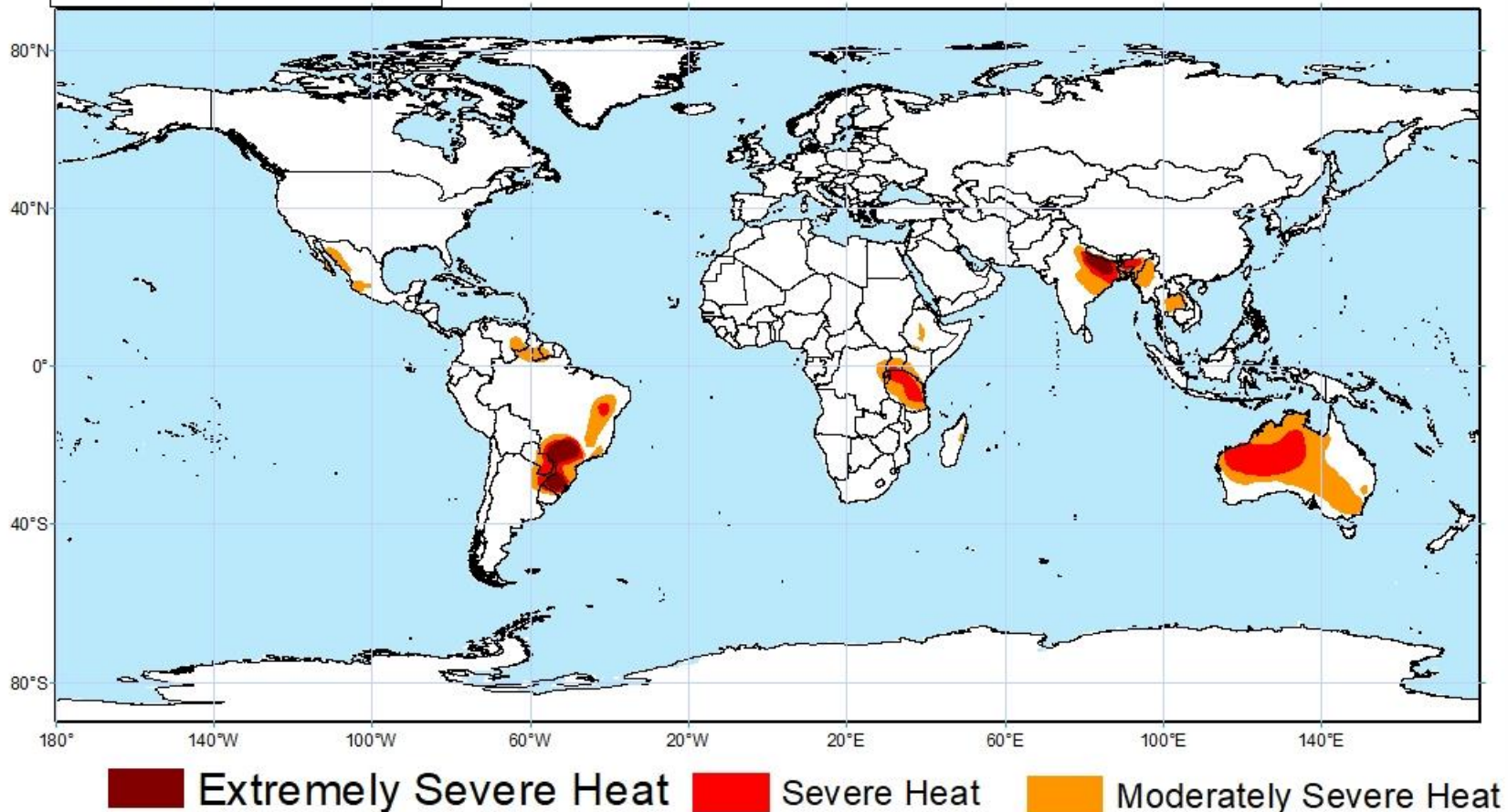
Moderately Severe Heat: Tmax/HI are among the 20% highest values over the 30-year period 1991-2020

Note: For the Sahel region in Africa: **Tmax/HI hybrid > 41°C for at least 3 consecutive days** is also considered as **Moderately Severe Heat**

Week-2 Experimental Global Heat Hazard Outlook

Valid: 26 Feb 2025 - 04 Mar 2025

Issued 18 Feb 2025



Extremely Severe Heat: Tmax/HI are among the 5% highest values over the 30-year period 1991-2020

Severe Heat: Tmax/HI are among the 10% highest values over the 30-year period 1991-2020

Moderately Severe Heat: Tmax/HI are among the 20% highest values over the 30-year period 1991-2020

- There is an increased chance for *moderately severe heat* in isolated areas in western Mexico, northern Argentina, Uruguay, Paraguay, southwestern and northeastern Brazil, eastern Niger, Tanzania, southern, Uganda, isolated part of Ethiopia and northeastern India, Bangladesh, Myanmar, and Australia.
- There is an increased chance for *extremely severe heat* over isolated areas in southern Brazil, northern Uruguay and northeastern India.

Note: For the Sahel region in Africa: **Tmax/HI hybrid > 41°C for at least 3 consecutive days** is also considered as **Moderately Severe Heat**