

Global Heat Hazards Outlooks

Date of Issuance: 10 June 2025

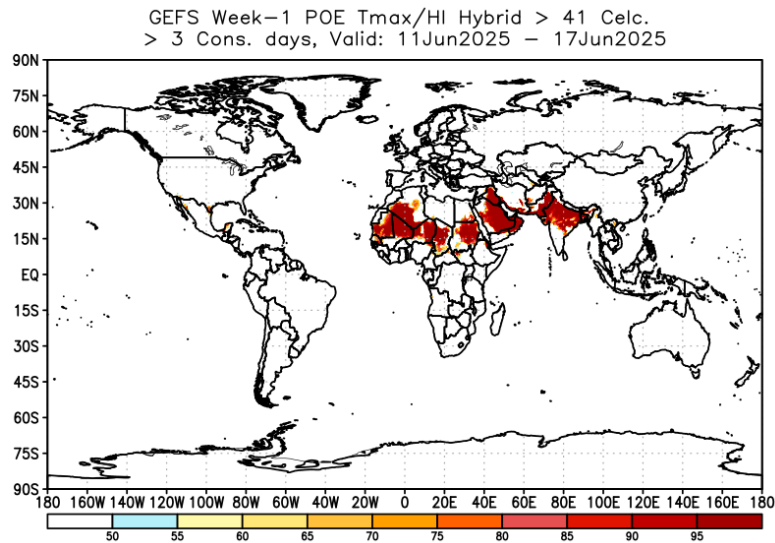
Week-1 Valid : 11 Jun 2025 – 17 Jun 2025

Week-2 Valid: 18 Jun 2025 – 24 Jun 2025

Numerical Weather Prediction Model: NCEP GEFS

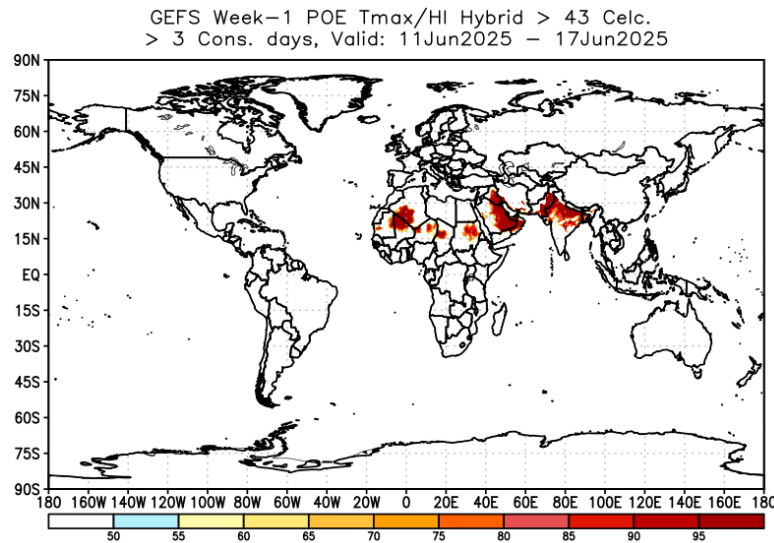
GEFS Week-1 HI/Tmax Hybrid POE with Respect to Fixed Thresholds

>41°C & > 3 Consc. Days



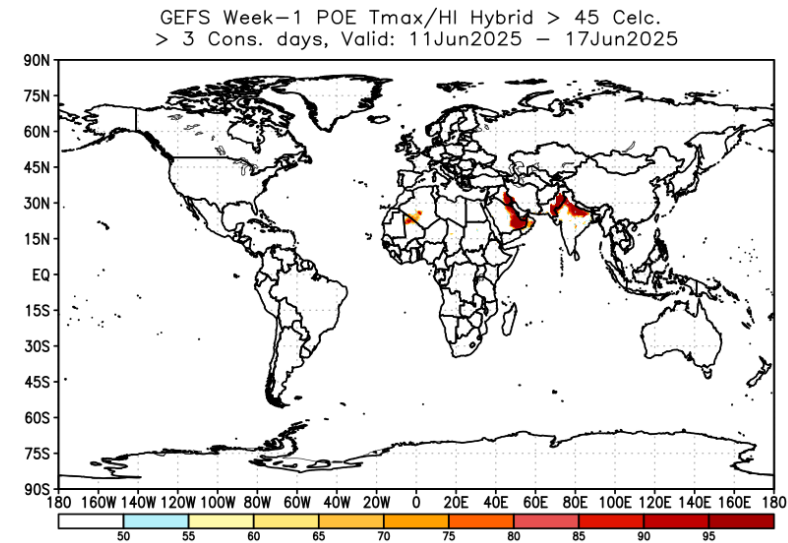
https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week1_prob_hybrid_3_glb_41.png

>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



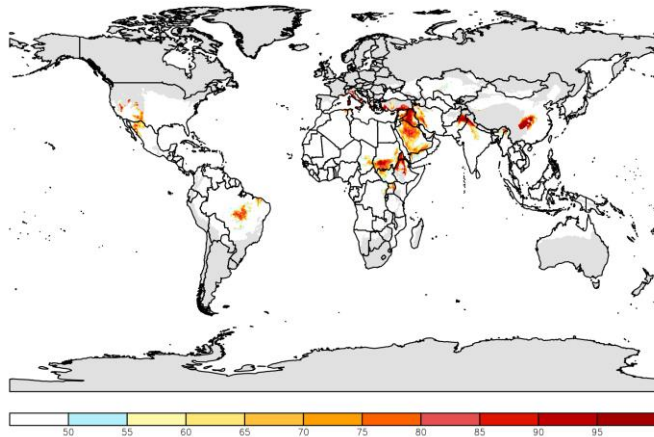
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- Probabilities exceed 85% for the hybrid index to exceed 41°C for at least three consecutive days across the southern Algeria, Mauritania, Niger, Chad, Sudan, Saudi Arabia, Iraq, Oman, Pakistan and northern/eastern/central India.

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

>80th & > 3 Consc. Days

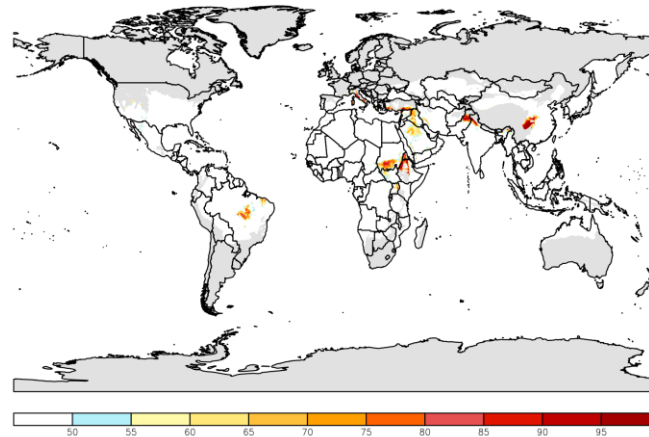
GEFS Week-1 POE Tmax/HI > 80th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 11Jun2025 - 17Jun2025



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

>90th & > 3 Consc. Days

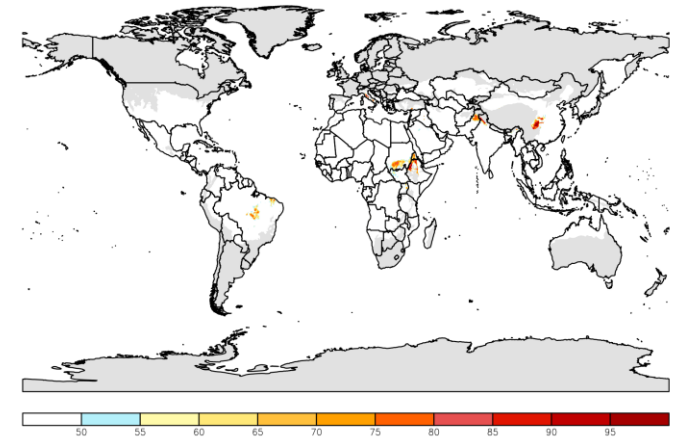
GEFS Week-1 POE Tmax/HI > 90th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 11Jun2025 - 17Jun2025



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: 11Jun2025 - 17Jun2025



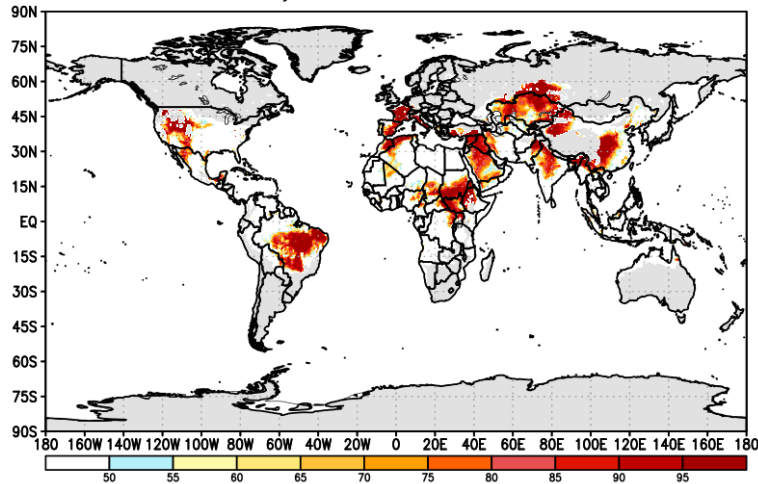
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- Probabilities exceed 70% for the hybrid index with calmer wind and less cloud cover to exceed the 80th percentile for at least three consecutive days, over scattered pockets of western US, central Brazil, southern Sudan, northern Ethiopia, Saudi Arabia, Yemen, Syria, Iraq, northern Pakistan and India, Bangladesh, and eastern China

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

>80th & > 3 Consc. Days

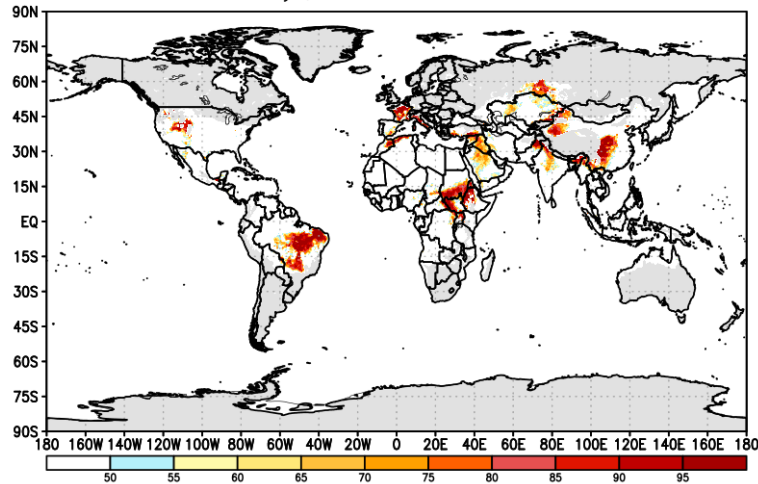
GEFS Week-1 POE Tmax/HI Hybrid > 80th Pctle.
> 3 Cons. days, Valid: 11Jun2025 - 17Jun2025



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>90th & > 3 Consc. Days

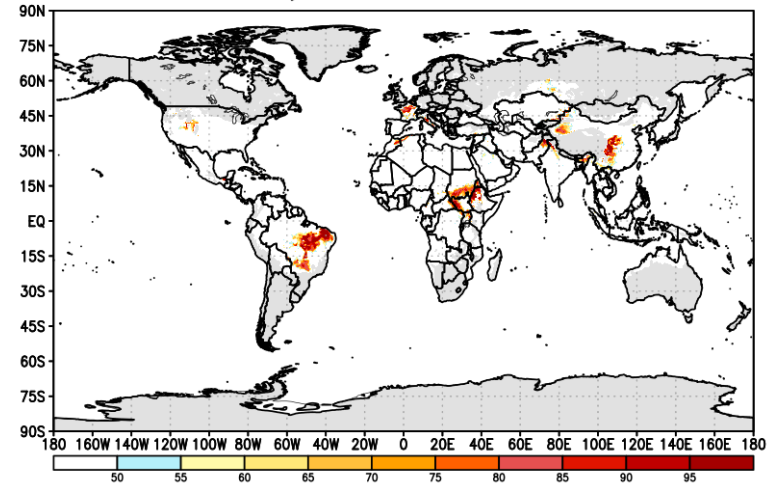
GEFS Week-1 POE Tmax/HI Hybrid > 90th Pctle.
> 3 Cons. days, Valid: 11Jun2025 - 17Jun2025



https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week1_prob_hybrid_3_glb_90.png

>95th & > 3 Consc. Days

GEFS Week-1 POE Tmax/HI Hybrid > 95th Pctle.
> 3 Cons. days, Valid: 11Jun2025 - 17Jun2025



https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week1_prob_hybrid_3_glb_95.png

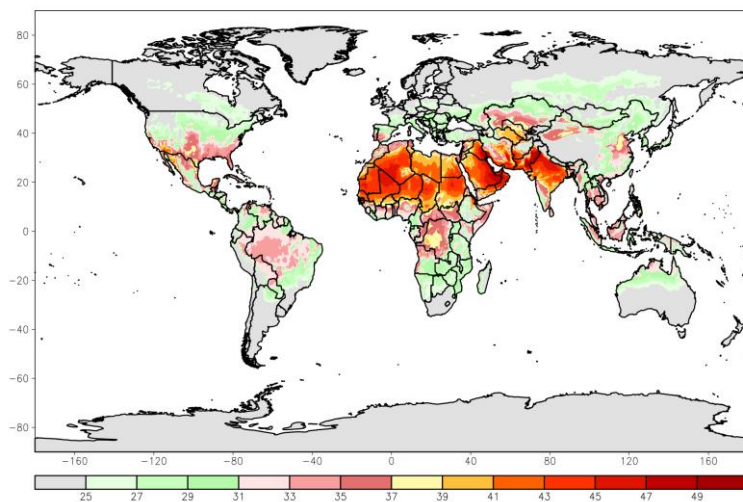
- Probabilities exceed 90% for the hybrid index to exceed the 80th percentile for at least three consecutive days, in western/central/southern United States, some scattered parts of Mexico/Central America, central/eastern Brazil, Spain, France, northern Mali, northern Mauritania, South Sudan, southern Sudan, western Ethiopia, Saudi Arabia, Iraq, Syria, eastern Turkey, central Asia, southern Russia, northern Pakistan, central/northern India, and western/eastern China.

GEFS Week-1 Tmax Percentile Climatology (°C)

Tmax 80th Percentile

GEFS Week-1 Tmax Percentile Climo (Cels.), 80th Pctle.

Valid: 11Jun - 17Jun

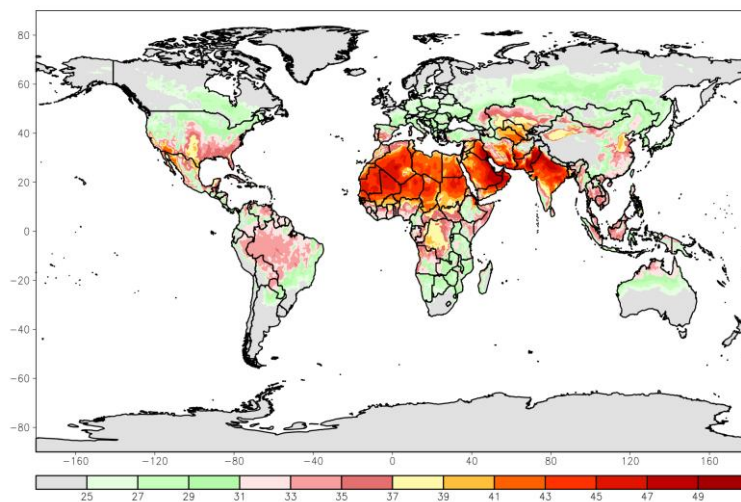


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Tmax 90th Percentile

GEFS Week-1 Tmax Percentile Climo (Cels.), 90th Pctle.

Valid: 11Jun - 17Jun

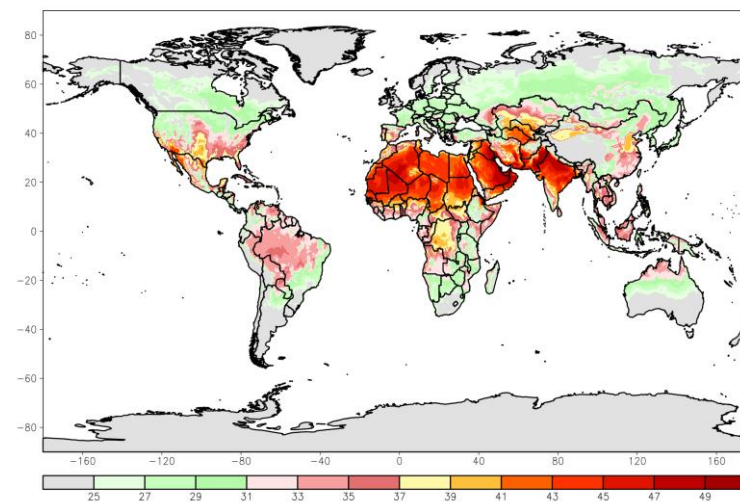


https://ftp.cpc.ncep.noaa.gov/International/extreme_fc/st/gefs_heat/gefs_hybrid_week1_glb_clm_90.gif

Tmax 95th Percentile

GEFS Week-1 Tmax Percentile Climo (Cels.), 95th Pctle.

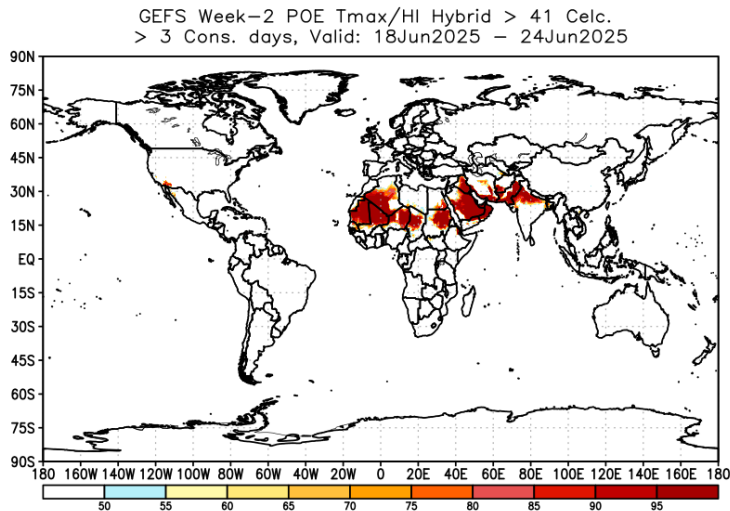
Valid: 11Jun - 17Jun



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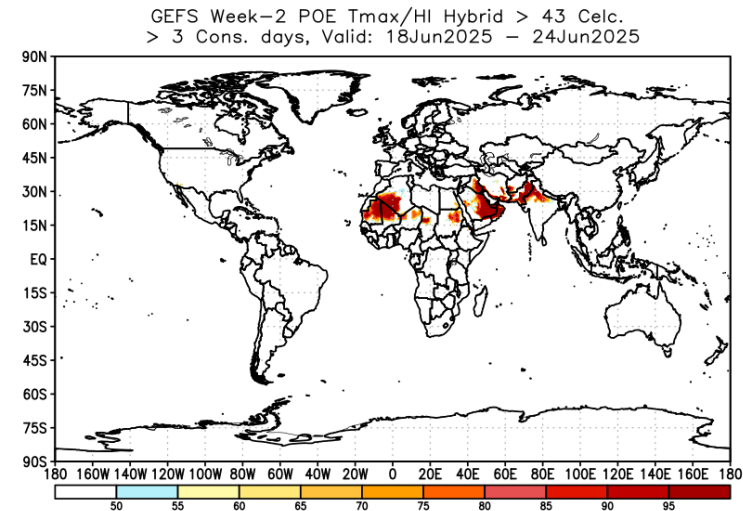
GEFS Week-2 HI/Tmax Hybrid POE with Respect to Fixed Thresholds

>41°C & > 3 Consc. Days



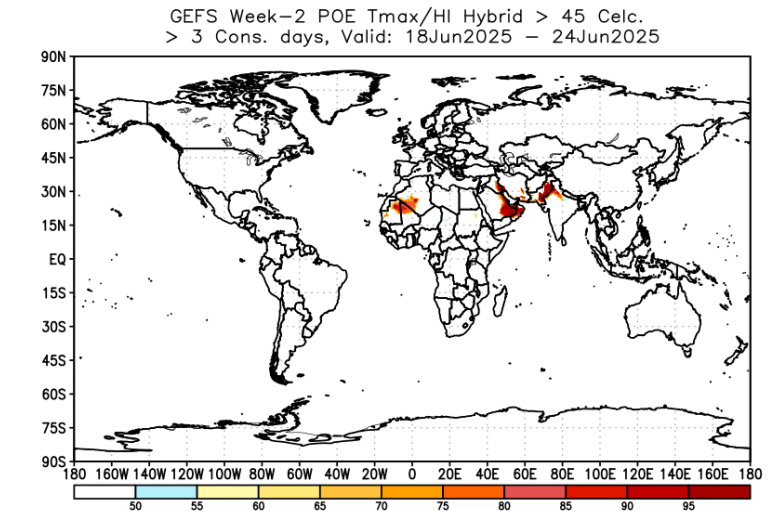
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>43°C & > 3 Consc. Days



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>45°C & > 3 Consc. Days



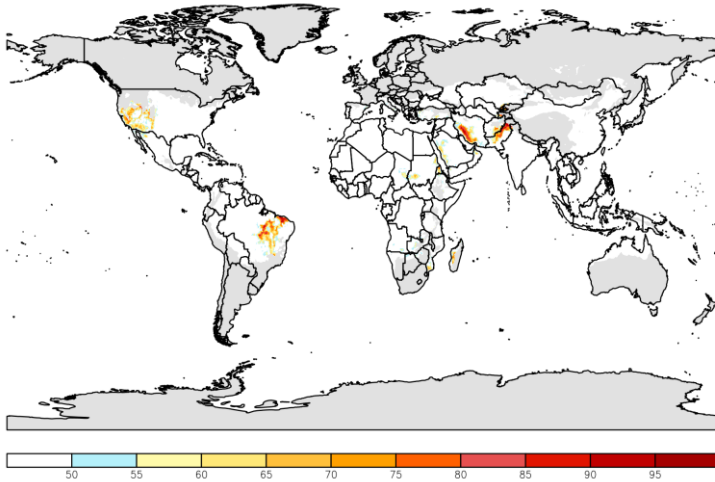
https://ftp.cpc.ncep.noaa.gov/International/global_heat/gefs_week2_prob_hybrid_3_glb_45.png

- There is an increased chance for the hybrid index to exceed 41°C for at least three consecutive days in the southwestern US, Mauritania, southern Algeria, Mali, Niger, Chad, southeastern Egypt, Sudan, Saudi Arabia, Oman, Iraq, southern Iran, southern Afghanistan, northern Pakistan, north/eastern India and Bangladesh.

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

>80th & > 3 Consc. Days

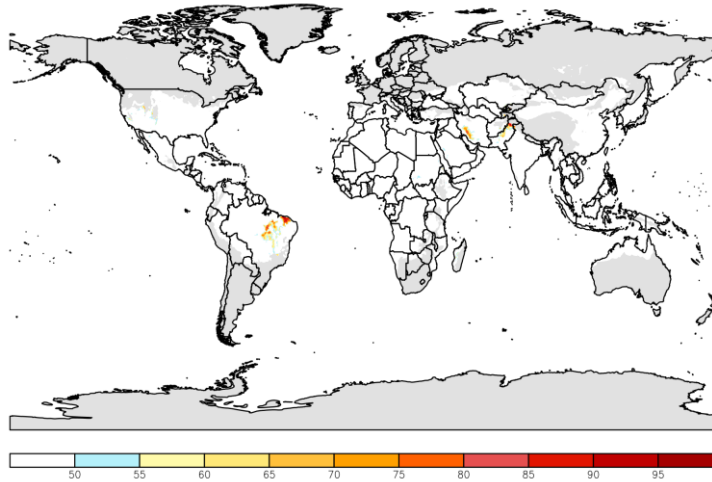
GEFS Week-2 POE Tmax/HI > 80th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 18Jun2025 – 24Jun2025



https://ftp.cpc.ncep.noaa.gov/International/extreme_fcst/gefs_heat/gefs_comb3_week2_glb_prob_80.gif

>90th & > 3 Consc. Days

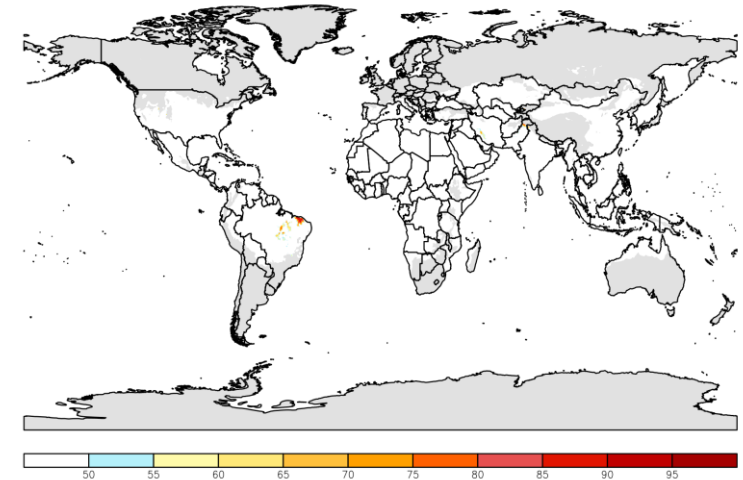
GEFS Week-2 POE Tmax/HI > 90th Pctle. with W. Speed < 5m/sec &
Cloud C. < 50%, > 3 Cons. days, Valid: 18Jun2025 – 24Jun2025



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: 18Jun2025 – 24Jun2025



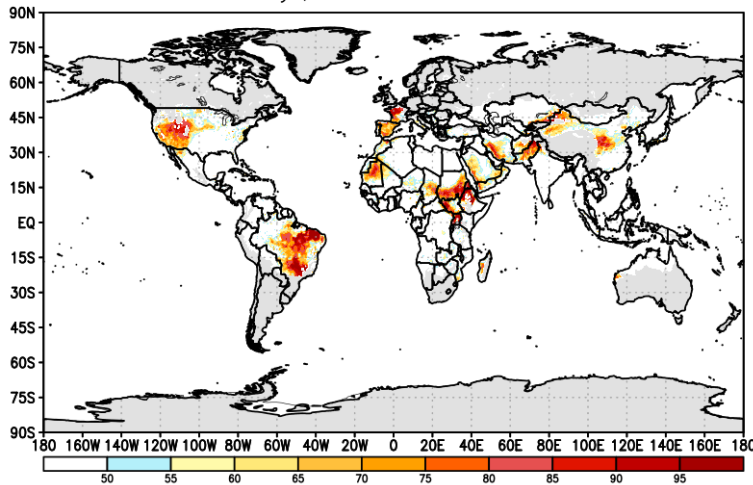
https://ftp.cpc.ncep.noaa.gov/International/extreme_fcst/gefs_heat/gefs_comb3_week2_glb_prob_95.gif

- Probabilities exceed 70% for the hybrid index with calmer wind and less cloud cover to exceed the 80th percentile for at least three consecutive days, over western USA, central/eastern Brazil, western Saudi Arabia, northern Pakistan and southern Afghanistan.

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

>80th & > 3 Consc. Days

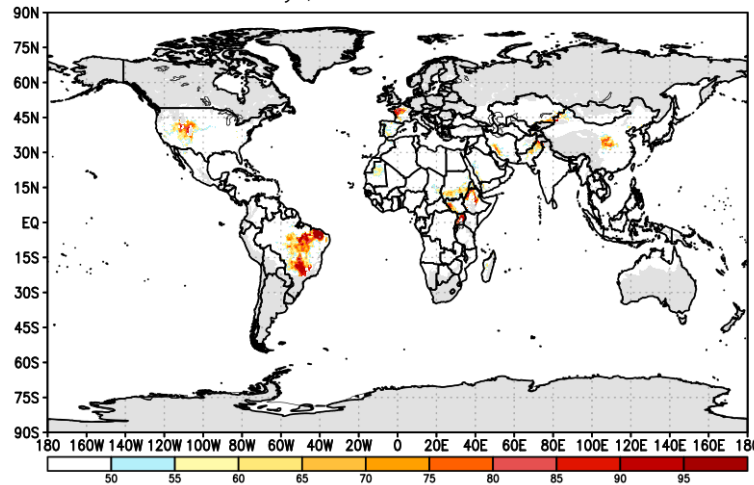
GEFS Week-2 POE Tmax/HI Hybrid > 80th Pctle.
> 3 Cons. days, Valid: 18Jun2025 - 24Jun2025



https://ftp.cpc.ncep.noaa.gov/International/global_hett/gefs_week2_prob_hybrid_3_glb_80.png

>90th & > 3 Consc. Days

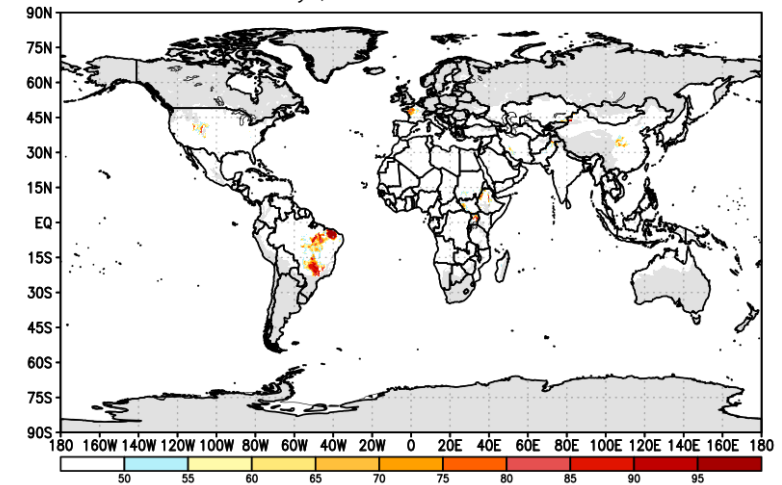
GEFS Week-2 POE Tmax/HI Hybrid > 90th Pctle.
> 3 Cons. days, Valid: 18Jun2025 - 24Jun2025



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: 18Jun2025 - 24Jun2025



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

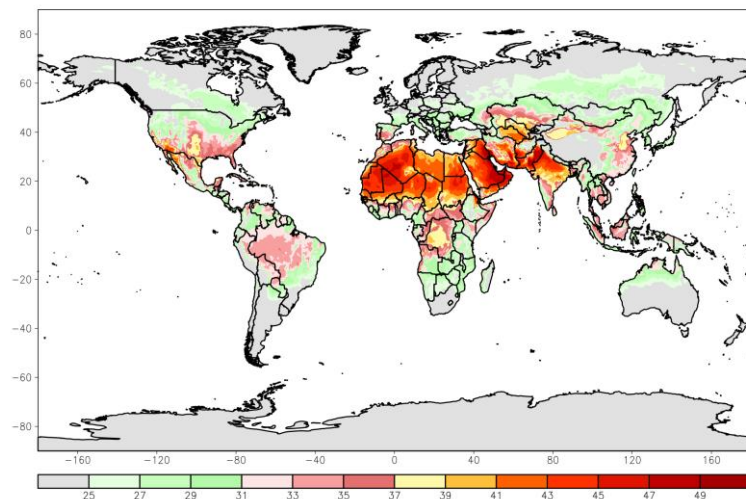
- There is an increased chance (> 80%) for the hybrid index to exceed the 80th percentile for at least three consecutive days, in western/central/eastern USA, central/eastern Brazil, Spain, France, Mauritania, western Sahara, Sudan, western Sudan, Chad, northern Ethiopia, Saudi Arabia, Yemen, western Iran, central Afghanistan, northern Pakistan, Southern Central Asia and north/eastern China.

GEFS Week-2 Tmax Percentile Climatology (°C)

Tmax 80th Percentile

GEFS Week-2 Tmax Percentile Climo (Cels.), 80th Pctle.

Valid: 18Jun - 24Jun

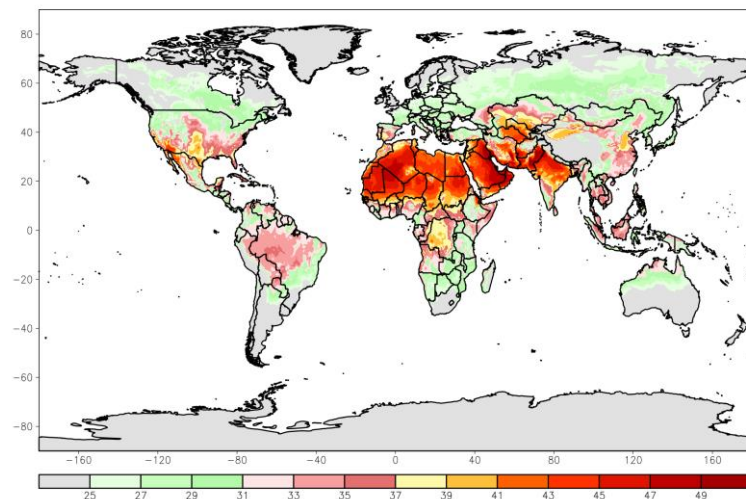


https://ftp.cpc.ncep.noaa.gov/International/extreme_fcst/gefs_heat/gefs_hybrid_week2_glb_clm_80.gif

Tmax 90th Percentile

GEFS Week-2 Tmax Percentile Climo (Cels.), 90th Pctle.

Valid: 18Jun - 24Jun

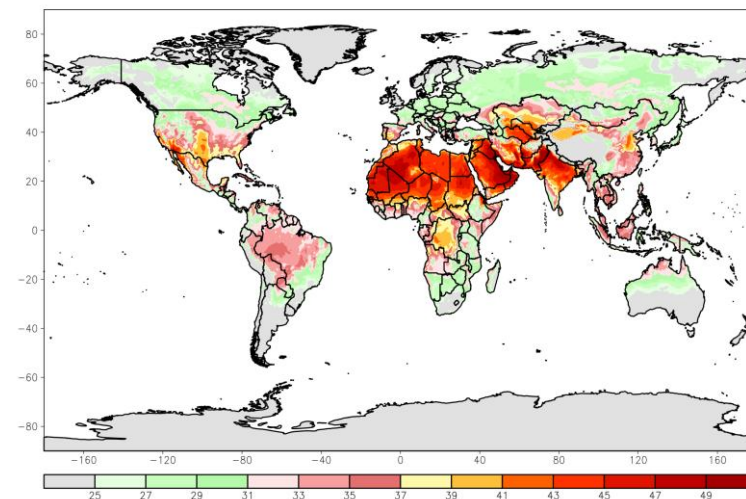


https://ftp.cpc.ncep.noaa.gov/International/extreme_fcst/gefs_heat/gefs_hybrid_week2_glb_clm_90.gif

Tmax 95th Percentile

GEFS Week-2 Tmax Percentile Climo (Cels.), 95th Pctle.

Valid: 18Jun - 24Jun

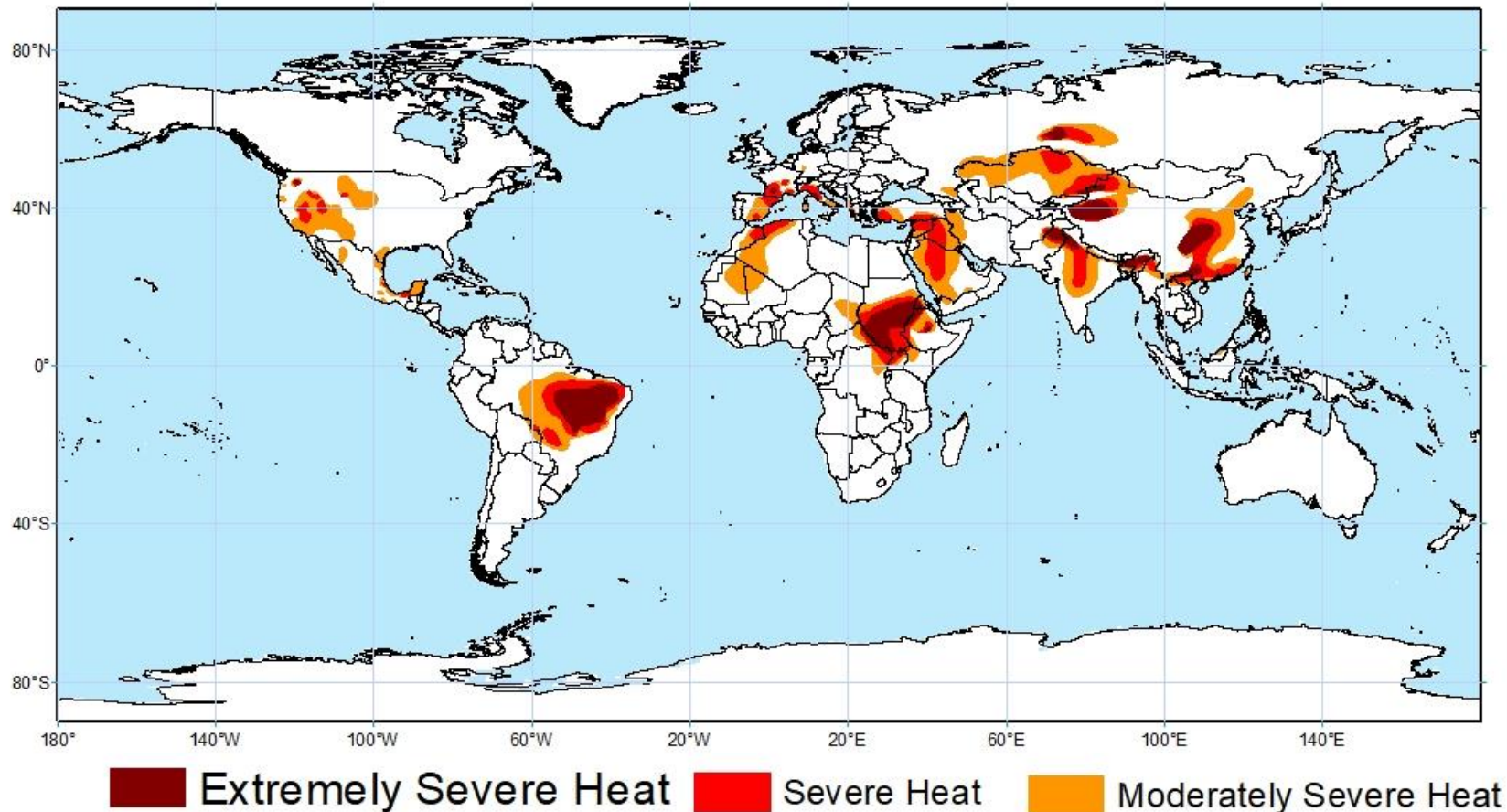


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Week-1 Experimental Global Heat Hazard Outlook

Issued: 10 June 2025

Valid: 11 June 2025 - 17 June 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

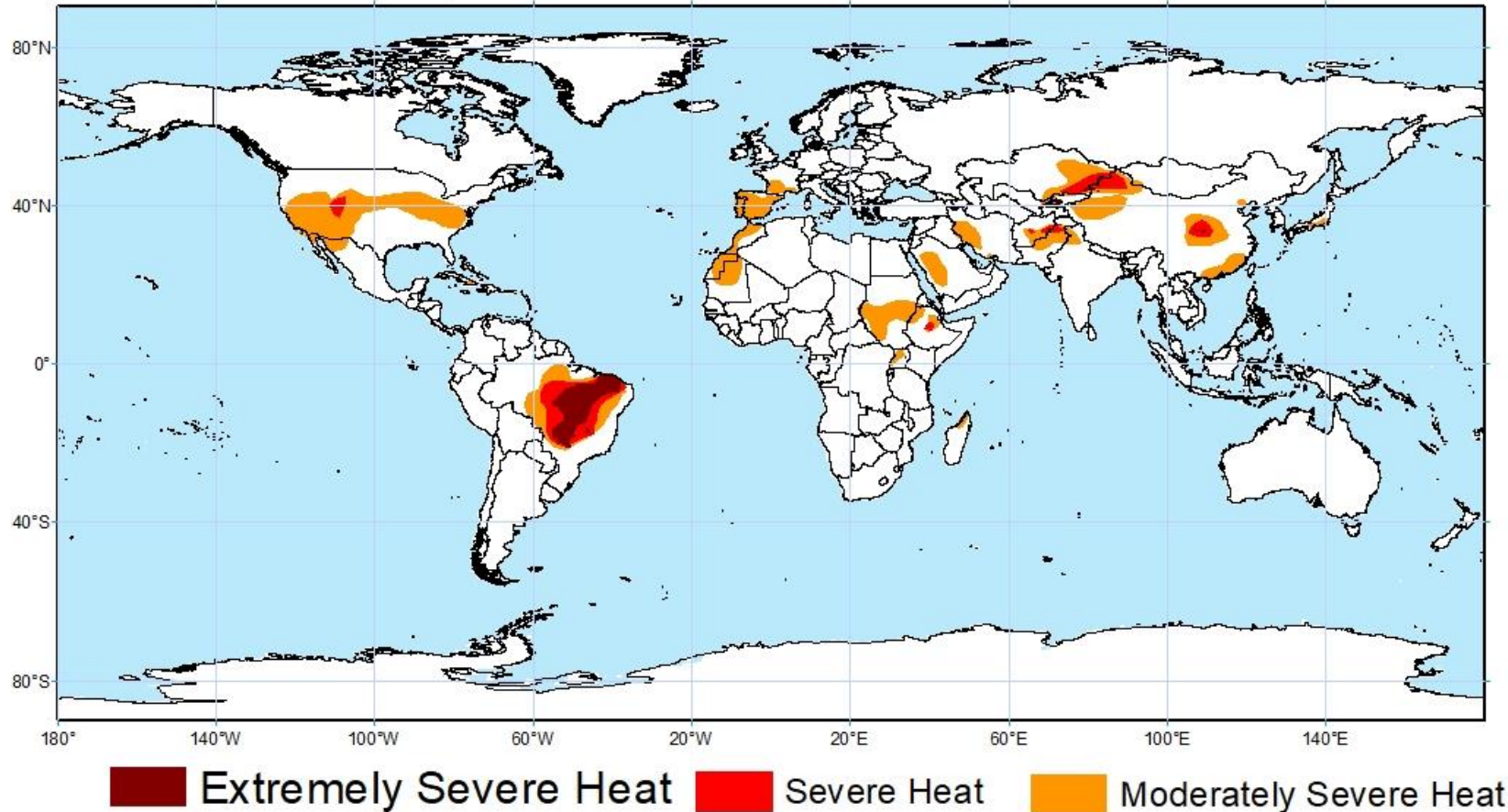
Note: For the Sahel region in Africa: Tmax/HI hybrid > 41°C for at least 3 consecutive days is also considered as **Moderately Severe Heat**

- There is an increased chance of *moderately severe heat* over western/mid-western USA, eastern tip of Mexico, central/eastern Brazil, Spain, southern France, western Sahara, Sudan, South Sudan, western Ethiopia, northern Democratize Republic of Congo (DRC), Saudi Arabia, Iraq, Syria, northern/eastern Kazakhstan, southern Russia, north/central/eastern India, northern Pakistan, Bangladesh, and northern/eastern/western China.
- There is an increased chance for *extremely severe heat*, over *central/eastern Brazil, Sudan, South Sudan and northern/eastern/western China*.

Week-2 Experimental Global Heat Hazard Outlook

Valid: 18 June 2025 - 24 June 2025

Issued: 10 June 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

Note: For the Sahel region in Africa: Tmax/HI hybrid $> 41^{\circ}\text{C}$ for at least 3 consecutive days is also considered as **Moderately Severe Heat**

- There is an increased chance of *heat* over western USA, central/eastern Brazil, Spain, southern France, western Sahara, Sudan, South Sudan, eastern Ethiopia, Saudi Arabia, western Iran, eastern Kazakhstan, northern Pakistan, and western/eastern China.
- There is an increased chance of *severe heat*, western USA, central/eastern Brazil, eastern Kazakhstan, northern Pakistan and eastern China.
- There is an increased chance for *extremely severe heat* central/eastern Brazil.