

Climate Explorer European Climate Assessment & Data KNMI

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Field correlations

1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean with CRU TS4.03 cloud fraction

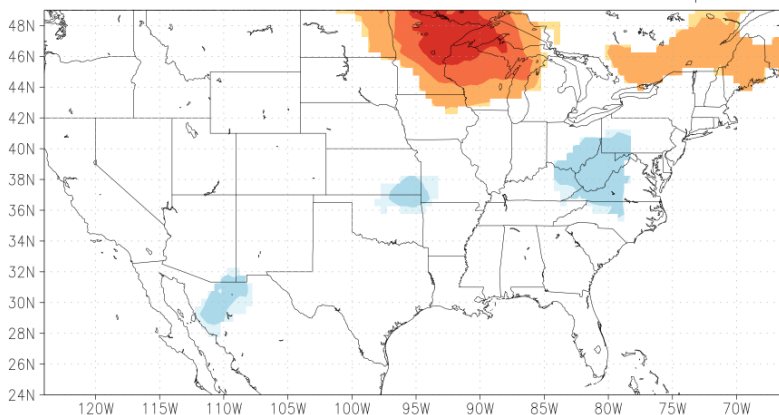
Computing correlations... (this may take a minute or so)

If it takes too long you can abort the job [here](#) (using the [back] button of the browser does not kill the correlation job)

Requiring at least 50% valid points

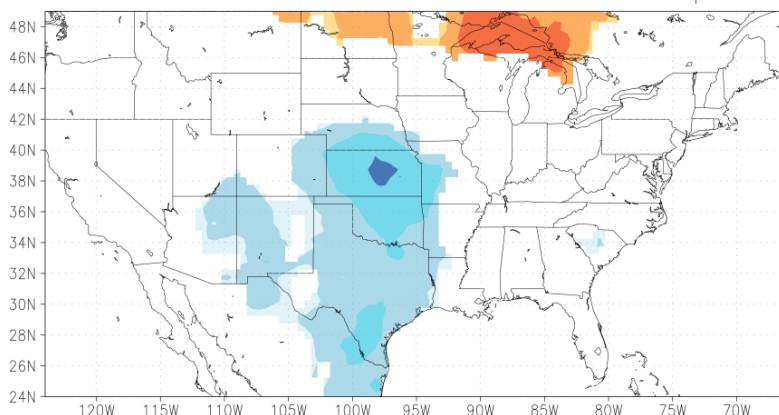
Plotting with [GrADS v2.2.0...](#)

corr Jan 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies with Jan CRU TS4.03 cloud fraction anomalies 1980:2017 $p < 10\%$ ([eps](#), [pdf](#))
 rr Jan 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies with Jan CRU TS4.03 cloud fraction anomalies 1980:2017 $p < 10\%$



Statistically, there is maybe a significant connection in the map ($p_{\text{field}} < 20.0\%$). [Details...](#)

corr Feb 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies with Feb CRU TS4.03 cloud fraction anomalies 1980:2017 $p < 10\%$ ([eps](#), [pdf](#))
 rr Feb 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies with Feb CRU TS4.03 cloud fraction anomalies 1980:2017 $p < 10\%$



Statistically, there is likely a significant connection in the map ($p_{\text{field}} < 10.0\%$). [Details...](#)

Select a time series

[Daily station data](#)
[Daily climate indices](#)
[Monthly station data](#)
[Monthly climate indices](#)
[Annual climate indices](#)
[View, upload your time series](#)

Select a field

[Daily fields](#)
[Monthly observations](#)
[Monthly reanalysis fields](#)
[Monthly and seasonal historical reconstructions](#)
[Monthly seasonal hindcasts](#)
[Monthly CMIP3+ scenario runs](#)
[Monthly CMIP5 scenario runs](#)
[Annual CMIP5 extremes](#)
[Monthly CMIP6 scenario runs](#)
[Monthly CORDEX scenario runs](#)
[Attribution runs](#)
[View, upload your field](#)

Investigate this time series

[View per month, season, half year or full year \(Jan-Dec or Jul-Jun\)](#)

[View last 1, 5, 10, N years](#)

[Correlate with other time series](#)

[Correlate with a field \(correlation, regression, composite\)](#)

[only observations](#)
[only reanalyses](#)
[only seasonal forecasts](#)
[only scenario runs](#)
[only user-defined fields](#)
[Verify against another time series](#)

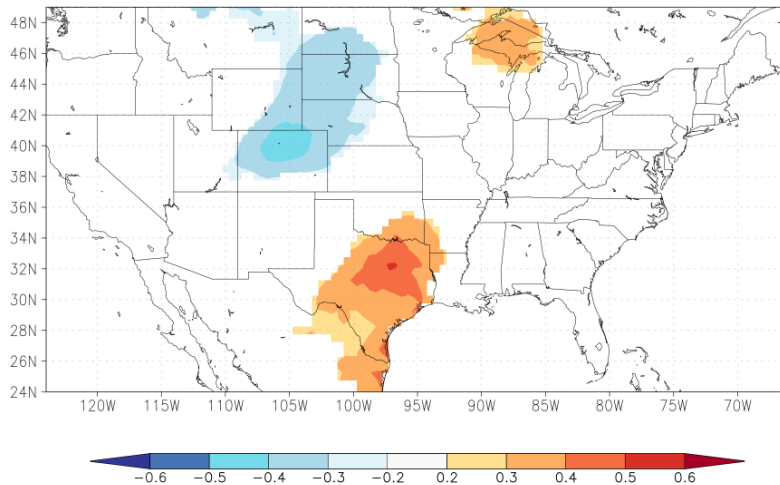
[Spectrum, autocorrelation function](#)
[Wavelet](#)
[Running mean/s.d./skew/curtosis](#)
[Trends in return times of extremes](#)
[Plot and fit distribution](#)

Investigate this field

[Plot this field](#)
[Plot difference with a field](#)
[Compute mean, s.d. or extremes](#)
[Trends in extremes](#)
[Make EOFs](#)
[Correlate with a time series](#)
[Pointwise correlations with a field](#)

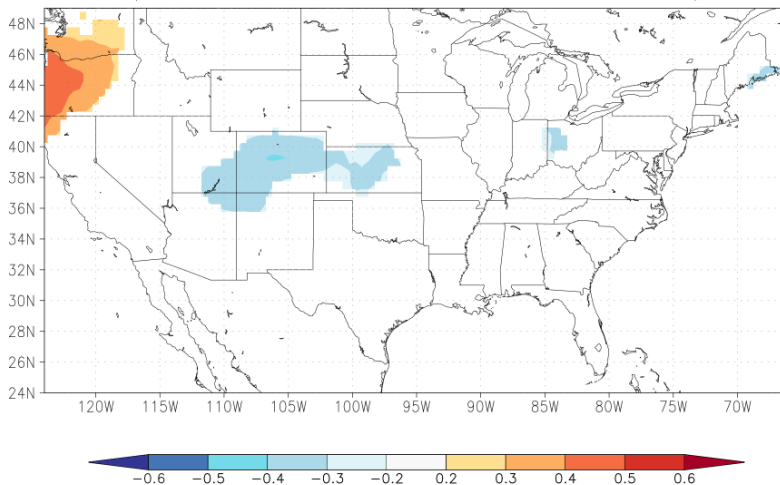
[only observations](#)
[only reanalyses](#)
[only seasonal hindcasts](#)
[only decadal hindcasts](#)
[only CMIP5 scenario runs](#)

corr Mar 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Mar CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
rr Mar 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomal
with Mar CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



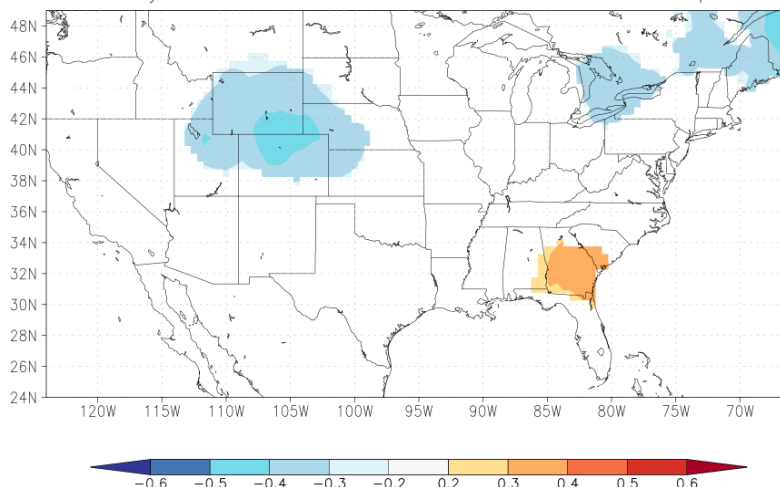
Statistically, there is likely a significant connection in the map ($p_{\text{field}} < 10.0\%$). [Details...](#)

corr Apr 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Apr CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
rr Apr 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomal
with Apr CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



Statistically, the map is indistinguishable from random noise ($p_{\text{field}} > 20.0\%$). [Details...](#)

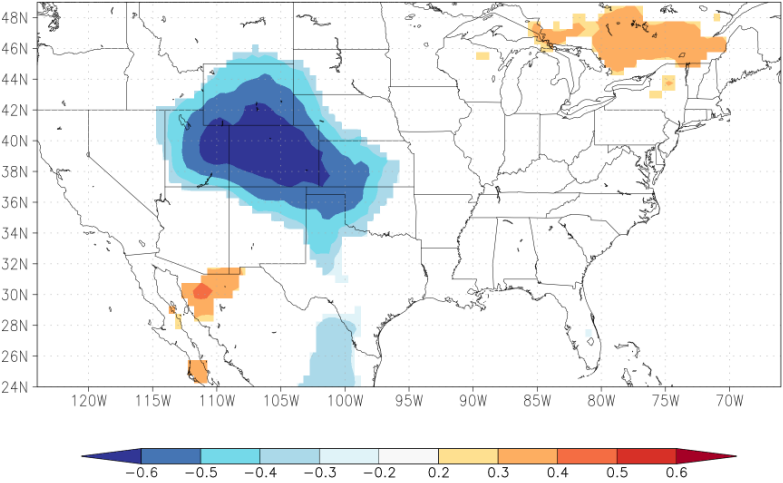
corr May 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with May CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
rr May 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomal
with May CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



Statistically, there is maybe a significant connection in the map ($p_{\text{field}} < 20.0\%$). [Details...](#)

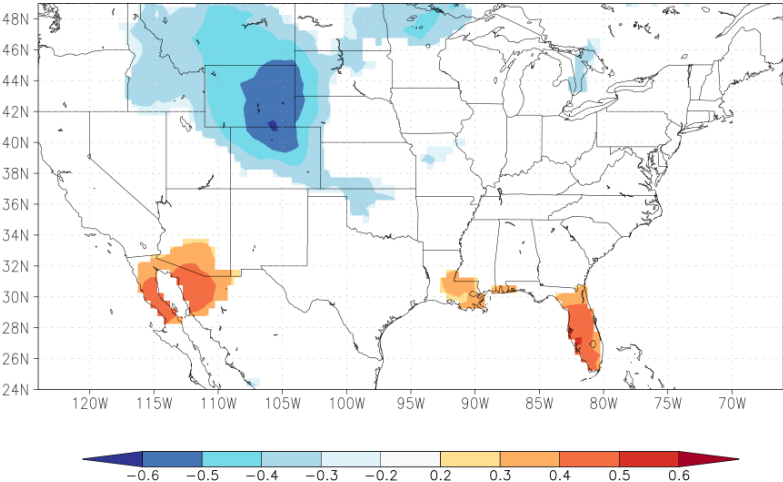
only user-defined fields
Spatial correlations with a field
only observations
only reanalyses
only seasonal hindcasts
only decadal hindcasts
only CMIP5 scenario runs
only user-defined fields
SVD
only observations
only reanalyses
only seasonal hindcasts
only CMIP5 scenario runs
only user-defined fields
Verify field against observations

corr Jun 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Jun CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
rr Jun 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Jun CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



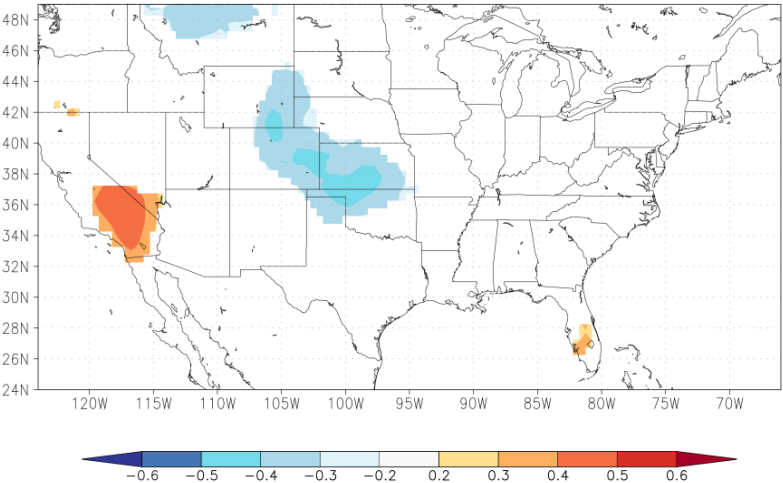
Statistically, there is likely a significant connection in the map ($p_{\text{field}} < 5.0\%$). [Details...](#)

corr Jul 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Jul CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
rr Jul 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Jul CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



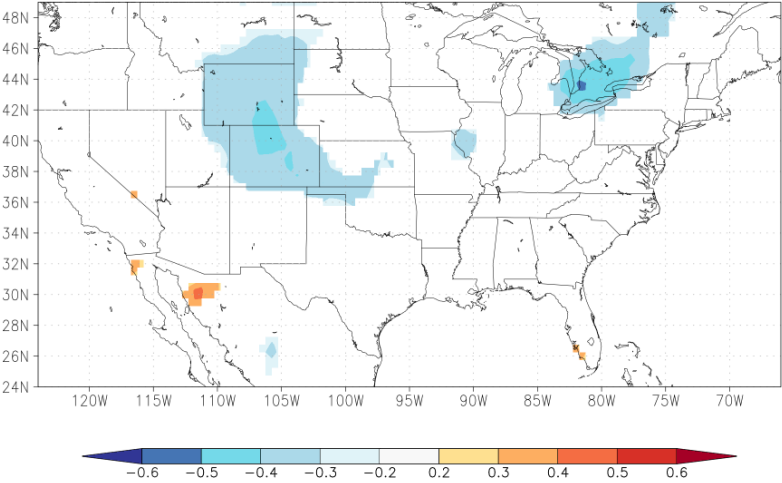
Statistically, there is likely a significant connection in the map ($p_{\text{field}} < 10.0\%$). [Details...](#)

corr Aug 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Aug CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
rr Aug 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Aug CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



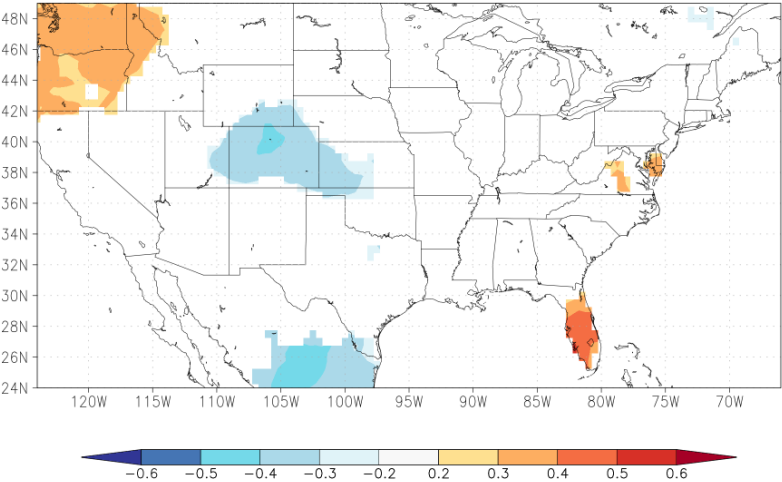
Statistically, the map is indistinguishable from random noise ($p_{\text{field}} > 20.0\%$). [Details...](#)

corr Sep 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Sep CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
rr Sep 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomal
with Sep CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



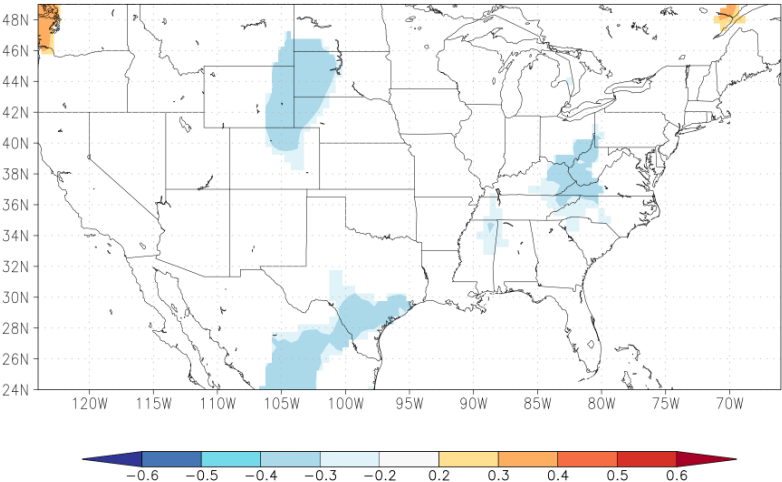
Statistically, there is maybe a significant connection in the map ($p_{\text{field}} < 20.0\%$). [Details...](#)

corr Oct 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Oct CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
rr Oct 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomal
with Oct CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



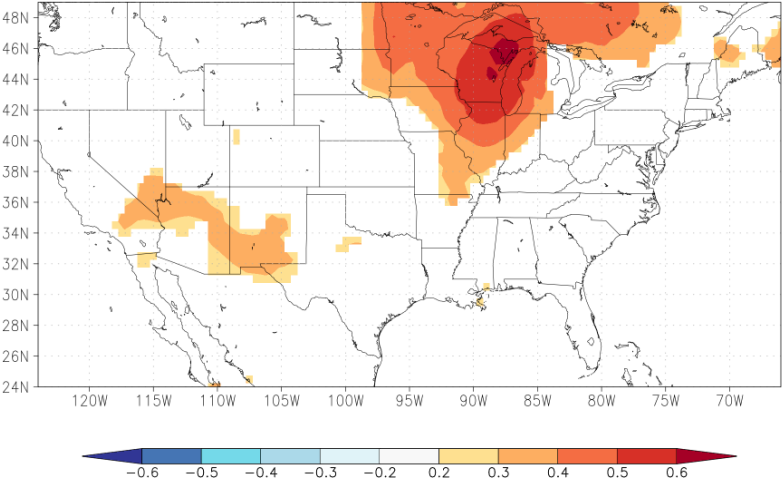
Statistically, there is maybe a significant connection in the map ($p_{\text{field}} < 20.0\%$). [Details...](#)

corr Nov 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Nov CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
rr Nov 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomal
with Nov CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



Statistically, the map is indistinguishable from random noise ($p_{\text{field}} > 20.0\%$). [Details...](#)

corr Dec 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
with Dec CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
rr Dec 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomal
with Dec CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



Statistically, there is likely a significant connection in the map ($p_{\text{field}} < 5.0\%$). [Details...](#)

Get the raw data as [netcdf](#) or (big) [ascii](#) file.

Replot

Variable: ☒ correlation [1]
☐ p-value [1]
☐ regression of series t2m on field cld [Celsius]
☐ regression of field cld on series t2m [1/Celsius]
☐ error on regression of series t2m on field cld [Celsius]
☐ error on regression of field cld on series t2m [1/Celsius]
☐ number of valid points [1]
☐ relative regression [1]
☐ error on relative regression [1]

Map type:

default

 projection

i

Region:

24

 °N to

49

 °N,

-124

 °E to

-66

 °E in a

lat-lon

 plot

i

Contours: to mask out : p>

5

 %

i

logarithmic scale

Colours:

blue-grey-red

i

Shading: ☐ shading and contours ☒ shading ☐ contours ☐ grid boxes

i

Plot options: ☐ no color bar ☐ no title on plot, ☐ no grid ☐ no political boundaries

i

label distance × ° or ☐ no labels

Output to: ☒ browser ☐ Google Earth (kml) ☐ GIS (geotiff)

i

Replot

Generate a new field with the influence of 1980-2017 anomalies
ERA5 T2m -124--66E 24-49N subtracted linearly

Submit