

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

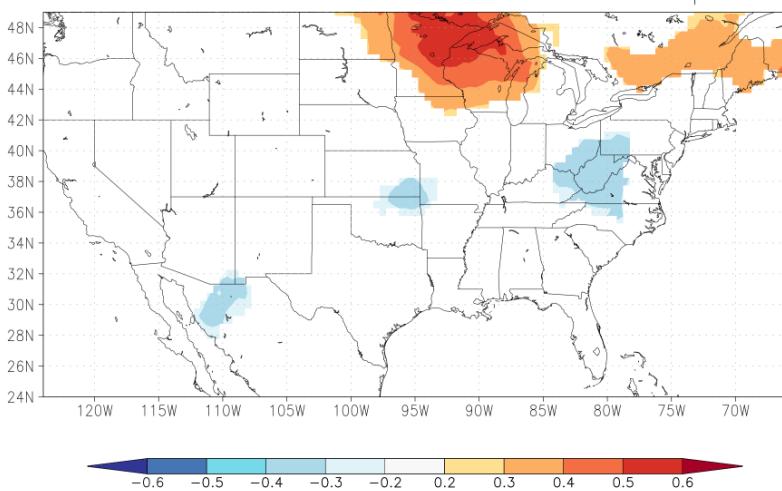
Computing correlations... (this may take a minute or so)

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

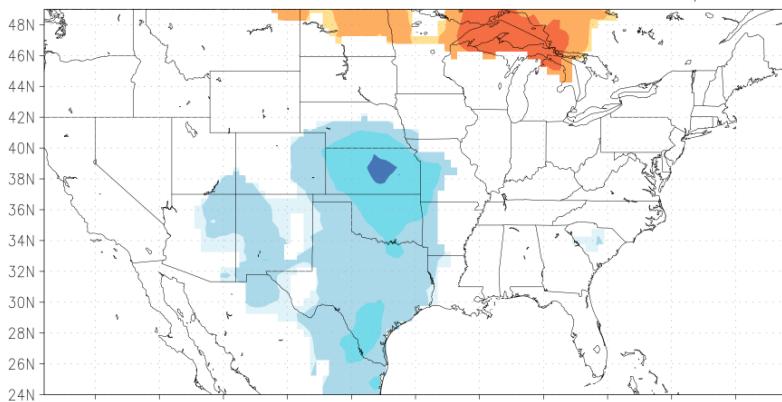
Plotting with [GrADS v2.2.0...](#)

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_{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_{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

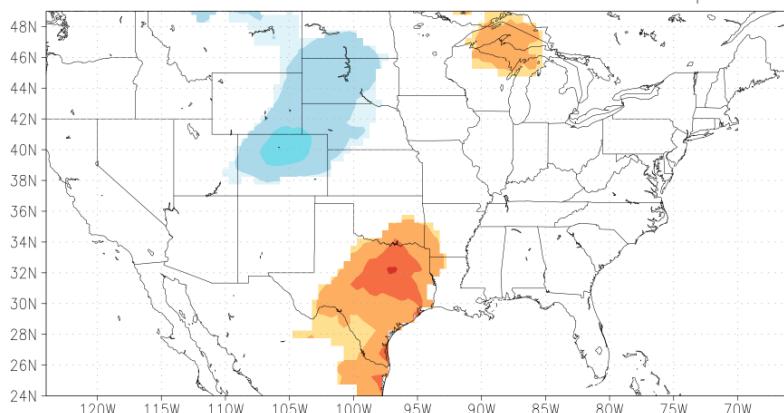
- [View per month, season, half year or full year \(Jan-Dec or Jul-Jun\)](#)
- [View last 1, 5, 10, N years](#)
- [Correlate with other time series](#)
- [Correlate with a field \(correlation, regression, composite\)](#)

- [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](#)

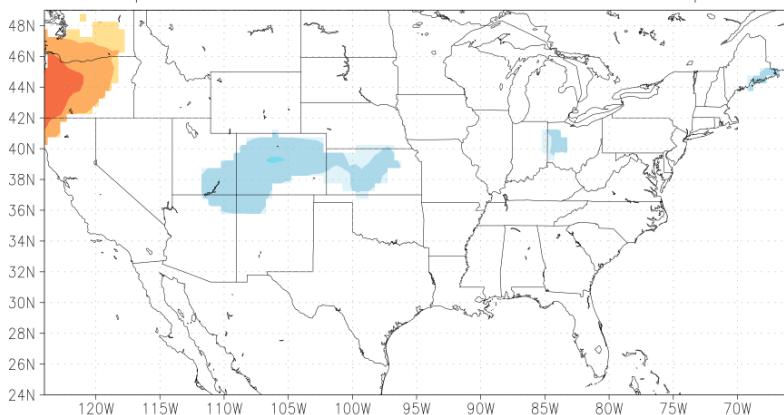
corr Mar 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
 with Mar CRU TS4.03 cloud fraction anomalies 1980:2017 p<10% ([eps](#), [pdf](#))
 rr Mar 1980-2017 anomalies ERA5 T2m -124--66E 24-49N mean anomalies
 with Mar CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



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

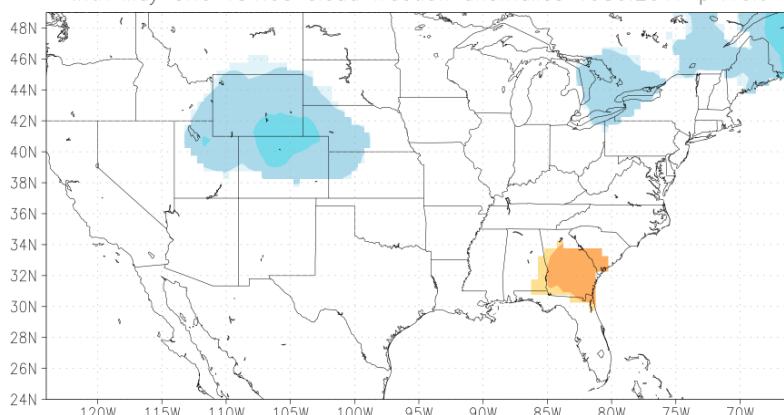
only user-defined fields
 Spatial correlations with a field
 only observations
 only reanalyses
 only seasonal hindcasts
 only decadal hindcasts
 only CMIP5 scenario runs
 only user-defined fields
 SVD
 only observations
 only reanalyses
 only seasonal hindcasts
 only CMIP5 scenario runs
 only user-defined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

corr 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 anomalies
 with Apr CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



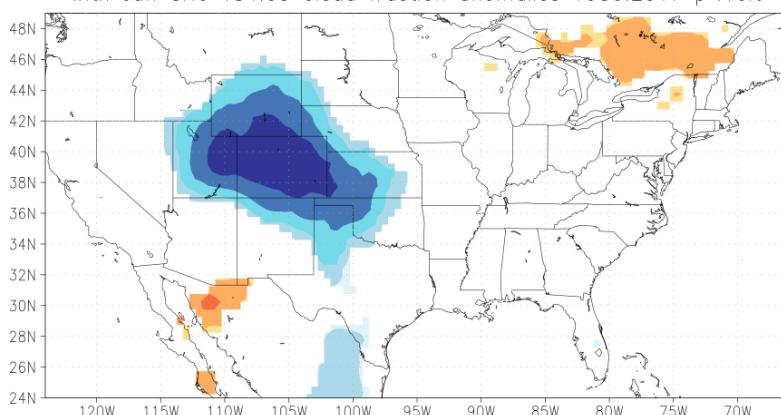
Statistically, the map is indistinguishable from random noise (p_{field} > 20.0%). [Details...](#)

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 anomalies
 with May CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



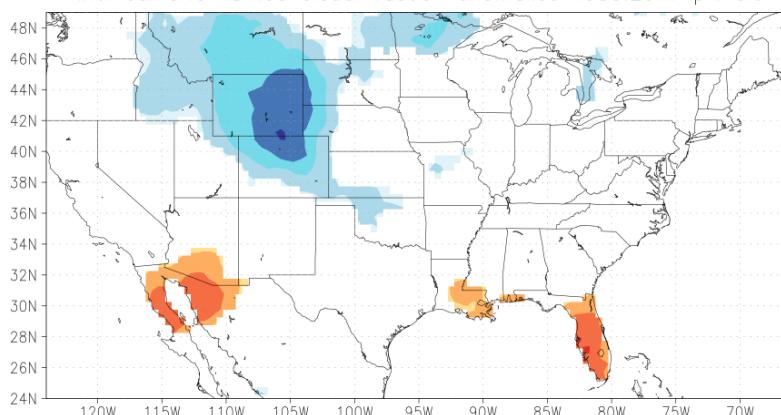
Statistically, there is maybe a significant connection in the map (p_{field} < 20.0%). [Details...](#)

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%



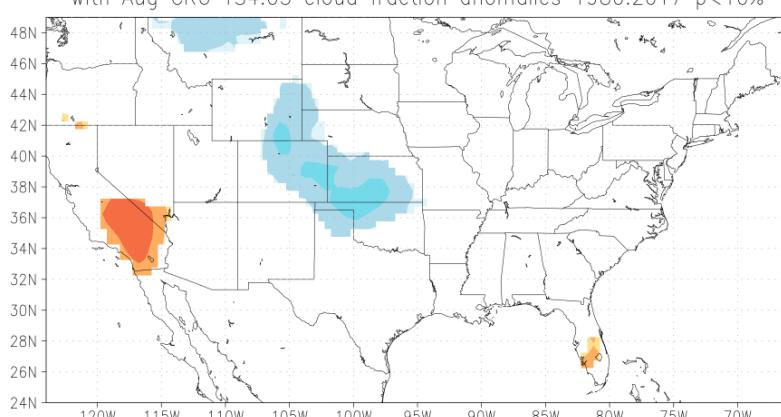
Statistically, there is likely a significant connection in the map ($p_{field} < 5.0\%$). [Details...](#)

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%



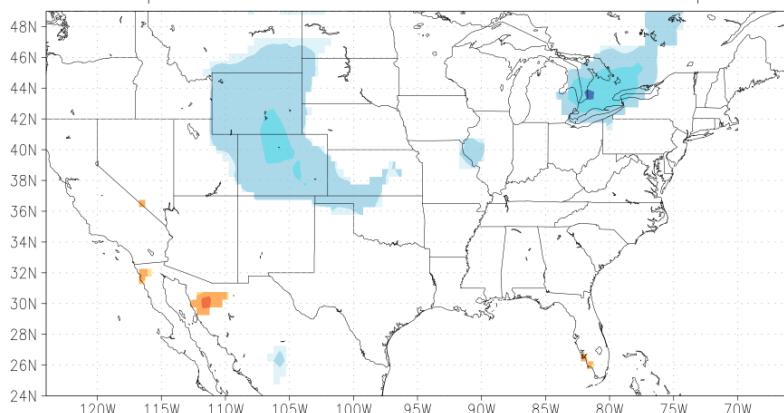
Statistically, there is likely a significant connection in the map ($p_{field} < 10.0\%$). [Details...](#)

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%



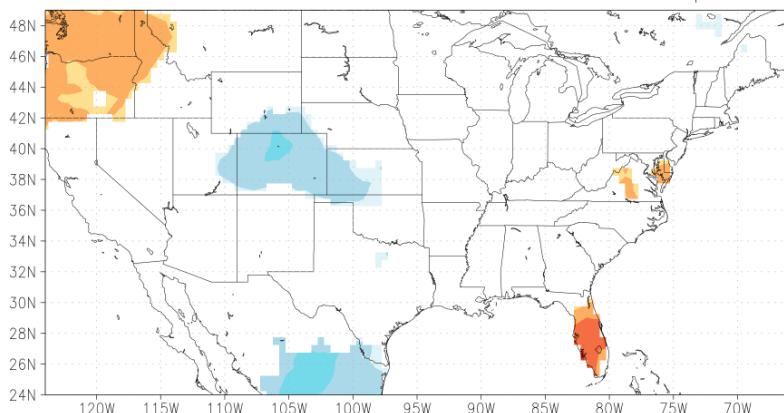
Statistically, the map is indistinguishable from random noise ($p_{field} > 20.0\%$). [Details...](#)

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 anomalies
 with Sep CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



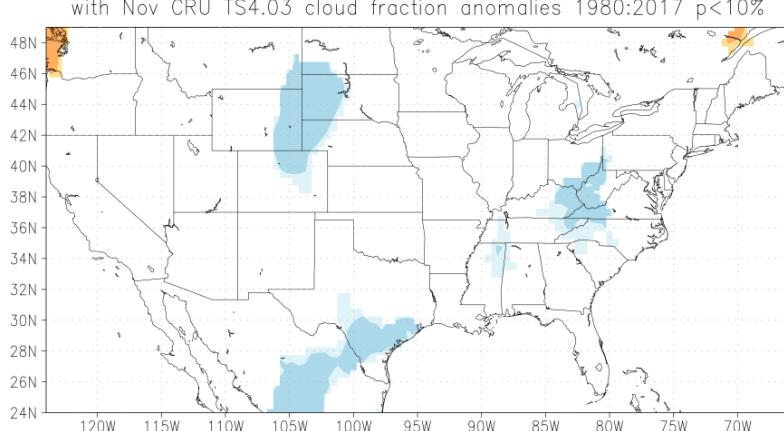
Statistically, there is maybe a significant connection in the map (p_{field} < 20.0%). [Details...](#)

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 anomalies
 with Oct CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



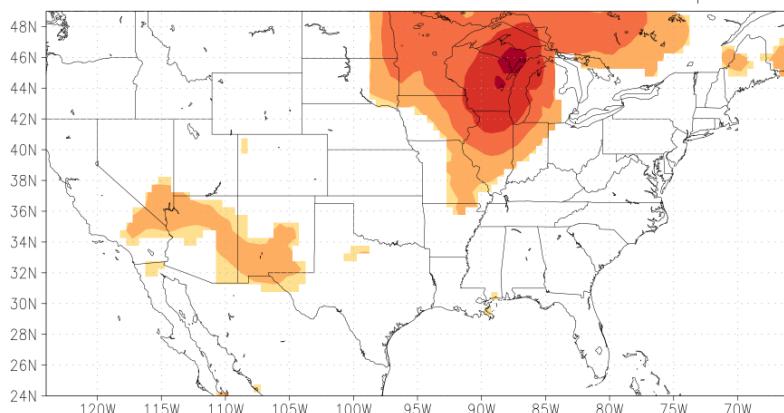
Statistically, there is maybe a significant connection in the map (p_{field} < 20.0%). [Details...](#)

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 anomalies
 with Nov CRU TS4.03 cloud fraction anomalies 1980:2017 p<10%



Statistically, the map is indistinguishable from random noise (p_{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 anomalies
 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 label distance x ° or no labels [i](#)

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**

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