Nathan Johnson

http://www.ncdc.noaa.gov/oa/climate/ghcn-monthly/

Global Historical Climatology Network

Contains temperature, precipitation, and pressure data from the worldwide network of land stations. The data are available free through the NCDC FTP site. The site also describes data sources and coverage. Methods for developing the dataset are either described briefly on the NCDC site or through linked journal articles. They also offer a gridded product which contain anomalies for the mean, minimum, and maximum temperatures.