

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```

<metadata>
  <idinfo>
    <citation>
      <citeinfo>
        <origin>PRISM Climate Group at Oregon State University</origin>
        <pubdate>20221205</pubdate>
        <title>United States Average Annual Total Precipitation, 1991-2020 (4km; BIL)</title>
        <geoform>maps and data</geoform>
        <pubinfo>
          <pubplace>Corvallis, OR, USA</pubplace>
          <publish>PRISM Climate Group at Oregon State University</publish>
        </pubinfo>
        <onlink>prism.oregonstate.edu</onlink>
      </citeinfo>
    </citation>
    <descript>
      <abstract>Monthly 30-year "normal" dataset covering the conterminous U.S., averaged over the climatological period 1991-2020. Contains spatially gridded average annual total precipitation at 4km grid cell resolution. Distribution of the point measurements to the spatial grid was accomplished using the PRISM model, developed and applied by Dr. Christopher Daly of the PRISM Climate Group at Oregon State University. This dataset is available free-of-charge on the PRISM website.</abstract>
      <purpose>Display and/or analysis requiring spatially distributed annual total precipitation for the climatological period 1991-2020.</purpose>
      <supplinf>There are many methods of interpolating climate from monitoring stations to grid points. Some provide estimates of acceptable accuracy in flat terrain, but few have been able to adequately explain the extreme, complex variations in climate that occur in mountainous regions. Significant progress in this area has been achieved through the development of PRISM (Parameter-elevation Regressions on Independent Slopes Model). PRISM is an analytical model that uses point data and an underlying grid such as a digital elevation model (DEM) or a 30 yr climatological average to generate gridded estimates of monthly or annual precipitation and temperature (as well as other climatic parameters). PRISM is well suited to regions with mountainous terrain, because it incorporates a conceptual framework that addresses the spatial scale and pattern of orographic processes. Grids were modeled on a monthly basis. Annual grids were produced by averaging (temperatures, dew point, vapor pressure deficit, and solar radiation) or summing (precipitation) the monthly grids. These gridded normals supersede the 1991-2020 normals produced in October 2021. Improvements over the previous version include more stable adjustments of short-period station data to represent the 1991-2020 period, and additional quality control measures.</supplinf>
    </descript>
    <timeperd>
      <timeinfo>
        <rngdates>
          <begdate>19910101</begdate>
          <enddate>20201231</enddate>
        </rngdates>
      </timeinfo>
      <current>observed</current>
    </timeperd>
    <status>
      <progress>complete</progress>
      <update>as needed</update>
    </status>
    <spdom>
      <bounding>
        <westbc>-125.0208333</westbc>
        <eastbc>-66.4791667</eastbc>
        <northbc>49.9375000</northbc>
        <southbc>24.0625000</southbc>
      </bounding>
    </spdom>
  </idinfo>

```

```

<keywords>
  <theme>
    <themekt>PRISM Climate Group</themekt>
    <themekey>precipitation</themekey>
  </theme>
  <place>
    <placekt>US Census Bureau</placekt>
    <placekey>Conterminous US</placekey>
  </place>
</keywords>
<accconst>Access pursuant to license agreement</accconst>
<useconst>Acknowledgement of the following agencies in products derived from these data: PRISM
Climate Group at Oregon State University.</useconst>
</idinfo>
<dataqual>
  <attracc>
    <attraccr>All data were based on the same averaging period (1991-2020). Similar quality
    assurance procedures were used with all input data sets.</attraccr>
  </attracc>
  <logic>Point estimates originated from many federal, state, and local weather networks. A list of
  networks is available from https://www.prism.oregonstate.edu/documents/PRISM\_datasets.pdf. All
  station data were subjected to quality control checks by the PRISM Climate Group at Oregon State
  University.</logic>
  <complete>This dataset is considered complete. Please view the logic section of this document for
  further information.</complete>
  <posacc>
    <horizpa>
      <horizpar>Accuracy of this data set is based on the original specification of the Defense
      Mapping Agency (DMA) 1 degree digital elevation models (DEM). The stated accuracy of the
      original DEMs are 130 m circular error with 90% probability.</horizpar>
    </horizpa>
  </posacc>
  <lineage>
    <srcinfo>
      <srccite>
        <citeinfo>
          <origin>PRISM Climate Group</origin>
          <pubdate>20221205</pubdate>
          <title>United States Average Annual Total Precipitation, 1991-2020 (4km; BIL)</title>
        </citeinfo>
      </srccite>
      <typesrc>digital file</typesrc>
      <srctime>
        <timeinfo>
          <rngdates>
            <begdate>19910101</begdate>
            <enddate>20201231</enddate>
          </rngdates>
        </timeinfo>
        <srccurr>publication date</srccurr>
      </srctime>
      <srccitea>PRISM Climate Group</srccitea>
      <srctr>Please view the logic section of this document for further information.</srctr>
    </srcinfo>
    <procstep>
      <procdesc>This data set was created via the PRISM modeling process. Please view the abstract
      section of this document for more information.</procdesc>
      <srcused>PRISM Climate Group</srcused>
      <procdte>20220830</procdte>
    </procstep>
  </lineage>
</dataqual>
<spdoinfo>
  <direct>Raster</direct>
  <rastinfo>

```

```

    <rasttype>Grid Cell</rasttype>
  </rastinfo>
</spdoinfo>
<spref>
  <horizsys>
    <geograph>
      <latres>0.04166667</latres>
      <longres>0.04166667</longres>
      <geogunit>Decimal degrees</geogunit>
    </geograph>
    <geodetic>
      <horizdn>North American Datum of 1983</horizdn>
      <ellips>Geodetic Reference System 80</ellips>
      <semiaxis>6378137</semiaxis>
      <denflat>298.257</denflat>
    </geodetic>
  </horizsys>
</spref>
<eainfo>
  <detailed>
    <enttyp>
      <enttyp1>Raster data representing climate variables</enttyp1>
      <enttypd>Spatially gridded values</enttypd>
      <enttypds> [1] Daly, C., Halbleib, M., Smith, J.I., Gibson, W.P., Doggett, M.K., Taylor,
        G.H., Curtis, J., and Pasteris, P.A. 2008. Physiographically-sensitive mapping of temperature
        and precipitation across the conterminous United States. International Journal of
        Climatology, 28: 2031-2064. [2] Daly, C., J.I. Smith, and K.V. Olson. 2015. Mapping
        atmospheric moisture climatologies across the conterminous United States. PloS ONE
        10(10):e0141140. doi:10.1371/journal.pone.0141140. </enttypds>
    </enttyp>
    <attr>
      <attrlabl>Average annual total precipitation (BIL format)</attrlabl>
      <attrdef>Spatially gridded average precipitation values</attrdef>
      <attrdefs>PRISM Climate Group</attrdefs>
      <attrdomv>
        <rdom>
          <rdommin>0</rdommin>
          <rdommax>15000</rdommax>
          <attrunit>Millimeters</attrunit>
        </rdom>
      </attrdomv>
    </attr>
  </detailed>
</eainfo>
<distinfo>
  <distrib>
    <cntinfo>
      <cntperp>
        <cntper>Dylan Keon</cntper>
        <cntorg>PRISM Climate Group</cntorg>
      </cntperp>
      <cntaddr>
        <addrtype>mailing and physical</addrtype>
        <address>NACSE, 2001 Kelley Engr Center</address>
        <address>Oregon State University</address>
        <city>Corvallis</city>
        <state>OR</state>
        <postal>97331</postal>
        <country>USA</country>
      </cntaddr>
      <cntvoice>(541) 737-2531</cntvoice>
      <cntemail>prism_orders@nacse.org</cntemail>
    </cntinfo>
  </distrib>
  <distliab>none</distliab>

```

```
</distinfo>
<metainfo>
  <metd>20221209</metd>
  <metc>
    <cntinfo>
      <cntperp>
        <cntper>Matthew Doggett</cntper>
        <cntorg>PRISM Climate Group</cntorg>
      </cntperp>
      <cntaddr>
        <addrtype>mailing and physical</addrtype>
        <address>NACSE, 2001 Kelley Engr Center</address>
        <address>Oregon State University</address>
        <city>Corvallis</city>
        <state>OR</state>
        <postal>97331</postal>
        <country>USA</country>
      </cntaddr>
      <cntvoice>(541) 737-2531</cntvoice>
      <cntemail>doggett@nacse.org</cntemail>
    </cntinfo>
  </metc>
  <metstdn>FDGC Content Standard for Digital Geospatial Metadata and Biological Data
  Profile</metstdn>
  <metstdv>FDGC-STD-001-1998</metstdv>
</metainfo>
</metadata>
```