

Purpose:

This is the readme file for the CSP precipitation product v2.0 delivered by IMP for the geoland/CSP project.

Date:

This file was created on March 20th, 2006.

Parameter name:

Precipitation

Physical Definition:

Outfall of liquid or solid water from atmosphere to earth. Precipitation occurs in a variety of forms: rain, hail, freezing rain, sleet or snow.

Unit:

mm/day

Physical range of the parameter values:

0 -

Sensor name:

Multi-satellite (GPCP-1DD, provided by NASA): Geostationary sensors IR data and TOVS NOAA12/14 data;
Synoptic rain gauge measurements (provided by GPCC, DWD, Offenbach, Germany).

Summary of the retrieval methodology:

Bias-correction of synoptic rain gauge measurements;
Ordinary block kriging of rain gauge measurements to regular grid;
Bivariate ordinary cokriging of rain gauge measurements and multi-satellite product.

Summary of the validation procedure:

Comparison with the multi-satellite input (GPCP-1DD) over Europe as a function of mean analysed precipitation of about 21000 nonsynoptic rain gauge measurements, quantified through continuous and categorical statistics.

Accuracy of the parameter (in physical unit):

TSS CSP v2.0: 0.42 (True Skill Score averaged for the year 2000).

More details about the retrieval algorithms can be found in the document:

CSP-0350-ATBD_Precipitations-I2.00.pdf

Product format:

binary (little-endian)

Data encoding (for binary files):

(real*4)x360x180
starting at the lower left corner
first grid point: -179.5/-89.5
second grid point: -178.5/-89.5
missing_value: 9999.99

Time coverage:

* beginning: 01/01/1997
* end: 30/04/2005

Time resolution:

1 day

Spatial coverage of the product:
global

Spatial resolution:
1 degree longitude/latitude

Days with data gaps due to missing TOVS data in input-files:

10.09.2001 - 18.09.2001
19.10.2001
07.09.2002
06.11.2002
08.11.2002 - 09.11.2002
03.02.2003
17.09.2003 - 22.09.2003
01.10.2003
01.02.2004 - 17.02.2004
25.02.2004
27.02.2004
06.03.2004 - 08.03.2004
15.03.2004
23.03.2004 - 26.03.2004
02.04.2004
13.04.2004
06.05.2004 - 10.05.2004
18.05.2004
13.06.2004 - 14.06.2004
16.06.2004
23.06.2004 - 24.06.2004
04.07.2004
11.08.2004
31.10.2004
09.11.2004 - 10.11.2004
02.12.2004
10.01.2005
19.01.2005
26.01.2005
08.02.2005
27.02.2005 - 28.02.2005
21.02.2005 - 22.03.2005
27.03.2005
02.04.2005
18.04.2005 - 19.04.2005
23.04.2005 - 25.04.2005

Projection:

* type of projection: regular lat/lon
* projection parameters: --
* datum: --
* ellipsoid of reference: --
* step of the grid (if regular grid): 1 degree

Point of contact:

* name: Markus Kottek; Franz Rubel
* institution: Biometeorology Group, Institute of Medical Physics, University of
Veterinary Medicine Vienna, Austria
* email address: markus.kottek@vu-wien.ac.at; franz.rubel@vu-wien.ac.at
* phone number: +43 1 25077-4325; -4327