

Identification_Information:

Citation:

Citation_Information:

Originator: Air Force Combat Climatology Center (AFCCC)

Publication_Date: 20070215

Title: WWMCA-Worldwide Merge Cloud Analysis Database

Geospatial_Data_Presentation_Form: Planetary

Publication_Information :

Publication_Place : Asheville, NC

Publisher : Air Force Combat Climatology Center

Description:

Abstract: Consists of cloud information compiled from both conventional surface and upper-air reports and satellite data. Observed clouds are placed within one of four floating layers, with the first layer defined as the highest. The analysis data is on a 1024x1024 grid and includes data for both hemispheres, twenty-four times a day for each hour. Each hemisphere is divided into 60 boxes (128x128 grid points in each) on the sixteenth mesh grid. Information for a particular grid point may include either 0, 1, 2, 3, or 4 layers of cloud information, depending on observed conditions.

Purpose: Support DoD projects.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 200206

Ending_Date: present

Currentness_Reference: From the data

Status:

Progress: In Work

Maintenance_and_Update_Frequency: Daily

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -180

East_Bounding_Coordinate: 180

North_Bounding_Coordinate: 90

South_Bounding_Coordinate: -90

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Meteorology

Theme_Keyword: Cloud Analysis

Theme_Keyword: Cloud Height

Theme_Keyword: Cloud

Theme_Keyword: CDFS2

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: Global

Stratum:

Stratum_Keyword_Thesaurus: None

Stratum_Keyword: Stratosphere

Stratum_Keyword: Troposphere

Temporal:

Temporal_Keyword_Thesaurus: None

Temporal_Keyword: Climatology-daily

Temporal_Keyword: Synoptic Hours

Temporal_Keyword: 3-hourly

Access_Constraints: Access through AFCCC is limited to DoD agencies and their contractors. All other requests are filled through the National Climatic Data Center in Asheville, N.C.

Use_Constraints: None

Point_of_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Branch Chief, AFCCC/DOD

Contact_Organization: AFCCC/DOD

Contact_Address:

Address_Type: Mailing and Physical

Address: 151 Patton Avenue, Room 120

City: Asheville

State_or_Province: NC

Postal_Code: 28801-5002

Country: USA

Contact_Voice_Telephone: (828) 271-4299

Contact_Voice_Telephone: DSN (312) 673-9006

Contact_Facsimile_Telephone: (828) 271-4334

Contact_Facsimile_Telephone: DSN 673-9024

Contact_Electronic_Mail_Address: dod@afccc.af.mil

Hours_of_Service: 0730-1630 Eastern Time M-F

Data_Set_Credit: Produced by the Air Force Weather Agency (AFWA), Offutt AFB, NE as a part of the Cloud Depiction Forecast System II (CDFSS2).

Security_Information:

Security_Classification_System: DoD

Security_Classification: Unclassified

Security_Handling_Description: None

Cross_Reference:

Citation_Information:

Originator: Air Force Combat Climatology Center, Asheville, NC

Title: RTNEPH-Real Time Nephanalysis

Publication_Date: 20070215

Online_Linkage:

<https://notus2.afccc.af.mil/SCIS/services/databases.asp>

Data_Quality_Information:

Logical_Consistency_Report: Data checked for gross errors to identify inconsistencies or contradictions. Any questionable data is brought to the attention of the CDFS2 production section at AFWA.

Completeness_Report: The earliest World-Wide Merge Cloud Analysis data in the archives is from June 2002.

Lineage:

Process_Step:

Process_Description: The Air Force Weather Agency, Offutt AFB, NE collects data from reporting stations and satellites around the world and processes it through the Cloud Depiction Forecast System II which produces the World-Wide Merge Cloud Analysis.

Process_Date: unknown

Process_Step:

Process_Description: AFCCC collects the data from AFWA every hour (one file for each hemisphere totalling 48 files each day) in sixteenth mesh grid as GRIB files. AFCCC processes the files into climatological records by grid box for an entire month in ASCII format. The northern hemisphere contains grid boxes 1-64, excluding boxes 1, 8, 57, and 64 (off globe points). The southern hemisphere contains grid boxes 101-164, excluding boxes 101, 108, 157, and 164 (off globe points).

Process_Date: Unknown

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label: WWMCA - Worldwide Merge Cloud Analysis

Entity_Type_Definition: WWMCA from CDFS II CLOUD ANALYSIS DATA

FORMAT

Pos 1-10 GEOPHYSICAL-ANALYSIS-FORECAST base reference
calendar date-time

Definition: THE CALENDAR DATE AND TIME OF THE
GEOPHYSICAL DATA CONTAINED IN A GEOPHYSICAL-ANALYSIS-FORECAST.

Data Type: INTEGER

Max Character Count: 14

Low Range: 0001010100 High Range: 9999123123

DDDS Counter: 47400

Domain Definition: A GENERAL DOMAIN COMPRISED OF A
MANDATORY 10-CHARACTER. THE MANDATORY 10 CHARACTER FIELD CONSISTS OF THE FORMAT
YYYYMMDDHH WHERE: YYYY REPRESENTS A CALENDAR YEAR AND CAN CONTAIN ANY POSITIVE
INTEGER VALUE; MM REPRESENTS THE ORDINAL NUMBER OF A CALENDAR MONTH WITHIN THE
CALENDAR YEAR AND IS RESTRICTED TO THE VALUES 01-12; DD REPRESENTS THE ORDINAL
NUMBER OF A DAY WITHIN THE CALENDAR MONTH AND IS RESTRICTED TO THE VALUES 01-31;
HH REPRESENTS AN ORDINAL HOUR WITHIN THE DAY AND IS RESTRICTED TO THE VALUES 00-
23;

Units of Measure: N/A Version: 2

Comment Text: THE BASE TIME (UNIVERSAL TIME COORDINATED)
FOR AN ANALYSIS MODEL IS THE VALID TIME OF THE ANALYSIS. THE BASE TIME (UNIVERSAL
TIME COORDINATED) FOR A FORECAST MODEL IS THE REFERENCE TIME FROM WHICH ALL
FORECASTS ARE BASED.

Pos 11-14 I coordinate

Definition: The I coordinate of a point on the grid.

Data Type: INTEGER

Max Character Count: 4

Low Range: 0001 High Range: 1024

DDDS Counter: 36810

Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9).

Comment Text: The northern hemisphere grid is centered
on the north pole with horizontal through the pole running along 170W and 10E
and the vertical through 80W and 100E. The southern hemisphere grid is centered
on the south pole with horizontal through the pole running along 10E and 170W
and the vertical through 100E and 80W.

Pos 15-18 J coordinate

Definition: The J coordinate of a point on the grid.

Data Type: INTEGER

Max Character Count: 4

Low Range: 0001 High Range: 1024

DDDS Counter: 36810

Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9).

Comment Text: The northern hemisphere grid is centered
on the north pole with horizontal through the pole running along 10E and 170W
and the vertical through 80W and 100E. The southern hemisphere grid is centered

on the south pole with horizontal through the pole running along 10E and 170W and the vertical through 100E and 80W.

Pos 19-19 Hemisphere code
Definition: The code that denotes which hemisphere the data is located in.

Data Type: CHARACTER-STRING
Max Character Count: 1
Domain Values: N Northern Hemisphere
S Southern Hemisphere

Pos 20-20 Load Table flag code
Definition: The code that denotes if the data is to be loaded to the relational tables.

Data Type: INTEGER
Max Character Count: 1
Domain Values: 1 Valid Data to be loaded
2 Off Globe Point, not loaded
9 All values null, not loaded

Pos 21-23 CLOUD-LAYER-ANALYSIS-FORECAST layer coverage rate [layer 1]
Definition: THE ESTIMATED PERCENTAGE OF THE SKY COVERED BY CLOUDS IN A LAYER.

Data Type: INTEGER
Max Character Count: 3
Low Range: 0 High Range: 100
DDDS Counter: 36810
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE NUMERIC CHARACTERS(0-9).
Units of Measure: PERCENT Version: 1

Pos 24-24 CLOUD-LAYER-ANALYSIS-FORECAST layer type code [layer 1]
Definition: THE CODE THAT DENOTES THE PREDOMINANT CLOUD TYPE OF THE LAYER.

Data Type: CHARACTER-STRING
Max Character Count: 1
DDDS Counter: 36432
Domain Definition: A SPECIFIC DOMAIN COMPRISED OF THE NUMERIC CHARACTERS 0-9 IN THE ASCII CHARACTER SET.
Domain Values: 1 Cumulonimbus
2 Stratus
3 Stratocumulus
4 Cumulus
5 Altostratus
6 Nimbostratus
7 Altocumulus
8 Cirrostratus
9 Cirrus
Units of Measure: Version: 1

Pos 25-29 CLOUD-LAYER-ANALYSIS-FORECAST layer base dimension [layer 1]
Definition: THE ESTIMATED HEIGHT, RELATIVE TO MEAN SEA LEVEL, OF THE LOWER SURFACE OF A CLOUD LAYER.

Data Type: INTEGER
Max Character Count: 5
Low Range: -90 High Range: 30000
DDDS Counter: 36809
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9), AND A MINUS SIGN(-).
Units of Measure: METERS Version: 1

dimension [layer 1]
Pos 30-34 CLOUD-LAYER-ANALYSIS-FORECAST layer top
Definition: THE ESTIMATED HEIGHT, RELATIVE TO MEAN SEA
LEVEL, OF THE UPPER SURFACE OF A CLOUD LAYER.

Data Type: INTEGER
Max Character Count: 5
Low Range: 0 High Range: 30000
DDDS Counter: 36811
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9).
Units of Measure: METERS Version: 1

rate [layer 2]
Pos 35-37 CLOUD-LAYER-ANALYSIS-FORECAST layer coverage
Definition: THE ESTIMATED PERCENTAGE OF THE SKY COVERED
BY CLOUDS IN A LAYER.

Data Type: INTEGER
Max Character Count: 3
Low Range: 0 High Range: 100
DDDS Counter: 36810
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9).
Units of Measure: PERCENT Version: 1

[layer 2]
Pos 38-38 CLOUD-LAYER-ANALYSIS-FORECAST layer type code
Definition: THE CODE THAT DENOTES THE PREDOMINANT CLOUD
TYPE OF THE LAYER.

Data Type: CHARACTER-STRING
Max Character Count: 1
DDDS Counter: 36432
Domain Definition: A SPECIFIC DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS 0-9 IN THE ASCII CHARACTER SET.

Domain Values:

1	Cumulonimbus
2	Stratus
3	Stratocumulus
4	Cumulus
5	Altostratus
6	Nimbostratus
7	Altostratus
8	Cirrostratus
9	Cirrus

Units of Measure: Version: 1

dimension [layer 2]
Pos 39-43 CLOUD-LAYER-ANALYSIS-FORECAST layer base
Definition: THE ESTIMATED HEIGHT, RELATIVE TO MEAN SEA
LEVEL, OF THE LOWER SURFACE OF A CLOUD LAYER.

Data Type: INTEGER

Max Character Count: 5
Low Range: -90 High Range: 30000
DDDS Counter: 36809
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9), AND A MINUS SIGN(-).
Units of Measure: METERS Version: 1

Pos 45-48 CLOUD-LAYER-ANALYSIS-FORECAST layer top
dimension [layer 2]
Definition: THE ESTIMATED HEIGHT, RELATIVE TO MEAN SEA
LEVEL, OF THE UPPER SURFACE OF A CLOUD LAYER.

Data Type: INTEGER
Max Character Count: 5
Low Range: 0 High Range: 30000
DDDS Counter: 36811
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9).
Units of Measure: METERS Version: 1

Pos 49-51 CLOUD-LAYER-ANALYSIS-FORECAST layer coverage
rate [layer 3]
Definition: THE ESTIMATED PERCENTAGE OF THE SKY COVERED
BY CLOUDS IN A LAYER.

Data Type: INTEGER
Max Character Count: 3
Low Range: 0 High Range: 100
DDDS Counter: 36810
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9).
Units of Measure: PERCENT Version: 1

Pos 52-52 CLOUD-LAYER-ANALYSIS-FORECAST layer type code
[layer 3]
Definition: THE CODE THAT DENOTES THE PREDOMINANT CLOUD
TYPE OF THE LAYER.

Data Type: CHARACTER-STRING
Max Character Count: 1
DDDS Counter: 36432
Domain Definition: A SPECIFIC DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS 0-9 IN THE ASCII CHARACTER SET.
Domain Values: 1 Cumulonimbus

- 2 Stratus
- 3 Stratocumulus
- 4 Cumulus
- 5 Altostratus
- 6 Nimbostratus
- 7 Altocumulus
- 8 Cirrostratus
- 9 Cirrus

Units of Measure: Version: 1

Pos 53-57 CLOUD-LAYER-ANALYSIS-FORECAST layer base
dimension [layer 3]
Definition: THE ESTIMATED HEIGHT, RELATIVE TO MEAN SEA
LEVEL, OF THE LOWER SURFACE OF A CLOUD LAYER.

Data Type: INTEGER
Max Character Count: 5

Low Range: -90 High Range: 30000
DDDS Counter: 36809
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9), AND A MINUS SIGN(-).
Units of Measure: METERS Version: 1

Pos 58-62 CLOUD-LAYER-ANALYSIS-FORECAST layer top
dimension [layer 3]
Definition: THE ESTIMATED HEIGHT, RELATIVE TO MEAN SEA
LEVEL, OF THE UPPER SURFACE OF A CLOUD LAYER.
Data Type: INTEGER
Max Character Count: 5
Low Range: 0 High Range: 30000
DDDS Counter: 36811
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9).
Units of Measure: METERS Version: 1

Pos 63-65 CLOUD-LAYER-ANALYSIS-FORECAST layer coverage
rate [layer 4]
Definition: THE ESTIMATED PERCENTAGE OF THE SKY COVERED
BY CLOUDS IN A LAYER.
Data Type: INTEGER
Max Character Count: 3
Low Range: 0 High Range: 100
DDDS Counter: 36810
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9).
Units of Measure: PERCENT Version: 1

Pos 66-66 CLOUD-LAYER-ANALYSIS-FORECAST layer type code
[layer 4]
Definition: THE CODE THAT DENOTES THE PREDOMINANT CLOUD
TYPE OF THE LAYER.
Data Type: CHARACTER-STRING
Max Character Count: 1
DDDS Counter: 36432
Domain Definition: A SPECIFIC DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS 0-9 IN THE ASCII CHARACTER SET.
Domain Values: 1 Cumulonimbus
2 Stratus
3 Stratocumulus
4 Cumulus
5 Altostratus
6 Nimbostratus
7 Altocumulus
8 Cirrostratus
9 Cirrus
Units of Measure: Version: 1

Pos 67-71 CLOUD-LAYER-ANALYSIS-FORECAST layer base
dimension [layer 4]
Definition: THE ESTIMATED HEIGHT, RELATIVE TO MEAN SEA
LEVEL, OF THE LOWER SURFACE OF A CLOUD LAYER.
Data Type: INTEGER
Max Character Count: 5
Low Range: -90 High Range: 30000

DDDS Counter: 36809
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9), AND A MINUS SIGN(-).
Units of Measure: METERS Version: 1

Pos 72-76 CLOUD-LAYER-ANALYSIS-FORECAST layer top
dimension [layer 4]
Definition: THE ESTIMATED HEIGHT, RELATIVE TO MEAN SEA
LEVEL, OF THE UPPER SURFACE OF A CLOUD LAYER.

Data Type: INTEGER
Max Character Count: 5
Low Range: 0 High Range: 30000
DDDS Counter: 36811
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9).
Units of Measure: METERS Version: 1

Pos 77-79 CLOUD-ANALYSIS-FORECAST data age quantity
Definition: THE QUANTITY OF THE AGE OF THE SOURCE DATA
IN RELATION TO THEANALYSIS TIME.

Data Type: INTEGER
Max Character Count: 3
Low Range: -99 High Range: 998
DDDS Counter: 36425
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9) AND A MINUS SIGN (-).
Units of Measure: HOURS Version: 1
Comment Text: A 240 INDICATES AN AGE OF 10 OR MORE DAYS.
A -24 INDICATESTHE PRECEDING 24 HOUR PERIOD.

Pos 80-82 CLOUD-ANALYSIS-FORECAST total cloud coverage
rate
Definition: THE ESTIMATED RATE OF THE SKY DOME THAT IS
COVERED BY CLOUDS.

Data Type: INTEGER
Max Character Count: 3
Low Range: 0 High Range: 100
DDDS Counter: 36424
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
NUMERIC CHARACTERS(0-9).
Units of Measure: PERCENT Version: 1

Pos 83-94 Satellite identifier (Future Plan - Not
currently included)
Definition: The identifier that represents the satellite
that was the source for the data at this point.

Data Type: CHARACTER-STRING
Max Character Count: 12
Domain Definition: A GENERAL DOMAIN COMPRISED OF THE
ASCII CHARACTERS(0-9,A-Z).

Entity_Type_Definition_Source: AFCCC
Overview_Description:
Entity_and_Attribute_Overview: Due to the volume of the data,
customers are requested to specify the specific fields and/or regions they
require.
Entity_and_Attribute_Detail_Citation: None

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: AFCCC/DOO

Contact_Address:

Address_Type: Mailing and Physical

Address: 151 Patton Avenue, Room 120

City: Asheville

State_or_Province: NC

Postal_Code: 28801-5002

Country: USA

Contact_Voice_Telephone: (828) 271-4291

Contact_Voice_Telephone: DSN 673-9004

Contact_Facsimile_Telephone: (828) 271-4334

Contact_Facsimile_Telephone: DSN 673-9024

Contact_Electronic_Mail_Address: doo_all@afccc.af.mil

Hours_of_Service: 0730-1630 Eastern Time M-F

Resource_Description: WWMCA-Worldwide Merge Cloud Analysis

Distribution_Liability: The data represents the results of data collection/processing for a specific U.S. Air Force activity and indicates the general existing conditions. As such, it is only valid for its intended use, content, time, and accuracy specifications. The user is responsible for the results of any application of the data for other than its intended purpose.

Custom_Order_Process: Order through the above distribution contact or this web site: https://www2.afccc.af.mil/forms_mil/html/restricted/sarform.html

Metadata_Reference_Information:

Metadata_Date: 20070215

Metadata_Review_Date: 20070215

Metadata_Future_Review_Date: 20080215

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: AFCCC/DOD

Contact_Address:

Address_Type: Mailing and physical.

Address: 151 Patton Avenue Room 120

City: Asheville

State_or_Province: NC

Postal_Code: 28801-5002

Country: USA

Contact_Voice_Telephone: (828) 271-4299

Contact_Voice_Telephone: DSN 673-9006

Contact_Facsimile_Telephone: (828) 271-4334

Contact_Facsimile_Telephone: DSN 673-9024

Contact_Electronic_Mail_Address: dod@afccc.af.mil

Hours_of_Service: 0730-1630 EST M-F

Metadata_Standard_Name: FGDC-Content Standards for Digital Geospatial

Metadata.

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: Universal Time

Metadata_Access_Constraints: None

Metadata_Use_Constraints: None

Metadata_Security_Information:

Metadata_Security_Classification_System: DoD

Metadata_Security_Classification: Unclassified

Metadata_Security_Handling_Description: None