

**ACRF Ingest Software Status:  
New, Current, and Future**

Revision 5

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## Introduction

The purpose of this report is to provide status of the ingest software used to process instrument data for the Atmospheric Radiation Measurement (ARM) Climate Research Facility (ACRF). The report is divided into four sections: (1) news about ingests currently under development, (2) current production ingests, (3) future ingest development plans, and (4) information on retired ingests. Please note that datastreams beginning in “xxx” indicate cases where ingests run at multiple ACRF sites, which results in a datastream(s) for each location.

Readers of this status report may want to consult our current list of instrument mentors at <http://www.arm.gov/instruments/mentors.php> or our list of software developers at <http://engineering.arm.gov/engr/task/developercontacts.stm>.

Also useful is the current datastream status, presented from the ARM Data Management Facility (DMF) perspective, which can be found at <http://c1.dmf.arm.gov/ds/dsview/gui/datastream.php>.

**Hint:** Select the “Login as Guest Account” option. Depending on the speed of your internet connection, it may take a few minutes for the complete display to generate. Datastream status for the current calendar month will be displayed. The legend (visible in the upper right hand area) will help you understand the display. In addition, the number (ideally 24.0) indicates the number of hours of data for the day in question.

For those who are interested in the contents of datastreams generated by ARM software, refer to the data object design files at <http://science.arm.gov/tool/dod/showdod.php>.

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## 1. Ingest News

### 1.1 In Development

We are currently working on the following ingests:

[mwrhf\\_ingest](#)

[sws\\_ingest](#)

[gvrp\\_ingest](#)

[smos\\_ingest](#)

[tps\\_ingest](#)

### 1.2 In Production

[aeri\\_ingest](#)

[amfmet\\_ingest](#)

[aos\\_ingest](#)

[disdrometer\\_ingest](#)

[ebbr\\_ingest](#)

[ecor\\_ingest](#)

[gvr\\_ingest](#)

[iapmfr\\_ingest](#)

[irt\\_ingest](#)

[irthr\\_ingest](#)

[met\\_ingest](#)

[metrad\\_ingest](#)

[mettwr\\_ingest](#)

[mfrcdl\\_ingest](#)

[mfr\\_ingest](#)

[mmcrmom\\_ingest](#)

[mmcr\\_spec\\_filter](#)

[mplpol\\_ingest](#)

[mwr\\_ingest](#)

[mwrp\\_ingest](#)

[nfov2ch\\_ingest](#)

[org\\_ingest](#)

[rain\\_ingest](#)

[rss\\_ingest](#)

[rwp\\_ingest](#)

[sirs\\_ingest](#)

[smet\\_ingest](#)

[smor\\_ingest](#)

[smos\\_ingest](#)

[sonde\\_ingest](#)

[surthref\\_ingest](#)

[swats\\_ingest](#)

[sws\\_ingest](#)

[thwaps\\_ingest](#)

[tps\\_ingest](#)

[tsi\\_ingest](#)

[twr\\_ingest](#)

[vceil\\_ingest](#)

[wacr\\_ingest](#)

[wacr\\_spectra\\_filter](#)

### 1.3 Reprocessing Tasks

The purpose of this section is to present active reprocessing tasks. In some cases, significant software development is required and research into historical calibration records. Reprocessing tasks are identified by a Reprocessing Identification (RID) number.

#### **RID-4 SGP.C1 MPL**

Mentor:	Rich Coulter, ANL
Developer:	Annette Koontz, PNNL
Reprocessor:	Bill Jackson, ORNL
Status:	Review
Date range:	TBD

**Description:**

The SGP.C1 MPL data for 2000/02/29-2000/03/06 were ingested out of sequence resulting in multiple data files per day. These data were reprocessed by Annette Koontz in October 2007 and she determined for the original processing too many files at one time had been thrown at the ingest. She reprocessed all of 2000 and made those data available to Chaomei Lo (per special request). The data were not archived. Bill Jackson then reprocessed 2000-2003. Waiting on review by Robin Perez.

**RID-179 SSS.Fn SIRS/GNDRAD/SKYRAD**

Mentor: Tom Stoffel, NREL  
Developer: Brian Ermold, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: On hold pending calibration record review  
Date range: 2002-2006

**Description:**

The longwave calibration procedures were changed in SIRS/GNDRAD/SKYRAD data loggers as early as July 2003. This calibration method change resulted in an error in the longwave data. The previous calibration method was put back into place at all sites by February 2006.

The Solar and Infrared Station (SIRS) data reprocessing is complete. The ARM Mobile Facility (AMF) GNDRAD and SKYRAD reprocessing is complete. **The Tropical Western Pacific (TWP) and North Slope of Alaska (NSA) GNDRAD and SKYRAD reprocessing are on hold pending review of calibration records and modification of the old smor\_ingest to process the data.**

**RID-203 SSS.Fn MWR**

Developer: Annette Koontz, PNNL  
Reprocessor: Annette Koontz, PNNL, and Bill Jackson, ORNL  
Status: Complete: TWP.C1, TWP.C2, NSA.C2, PYE.M1  
In process: **NSA C1, SGP B1, SGP B4, SGP B5, SGP B6, SGP C1**  
Date range: end-to-end (through 2005/2006)

**Description:**

The MWR retrieval algorithm was modified (most recently) in June 2005. This end-to-end reprocessing of all MWR data will apply the latest retrieval algorithm to all MWR data through time and result in a consistent DOD through time.

The **mwr\_retrieval** software is used to apply a new retrieval to a specific set of days for a specified instrument, as determined by the mentor.

The **recalib\_mwrlos** software is used to apply correct calibrations to the MWRLOS data. It is executed, over a specific set of days for a specified instrument, as determined by the mentor.

In addition, several special purpose scripts are used to reformat the historical MWRLOS data into the current DOD format. These scripts are needed to handle the MWRLOS data for time periods for which the raw data are in an old format, not compatible with the current ingest software.

### RID-307 TWP.Cn/PYE.M1 SMET

Developer: Brian Ermold, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: **PYE complete; TWP.Cn data 2004-2006 pending review**  
Date range: 1996-2006/07/13

#### Description:

On 2006/07/13, the units of Barometric pressure data changed from hPa to kPa to standardize the measurement units among ACRF sites and to conform to accepted standard units determined by the scientific community. Data reprocessing is required to make historical data conform to new units.

**NOTE: Reprocessing of old format data (TWP.Cn 1996-2004) will require an ingest update.**

### RID-312 SSS.Fn MWR-TIP

Developer: Annette Koontz, PNNL  
Reprocessor: Annette Koontz, PNNL, and Bill Jackson, ORNL  
Status: Waiting for final DOD review by Robin  
Date range: end-to-end (through March 2007)

#### Description:

The MWRTIP DOD was modified effective 2007/04/01 to add a tip angle dimension in addition to the time dimension to correct a problem with tip angles being reported out of sequence. This end-to-end reprocessing of all MWRTIP data will result in a consistent DOD through time.

**mwrtip retrieval 1.0-0 2008/02/04 per Baseline Change Request (BCR) 1450**

The mwrtip\_retrieval software is used to apply new retrievals per BCR 984 to MWRTIP data. Most of the historical MWR data requires reprocessing because it has been determined that the retrievals used on the instrument computer were in error. This software applies new retrievals to the MWRTIP data to correct the affected fields. **The software has been released into production, but has not been executed yet, pending a final review of the results.**

**reformat mwrtip 1.0-0 2008/02/04 per BCR 1450**

The reformat\_mwrtip software is used to reformat the MWRTIP data per BCR 1385. The historical MWRTIP data are reconstructed to conform to the new DOD structure. After this step is complete, the data may need to be further processed via the mwrtip\_retrieval software. **The software has been released into production, but has not been executed pending a final review of the results.**

### RID-352 SSS.Fn MFRSR/MFR10m/MFR25m

Developer: Annette Koontz, PNNL  
Reprocessor: Annette Koontz, PNNL  
Status: On hold pending calibration records from mentor  
Date range: end-to-end (through 2007/08/31)



**Description:**

A new method of Multifilter Rotating Shadowband Radiometer (MFRSR) calibration adopted/finalized October 2007 resulted in a new DOD. DMF reprocessed all MFRSR data for all sites beginning 2007/09/01 and all FKB MFRSR data. Historical reprocessing is proceeding (slowly) as the mentor makes available the required calibration records. Complete: NSA.C1, NSA.C2, FKB.M1, SGP.C1, SGP.E13, SGPMFR10m, SGPMFR25m.

Active reprocessing: TWP C1, TWP C2, TWP C3

NOTE: mfr10m and mfr25m processing is done using prior calibration methods. There has been some talk of converting this processing to the new calibration method, but no work has been done toward that end.

**RID-358 SSS.Fn LANGLEY**

Developer: Annette Koontz, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: Follow-on task to RID-352  
Date range: end-to-end

**Description:**

This reprocessing task is to run the Langley Value-added Product (VAP) using new MFRSR and Normal Incidence Multifilter Radiometer (NIMFR) input following RID-352 completion.

Active reprocessing: SGP C1, SGP E13 completed, in review

TWP C1 and TWP C2 being processed

**RID-359 SSS.Fn MFRSR-OD**

Developer: Annette Koontz, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: Follow-on task to RID-358  
Date range: end-to-end

**Description:**

This reprocessing task is to run the mfrod1barnmich VAP new Langley and MFRSR/NIMFR input following RID-358 completion.

Active reprocessing: SGP C1, SGP E13 completed, in review

**RID-360 SGP.C1 MWRHF**

Developer: Sutanay Choudhury, PNNL  
Reprocessor: TBD  
Status: On hold pending resolution of duplicate sample times  
Date range: 2006/11/03-2007/04/02

**Description:**

The DOD says pressure is measured in kPa, but data are in hPa. The ingest is being modified to convert the data to kPa. New quality check (QC) limits are also being applied.

**RID-365 SSS.Fn QCRad1Long**

Developer: Yan Shi, PNNL  
Reprocessor: Yan Shi, PNNL  
Status: **Recently archived TWP C1, TWP C2, TWP C3, NSA C1, NSA C2**  
Date range: end-to-end

**Description:**

Originally, processed data had frequent NaNs. The VAP is being modified to remove the NaN values.

**RID-388 SSS.Fn AOS**

Developer: Annette Koontz, PNNL  
Reprocessor: Robin Perez, PNNL (coordinator)  
Status: **Metadata cleanup**  
Date range: end-to-end

**Description:**

End-to-end reprocessing to result in consistent DOD and datastream naming through time.

**RID-402 SSS.Fn NIMFR**

Developer: Annette Koontz, PNNL  
Reprocessor: Annette Koontz, PNNL  
Status: **SGP NIMFR C1 Archived, NSA NIMFR C1 and NSA NIMFR C2 not started**  
Date range: end-to-end (through 20070831)

**Description:**

A new method of Multifilter Radiometer (MFR) calibration adopted/finalized October 2007 resulted in a new DOD. DMF reprocessed all NIMFR data beginning 2007/09/01. SGP.C1 historical reprocessing is complete on proc1 but is waiting for mentor review before archival.

**RID-433 NSA.X1 AOS CCN**

Developer: Annette Koontz, PNNL  
Reprocessor: Annette Koontz, PNNL  
Status: **Completed 2008/01/30**  
Date range: 2007/09/08

**Description:**

Corrupt NSA Aerosol Observing System (AOS) cloud condensation nuclei (CCN) raw data were corrected by the mentor and reprocessed.

### **RID-435 FKB.M1 MWRP**

Developer: Annette Koontz, PNNL  
Reprocessor: Annette Koontz, PNNL  
Status: **Completed 2008/01/16**  
Date range: 20070917-20071009

#### **Description:**

Recalibration.

Software, recal\_mwrp, has been written to recalibrate the MWRP data. This software requires occasional modification depending upon the nature of a specific recalibration task.

### **RID-440 SSS.Fn AOS CCN**

Developer: Annette Koontz, PNNL  
Reprocessor: Annette Koontz, PNNL  
Status: **Completed 2008/01/24**  
Date range: end-to-end

#### **Description:**

End-to-end reprocessing to is required to correct invalid missing data values in AOS CCN data.  
Complete: FKB.M1, NIM.M1, PYE.M1, SGP.C1.

### **RID-445 PYE.M1 AOS NOAA-FitRH**

Developer: Annette Koontz, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: **Pending review**  
Date range: 2005/03/09-2005/09/15

#### **Description:**

Correct error in AOS NOAA-FitRH ingest. **Data were processed in January 2008.**

### **RID-446 NIM.M1 AOS NOAA-FitRH**

Developer: Annette Koontz, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: **On hold pending RID-445 review**  
Date range: 2005/11/19-2006/12/31

#### **Description:**

Correct error in AOS National Oceanic and Atmospheric Administration (NOAA)-FitRH ingest. Data were reprocessed in December 2007, but another problem was found during data review. Need to re-process.

### **RID-447 SGP.C1 AOS NOAA-FitRH**

Developer: Annette Koontz, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: **On hold pending RID-445 review**  
Date range: 2007/05/19-2007/09/30

#### **Description:**

Correct error in AOS NOAA-FitRH ingest. Data were reprocessed in December 2007, but another problem was found during data review. Need to re-reprocess.

### **RID-448 FKB.M1 GNDRAD**

Developer: Brian Ermold, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: **Reprocessed 2008/02/18, pending review**  
Date range: 2007/05/19-2007/09/30

#### **Description:**

Recalibration. This resulted in two additional sensor recalibrations.

### **RID-450 NSA.C1 SKYRAD**

Developer: Brian Ermold, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: **Reprocessed 2008/02/25, pending review**  
Date range: 2007/10/03-2007/10/25

#### **Description:**

Recalibration.

### **RID-451 NSA.C1 GNDRAD**

Developer: Brian Ermold, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: **Reprocessed 2008/02/25, pending review**  
Date range: 2007/10/04-2007/10/25

#### **Description:**

Recalibration.

### **RID-457 TWP.C2 GNDRAD**

Developer: Brian Ermold, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: **Reprocessed 2008/02/25, pending review**  
Date range: 2007/11/25-2007/11/30

**Description:**

Recalibration.

**RID-458 TWP.C2 SKYRAD**

Developer: Brian Ermold, PNNL  
Reprocessor: Bill Jackson, ORNL  
Status: **Reprocessed 2008/02/25, pending review**  
Date range: 2007/11/25-2007/11/30

**Description:**

Recalibration.

**RID-459 NSA.C1 AERI**

Developer: Brian Ermold, PNNL  
Reprocessor: Dave Turner, UWisc  
Status: **Completed 2008/01/09**  
Date range: 2007/11/01-2007/11/28

**Description:**

Recalibration.

**RID-462 SGP.C1 AOS CCN**

Developer: Annette Koontz, PNNL  
Reprocessor: Annette Koontz, PNNL  
Status: **Completed 2008/02/01**  
Date range: 2007/05/30-2007/06/01

**Description:**

Corrupt SGP AOS CCN raw data were corrected by the mentor and reprocessed.

**RID-465 SSS.Fn SONDE**

Developer: Annette Koontz, PNNL  
Reprocessor: Nicole Keck, PNNL  
Status: **Completed 2008/01/24**  
Date range: 2007/12/17-2008/01/06

**Description:**

Intermittent reprocessing of sonde data from all sites to correct bad surface measurements of temperature and/or RH.

**RID-466 TWP.C3 MPLPOL**

Developer: Annette Koontz, PNNL  
Reprocessor: Nicole Keck, PNNL  
Status: **Completed 2008/01/11**  
Date range: 2007/12/11-2007/12/19

**Description:**

Reprocessing resulted in some fill values being added so the number of range bins is as expected for the MPLPOLAVG VAP. VAP was post-processed.

**RID-467 NSA.C1 AERI**

Developer: Brian Ermold, PNNL  
Reprocessor: Dave Turner, UWISC  
Status: **Reprocessed 2008/02/19; reviewing, questions for mentor**  
Date range: 2007/12/17-2008/02/13

**Description:**

Recalibration.

**RID-468 SSS.Fn SONDE**

Developer: Annette Koontz, PNNL  
Reprocessor: Nicole Keck, PNNL  
Status: **Completed 2008/02/06**  
Date range: 2008/01/11-2008/01/15

**Description:**

Intermittent reprocessing of sonde data from all sites to correct bad surface measurements of temperature and/or RH.

**RID-470 TWP.C1 SONDE**

Developer: Annette Koontz, PNNL  
Reprocessor: Nicole Keck, PNNL  
Status: **Completed 2008/02/12**  
Date range: 2007/12/29-2008/01/15

**Description:**

Raw TWP.C1 SONDE data were missing wind data. Mentor reprocessed from the binary raw and data were reprocessed.

### **RID-472 SSS.Fn SONDE**

Developer: Annette Koontz, PNNL  
Reprocessor: Nicole Keck, PNNL  
Status: **Completed 2008/02/22**  
Date range: 2008/01/17-2008/01/23

#### **Description:**

Intermittent reprocessing of sonde data from all sites to correct bad surface measurements of temperature and/or RH.

### **RID-473 SGP.C1 RAIN**

Developer: Sutanay Choudhury, PNNL  
Reprocessor: Nicole Keck, PNNL  
Status: **Hold pending additional ingest updates required**  
Date range: 20071106-current

#### **Description:**

**Ingest updated to properly handle missed raw data files. Data reprocessed 2008/01/31. Ingest is still missing some raw data files and metadata are not being properly filled in netcdf header.**

### **RID-474 PYE.M1 AOS CCN**

Developer: Annette Koontz, PNNL  
Reprocessor: Annette Koontz, PNNL  
Status: **Completed 2008/02/11**  
Date range: 2005/04/01-2005/04/04

#### **Description:**

Corrupt PYE AOS CCN raw data were corrected by the mentor and reprocessed.

### **RID-475 SSS.Fn SONDE**

Developer: Annette Koontz, PNNL  
Reprocessor: Nicole Keck, PNNL  
Status: **Completed 2008/02/22**  
Date range: 2008/01/24-2008/01/30

#### **Description:**

Intermittent reprocessing of sonde data from all sites to correct bad surface measurements of temperature and/or RH.

## RID-480 SSS.Fn SONDE

Developer: Annette Koontz, PNNL  
Reprocessor: Nicole Keck, PNNL  
Status: **In Process**  
Date range: 2008/01/31-2008/02/10

### Description:

Intermittent reprocessing of sonde data from all sites to correct bad surface measurements of temperature and/or RH.

## RID-481 SSS.Fn SONDE

Developer: Annette Koontz, PNNL  
Reprocessor: Nicole Keck, PNNL  
Status: **In Process**  
Date range: 2008/02/15-2008/02/20

### Description:

Intermittent reprocessing of sonde data from all sites to correct bad surface measurements of temperature and/or RH.

## 1.4 Retired Ingests

This section lists ingest software that has been retired from production.

[cm\\_ingest](#)  
[cmh\\_ingest](#)  
[issrwpcons\\_ingest](#)  
[isssonde\\_ingest](#)  
[mfirt\\_ingest](#)  
[mmcr\\_ingest](#)  
[mplps\\_ingest](#)  
[noaaaos\\_ingest](#)

## 2. Ingest Details

In the following sections, we will provide very basic information about the ingest software currently running in production. We list the mentor, lead developer, backup developer, basic information about the processing done by the ingest, and the current operational status. Detailed instrument information can be found at <http://www.arm.gov/instruments/>.

### 2.1 aeri\_ingest

Mentors: Dave Turner and Ralph Dedecker, UWISC  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 8.0-0, 2006/10/31  
Status: Running  
Recent BCRs: 1241, 1212, 1202



## **Description:**

The aeri\_ingest is used to read raw data generated by the Atmospherically Emitted Radiance Interferometer (AERI). The following datastreams are generated:

xxxaerich1Fn.b1, channel 1 data  
xxxaerich2Fn.b1, channel 2 data  
xxxaeriengineerFn.b1, contains engineering data  
xxxaerisummaryFn.b1, summary data

## **2.2 amfmet\_ingest**

Mentor: Mike Ritsche, ANL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 2.0-0, 2006/09/07  
Status: Online  
Recent BCRs: 1395

## **Description:**

Database entries were updated.

The amfmet\_ingest is used to read raw data generated by the AMF surface meteorology measurements. The following netCDF (i.e., network common data format) datastream is generated:

xxxmetFn.b1  
xxxcmhFn.b1

## **2.3 aos\_ingest**

Mentor: John Ogren, NOAA  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 9.6-0, 2007/11/19  
Status: Running  
Recent BCRs: 1430, 1374, 1293, 1282

## **Description:**

A new release of the aos\_ingest (BCR 1430) corrects parsing of the missing value codes from NOAA's datastream, xxxaosccnFn.a1.

The following datastreams are generated:

xxxaosFn.a1  
xxxaosauxFn.a1  
xxxaosccnFn.a1

## 2.4 cmdlaos\_ingest

Mentor: John Ogren, NOAA  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 9.8-0, 2008/01/23  
Status: Running  
Recent BCRs:

### Description:

This ingest is run at the XDC to process AOS data that has been quality-checked by the mentor at NOAA. It is used to generate the following datastreams: **The cmdlaos\_ingest was recently updated to correct f(RH) logic.** The cmdlaos\_ingest generates the following datastreams:

xxxnoaaaosFn.b0  
xxxnoaaaosavgFn.b0  
xxxnoaaaosfitrhFn.b0

## 2.5 cm\_ingest

Mentor: TBD  
Lead Developer: TBD  
Backup Developer: TBD  
Current Version: 7.7-0, 2003/10/09  
Status: TBD

### Description:

The cm\_ingest processed data collected from chilled mirror instrumentation at the Southern Great Plains (SGP) site. It produced the following datastreams:

xxxcmFn.b1  
xxxcm25mFn.b1  
xxxcm60mFn.b1

## 2.6 cmh\_ingest

Mentor: TBD  
Lead Developer: TBD  
Backup Developer: TBD  
Current Version: 7.5-0, 2003/05/28  
Status: TBD

### Description:

The cmh\_ingest processed data collected from chilled mirror hygrometer instrumentation at the NSA Barrow (C1) and Atqasuk (C2) facilities. It produced the following datastreams:

xxxcmhFn.b1

## 2.7 disdrometer\_ingest

Mentor: Mary Jane Bartholomew, Brookhaven National Laboratory (BNL)  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 2.1-0, 2007/04/23  
Status: Running  
Recent BCRs: 1362, 1346, 1251, 1156

### Description:

This ingest was upgraded to handle large files. The disdrometer\_ingest is used to read data from disdrometer instruments. Disdrometers are used to collect data from tipping bucket rain gauges. The following netCDF datastreams are generated:

xxxdisdrometerFn.b1

## 2.8 ebbbr\_ingest

Mentor: David Cook, ANL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 8.1-0, 2006/09/05  
Status: Running  
Recent BCRs: 1036, 674

### Description:

The ebbbr\_ingest reads data from the Energy Balance Bowen Ratio (EBBR) system. The following datastreams are generated:

xxx5ebbbrFn.b1, 5-minute data  
xxx15ebbbrFn.b1, 15-minute data  
xxx30ebbbrFn.b1, 30-minute data

## 2.9 ecor\_ingest

Mentor: David Cook, ANL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 8.0-0, 2006/10/25  
Status: Running  
Recent BCRs: 1352, 1218, 1151, 1039, 1015

### Description:

The ecor\_ingest reads data from the Eddy Correlation Flux Measurement System (ECOR) and generates netCDF datastreams, which provide in situ, half-hour measurements of the surface turbulent fluxes of momentum, sensible heat, latent heat, and carbon dioxide. Datastreams generated include the following:

xxx30ecorFn.b1

## 2.10 gvr\_ingest

Mentor: Maria Cadeddu, ANL  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 1.3-0, 2007/02/20  
Status: Running  
Recent BCRs: 1344, 1338, 1329, 1287, 1255, 1189

### Description:

The gvr\_ingest reads data generated by the 183.3 GHz radiometer and generates netCDF datastreams. The G-Band Vapor Radiometer (GVR) is located at the NSA C1 site. Datastreams generated include the following:

xxxgvrFn.a0  
xxxgvrFn.b1

## 2.11 gvrp\_ingest

Mentor: Maria Cadeddu  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Version: N/A  
Status: In development  
Recent BCRs: 1455  
**Description:** The gvrp\_ingest software will process raw data from the MP183 radiometer.

## 2.12 iapmfr\_ingest

Mentor: Gary Hodges, NOAA  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Version: 1-2.0, 2008/01/11  
Status: Running  
Recent BCRs: 1422 – Approved

### Description:

The datastreams are in final review by the mentor. As soon as the mentor approves the datastream structure, the iapmfr\_ingest will be released. In preparation for this release, the zip2tar utility and the preprocess\_IAPMFR utility have been released into production. The iapmfr\_ingest requires that only the Global Positioning System (GPS) and MFR data be extracted from the In situ Aerosol Profiles (IAP) data. This is done via a combination of the zip2tar and preprocess\_IAPMFR software to merge the GPS and MFR data into a single file for each flight.

We expect to generate the following datastream names:

sgpiapmfrC1.a0  
sgpiapmfrC1.b1

Recently updated to trap and correct NaN and Inf values

### 2.13 irt\_ingest

Mentor: Victor Morris, PNNL  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 9.2-0, 2006/10/27  
Status: Running  
Recent BCRs: 1384, 988, 890, 777, 668

#### Description:

The irt\_ingest, similar to the irthr\_ingest, reads data from the Infrared Thermometer (IRT) instruments. However, this ingest is designed for the older IRTs that report data every 20 seconds. There is one IRT located on a tower at 10 meters above the ground and another at 25 meters above the ground. The tower-mounted instruments are pointed downward. Datastreams generated include the following:

xxxirt10mFn.b1, 10-meter tower data  
xxxirt25m20sFn.a0, 25-meter tower data, 20-second interval  
xxxirt25mFn.b1, 25-meter tower data, 1-minute averages

### 2.14 irthr\_ingest

Mentor: Victor Morris, PNNL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 2.0-0, 2006/08/14  
Status: Running  
Recent BCRs: 1111

#### Description:

The irthr\_ingest reads data from the high-resolution IRT instruments distributed around the SGP. Datastreams generated are for 200-millisecond, 2-seconds, and 1-minute sample intervals and include the following:

xxxirt200msFn.a1, 200-millisecond data  
xxxirt2sFn.b1, 2-second data  
xxxirtFn.b1, 1-minute data

### 2.15 issonde\_ingest

Mentor: Barry Lesht, ANL  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: TBD  
Version: 8.0-0, 2007/03/20  
Status: Retired ingest being revised for historical data processing  
Recent BCRs: 1337

**Description:**

The `issonde_ingest` development work was completed in March 2007. The data were reprocessed and archived in July 2007. This one should be removed from the “ingests in development” section. The ingest has been retired also.

**2.16 issrwpcns\_ingest**

Mentor: TBD  
Lead Developer: TBD  
Backup Developer: TBD  
Current Version: 7.1-0, 2001/02/23  
Status: TBD

**Description:**

The `issrwpcns_ingest` was used to process data from an external rass wind profiler (RWP) located at the TWP. It produced the following datastreams:

xxx915issrwptempconFn.a1  
xxx925issrwpwindconFn.a1

**2.17 met\_ingest**

Mentor: Mike Ritsche, ANL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 7.8-0, 2001/10/20  
Status: Running  
Recent BCRs: 1335, 1232, 1163, 1059

**Description:**

The `met_ingest` processed data collected from conventional in situ sensors measuring meteorological data such as wind speed, barometric pressure, and so on. The following datastream is generated:

xxxmetFn.b1

**2.18 metrad\_ingest**

Mentor: Mike Ritsche, ANL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 2.0-0, 2006/10/31  
Status: Offline  
Recent BCRs: None.

**Description:**

The `metrad_ingest` processes raw radiometer and meteorological data to produce NetCDF files. The following datastreams are generated:

nimmetS1.b1  
nimradS1.b1

## 2.19 mettwr\_ingest

Mentor: Mike Ritsche, ANL  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 2.1-0, 2006/09/08  
Status: Running  
Recent BCRs: 1133

### Description:

The mettwr\_ingest processes data collected from conventional in situ sensors on the ground and on a tower at 10 meters and 40 meters above the ground. The sensors measure meteorological data such as wind speed, barometric pressure, and so on. The mettwr\_ingest is used to process data collected at the NSA from surface and tower meteorological instrumentation. Datastreams generated include the following:

xxxmettwr2hFn.b1  
xxxmettwr4hFn.b1  
xxxmettwrFn.b1

## 2.20 mfr\_ingest

Mentor: Gary Hodges, NOAA  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 7.19-0, 2006/09/18  
Status: Running  
Recent BCRs: 1297, 1177, 1145

### Description:

Soon data from the NIMFR will be processed via mfrcdl\_ingest. The mfr\_ingest is used to process NIMFR, MFR10m, and MFR25m data. The datastreams generated include the following:

xxxmfr10mFn.a0  
xxxmfr10mFn.b1  
xxxmfr25mFn.a0  
xxxmfr25mFn.b1  
xxxnimfrFn.a0  
xxxnimfrFn.b1

## 2.21 mfrcdl\_ingest

Mentor: Gary Hodges, NOAA  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 9.9-0, 2007/10/08

Status: Running  
Recent BCRs: 1380, 1230

**Description:**

Most recently, changes made to the MFRSR processing logic were retracted. Those changes marked data as "missing" that are non-physical. However, those changes caused difficulties for the Data Quality Office software, so they were retracted. Logic to handle the non-physical MFRSR data will be handled eventually via a VAP.

The following datastreams are generated:

xxxmfrsrFn.a0  
xxxmfrsrFn.b1, processed data  
xxxmfrsrauxFn.a0

Several SGP MFRSRs have been converted to the Campbell Data Logger. Raw data are being collected. We can now process NIMFR data via this ingest.

**2.22 mfrirt\_ingest**

Mentor: N/A  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: N/A  
Current Version: 8.1-0, 2006/03/06  
Status: Offline

**Description:**

The mfrirt\_ingest was used to process data collected from an IRT instrument that was included in an MFR datastream at SGP C1. It produced the following datastreams:

xxxmfrirt10mFn.b1  
xxxmfrirt25mFn.b1

**NOTE:** These data have all been reprocessed and cloned to look like sgpirt10mC1.b1 and sgpirt25mC1.b1 data.

**2.23 mmcr\_ingest**

Mentor: N/A  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: N/A  
Current Version: 8.0-0, 2006/11/01  
Status: Retired, replaced by mmcrmom\_ingest

**Description:**

The mmcr\_ingest has been replaced by the mmcrmom\_ingest. The mmcr\_ingest was used to process data collected from the first generation of Millimeter Wavelength Cloud Radar (MMCR) instruments. It produced the following datastreams:



xxxmmrcalFn.a1  
xxxmmcrmomentsFn.a1  
xxxmmcrmonFn.a1

## 2.24 mmcr\_spec\_filter

Mentor: Karen Johnson, BNL  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Version: 2.8-0, 2007/10/22  
Status: Online at SGP C1  
Recent BCRs: 1374

### Description:

Recent changes were implemented to get the filtered data flowing. Currently, this is happening for SGP C1 data only, with filtered spectra data delivered directly to the ACRF Archive. The mentor may be providing logic adjustments to handle thin clouds more effectively in the future.

## 2.25 mmcrmom\_ingest

Mentor: Kevin Widener, PNNL, and Karen Johnson, BNL  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 8.5-1, 2007/06/6  
Status: Running  
Recent BCRs: 1382, 1203, 918, 899

### Description:

The mmcrmom\_ingest has been modified recently to better filter out not-a-number and infinity values. The mmcrmom\_ingest is used to process data from the MMCR. Datastreams generated include the following:

xxxmmcrmomFn.b1

Per Engineering Change Order (ECO) 610, the raw and processed MMCR data will be undergoing another facelift. There is no news on when this will happen, but the Engineering Change Request (ECR) was approved.

## 2.26 mplpol\_ingest

Mentor: Richard Coulter, ANL  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 9.3-1, 2008/01/07  
Status: Running  
Recent BCRs: 1392, 1315, 1233

**Description:**

The `mplpol_ingest` processes data from the Micropulse Lidar (MPL). Datastreams generated include the following:

`xxxmplpolFn.b1`

Since these data are used by several important “downstream” VAPs, a VAP to average the MPLPOL data has been released and is being run on the DMF. The corresponding averaged datastream names are the following:

`xxxmplpolavgFn.c1`

`xxxmplpolavgFn.s1`

The `mplpol_ingest` has been modified to handle fluctuating range-bins recently.

**2.27 mplps\_ingest**

Mentor: Richard Coulter, ANL  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 8.0-0, 2006/10/27  
Status: Retired

The `mplps_ingest` was used to process data collected from a prototype, a polarizing MPL, located at the NSA C1. It produced the following datastream:

`xxxmplpsFn.a0`

These data were subsequently used as input to the `mplavg` process, which produced

`xxxmplFn.a1`

and was used as input to the Active Remotely-Sensed Cloud Locations (ARSCL) VAP. This ingest was retired when the `mplpol_ingest` was put in production at the NSA C1.

**2.28 mwr\_ingest**

Mentor: Maria Cadeddu, ANL  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 10.0-0, 2007/06/26  
Status: Running  
Recent BCRs: 1385, 1223

**Description:**

The `mwr_ingest` processes data from the Microwave Radiometer (MWR). Datastreams generated include the following:

xxxmwrlosFn.b1, line-of-sight data  
xxxmwrlosFn.a1, TIP data

The format of the MWRTIP files changed because of BCR 1385. The data are being reprocessed so that the MWRTIP files will have a consistent format.

## 2.29 mwrhf\_ingest

Mentor: Maria Cadeddu, ANL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Version: 1.1-0, 2007/06/25  
Status: Offline  
Recent BCRs: 1358, 1319, 1302

### Description:

The mwrhf\_ingest processes 90/150-GHz Microwave Radiometer - high frequency (MWRHF) data. This instrument has been installed at the SGP C1 and at the AMF deployment in Germany (FKB M1).

The ingest is being modified to make the file handling logic more robust (EWO 12253).

The following datastreams are generated:

xxxmwrhfFn.b1

## 2.30 mwrp\_ingest

Mentor: Maria Cadeddu, ANL  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 8.3-0, 2007/09/06  
Status: Running  
Recent BCRs: 1320, 1314, 1250, 1249, 1234

### Description:

Recent changes were made to remove not-a-number and infinity values. The mwrp\_ingest processes data collected from the Microwave Radiometer Profiler (MWRP). Datastreams generated include the following:

xxxmwrpFn.b1

## 2.31 nfov2ch\_ingest

Mentor: Gary Hodges, NOAA  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: TBD  
Current Version: 11.0-1, 2007/05/01  
Status: Running  
Recent BCRs: 1286, 1028, 1006

**Description:**

This ingest has been ported to the new database and is currently running for AMF deployment in Germany. The nfov2ch\_ingest processes data collected from the Narrow Field of View, 2-channel radiometer (NFOV2).

The following datastream is generated:

xxxnfov2chFn.b1

The mentor indicates that the instrument is out for calibration and/or repair. No estimate is available at this time for its return to production. In addition, the nfov2ch\_ingest is being modified to use new databases and a new version will be released prior to the AMF deployment in Germany.

**2.32 noaaaos\_ingest**

Mentor: John Ogren, NOAA  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: N/A  
Current Version: 2.2-0, 2006/12/22  
Recent BCRs: 1374  
Status: Retired, became aos\_ingest

**Description:**

The noaaaos\_ingest processed raw (not mentor reviewed) data collected from the NSA and the AMF AOS instruments. It produced the following datastreams:

xxxaosFn.a0  
xxxaosauxFn.a0  
xxxaosccnFn.a0

**2.33 org\_ingest**

Mentor: Michael Ritsche, ANL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 1.0-0 1007/10/25  
Status: Released, Instrument  
Recent BCRs: 1389

**Description:**

The org\_ingest processes optical rain gauge measurements. The first version of the org\_ingest has been released into production.

Datastreams generated include the following:

xxxorgFn.b1

### 2.34 rain\_ingest

Mentor: Mary Jane Bartholomew, BNL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
**Current Version:** 3.1-0, 2008/01/30  
Status: Running  
Recent BCRs: 1395, 1156

#### Description:

The rain\_ingest processes tipping bucket measurements. The rain ingest was upgraded to implement a new interpolation algorithm and support a new optical rain gauge instrument (EWO 12168). The upgraded version was released to production.

Datastreams generated include the following:

xxxrainFn.b1

### 2.35 rss\_ingest

Mentor: Piotr Kiedron, NOAA  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 2.0-0, 2006/10/31  
Status: Running  
Recent BCRs: 1143, 1104

#### Description:

The rss\_ingest is used to process data collected from Rotating Shadowband Spectroradiometers (RSSs). The datastreams generated included the following:

xxxrssFn.b1

**NOTE:** Data are processed every couple of months, when the required inputs arrive.

### 2.36 rwp\_ingest

Mentor: Richard Coulter, ANL  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 8.1-0, 2007/4/11  
Status: Running  
Recent BCRs: 1353, 1246, 1186, 974

#### Description:

The rwp\_ingest processes data collected from RWPs. The datastreams generated include the following:

xxx50rwptempFn.a2  
xxx50rwptempconFn.a1  
xxx50rwptempmomFn.a0  
xxx50rwptempspecFn.a0  
xxx50rwpwindconFn.a1  
xxx50rwpwindmomFn.a0  
xxx50rwpwindspecFn.a0  
xxx915rwptempFn.a2  
xxx915rwptempconFn.a1  
xxx915rwptempmomFn.a0  
xxx915rwptempspecFn.a0  
xxx915rwpwindconFn.a1  
xxx915rwpwindmomFn.a0  
xxx915rwpwindspecFn.a0  
xxx1290rwpwindconFn.a1  
xxx1290rwpwindmomFn.a0  
xxx1290rwpwindspecFn.a0

For the next AMF installation, the rwp\_ingest will require modification to handle the new configuration of RWP data.

### **2.37 sirs\_ingest**

Mentor: Tom Stoffel, NREL  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 10.0-0, 2006/08/31  
Status: Running  
Recent BCRs: 1080, 1040

#### **Description:**

The sirs\_ingest processes data collected from SIRS instruments. Datastreams generated include the following:

xxxsirsFn.b1  
xxxsirs20sFn.a0  
xxxskyrad60sFn.b1  
xxxskyrad20sFn.a0  
xxxgndrad60sFn.b1  
xxxgndrad20sFn.a0

### **2.38 smet\_ingest**

Mentor: Michael Ritsche, ANL  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 8.1-0, 2006/10/04  
Status: Running  
Recent BCRs: 1213, 1048, 738

**Description:**

The smet\_ingest processes data collected from Surface Meteorological Instruments for TWP (SMET). Datastreams generated include the following:

xxxsmet60sFn.b1

**2.39 smor\_ingest**

Mentor: TBD  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Annette Koontz, PNNL  
Version: 7.11-0, 2003/10/09  
Status: Retired ingest being revised for reprocessing historical data from Sky Radiometers on Stand for Downwelling Radiation (SKYRAD) and Ground Radiometers on Stand for Upwelling Radiation (GNDRAD)  
Recent BCRs: 738, 623, 522, 413, 397, 385

**Description:**

This ingest has been taken out of retirement. It will be used for reprocessing historical SKYRAD, GNDRAD, and SMET data, but with the addition of logic to use new databases to improve performance and generate new datastreams comparable to those currently being generated by the sirs\_ingest. This reprocessing is needed, at least in part, for subsequent processing by one or more VAPs.

The following datastreams will be generated:

xxxskyrad20sFn.a0  
xxxskyrad60sFn.b1  
xxxgndrad20sFn.a0  
xxxgndrad60sFn.b1  
xxxsmet60sFn.b1

**2.40 smos\_ingest**

Mentor: Michael Ritsche, ANL  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 8.2-0, 2008/01/23  
Status: Running  
Recent BCRs: 1298, 1257, 1178

**Description:**

The smos\_ingest processes data from the Surface Meteorological Observation System (SMOS) instruments. The ingest was updated to support new calibration variables and the changes were released to production. Datastreams generated include the following:

xxx1smosFn.b1  
xxx30smosFn.b1

## 2.41 sonde\_ingest

Mentor: Barry Lesht, ANL  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 8.1-0, 2006/09/28  
Status: Running  
Recent BCRs: 1245, 1229

### Description:

The sonde\_ingest processes data collected from Balloon-Borne Sounding System (sonde). Datastreams generated include the following:

xxxsondewnpnFn.b1

## 2.42 surthref\_ingest

Mentor: Michael Ritsche, ANL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 2.0-0, 2006/11/01  
Status: Running  
Recent BCRs: 1124, 1106

### Description:

The surthref\_ingest processes data collected from Surface Temperature and Humidity Reference (SURTHREF) system instruments. Datastreams generated include the following:

xxxsurthrefFn.b1

## 2.43 swats\_ingest

Mentor: John Harris, CIMMS  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 10.0-0, 2006/09/07  
Status: Running  
Recent BCRs: 1017, 896

### Description:

The swats\_ingest processes data collected from the Soil Water and Temperature System (SWATS). Datastreams generated include the following:

xxxswatsFn.b1  
xxxswatsspcpFn.b1



## 2.44 sws\_ingest

**Mentor:** Alan Scott Kittelman, CU-Boulder  
**Lead Developer:** Sutanay Choudhury, PNNL  
**Backup Developer:** Brian Ermold, PNNL  
**Current Version:** 3.0-0, 2007/03/06  
**Status:** Running  
**Recent BCRs:** 1406, 1347, 1288, 1216

### Description:

The sws\_ingest is being modified to handle new calibration logic. More enhancements are expected in November 2007. The sws\_ingest processes data collected from the Shortwave Spectroradiometer (SWS). Datastreams generated include the following:

xxxswsFn.b1  
xxxswsauxFn.b1

## 2.45 thwaps\_ingest

**Mentor:** Michael Ritsche, ANL  
**Lead Developer:** Brian Ermold, PNNL  
**Backup Developer:** Sutanay Choudhury, PNNL  
**Current Version:** 8.0-0, 2006/08/14  
**Status:** Running  
**Recent BCRs:** 726

### Description:

The thwaps\_ingest processes data collected from Temperature, Humidity, Wind, and Pressure Sensors (THWAPS) instruments. Datastreams generated include the following:

xxxthwapsFn.b1

## 2.46 tps\_ingest

**Mentor:** Mark Ivey, SNL  
**Lead Developer:** Sutanay Choudhury, PNNL  
**Backup Developer:** Brian Ermold, PNNL  
**Version:** 1.0-0, 2006/12/22  
**Status:** Running  
**Recent BCRs:** 1387, 1366

### Description:

The Total Precipitation Sensor (TPS) will be deployed soon at both NSA sites in Barrow and Atkasuk. The tps\_ingest will process data from the Total Precipitation Sensor (precipitation rate and daily accumulated precipitation).

xxxtpsFn.b1

## 2.47 tsi\_ingest

Mentor: Victor Morris, PNNL  
Lead Developer: Sutanay Choudhury, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 10.1-0, 2006/11/07  
Status: Running  
Recent BCRs: 1294, 1247, 1206, 1107

### Description:

The tsi\_ingest processes data collected from the Total Sky Imager (TSI). Datastreams generated include the following:

xxxtsicldmaskFn.a1  
xxxtsimovieFn.a  
xxxtsiskycoverFn.b1  
xxxtsiskyimageFn.a1

## 2.48 twr\_ingest

Mentor: David Cook, ANL  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Sutanay Choudhury, PNNL  
Current Version: 8.0-0, 2006/09/07  
Status: Running  
Recent BCRs: 727

### Description:

The twr\_ingest processes data collected from meteorological instruments located on towers above the ground. The datastreams generated include the following:

xxx1440twr21xFn.b1  
xxx1440twr25mFn.b1  
xxx1440twr60mFn.b1  
xxx1twr10xFn.b1  
xxx1twr25mFn.b1  
xxx1twr60mC1.b1  
xxx30twr10xFn.b1  
xxx30twr25mFn.b1  
xxx30twr60mFn.b1

## 2.49 vceil\_ingest

Mentor: Victor Morris, PNNL  
Lead Developer: Brian Ermold, PNNL  
Backup Developer: Annette Koontz, PNNL  
Current Version: 8.1-0, 2006/09/08  
Status: Running  
Recent BCRs: 1295, 1132

**Description:**

The vceil\_ingest processes data collected from Vaisala Ceilometers (VCEILs). Datastreams generated include the following:

xxxvceil25kFn.b1

**2.50 wacr\_ingest**

Mentor: Kevin Widener, PNNL  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Current Version: 8.1-0, 2006/09/11  
Status: Running  
Recent BCRs: 1357, 1263, 1242

**Description:**

The wacr\_ingest processes data collected from W-Band (95-GHz) ARM Cloud Radar (WACR) instruments. Datastreams generated include the following:

xxxwacrFn.b1

**2.51 wacr\_spectra\_filter**

Mentor: Karen Johnson, BNL  
Lead Developer: Annette Koontz, PNNL  
Backup Developer: Brian Ermold, PNNL  
Version: 3.5-0, 2007/12/31  
Status: Installed  
Recent BCRs: 1349

**Description:**

This ingest was tested on the AMF while it was operating in Germany and briefly at SGP C1. Hardware issues at SGP and at the AMF have been resolved, at least for now. We will begin shipping spectra data to the ACRF Archive soon. The software will be used to generate spectra files that will be shipped directly to the Archive.

**3. Future Ingest Development Needs**

In the next few weeks, the underlying libraries used by the ingests will be updated to further standardize the QC results and make QC attributes more consistent with recent VAP QC standards.

In future months, the latest generation of database software used by the ingest software will continue to be developed.