

AIRS Level-2

AIRS Level2: AIRH2CCF.003

- FILENAME:** AIRS.2002.12.31.001.L2.CC_H.v4.0. 21.0.G06100185050.hdf (ftp link: [here](#))

It is a swath file with one group and zero dimension map.

The group name, *L2_Standard_cloud-cleared_radiance_product*, contains a special character (hyphen '-') and therefore requires a modification (*L2_Standard_cloud_cleared_radiance_product*) for NCL to be able to read it.

There are 5 different dimension names: GeoXTrack, GeoTrack, Channel, AIRSXTrack and AIRSTrack.

Filesize=10.3MB. Size of GeoTrack=45 and GeoXTrack=30.

Size of Channel=2378, AIRSTrack=3 and AIRSXTrack=3.

The file is missing the '_FillValue' and 'missing_value' attributes. The '_FillValue' is probably -9999.0.

GROUP1: L2_Standard_cloud-cleared_radiance_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name'	not there	
Longitude		either of 'units,' 'unit' or 'long_name'	not there	
topog		either of 'units,' 'unit' or 'long_name'	not there	

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
freq	1-D (Channel)
satheight	1-D (GeoTrack)
topog	2-D (GeoTrack, GeoXTrack)
CalFlag	2-D (GeoTrack, Channel)
radiances	3-D (GeoTrack, GeoXTrack, Channel)
CldClearParam	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)

Other AIRS_L2. CC.v4 files have similar structure

AIRS Level2: AIRH2CCF.005

- FILENAME:** AIRS.2002.12.31.001.L2.CC_H.v5.0. 14.0.G07282131425.hdf (ftp link: [here](#))

It is a swath file with one group and zero dimension map.

The group name, *L2_Standard_cloud-cleared_radiance_product*, contains a special character (hyphen '-') and therefore requires a modification (*L2_Standard_cloud_cleared_radiance_product*) for NCL to be able to read it.

There are 5 different dimension names: GeoXTrack, GeoTrack, Channel, AIRSXTrack and AIRSTrack.

Filesize=9.5MB. Size of GeoTrack=45 and GeoXTrack=30.

Size of Channel=2378, AIRSTrack=3 and AIRSXTrack=3.

A value of -9999.0 is used for '_FillValue.' The file is missing the 'missing_value' attribute.

GROUP1: L2_Standard_cloud-cleared_radiance_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name'	not there	

Longitude	either of 'units,' 'unit' or 'long_name' not there
topog	either of 'units,' 'unit' or 'long_name' not there

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
nominal_freq	1-D (Channel)
satheight	1-D (GeoTrack)
topog	2-D (GeoTrack, GeoXTrack)
CalFlag	2-D (GeoTrack, Channel)
radiances	3-D (GeoTrack, GeoXTrack, Channel)
CldClearParam	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)

Other AIRS_L2. CC.v5 files have similar structure

AIRS Level2: AIRH2RET.003

3. **FILENAME:** AIRS.2002.12.31.001.L2.RetStd_H. v4.0.21.0.G06100185050.hdf (ftp link: [here](#))
- It is a swath file with one group and zero dimension map.
- The group name, *L2_Standard_atmospheric&surface_product*, contains a special character (ampersand '&') and therefore requires a modification (*L2_Standard_atmospheric_surface_product*) for NCL to be able to read it.
- There are 11 different dimension names: GeoXTrack, GeoTrack, StdPressureLev, StdPressureLay, AIRSXTrack, AIRSTrack, Cloud, ChanAMSUA, ChanHSB, MWHingeSurf, HingeSurf.
- Filesize=5.1MB. Size of GeoTrack=45 and GeoXTrack=30.
- Size of StdPressureLev =28, StdPressureLay=28, Cloud=2, ChanAMSUA=15, ChanHSB=5, MWHingeSurf=7, HingeSurf=100, AIRSTrack=3 and AIRSXTrack=3.
- The file is missing the '_FillValue' and 'missing_value' attributes. The '_FillValue' is probably -9999.0.

GROUP1: L2_Standard_atmospheric&surface_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
PressStd	1-D (StdPressureLev)
satheight	1-D (GeoTrack)
MWHingeSurfFreqGHz	1-D (MWHingeSurf)
topog	2-D (GeoTrack, GeoXTrack)

freqEmis	3-D (GeoTrack, GeoXTrack, HingeSurf)
TAirStd	3-D (GeoTrack, GeoXTrack, StdPressureLev)
EmisMWStd	3-D (GeoTrack, GeoXTrack, MWHingeSurf)
TCldTopStd	3-D (GeoTrack, GeoXTrack, Cloud)
latAIRS	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)
CldFrcStd	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, Cloud)

Other AIRS_L2. RetStd.v4 files have similar structure

AIRS Level2: AIRH2RET.005

4. **FILENAME:** AIRS.2002.12.31.001.L2.RetStd_H.v5.0.14.0.G07282131425.hdf (ftp link: [here](#))
- It is a swath file with one group and zero dimension map.
- The group name, *L2_Standard_atmospheric&surface_product*, contains a special character (ampersand '&') and therefore requires a modification (*L2_Standard_atmospheric_surface_product*) for NCL to be able to read it.
- There are 17 different dimension names: GeoXTrack, GeoTrack, StdPressureLev, StdPressureLay, AIRSXTrack, AIRSTrack, Cloud, ChanAMSUA, ChanHSB, MWHingeSurf, HingeSurf, H2OFunc, O3Func, COFunc, CH4Func, H2OPressureLev, H2OPressureLay.
- Filesize=2.3MB. Size of GeoTrack=45 and GeoXTrack=30.
- Size of StdPressureLev =28, StdPressureLay=28, Cloud=2, ChanAMSUA=15, ChanHSB=5, MWHingeSurf=7, H2OFunc=11, O3Func=9, COFunc=9, CH4Func=7, H2OPressureLev=15, H2OPressureLay=14, HingeSurf=100, AIRSTrack=3 and AIRSXTrack=3.
- A value of -9999.0 is used for ' _FillValue.' The file is missing the 'missing_value' attribute.

GROUP1: L2_Standard_atmospheric&surface_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
PressStd	1-D (StdPressureLev)
satheight	1-D (GeoTrack)
MWHingeSurfFreqGHz	1-D (MWHingeSurf)
pressH2O	1-D (H2OPressureLev)
CO_trapezoid_layers	1-D (COFunc)
CH4_trapezoid_layers	1-D (CH4Func)
topog	2-D (GeoTrack, GeoXTrack)
freqEmis	3-D (GeoTrack, GeoXTrack, HingeSurf)
TAirStd	3-D (GeoTrack, GeoXTrack, StdPressureLev)
EmisMWStd	3-D (GeoTrack, GeoXTrack, MWHingeSurf)
H2OMMRsat	3-D (GeoTrack, GeoXTrack, H2OPressureLay)

H2O_verticality	3-D (GeoTrack, GeoXTrack, H2OFunc)
O3VMRStd	3-D (GeoTrack, GeoXTrack, StdPressureLay)
O3_verticality	3-D (GeoTrack, GeoXTrack, O3Func)
CO_verticality	3-D (GeoTrack, GeoXTrack, COFunc)
CH4_verticality	3-D (GeoTrack, GeoXTrack, CH4Func)
TCldTopStd	3-D (GeoTrack, GeoXTrack, Cloud)
latAIRS	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)
CldFrcStd	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, Cloud)

Other AIRS_L2.RetStd.v5 files have similar structure

AIRS Level2: AIRH2SUP.003

5. **FILENAME:** AIRS.2002.12.31.001.L2.RetSup_H.v4.0.21.0.G06100185050.hdf (ftp link: [here](#)) (Filesize=19.2MB)

It is a swath file with one group and zero dimension map.

The group name, *L2_Standard_atmospheric&surface_product*, contains a special character (ampersand '&') and therefore requires a modification (*L2_Standard_atmospheric_surface_product*) for NCL to be able to read it.

There are 21 different dimension names: GeoXTrack (30), GeoTrack(45), StdPressureLev (28), StdPressureLay (28), AIRSXTrack (3), AIRSTrack (3), Cloud (2), ChanAMSUA (15), ChanHSB (5), MWHingeSurf (7), XtraPressureLev (100), XtraPressureLay (100), HingeCloud (7), HingeSurfInit (50), VisXTrack (8), VisTrack (9), VChn (4), ScoresBand (10), CCTest (10), VisGeoSpots (4), MODISEmisBand (6).

The file is missing the '_FillValue' and 'missing_value' attributes. The '_FillValue' is probably -9999.0.

GROUP1: L2_Standard_atmospheric&surface_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
PressSupp	1-D (XtraPressureLev)
satheight	1-D (GeoTrack)
MWHingeSurfFreqGHz	1-D (MWHingeSurf)
freqEmisInit	1-D (HingeSurfInit)
topog	2-D (GeoTrack, GeoXTrack)
rhoVisErr	2-D (VisTrack, VChn)
TAirSup	3-D (GeoTrack, GeoXTrack, XtraPressureLev)
H2OCDSup	3-D (GeoTrack, GeoXTrack, XtraPressureLay)
emisIRInit	3-D (GeoTrack, GeoXTrack, HingeSurfInit)
TCldTopStd	3-D (GeoTrack, GeoXTrack, Cloud)
Phys_resid_AMSUA	3-D (GeoTrack, GeoXTrack, ChanAMSUA)
MWresidual_HSB	3-D (GeoTrack, GeoXTrack, ChanHSB)

Initial_CC_subscores	3-D (GeoTrack, GeoXTrack, ScoresBand)
MODIS_emis	3-D (GeoTrack, GeoXTrack, MODISEmisBand)
latAIRS	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)
cldFreq	4-D (GeoTrack, GeoXTrack, Cloud, HingeCloud)
CldFrcStd	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, Cloud)
fov_ocean_cc_test	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, CCTest)
MODIS_emis_spots	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, MODISEmisBand)
CldMapVis	6-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, VisTrack, VisXTrack)
Cornerlons	6-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, VisGeoSpots, VChn)
rhoVis	7-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, VisTrack, VisXTrack, VChn)

Other AIRS_L2.RetSup.v4 files have similar structure

AIRS Level2: AIRH2SUP.005

6. **FILENAME:** AIRS.2002.12.31.001.L2.RetSup_H.v5.0.14.0.G07282131425.hdf (ftp link: [here](#)) (Filesize=19.2MB)

It is a swath file with one group and zero dimension map.

The group name, *L2_Standard_atmospheric&surface_product*, contains a special character (ampersand '&') and therefore requires a modification (*L2_Standard_atmospheric_surface_product*) for NCL to be able to read it.

There are 27 different dimension names: GeoXTrack (30), GeoTrack(45), StdPressureLev (28), StdPressureLay (28), AIRSXTrack (3), AIRSTrack (3), Cloud (2), ChanAMSUA (15), ChanHSB (5), MWHingeSurf (7), H2OFunc (11), O3Func (9), COFunc (9), CH4Func (7), HingeSurf (100), XtraPressureLev (100), XtraPressureLay (100), HingeCloud (7), HingeSurfInit (50), VisXTrack (8), VisTrack (9), VChn (4), ScoresBand (10), CCTest (10), VisGeoSpots (4), MODISEmisBand (6), TempFunc (23).

The file is missing the 'missing_value' attribute. A value of -9999 is commonly used for '_FillValue.'

GROUP1: L2_Standard_atmospheric&surface_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
PressSupp	1-D (XtraPressureLev)
satheight	1-D (GeoTrack)
MWHingeSurfFreqGHz	1-D (MWHingeSurf)
freqEmisInit	1-D (HingeSurfInit)
pressStd	1-D (StdPressureLev)
H2O_trapezoid_layers	1-D (H2OFunc)
O3_trapezoid_layers	1-D (O3Func)
CO_trapezoid_layers	1-D (COFunc)

CH4_trapezoid_layers	1-D (CH4Func)
topog	2-D (GeoTrack, GeoXTrack)
EmisMWStd	3-D (GeoTrack, GeoXTrack, MWHingeSurf)
emisIRInit	3-D (GeoTrack, GeoXTrack, HingeSurfInit)
TAirSup	3-D (GeoTrack, GeoXTrack, XtraPressureLev)
H2OCDSup	3-D (GeoTrack, GeoXTrack, XtraPressureLay)
TAirMWOnlyErr	3-D (GeoTrack, GeoXTrack, StdPressureLev)
freqEmis	3-D (GeoTrack, GeoXTrack, HingeSurf)
H2O_verticality	3-D (GeoTrack, GeoXTrack, H2OFunc)
O3_verticality	3-D (GeoTrack, GeoXTrack, O3Func)
CO_verticality	3-D (GeoTrack, GeoXTrack, COFunc)
CH4_verticality	3-D (GeoTrack, GeoXTrack, CH4Func)
TCldTopStd	3-D (GeoTrack, GeoXTrack, Cloud)
Phys_resid_AMSUA	3-D (GeoTrack, GeoXTrack, ChanAMSUA)
MWresidual_HSB	3-D (GeoTrack, GeoXTrack, ChanHSB)
Initial_CC_subscores	3-D (GeoTrack, GeoXTrack, ScoresBand)
MODIS_emis	3-D (GeoTrack, GeoXTrack, MODISEmisBand)
latAIRS	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)
Temp_ave_kern	4-D (GeoTrack, GeoXTrack, TempFunc, TempFunc)
H2O_ave_kern	4-D (GeoTrack, GeoXTrack, H2OFunc, H2OFunc)
O3_ave_kern	4-D (GeoTrack, GeoXTrack, O3Func, O3Func)
CO_ave_kern	4-D (GeoTrack, GeoXTrack, COFunc, COFunc)
CH4_ave_kern	4-D (GeoTrack, GeoXTrack, CH4Func, CH4Func)
cldFreq	4-D (GeoTrack, GeoXTrack, Cloud, HingeCloud)
CldFrcStd	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, Cloud)
MODIS_emis_spots	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, MODISEmisBand)
Cornerlons	6-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, VisGeoSpots, VChn)

Other AIRS_L2. RetSup.v5 files have similar structure

AIRS Level2: AIR2CCF.003

7. **FILENAME:** AIRS.2004.12.31.001.L2.CC.v4.0.9.0.G05254233801.hdf (ftp link: [here](#)) (Filesize=9.2MB)
- It is a swath file with one group and zero dimension map.
- The group name, *L2_Standard_cloud-cleared_radiance_product*, contains a special character (hyphen '-') and therefore requires a modification (*L2_Standard_cloud_cleared_radiance_product*) for NCL to be able to read it.
- There are 5 different dimension names: GeoXTrack (30), GeoTrack (45), Channel (2378), AIRSXTrack (3), AIRSTrack(3)
- The file is missing the '_FillValue' and 'missing_value' attributes. The '_FillValue' is probably -9999.0.

GROUP1: L2_Standard_cloud-cleared_radiance_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)

Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
freq	1-D (Channel)
satheight	1-D (GeoTrack)
CalFlag	2-D (GeoTrack, Channel)
topog	2-D (GeoTrack, GeoXTrack)
radiances	3-D (GeoTrack, GeoXTrack, Channel)
CldClearParam	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)

Other AIRS_L2. CC.v4 files have similar structure

AIRS Level2: AIRI2CCF.005

8. **FILENAME:** AIRS.2005.12.31.001.L2.CC.v5.0.14.0.G07289053644.hdf (ftp link: [here](#)) (Filesize=8.4MB)
- It is a swath file with one group and zero dimension map.
- The group name, *L2_Standard_cloud-cleared_radiance_product*, contains a special character (hyphen '-') and therefore requires a modification (*L2_Standard_cloud_cleared_radiance_product*) for NCL to be able to read it.
- There are 5 different dimension names: GeoXTrack (30), GeoTrack (45), Channel (2378), AIRSXTrack (3), AIRSTrack(3)
- The file is missing the 'missing_value' attribute. A value of -9999 is commonly used for '_FillValue.'

GROUP1: L2_Standard_cloud-cleared_radiance_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
CalChanSummary	1-D (Channel)
satheight	1-D (GeoTrack)
CalFlag	2-D (GeoTrack, Channel)
topog	2-D (GeoTrack, GeoXTrack)
radiances	3-D (GeoTrack, GeoXTrack, Channel)
CldClearParam	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)

Other AIRS_L2. CC.v5 and AIRS_L2.CC_IR files have a similar structure

AIRS Level2: AIRS2RET.005

9.

FILENAME: AIRS.2007.12.31.001.L2.RetStd_IR.v5.0.14.0.G08003023626.hdf (ftp link: [here](#)) (Filesize=2.0MB)

It is a swath file with one group and zero dimension map.

The group name, *L2_Standard_atmospheric&surface_product*, contains a special character (ampersand '&') and therefore requires a modification (*L2_Standard_atmospheric_surface_product*) for NCL to be able to read it.

There are 17 different dimension names: GeoXTrack (30), GeoTrack (45), StdPressureLev (28), StdPressureLay (28), AIRSXTrack (3), AIRSTrack (3), Cloud (2), ChanAMSUA (15), ChanHSB (5), MWHingeSurf (7), H2OFunc (11), O3Func (9), COFunc (9), CH4Func (7), HingeSurf (100), H2OPressureLev (15), H2OPressureLay (14).

The file is missing the 'missing_value' attribute. A value of -9999 is commonly used for '_FillValue.'

GROUP1: L2_Standard_cloud-cleared_radiance_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
pressStd	1-D (StdPressureLev)
satheight	1-D (GeoTrack)
pressH2O	1-D (H2OPressureLev)
MWHingeSurfFreqGHz	1-D (MWHingeSurf)
CO_trapezoid_layers	1-D (COFunc)
CH4_trapezoid_layers	1-D (CH4Func)
topog	2-D (GeoTrack, GeoXTrack)
TAirStd	3-D (GeoTrack, GeoXTrack, StdPressureLev)
O3VMRStd	3-D (GeoTrack, GeoXTrack, StdPressureLay)
freqEmis	3-D (GeoTrack, GeoXTrack, HingeSurf)
EmisMWStd	3-D (GeoTrack, GeoXTrack, MWHingeSurf)
H2OMMRStd	3-D (GeoTrack, GeoXTrack, H2OPressureLay)
H2O_verticality	3-D (GeoTrack, GeoXTrack, H2OFunc)
O3_verticality	3-D (GeoTrack, GeoXTrack, O3Func)
CO_verticality	3-D (GeoTrack, GeoXTrack, COFunc)
CH4_verticality	3-D (GeoTrack, GeoXTrack, CH4Func)
TCldTopStd	3-D (GeoTrack, GeoXTrack, Cloud)
latAIRS	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)
CldFrcStd	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, Cloud)

Other AIRS_L2.RetStd_IR.v5 and AIRS_L2.RetSup_IR files have similar structure

10. **FILENAME:** AIRS.2004.12.31.001.L2.RetStd. v4.0.9.0.G05254233801.hdf (ftp link: [here](#)) (Filesize=5.1MB)
- It is a swath file with one group and zero dimension maps.
- The group name, *L2_Standard_atmospheric&surface_product*, contains a special character (ampersand '&') and therefore requires a modification (*L2_Standard_atmospheric_surface_product*) for NCL to be able to read it.
- There are 11 different dimension names: GeoXTrack (30), GeoTrack (45), StdPressureLev (28), StdPressureLay (28), AIRSXTrack (3), AIRSTrack (3), Cloud (2), ChanAMSUA (15), ChanHSB (5), MWHingeSurf (7), HingeSurf (100).
- There is neither a 'Fill_Value' attribute nor a 'missing value' attribute. A value of -9999.0 is commonly used for 'Fill_Value.'

GROUP1: L2_Standard_cloud-cleared_radiance_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
satheight	1-D (GeoTrack)
MWHingeSurfFreqGHz	1-D (MWHingeSurf)
pressStd	1-D (StdPressureLev)
topog	2-D (GeoTrack, GeoXTrack)
TCldTopStd	3-D (GeoTrack, GeoXTrack, Cloud)
EmisMWStd	3-D (GeoTrack, GeoXTrack, MWHingeSurf)
freqEmis	3-D (GeoTrack, GeoXTrack, HingeSurf)
TAirStd	3-D (GeoTrack, GeoXTrack, StdPressureLev)
latAIRS	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)
CldFrcStd	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, Cloud)

Other AIRS_L2.RetStd.v4 files have similar structure

11.

- FILENAME:** AIRS.2005.12.31.001.L2.RetStd.v5.0.14.0.G07289053644.hdf (ftp link: [here](#)) (Filesize=2.2MB)
- It is a swath file with one group and zero dimension map.
- The group name, *L2_Standard_atmospheric&surface_product*, contains a special character (ampersand '&') and therefore requires a modification (*L2_Standard_atmospheric_surface_product*) for NCL to be able to read it.
- There are 17 different dimension names: GeoXTrack (30), GeoTrack (45), StdPressureLev (28), StdPressureLay (28), AIRSXTrack (3), AIRSTrack (3), Cloud (2), ChanAMSUA (15), ChanHSB (5), MWHingeSurf (7), H2OFunc (11), O3Func (9), COFunc (9), CH4Func (7), HingeSurf (100), H2OPressureLev (15), H2OPressureLay (14).
- The file is missing the 'missing_value' attribute. A value of -9999 is commonly used for '_FillValue.'

GROUP1: L2_Standard_atmospheric&surface_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
pressStd	1-D (StdPressureLev)
satheight	1-D (GeoTrack)
pressH2O	1-D (H2OPressureLev)
MWHingeSurfFreqGHz	1-D (MWHingeSurf)
CO_trapezoid_layers	1-D (COFunc)
CH4_trapezoid_layers	1-D (CH4Func)
topog	2-D (GeoTrack, GeoXTrack)
TAirStd	3-D (GeoTrack, GeoXTrack, StdPressureLev)
O3VMRStd	3-D (GeoTrack, GeoXTrack, StdPressureLay)
freqEmis	3-D (GeoTrack, GeoXTrack, HingeSurf)
EmisMWStd	3-D (GeoTrack, GeoXTrack, MWHingeSurf)
H2OMMRStd	3-D (GeoTrack, GeoXTrack, H2OPressureLay)
H2O_verticality	3-D (GeoTrack, GeoXTrack, H2OFunc)
O3_verticality	3-D (GeoTrack, GeoXTrack, O3Func)
CO_verticality	3-D (GeoTrack, GeoXTrack, COFunc)
CH4_verticality	3-D (GeoTrack, GeoXTrack, CH4Func)
TCldTopStd	3-D (GeoTrack, GeoXTrack, Cloud)
latAIRS	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)
CldFrcStd	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, Cloud)

Other AIRS_L2.RetStd.v5 files have similar structure

12.

FILENAME: AIRS.2004.12.31.001.L2.RetSup. v4.0.9.0.G05254233801.hdf (ftp link: [here](#)) (Filesize=19.2MB)

It is a swath file with one group and zero dimension map.

The group name, *L2_Standard_atmospheric&surface_product*, contains a special character (ampersand '&') and therefore requires a modification (*L2_Standard_atmospheric_surface_product*) for NCL to be able to read it.

There are 21 different dimension names: GeoXTrack (30), GeoTrack(45), StdPressureLev (28), StdPressureLay (28), AIRSXTrack (3), AIRSTrack (3), Cloud (2), ChanAMSUA (15), ChanHSB (5), MWHingeSurf (7), XtraPressureLev (100), XtraPressureLay (100), HingeCloud (7), HingeSurfInit (50), VisXTrack (8), VisTrack (9), VChn (4), ScoresBand (10), CCTest (10), VisGeoSpots (4), MODISEmisBand (6).

The file is missing the '_FillValue' and 'missing_value' attributes. The '_FillValue' is probably -9999.0.

GROUP1: L2_Standard_atmospheric&surface_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
PressSupp	1-D (XtraPressureLev)
satheight	1-D (GeoTrack)
MWHingeSurfFreqGHz	1-D (MWHingeSurf)
freqEmisInit	1-D (HingeSurfInit)
topog	2-D (GeoTrack, GeoXTrack)
rhoVisErr	2-D (VisTrack, VChn)
TAirSup	3-D (GeoTrack, GeoXTrack, XtraPressureLev)
H2OCDSup	3-D (GeoTrack, GeoXTrack, XtraPressureLay)
emisIRInit	3-D (GeoTrack, GeoXTrack, HingeSurfInit)
TCldTopStd	3-D (GeoTrack, GeoXTrack, Cloud)
Phys_resid_AMSUA	3-D (GeoTrack, GeoXTrack, ChanAMSUA)
MWresidual_HSB	3-D (GeoTrack, GeoXTrack, ChanHSB)
Initial_CC_subscores	3-D (GeoTrack, GeoXTrack, ScoresBand)
MODIS_emis	3-D (GeoTrack, GeoXTrack, MODISEmisBand)
latAIRS	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)
cldFreq	4-D (GeoTrack, GeoXTrack, Cloud, HingeCloud)
CldFrcStd	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, Cloud)
fov_ocean_cc_test	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, CCTest)
MODIS_emis_spots	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, MODISEmisBand)
CldMapVis	6-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, VisTrack, VisXTrack)
cornerlons	6-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, VisGeoSpots, VChn)
rhoVis	7-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, VisTrack, VisXTrack, VChn)

Other AIRS_L2.RetSup.v4 files have similar structure.

13.

FILENAME: AIRS.2005.12.31.001.L2.RetSup.v5.0.14.0.G07289053644.hdf (ftp link: [here](#)) (Filesize=11.7MB)

It is a swath file with one group and zero dimension map.

The group name, *L2_Standard_atmospheric&surface_product*, contains a special character (ampersand '&') and therefore requires a modification (*L2_Standard_atmospheric_surface_product*) for NCL to be able to read it.

There are 27 different dimension names: GeoXTrack (30), GeoTrack(45), StdPressureLev (28), StdPressureLay (28), AIRSXTrack (3), AIRSTrack (3), Cloud (2), ChanAMSUA (15), ChanHSB (5), MWHingeSurf (7), H2OFunc (11), O3Func (9), COFunc (9), CH4Func (7), HingeSurf (100), XtraPressureLev (100), XtraPressureLay (100), HingeCloud (7), HingeSurfInit (50), VisXTrack (8), VisTrack (9), VChn (4), ScoresBand (10), CCTest (10), VisGeoSpots (4), MODISEmisBand (6), TempFunc (23).

The file is missing the 'missing_value' attribute. A value of -9999 is commonly used for '_FillValue.'

GROUP1: L2_Standard_atmospheric&surface_product

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
PressSupp	1-D (XtraPressureLev)
satheight	1-D (GeoTrack)
MWHingeSurfFreqGHz	1-D (MWHingeSurf)
freqEmisInit	1-D (HingeSurfInit)
pressStd	1-D (StdPressureLev)
H2O_trapezoid_layers	1-D (H2OFunc)
O3_trapezoid_layers	1-D (O3Func)
CO_trapezoid_layers	1-D (COFunc)
CH4_trapezoid_layers	1-D (CH4Func)
topog	2-D (GeoTrack, GeoXTrack)
EmisMWStd	3-D (GeoTrack, GeoXTrack, MWHingeSurf)
emisIRInit	3-D (GeoTrack, GeoXTrack, HingeSurfInit)
TAirSup	3-D (GeoTrack, GeoXTrack, XtraPressureLev)
H2OCDSup	3-D (GeoTrack, GeoXTrack, XtraPressureLay)
TAirMWOnlyErr	3-D (GeoTrack, GeoXTrack, StdPressureLev)
freqEmis	3-D (GeoTrack, GeoXTrack, HingeSurf)
H2O_verticity	3-D (GeoTrack, GeoXTrack, H2OFunc)
O3_verticity	3-D (GeoTrack, GeoXTrack, O3Func)
CO_verticity	3-D (GeoTrack, GeoXTrack, COFunc)
CH4_verticity	3-D (GeoTrack, GeoXTrack, CH4Func)
TCldTopStd	3-D (GeoTrack, GeoXTrack, Cloud)
Phys_resid_AMSUA	3-D (GeoTrack, GeoXTrack, ChanAMSUA)

MWresidual_HSB	3-D (GeoTrack, GeoXTrack, ChanHSB)
Initial_CC_subscores	3-D (GeoTrack, GeoXTrack, ScoresBand)
MODIS_emis	3-D (GeoTrack, GeoXTrack, MODISEmisBand)
latAIRS	4-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack)
Temp_ave_kern	4-D (GeoTrack, GeoXTrack, TempFunc, TempFunc)
H2O_ave_kern	4-D (GeoTrack, GeoXTrack, H2OFunc, H2OFunc)
O3_ave_kern	4-D (GeoTrack, GeoXTrack, O3Func, O3Func)
CO_ave_kern	4-D (GeoTrack, GeoXTrack, COFunc, COFunc)
CH4_ave_kern	4-D (GeoTrack, GeoXTrack, CH4Func, CH4Func)
cldFreq	4-D (GeoTrack, GeoXTrack, Cloud, HingeCloud)
CldFrcStd	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, Cloud)
MODIS_emis_spots	5-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, MODISEmisBand)
cornerlons	6-D (GeoTrack, GeoXTrack, AIRSTrack, AIRSXTrack, VisGeoSpots, VChn)

Other AIRS_L2.RetSup.v5 files have a similar structure.

AIRX2STC

14. **FILENAME:** AIRS.2009.11.30.240.L2.CO2_Std.v5.4.11.0.CO2.T09346091404.hdf (ftp link: [here](#)) (Filesize=311.0KB)
 It is a swath file with 1 swath, namely: CO2. It has zero dimension map.
 The Geolocation Fields provide 'Latitude' and 'Longitude'.
 Latitude and longitude contains 'Fill Value' -9999.0
- | SwathName | DimensionList |
|-----------|---|
| CO2 | Track (22), XTrack (15), AvgKernDim (100) |
- The file is missing the 'missing_value' attribute. A value of -9999 is commonly used for '_FillValue.'

GROUP1: CO2

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
Time		either of 'units,' 'unit' or 'long_name' not there		
Year		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (Track, XTrack)
Longitude	2-D (Track, XTrack)
Time	2-D (Track, XTrack)

DataFieldName	#Dimension (DimList)
Year	2-D (Track, XTrack)
AvgKern	3-D (Track, XTrack, AvgKernDim)

Other AIRS_L2.CO2_Std and AIRS_L2.CO2_Sup files have similar structure.

AIRS Level-3

AIRS Level3: AIRH3ST8.003

15.

FILENAME: AIRS.2002.08.24.L3.RetStd_H008.v4.0.21.0.G06104133343.hdf (ftp link: [here](#)) (Filesize=35.9MB)

It is a grid file with 5 grids. Namely: ascending, descending, ascending_MW_only, descending_MW_only, and location.

All of them share only pair of latitude and longitude which are stored under the group 'location'

It has regular dimensions called XDim (360) and YDim (180).

GridName	DimensionList	Projection
ascending	TempPrsLvls (24), H2OPrsLvls (12), EmisLvls (4)	GEO
descending	TempPrsLvls (24), H2OPrsLvls (12), EmisLvls (4)	GEO
ascending_MW_only	TempPrsLvls (24), H2OPrsLvls (12), MWEmisLvls (3)	GEO
descending_MW_only	TempPrsLvls (24), H2OPrsLvls (12), MWEmisLvls (3)	GEO
location	No dimension names listed	GEO

The file is missing the 'missing_value' attribute. A value of -9999 is commonly used for '_FillValue.'

GROUP1: location

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
LandSeaMask		either of 'units,' 'unit' or 'long_name' not there		

DataFieldName	#Dimension (DimList)
Latitude	2-D (YDim, XDim)
Longitude	2-D (YDim, XDim)
LandSeaMask	2-D (YDim, XDim)

GROUP2: ascending

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Temperature_A		either of 'units,' 'unit' or 'long_name' not there		

DataFieldName	#Dimension (DimList)
TotalCounts_A	2-D (YDim, XDim)
EmisIR_A	3-D (EmisLvls, YDim, XDim)
Temperature_A	3-D (TempPrsLvls, YDim, XDim)
RelHumid_A	3-D (H2OPrsLvls, YDim, XDim)

GROUP3: descending

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Temperature_D		either of 'units,' 'unit' or 'long_name' not there		

DataFieldName	#Dimension (DimList)
TotalCounts_D	2-D (YDim, XDim)
EmisIR_D	3-D (EmisLvls, YDim, XDim)
Temperature_D	3-D (TempPrsLvls, YDim, XDim)
RelHumid_D	3-D (H2OPrsLvls, YDim, XDim)

GROUP4: ascending_MW_only

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Temperature_MW_A		either of 'units,' 'unit' or 'long_name' not there		

DataFieldName	#Dimension (DimList)
TotalCounts_MW_A	2-D (YDim, XDim)
EmisMW_MW_A	3-D (MWEmisLvls, YDim, XDim)
Temperature_MW_A	3-D (TempPrsLvls, YDim, XDim)

GROUP5: descending_MW_only

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Temperature_MW_D		either of 'units,' 'unit' or 'long_name' not there		

DataFieldName	#Dimension (DimList)
TotalCounts_MW_D	2-D (YDim, XDim)
EmisMW_MW_D	3-D (MWEmisLvls, YDim, XDim)
Temperature_MW_D	3-D (TempPrsLvls, YDim, XDim)

Other AIRS_L3.RetStd files have similar structure.

AIRS Level3: AIRX3C2M.005

16.	FILENAME: AIRS.2005.01.01.L3.CO2Std031.v5.4.12.67.X09261141415.hdf (ftp link: here) (Filesize=606.0KB)						
	It is a grid file with 1 grid. Namely: CO2						
	The parameter is wrong in StructMetadata. Parameter 'UpperLeftPoint/LowerRight Mtrs' should be packed in degrees, minutes, seconds format (DDDMMMSSS.SS). In this file, this parameter doesn't follow the DDDMMMSSS.SS format. In DDDMMMSSS.SS format, the value of UpperLeftPoint should be (-180000000.000000,90000000.000000). But in this file, the UpperLeftPointMtrs is (-180.000000,89.500000)', which only shows the degrees. This will generate the wrong latitude and longitude values if one uses the HDF-EOS2 library to retrieve the latitude and longitude values.						
	<ul style="list-style-type: none"> • It has the Latitude and Longitude data fields attached in the 'Data Fields' part of the grid. • Also, the dimension names used are 'LatDim' and 'LonDim' rather than the standard 'XDim' and 'YDim.' • Due to this they are not consistent with the latitude and longitude values calculated by HDFEOS2 and eos2dump. • Latitude and longitude contains 'Fill Value' -9999.0 						
	<table border="1"> <thead> <tr> <th>GridName</th> <th>DimensionList</th> <th>Projection</th> </tr> </thead> <tbody> <tr> <td>CO2</td> <td>LatDim (91), LonDim (144)</td> <td>GEO</td> </tr> </tbody> </table>	GridName	DimensionList	Projection	CO2	LatDim (91), LonDim (144)	GEO
GridName	DimensionList	Projection					
CO2	LatDim (91), LonDim (144)	GEO					
	The file is missing the 'missing_value' attribute. A value of -9999 is commonly used for '_FillValue.'						

GROUP1: CO2

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
mole_fraction_of_carbon_dioxide_in_free_troposphere		either of 'units,' 'unit' or 'long_name' not there		

DataFieldName	#Dimension (DimList)
Latitude	2-D (LatDim, LonDim)
Longitude	2-D (LatDim, LonDim)
mole_fraction_of_carbon_dioxide_in_free_troposphere	2-D (LatDim, LonDim)

Other AIRS_L3.CO2Std files have similar structure.

AIRS3QPM

17.	FILENAME: AIRS.2009.12.01.L3.RetQuant_IR031.v5.0.14.0.G10006163547.hdf (ftp link: here) (Filesize=5.21MB)						
	It is a grid file with 1 grid. Namely: L3Quant						
	The parameter is wrong in StructMetadata. Parameter 'UpperLeftPoint/LowerRight Mtrs' should be packed in degrees, minutes, seconds format (DDDMMMSSS.SS). In this file, this parameter doesn't follow the DDDMMMSSS.SS format. In DDDMMMSSS.SS format, the value of UpperLeftPoint should be (-180000000.000000,90000000.000000). But in this file, the UpperLeftPointMtrs is (-180.000000,35.000000)', which only shows the degrees. This will generate the wrong latitude and longitude values if one uses the HDF-EOS2 library to retrieve the latitude and longitude values.						
	<ul style="list-style-type: none"> • Also, the dimension names used are 'LatDim' and 'LonDim' rather than the standard 'XDim' and 'YDim.' • Due to this they are not consistent with the latitude and longitude values calculated by HDFEOS2 and eos2dump. 						
	<table border="1"> <thead> <tr> <th>GridName</th> <th>DimensionList</th> <th>Projection</th> </tr> </thead> <tbody> <tr> <td>L3Quant</td> <td>LatDim (36), LonDim (72), NumTrials (200), MaxNumClusters (100), NumDimNorm (18), NumDimPhys (35), NumPentad (6)</td> <td>GEO</td> </tr> </tbody> </table>	GridName	DimensionList	Projection	L3Quant	LatDim (36), LonDim (72), NumTrials (200), MaxNumClusters (100), NumDimNorm (18), NumDimPhys (35), NumPentad (6)	GEO
GridName	DimensionList	Projection					
L3Quant	LatDim (36), LonDim (72), NumTrials (200), MaxNumClusters (100), NumDimNorm (18), NumDimPhys (35), NumPentad (6)	GEO					
	The file is missing the 'missing_value' attribute. A value of 0 is commonly used for '_FillValue.'						

GROUP1: L3Quant

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
LatCenter		either of 'units,' 'unit' or 'long_name' not there		

DataFieldName	#Dimension (DimList)
LatCenter	2-D (LatDim, LonDim)
LonCenter	2-D (LatDim, LonDim)
NumObsInCluster	3-D (MaxNumClusters , LatDim, LonDim)
Entropy	3-D (NumTrials, LatDim, LonDim)
NormalizedValues	4-D (MaxNumClusters, NumDimNorm , LatDim, LonDim)
PhysicalValues	4-D (MaxNumClusters, NumDimPhys , LatDim, LonDim)
PentadComposition	4-D (MaxNumClusters, NumPentad , LatDim, LonDim)

Other AIRS_L3.RetQuant files have similar structure.

AIRS Level-1B

AIRIBRAD

18. **FILENAME:** AIRS.2010.01.09.115.L1B.AIRS_Rad.v5.0.0.0.G10010191403.hdf (ftp link: [here](#)) (Filesize=5.95MB)

It is a swath file with 1 swath, namely: L1B_AIRS_Science. It has zero dimension map.

The Geolocation Fields provide 'Latitude' and 'Longitude'.

Latitude and longitude contains 'Fill Value' -9999.0

SwathName	DimensionList
L1B_AIRS_Science	GeoXTrack (90), GeoTrack (135), CalXTrack (6), SpaceXTrack (4), BBXTrack (1), Channel (2378), MaxRefChannel (100), MaxFeaturesUpwell (35), MaxFeaturesPary (17)

The file is missing the 'missing_value' attribute. A value of -9999 is commonly used for '_FillValue.'

GROUP1: L1B_AIRS_Science

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
Time		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	2-D (GeoTrack, GeoXTrack)
Longitude	2-D (GeoTrack, GeoXTrack)
Time	2-D (GeoTrack, GeoXTrack)

DataFieldName	#Dimension (DimList)
satheight	1-D (GeoTrack)
CalChanSummary	1-D (Channel)

RefChannels	1-D (MaxRefChannel)
spec_feature_shifts_upwell	1-D (MaxFeaturesUpwell)
spec_feature_shifts_pary	1-D (MaxFeaturesPary)
topog	2-D (GeoTrack, GeoXTrack)
CalFlag	2-D (GeoTrack, Channel)
input_space_counts.min	2-D (SpaceXTrack, Channel)
rad_scan_stats.min	2-D (GeoXTrack, MaxRefChannel)
radiances	3-D (GeoTrack, GeoXTrack, Channel)

AIRXBCAL

19. **FILENAME:** AIRS.2010.01.07.L1B.Cal_Subset.v5.0.16.0.G10009030635.hdf (ftp link: [here](#)) (Filesize=300.0MB)
- It is a swath file with 2 swath, namely: L1B_AIRS_Cal_Subset and L1B_AIRS_Cal_Subset_Gran_Stats. It has zero dimension map.
- The Geolocation Fields provide 'Latitude' and 'Longitude'.
The latitude and longitude are stored as 1D array each and the number of the elements for each array is the same. 1-D latitude and longitude may be difficult for tools to visualize the data.
- | SwathName | DimensionList |
|---------------------|---|
| L1B_AIRS_Cal_Subset | GeoTrack (Unlimited), IR_Channel (2378), VIS_Channel (3), AMSU_Channel (15) |
- This swath does not provide 'Latitude' and 'Longitude'.
- | SwathName | DimensionList |
|--------------------------------|---|
| L1B_AIRS_Cal_Subset_Gran_Stats | GransProc (241), IR_Channels (2378), VIS_Channels (3), AMSU_Channels (15) |
- The file is missing the 'missing_value' attribute. A value of -9999 is commonly used for '_FillValue.'

GROUP1: L1B_AIRS_Cal_Subset

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude		either of 'units,' 'unit' or 'long_name' not there		
Longitude		either of 'units,' 'unit' or 'long_name' not there		
Time		either of 'units,' 'unit' or 'long_name' not there		
topog		either of 'units,' 'unit' or 'long_name' not there		

GeoFieldName	#Dimension (DimList)
Latitude	1-D (GeoTrack)
Longitude	1-D (GeoTrack)
Time	1-D (GeoTrack)

DataFieldName	#Dimension (DimList)
topog	1-D (GeoTrack)
nominal_freq	1-D (IR_Channel)
radiances	2-D (GeoTrack, IR_Channel)
VisMean	2-D (GeoTrack, VIS_Channel)
amsu_bt	2-D (GeoTrack, AMSU_Channel)

GROUP2: L1B_AIRS_Cal_Subset_Gran_Stats

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
center_latitude		either of 'units,' 'unit' or 'long_name' not there		

There are no Geolocation Fields for this group.

DataFieldName	#Dimension (DimList)
center_latitude	1-D (GransProc)
CalChanSummary	2-D (GransProc, IR_Channels)
vis_rad_mean	2-D (GransProc, VIS_Channels)
amsu_bt_mean	2-D (GransProc, AMSU_Channels)

Other AIRS_L1B.Cal_Subset files have similar structure.