SOFIE **Level 1 netCDF file** **Description**	
SOFIE_Level_1_netcdf_file_description_v1.0	Date: February 8, 2008

Revisions				
Rev	Description of Change	By	Approved	Date
1.0	Draft/Initial version	E. Thompson		2/8/2008

Name	**Long name**	**Valid min**	**Valid max**	**Missing value**	**Fill value**	**Units/description**
Int event(event)	"Level 1 Event Number for this Day"	"0"	"31"	"0"	"0"	"Number of events in day"
Int orbit_number(event)	"Orbit Number"	"1"	"10000"	"0"	"0"	"Number of orbits since launch"
Int sunrise_sunset_flag(event)	"Sunrise/Sunset Flag"	"0"	"1"	"2"	"2"	"0=sunrise, 1=sunset"
Int event_start_time(event)	"Event Start Time"	-------	-------	"-1"	"-1"	"seconds since the unix epoch"

Int event_end_time(event)	"Event End Time"	-------	-------	"-1"	"-1"	"seconds since the unix epoch"
double time(event, time)	"time during measurement"	"0.f"	"3000.00"	"-1.e+24f"	"-1.e+24f"	"seconds since start of the event"
double scan_angle(event, scan_angle)	"Scan Angle for SLDC"	"-0.0012f"	"0.010f"	"-1.e+24f''	"-1.e+24f"	"radians"
CB double ViewingAngle(event, time)	"Ephemeris Viewing Angle"	"0.00"	"1.f"	"-1.e+24f"	"-1.e+24f''	"radians"
CB double TanPointAlt(event, time)	"Tangent Point Altitude"	"-100.f"	"400.f"	"-1.e+24f"	"-1.e+24f"	"km"
CB double TanPointLat(event, time)	"Tangent Point Latitude"	"-90.f"	"90.f"	"-1.e+24f"	"-1.e+24f"	"degrees"
CB double TanPointLon(event, time)	"Tanget Point Longitude"	"0.f"	"360.f"	"-1.e+24f"	"-1.e+24f"	"degrees"
CB double Atmospheric_Doppler_Velocity(event, time)	"Atmospheric Doppler Velocity''	"-10.f"	"10.f"	"-1.e+24f"	"-1.e+24f"	"km/s"
double Signal(event, detector_no, time)	"Detector Signals"	"0.f"	"40000f"	"-1.e+24f"	"-1.e+24f"	"Counts"
double Diff_Signal(event, diff_channels, time)	"Difference Signals" ;			"-1.e+24f"	"-1.e+24f"	"Counts"
double Signal_Offset(event, detector_no)	"dark current offset"			"-1.e+24f''	"-1.e+24f''	"Counts"
double Signal_Drift(event, detector_no)	"Signal Drift Parameter"			"-1.e+24f"	"-1.e+24f"	"Counts/sec"
double Signal_Confidence(event, detector_no)	"Signal Confidence (Std. Dev. Of signal determined during drift correction''''			"-1.e+24f"	"-1.e+24f"	"Counts/sec"
double SLDC(event, detector_no, scan_angle)	"Solar Limb Darkening Curve"	"0.0f"	"1.0.f"	"-1.e+24f"	"-1.e+24f"	"Normalized to 1.0"
double Refraction_Angle(event, time)	"Refraction angles from FPA (solar extent at 700nm)"	"0.f"	"90.f"	"-1.e+24f"	"-1.e+24f"	"radians"
double merged_altitude(event, merged_altitude)	"Altitudes for merged NCEP and MSIS profile"	"0.f"	"150.f"	"-1.e+24f"	"-1.e+24f"	"km"
double merged_Pressure(event, merged_altitude)	"Pressures from merged NCEP and MSIS profile"	"1.e-5f"	"11000.f"	"-1.e+24f"	"-1.e+24f''	"mbar"
double merged_Temperature(event, merged_altitude)	"Temperatures from merged NCEP and MSIS profile"	"0.f"	"350.f"	"-1.e+24f"	"-1.e+24f"	"Kelvin"
Int reg_detectors(event, reg_detectors)	"Detectors used for registration"	"1"	"16"	"-1"	"-1"	"N/A"
CB double Alt_Reg_Ref(event, reg_detectors)	"Altitude where altitude registration performed"	"-10.f"	"10.f"	"-1.e+24f"	"-1.e+24f"	"Counts"
CB double Alt_Reg_Shift(event, reg_detectors)	"Altitude Shift caused by registration"	"-10.f"	"10.f"	"-1.e+24f"	"-1.e+24''	"km"

Where the dimensions are:

dimensions:
    event = UNLIMITED ; // (26 currently)
    time = 3227 ;
    scan_angle = 1000 ;
    detector_no = 16 ;
    diff_channels = 8 ;
    reg_detectors = 3 ;
    merged_altitude = 100 ;
    refraction_alt = 100

and the global attributes are:

```
// global attributes:
        :Title = "SOFIE Level1 Pre-Launch" ;
        :DP_Type = "Level1 Pre-Launch" ;
        :Source = "SOFIE DPC" ;
        :Mission = "AIM" ;
        :DP_Version = "0.01" ;
        :PF_Version = "0.01" ;
        :SW_Version = "0.01" ;
        :SW_Name = "Sofie Level1" ;
        :Calib_Version = "0.01" ;
        :Description = "Sofie Level1 Data Product" ;
        :History = "Pre-Launch" ;
        :Gen_Date = "2007-04-05" ;
```