Header Descriptions

Table 1. Header Descriptions

Keyword	Content Description
Additional_Attribute	Product-specific additional attributes
AutomaticQualityFlagExplan	Automatic Quality flag explanation (per parameter)
Cycle	A count of the number of exact repeats of this reference orbit
EquatorCrossingDate	Date of the equator crossing
EquatorCrossingLong	Longitude of equator crossing
EquatorCrossingTime	Time of the equator crossing
InputPointer	Name of each input product file used to created this product (one instances of this keyword appears in the product header record for each input product file used in creation of this product)
Instance	The number of times that a specific reference orbit has been returned to during flight
instrument_short_name	Short name of instrument (GLAS)
Instrument_State	Flag word that indicates which redundant units (laser, detector, oscillator) of the GLAS instrument are in operation
Instrument_State_Date	The date that corresponds to the Instrument_State. There are a maximum of two per granule.
Instrument_State_Time	The time that corresponds to the Instrument_State. There are a maximum of two per granule.
LocalGranuleID	File name of the granule
LocalVersionID	Granule version number (auto-incrementing, nn in filenaming convention
Numhead	Number of header records preceding product data records
OperationalQualityFlagExpl	Operational Quality flag explanation (per parameter)
Orbit Number	Orbit number
OrbitQuality	Status word that states what type of orbit was used during processing of the data for the granule. It specifies the models used in the orbit determination program. This provides an indication of the quality of the orbits being applied to the data.
ParameterName	Name of product-specific parameters for which additional information follows

Keyword	Content Description
PercentFullRate	Percent of data for this granule that atmospheric parameters are provided at 40 Hz data rate
PercentGroundHit	Percent of data for this granule that had a detected ground return of the transmitted laser pulse
PercentHighRate	Percent of data for this granule that atmospheric parameters are provided at 5 Hz data rate
PercentLowRate	Percent of data for this granule that atmospheric parameters are provided at 0.25 Hz data rate
PercentMediumRate	Percent of data for this granule that atmospheric parameters are provided at 1 Hz data rate
Percent1064to532	Percent atmospheric profiles that use the 1064 nm profile data to provide estimated values for the saturated 532nm profiles
PGEVersion	Version number of the GSAS software that generated this granule
platform_short_name	Short name of spacecraft (Icesat)
ProductionDateTime	Creation time of granule
QAPercentMissingData	Percent of missing data (per parameter)
QAPercentOutofBounds	Percent of out-of-bounds data (per parameter)
RangeBeginningDate	Start date of data on the granule
RangeEndingDate	End data of data on the granule
RangeBeginningTime	Start time of day for data on this granule
Range_Bias	The additive calibration correction in millimeters to apply to range based on the science team cal/val activities
Range_Bias_Date	The date that corresponds to the first valid Range_Bias. There are a maximum of two per granule.
Range_Bias_Time	The time that corresponds to the first valid Range_Bias. There are a maximum of two per granule.
RangeEndingTime	End time of day for data on this granule
Recl	Record length in bytes
ReferenceOrbit	Assigned number for which exact orbital elements describe the exact repeat orbit pattern
ReprocessingPlanned	Planned reprocessing status
ReprocessingActual	Actual reprocessing status
sensor_short_name	Short name of sensor (LaserALT)
ScienceQualityFlagExplana	Science Quality flag explanation (per parameter)
ShortName	GSAS Filetype
size_mb_ecs_data_granule	Size (in MB) of the granule

Keyword	Content Description
SP_ICE_GLAS_EndBlock	Integer SPICE block number within GLAS coverage scheme in which granule data ends
SP_ICE_PATH_NO	Number which represents the GLAS SPICE path number
SP_ICE_GLAS_StartBlock	Integer SPICE block number within GLAS coverage scheme in which granule data starts
time_between_contiguous_records	Time between contiguous data records (in seconds)
Timing_Bias	The time tag error determined by the calibration team that was added to the time tags to compute the true time of data as provided on the granule
Timing_Bias_Date	The date that corresponds to the Timing_Bias. There are a maximum of two per granule.
Timing_Bias_Time	The time of day that corresponds to the Timing_Bias. There are a maximum of two per granule.
Timing_Drift	This is the ratio of the true time for a one second oscillator tick to nominal one
Timing_Drift_Date	The date that corresponds to the Timing_Drift. There are a maximum of two per granule.
Timing_Drift_Time	The time of day that corresponds to the Timing_Drift. There are a maximum of two per granule.
Track	The unique number assigned for each repeat ground track (one orbit) of the reference orbit
Track_Segment	Number assigned for the specific latitude segment (1 = +50 to +50, 2 = +50 to -50, 3 = -50 to -50, 4 = -50 to +50) of the track for the data
VersionID	The ESDT version number that is to be used with this product

1.1 Product-Specific Header Elements

Table 2. Product-Specific Header Elements

Product	Parameter Name	Attribute
GLA01	Range	Flag
		Percent Missing
		Percent Out of Bounds
GLA02	PC_Profile	Flag
		Percent Missing
	CD_Profile	Flag
		Percent Missing
GLA03	Data	Flag

Product	Parameter Name	Attribute
		Percent Missing
	Temperature	Flag
		Percent Out of Bounds
	Voltage	Flag
		Percent Out of Bounds
GLA04	prap	Flag
		Percent Missing
	Gyro	Flag
		Percent Missing
	Laser Reference System	Flag
		Percent Missing
	Star Tracker	Flag
		Percent Missing
	Laser Pulse Array	Flag
		Percent Missing
	Instrument Star Tracker	Flag
		Percent Missing
GLA05	Range	Flag
		Percent Missing
		Percent Out of Bounds
GLA06	Surface Elevation	Flag
		Percent Missing
		Percent Out of Bounds
	Surface Roughness	Flag
		Percent Out of Bounds
	Surface Reflectance	Flag
		Percent Out of Bounds
	Surface Slope	Flag
		Percent Out of Bounds
GLA07	532nm Attenuated Backscatter	
	1064nm Attenuated Backscatter	
GLA08	Aerosol Layer Heights	
	Planetary Boundary Layer	
GLA09	Cloud Layer Heights	
GLA10	Cloud Backscatter Cross Section Profile	

Product	Parameter Name	Attribute
	Cloud Extinction Cross Section Profile	
	Aerosol Backscatter Cross Section Profile	
	Aerosol Extinction Cross Section Profile	
GLA11	Cloud Optical Depth	
	Aerosol Optical Depth	
	Planetary Boundary Layer Optical Depth	
GLA12	Surface Elevation	Flag
		Percent Out of Bounds
	Surface Roughness	Flag
		Percent Out of Bounds
	Surface Reflectance	Flag
		Percent Out of Bounds
	Surface Slope	Flag
		Percent Out of Bounds
GLA13	Surface Elevation	Flag
		Percent Out of Bounds
	Surface Roughness	Flag
		Percent Out of Bounds
	Surface Reflectance	Flag
		Percent Out of Bounds
GLA14	Surface Elevation	Flag
		Percent Out of Bounds
	Surface Roughness	Flag
		Percent Out of Bounds
	Surface Reflectance	Flag
		Percent Out of Bounds
	Surface Slope	Flag
		Percent Out of Bounds
GLA15	Surface Elevation	Flag
		Percent Out of Bounds
	Surface Roughness	Flag
		Percent Out of Bounds