GLAH04 Product Data Dictionary

File-Level (Global) Attributes

Attribute	Example Value
featureType	timeSeries
ShortName	GLAH04
title	GLAS/ICESat L1A Global Laser Pointing Data (HDF5)
comment	Data granules contain approximately 190 minutes (2 orbits) of data and will include data from the laser reference system, the instrument star tracker, the gyro, the spacecraft star trackers, and the attitude control system.
summary	GLAH04 data were used to compute the precise pointing for the GLAS laser beam. The data consist of the LPA (Laser Profiling Array) data, the PRAP (Position Rate and Attitude Packet) data, the LRS and IST data time aligned with laser shots and the BST (Ball Star Tracker) and the ACS (Attitude Control System) data that are not time aligned to the LPA. Each GLAH04 file was created from equivalent GLA04 binary formatted files. The provenance metadata shows the history that created the GLA04.
license	http://nsidc.org/data/icesat/disclaimer.html
references	not_set, http://nsidc.org/daac/icesat/index.html (GLAS Product page at NSIDC)
AccessConstraints	Data may not be reproduced or distributed without including the CitationForExternalPublication for this product included in this Metadata. Data may not be distributed in an altered form without the written permission of the GLAS Science Team.
CitationforExternalPublication	The data used in this study were produced by the GLAS Science Team at the ICESat Science Investigator-led Processing System (I-SIPS) at NASA/GSFC. The data archive site is the NSIDC DAAC.
contributor_role	Data Originator, Investigator, Producer, Producer
contributor_name	David W. Hancock (David.W.Hancock@nasa.gov), Bob E Schutz (schutz@utcsr.ae.utexas.edu), Jay Zwally (Jay.Zwally@nasa.gov), John P DiMarzio (John.P.Dimarzio.1@nasa.gov)
creator_name	ICESat Science Investigator-led Processing System (I-SIPS)
creator_email	David.W.Hancock@nasa.gov
publisher_name	NSIDC User Services
publisher_email	nsidc@nsidc.org
publisher_url	http://nsidc.org/daac/icesat/index.html
platform	Ice, Cloud, and Land Elevation Satellite (ICESat)
instrument	Geoscience Laser Altimeter System (GLAS)
processing_level	1A
date_created	2013-02-27T12:43:41
spatial_coverage_type	Horizontal
history	2011-06-01T19:14:02 glas_l1a 6.0.1 GLA04_033_2113_002_0085_0_01_0001.DAT, 2013-02-27T12:43:41.000000Z GLA04_h5_convert Version 1.0 (August 2012) out/GLAH04_033_2113_002_0085_0_01_0001.H5
geospatial_lat_min	-90.0
geospatial_lat_max	90.0
geospatial_lon_min	-180.0
geospatial_lon_max	180.0
geospatial_lat_units	degrees_north
geospatial_lon_units	degrees_east
keywords	Earth Science > Spectral/Engineering > Platform Characteristics > Attitude Characteristics, Earth Science > Spectral/Engineering > Platform Characteristics > Viewing Geometry
keywords_vocabulary	GCMD Science Keywords Version 6.0
standard_vocabulary_name	CF-1.6
naming_authority	http://dx.doi.org
project	Ice, Cloud, and Land Elevation Satellite (GLAS_HDF)
time_type	UTC
date_type	J2000
time_coverage_start	2005-11-01T11:42:39
time_coverage_end	2005-11-01T14:55:57
time_coverage_duration	11620
source	Satellite Measurements
HDFVersion	HDF5 1.8.9
identifier_file_uuid	D65E7C2A-7BC1-444F-AE6F-991DAD0B45FF
identifier_product_doi	10.5067/ICESAT/GLAS/DATA104
identifier_product_type	GLAH04
identifier_product_format_version	1.0
Conventions	CF-1.6

institution	National Aeronautics and Space Administration (NASA)

Group: /Data_1HZ_LPA/

This group contains data the 1hz LPA data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_1	DOUBLE (UNLIMITED)	Transmit Time of First Shot in frame in J2000 (time)	seconds	The transmit time of the first shot in the 1 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds. The first item is the whole number of seconds; the second item is the fractional part in microseconds.	Rel 33 GLAS Binary Data	NOT_SET

Group: Data_1HZ_LPA/Time

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to LPA Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_GPSLatch	DOUBLE (UNLIMITED)	GPS Latch Time (NOT_SET)	seconds	The GPS time that was used to convert the frequency board time to J2000 for the lasers shot times in this record. The GPS time is normally updated approximately every 10 seconds; the previoius latch time will repeat until a new one is received.	Rel 33 GLAS Binary Data	DS_UTCTime_1
shot_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Shot time flag; Indicates what shot time is used. flag_values: 0, 1 flag_meanings: transmit_time ground_bounce_time	Rel 33 GLAS Binary Data	DS_UTCTime_1
gps_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	GPS time flag; Indicates if delta gps time correction is applied to shot time flag_values: 0, 1 flag_meanings: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
pl_timing_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Post-launch timing; indicates if post-launch timing bias is applied. Data value is stored in the Metadata group. flag_values: 0, 1 flag_meanings: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
ddelay_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Digitizer turn-on delay flag; Indicates if digitizer turn-on delay is accounted for in shot time. Data value is stored in the Metadata group. flag_values: 0, 1 flag_meanings: applied not_applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
peaktp_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Peak of transmit pulse flag; Indicates if time to peak of transmit pulse is accounted for in shot time flag_values: 0, 1 flag_meanings: applied not_applied	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: Data_1HZ_LPA/Packet_Data

This group contains flags indicating the quality or suitability of data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
apid_ADLg_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 1st 10 shots	Rel 33 GLAS	DS_UTCTime_1

				flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Binary Data	
apid_ADLg_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 3rd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 1st 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 3rd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PC532_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	532 Photon counter packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CD1064_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	1064 Cloud Digitizer packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSci_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Ancillary science packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASAD_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer telemetry data in Ancillary science packet APID availability flag flag_values / flag_meanings	Rel 33 GLAS Binary Data	DS_UTCTime_1

				0, 1, 2 | present filled_at_EDOS never_received_ISIPS_filled		
apid_ASPC_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Photon counter telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCF_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Cloud Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCT_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Command and Telemetry (C&T) board telem. data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT20_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #1 (APID 20 - Laser Monitor Board, Temperature Controller Module, Motor Control System & High Voltage Power Supply Housekeeping Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT21_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #2 (APID 21 - Power Distribution Unit (PDU) Housekeeping Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT22_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #3 (APID 22 - Housekeeping Temperatures #1 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT23_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #4 (APID 23 - Housekeeping Temperatures #2 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT50_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #5 (APID 50 - Small Software #2 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_SS24_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Small software telemetry packet #1 (APID 24 - Small Software #1 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LS25_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #1 (APID 25 - Large Software Telemetry #1) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LS55_flg	INTEGER_1	APID Data Availability Flag	NOT_SET	Large software telemetry packet #2 (APID 55 - Large	Rel 33	DS_UTCTime_1

[illegible]	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #2 (APID 88 - Large Software Telemetry #2) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_GPS_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	GPS telemetry packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PRAP_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	S/C position, rate, and attitude telemetry packet (PRAP) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Laser Pulse Array (LPA) packet #1 APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #2 APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #3 APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #4 APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: /Data_40HZ_LPA/

This group contains data the 40hz LPA data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_40	DOUBLE (UNLIMITED)	Transmit Time of Each Shot in frame in J2000 (time)	seconds	The transmit time of the each shot in the 1 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds. The first item is the whole number of seconds; the second item is the fractional part in microseconds.	Rel 33 GLAS Binary Data	NOT_SET
DS_LPA_Pixel	INTEGER (UNLIMITED)	Pixel index for i_PixInt (NOT_SET)	NOT_SET	This array indicates index number for each pixel in the i_PixInt array.	NOT_SET	NOT_SET
DS_WF_Gate	INTEGER (UNLIMITED)	Waveform Gate locations for the transmit waveform (NOT_SET)	ns	Waveform Gate locations of each gate for the transmit waveform stored in the i_tx_wf array.	NOT_SET	NOT_SET

Group: Data_40HZ_LPA/Time

This group contains the LPA data parameters.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_40

i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to LPA Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary Data	DS_UTCTime_40

Group: Data_40HZ_LPA/Data

This group contains flags indicating the quality or suitability of data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_boxX	INTEGER (UNLIMITED)	X Position of Box (NOT_SET)	counts	X Coordinate for the top left corner of the 20 by 20 LPA image data, 0 to 79. To map the LPA image into the LRS image the LPA image needs to be rotated 90 degrees clockwise. So the LPA rotated to LRS (column) upper left X corner is 79 minus i_boxY minus 19.	Rel 33 GLAS Binary Data	DS_UTCTime_40
i_boxY	INTEGER (UNLIMITED)	Y Position of Box (NOT_SET)	counts	Y Coordinate for the top left corner of the 20 by 20 LPA image data, 0 to 79. To map the LPA image into the LRS image the LPA image needs to be rotated 90 degrees clockwise. So the LPA rotated to LRS (row) upper left Y corner is i_boxX.	Rel 33 GLAS Binary Data	DS_UTCTime_40
i_PixInt	INTEGER (UNLIMITED, 400)	LPA Data (NOT_SET)	counts	The forty per second images of the laser pulse. 20x20 box of LPA pixel intensity data. Row 1 column 1 to 20 first, then row 2 to 20. Row is Y and column is X. To map the LPA image into the LRS image the LPA image needs to be rotated 90 degrees clockwise.	Rel 33 GLAS Binary Data	DS_UTCTime_40
i_tx_wf	INTEGER (UNLIMITED, 48)	Sampled Transmit Pulse Waveform (NOT_SET)	counts	Transmit Pulse; 48 bytes of raw data samples.	Rel 33 GLAS Binary Data	DS_UTCTime_40
i_time_txWfPk	INTEGER (UNLIMITED)	Transmit Pulse Peak Location (NOT_SET)	ns	Address in digitizer counts of the Transmit Pulse Peak as measured from the start of Acquisition Memory, i.e. start of digitization. From APID12/13 (Altimeter Digitizer Data-Large & Data-Small), Offset 68.	Rel 33 GLAS Binary Data	DS_UTCTime_40
i_TxWfStart	INTEGER (UNLIMITED)	Starting Address of Transmit Pulse Sample (NOT_SET)	ns	Starting Address in digitizer counts of the Transmit Pulse sample relative to the start of digitization. From APID12/13 (Altimeter Digitizer Data-Large & Data-Small), Offset 76.	Rel 33 GLAS Binary Data	DS_UTCTime_40
i_txWfPk_SF_Flag	INTEGER_1 (UNLIMITED)	Transmit Waveform Peak Status Flag (NOT_SET)	NOT_SET	Transmit_Peak_Status. Flag set to 1 (true) indicates internal software failure. From APID12/13 (Altimeter Digitizer Data-Large & Small), Offset 72. **flag_values**: 0, 1 **flag_meanings**: normal internal_software_failure	Rel 33 GLAS Binary Data	DS_UTCTime_40
i_txWfPk_BT_Flag	INTEGER_1 (UNLIMITED)	Transmit Waveform Peak Status Flag (NOT_SET)	NOT_SET	Transmit_Peak_Status. If set to 1 (true), then peak is below threshold. From APID12/13 (Altimeter Digitizer Data-Large & Small), Offset 72. **flag_values**: 0, 1 **flag_meanings**: normal peak_below_threshold	Rel 33 GLAS Binary Data	DS_UTCTime_40
i_txWfPk_NF_Flag	INTEGER_1 (UNLIMITED)	Transmit Waveform Peak Status Flag (NOT_SET)	NOT_SET	Transmit_Peak_Status. If set to 1 (true), peak was not found. Note: once set to true, this flag is latched and is only cleared by a DSP board reset or by a ground command. From APID12/13 (Altimeter Digitizer Data-Large & Small), Offset 72. **flag_values**: 0, 1 **flag_meanings**: peak_found peak_not_found	Rel 33 GLAS Binary Data	DS_UTCTime_40

Group: /Data_1HZ_LRS/

This group contains the 1hz LRS data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_1	DOUBLE (UNLIMITED)	Transmit Time of First Shot in frame in J2000 (time)	seconds	The transmit time of the first shot in the 10 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds. The first item is the whole number of seconds; the second	Rel 33 GLAS Binary Data	NOT_SET

				item is the fractional part in microseconds.		
DS_LRS_Pixel	INTEGER (UNLIMITED)	Pixel Index for LRS Images (NOT_SET)	NOT_SET	This array indicates the pixel number for each LRS image	NOT_SET	NOT_SET

Group: Data_1HZ_LRS/Time

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to LRS Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_samp_time	DOUBLE (UNLIMITED)	Sample Time (NOT_SET)	seconds	The time of the LRS data as computed from the VTCW converted by using GPS if available and time offsets to the GLAS laser 10 hertz signal (every fourth fire cmd). (In UTC J2000 time).	Rel 33 GLAS Binary Data	DS_UTCTime_1
shot_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Shot time flag; Indicates what shot time is used. flag_values: 0, 1 flag_meanings: transmit_time ground_bounce_time	Rel 33 GLAS Binary Data	DS_UTCTime_1
gps_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	GPS time flag; Indicates if delta gps time correction is applied to shot time flag_values: 0, 1 flag_meanings: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
pl_timing_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Post-launch timing; indicates if post-launch timing bias is applied. Data value is stored in the Metadata group. flag_values: 0, 1 flag_meanings: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
ddelay_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Digitizer turn-on delay flag; Indicates if digitizer turn-on delay is accounted for in shot time. Data value is stored in the Metadata group. flag_values: 0, 1 flag_meanings: applied not_applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
peaktp_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Peak of transmit pulse flag; Indicates if time to peak of transmit pulse is accounted for in shot time flag_values: 0, 1 flag_meanings: applied not_applied	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: Data_1HZ_LRS/Packet_Data

This group contains flags indicating the quality or suitability of data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
apid_ADLg_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 1st 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 3rd 10 shots flag_values flag_meanings	Rel 33 GLAS Binary Data	DS_UTCTime_1

				0, 1, 2 | present filled_at_EDOS never_received_ISIPS_filled		
apid_ADLg_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 1st 10 shots flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 3rd 10 shots flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PC532_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	532 Photon counter packet APID availability flag flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CD1064_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	1064 Cloud Digitizer packet APID availability flag flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSci_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Ancillary science packet APID availability flag flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASAD_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASPC_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Photon counter telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCF_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Cloud Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 | flag_meanings: present filled_at_EDOS	Rel 33 GLAS Binary Data	DS_UTCTime_1

				never_received_ISIPS_filled		
apid_ASCT_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Command and Telemetry (C&T) board telem. data in Ancillary science packet APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT20_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #1 (APID 20 - Laser Monitor Board, Temperature Controller Module, Motor Control System & High Voltage Power Supply Housekeeping Telemetry) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT21_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #2 (APID 21 - Power Distribution Unit (PDU) Housekeeping Telemetry) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT22_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #3 (APID 22 - Housekeeping Temperatures #1 Telemetry) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT23_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #4 (APID 23 - Housekeeping Temperatures #2 Telemetry) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT50_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #5 (APID 50 - Small Software #2 Telemetry) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_SS24_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Small software telemetry packet #1 (APID 24 - Small Software #1 Telemetry) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LS25_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #1 (APID 25 - Large Software Telemetry #1) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LS55_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #2 (APID 55 - Large Software Telemetry #2) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_GPS_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	GPS telemetry packet APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PRAP_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	S/C position, rate, and attitude telemetry packet (PRAP) APID availability flag	Rel 33 GLAS Binary	DS_UTCTime_1

				flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Data
apid_LPA_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Laser Pulse Array (LPA) packet #1 APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #2 APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #3 APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #4 APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: Data_1HZ_LRS/Instrument

This group contains 1hz LRS instrument data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
d_LPAC13_t1	DOUBLE (UNLIMITED)	Laser Profiler Array (LPA) Temperature 1, Ch 13 (NOT_SET)	Celsius	Oscillator Board Temperature, Ch 13	Rel 33 GLAS Binary Data	DS_UTCTime_1
dF1LTRSRSC26_t	DOUBLE (UNLIMITED)	PRT, Face 1 LTR to SRS Temperature, Ch26 (NOT_SET)	Celsius	PRT, Stellar Reference System (SRS) Temperature, Ch 26	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_lrs_ccdtemp	DOUBLE (UNLIMITED)	LRS SA-5 CCD Temperature (NOT_SET)	Celsius	Counts to degree C value in deg C = Counts/128 -273.16 The 273 changes K to C degrees	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_lrs_lenscellt	DOUBLE (UNLIMITED)	LRS SA-5 Lens Cell Temperature (NOT_SET)	Celsius	LRS SA-5 Lens Cell Temperature	Rel 33 GLAS Binary Data	DS_UTCTime_1
dF2LTRSRSC27_t	DOUBLE (UNLIMITED)	PRT, Face 2 LTR to SRS Temperature, Ch27 (NOT_SET)	Celsius	PRT, Lidar Detector Pkg? Temperature, Ch 27	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_TsPMir_t	DOUBLE (UNLIMITED)	Telescope Region 0 Primary Mirror Temperature (NOT_SET)	Celsius	Telescope Region 0 Primary Mirror	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_TsSMir_t	DOUBLE (UNLIMITED)	Telescope Region 1 Secondary Mirror Temperature (NOT_SET)	Celsius	Telescope Region 1 Secondary Mirror	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_srs_ff_optio_t	DOUBLE (UNLIMITED)	SRS First Fold Optics Temperature (NOT_SET)	Celsius	SRS First Fold Optics Temperature	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: Data_1HZ_LRS/T0

This group contains LRS T0 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_T0_SA_1	INTEGER (UNLIMITED, 256)	LRS SA Virtual Tracker 0 Data, Image 1 (NOT_SET)	NOT_SET	This is a 16 X 16 pixel image. The first word (2byte) in the PRAP data contains the frame number. It has been set to the same value as the second pixel so that automatic scaling in plots can work. Order of the data is: row 1 column 1 to 16; row2 column 1 to 16; ....; row 16 column 1 to 16. Column is X and Row is Y.	Rel 33 GLAS Binary Data	DS_UTCTime_1

i_T0_SA_2	INTEGER (UNLIMITED, 256)	LRS SA Virtual Tracker 0 Data, Image 2 (NOT_SET)	NOT_SET	This is a 16 X 16 pixel image. The first word (2byte) in the PRAP data contains the frame number. It has been set to the same value as the second pixel so that automatic scaling in plots can work. Order of the data is: row 1 column 1 to 16; row2 column 1 to 16; ....; row 16 column 1 to 16. Column is X and Row is Y.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T0_SA_3	INTEGER (UNLIMITED, 256)	LRS SA Virtual Tracker 0 Data, Image 3 (NOT_SET)	NOT_SET	This is a 16 X 16 pixel image. The first word (2byte) in the PRAP data contains the frame number. It has been set to the same value as the second pixel so that automatic scaling in plots can work. Order of the data is: row 1 column 1 to 16; row2 column 1 to 16; ....; row 16 column 1 to 16. Column is X and Row is Y.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T0_SA_4	INTEGER (UNLIMITED, 256)	LRS SA Virtual Tracker 0 Data, Image 4 (NOT_SET)	NOT_SET	This is a 16 X 16 pixel image. The first word (2byte) in the PRAP data contains the frame number. It has been set to the same value as the second pixel so that automatic scaling in plots can work. Order of the data is: row 1 column 1 to 16; row2 column 1 to 16; ....; row 16 column 1 to 16. Column is X and Row is Y.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T0_SA_5	INTEGER (UNLIMITED, 256)	LRS SA Virtual Tracker 0 Data, Image 5 (NOT_SET)	NOT_SET	This is a 16 X 16 pixel image. The first word (2byte) in the PRAP data contains the frame number. It has been set to the same value as the second pixel so that automatic scaling in plots can work. Order of the data is: row 1 column 1 to 16; row2 column 1 to 16; ....; row 16 column 1 to 16. Column is X and Row is Y.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T0_subject	INTEGER_1 (UNLIMITED)	Tracker 0 Subject (NOT_SET)	NOT_SET	Tells what the tracker is tracking: 0=> Star Data, 1=> Laser Data, 2=> Collimated Data. **flag_values**: 0, 1, 2 **flag_meanings**: Star_Data Laser_Data Collimated_Data	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T0_shot_no	INTEGER (UNLIMITED)	shot number (NOT_SET)	counts	Shot number of the first frame.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T0_frame_1	INTEGER (UNLIMITED)	T0 Frame number, image 1 (NOT_SET)	NOT_SET	Two byte word describing the frame.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T0_frame_2	INTEGER (UNLIMITED)	T0 Frame number, image 2 (NOT_SET)	NOT_SET	Two byte word describing the frame.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T0_frame_3	INTEGER (UNLIMITED)	T0 Frame number, image 2 (NOT_SET)	NOT_SET	Two byte word describing the frame.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T0_frame_4	INTEGER (UNLIMITED)	T0 Frame number, image 4 (NOT_SET)	NOT_SET	Two byte word describing the frame.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T0_frame_5	INTEGER (UNLIMITED)	T0 Frame number, image 5 (NOT_SET)	NOT_SET	Two byte word describing the frame.	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: Data_1HZ_LRS/T1

This group contains LRS T1 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_T1_SA_1	INTEGER (UNLIMITED, 256)	LRS SA Virtual Tracker 1 Data, Image 1 (NOT_SET)	NOT_SET	The image is a 16 X 16 pixel image. The first word(2byte) in the PRAP data contains the frame number. It has been set to the same value as the second pixel so no automatic scaling will take place.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T1_SA_2	INTEGER (UNLIMITED, 256)	LRS SA Virtual Tracker 1 Data, Image 2 (NOT_SET)	NOT_SET	The image is a 16 X 16 pixel image. The first word(2byte) in the PRAP data contains the frame number. It has been set to the same value as the second pixel so no automatic scaling will take place.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T1_SA_3	INTEGER (UNLIMITED, 256)	LRS SA Virtual Tracker 1 Data, Image 3 (NOT_SET)	NOT_SET	The image is a 16 X 16 pixel image. The first word(2byte) in the PRAP data contains the frame number. It has been set to the same value as the second pixel so no automatic scaling will take place.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T1_SA_4	INTEGER (UNLIMITED, 256)	LRS SA Virtual Tracker 1 Data, Image 3 (NOT_SET)	NOT_SET	The image is a 16 X 16 pixel image. The first word(2byte) in the PRAP data contains the frame number. It has been set to the same value as the second pixel so no automatic scaling will take place.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T1_subject	INTEGER_1 (UNLIMITED)	Tracker 1 Subject (NOT_SET)	NOT_SET	Tells what the tracker is tracking: 0=> Star Data, 1=> Laser Data, 2=> Collimated Data. **flag_values** **flag_meanings**	Rel 33 GLAS Binary Data	DS_UTCTime_1

				flag_values: 0, 1, 2 / flag_meanings: Star_Data Laser_Data Collimated_Data		
i_T1_shot_no	INTEGER (UNLIMITED)	shot number (NOT_SET)	counts	Shot number of the first frame.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T1_frame_1	INTEGER (UNLIMITED)	Tracker 1 Frame Number, Image 1 (NOT_SET)	counts	Two byte word describing the frame	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T1_frame_2	INTEGER (UNLIMITED)	Tracker 1 Frame Number, Image 2 (NOT_SET)	counts	Two byte word describing the frame	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T1_frame_3	INTEGER (UNLIMITED)	Tracker 1 Frame Number, Image 3 (NOT_SET)	counts	Two byte word describing the frame	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T1_frame_4	INTEGER (UNLIMITED)	Tracker 1 Frame Number, Image 4 (NOT_SET)	counts	Two byte word describing the frame	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: Data_1HZ_LRS/T2

This group contains LRS T2 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_T2_SA	INTEGER (UNLIMITED, 256)	LRS SA Virtual Tracker 2 Data (NOT_SET)	NOT_SET	The image will be a 16 X 16 pixel image. The first word(2byte) in the PRAP data contains the frame number. It has been set to the same value as the second pixel so no automatic scaling will take place.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T2_subject	INTEGER_1 (UNLIMITED)	Tracker 2 Subject (NOT_SET)	NOT_SET	Tells what the tracker is tracking: 0=> Star Data, 1=> Laser Data, 2=> Collimated Data. flag_values: 0, 1, 2 / flag_meanings: Star_Data Laser_Data Collimated_Data	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T2_shot_no	INTEGER (UNLIMITED)	shot numbers (NOT_SET)	counts	Shot number of the T2 frame.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_T2_frame	INTEGER (UNLIMITED)	Tracker2 Frame Number (NOT_SET)	counts	Two byte word describing the frame	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: /Data_10HZ_LRS/

This group contains data the 10hz LRS data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_10	DOUBLE (UNLIMITED)	Transmit Time of shot in frame in J2000 (time)	seconds	The transmit time of the each shot in the 10 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds. The first item is the whole number of seconds; the second item is the fractional part in microseconds.	Rel 33 GLAS Binary Data	NOT_SET

Group: Data_10HZ_LRS/Time

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to LPA Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary	DS_UTCTime_10

					Data	
d_samp_time	DOUBLE (UNLIMITED)	Sample Time (NOT_SET)	seconds	The time of the LRS data as computed from the VTCW converted by using GPS if available and time offsets to the GLAS laser 10 hertz signal (every fourth fire cmd). . (In UTC J2000 time).	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_shot_time	DOUBLE (UNLIMITED)	Shot time (NOT_SET)	seconds	The time for each of the 10 laser shots based on alignment to GLA01 using GPS time if available. (In UTC J2000 time)	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_shot_ctr	INTEGER (UNLIMITED)	shot numbers (NOT_SET)	counts	Shot number for the laser fire commands associated with the LRS data.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_lrs_vtcw	DOUBLE (UNLIMITED)	LRS VTCW Time Tag (NOT_SET)	seconds	Raw VTCW counts converted to seconds.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_lrs_timetag	DOUBLE (UNLIMITED)	LRS Time Tag (NOT_SET)	seconds	LRS SA-2 Time Tag for Sample. The time increment to GLAS 10 Hz pulse.	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_LRS/Packet_Data

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_lrs_msginc	INTEGER (UNLIMITED)	LRS Message Incomplete Flag (NOT_SET)	NOT_SET	LRS SA-2 Message Incomplete Flag	Rel 33 GLAS Binary Data	DS_UTCTime_10
l_lrs_notAlFlag	INTEGER_1 (UNLIMITED)	LRS Flag (NOT_SET)	NOT_SET	LRS not aligned flag **flag_values**: 0, 1 **flag_meanings**: aligned not_aligned	Rel 33 GLAS Binary Data	DS_UTCTime_10
l_lrs_badCFlag	INTEGER_1 (UNLIMITED)	LRS Flag (NOT_SET)	NOT_SET	LRS bad COI flag **flag_values**: 0, 1 **flag_meanings**: COI_good COI_bad	Rel 33 GLAS Binary Data	DS_UTCTime_10
l_lrs_ttag_flag	INTEGER_1 (UNLIMITED)	LRS Flag (NOT_SET)	NOT_SET	LRS ttag > 1 flag **flag_values**: 0, 1 **flag_meanings**: normal ttag_gt_1	Rel 33 GLAS Binary Data	DS_UTCTime_10
l_lrs_estTtFlag	INTEGER_1 (UNLIMITED)	LRS Flag (NOT_SET)	NOT_SET	LRS estimated ttag due in rollover flag **flag_values**: 0, 1 **flag_meanings**: normal estimated	Rel 33 GLAS Binary Data	DS_UTCTime_10
l_lrs_fAlFlag	INTEGER_1 (UNLIMITED)	LRS Flag (NOT_SET)	NOT_SET	LRS frame alignment error flag **flag_values**: 0, 1 **flag_meanings**: OK frame_alignment_error	Rel 33 GLAS Binary Data	DS_UTCTime_10
l_lrs_vt1_flag	INTEGER_1 (UNLIMITED)	LRS Flag (NOT_SET)	NOT_SET	LRS VT0/VT1 subject swap flag **flag_values**: 0, 1 **flag_meanings**: normal VT0_VT1_swapped	Rel 33 GLAS Binary Data	DS_UTCTime_10
l_lrs_vt2_flag	INTEGER_1 (UNLIMITED)	LRS Flag (NOT_SET)	NOT_SET	LRS VT0/VT2 subject swap flag **flag_values**: 0, 1 **flag_meanings**: normal VT0_VT2_swapped	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_TkrMode	INTEGER (UNLIMITED)	LRS Tracker Mode Status (NOT_SET)	NOT_SET	LRS SA-2 Tracker Mode Status **flag_values**: 0, 1, 2, 3, 4, 5, 6, 7 **flag_meanings**: U0_bad init selftest virtualT diagnostic U5_bad U6_bad factory	Rel 33 GLAS Binary Data	DS_UTCTime_10

i_lrs_DiagStat	INTEGER (UNLIMITED)	LRS Diagnostic Sub-Mode Status (NOT_SET)	NOT_SET	LRS SA-2 Diagnostic Sub-Mode Status **flag_values**: 0, 1 **flag_meanings**: U0_bad SWSim	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_LastPCmd	INTEGER (UNLIMITED)	LRS Last Processed Command ID (NOT_SET)	NOT_SET	LRS SA-2 Last Processed Command ID	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_RollCt	INTEGER (UNLIMITED)	LRS Time Tag Rollover Count (NOT_SET)	NOT_SET	LRS SA-2 Time Tag Rollover Count	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_VT0_State	INTEGER_1 (UNLIMITED)	LRS Virtual Trackers State (NOT_SET)	NOT_SET	State of IST SA-8 Virtual Trackers 0-2 for Sample. For each tracker byte value indicates the state. Values are 0=Offline, 1=Standby, 2=Acq1, 3=Acq2, 4=RedAcq1, 5=RedAcq2, 6=Handoff1, 7=Handoff2, 8=Handoff3, 9=Handoff4, 10=Handoff5, 11=Track, 12=U12 bad, 13=U13 bad, 14=U14 bad, 15=AwaitAcq **flag_values**: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 **flag_meanings**: Offline Standby Acq1 Acq2 RedAcq1 RedAcq2 Handoff1 Handoff2 Handoff3 Handoff4 Handoff5 Track U12_bad U13_bad U14_bad AwaitAcq.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_VT1_State	INTEGER_1 (UNLIMITED)	LRS Virtual Trackers State (NOT_SET)	NOT_SET	State of IST SA-8 Virtual Trackers 0-2 for Sample. For each tracker byte value indicates the state. Values are 0=Offline, 1=Standby, 2=Acq1, 3=Acq2, 4=RedAcq1, 5=RedAcq2, 6=Handoff1, 7=Handoff2, 8=Handoff3, 9=Handoff4, 10=Handoff5, 11=Track, 12=U12 bad, 13=U13 bad, 14=U14 bad, 15=AwaitAcq. **flag_values**: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 **flag_meanings**: Offline Standby Acq1 Acq2 RedAcq1 RedAcq2 Handoff1 Handoff2 Handoff3 Handoff4 Handoff5 Track U12_bad U13_bad U14_bad AwaitAcq.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_VT2_State	INTEGER_1 (UNLIMITED)	LRS Virtual Trackers State (NOT_SET)	NOT_SET	State of IST SA-8 Virtual Trackers 0-2 for Sample. For each tracker byte value indicates the state. Values are 0=Offline, 1=Standby, 2=Acq1, 3=Acq2, 4=RedAcq1, 5=RedAcq2, 6=Handoff1, 7=Handoff2, 8=Handoff3, 9=Handoff4, 10=Handoff5, 11=Track, 12=U12 bad, 13=U13 bad, 14=U14 bad, 15=AwaitAcq. **flag_values**: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 **flag_meanings**: Offline Standby Acq1 Acq2 RedAcq1 RedAcq2 Handoff1 Handoff2 Handoff3 Handoff4 Handoff5 Track U12_bad U13_bad U14_bad AwaitAcq.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_ci_stat	INTEGER_1 (UNLIMITED)	LRS SA-2 Status (NOT_SET)	NOT_SET	IST SA Command Ignored Flag (0/Clear 1/Set) **flag_values**: 0, 1 **flag_meanings**: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_tec_stat	INTEGER_1 (UNLIMITED)	LRS SA-2 Status (NOT_SET)	NOT_SET	IST SA TEC Enbl/Dsbl Status (0/Dsbl 1/Enbl). **flag_values**: 0, 1 **flag_meanings**: disabled enabled	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_inv_stat	INTEGER_1 (UNLIMITED)	LRS SA-2 Status (NOT_SET)	NOT_SET	IST SA Invalid Command (0/Clear 1/Set). **flag_values**: 0, 1 **flag_meanings**: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_sync_stat	INTEGER_1 (UNLIMITED)	LRS SA-2 Status (NOT_SET)	NOT_SET	IST SA Sync Mode (0/External 1/Internal). **flag_values**: 0, 1 **flag_meanings**: external internal	Rel 33 GLAS Binary Data	DS_UTCTime_10

				0, 1 external internal		
i_lrs_swr_stat	INTEGER_1 (UNLIMITED)	LRS SA-2 Status (NOT_SET)	NOT_SET	IST SA Software Reset Event (0/Clear 1/Set). flag_values: 0, 1 flag_meanings: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_tmr_stat	INTEGER_1 (UNLIMITED)	LRS SA-2 Status (NOT_SET)	NOT_SET	IST SA Time Mark Received (0/Clear 1/Set). flag_values: 0, 1 flag_meanings: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_cbi_stat	INTEGER_1 (UNLIMITED)	LRS SA-2 Status (NOT_SET)	NOT_SET	IST SA Cold Boot Indicator (0/Clear 1/Set). flag_values: 0, 1 flag_meanings: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_fds_stat	INTEGER_1 (UNLIMITED)	LRS SA-2 Status (NOT_SET)	NOT_SET	IST SA Fault Detection Summary (0/Clear 1/Set) flag_values: 0, 1 flag_meanings: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_TimeMark	INTEGER (UNLIMITED)	LRS Time Mark ID (NOT_SET)	NOT_SET	LRS SA-2 Time Mark ID	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_CamID	INTEGER (UNLIMITED)	LRS Camera ID (NOT_SET)	NOT_SET	LRS SA-2 Camera ID	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_swVID	INTEGER (UNLIMITED)	LRS Software Version ID (NOT_SET)	NOT_SET	LRS SA-2 Software Version ID	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_AcqThr	INTEGER (UNLIMITED)	LRS Acquisition Threshold (NOT_SET)	NOT_SET	LRS SA-2 Acquisition Threshold	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_FOVEdge	INTEGER (UNLIMITED)	LRS FOV Entrance Edge (NOT_SET)	NOT_SET	LRS SA-2 FOV Entrance Edge	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_lrs_IntTime	DOUBLE (UNLIMITED)	LRS Integration Time (NOT_SET)	seconds	LRS SA-2 Integration Time	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_lrs_FrmCtr	INTEGER (UNLIMITED)	LRS Frame Counter (NOT_SET)	NOT_SET	LRS SA-2 Frame Counter	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_lrsTimCofInt	DOUBLE (UNLIMITED)	LRS Time to Center of Integration (NOT_SET)	seconds	LRS SA-29 Time to Center of Integration	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_LRS/T0

This group contains LRS T0 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_T0_Vtstarvalid	INTEGER (UNLIMITED)	LRS Virtual Tracker Star Valid (NOT_SET)	NOT_SET	Star Valid Flag for LRS SA-2 Virtual Tracker 0 flag_values: 0, 1 flag_meanings: invalid valid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T0_VTEEnergy	INTEGER (UNLIMITED)	LRS Virtual Tracker Encircled Energy (NOT_SET)	NOT_SET	Encircled Energy for LRS SA-2 Virtual Trackers 0	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T0_VTBgBias	INTEGER (UNLIMITED)	LRS Virtual Tracker Bckgrnd Bias (NOT_SET)	NOT_SET	Backgrnd Bias for LRS SA-2 Virtual Trackers 0	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_T0_VTCentR	DOUBLE (UNLIMITED)	LRS Virtual Tracker Centroid Row (NOT_SET)	Arc-seconds	Centroid Row from LRS SA-2 Virtual Tracker 0. Row is Y. The row (0 to 15) within the image data (i_T0_SA) is i_VTCentR minus i_lrs_RawRow.	Rel 33 GLAS Binary Data	DS_UTCTime_10

d_T0_VTCentC	DOUBLE (UNLIMITED)	LRS Virtual Tracker Centroid Column (NOT_SET)	Arc-seconds	Centroid Column from LRS SA-2 Virtual Trackers 0. Column is X. The column (0 to 15) within the image data (i_T0_SA) is i_VTCentC minus i_lrs_RawCol.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T0_lrs_RawRow	INTEGER (UNLIMITED)	LRS Virtual Tracker Raw Row (NOT_SET)	pixels	Raw row data from LRS SA-2 tracker 0. Raw Row (Y axis) is the upper left hand corner Y position of the LRS 16x16 image array (i_T0_SA).	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T0_lrs_RawCol	INTEGER (UNLIMITED)	LRS Virtual Tracker Raw Column (NOT_SET)	pixels	Raw column data from LRS SA-2 tracker 0. Raw column (X axis) is the upper left hand corner X position of the LRS 16x16 image array (i_T0_SA).	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T0_lrs_TrkThr	INTEGER (UNLIMITED)	LRS Virtual Tracker Track Threshold (NOT_SET)	NOT_SET	Threshold from LRS SA-2 tracker 0	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_LRS/T1

This group contains LRS T1 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_T1_Vtstarvalid	INTEGER (UNLIMITED)	LRS Virtual Tracker Star Valid (NOT_SET)	NOT_SET	Star Valid Flag for LRS SA-2 Virtual Tracker 1 flag_values: 0, 1 flag_meanings: invalid valid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T1_VTEEnergy	INTEGER (UNLIMITED)	LRS Virtual Tracker Encircled Energy (NOT_SET)	NOT_SET	Encircled Energy for LRS SA-2 Virtual Tracker 1	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T1_VTBgBias	INTEGER (UNLIMITED)	LRS Virtual Tracker Bckgrnd Bias (NOT_SET)	NOT_SET	Backgrnd Bias for LRS SA-2 Virtual Tracker 1	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_T1_VTCentR	DOUBLE (UNLIMITED)	LRS Virtual Tracker Centroid Row (NOT_SET)	Arc-seconds	Centroid Row from LRS SA-2 Virtual Tracker 1. Row is Y. The row (0 to 15) within the image data (i_T0_SA) is i_VTCentR minus i_lrs_RawRow.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_T1_VTCentC	DOUBLE (UNLIMITED)	LRS Virtual Tracker Centroid Column (NOT_SET)	Arc-seconds	Centroid Column from LRS SA-2 Virtual Tracker 1. Column is X. The column (0 to 15) within the image data (i_T0_SA) is i_VTCentC minus i_lrs_RawCol.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T1_lrs_RawRow	INTEGER (UNLIMITED)	LRS Virtual Tracker Raw Row (NOT_SET)	pixels	Raw row data from LRS SA-2 tracker 1. Raw Row (Y axis) is the upper left hand corner Y position of the LRS 16x16 image array (i_T0_SA).	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T1_lrs_RawCol	INTEGER (UNLIMITED)	LRS Virtual Tracker Raw Column (NOT_SET)	pixels	Raw column data from LRS SA-2 tracker 1. Raw column (X axis) is the upper left hand corner X position of the LRS 16x16 image array (i_T0_SA).	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T1_lrs_TrkThr	INTEGER (UNLIMITED)	LRS Virtual Tracker Track Threshold (NOT_SET)	NOT_SET	Threshold from LRS SA-2 tracker 1	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_LRS/T2

This group contains LRS T2 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_T2_Vtstarvalid	INTEGER (UNLIMITED)	LRS Virtual Tracker Star Valid (NOT_SET)	NOT_SET	Star Valid Flag for LRS SA-2 Virtual Tracker 2 flag_values: 0, 1 flag_meanings: invalid valid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T2_VTEEnergy	INTEGER (UNLIMITED)	LRS Virtual Tracker Encircled Energy (NOT_SET)	NOT_SET	Encircled Energy for LRS SA-2 Virtual Tracker 2	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T2_VTBgBias	INTEGER (UNLIMITED)	LRS Virtual Tracker Bckgrnd Bias (NOT_SET)	NOT_SET	Backgrnd Bias for LRS SA-2 Virtual Tracker 2	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_T2_VTCentR	DOUBLE (UNLIMITED)	LRS Virtual Tracker Centroid Row (NOT_SET)	Arc-seconds	Centroid Row from LRS SA-2 Virtual Tracker 2. Row is Y. The row (0 to 15) within the image data (i_T0_SA) is i_VTCentR minus i_lrs_RawRow.	Rel 33 GLAS Binary Data	DS_UTCTime_10

d_T2_VTCentC	DOUBLE (UNLIMITED)	LRS Virtual Tracker Centroid Column (NOT_SET)	Arc-seconds	Centroid Column from LRS SA-2 Virtual Tracker 2. Column is X. The column (0 to 15) within the image data (i_T0_SA) is i_VTCentC minus i_lrs_RawCol.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T2_lrs_RawRow	INTEGER (UNLIMITED)	LRS Virtual Tracker Raw Row (NOT_SET)	pixels	Raw row data from LRS SA-2 tracker 2. Raw Row (Y axis) is the upper left hand corner Y position of the LRS 16x16 image array (i_T0_SA).	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T2_lrs_RawCol	INTEGER (UNLIMITED)	LRS Virtual Tracker Raw Column (NOT_SET)	pixels	Raw column data from LRS SA-2 tracker 2. Raw column (X axis) is the upper left hand corner X position of the LRS 16x16 image array (i_T0_SA).	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_T2_lrs_TrkThr	INTEGER (UNLIMITED)	LRS Virtual Tracker Track Threshold (NOT_SET)	NOT_SET	Threshold from LRS SA-2 tracker 2	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: /Data_1HZ_GYRO/

This group contains data the 1hz GYRO data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_1	DOUBLE (UNLIMITED)	Transmit Time of First Shot in frame in J2000 (time)	seconds	The transmit time of the first shot in the 10 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds. The first item is the whole number of seconds; the second item is the fractional part in microseconds.	Rel 33 GLAS Binary Data	NOT_SET

Group: Data_1HZ_GYRO/Time

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to GYRO Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_samp_time	DOUBLE (UNLIMITED)	Sample Time (NOT_SET)	seconds	The time of the GYRO data as computed from the VTCW converted by using GPS if available and time offsets to the GLAS laser 10 hertz signal (every fourth fire cmd). (In UTC J2000 time).	Rel 33 GLAS Binary Data	DS_UTCTime_1
shot_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Shot time flag; Indicates what shot time is used. flag_values: 0, 1 flag_meanings: transmit_time ground_bounce_time	Rel 33 GLAS Binary Data	DS_UTCTime_1
gps_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	GPS time flag; Indicates if delta gps time correction is applied to shot time flag_values: 0, 1 flag_meanings: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
pl_timing_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Post-launch timing; indicates if post-launch timing bias is applied. Data value is stored in the Metadata group. flag_values: 0, 1 flag_meanings: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
ddelay_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Digitizer turn-on delay flag; Indicates if digitizer turn-on delay is accounted for in shot time. Data value is stored in the Metadata group. flag_values: 0, 1 flag_meanings: applied not_applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
peaktp_flg	INTEGER_1	time correction flag	NOT_SET	Peak of transmit pulse flag; Indicates if time to peak of	Rel 33	DS_UTCTime_1

	(UNLIMITED)	(NOT_SET)		transmit pulse is accounted for in shot time flag_values: 0, 1 / flag_meanings: applied not_applied	GLAS Binary Data	

Group: Data_1HZ_GYRO/Packet_Data

This group contains flags indicating the quality or suitability of data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
apid_ADLg_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 1st 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 3rd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 1st 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 3rd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PC532_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	532 Photon counter packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CD1064_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	1064 Cloud Digitizer packet APID availability flag flag_values / flag_meanings	Rel 33 GLAS Binary	DS_UTCTime_1

				flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	
apid_ADSci_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASAD_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASPC_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Photon counter telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCF_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Cloud Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCT_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Command and Telemetry (C&T) board telem. data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT20_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #1 (APID 20 - Laser Monitor Board, Temperature Controller Module, Motor Control System & High Voltage Power Supply Housekeeping Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT21_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #2 (APID 21 - Power Distribution Unit (PDU) Housekeeping Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT22_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #3 (APID 22 - Housekeeping Temperatures #1 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT23_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #4 (APID 23 - Housekeeping Temperatures #2 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT50_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #5 (APID 50 - Small Software #2 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_SS24_flg	INTEGER_1	APID Data Availability Flag	NOT_SET	Small software telemetry packet #1 (APID 24 - Small	Rel 33	DS_UTCTime_1

	(UNLIMITED)	(NOT_SET)		Software #1 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	GLAS Binary Data	
apid_LS25_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #1 (APID 25 - Large Software Telemetry #1) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LS55_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #2 (APID 55 - Large Software Telemetry #2) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_GPS_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	GPS telemetry packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PRAP_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	S/C position, rate, and attitude telemetry packet (PRAP) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Laser Pulse Array (LPA) packet #1 APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #2 APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #3 APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #4 APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: /Data_10HZ_GYRO/

This group contains the 10 hz SIRU/GYRO data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_10	DOUBLE (UNLIMITED)	Transmit Time of shot in frame in J2000 (time)	seconds	The transmit time of the each shot in the 10 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds.	Rel 33 GLAS Binary Data	NOT_SET

Group: Data_10HZ_GYRO/Time

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to GYRO Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_samp_time	DOUBLE (UNLIMITED)	Sample Time (NOT_SET)	seconds	The time associated with the gyro data sample. Time in UTC seconds computed from corresponding VTCW converted by using GPS if available.(In UTC J2000 time)	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_siru_vtcw	DOUBLE (UNLIMITED)	SIRU VTCW (NOT_SET)	seconds	Raw VTCW counts converted to seconds.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_siru_ttag	DOUBLE (UNLIMITED)	SIRU Time Tag (free-run bin clock) (NOT_SET)	seconds	SIRU Time Tag (free-run bin clock)	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_GYRO/Data

This group contains the 10hz SIRU/GYRO data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_siru_mode	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Mode Valid (1/Valid, 0/Invalid) flag_values: 0, 1 flag_meanings: valid invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_siru_gyroSc	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Gyro Scale Factor (1/High, 0/Low) flag_values: 0, 1 flag_meanings: high low	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_siru_gyroAAng	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Gyro A Angle Valid (1/Valid, 0/Invalid) flag_values: 0, 1 flag_meanings: valid invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_siru_gyroBAng	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Gyro B Angle Valid (1/Valid, 0/Invalid) flag_values: 0, 1 flag_meanings: valid invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_siru_gyroCAng	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Gyro C Angle Valid (1/Valid, 0/Invalid) flag_values: 0, 1 flag_meanings: valid invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_siru_gyroDAng	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Gyro D Angle Valid (1/Valid, 0/Invalid) flag_values: 0, 1 flag_meanings: valid invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_siru_gyroASat	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Gyro A Rate Saturation (1/Saturated, 0/Normal) flag_values: 0, 1 flag_meanings: normal saturated	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_siru_gyroBSat	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Gyro B Rate Saturation (1/Saturated, 0/Normal) flag_values: 0, 1 flag_meanings: normal saturated	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_siru_gyroCSat	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Gyro C Rate Saturation (1/Saturated, 0/Normal) flag_values:	Rel 33 GLAS Binary Data	DS_UTCTime_10

				0, 1 normal saturated		
i_siru_gyroDSat	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Gyro D Rate Saturation (1/Saturated, 0/Normal) flag_values: 0, 1 — flag_meanings: normal saturated	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_siru_htrPwr	INTEGER_1 (UNLIMITED)	SIRU Data Valid Word (NOT_SET)	NOT_SET	Heater Power Status (1/Off or Error, 0/Normal) flag_values: 0, 1 — flag_meanings: normal off	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_siru_AIA	DOUBLE (UNLIMITED)	SIRU Gyro A Integrated Angle (NOT_SET)	Arc-seconds	SIRU Gyro A Integrated Angle	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_siru_BIA	DOUBLE (UNLIMITED)	SIRU Gyro B Integrated Angle (NOT_SET)	Arc-seconds	SIRU Gyro B Integrated Angle	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_siru_CIA	DOUBLE (UNLIMITED)	SIRU Gyro C Integrated Angle (NOT_SET)	Arc-seconds	SIRU Gyro C Integrated Angle	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_siru_DIA	DOUBLE (UNLIMITED)	SIRU Gyro D Integrated Angle (NOT_SET)	Arc-seconds	SIRU Gyro D Integrated Angle	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_siru_config	INTEGER (UNLIMITED)	SIRU Configuration Word 1 (NOT_SET)	NOT_SET	The SIRU Configuration Word is composed of bit flags: Gyro A Status (1/Active, 0/Inactive); Gyro B Status (1/Active, 0/Inactive); Gyro C Status (1/Active, 0/Inactive); Gyro D Status (1/Active, 0/Inactive); CPU/HCM Channel 1 Status (1/Active, 0/Inactive); CPU/HCM Channel 2 Status (1/Active, 0/Inactive); Power Supply 1 Status (1/Active, 0/Inactive); Power Supply 2 Status (1/Active, 0/Inactive); Reserved (4 bits); Spare 3 (4 bits unused). One flag word per sample; 10 samples per second.	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: /Data_1HZ_IST/

This group contains data the 1hz IST data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_1	DOUBLE (UNLIMITED)	Transmit Time of First Shot in frame in J2000 (time)	seconds	The transmit time of the first shot in the 10 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds. The first item is the whole number of seconds; the second item is the fractional part in microseconds.	Rel 33 GLAS Binary Data	NOT_SET

Group: Data_1HZ_IST/Time

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to IST Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_samp_time	DOUBLE (UNLIMITED)	Sample Time (NOT_SET)	seconds	The time of the IST data as computed from the VTCW converted by using GPS if available and time offsets to the GLAS laser 10 hertz signal (every fourth fire cmd). (In UTC J2000 time).	Rel 33 GLAS Binary Data	DS_UTCTime_1
shot_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Shot time flag; Indicates what shot time is used. flag_values: 0, 1 — flag_meanings: transmit_time ground_bounce_time	Rel 33 GLAS Binary Data	DS_UTCTime_1

gps_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	GPS time flag; Indicates if delta gps time correction is applied to shot time flag_values: 0, 1 flag_meanings: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
pl_timing_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Post-launch timing; indicates if post-launch timing bias is applied. Data value is stored in the Metadata group. flag_values: 0, 1 flag_meanings: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
ddelay_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Digitizer turn-on delay flag; Indicates if digitizer turn-on delay is accounted for in shot time. Data value is stored in the Metadata group. flag_values: 0, 1 flag_meanings: applied not_applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
peaktp_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Peak of transmit pulse flag; Indicates if time to peak of transmit pulse is accounted for in shot time flag_values: 0, 1 flag_meanings: applied not_applied	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: Data_1HZ_IST/Packet_Data

This group contains flags indicating the quality or suitability of data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
apid_ADLg_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 1st 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 3rd 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 1st 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 3rd 10 shots	Rel 33 GLAS	DS_UTCTime_1

				flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Binary Data	
apid_ADSm_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PC532_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	532 Photon counter packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CD1064_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	1064 Cloud Digitizer packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSci_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Ancillary science packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASAD_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASPC_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Photon counter telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCF_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Cloud Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCT_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Command and Telemetry (C&T) board telem. data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT20_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #1 (APID 20 - Laser Monitor Board, Temperature Controller Module, Motor Control System & High Voltage Power Supply Housekeeping Telemetry) APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT21_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #2 (APID 21 - Power Distribution Unit (PDU) Housekeeping Telemetry) APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1

apid_CT22_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #3 (APID 22 - Housekeeping Temperatures #1 Telemetry) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT23_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #4 (APID 23 - Housekeeping Temperatures #2 Telemetry) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT50_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #5 (APID 50 - Small Software #2 Telemetry) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_SS24_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Small software telemetry packet #1 (APID 24 - Small Software #1 Telemetry) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LS25_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #1 (APID 25 - Large Software Telemetry #1) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LS55_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #2 (APID 55 - Large Software Telemetry #2) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_GPS_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	GPS telemetry packet APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PRAP_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	S/C position, rate, and attitude telemetry packet (PRAP) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Laser Pulse Array (LPA) packet #1 APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #2 APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #3 APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_4_flg	INTEGER_1	APID Data Availability Flag	NOT_SET	LPA packet #4 APID availability flag	Rel 33	DS_UTCTime_1

	(UNLIMITED)	(NOT_SET)		flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	GLAS Binary Data	

Group: /Data_10HZ_IST/

This group contains data the 10hz LRS data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_10	DOUBLE (UNLIMITED)	Transmit Time of shot in frame in J2000 (time)	seconds	The transmit time of the each shot in the 10 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds. The first item is the whole number of seconds; the second item is the fractional part in microseconds.	Rel 33 GLAS Binary Data	NOT_SET

Group: Data_10HZ_IST/Time

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to IST Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_shot_ctr	INTEGER (UNLIMITED)	shot numbers (NOT_SET)	counts	Shot number for the laser fire commands associated with the IST data.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_samp_time	DOUBLE (UNLIMITED)	Sample Time (NOT_SET)	seconds	The time of the IST data as computed from the VTCW converted by using GPS if available and time offsets to the GLAS laser 10 hertz signal (every fourth fire cmd). . (In UTC J2000 time).	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_shot_time	DOUBLE (UNLIMITED)	Shot time (NOT_SET)	seconds	The time for each of the 10 laser shots based on alignment to GLA01 using GPS time if available. (In UTC J2000 time)	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_ist_vtcw	DOUBLE (UNLIMITED)	IST VTCW Time Tag (NOT_SET)	seconds	Raw VTCW counts converted to seconds.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_ist_timetag	DOUBLE (UNLIMITED)	IST Time Tag (NOT_SET)	microseconds	IST SA-8 Time Tag. The time increment to GLAS 10 Hz pulse.	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_IST/Packet_Data

This group contains parameters relating to the quality of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
l_ist_notAlFlag	INTEGER_1 (UNLIMITED)	IST Flag (NOT_SET)	NOT_SET	IST not aligned flag flag_values: 0, 1 / flag_meanings: aligned not_aligned	Rel 33 GLAS Binary Data	DS_UTCTime_10
l_ist_badCFlag	INTEGER_1 (UNLIMITED)	IST Flag (NOT_SET)	NOT_SET	IST bad COI flag flag_values: 0, 1 / flag_meanings: COI_good COI_bad	Rel 33 GLAS Binary Data	DS_UTCTime_10
l_ist_ttag_flag	INTEGER_1 (UNLIMITED)	IST Flag (NOT_SET)	NOT_SET	IST ttag > 1 flag flag_values / flag_meanings	Rel 33 GLAS Binary Data	DS_UTCTime_10

				0, 1 — normal ttag_gt_1		
l_ist_estTtFlag	INTEGER_1 (UNLIMITED)	IST Flag (NOT_SET)	NOT_SET	IST estimated ttag due in rollover flag flag_values: 0, 1 — flag_meanings: normal estimated	Rel 33 GLAS Binary Data	DS_UTCTime_10
l_ist_fAlFlag	INTEGER_1 (UNLIMITED)	IST Flag (NOT_SET)	NOT_SET	IST frame alignment error flag flag_values: 0, 1 — flag_meanings: OK frame_alignment_error	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_msginc	INTEGER (UNLIMITED)	IST Message Incomplete Flag (NOT_SET)	NOT_SET	IST SA-8 Message Incomplete Flag	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_RollCt	INTEGER (UNLIMITED)	IST Time Tag Rollover Count (NOT_SET)	NOT_SET	IST SA-8 Time Tag Rollover Count	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_TkrMode	INTEGER (UNLIMITED)	IST Tracker Mode Status (NOT_SET)	NOT_SET	IST SA-8 Tracker Mode Status	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_DiagStat	INTEGER (UNLIMITED)	IST Diagnostic Sub-Mode Status (NOT_SET)	NOT_SET	IST SA-8 Diagnostic Sub-Mode Status	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_LastPCmd	INTEGER (UNLIMITED)	IST Last Processed Command ID (NOT_SET)	NOT_SET	IST SA-8 Last Processed Command ID	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_cmdIg	INTEGER_1 (UNLIMITED)	IST SA-8 Status (NOT_SET)	NOT_SET	IST SA-8: Command Ignored Flag (0/Clear 1/Set) flag_values: 0, 1 — flag_meanings: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_TEC	INTEGER_1 (UNLIMITED)	IST SA-8 Status (NOT_SET)	NOT_SET	IST SA-8: TEC Enbl/Dsbl Status (0/Dsbl 1/Enbl) flag_values: 0, 1 — flag_meanings: disabled enabled	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_invCmd	INTEGER_1 (UNLIMITED)	IST SA-8 Status (NOT_SET)	NOT_SET	IST SA-8: Invalid Command (0/Clear 1/Set) flag_values: 0, 1 — flag_meanings: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_bright	INTEGER_1 (UNLIMITED)	IST SA-8 Status (NOT_SET)	NOT_SET	IST SA-8: Bright Object Event (0/External 1/Internal) flag_values: 0, 1 — flag_meanings: external internal	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_SRE	INTEGER_1 (UNLIMITED)	IST SA-8 Status (NOT_SET)	NOT_SET	IST SA-8: Software Reset Event (0/Clear 1/Set) flag_values: 0, 1 — flag_meanings: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_TMR	INTEGER_1 (UNLIMITED)	IST SA-8 Status (NOT_SET)	NOT_SET	IST SA-8: Time Mark Received (0/Clear 1/Set) flag_values: 0, 1 — flag_meanings: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_CBI	INTEGER_1 (UNLIMITED)	IST SA-8 Status (NOT_SET)	NOT_SET	IST SA-8: Cold Boot Indicator (0/Clear 1/Set) flag_values: 0, 1 — flag_meanings: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_FDS	INTEGER_1 (UNLIMITED)	IST SA-8 Status (NOT_SET)	NOT_SET	IST SA-8 Fault Detection Summary (0/Clear 1/Set) flag_values: 0, 1 — flag_meanings: clear set	Rel 33 GLAS Binary Data	DS_UTCTime_10

i_ist_TimeMark	INTEGER (UNLIMITED)	IST Time Mark ID (NOT_SET)	NOT_SET	IST SA-8 Time Mark ID	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_CamID	INTEGER (UNLIMITED)	IST Camera ID (NOT_SET)	NOT_SET	IST SA-8 Camera ID	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_swVID	INTEGER (UNLIMITED)	IST Software Version ID (NOT_SET)	NOT_SET	IST SA-8 Software Version ID	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_ist_FocLngth	DOUBLE (UNLIMITED)	IST Effective Focal Length (NOT_SET)	Microns	IST SA-8 Effective Focal Length	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_istTimCofInt	DOUBLE (UNLIMITED)	IST Time to Center of Integration (NOT_SET)	seconds	IST SA-29 Time to Center of Integration	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_ist_BoreCol	DOUBLE (UNLIMITED)	IST Boresight Column (NOT_SET)	NOT_SET	IST SA-29 Boresight Column	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_ist_BoreRow	DOUBLE (UNLIMITED)	IST Boresight Row (NOT_SET)	NOT_SET	IST SA-29 Boresight Row	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_ist_CCDTemp	DOUBLE (UNLIMITED)	IST CCD Temperature (NOT_SET)	Celsius	IST SA-29 CCD Temperature	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_istLensCellT	DOUBLE (UNLIMITED)	IST Lens Cell Temperature (NOT_SET)	Celsius	IST SA-29 Lens Cell Temperature	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_VT0_St	INTEGER_1 (UNLIMITED)	IST Virtual Trackers State (NOT_SET)	NOT_SET	State of IST SA Virtual Tracker 0 for Sample. For each tracker byte value indicates the state. Values are 0=Offline, 1=Standby, 2=Acq1, 3=Acq2, 4=RedAcq1, 5=RedAcq2, 6=Handoff1, 7=Handoff2, 8=Handoff3, 9=Handoff4, 10=Handoff5, 11=Track, 12=U12 bad, 13=U13 bad, 14=U14 bad, 15=AwaitAcq. **flag_values**: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 **flag_meanings**: Offline Standby Acq1 Acq2 RedAcq1 RedAcq2 Handoff1 Handoff2 Handoff3 Handoff4 Handoff5 Track U12_bad U13_bad U14_bad AwaitAcq.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_VT1_St	INTEGER_1 (UNLIMITED)	IST Virtual Trackers State (NOT_SET)	NOT_SET	State of IST SA Virtual Tracker 1 for Sample. For each tracker byte value indicates the state. Values are 0=Offline, 1=Standby, 2=Acq1, 3=Acq2, 4=RedAcq1, 5=RedAcq2, 6=Handoff1, 7=Handoff2, 8=Handoff3, 9=Handoff4, 10=Handoff5, 11=Track, 12=U12 bad, 13=U13 bad, 14=U14 bad, 15=AwaitAcq. **flag_values**: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 **flag_meanings**: Offline Standby Acq1 Acq2 RedAcq1 RedAcq2 Handoff1 Handoff2 Handoff3 Handoff4 Handoff5 Track U12_bad U13_bad U14_bad AwaitAcq.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_VT2_St	INTEGER_1 (UNLIMITED)	IST Virtual Trackers State (NOT_SET)	NOT_SET	State of IST SA Virtual Tracker 2 for Sample. For each tracker byte value indicates the state. Values are 0=Offline, 1=Standby, 2=Acq1, 3=Acq2, 4=RedAcq1, 5=RedAcq2, 6=Handoff1, 7=Handoff2, 8=Handoff3, 9=Handoff4, 10=Handoff5, 11=Track, 12=U12 bad, 13=U13 bad, 14=U14 bad, 15=AwaitAcq. **flag_values**: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 **flag_meanings**: Offline Standby Acq1 Acq2 RedAcq1 RedAcq2 Handoff1 Handoff2 Handoff3 Handoff4 Handoff5 Track U12_bad U13_bad U14_bad	Rel 33 GLAS Binary Data	DS_UTCTime_10

				AwaitAcq.		
i_ist_VT3_St	INTEGER_1 (UNLIMITED)	IST Virtual Trackers State (NOT_SET)	NOT_SET	State of IST SA Virtual Tracker 3 for Sample. For each tracker byte value indicates the state. Values are 0=Offline, 1=Standby, 2=Acq1, 3=Acq2, 4=RedAcq1, 5=RedAcq2, 6=Handoff1, 7=Handoff2, 8=Handoff3, 9=Handoff4, 10=Handoff5, 11=Track, 12=U12 bad, 13=U13 bad, 14=U14 bad, 15=AwaitAcq. **flag_values**: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 **flag_meanings**: Offline Standby Acq1 Acq2 RedAcq1 RedAcq2 Handoff1 Handoff2 Handoff3 Handoff4 Handoff5 Track U12_bad U13_bad U14_bad AwaitAcq.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_VT4_St	INTEGER_1 (UNLIMITED)	IST Virtual Trackers State (NOT_SET)	NOT_SET	State of IST SA Virtual Tracker 4 for Sample. For each tracker byte value indicates the state. Values are 0=Offline, 1=Standby, 2=Acq1, 3=Acq2, 4=RedAcq1, 5=RedAcq2, 6=Handoff1, 7=Handoff2, 8=Handoff3, 9=Handoff4, 10=Handoff5, 11=Track, 12=U12 bad, 13=U13 bad, 14=U14 bad, 15=AwaitAcq. **flag_values**: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 **flag_meanings**: Offline Standby Acq1 Acq2 RedAcq1 RedAcq2 Handoff1 Handoff2 Handoff3 Handoff4 Handoff5 Track U12_bad U13_bad U14_bad AwaitAcq.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_ist_VT5_St	INTEGER_1 (UNLIMITED)	IST Virtual Trackers State (NOT_SET)	NOT_SET	State of IST SA Virtual Tracker 5 for Sample. For each tracker byte value indicates the state. Values are 0=Offline, 1=Standby, 2=Acq1, 3=Acq2, 4=RedAcq1, 5=RedAcq2, 6=Handoff1, 7=Handoff2, 8=Handoff3, 9=Handoff4, 10=Handoff5, 11=Track, 12=U12 bad, 13=U13 bad, 14=U14 bad, 15=AwaitAcq. **flag_values**: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 **flag_meanings**: Offline Standby Acq1 Acq2 RedAcq1 RedAcq2 Handoff1 Handoff2 Handoff3 Handoff4 Handoff5 Track U12_bad U13_bad U14_bad AwaitAcq.	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_IST/VT0

This group contains IST VT0 Virtual Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_VT0_starvalid	INTEGER (UNLIMITED)	IST Virtual Tracker Star Valid (NOT_SET)	NOT_SET	Star Valid Flag for IST SA-8 Virtual Tracker 0 **flag_values**: 0, 1 **flag_meanings**: invalid valid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT0_EEnergy	INTEGER (UNLIMITED)	IST Virtual Tracker Encircled Energy (NOT_SET)	NOT_SET	Encircled Energy for IST SA-8 Virtual Tracker 0	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT0_BgBias	INTEGER (UNLIMITED)	IST Virtual Tracker Bckgrnd Bias (NOT_SET)	NOT_SET	Backgrnd Bias for IST SA-8 Virtual Tracker 0	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT0_StarMag	DOUBLE (UNLIMITED)	IST Virtual Tracker Star Magnitude (NOT_SET)	star magnitude	Star Magnitude from IST SA-8 Virtual Tracker 0	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT0_BoreH	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight H (NOT_SET)	Arc-seconds	Boresight H from IST SA-8 Virtual Tracker 0	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT0_BoreV	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight V (NOT_SET)	Arc-seconds	Boresight V from IST SA-8 Virtual Tracker 0	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_IST/VT1

This group contains IST VT1 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_VT1_starvalid	INTEGER (UNLIMITED)	IST Virtual Tracker Star Valid (NOT_SET)	NOT_SET	Star Valid Flag for IST SA-8 Virtual Tracker 1 flag_values: 0, 1 flag_meanings: invalid valid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT1_EEnergy	INTEGER (UNLIMITED)	IST Virtual Tracker Encircled Energy (NOT_SET)	NOT_SET	Encircled Energy for IST SA-8 Virtual Tracker 1	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT1_BgBias	INTEGER (UNLIMITED)	IST Virtual Tracker Bckgrnd Bias (NOT_SET)	NOT_SET	Backgrnd Bias for IST SA-8 Virtual Tracker 1	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT1_StarMag	DOUBLE (UNLIMITED)	IST Virtual Tracker Star Magnitude (NOT_SET)	star magnitude	Star Magnitude from IST SA-8 Virtual Tracker 1	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT1_BoreH	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight H (NOT_SET)	Arc-seconds	Boresight H from IST SA-8 Virtual Tracker 1	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT1_BoreV	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight V (NOT_SET)	Arc-seconds	Boresight V from IST SA-8 Virtual Tracker 1	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_IST/VT2

This group contains IST VT2 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_VT2_starvalid	INTEGER (UNLIMITED)	IST Virtual Tracker Star Valid (NOT_SET)	NOT_SET	Star Valid Flag for IST SA-8 Virtual Tracker 2 flag_values: 0, 1 flag_meanings: invalid valid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT2_EEnergy	INTEGER (UNLIMITED)	IST Virtual Tracker Encircled Energy (NOT_SET)	NOT_SET	Encircled Energy for IST SA-8 Virtual Tracker 2	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT2_BgBias	INTEGER (UNLIMITED)	IST Virtual Tracker Bckgrnd Bias (NOT_SET)	NOT_SET	Backgrnd Bias for IST SA-8 Virtual Tracker 2	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT2_StarMag	DOUBLE (UNLIMITED)	IST Virtual Tracker Star Magnitude (NOT_SET)	star magnitude	Star Magnitude from IST SA-8 Virtual Tracker 2	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT2_BoreH	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight H (NOT_SET)	Arc-seconds	Boresight H from IST SA-8 Virtual Tracker 2	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT2_BoreV	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight V (NOT_SET)	Arc-seconds	Boresight V from IST SA-8 Virtual Tracker 2	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_IST/VT3

This group contains IST VT3 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_VT3_starvalid	INTEGER (UNLIMITED)	IST Virtual Tracker Star Valid (NOT_SET)	NOT_SET	Star Valid Flag for IST SA-8 Virtual Tracker 3 flag_values: 0, 1 flag_meanings: invalid valid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT3_EEnergy	INTEGER (UNLIMITED)	IST Virtual Tracker Encircled Energy (NOT_SET)	NOT_SET	Encircled Energy for IST SA-8 Virtual Tracker 3	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT3_BgBias	INTEGER	IST Virtual Tracker Bckgrnd Bias	NOT_SET	Backgrnd Bias for IST SA-8 Virtual Tracker 3	Rel 33	DS_UTCTime_10

	(UNLIMITED)	(NOT_SET)			GLAS Binary Data	
d_VT3_StarMag	DOUBLE (UNLIMITED)	IST Virtual Tracker Star Magnitude (NOT_SET)	star magnitude	Star Magnitude from IST SA-8 Virtual Tracker 3	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT3_BoreH	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight H (NOT_SET)	Arc-seconds	Boresight H from IST SA-8 Virtual Tracker 3	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT3_BoreV	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight V (NOT_SET)	Arc-seconds	Boresight V from IST SA-8 Virtual Tracker 3	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_IST/VT4

This group contains IST VT4 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_VT4_starvalid	INTEGER (UNLIMITED)	IST Virtual Tracker Star Valid (NOT_SET)	NOT_SET	Star Valid Flag for IST SA-8 Virtual Tracker 4 flag_values: 0, 1 flag_meanings: invalid valid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT4_EEnergy	INTEGER (UNLIMITED)	IST Virtual Tracker Encircled Energy (NOT_SET)	NOT_SET	Encircled Energy for IST SA-8 Virtual Tracker 4	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT4_BgBias	INTEGER (UNLIMITED)	IST Virtual Tracker Bckgrnd Bias (NOT_SET)	NOT_SET	Backgrnd Bias for IST SA-8 Virtual Tracker 4	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT4_StarMag	DOUBLE (UNLIMITED)	IST Virtual Tracker Star Magnitude (NOT_SET)	star magnitude	Star Magnitude from IST SA-8 Virtual Tracker 4	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT4_BoreH	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight H (NOT_SET)	Arc-seconds	Boresight H from IST SA-8 Virtual Tracker 4	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT4_BoreV	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight V (NOT_SET)	Arc-seconds	Boresight V from IST SA-8 Virtual Tracker 4	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_IST/VT5

This group contains IST VT5 Tracker data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_VT5_starvalid	INTEGER (UNLIMITED)	IST Virtual Tracker Star Valid (NOT_SET)	NOT_SET	Star Valid Flag for IST SA-8 Virtual Tracker 5 flag_values: 0, 1 flag_meanings: invalid valid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT5_EEnergy	INTEGER (UNLIMITED)	IST Virtual Tracker Encircled Energy (NOT_SET)	NOT_SET	Encircled Energy for IST SA-8 Virtual Tracker 5	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_VT5_BgBias	INTEGER (UNLIMITED)	IST Virtual Tracker Bckgrnd Bias (NOT_SET)	NOT_SET	Backgrnd Bias for IST SA-8 Virtual Tracker 5	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT5_StarMag	DOUBLE (UNLIMITED)	IST Virtual Tracker Star Magnitude (NOT_SET)	star magnitude	Star Magnitude from IST SA-8 Virtual Tracker 5	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT5_BoreH	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight H (NOT_SET)	Arc-seconds	Boresight H from IST SA-8 Virtual Tracker 5	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_VT5_BoreV	DOUBLE (UNLIMITED)	IST Virtual Tracker Boresight V (NOT_SET)	Arc-seconds	Boresight V from IST SA-8 Virtual Tracker 5	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: /Data_1HZ_BST/

This group contains data the 40hz 1HZ BST data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_1	DOUBLE (UNLIMITED)	Transmit Time of First Shot in frame in J2000 (time)	seconds	The transmit time of the first shot in the 10 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds. The first item is the whole number of seconds; the second item is the fractional part in microseconds.	Rel 33 GLAS Binary Data	NOT_SET

Group: Data_1HZ_BST/Time

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to BST Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_samp_time	DOUBLE (UNLIMITED)	Sample Time (NOT_SET)	seconds	The time of the BST data as computed from the VTCW converted by using GPS if available and time offsets to the GLAS laser 10 hertz signal (every fourth fire cmd). (In UTC J2000 time).	Rel 33 GLAS Binary Data	DS_UTCTime_1
shot_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Shot time flag; Indicates what shot time is used. flag_values: 0, 1 flag_meanings: transmit_time ground_bounce_time	Rel 33 GLAS Binary Data	DS_UTCTime_1
gps_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	GPS time flag; Indicates if delta gps time correction is applied to shot time flag_values: 0, 1 flag_meanings: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
pl_timing_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Post-launch timing; indicates if post-launch timing bias is applied. Data value is stored in the Metadata group. flag_values: 0, 1 flag_meanings: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
ddelay_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Digitizer turn-on delay flag; Indicates if digitizer turn-on delay is accounted for in shot time. Data value is stored in the Metadata group. flag_values: 0, 1 flag_meanings: applied not_applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
peaktp_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Peak of transmit pulse flag; Indicates if time to peak of transmit pulse is accounted for in shot time flag_values: 0, 1 flag_meanings: applied not_applied	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: Data_1HZ_BST/Packet_Data

This group contains flags indicating the quality or suitability of data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
apid_ADLg_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 1st 10 shots flag_values / flag_meanings	Rel 33 GLAS Binary Data	DS_UTCTime_1

				0, 1, 2 present filled_at_EDOS never_received_ISIPS_filled		
apid_ADLg_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 3rd 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 1st 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 3rd 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PC532_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	532 Photon counter packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CD1064_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	1064 Cloud Digitizer packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSci_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASAD_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1

				0, 1, 2: present filled_at_EDOS never_received_ISIPS_filled		
apid_ASPC_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Photon counter telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCF_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Cloud Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCT_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Command and Telemetry (C&T) board telem. data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT20_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #1 (APID 20 - Laser Monitor Board, Temperature Controller Module, Motor Control System & High Voltage Power Supply Housekeeping Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT21_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #2 (APID 21 - Power Distribution Unit (PDU) Housekeeping Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT22_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #3 (APID 22 - Housekeeping Temperatures #1 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT23_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #4 (APID 23 - Housekeeping Temperatures #2 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT50_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #5 (APID 50 - Small Software #2 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_SS24_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Small software telemetry packet #1 (APID 24 - Small Software #1 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LS25_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #1 (APID 25 - Large Software Telemetry #1) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1

apid_LS55_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #2 (APID 55 - Large Software Telemetry #2) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_GPS_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	GPS telemetry packet APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PRAP_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	S/C position, rate, and attitude telemetry packet (PRAP) APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Laser Pulse Array (LPA) packet #1 APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #2 APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #3 APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #4 APID availability flag **flag_values**: 0, 1, 2 **flag_meanings**: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: /Data_10HZ_BST/

This group contains data the 10hz BST data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_10	DOUBLE (UNLIMITED)	Transmit Time of shot in frame in J2000 (time)	seconds	The transmit time of the each shot in the 10 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds. The first item is the whole number of seconds; the second item is the fractional part in microseconds.	Rel 33 GLAS Binary Data	NOT_SET
DS_Star_Index	INTEGER (UNLIMITED)	BST Star Index (NOT_SET)	NOT_SET	This index identifies the 5 stars the BST is tracking.	Rel 33 GLAS Binary Data	NOT_SET

Group: Data_10HZ_BST/Time

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_10

i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to BST Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_BST/BST1

This group contains BST1 data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
d_bst1_samp_time	DOUBLE (UNLIMITED)	BST1 Sample Time (NOT_SET)	seconds	The time of the BST1 data. This time is computed using the VTCW counts and converted to seconds using GPS if available.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_vtcw	DOUBLE (UNLIMITED)	BST1 VTCW Time Tag (NOT_SET)	seconds	BST1 VTCW counts converted to seconds.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_pchstat	INTEGER (UNLIMITED)	BST1 Patch Execution Status (NOT_SET)	NOT_SET	0 = No patches for sample.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_datlat	DOUBLE (UNLIMITED)	BST1 Data Latency (NOT_SET)	seconds	BST Data Latency	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_posUncal_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Position Uncalibrated (0/CalEnbl, 1/CalDsbl) flag_values: 0, 1 flag_meanings: enabled disabled	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_intensUncal_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Intensity Uncalibrated (0/CalEnbl, 1/CalDsbl) flag_values: 0, 1 flag_meanings: enabled disabled	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_biteStrOn_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 BITE Star On (0/NoBITE, 1/BITEOn) flag_values: 0, 1 flag_meanings: NoBITE BITEOn	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_bgHigh_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Background High (0/OK, 1/High) flag_values: 0, 1 flag_meanings: OK high	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_RAMfail_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 RAM Fail (0/OK, 1/Error) flag_values: 0, 1 flag_meanings: OK error	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_ROMfail_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 ROM Fail (0/OK, 1/Error) flag_values: 0, 1 flag_meanings: OK error	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_star5Inv_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Star 5 Invalid (0/OK, 1/Invalid) flag_values: 0, 1 flag_meanings: OK invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_star4Inv_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Star 4 Invalid (0/OK, 1/Invalid) flag_values: 0, 1 flag_meanings: OK invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_star3Inv_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Star 3 Invalid (0/OK, 1/Invalid) flag_values: 0, 1 flag_meanings: OK invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_star2Inv_flg	INTEGER_1	BST1 Status Word 1	NOT_SET	BST1 Star 2 Invalid (0/OK, 1/Invalid)	Rel 33	DS_UTCTime_10

	(UNLIMITED)	(NOT_SET)		flag_values: 0, 1 / flag_meanings: OK invalid	GLAS Binary Data	
i_bst1_star1Inv_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Star 1 Invalid (0/OK, 1/Invalid) flag_values: 0, 1 / flag_meanings: OK invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_noTrkStr5_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Star 5 Track (0/NoTrack, 1/Track) flag_values: 0, 1 / flag_meanings: NoTrack Track	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_noTrkStr4_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Star 4 Track (0/NoTrack, 1/Track) flag_values: 0, 1 / flag_meanings: NoTrack Track	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_noTrkStr3_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Star 3 Track (0/NoTrack, 1/Track) flag_values: 0, 1 / flag_meanings: NoTrack Track	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_noTrkStr2_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Star 2 Track (0/NoTrack, 1/Track) flag_values: 0, 1 / flag_meanings: NoTrack Track	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_noTrkStr1_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 1 (NOT_SET)	NOT_SET	BST1 Star 1 Track (0/NoTrack, 1/Track) flag_values: 0, 1 / flag_meanings: NoTrack Track	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_dsStr5_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Star 5 Directed Search (0/NoSrch, 1/Search) flag_values: 0, 1 / flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_dsStr4_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Star 4 Directed Search (0/NoSrch, 1/Search) flag_values: 0, 1 / flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_dsStr3_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Star 3 Directed Search (0/NoSrch, 1/Search) flag_values: 0, 1 / flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_dsStr2_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Star 2 Directed Search (0/NoSrch, 1/Search) flag_values: 0, 1 / flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_dsStr1_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Star 1 Directed Search (0/NoSrch, 1/Search) flag_values: 0, 1 / flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_FFS_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Full Field Search (0/NoSrch, 1/Search) flag_values: 0, 1 / flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_calOv_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Calibration Override (0/NoOverride, 1/Override) flag_values / flag_meanings	Rel 33 GLAS Binary Data	DS_UTCTime_10

				0, 1 NoOverride Override		
i_bst1_unsync_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Unsync (0/OK, 1/Unsync) flag_values: 0, 1 flag_meanings: OK Unsync	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_dwnld_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Download (0/NoDnld, 1/Dnld) flag_values: 0, 1 flag_meanings: NoDnld Dnld	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_se_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Stack Error (0/OK, 1/Error) flag_values: 0, 1 flag_meanings: OK error	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_srd_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Smoothed Raw Data (0/NoSmooth, 1/Smoothed) flag_values: 0, 1 flag_meanings: NoSmooth Smoothed	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_wTO_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Watchdog Timeout (0/OK, 1/Timeout) flag_values: 0, 1 flag_meanings: OK Timeout	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_derr_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Data Error (0/OK, 1/Error) flag_values: 0, 1 flag_meanings: OK error	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_dUpset_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Data Upset (0/OK, 1/Upset) flag_values: 0, 1 flag_meanings: OK Upset	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_RAMex_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 RAM Execution (0/ROM, 1/RAM) flag_values: 0, 1 flag_meanings: ROM RAM	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_reset_flg	INTEGER_1 (UNLIMITED)	BST1 Status Word 2 (NOT_SET)	NOT_SET	BST1 Reset (0/Clear, 1/Reset) flag_values: 0, 1 flag_meanings: clear reset	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_mctr	INTEGER (UNLIMITED)	BST1 Message Counter (NOT_SET)	NOT_SET	Message counter for sample.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_recctr	INTEGER (UNLIMITED)	BST1 Command Received Counter (NOT_SET)	NOT_SET	Command Received counter for sample.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_rejctr	INTEGER (UNLIMITED)	BST1 Command Rejected Counter (NOT_SET)	NOT_SET	Command rejected counter for sample.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_starX	DOUBLE (UNLIMITED, 5)	BST1 Star Position X (NOT_SET)	Arc_seconds	Position X of 5 stars.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_starY	DOUBLE (UNLIMITED, 5)	BST1 Star Position Y (NOT_SET)	Arc_seconds	Position Y of 5 stars.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_starInt	DOUBLE (UNLIMITED, 5)	BST1 Star Intensity (NOT_SET)	Magnitude	Intensity of 5 stars.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_ccdtemp	DOUBLE (UNLIMITED)	BST1 CCD Temperature (NOT_SET)	Celsius	CCD Temperature	Rel 33 GLAS Binary	DS_UTCTime_10

					Data	
d_bst1_bptemp	DOUBLE (UNLIMITED)	BST1 Baseplate Temperature (NOT_SET)	Celsius	Baseplate Temperature	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_lenstmp	DOUBLE (UNLIMITED)	BST1 Lens Temperature (NOT_SET)	Celsius	Lens Temperature	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_8V	DOUBLE (UNLIMITED)	BST1 +8 Volt Supply (NOT_SET)	Volt	+8 Volt Supply	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_n9V	DOUBLE (UNLIMITED)	BST1 -9 Volt Supply (NOT_SET)	Volt	-9 Volt Supply	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_4V	DOUBLE (UNLIMITED)	BST1 +4 Volt Supply (NOT_SET)	Volt	+4 Volt Supply	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst1_n5V	DOUBLE (UNLIMITED)	BST1 -5 Volt Supply (NOT_SET)	Volt	-5 Volt Supply	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_BG	INTEGER (UNLIMITED)	BST1 Background Reading (NOT_SET)	NOT_SET	Background Reading	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_srchct	INTEGER (UNLIMITED)	BST1 Full Field Search Count (NOT_SET)	NOT_SET	Full Field Search Count	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_Fact	INTEGER (UNLIMITED)	BST1 False Alarms Count (NOT_SET)	NOT_SET	False Alarms Count	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_sernum	INTEGER (UNLIMITED)	BST1 Serial Number (NOT_SET)	NOT_SET	Serial Number	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_swver	INTEGER (UNLIMITED)	BST1 Software Revision Code (NOT_SET)	NOT_SET	Software Revision Code	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst1_cancode	INTEGER (UNLIMITED)	BST1 Cancel Code Word (NOT_SET)	NOT_SET	Cancel Code Word	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: Data_10HZ_BST/BST2

This group contains BST1 data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
d_bst2_samp_time	DOUBLE (UNLIMITED)	BST2 Sample Time (NOT_SET)	seconds	The time of the BST2 data. This time is computed using the VTCW counts and converted to seconds using GPS if available.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_vtcw	DOUBLE (UNLIMITED)	BST2 VTCW Time Tag (NOT_SET)	seconds	BST2 VTCW counts converted to seconds.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_pchstat	INTEGER (UNLIMITED)	BST2 Patch Execution Status (NOT_SET)	NOT_SET	0 = No patches for sample.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_datlat	DOUBLE (UNLIMITED)	BST2 Data Latency (NOT_SET)	seconds	BST Data Latency	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_posUncal_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Position Uncalibrated (0/CalEnbl, 1/CalDsbl) **flag_values**: 0, 1 **flag_meanings**: enabled disabled	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_intensUncal_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Intensity Uncalibrated (0/CalEnbl, 1/CalDsbl)	Rel 33 GLAS Binary	DS_UTCTime_10

				flag_values: 0, 1 / flag_meanings: enabled disabled	Data	
i_bst2_biteStrOn_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 BITE Star On (0/NoBITE, 1/BITEOn) flag_values: 0, 1 / flag_meanings: NoBITE BITEOn	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_bgHigh_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Background High (0/OK, 1/High) flag_values: 0, 1 / flag_meanings: OK high	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_RAMfail_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 RAM Fail (0/OK, 1/Error) flag_values: 0, 1 / flag_meanings: OK error	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_ROMfail_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 ROM Fail (0/OK, 1/Error) flag_values: 0, 1 / flag_meanings: OK error	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_star5Inv_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Star 5 Invalid (0/OK, 1/Invalid) flag_values: 0, 1 / flag_meanings: OK invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_star4Inv_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Star 4 Invalid (0/OK, 1/Invalid) flag_values: 0, 1 / flag_meanings: OK invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_star3Inv_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Star 3 Invalid (0/OK, 1/Invalid) flag_values: 0, 1 / flag_meanings: OK invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_star2Inv_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Star 2 Invalid (0/OK, 1/Invalid) flag_values: 0, 1 / flag_meanings: OK invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_star1Inv_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Star 1 Invalid (0/OK, 1/Invalid) flag_values: 0, 1 / flag_meanings: OK invalid	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_noTrkStr5_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Star 5 Track (0/NoTrack, 1/Track) flag_values: 0, 1 / flag_meanings: NoTrack Track	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_noTrkStr4_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Star 4 Track (0/NoTrack, 1/Track) flag_values: 0, 1 / flag_meanings: NoTrack Track	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_noTrkStr3_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Star 3 Track (0/NoTrack, 1/Track) flag_values: 0, 1 / flag_meanings: NoTrack Track	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_noTrkStr2_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Star 2 Track (0/NoTrack, 1/Track) flag_values: 0, 1 / flag_meanings: NoTrack Track	Rel 33 GLAS Binary Data	DS_UTCTime_10

i_bst2_noTrkStr1_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 1 (NOT_SET)	NOT_SET	BST2 Star 1 Track (0/NoTrack, 1/Track) flag_values: 0, 1 flag_meanings: NoTrack Track	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_dsStr5_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Star 5 Directed Search (0/NoSrch, 1/Search) flag_values: 0, 1 flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_dsStr4_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Star 4 Directed Search (0/NoSrch, 1/Search) flag_values: 0, 1 flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_dsStr3_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Star 3 Directed Search (0/NoSrch, 1/Search) flag_values: 0, 1 flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_dsStr2_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Star 2 Directed Search (0/NoSrch, 1/Search) flag_values: 0, 1 flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_dsStr1_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Star 1 Directed Search (0/NoSrch, 1/Search) flag_values: 0, 1 flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_FFS_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Full Field Search (0/NoSrch, 1/Search) flag_values: 0, 1 flag_meanings: NoSrch Search	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_calOv_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Calibration Override (0/NoOverride, 1/Override) flag_values: 0, 1 flag_meanings: NoOverride Override	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_unsync_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Unsync (0/OK, 1/Unsync) flag_values: 0, 1 flag_meanings: OK Unsync	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_dwnld_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Download (0/NoDnld, 1/Dnld) flag_values: 0, 1 flag_meanings: NoDnld Dnld	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_se_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Stack Error (0/OK, 1/Error) flag_values: 0, 1 flag_meanings: OK error	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_srd_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Smoothed Raw Data (0/NoSmooth, 1/Smoothed) flag_values: 0, 1 flag_meanings: NoSmooth Smoothed	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_wTO_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Watchdog Timeout (0/OK, 1/Timeout) flag_values: 0, 1 flag_meanings: OK Timeout	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_derr_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Data Error (0/OK, 1/Error)	Rel 33 GLAS Binary	DS_UTCTime_10

				flag_values: 0, 1 / flag_meanings: OK error	Data	
i_bst2_dUpset_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Data Upset (0/OK, 1/Upset) flag_values: 0, 1 / flag_meanings: OK Upset	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_RAMex_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 RAM Execution (0/ROM, 1/RAM) flag_values: 0, 1 / flag_meanings: ROM RAM	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_reset_flg	INTEGER_1 (UNLIMITED)	BST2 Status Word 2 (NOT_SET)	NOT_SET	BST2 Reset (0/Clear, 1/Reset) flag_values: 0, 1 / flag_meanings: clear reset	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_mctr	INTEGER (UNLIMITED)	BST2 Message Counter (NOT_SET)	NOT_SET	Message counter for sample.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_recctr	INTEGER (UNLIMITED)	BST2 Command Received Counter (NOT_SET)	NOT_SET	Command Received counter for sample.	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_rejctr	INTEGER (UNLIMITED)	BST2 Command Rejected Counter (NOT_SET)	NOT_SET	Command rejected counter for sample.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_starX	DOUBLE (UNLIMITED, 5)	BST2 Star Position X (NOT_SET)	Arc-Seconds	Position X of 5 stars.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_starY	DOUBLE (UNLIMITED, 5)	BST2 Star Position Y (NOT_SET)	Arc-Seconds	Position Y of 5 stars.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_starInt	DOUBLE (UNLIMITED, 5)	BST2 Star Intensity (NOT_SET)	Magnitude	Intensity of 5 stars.	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_ccdtemp	DOUBLE (UNLIMITED)	BST2 CCD Temperature (NOT_SET)	Celsius	CCD Temperature	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_bptemp	DOUBLE (UNLIMITED)	BST2 Baseplate Temperature (NOT_SET)	Celsius	Baseplate Temperature	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_lenstmp	DOUBLE (UNLIMITED)	BST2 Lens Temperature (NOT_SET)	Celsius	Lens Temperature	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_8V	DOUBLE (UNLIMITED)	BST2 +8 Volt Supply (NOT_SET)	Volt	+8 Volt Supply	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_n9V	DOUBLE (UNLIMITED)	BST2 -9 Volt Supply (NOT_SET)	Volt	-9 Volt Supply	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_4V	DOUBLE (UNLIMITED)	BST2 +4 Volt Supply (NOT_SET)	Volt	+4 Volt Supply	Rel 33 GLAS Binary Data	DS_UTCTime_10
d_bst2_n5V	DOUBLE (UNLIMITED)	BST2 -5 Volt Supply (NOT_SET)	Volt	-5 Volt Supply	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_BG	INTEGER (UNLIMITED)	BST2 Background Reading (NOT_SET)	NOT_SET	Background Reading	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_srchct	INTEGER (UNLIMITED)	BST2 Full Field Search Count (NOT_SET)	NOT_SET	Full Field Search Count	Rel 33 GLAS Binary Data	DS_UTCTime_10

i_bst2_Fact	INTEGER (UNLIMITED)	BST2 False Alarms Count (NOT_SET)	NOT_SET	False Alarms Count	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_sernum	INTEGER (UNLIMITED)	BST2 Serial Number (NOT_SET)	NOT_SET	Serial Number	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_swver	INTEGER (UNLIMITED)	BST2 Software Revision Code (NOT_SET)	NOT_SET	Software Revision Code	Rel 33 GLAS Binary Data	DS_UTCTime_10
i_bst2_cancode	INTEGER (UNLIMITED)	BST2 Cancel Code Word (NOT_SET)	NOT_SET	Cancel Code Word	Rel 33 GLAS Binary Data	DS_UTCTime_10

Group: /Data_1HZ_SCPA/

This group contains data the 1hz SCPA data.

Dimension Scales

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
DS_UTCTime_1	DOUBLE (UNLIMITED)	Transmit Time of First Shot in frame in J2000 (time)	seconds	The transmit time of the first shot in the 1 second frame measured as 'UTC seconds' elapsed since Jan 1 2000 12:00:00 UTC. This time has been derived from the GPS time accounting for leap seconds. The first item is the whole number of seconds; the second item is the fractional part in microseconds.	Rel 33 GLAS Binary Data	NOT_SET

Group: Data_1HZ_SCPA/Time

This group contains parameters relating to the time of the data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
i_rec_ndx	INTEGER (UNLIMITED)	GLAS Record Index (NOT_SET)	NOT_SET	Unique index that relates this record to the corresponding record(s) in each GLAS data product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_shot_count	INTEGER (UNLIMITED)	Shot Counter (NOT_SET)	counts	The Shot Counter corresponding to LPA Data. These match the corresponding waveform records on the GLA01 product.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_samp_time	DOUBLE (UNLIMITED)	Sample time (NOT_SET)	seconds	The time for the s/c data based on the GPS time latched to VTCW . (In UTC J2000 time)	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_scpa_vtcw	DOUBLE (UNLIMITED)	S/C Data VTCW Time Tag (NOT_SET)	seconds	Raw VTCW counts converted to seconds.	Rel 33 GLAS Binary Data	DS_UTCTime_1
shot_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Shot time flag; Indicates what shot time is used. **flag_values**: 0, 1 **flag_meanings**: transmit_time ground_bounce_time	Rel 33 GLAS Binary Data	DS_UTCTime_1
gps_time_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	GPS time flag; Indicates if delta gps time correction is applied to shot time **flag_values**: 0, 1 **flag_meanings**: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
pl_timing_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Post-launch timing; indicates if post-launch timing bias is applied. Data value is stored in the Metadata group. **flag_values**: 0, 1 **flag_meanings**: not_applied applied	Rel 33 GLAS Binary Data	DS_UTCTime_1
ddelay_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Digitizer turn-on delay flag; Indicates if digitizer turn-on delay is accounted for in shot time. Data value is stored in the Metadata group.	Rel 33 GLAS Binary Data	DS_UTCTime_1

				flag_values: 0, 1 / flag_meanings: applied not_applied		
peaktp_flg	INTEGER_1 (UNLIMITED)	time correction flag (NOT_SET)	NOT_SET	Peak of transmit pulse flag; Indicates if time to peak of transmit pulse is accounted for in shot time flag_values: 0, 1 / flag_meanings: applied not_applied	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: Data_1HZ_SCPA/Packet_Data

This group contains flags indicating the quality or suitability of data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
apid_ADLg_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 1st 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 3rd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADLg_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer large wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 1st 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 2nd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 3rd 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSm_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer small wf packet APID availability flag for 4th 10 shots flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PC532_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	532 Photon counter packet APID availability flag flag_values / flag_meanings	Rel 33 GLAS Binary Data	DS_UTCTime_1

				0, 1, 2 present filled_at_EDOS never_received_ISIPS_filled		
apid_CD1064_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	1064 Cloud Digitizer packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ADSci_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASAD_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Altimeter Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASPC_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Photon counter telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCF_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Cloud Digitizer telemetry data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_ASCT_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Command and Telemetry (C&T) board telem. data in Ancillary science packet APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT20_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #1 (APID 20 - Laser Monitor Board, Temperature Controller Module, Motor Control System & High Voltage Power Supply Housekeeping Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT21_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #2 (APID 21 - Power Distribution Unit (PDU) Housekeeping Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT22_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #3 (APID 22 - Housekeeping Temperatures #1 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT23_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #4 (APID 23 - Housekeeping Temperatures #2 Telemetry) APID availability flag flag_values: 0, 1, 2 flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_CT50_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	CT HW telemetry packet #5 (APID 50 - Small Software #2 Telemetry) APID availability flag	Rel 33 GLAS	DS_UTCTime_1

				flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Binary Data	
apid_SS24_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Small software telemetry packet #1 (APID 24 - Small Software #1 Telemetry) APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LS25_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #1 (APID 25 - Large Software Telemetry #1) APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LS55_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Large software telemetry packet #2 (APID 55 - Large Software Telemetry #2) APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_GPS_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	GPS telemetry packet APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_PRAP_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	S/C position, rate, and attitude telemetry packet (PRAP) APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_1_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	Laser Pulse Array (LPA) packet #1 APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_2_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #2 APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_3_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #3 APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1
apid_LPA_4_flg	INTEGER_1 (UNLIMITED)	APID Data Availability Flag (NOT_SET)	NOT_SET	LPA packet #4 APID availability flag flag_values: 0, 1, 2 / flag_meanings: present filled_at_EDOS never_received_ISIPS_filled	Rel 33 GLAS Binary Data	DS_UTCTime_1

Group: Data_1HZ_SCPA/Data

This group contains spacecraft time and position data.

Label	Datatype (Dimensions)	long_name (standard_name)	units	description	source	coordinates
d_gps_latch	DOUBLE (UNLIMITED)	GPS Latched VTCW (NOT_SET)	seconds	VTCW latched at the GPS pulse	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_gps_time	INTEGER	GPS Time of Current Solution	seconds	GPS time at the Latch	Rel 33	DS_UTCTime_1

	(UNLIMITED)	(NOT_SET)			GLAS Binary Data	
d_CFA_Q1	DOUBLE (UNLIMITED)	Control Frame Att Quaternion Q1 (NOT_SET)	NOT_SET	The spacecraft control frame attitude quaternion 1 from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_CFA_Q2	DOUBLE (UNLIMITED)	Control Frame Att Quaternion Q2 (NOT_SET)	NOT_SET	The spacecraft control frame attitude quaternion 2 from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_CFA_Q3	DOUBLE (UNLIMITED)	Control Frame Att Quaternion Q3 (NOT_SET)	NOT_SET	The spacecraft control frame attitude quaternion 3 from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_CFA_Q4	DOUBLE (UNLIMITED)	Control Frame Att Quaternion Q4 (NOT_SET)	NOT_SET	The spacecraft control frame attitude quaternion 4 from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_ECIOrb_PosX	DOUBLE (UNLIMITED)	Next ECI Orbital Position X (NOT_SET)	Kilometers	The spacecraft's next ECI Orbital Position X from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_ECIOrb_PosY	DOUBLE (UNLIMITED)	Next ECI Orbital Position Y (NOT_SET)	Kilometers	The spacecraft's next ECI Orbital Position Y from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_ECIOrb_PosZ	DOUBLE (UNLIMITED)	Next ECI Orbital Position Z (NOT_SET)	Kilometers	The spacecraft's next ECI Orbital Position Z from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_ECIOrb_VelX	DOUBLE (UNLIMITED)	Next ECI Orbital Velocity X (NOT_SET)	Km/sec	The spacecraft's next ECI Orbital Velocity X from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_ECIOrb_VelY	DOUBLE (UNLIMITED)	Next ECI Orbital Velocity Y (NOT_SET)	Km/sec	The spacecraft's next ECI Orbital Velocity Y from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_ECIOrb_VelZ	DOUBLE (UNLIMITED)	Next ECI Orbital Velocity Z (NOT_SET)	Km/sec	The spacecraft's next ECI Orbital Velocity Z from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_SA_Pos1	DOUBLE (UNLIMITED)	Calculated SA 1 Position (NOT_SET)	radians	The spacecraft calculated SA 1 Position from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
d_SA_Pos2	DOUBLE (UNLIMITED)	Calculated SA 2 Position (NOT_SET)	radians	The spacecraft calculated SA 2 Position from the ADCS Data.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_SA_CntrFlg1	INTEGER (UNLIMITED)	SA 1 Autonomous Control Flag (NOT_SET)	counts	Points indicate whether or not solar array articulation is enabled or inhibited.	Rel 33 GLAS Binary Data	DS_UTCTime_1
i_SA_CntrFlg2	INTEGER (UNLIMITED)	SA 2 Autonomous Control Flag (NOT_SET)	counts	Points indicate whether or not solar array articulation is enabled or inhibited.	Rel 33 GLAS Binary Data	DS_UTCTime_1

/ANCILLARY_DATA

/ANCILLARY_DATA

Attribute	Example Value
glas_osc_rate	1.000000026
glas_osc_rate_date	2005-10-21
glas_osc_rate_time	00:00:00
sc_osc_rate	0.99999998854809
sc_osc_rate_date	2005-10-21
sc_osc_rate_time	00:00:00
internal_time_delay	0.0000151100
internal_time_delay_date	2005-10-21
internal_time_delay_time	00:00:00
internal_range_delay	9.5560

internal_range_delay_date	2005-10-21
internal_range_delay_time	00:00:00
Additional_Attribute	ReferenceOrbit, Track, Cycle, Instance
internal_range_delay_desc	Internal range calibration bias determined during GLAS instrument integration testing and validated in-flight, meters.
internal_time_delay_desc	Internal time calibration bias determined during GLAS instrument integration testing and validated in-flight, seconds.

/METADATA

/METADATA

Attribute	Example Value
description	This group contains structured, computer-parseable ECHO-style collection and inventory-level metadata.
HDFVersion	HDF5 1.8.9
ControlFile	cf_name=gla04_test.ctl

/METADATA/COLLECTIONMETADATA

Attribute	Example Value
DLLName	libDsESDTSyBASIC.001Sh.so
GranuleTimeDuration	11620
SpatialSearchType	NotSupported
DataFileFormat	HDF5
ScienceMimeType	application/x-hdfeos
BrowseMimeType	application/x-hdfeos
BrowseOnlineMimeType	image/jpeg
ShortName	GLAH04
LongName	GLAS/ICESat L1A Global Laser Pointing Data (HDF5)
CollectionDescription	Data granules contain approximately 190 minutes (2 orbits) of data and will include data from the laser reference system, the instrument star tracker, the gyro, the spacecraft star trackers, and the attitude control system.
VersionID	33
CitationforExternalPublication	The data used in this study were produced by the GLAS Science Team at the ICESat Science Investigator-led Processing System (I-SIPS) at NASA/GSFC. The data archive site is the NSIDC DAAC.
CollectionState	In Work
MaintenanceandUpdateFrequency	Daily
AccessConstraints	Data may not be reproduced or distributed without including the CitationForExternalPublication for this product included in this Metadata. Data may not be distributed in an altered form without the written permission of the GLAS Science Team.
TemporalKeyword	Day
SpatialKeyword	Global

/METADATA/COLLECTIONMETADATA/AdditionalAttributes

Attribute	Example Value
Track	AdditionalAttributesContainer
Instrument_State	AdditionalAttributesContainer
ReferenceOrbit	AdditionalAttributesContainer
Cycle	AdditionalAttributesContainer
Instance	AdditionalAttributesContainer
Instrument_State_Date	AdditionalAttributesContainer
Instrument_State_Time	AdditionalAttributesContainer
identifier_product_doi	AdditionalAttributesContainer
identifier_file_uuid	AdditionalAttributesContainer
identifier_product_doi_authority	AdditionalAttributesContainer

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/Cycle

Attribute	Example Value
AdditionalAttributeDatatype	int
AdditionalAttributeDescription	A count of the number of exact repeats of this reference orbit.
AdditionalAttributeName	Cycle
ParameterUnitsofMeasurement	counts

ParameterRangeBegin	0
ParameterRangeEnd	250

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/Instance

Attribute	Example Value
AdditionalAttributeDatatype	int
AdditionalAttributeDescription	The number of times that we have returned to a specific reference orbit.
AdditionalAttributeName	Instance
ParameterUnitsofMeasurement	counts
ParameterRangeBegin	1
ParameterRangeEnd	99

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/Instrument_State

Attribute	Example Value
AdditionalAttributeDatatype	int
AdditionalAttributeDescription	Flag word that indicates which redundant units (laser, detector, oscillator) of the GLAS instrument are in operation.
AdditionalAttributeName	Instrument_State
ParameterUnitsofMeasurement	Flag word
ParameterRangeBegin	0
ParameterRangeEnd	5

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/Instrument_State_Date

Attribute	Example Value
AdditionalAttributeDatatype	date
AdditionalAttributeDescription	The date that corresponds to the first valid Instrument_State. There is a maximum of two per granule.
AdditionalAttributeName	Instrument_State_Date

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/Instrument_State_Time

Attribute	Example Value
AdditionalAttributeDatatype	time
AdditionalAttributeDescription	The time that corresponds to the first valid Instrument_State. There is a maximum of two per granule.
AdditionalAttributeName	Instrument_State_Time

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/ReferenceOrbit

Attribute	Example Value
AdditionalAttributeDatatype	int
AdditionalAttributeDescription	Assigned number for which exact orbital elements describe the exact repeat orbit pattern.
AdditionalAttributeName	ReferenceOrbit
ParameterUnitsofMeasurement	Assigned number
ParameterRangeBegin	1
ParameterRangeEnd	30000

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/Track

Attribute	Example Value
AdditionalAttributeDatatype	int
AdditionalAttributeDescription	The unique number assigned for each repeat ground track (one orbit) of the reference orbit.
AdditionalAttributeName	Track
ParameterUnitsofMeasurement	counts
ParameterRangeBegin	0
ParameterRangeEnd	3000

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/identifier_file_uuid

Attribute	Example Value
AdditionalAttributeDatatype	varchar

AdditionalAttributeDescription	Universally unique identifier for this data product's files
AdditionalAttributeName	identifier_file_uuid

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/identifier_product_doi

Attribute	Example Value
AdditionalAttributeDatatype	varchar
AdditionalAttributeDescription	Digital object identifier that uniquely identifies this data product
AdditionalAttributeName	identifier_product_doi

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/identifier_product_doi/InformationContent

Attribute	Example Value
ParameterValue	10.5067/ICESAT/GLAS/DATA104

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/identifier_product_doi_authority

Attribute	Example Value
AdditionalAttributeDatatype	varchar
AdditionalAttributeDescription	URL of the digital object identifier resolving authority
AdditionalAttributeName	identifier_product_doi_authority

/METADATA/COLLECTIONMETADATA/AdditionalAttributes/identifier_product_doi_authority/InformationContent

Attribute	Example Value
ParameterValue	http://dx.doi.org

/METADATA/COLLECTIONMETADATA/CSDTDescription

Attribute	Example Value
PrimaryCSDT	n-Dim Array of Records
IndirectReference	EDOS PDS (Product Data Set)
Implementation	HDF
CSDTComments	A granule has multiple files. The 6 files are: GLAH04 LPA, GLAH04 LRS, GLAH04 GYRO, GLAH04 IST, GLAH04 BST, and GLAH04 SCPA. The data are grouped in two orbit sets that match the 8 GLAH01 granules and one GLAH02 granule.

/METADATA/COLLECTIONMETADATA/CollectionAssociation

Attribute	Example Value
GLA00	CollectionAssociationContainer

/METADATA/COLLECTIONMETADATA/CollectionAssociation/GLA00

Attribute	Example Value
CollectionType	Input
CollectionUse	The initial collection of GLAS instrument data downlinked from the spacecraft.
ShortName	GLA00
VersionID	1

/METADATA/COLLECTIONMETADATA/ContactOrganization

Attribute	Example Value
Data_Originator	ContactOrganizationContainer
Archive	ContactOrganizationContainer

/METADATA/COLLECTIONMETADATA/ContactOrganization/Archive

Attribute	Example Value
Role	Archive
HoursofService	M-F, 8:00am to 5:00pm, Mountain Time
ContactInstructions	For inquiries, contact NSIDC User Services. Primary first level contact.
ContactOrganizationName	NSIDC User Services

StreetAddress	CIRES/NSIDC University of Colorado Campus, Box 449
City	Boulder
StateProvince	Colorado
PostalCode	80309-0449
Country	USA
TelephoneNumber	303-492-2468
TelephoneNumberType	Facsimile
ElectronicMailAddress	nsidc@nsidc.org

/METADATA/COLLECTIONMETADATA/ContactOrganization/Data_Originator

Attribute	Example Value
Role	Data Originator
HoursofService	M-F, 8:00am to 4:30pm Eastern Time
ContactInstructions	Contact by e-mail first
ContactOrganizationName	ICESat Science Investigator-led Processing System (I-SIPS)
StreetAddress	Building 33, NASA Goddard Space Flight Center
City	Greenbelt
StateProvince	Maryland
PostalCode	20771
Country	USA
TelephoneNumber	757-864-1238
TelephoneNumberType	Voice
ElectronicMailAddress	David.W.Hancock@nasa.gov

/METADATA/COLLECTIONMETADATA/ContactPerson

Attribute	Example Value
Hancock	ContactPersonContainer
Schutz	ContactPersonContainer
Zwally	ContactPersonContainer
DiMarzio	ContactPersonContainer

/METADATA/COLLECTIONMETADATA/ContactPerson/DiMarzio

Attribute	Example Value
Role	Producer
HoursofService	M-F, 8:00am to 4:30pm Eastern Time
ContactInstructions	None
ContactJobPosition	Deputy Science Software Development Manager
ContactFirstName	John
ContactMiddleName	P
ContactLastName	DiMarzio
StreetAddress	Building 33, Rm. B-209D, NASA/GSFC
City	Greenbelt
StateProvince	Maryland
PostalCode	20771
Country	USA
TelephoneNumber	301-614-5893
TelephoneNumberType	Voice
ElectronicMailAddress	John.P.Dimarzio.1@nasa.gov

/METADATA/COLLECTIONMETADATA/ContactPerson/Hancock

Attribute	Example Value
Role	Data Originator
HoursofService	M-F, 8:00am to 4:30pm. Eastern Time.
ContactInstructions	None

ContactJobPosition	Science Software Development Manager.
ContactFirstName	David
ContactMiddleName	W.
ContactLastName	Hancock
StreetAddress	Building N-159, NASA/GSFC Wallops Flight Facility.
City	Wallops Island
StateProvince	Virginia
PostalCode	23337
Country	USA
TelephoneNumber	757-824-1238
TelephoneNumberType	Voice
ElectronicMailAddress	David.W.Hancock@nasa.gov

/METADATA/COLLECTIONMETADATA/ContactPerson/Schutz

Attribute	Example Value
Role	Investigator
HoursofService	M-F, 8:00am to 4:30pm Central Time
ContactInstructions	None
ContactJobPosition	GLAS Science Team Leader
ContactFirstName	Bob
ContactMiddleName	E
ContactLastName	Schutz
StreetAddress	3925 W. Braker Lane, Center for Space Research
City	Austin
StateProvince	Texas
PostalCode	78759-5321
Country	USA
TelephoneNumber	512-471-4267
TelephoneNumberType	Voice
ElectronicMailAddress	schutz@utcsr.ae.utexas.edu

/METADATA/COLLECTIONMETADATA/ContactPerson/Zwally

Attribute	Example Value
Role	Producer
HoursofService	M-F, 8:00am to 4:30pm Eastern Time
ContactInstructions	None.
ContactJobPosition	ICESat Project Scientist
ContactFirstName	Jay
ContactLastName	Zwally
StreetAddress	Building 33, Rm A-217
City	Greenbelt
StateProvince	Maryland
PostalCode	20771
Country	USA
TelephoneNumber	301-614-5643
TelephoneNumberType	Voice
ElectronicMailAddress	Jay.Zwally@nasa.gov

/METADATA/COLLECTIONMETADATA/DisciplineTopicParameters

/METADATA/COLLECTIONMETADATA/DisciplineTopicParameters/Spectral

Attribute	Example Value
Engineering	DisciplineTopicParametersContainer

/METADATA/COLLECTIONMETADATA/DisciplineTopicParameters/Spectral/Engineering

Attribute	Example Value
ECSDisciplineKeyword	Earth Science
ECSTopicKeyword	Spectral/Engineering
ECSTermKeyword	Platform Characteristics
ECSVariableKeyword	Viewing Geometry

/METADATA/COLLECTIONMETADATA/ECSCollection

Attribute	Example Value
RevisionDate	2012-06-25
SuggestedUsage	GLAH04 data were used to compute the precise pointing for the GLAS laser beam. The data consist of the LPA (Laser Profiling Array) data, the PRAP (Position Rate and Attitude Packet) data, the LRS and IST data time aligned with laser shots and the BST (Ball Star Tracker) and the ACS (Attitude Control System) data that are not time aligned to the LPA. Each GLAH04 file was created from equivalent GLA04 binary formatted files. The provenance metadata shows the history that created the GLA04.
ProcessingCenter	GSFC I-SIPS
ArchiveCenter	NSIDC
VersionDescription	Initial Version
DatasetDisclaimerPointer	http://nsidc.org/data/icesat/disclaimer.html
MiscellaneousInformationPointer	http://nsidc.org/daac/icesat/index.html
MiscellaneousInformationPointerComment	GLAS Product page at NSIDC

/METADATA/COLLECTIONMETADATA/Platform

Attribute	Example Value
ICESat	PlatformContainer

/METADATA/COLLECTIONMETADATA/Platform/ICESat

Attribute	Example Value
PlatformShortName	ICESat
PlatformLongName	Ice, Cloud, and Land Elevation Satellite
PlatformType	Spacecraft

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument

Attribute	Example Value
GLAS	InstrumentContainer
GPS	InstrumentContainer

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS

Attribute	Example Value
InstrumentShortName	GLAS
InstrumentLongName	Geoscience Laser Altimeter System
InstrumentTechnique	Laser Altimetry and Light Detection and Radar
NumberofSensors	3

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor

Attribute	Example Value
LA	SensorContainer
PC	SensorContainer
CD	SensorContainer

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor/CD

Attribute	Example Value
SensorShortName	CD
SensorLongName	Cloud LIDAR
SensorTechnique	Measure of 1064nm return energy in 75m bins from 20km to surface

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor/CD/SensorCharacteristic

Attribute	Example Value
wavelength	SensorCharacteristicContainer

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor/CD/SensorCharacteristic/wavelength

Attribute	Example Value
SensorCharacteristicName	wavelength
SensorCharacteristicDescription	detector
SensorCharacteristicDataType	varchar
SensorCharacteristicUnit	nanometer
SensorCharacteristicValue	1064 nm

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor/LA

Attribute	Example Value
SensorShortName	LA
SensorLongName	Laser Altimeter
SensorTechnique	Exact Measurement of Time between Transmit Pulse and receive ground return

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor/LA/SensorCharacteristic

Attribute	Example Value
wavelength	SensorCharacteristicContainer
waveform	SensorCharacteristicContainer

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor/LA/SensorCharacteristic/waveform

Attribute	Example Value
SensorCharacteristicName	waveform
SensorCharacteristicDescription	digitizer
SensorCharacteristicDataType	varchar
SensorCharacteristicUnit	counts
SensorCharacteristicValue	0-255

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor/LA/SensorCharacteristic/wavelength

Attribute	Example Value
SensorCharacteristicName	wavelength
SensorCharacteristicDescription	transmission
SensorCharacteristicDataType	varchar
SensorCharacteristicUnit	nanometer
SensorCharacteristicValue	1064 nm

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor/PC

Attribute	Example Value
SensorShortName	PC
SensorLongName	Photon Counter for the 532 nm Aerosol Returns
SensorTechnique	Counting of 532nm photon return in 75m bins 40km to surface

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor/PC/SensorCharacteristic

Attribute	Example Value
wavelength	SensorCharacteristicContainer

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GLAS/Sensor/PC/SensorCharacteristic/wavelength

Attribute	Example Value
SensorCharacteristicName	wavelength
SensorCharacteristicDescription	detector
SensorCharacteristicDataType	varchar

SensorCharacteristicUnit	nanometer
SensorCharacteristicValue	532nm

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GPS

Attribute	Example Value
InstrumentShortName	GPS
InstrumentLongName	Global Positioning System Receiver
InstrumentTechnique	Radionavigation
NumberofSensors	1

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GPS/Sensor

Attribute	Example Value
GPS_Receiver	SensorContainer

/METADATA/COLLECTIONMETADATA/Platform/ICESat/Instrument/GPS/Sensor/GPS_Receiver

Attribute	Example Value
SensorShortName	GPS Receiver
SensorLongName	Dual frequency GPS receiver
SensorTechnique	Pseudorange and carrier phase

/METADATA/COLLECTIONMETADATA/ProcessingLevel

Attribute	Example Value
ProcessingLevelDescription	Sensor Measurements
ProcessingLevelID	1A

/METADATA/COLLECTIONMETADATA/Review

Attribute	Example Value
ScienceReviewDate	2001-03-04
ScienceReviewStatus	QA at DAACs
FutureReviewDate	2001-09-04

/METADATA/COLLECTIONMETADATA/Spatial

Attribute	Example Value
SpatialCoverageType	Horizontal
WestBoundingCoordinate	-180.0
NorthBoundingCoordinate	90.0
EastBoundingCoordinate	180.0
SouthBoundingCoordinate	-90.0

/METADATA/COLLECTIONMETADATA/StorageMediumClass

Attribute	Example Value
StorageMedium	Online

/METADATA/COLLECTIONMETADATA/Temporal

Attribute	Example Value
TimeType	UTC
DateType	J2000
TemporalRangeType	Continuous Range
PrecisionofSeconds	2
EndsatPresentFlag	Y
RangeBeginningDate	2003-01-13
RangeBeginningTime	00:00:00
RangeEndingDate	2010-01-13

RangeEndingTime	00:00:00

/METADATA/INVENTORYMETADATA

Attribute	Example Value
PGEVersion	Version 1.0
ShortName	GLAH04
VersionID	33
RangeBeginningTime	11:42:39
RangeEndingTime	14:55:57
RangeBeginningDate	2005-11-01
RangeEndingDate	2005-11-01

/METADATA/INVENTORYMETADATA/ECSDataGranule

Attribute	Example Value
ReprocessingPlanned	no further update anticipated
ReprocessingActual	reprocessed
LocalGranuleID	GLAH04_033_2113_002_0085_0_01_0001.H5
ProductionDateTime	2013-02-27T12:43:41
LocalVersionID	33

/METADATA/INVENTORYMETADATA/InputGranule

Attribute	Example Value
InputPointer	gla04_test.ctl, tai-utc.dat, GLA04_033_2113_002_0085_0_01_0001.DAT, GLA04_033_2113_002_0085_0_01_0002.DAT, GLA04_033_2113_002_0085_0_01_0003.DAT, GLA04_033_2113_002_0085_0_01_0004.DAT, GLA04_033_2113_002_0085_0_01_0005.DAT, GLA04_033_2113_002_0085_0_01_0006.DAT, DsESDTGlGLAH04.033.desc

/METADATA/INVENTORYMETADATA/MeasuredParameter

Attribute	Example Value
ParameterName	PRAP, Gyro, Laser_Reference_System, Instrument_Star_Tracker, Laser_Pulse_Array, Star_Tracker

/METADATA/INVENTORYMETADATA/OrbitCalculatedSpatialDomain

Attribute	Example Value
OrbitNumber	15247, 15248, 15249
StartOrbitNumber	15247
StopOrbitNumber	15249
EquatorCrossingLongitude	127.56265, 103.366974, 79.17059
EquatorCrossingTime	11:29:14, 13:05:53, 14:42:32
EquatorCrossingDate	2005-11-01, 2005-11-01, 2005-11-01

/METADATA/INVENTORYMETADATA/ProductSpecificMetadata

Attribute	Example Value
Track	85, 86, 87
Instrument_State	373340
ReferenceOrbit	1
Cycle	2
Instance	13
Instrument_State_Date	2005-10-21
Instrument_State_Time	00:00:00
identifier_product_doi	10.5067/ICESAT/GLAS/DATA104
identifier_file_uuid	D65E7C2A-7BC1-444F-AE6F-991DAD0B45FF
identifier_product_doi_authority	http://dx.doi.org

/METADATA/PROVENANCE

/METADATA/PROVENANCE/STEP_1

Attribute	Example Value
ProcessDateTime	2011-06-01T19:14:02

/METADATA/PROVENANCE/STEP_1/ProcessAgent

Attribute	Example Value
Name	glas_l1a
Type	1A
Version	6.0.1
Description	This process is an instantiation of the GLAS Science Algorithm Software (GSAS) 1A ATBDs.

/METADATA/PROVENANCE/STEP_1/ProcessInput

Attribute	Example Value
Name	GLA00_003_20051101_060000_01_0012.DAT, GLA00_003_20051101_120000_01_0012.DAT, GLA00_003_20051101_060004_01_0013.DAT, GLA00_003_20051101_120021_01_0013.DAT, GLA00_003_20051101_060000_01_0015.DAT, GLA00_003_20051101_120000_01_0015.DAT, GLA00_003_20051101_060000_01_0017.DAT, GLA00_003_20051101_120000_01_0017.DAT, GLA00_003_20051101_060000_01_0019.DAT, GLA00_003_20051101_120000_01_0019.DAT, GLA00_003_20051101_060003_01_0020.DAT, GLA00_003_20051101_120003_01_0020.DAT, GLA00_003_20051101_060003_01_0021.DAT, GLA00_003_20051101_120003_01_0021.DAT, GLA00_003_20051101_060015_01_0022.DAT, GLA00_003_20051101_120015_01_0022.DAT, GLA00_003_20051101_060015_01_0023.DAT, GLA00_003_20051101_120015_01_0023.DAT, GLA00_003_20051101_060003_01_0024.DAT, GLA00_003_20051101_120003_01_0024.DAT, GLA00_003_20051101_060003_01_0025.DAT, GLA00_003_20051101_120003_01_0025.DAT, GLA00_003_20051101_060000_01_0026.DAT, GLA00_003_20051101_120000_01_0026.DAT, GLA00_003_20051101_060031_01_0050.DAT, GLA00_003_20051101_120031_01_0050.DAT, GLA00_003_20051101_060003_01_0055.DAT, GLA00_003_20051101_120003_01_0055.DAT, GLA00_003_20051101_060000_01_1984.DAT, GLA00_003_20051101_120000_01_1984.DAT, anc07_033_02_0000.dat, anc07_033_02_0001.dat, anc07_033_02_0002.dat, anc07_033_02_0003.dat, anc07_033_02_0004.dat, anc07_033_02_0005.dat, anc07_033_02_0006.dat, ANC20_005_20051031_235947_01_0001.DAT, anc25_005_20090101_000000_01_0000.dat, ANC29_033_20051101_060000_01_0001.DAT, ANC29_033_20051101_120000_01_0001.DAT, ANC32_033_20051101_060000_01_0001.DAT, ANC32_033_20051101_120000_01_0001.DAT, ANC33_001_20100406_000000_01_0000.DAT, anc45_033_03_0001.dat, anc45_033_03_0002.dat, anc45_033_03_0003.dat, anc45_033_03_0004.dat
Type	GLA00, anc07, anc07, anc07, anc07, anc07, anc07, anc07, ANC20, anc25, ANC29, ANC29, ANC32, ANC32, ANC33, anc45, anc45, anc45, anc45
Version	003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 003, 033, 033, 033, 033, 033, 033, 033, 005, 005, 033, 033, 033, 033, 001, 033, 033, 033, 033

/METADATA/PROVENANCE/STEP_1/ProcessOutput

Attribute	Example Value
Name	GLA04_033_2113_002_0085_0_01_0001.DAT
Type	GLA04
Version	33

/METADATA/PROVENANCE/STEP_2

Attribute	Example Value
ProcessDateTime	2013-02-27T12:43:41.000000Z

/METADATA/PROVENANCE/STEP_2/ProcessAgent

Attribute	Example Value
Name	GLA04_h5_convert
Type	Data_Reformat
Version	Version 1.0 (August 2012)
Description	GLA04 Conversion PGE

/METADATA/PROVENANCE/STEP_2/ProcessInput

Attribute	Example Value
Name	./gla04_test.ctl, ../../data/tai-utc.dat, in/GLA04_033_2113_002_0085_0_01_0001.DAT, in/GLA04_033_2113_002_0085_0_01_0002.DAT, in/GLA04_033_2113_002_0085_0_01_0003.DAT, in/GLA04_033_2113_002_0085_0_01_0004.DAT, in/GLA04_033_2113_002_0085_0_01_0005.DAT, in/GLA04_033_2113_002_0085_0_01_0006.DAT, ../../glas_hdf/data/esdts/DsESDTGlGLAH04.033.desc
Type	IN_CNTL, IN_ANC_TAIUTC, IN_GLA0401, IN_GLA0402, IN_GLA0403, IN_GLA0404, IN_GLA0405, IN_GLA0406, IN_ESDT
Version	0, 0, 1, 1, 1, 1, 1, 1, 1

/METADATA/PROVENANCE/STEP_2/ProcessOutput

Attribute	Example Value
Name	out/GLAH04_033_2113_002_0085_0_01_0001.H5
Type	OUT_GLAH04
Version	1
UUID	D65E7C2A-7BC1-444F-AE6F-991DAD0B45FF
DOI	10.5067/ICESAT/GLAS/DATA104