

Product Format and Definition Changes with Release-24

NOTE: References to GLAS binary product names GLA01 to GLA15 refer to original GLAS binary data, and are retained here for informational and provenance purposes. Access to GLAS binary data was removed 01 August, 2017. All GLAS data are available in HDF5 format, products GLAH01 to GLAH15.

The record length was changed for the following products:

Product	New Length
GLA06	6880
GLA11	3032
GLA12	6600
GLA13	6760
GLA14	10000
GLA15	6280

Other changes, including new parameters, for products GLA05 - GLA15 are summarized below. More information about product formats is available on the NASA Wallops Flight Facility's Web site at [Version 5.0 GLAS Files](#).

1 GLA05

- Changed scale and max value for parameters d_wfFitSDev_1, d_wfFitSDev_2 & d_DevFitTr; scale changed from 0.001 to 0.0d-5 and max value to 30000
- Changed the description for i_ElvFlg
- Changed i_spare6 to i_spare6 (110)
- Added the following new parameter i_RecNrgAll (40)

2 GLA06

- Changed record length to 6880
- Changed the description for i_ElvFlg and i_SurfRuf_slpQF
- Changed definitions for i_CorrStatFlg
- Added i_DEM_hires_src & i_DEM_hires_elv and a PDF created for i_DEM_hires_src (PDF fixed in a later release for the addition of GLA12 and GLA13)
- Changed i_spare6 and added i_spare7 (556)
- Also added the following new parameters:
 - i_DEM_hires_src (40)
 - i_DEM_hires_elv (40)
 - i_satNdx(40)

i_satRngCorr(40)
i_satCorrFlg(40)
i_satNrgCorr(40)
i_satPwdCorr(40)
i_gval_rcv(40)
i_RecNrgAll(40)
i_FRir_cldtop(40)
i_FRir_qaFlag(40)
i_FRir_ODflg(40)
i_FRir_intsig(40)
i_msRngCorr (40)
i_msCorrFlg (40)
i_Surface_temp
i_Surface_pres
i_Surface_relh

3 GLA07

- Changed definitions for i1_g_bscs_qf in i_532AttBS_Flag
- Changed i_spare4 to i_spare4 (130)
- Renamed i_rng2CDProf to i_Rng2CDProf_Cor and changed description
- Renamed i_Rng2PCProf to i_Rng2PCProf_Cor and changed description
- Added the following new parameters:
 - i_Surface_temp
 - i_Surface_pres
 - i_Surface_relh
 - i_Surface_wind
 - i_Surface_wdir

4 GLA08

- Changed i_spare2 to i_spare2 (264)
- Added the following new parameters:
 - i_SolarAngle (4)
 - i_Aer_top_b20_temp (5)
 - i_Aer_top_b20_pres (5)
 - i_Aer_top_b20_relh (5)
 - i_Aer_bot_b20_temp (5)
 - i_Aer_bot_b20_pres (5)
 - i_Aer_bot_b20_relh (5)
 - i_Aer_top_a20_temp (3)
 - i_Aer_top_a20_pres (3)
 - i_Aer_top_a20_relh (3)
 - i_Aer_bot_a20_temp (3)
 - i_Aer_bot_a20_pres (3)
 - i_Aer_bot_a20_relh (3)
 - i_Aer_PBL_LR_temp

i_Aer_PBL_LR_pres
i_Aer_PBL_LR_relh
i_Aer_ir_top (2)
i_Aer_ir_bot (2)
i_Aer_ir_layflg (2)
i_Aer_ir_top_temp (2)
i_Aer_ir_top_pres (2)
i_Aer_ir_top_relh (2)
i_Aer_ir_bot_temp (2)
i_Aer_ir_bot_pres (2)
i_Aer_ir_bot_relh (2)
i_Surface_temp (4)
i_Surface_pres (4)
i_Surface_relh (4)
i_Surface_wind (4)
i_Surface_wdir (4)

5 GLA09

- Changed scaling in i_FRg_grd_sig and i_FRir_grd_sig, from 1.0d-11 to i.0d-9 plus changed prod units from e11/m-sr to e9/m-sr
- Changed i_spare4 to i_spare4 (590)
- Created PDF for i_LRir_QAflag
- Created PDF for i_MRir_QAflag
- Created PDF for i_FRir_qaFlag
- Added the following new parameters:
 - i_FRir_cldtop (160)
 - i_FRir_qaFlag (160)
 - i_FRir_intsig (160)
 - i_SolarAngle (4)
 - i_LRir_cld_top (10)
 - i_LRir_cld_bot (10)
 - i_LRir_QAflag (10)
 - i_LRir_cldtop_temp (10)
 - i_LRir_cldtop_pres (10)
 - i_LRir_cldtop_relh (10)
 - i_LRir_cldbot_temp (10)
 - i_LRir_cldbot_pres (10)
 - i_LRir_cldbot_relh (10)
 - i_MRir_cld_top (10,4)
 - i_MRir_cld_bot (10,4)
 - i_MRir_QAflag (10,4)
 - i_MRir_cldtop_temp (10,4)
 - i_MRir_cldtop_pres (10,4)
 - i_MRir_cldtop_relh (10,4)
 - i_MRir_cldbot_temp (10,4)
 - i_MRir_cldbot_pres (10,4)

i_MRir_cldbot_relh (10,4)
i_LRg_cldtop_temp (10)
i_LRg_cldtop_pres (10)
i_LRg_cldtop_relh (10)
i_LRg_cldbot_temp (10)
i_LRg_cldbot_pres (10)
i_LRg_cldbot_relh (10)
i_MRg_cldtop_temp (10,4)
i_MRg_cldtop_pres (10,4)
i_MRg_cldtop_relh (10,4)
i_MRg_cldbot_temp (10,4)
i_MRg_cldbot_pres (10,4)
i_MRg_cldbot_relh (10,4)
i_LRg_SourceFt
i_MRg_SourceFt (4)
i_HRg_SourceFt (20)
i_LRir_SourceFt
i_MRir_SourceFt (4)
i_Surface_temp (4)
i_Surface_pres (4)
i_Surface_relh (4)
i_Surface_wind (4)
i_Surface_wdir (4)

6 GLA10

- Changed i_spare5 to i_spare5 (292)
- Added the following new parameters:
 - i_SolarAngle (4)
 - i_MRg_cldtop_temp (10,4)
 - i_MRg_cldtop_pres (10,4)
 - i_MRg_cldtop_relh (10,4)
 - i_MRg_cldbot_temp (10,4)
 - i_MRg_cldbot_pres (10,4)
 - i_MRg_cldbot_relh (10,4)
 - i_Aer_top_temp (9)
 - i_Aer_top_pres (9)
 - i_Aer_top_relh (9)
 - i_Aer_bot_temp (9)
 - i_Aer_bot_pres (9)
 - i_Aer_bot_relh (9)
 - i_Surface_temp (4)
 - i_Surface_pres (4)
 - i_Surface_relh (4)
 - i_Surface_wind (4)
 - i_Surface_wdir (4)

7 GLA11

- Changed record length to 3032
- Created PDF for i_FRir_qaFlag and i_MRir_QAflag
- Added description values for i_cld1_flag, i_aer4_flag, and i_pbl4_flag
- Changed i_spare2 and added i_spare3 (144)
- Also added the following new parameters:
 - i_SolarAngle (4)
 - i_MRg_cldtop_temp (10,4)
 - i_MRg_cldtop_pres (10,4)
 - i_MRg_cldtop_relh (10,4)
 - i_MRg_cldbot_temp (10,4)
 - i_MRg_cldbot_pres (10,4) i_MRg_cldbot_relh (10,4)
 - i_Aer_top_temp (9)
 - i_Aer_top_pres (9)
 - i_Aer_top_relh (9)
 - i_Aer_bot_temp (9)
 - i_Aer_bot_pres (9)
 - i_Aer_bot_relh (9)
 - i_Aer_ir_top (2)
 - i_Aer_ir_bot (2)
 - i_Aer_ir_top_temp (2)
 - i_Aer_ir_top_pres (2)
 - i_Aer_ir_top_relh (2)
 - i_Aer_ir_bot_temp (2)
 - i_Aer_ir_bot_pres (2)
 - i_Aer_ir_bot_relh (2)
 - i_MRir_cld_top (10,4)
 - i_MRir_cld_bot (10,4)
 - i_MRir_cldtop_temp (10,4)
 - i_MRir_cldtop_pres (10,4)
 - i_MRir_cldtop_relh (10,4)
 - i_MRir_cldbot_temp (10,4)
 - i_MRir_cldbot_pres (10,4)
 - i_MRir_cldbot_relh (10,4)
 - i_MRir_QAflag (10,4)
 - i_Aer_PBL_LR_temp
 - i_Aer_PBL_LR_pres
 - i_Aer_PBL_LR_relh
 - i_Surface_temp (4)
 - i_Surface_pres (4)
 - i_Surface_relh (4)
 - i_Surface_wind (4)
 - i_Surface_wdir (4)
 - i_Aer_ir_OD (2)
 - i_cld_ir_OD (10,4)
 - i_Aer_ir_ODFlg (2)

i_cld_ir_ODFlg (10,4)
i_FRir_ODFlg (160)
i_FRir_qaFlag (160)
i_FRir_cldtop (160)
i_Aer_b20_prop (20,5)
i_PBL_prop (20)

8 GLA12

- Changed record length to 6600
- Changed the description for i_ElvFlg and i_SurfRuf_slpQF
- Changed definitions for i_CorrStatFlg
- Changed i_spare6 and added i_spare7 (566)
- Also added the following new parameters:
 - i_DEM_hires_src (40)
 - i_DEM_hires_elv (40)
 - i_satNdx(40)
 - i_satRngCorr(40)
 - i_satCorrFlg(40)
 - i_satNrgCorr(40)
 - i_satPwdCorr(40)
 - i_gval_rcv(40)
 - i_RecNrgAll(40)
 - i_FRir_cldtop(40)
 - i_FRir_qaFlag(40)
 - i_FRir_ODflg(40)
 - i_FRir_intsig(40)
 - i_msRngCorr (40)
 - i_msCorrFlg (40)
 - i_Surface_temp
 - i_Surface_pres
 - i_Surface_relh

9 GLA13

- Changed record length to 6760
- Changed the description for i_ElvFlg
- Changed definitions for i_CorrStatFlg
- Changed i_spare6 and added i_spare8 (566)
- Also added the following new parameters:
 - i_DEM_hires_src (40)
 - i_DEM_hires_elv (40)
 - i_satNdx(40)
 - i_satRngCorr(40)
 - i_satCorrFlg(40)
 - i_satNrgCorr(40)

i_satPwdCorr(40)
i_gval_rcv(40)
i_RecNrgAll(40)
i_FRir_cldtop(40)
i_FRir_qaFlag(40)
i_FRir_ODflg(40)
i_FRir_intsig(40)
i_msRngCorr (40)
i_msCorrFlg (40)
i_Surface_temp
i_Surface_pres
i_Surface_relh

10 GLA14

- Changed record length to 10000
- Changed the description for i_ElvFlg and i_SurfRuf_slpQF
- Changed definitions for i_CorrStatFlg
- Added i_DEM_hires_src & i_DEM_hires_elv and a PDF created for i_DEM_hires_src (PDF fixed in a later release for the addition of GLA12 and GLA13)
- Changed i_spare6 and added i_spare7 (566)
- Also added the following new parameters:

i_DEM_hires_src (40)
i_DEM_hires_elv (40)
i_satNdx(40)
i_satRngCorr(40)
i_satCorrFlg(40)
i_satNrgCorr(40)
i_satPwdCorr(40)
i_gval_rcv(40)
i_RecNrgAll(40)
i_FRir_cldtop(40)
i_FRir_qaFlag(40)
i_FRir_ODflg(40)
i_FRir_intsig(40)
i_msRngCorr (40)
i_msCorrFlg (40)
i_Surface_temp
i_Surface_pres
i_Surface_relh

11 GLA15

- Changed record length to 6280
- Changed the description for i_ElvFlg
- Changed definitions for i_CorrStatFlg
- Changed i_spare6 and added i_spare7 (594)
- Also added the following new parameters:
 - i_satNdx(40)
 - i_satRngCorr(40)
 - i_satCorrFlg(40)
 - i_satNrgCorr(40)
 - i_satPwdCorr(40)
 - i_gval_rcv(40)
 - i_RecNrgAll(40)
 - i_FRir_cldtop(40)
 - i_FRir_qaFlag(40)
 - i_FRir_ODflg(40)
 - i_FRir_intsig(40)
 - i_msRngCorr (40)
 - i_msCorrFlg (40)
 - i_Surface_temp
 - i_Surface_pres
 - i_Surface_relh
 - i_Surface_wind
 - i_Surface_wdir