ADEOS-II/GLI Validation System

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Cal/Val Session GLI Workshop

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The System Overview

- *In situ* data will registered to GTDB.

- MUD start from L1B.

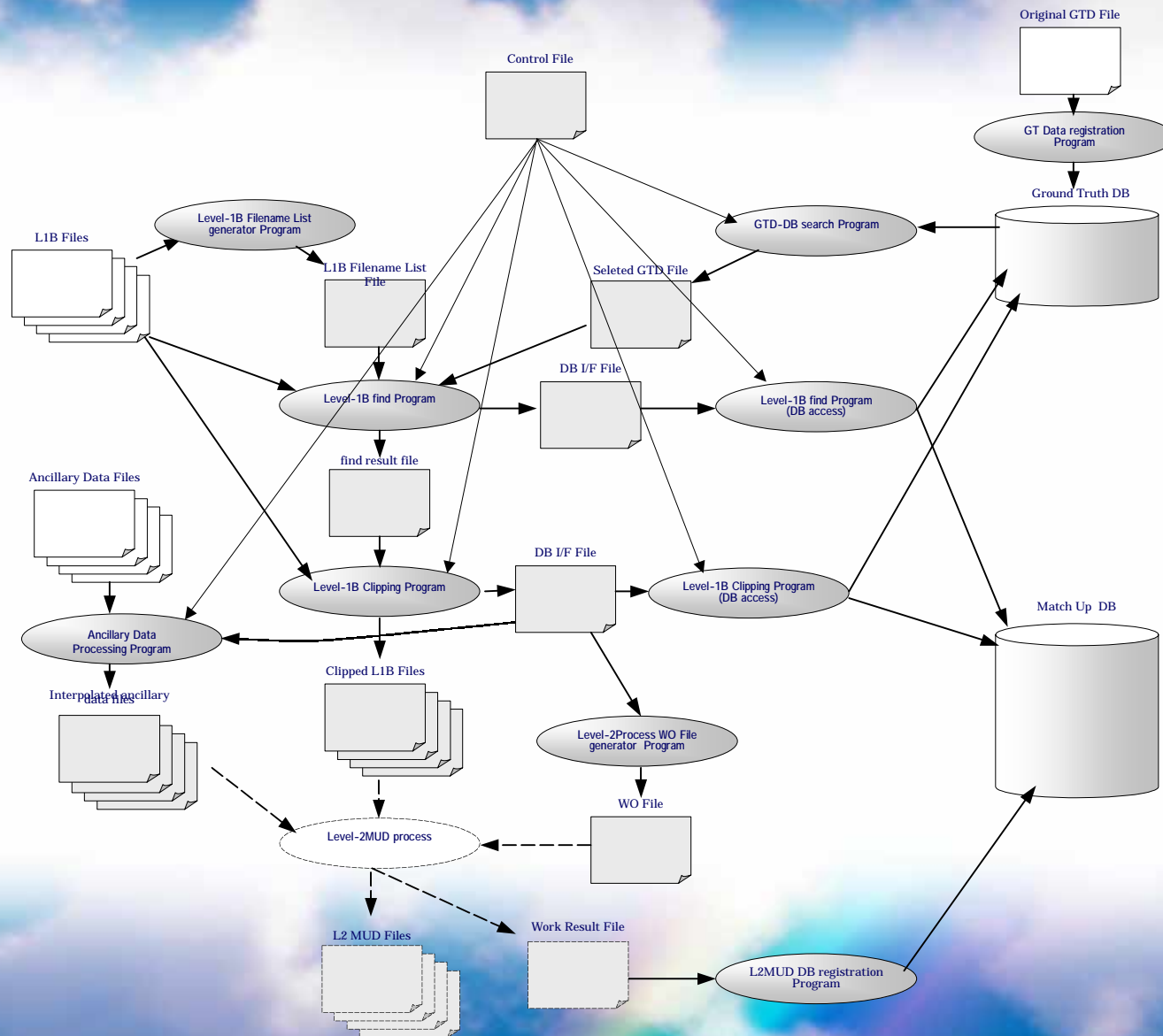- L1B MUD processed to L2 MUD.

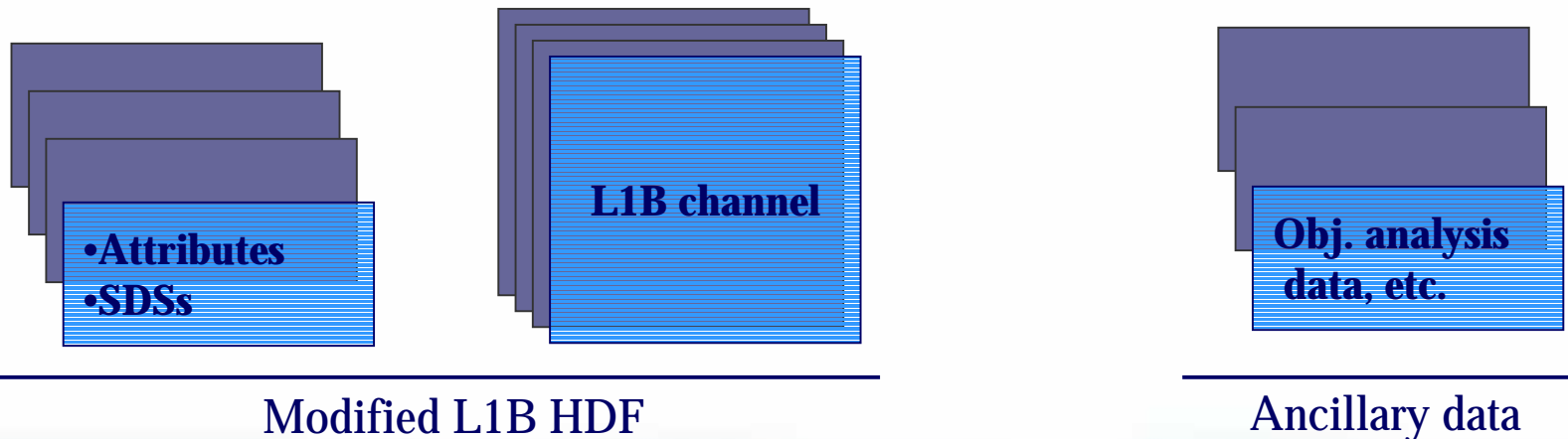- Processing status will managed by MUDB.

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Figure.1 : MUD Process Flow

GTDB/MUDB

- GTDB will manage *in situ* data.
  - The data files will be reformed into "SeaBASS" like format.
    - Meta data (Header) + GT data
  - Meta data and other information will registered to the DB.
- MUDB will store every processing status and collocation conditions.

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L1B MUD generation

- Reduced Image size of L1B (125x125).
- Attributes from original L1B added to GA.
- Scan geometry inf. are interpolated for every pixel.

L1B channel

•Attributes
•SDSs

Obj. analysis
data, etc.
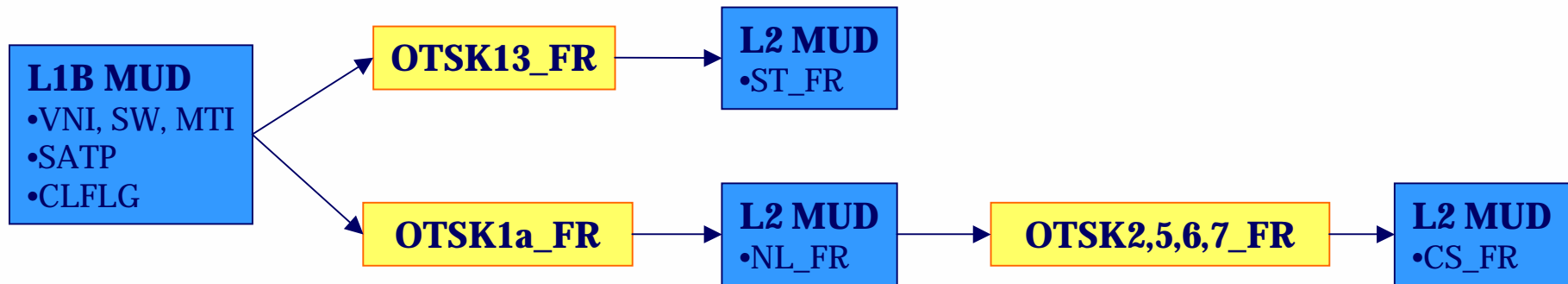
Modified L1B HDF

Ancillary data

L1B MUD generation (Cont.)

- NO capability for L1A MUD (from A.I.).
  - L1A > L1B software for MUD will be required.
  - Too much modification required for the entire system and MUD format.

- Important to prepare L1A for reprocessing.
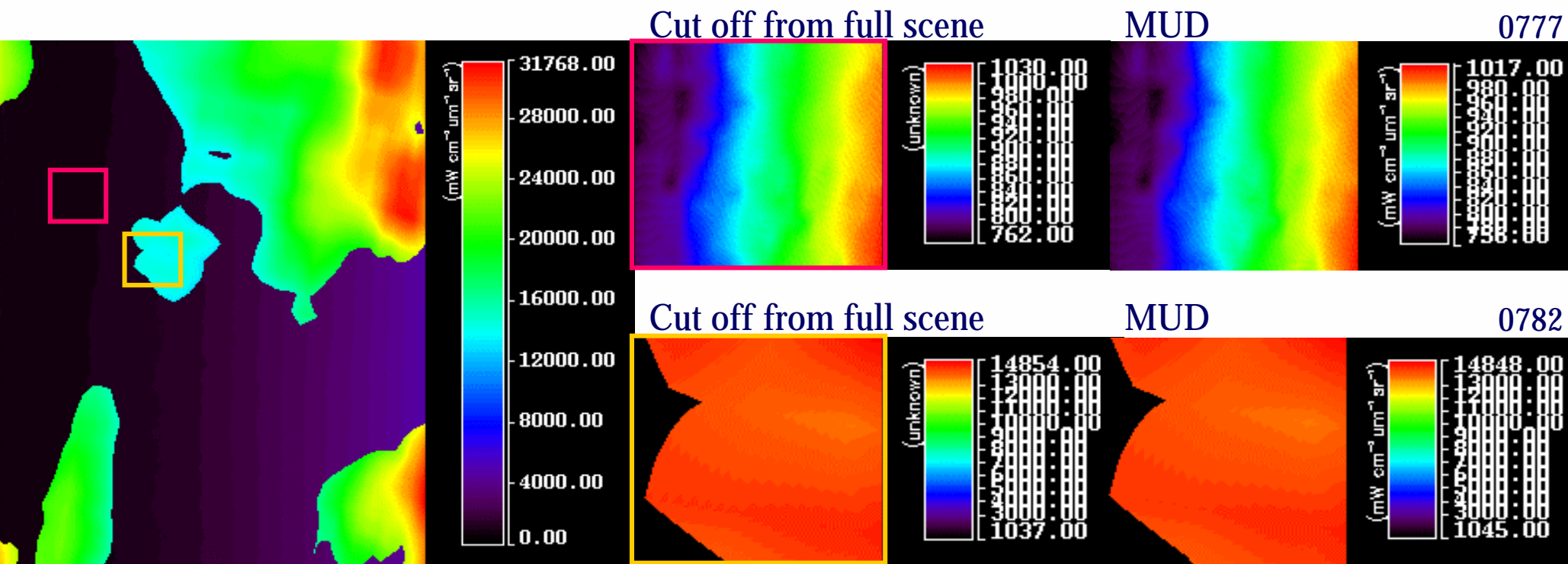 - Original L1A for valid L1B MUD will be archived in EORC.

L2 MUD Processing (cont.)

- Ocean products requires L2 Processing.
  - SST and Ocean Color products.
  - Modification finished.

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                                    ┌──────────────┐
                           ┌───────►│ OTSK13_FR    ├──────►┌──────────────┐
┌──────────────┐          │         └──────────────┘       │ L2 MUD       │
│ L1B MUD      │          │                                │ •ST_FR       │
│ •VNI, SW, MTI│──────────┤                                └──────────────┘
│ •SATP        │          │
│ •CLFLG       │          │         ┌──────────────┐       ┌──────────────┐       ┌──────────────────┐       ┌──────────────┐
└──────────────┘          └───────►│ OTSK1a_FR    ├──────►│ L2 MUD       ├──────►│ OTSK2,5,6,7_FR   ├──────►│ L2 MUD       │
                                    └──────────────┘       │ •NL_FR       │       └──────────────────┘       │ •CS_FR       │
                                                           └──────────────┘                                  └──────────────┘
```

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Comparison of NL_FR 2nd Check

Cut off from full scene   MUD   0777

Cut off from full scene   MUD   0782

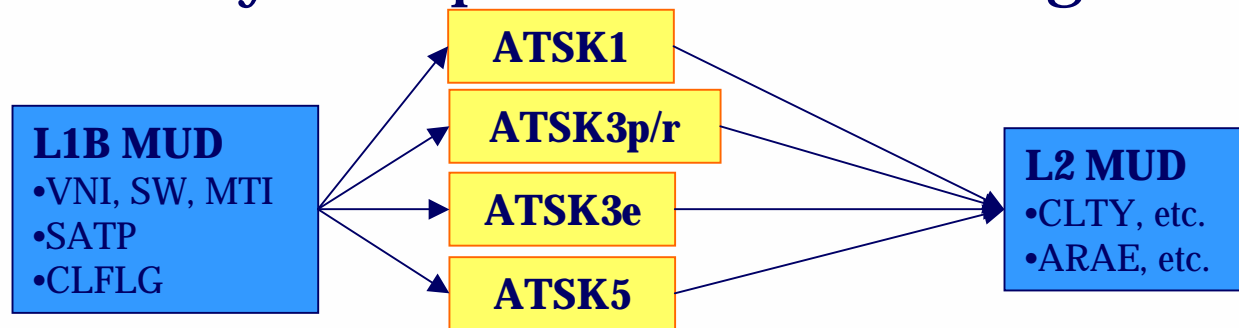Original File; A2GL10006031516OD1_ONLFR0200000000100000.00

0777;
Center Pixel on Original Image; 291
Center Line on Original Image; 507

0782;
Center Pixel on Original Image; 447
Center Line on Original Image; 688

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L2 MUD Processing (cont.)

- Atmosphere products requires L2 Processing.
  - Full resolution(1km) L2 MUD (not available for ATSK5).
  - Statistical analysis required to evaluate segment data.

- ATSK1, ATSK3e/r/p and ATSK5 finished.
- Now working for ATSK3r and ATSK5

L2 MUD Processing (cont.)

- Ancillary data required for the OTSK1a, ATSK1, 3e/r/p, 5
- The data is like…
  - Clipped off for MUD size.
  - Interpolated by same method of standard product (temporally and spatially).
  - Full layer for following parameter.
    - SS Pressure
    - T, U, V, Z
    - Water Vapor(Value, Profile), Ozone.

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Data Distribution

- Following set of MUD can be distributed.
  - L1B MUD, L2 MUD
  - Ancillary Data
    - TBD for the software and tools.
    - Permitted to PI.
- In situ data
  - Validation Group PI will collect the data and QC.
  - NASDA/EORC(Harumi) will also be contact point.
    - Contact point address will be informed soon from WEB.
  - *In situ* data follow the policy of the data provider.

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Conclusion

- Validation Data Generation System is developed.
  - Still have some work on L2 MUD processing.
- MUD will distributed to PI.
- In situ data distributing policy will follow data providers.

- Providing software need to be determined.
- Contact point will soon be announced.

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Near Future Plan

- Data generating trial will start.
  - For NL, CS start just after this WS.
  - For ST will start mid. Dec.
  - For the atmosphere start from Jan.

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