

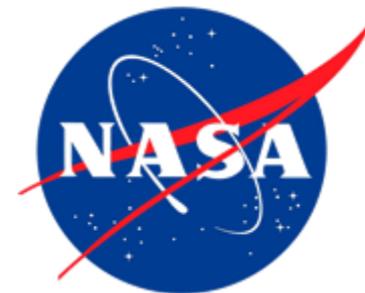


Summary of the 4th Lightning Imager Science Team (LIST) Meeting

16-17 November, 2010 EUMETSAT Headquarters,
Darmstadt, Germany

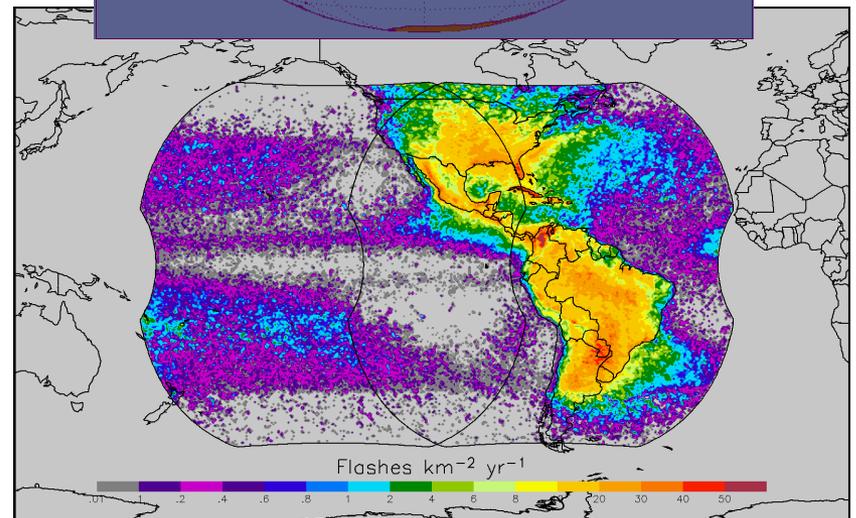
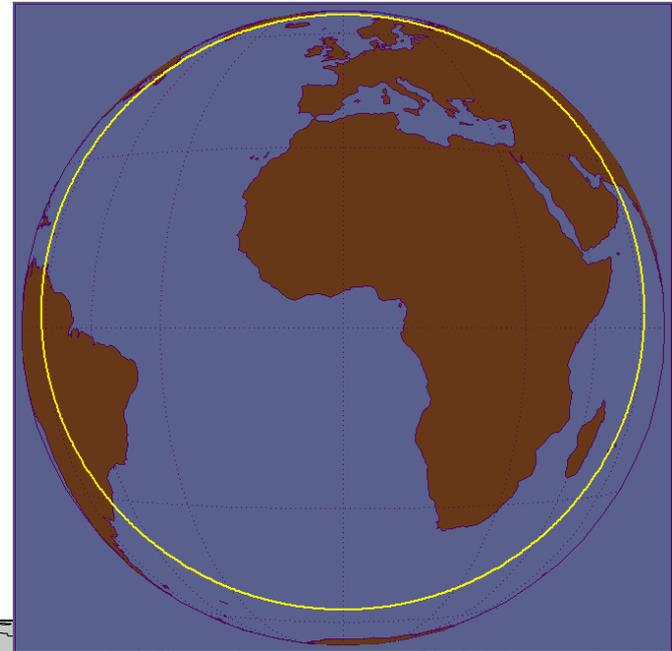
Douglas Mach
GLM Lead Code Developer
UAHuntsville

3rd Annual GOES-R GLM Science Meeting
1-3 December 2010
NSSTC, Huntsville, AL, USA



What Is LIST?

- Lightning Imager Science Team
- Lightning Imager (LI)
 - Part of Meteosat Third Generation (MTG) System
 - European version of GLM on GOES-R



LIST Meeting Agenda

Day 1: Tuesday 16 November

- **Opening of meeting** *FMI + EUMETSAT*
- **Adoption of Agenda** *J. Grandell*
- **Review of Actions** *J. Grandell*
- **Update of MTG status** *R. Stuhlmann*
- **Exploration of potential use of lightning observations at USAM** *D. Biron*
- **Presentation of the ONERA Lightning Mapper** *P. Lalande*
- **L2 processor status and demonstration** *J. Grandell*
- **Flash clustering and random noise filtering** *J. Grandell*
- **Q&A – Artificial proxy data generator (interactive session)** *U. Finke et al.*
- **Update on AGU Fall meeting - special session on lightning** *E. Defer*

Day 2: Wednesday 17 November

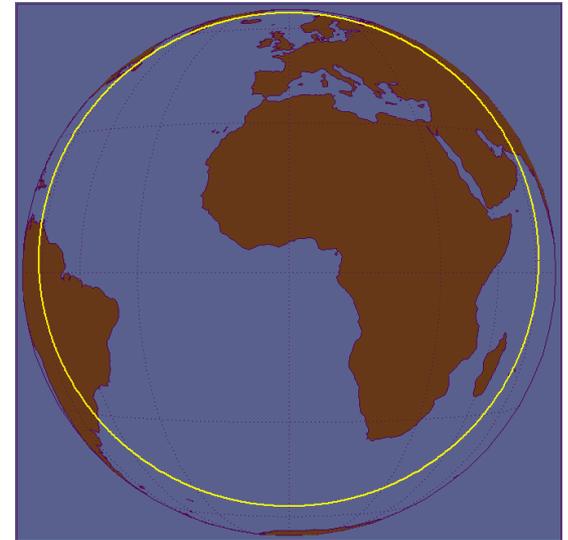
- **Update of GOES-R GLM status, algorithm development and campaigns** *D. Mach*
- **Update on CHUVA field campaign** *D. Mach / H. Höller*
- **Update on MTG LI requirements discussion (action from LIST-3)** *M. Dobber*
- **Presentation of MTG LI 0-1b data processing SW I/O data specification** *M. Dobber*
- **ATDnet – Possibilities to support MTG LI operational processing** *A. Bennett, S. Stringer*
- **ATBD (summarising review comments in smaller groups – one rapporteur per sub-group)**
- **ATBD (discussion on sub-group findings)**

Meeting Highlights

- Update on MTG Status
 - Germany recently voted for the project
 - Now have 75-80% funding
 - Can proceed with next steps
 - Kick-off meeting 17-18 November
 - Industry authorized to work for 6 months
 - Launch date December 2017
- Exploration of potential use of lightning observations at USAM (Ufficio Generale Spazio Aereo e Meteorologia)
 - Use passive sensors to simulate lightning
 - Use simulated lightning as proxy for convective parameters
 - Using Italian LAMPINET system
 - Vaisala IMPAC system
 - Not connected to European system
- Presentation of the ONERA Lightning Mapper
 - Described PROFEO VHF system research
 - Interesting results
 - Ocean lightning seems more “intense” than land lightning
 - Smaller storms more likely to produce an aircraft strike

Meeting Highlights (II)

- LIPROXY
 - Certain size lightning pulses more likely to be detected
 - In simulated data
- LI Parameters
 - Throw out events that do not have a second event within 50 km & 0.5 s
 - Will keep BOTH events
 - 1500x1500 nominal array size
 - 30 Mbits/s pipe
 - 400,000 events/s down from sat
 - 9 s granules
 - 20-30 s latency
 - Concerned about line broadening
- ATDnet
 - Arrival Time Difference NETWORK
 - Adding a number of new stations
 - Grand Cayman
 - Croatia
 - Scotland
 - Namibia
 - Falkland Islands
 - Israel
 - No better than 30 s latency
 - Use as LI proxy data generator
 - Use for correcting parallax errors for high angle LI events



Conclusions

- Different sensor/parameters
- Same goal
- Proxy data differences
 - Focus on “real world” data
 - Can use their approach
- Need equivalent entities to GOES-R “day one”



Questions?

