

MODIS LAI&FPAR: FIRST RESULTS

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MODIS SCIENCE TEAM MEETING

JUNE 7–8, 2000

AFRICA: MARCH-22-00 TO MARCH-29-00

MODAGG DATA

- SURFACE BRDFs
- UP TO 7 BANDS
- 1 KM RESOLUTION

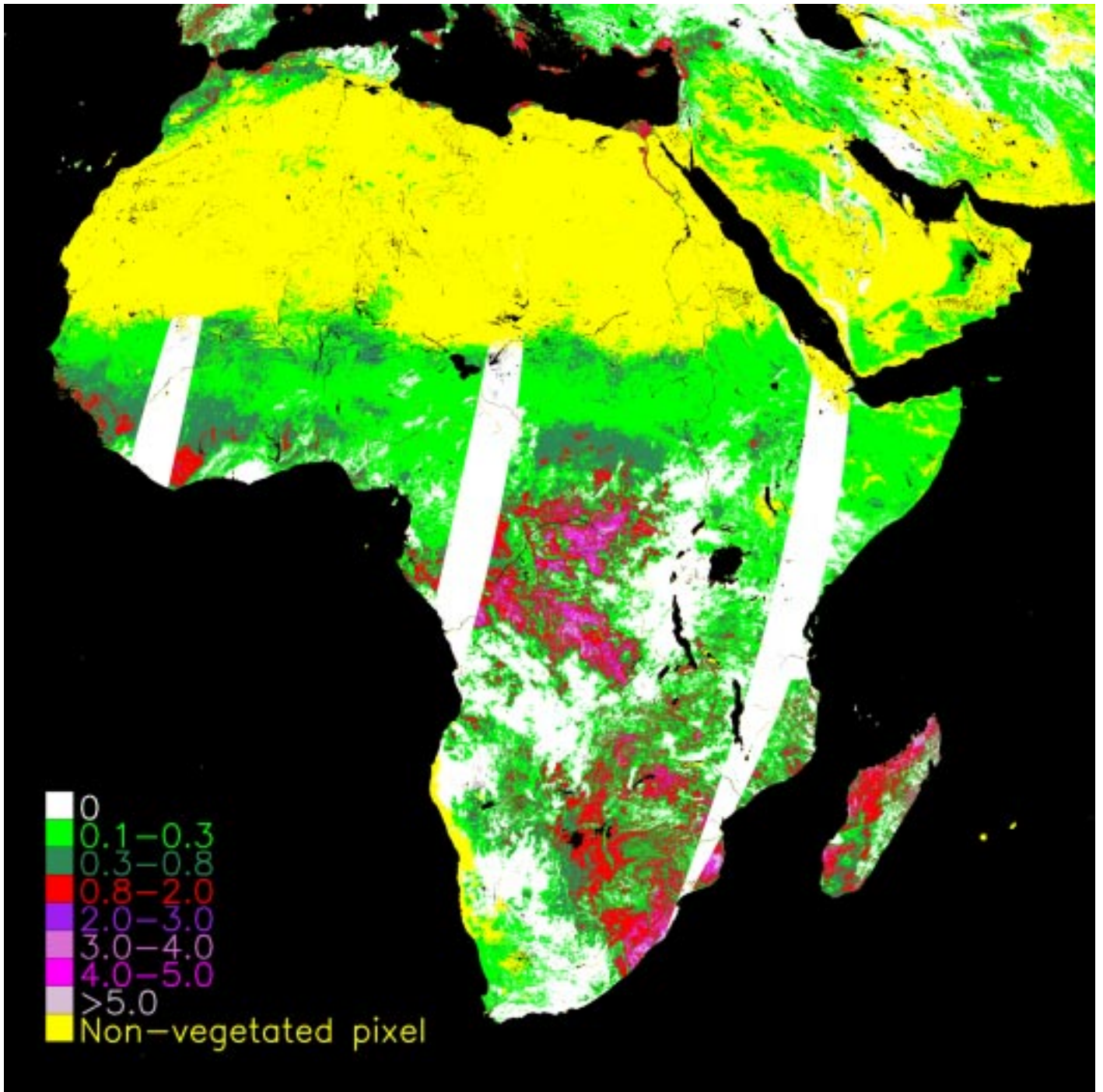
MOD12Q1 (AT LAUNCH LAND COVER)

- 1 KM RESOLUTION
- IGBP CLASSES → TO 6 RT BIOMAS

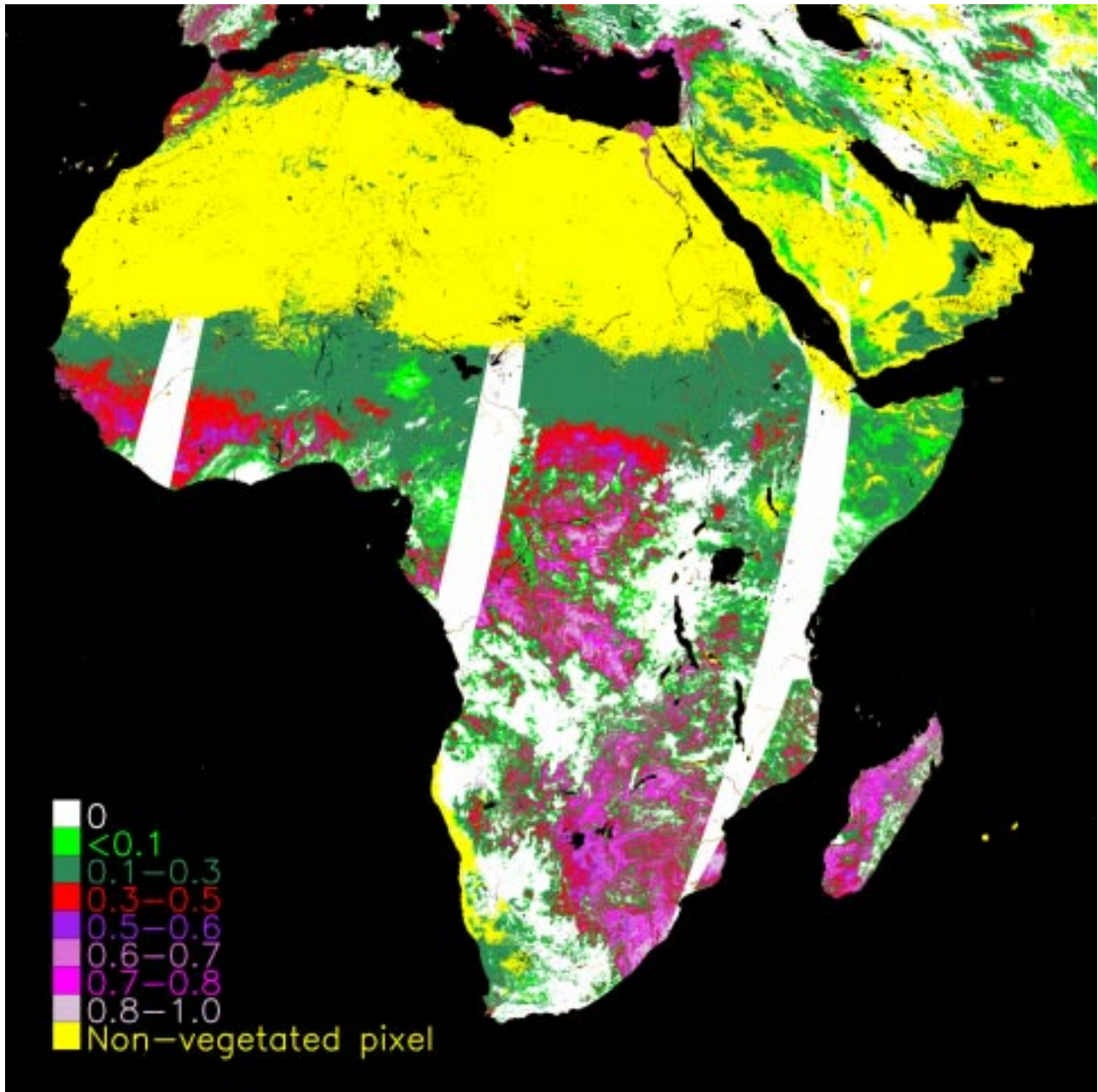
MOD15A1 (LAI/FPAR)

- DAILY
- 1 KM RESOLUTION

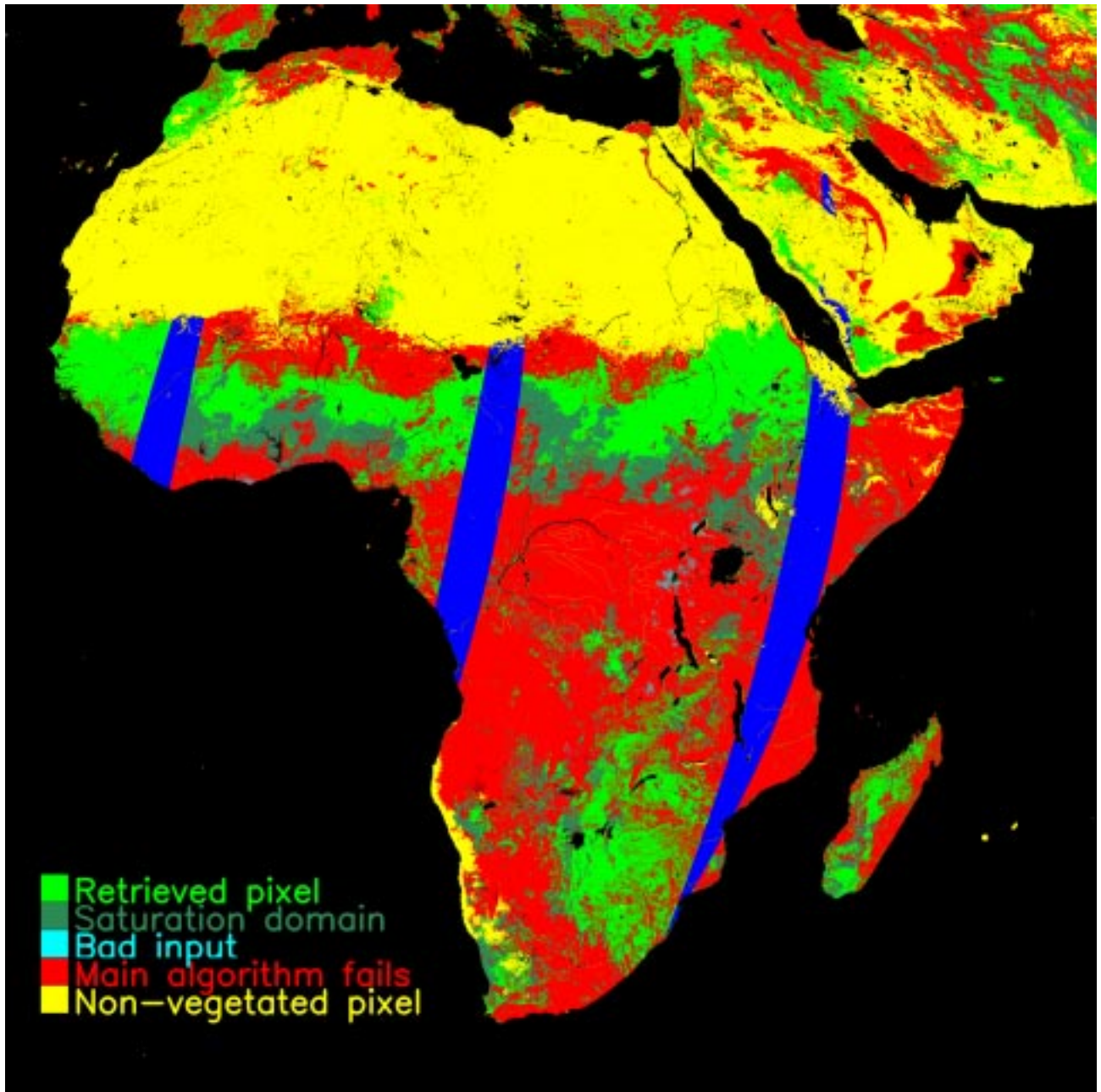
AT LAUNCH LUT



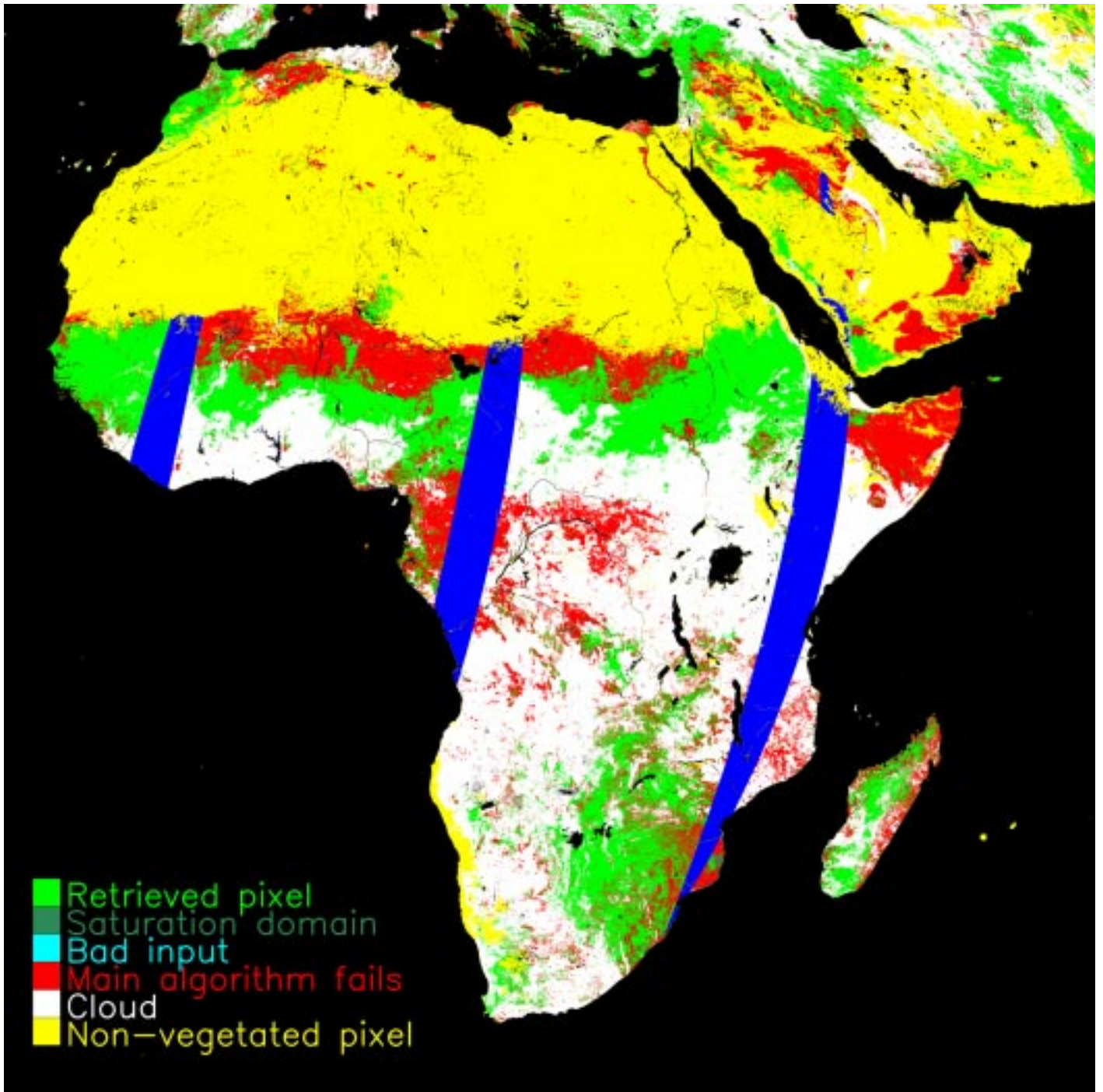
MOD15A1: LAI map
(MAR-25-00)



MOD15A1: FPAR map
(MAR-25-00)



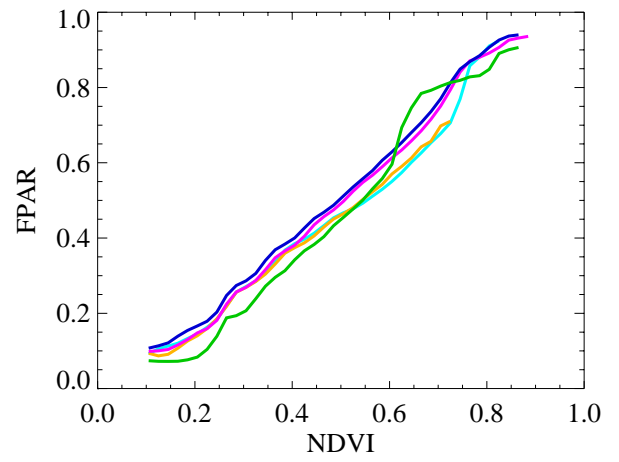
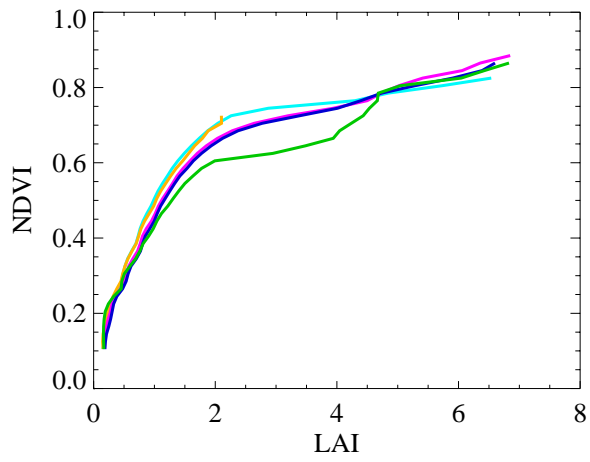
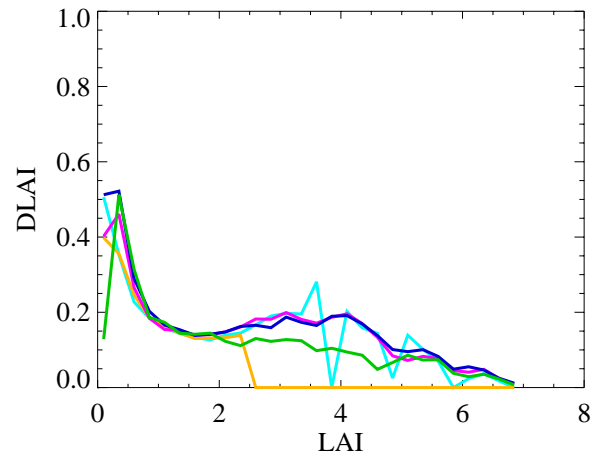
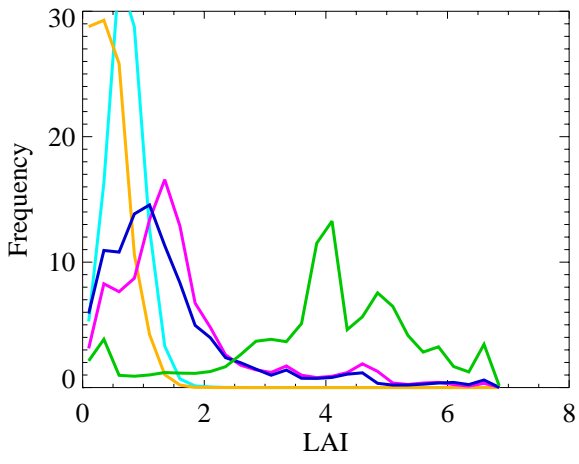
**MOD15A1: QA map without cloud mask
(Mar-25-00)**

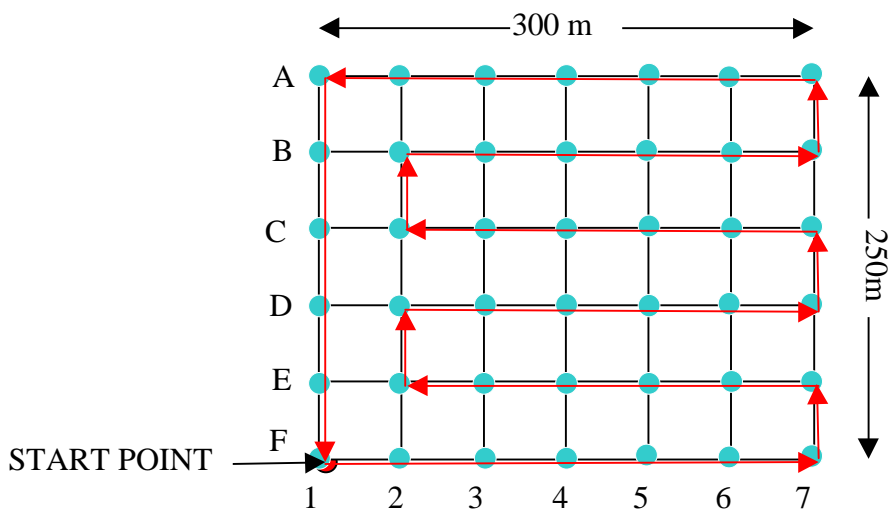
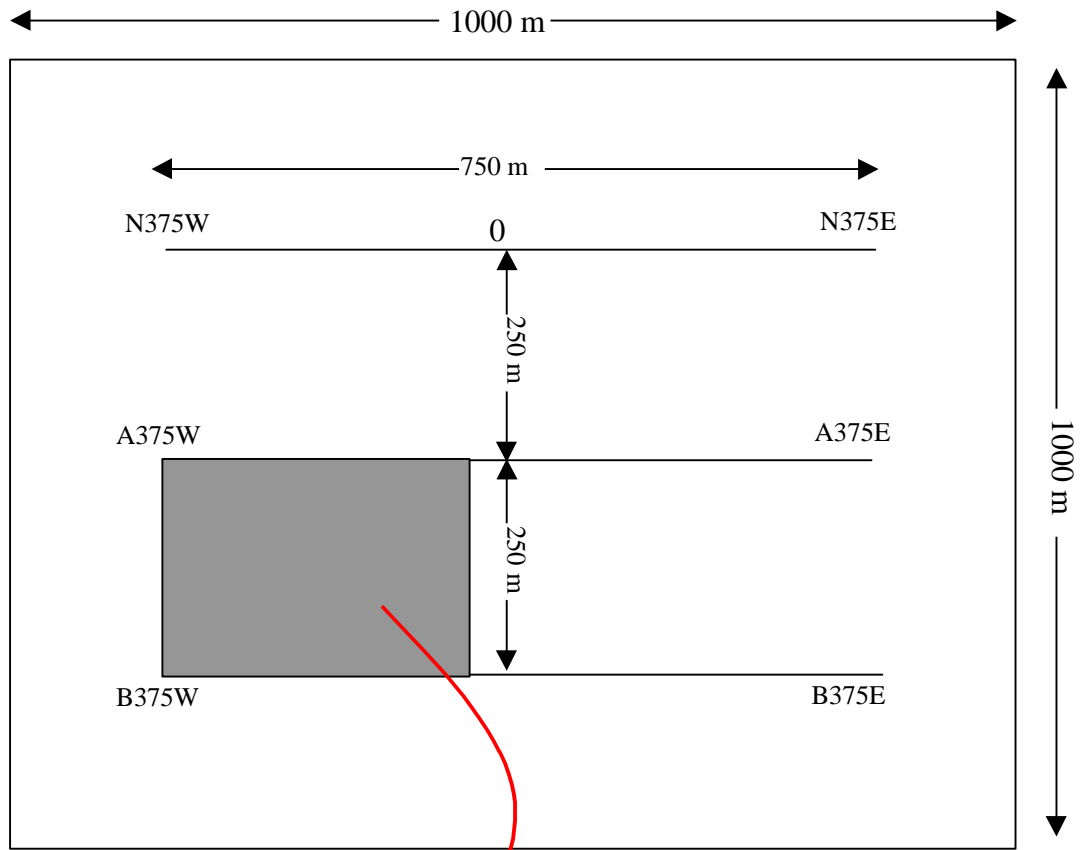


MOD15A1: QA map with cloud mask
(Mar-25-00)

Algorithm Performance (Main Algorithm)

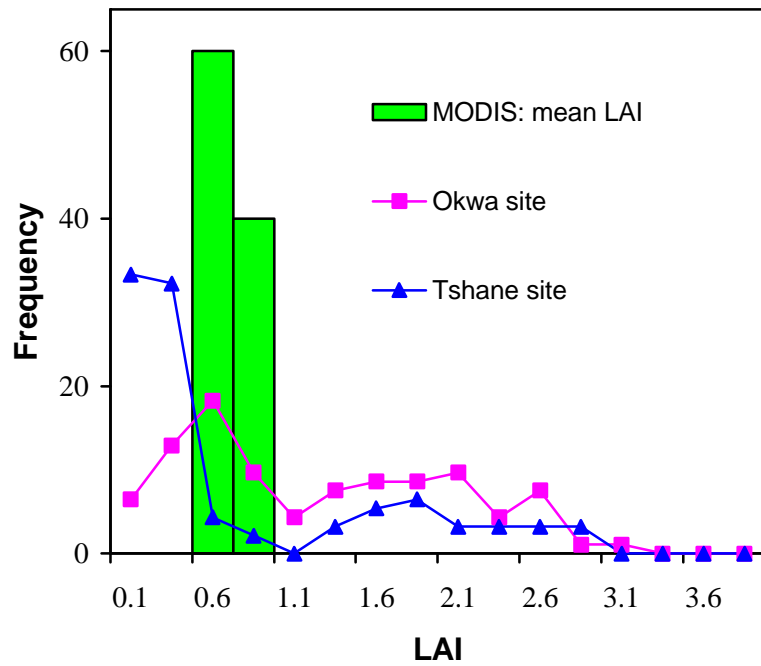
<i>Biome Type</i>	<i>Retrieval Index, %</i>	<i>Saturation Index, %</i>	<i>Mean LAI</i>
Grasses and Cereal Crops	91.3	0.0	0.74
Shrubs	80.9	0.0	0.48
Broadleaf Crops	69.0	1.8	1.65
Savanna	80.7	2.2	1.44
Broadleaf Forests	21.6	16.7	3.91





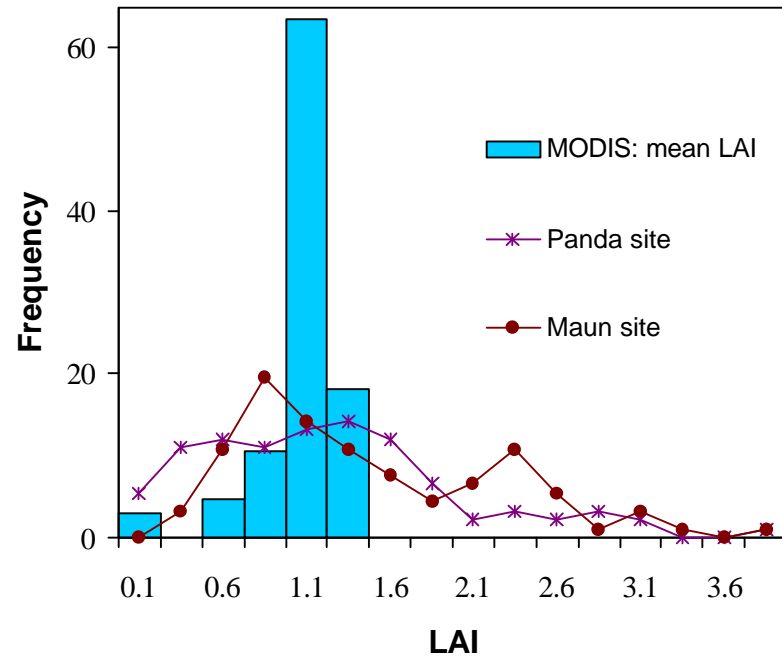
Sample Diagram

Grasses



	Mean LAI	Dispersion
MODIS	0.70	0.22
Okwa site	1.27	0.80
Tshane site	0.78	0.85

Savannas



	Mean LAI	Dispersion
MODIS	1.07	0.20
Panda site	1.26	0.78
Maun site	1.50	0.78

FIELD CAMPAIGNS

- SAFARI 2000 WET SEASON CAMPAIGN IN
BOTSWANA: MARCH 2000
- FINLAND, RUOKOLAHTI CONIFEROUS FOREST:
JUNE 2000
- HARVARD FOREST: JULY 2000
- CANADA, NOVA SCOTIA SITE: AUGUST 2000
- VALERI VALIDATION SITES

AVIGNON: BROADLEAF CROPS

BORDEAUX: BROADLEAF FORESTS

ESTONIA: BROADLEAF FORESTS

MALI (GOURMA): SHRUBS

CONCLUSIONS

- THE LAI/FPAR ALGORITHM BEHAVES AS EXPECTED
- TWO SPECTRAL BANDS, RED AND NIR, ARE CURRENTLY USED TO PRODUCE THE GLOBAL LAI AND FPAR FIELDS
- THE LAI/FPAR PRODUCT FOLLOWS REGULARITIES EXPECTED FROM PHYSICS
- COMPARISON OF MODIS LAI WITH FIELD MEASUREMENTS (SAFARI 2000 WET SEASON CAMPAIGN) HAS BEEN CARRIED OUT
- LAI/FPAR PRODUCT CAN BE RELEASED AT THE SAME TIME AS THE SURFACE REFLECTANCE PRODUCT