

SAFARI 2000 MAS Flight 00180

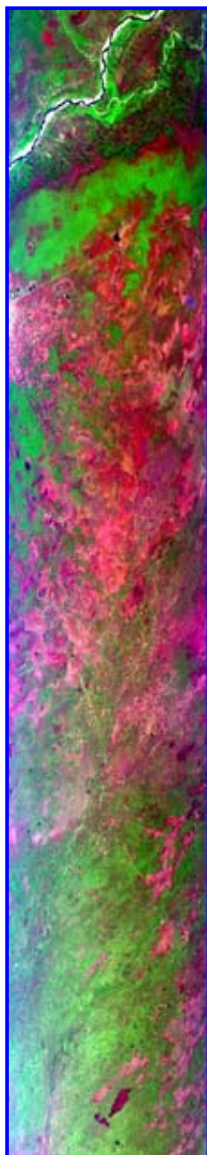
To obtain tracks from this flight, click the checkbox for the desired track in the "Browse Images" table below. When you have selected your desired flights, click the "List" button to see a list of your tracks prior to placing into the shopping cart.

This is **Flight #00-180**

RBG Images

[Click Image](#)

Track #01



R: 2.15 microns
G: 0.91 microns
B: 0.55 microns

Track #17

Summary Information

Date: **September 25, 2000**

ER-2 Flight Number: **00-180**

Location: **South Africa, Malawi, Mozambique and Indian Ocean**

Principal Investigator: **Dr. Michael King (NASA GSFC)**

Flight Scientist: **Steve Platnick (NASA GSFC)**

Additional Sensors: **AirMISR, CLS, LAS, MAS, MOPITT-A, S-HIS, SSFR** (see [Instrument Status](#) below)

Processing Information

Level-1B Data processed by: **Ames Research Center**

Level-1B Data Version: **#2**

Level-1B Configuration: ([sample file](#))

Calibration Type: **final**

Calibration Version: **1.0**

Level-1B Browse Imagery

Straight Line Flight Tracks: **21 processed**

Scanlines Processed: **146117**

[Solar Azimuth and Zenith Angles](#)

Flight Track Map

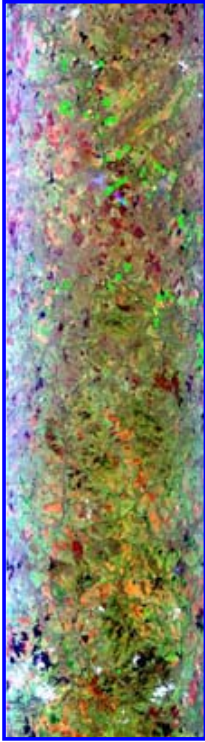


[Click to enlarge](#)

Browse Images

Click on the Flight Track number to see track images.
Click on the Check Box to list HDF files prior to adding to shopping cart.
Lat/Lon ranges are for the BEG-END scanline nadir pixels.

List	Flight Track	Time_Span (GMT)	Heading (Deg)	Lat_Range (Deg_S)	Lon_Range (Deg_E)	Length (Scanlines)	Altitude m (msl)
<input type="checkbox"/>	01	07:29-07:47	80	22.65-22.28	31.69-33.84	7035	19078
<input type="checkbox"/>	02	07:49-08:15	19	22.20-19.33	33.93-34.58	9999	19617
<input type="checkbox"/>	03	08:15-08:32	11	19.33-17.56	34.58-35.00	6269	19718
<input type="checkbox"/>	04	08:32-08:59	12	17.55-14.68	35.00-35.60	9999	19770
<input type="checkbox"/>	05	08:59-09:14	14	14.68-13.10	35.60-35.94	5456	19834
<input type="checkbox"/>	06	09:15-09:42	73	13.01-12.28	36.02-38.88	9999	19865
<input type="checkbox"/>	07	09:42-09:58	76	12.28-11.81	38.88-40.66	6170	19928
<input type="checkbox"/>	08	10:00-10:27	172	11.91-14.89	40.80-41.07	9999	19836
<input type="checkbox"/>	09	10:28-10:54	207	15.00-17.65	41.06-39.53	9999	19831
<input type="checkbox"/>	10	10:54-11:21	209	17.65-20.27	39.53-37.98	9999	19888
<input type="checkbox"/>	11	11:21-11:48	209	20.27-22.90	37.98-36.34	9999	19956
<input type="checkbox"/>	12	11:48-12:07	212	22.90-24.75	36.34-35.06	7204	19928
<input type="checkbox"/>	13	12:10-12:29	240	25.02-26.07	34.91-32.74	7144	19853
<input type="checkbox"/>	14	12:33-12:42	7	26.11-25.12	32.36-32.46	3387	19838
<input type="checkbox"/>	15	12:44-12:53	271	25.02-24.99	32.35-31.13	3545	19863



R:2.15 microns
G:0.91 microns
B:0.55 microns

16	12:53-13:11	279	24.99-24.63	31.12-28.89	6504	19946
17	13:12-13:34	163	24.74-27.00	28.75-29.33	7916	19899
18	13:36-13:43	313	27.11-26.56	29.13-28.42	2705	19816
19	13:44-14:00	250	26.54-27.03	28.27-26.39	5707	19865
20	14:02-14:05	43	26.89-26.58	26.28-26.56	1320	19899
21	14:05-14:21	47	26.57-25.38	26.57-27.86	5762	19366
All images in sequence						

ER-2 Flight Log

Author: [Steve Platnick](#)
Mission Scientist: [Dr. Michael King](#)
ER-2 Pilot: [Jan Nystrom](#)
Takeoff: [25Sep2000 0000 UTC](#)
Landing: [25Sep2000 0000 UTC](#)
Duration: [07:58:00](#)

Objective:

(1) Underfly Terra northeast through interior Mozambique, up through Malawi, then east to the Mozambique Channel and south down along the coast, to observe aerosol transport through the northeastern section of the SAFARI study region, (2) Overfly Inhaca Island, Mozambique and the Skukuza tower in Kruger National Park, (3) Once again, overfly powerplants east of Johannesburg and industrial sites to the south.

This was the final ER-2 science flight. No in situ aircraft were operating.

RC-10 photography was acquired over the two ground sites, the industrial/power plant legs, and various points of opportunity in Mozambique (smoke plume across ER-2 track at 0748 UTC, coastal areas at 0955, 1204 UTC).

Key Flight Legs:

The ER-2 flight track through central Mozambique was directly underneath and oriented with Terra (19° 42' S, 34°30' E; 0814 UTC, 12°inclination). Skies were clear through most of the Mozambique legs with some clouds to the northern part of the country, and a band of scattered low cloud near the time of the Terra overpass. The coastal run was predominantly clear sky with some undercast scenes. The return tracks over Inhaca Island (1227 UTC) and Skukuza (1255 UTC) were clear. A fire was observed close to the tower site, with its smoke merging with another plume from farther away. On an unprecedented fourth attempt, flight legs over the power plants and industrial sites (now known as the Annegarn run) were reported to be predominantly clear with an estimated 10% cloud cover.

Highlights: A successful repeat of ER-2 mission 4 (24 August, sortie no. 150) where MAS only worked intermittently.

Surface sites and features overflown during this mission:

- Smoke plume across ER-2 track at 0748 UTC.
- Inhaca Island sun photometer, Mozambique (26°02' S, 32°54' E).
- Skukuza Tower, RSA (25°01' S, 31°30' E) and nearby fire.
- Vredefort Dome, RSA (26°0' S, 27°20' E).

Pilot Report:

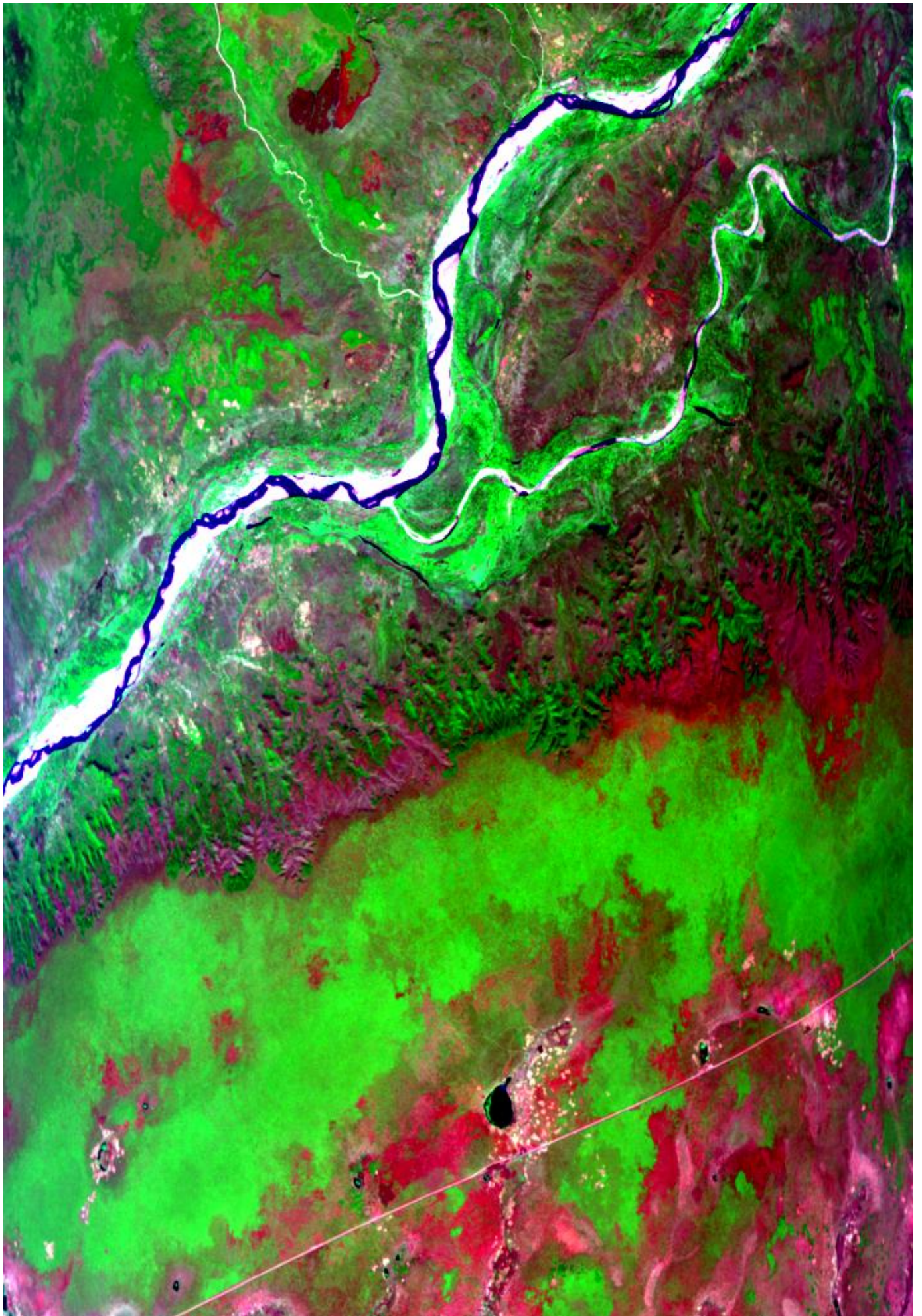
See Key Flight Legs

Meteorology:

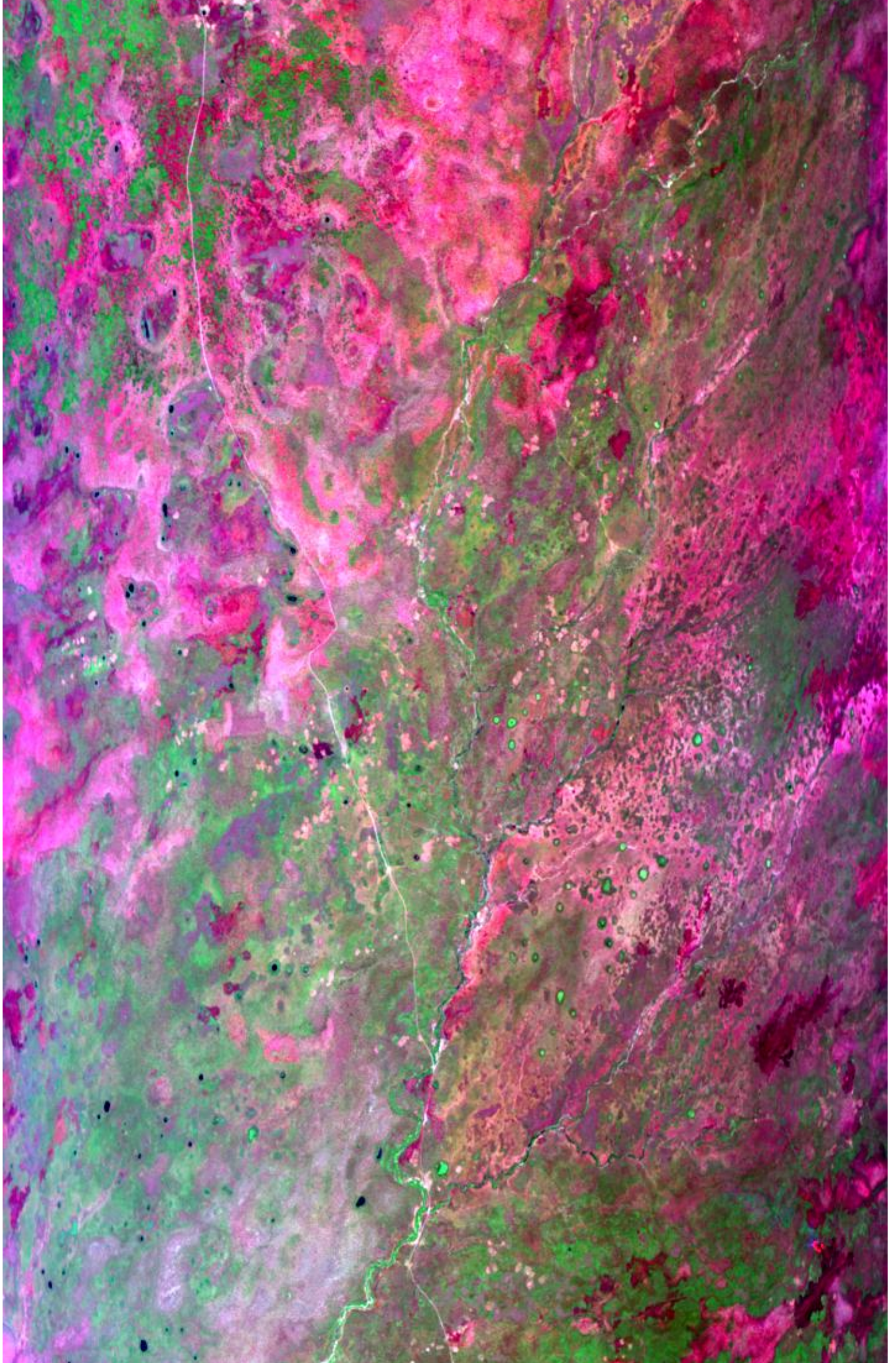
A surface trough develops over the western interior with an upper trough to the west. A weak ridge of high pressure from the Indian Ocean will affect the eastern areas. Fine weather is expected over Namibia, northwestern parts of South Africa and northern neighbors. Otherwise partly cloudy weather with isolated thundershowers over high ground in the west.

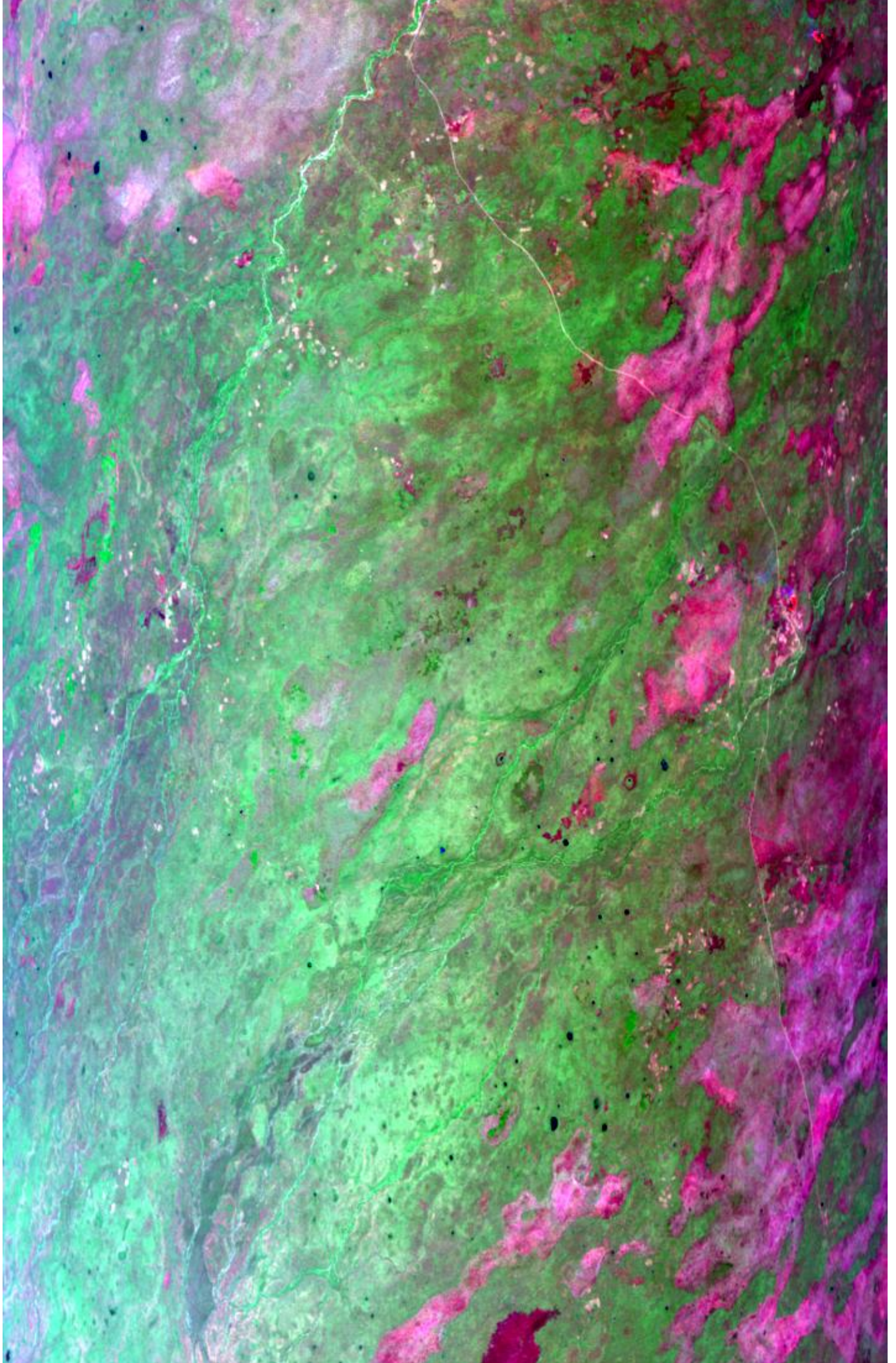
Instrument Status:

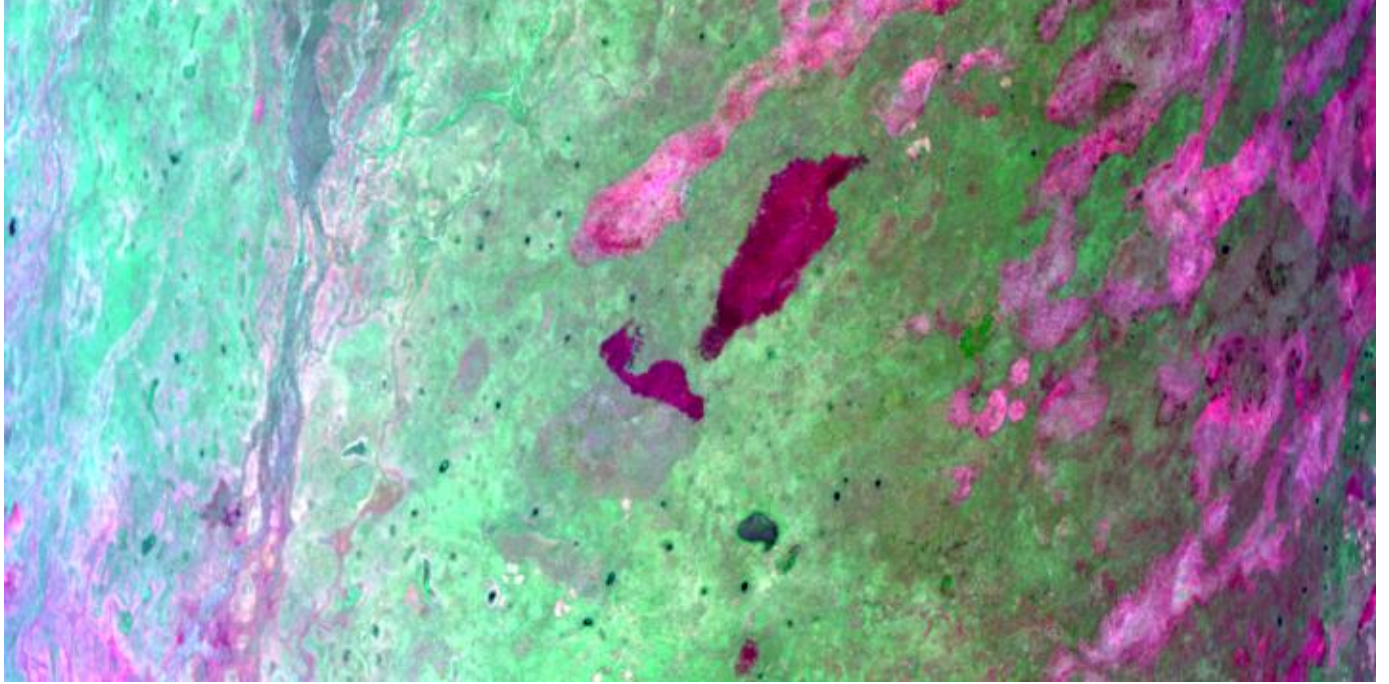
- AirMISR (Airborne Multi-angle Imaging Spectroradiometer): not on aircraft
- CLS (Cloud Lidar System): Lidar worked properly, but navigation data not recorded
- LAS (Leonardo Airborne Simulator): not on aircraft
- MAS (MODIS Airborne Simulator): worked well
- MOPITT-A (MOPITT Airborne Simulator): Worked well
- S-HIS (High-resolution Interferometer Sounder): operated in scanning mode
- SSFR (Solar Spectral Flux Radiometer): Worked well

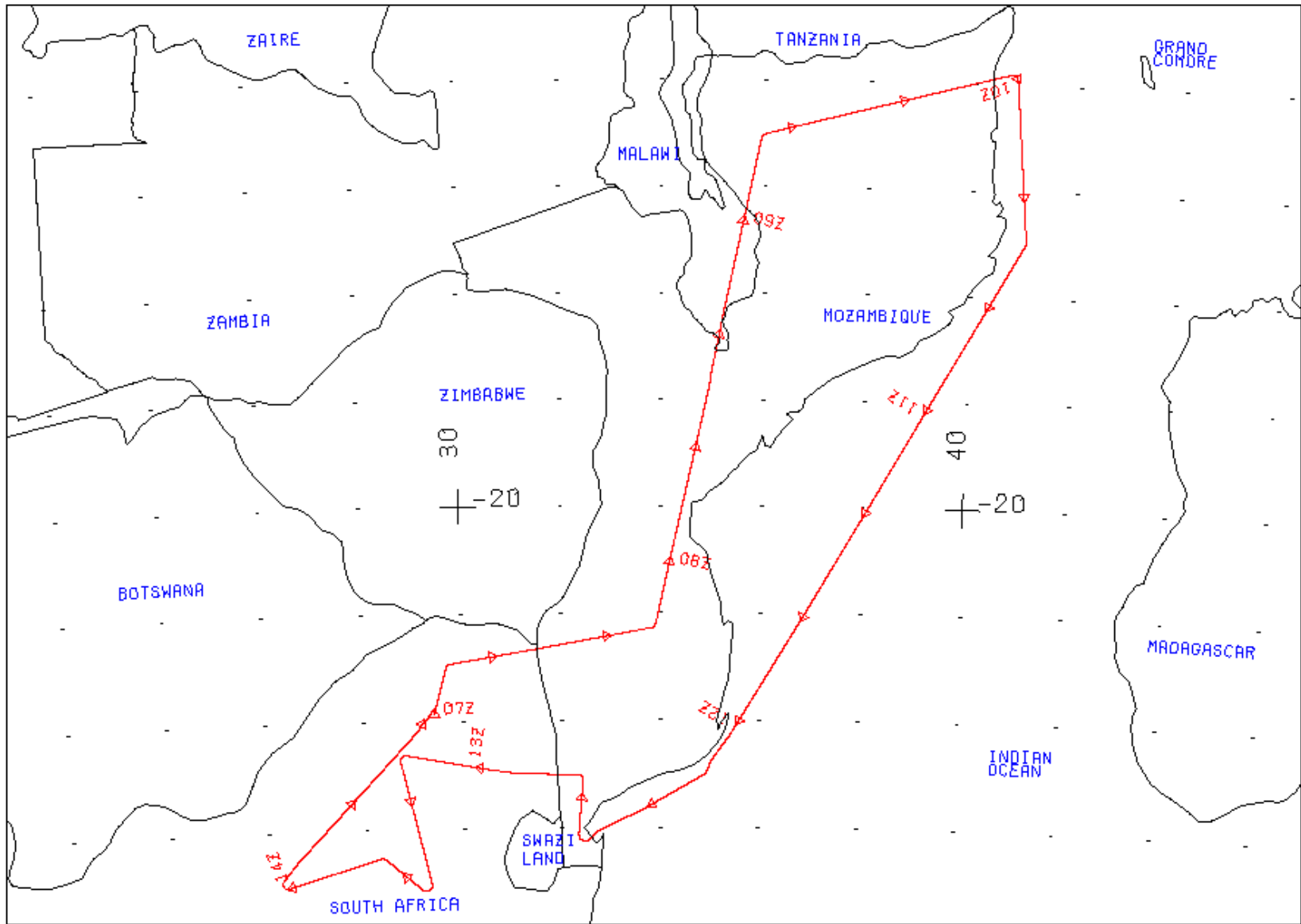












FLIGHT 00-180

25 SEPTEMBER 2000

A/C 809

SAFARI

SOUTH AFRICA

FLIGHT 00-180

25 SEPTEMBER 2000

A/C 809

SAFARI

50 MAS Configuration for 00-180 25 Sep 2000 S. Africa, Mozambique, Malawi

01	01	16	0	0.041537	0.0000	0.452	0.472	0.493	0.100	1981.92
02	02	16	0	0.044113	0.0000	0.534	0.554	0.577	0.100	1857.88
03	03	16	0	0.029495	0.0000	0.635	0.658	0.689	0.100	1549.55
04	04	16	0	0.034366	0.0000	0.687	0.708	0.731	0.100	1386.41
05	05	16	0	0.026080	0.0000	0.729	0.750	0.773	0.100	1260.07
06	06	16	0	0.026736	0.0000	0.810	0.830	0.855	0.100	1053.65
07	07	16	0	0.026608	0.0000	0.853	0.874	0.895	0.100	962.82
08	08	16	0	0.021423	0.0000	0.893	0.912	0.934	0.100	869.28
09	09	16	0	0.023262	0.0000	0.933	0.954	0.974	0.100	784.92
10	10	16	0	0.003665	0.0000	1.586	1.612	1.640	0.100	244.16
11	11	16	0	0.006833	0.0000	1.642	1.668	1.695	0.010	227.32
12	12	16	0	0.003248	0.0000	1.698	1.722	1.749	0.010	201.29
13	13	16	0	0.003213	0.0000	1.751	1.776	1.801	0.010	176.56
14	14	16	0	0.003301	0.0000	1.805	1.830	1.855	0.010	156.28
15	15	16	0	0.003152	0.0000	1.855	1.880	1.906	0.010	139.66
16	16	16	0	0.002988	0.0000	1.906	1.932	1.956	0.100	131.21
17	17	16	0	0.002710	0.0000	1.956	1.982	2.006	0.010	122.76
18	18	16	0	0.002644	0.0000	2.006	2.032	2.057	0.010	109.78
19	19	16	0	0.002548	0.0000	2.058	2.082	2.107	0.010	98.67
20	20	16	0	0.002584	0.0000	2.107	2.132	2.157	0.010	86.28
21	21	16	0	0.005422	0.0000	2.156	2.180	2.205	0.010	76.85
22	22	16	0	0.002939	0.0000	2.205	2.230	2.255	0.010	73.57
23	23	16	0	0.003004	0.0000	2.255	2.280	2.305	0.010	68.38
24	24	16	0	0.002799	0.0000	2.306	2.330	2.354	0.010	58.53
25	25	16	0	0.002721	0.0000	2.355	2.380	2.404	0.010	57.88
26	26	16	1	0.956000	0.0000	3.105	3.180	3.261	0.001	20.15
27	27	16	1	0.960000	0.0000	3.250	3.325	3.401	0.001	17.66
28	28	16	1	0.961000	0.0000	3.405	3.475	3.559	0.001	15.05
29	29	16	1	0.949000	0.0000	3.556	3.640	3.718	0.001	13.06
30	30	16	1	0.945000	0.0000	3.702	3.770	3.847	0.001	11.39
31	31	16	1	0.942000	0.0000	3.857	3.940	4.023	0.001	9.98
32	32	16	1	0.940000	0.0000	4.014	4.095	4.183	0.001	8.69
33	33	16	1	0.939000	0.0000	4.138	4.210	4.291	0.001	7.73
34	34	16	1	0.938000	0.0000	4.288	4.360	4.441	0.001	6.71
35	35	16	1	0.935000	0.0000	4.471	4.550	4.632	0.001	5.63
36	36	16	1	0.934000	0.0000	4.622	4.700	4.784	0.001	4.87
37	37	16	1	0.933000	0.0000	4.773	4.860	4.937	0.001	4.28

38	38	16	1	0.932000	0.0000	4.917	4.990	5.084	0.001	3.80
39	39	16	1	0.931000	0.0000	5.055	5.165	5.235	0.001	3.39
40	40	16	1	0.930000	0.0000	5.215	5.315	5.371	0.001	3.03
41	41	16	1	0.932000	0.0000	5.342	5.380	5.421	0.001	2.80
42	42	16	1	0.966000	0.0000	8.330	8.564	8.759	0.010	0.45
43	43	16	1	0.963000	0.0000	9.436	9.665	9.928	0.010	0.28
44	44	16	1	0.960000	0.0000	10.218	10.474	10.711	0.010	0.20
45	45	16	1	0.957000	0.0000	10.694	10.943	11.209	0.010	0.17
46	46	16	1	0.947000	0.0000	11.684	11.953	12.208	0.010	0.12
47	47	16	1	0.943000	0.0000	12.583	12.803	13.035	0.010	0.09
48	48	16	1	0.948000	0.0000	12.939	13.193	13.446	0.010	0.08
49	49	16	1	0.939000	0.0000	13.425	13.712	14.035	0.010	0.07
50	50	16	1	0.944000	0.0000	13.953	14.193	14.403	0.010	0.06

										=(!)
										=-Scale Factor
										=- Right 50% spectral response
										=-Peak 100% spectral response (microns)
										=-Left 50% spectral response (microns)
										=-Calibration intercept (only used for visible bands)
										=-----Calibration slope (only used for visible bands 1-25)
										Blackbody emmissivity (only used for IR bands 26-50)
										=-----0 => visible band, 1 => thermal infrared band"
										=-----Number of bits in this channel (8 or 10)
										=-----Spectral band assigned to this channel
=	=	=	=	=	=	=	=	=	=	----- Channel number

(!) Sensor weighted solar spectral irradiance (Watts/meter²/micron)
at mean Earth-Sun distance

NOTE: Factor in column 10 is used to scale radiances in calibrated data by the following method:
value_stored = int(radiance / factor) for each channel

Title	MODIS Airborne Simulator (MAS) Level-1B Data
Sensor_ID_Code	M5 105 MAS50
ExperimentName	SAFARI 2000
AircraftPlatform	NASA ER-2 (809)
NavFormatCode	Format (A-1)

LocationCode	Inertial (INU)
AltitudeCode	Inertial (INU)
CalibrationVersion	Version 1.0 Calibration
CalibrationName	SAFARI_Jul19-Oct19
SRF_Dataset	/rarray/calibrat/mas/srf/Oct_00/
SRF_FTP	ftp://asapdata/mas/srf/Oct_00/
NavDataSource	ER2 navigation recorder
NavDataPath	/nav/2000/er2/00-180
TbackBand	45, 47, 31, 273.0
GranuleVersion	1.0.0
MetadataVersion	1.0.0

 Conversion from counts to radiance in VIS and NIR channels is
 $rad = (count - (cbb_avg)) * slope$

"where,"

rad = radiance
 cbb_avg = cold black body counts (running average)
 slope = from column 7 in above table
 count = count value

IR Emissivity Correction (for MAS-50)

From Chris Moeller (UWisc)

This is done in 2 steps:

1. Get the (TBACK Band) scan head count and convert it to a brightness temperature
2. Use the scan head temperature and the cold and warm black body counts/temperatures for computing the corrected slope and intercept for all IR bands.

(note: set to 1.0 for channels 1-25)

MAS BB Emissivity Coefficients
 Hemispherical Reflectance (JPL) 11/00
 convolved with MAS SRF (ARC) 10/00
 Red spot Paint

Values in form Wavelength, Emissivity

For Bands 26 thru 50:

0.95600, 0.96000, 0.96100, 0.94900, 0.94500,
0.94200, 0.94000, 0.93900, 0.93800, 0.93500,
0.93400, 0.93300, 0.93200, 0.93100, 0.93000,
0.93200, 0.96600, 0.96300, 0.96000, 0.95700,
0.94700, 0.94300, 0.94800, 0.93900, 0.94400,

Config.asc creation date = 13-June-2001

Config.asc creation date = 13-June-2001

MODIS AIRBORNE SIMULATOR (MAS) FLIGHT LINE
 INFORMATION FOR 25 Sep 2000
 NASA FLIGHT NUMBER 00-180

START OF FLIGHT LINE					END OF FLIGHT				
LINE	FLIGHT DATA								
LINE	TIME	LAT	LON	SOLAR	TIME	LAT	LON	SOLAR	TIME
	HH:MM:SS	DEG	DEG	ZEN	HH:MM:SS	DEG	DEG	ZEN	HH:MM:SS
	SCAN	HEAD	ALT	AZIM	SCAN	HEAD	ALT	AZIM	SCAN
	LINES	DEG	M (GPS)	DEG	LINES	DEG	M (GPS)	DEG	LINES
1	07:29:08	-22.648	31.690	39.3	61.4	07:47:58	-22.285	33.837	33.7
54.7	7035	80.1	19078						
2	07:49:07	-22.205	33.927	33.4	54.3	08:15:53	-19.332	34.583	26.2
48.1	9999	18.8	19617						
3	08:15:53	-19.331	34.584	26.2	48.1	08:32:40	-17.562	35.001	21.9
42.6	6269	10.5	19718						
4	08:32:48	-17.547	35.002	21.8	42.6	08:59:34	-14.683	35.604	15.4
28.5	9999	11.5	19770						
5	08:59:34	-14.683	35.604	15.4	28.5	09:14:10	-13.097	35.938	12.5
15.5	5456	14.1	19834						
6	09:15:15	-13.013	36.016	12.3	14.0	09:42:01	-12.284	38.878	13.0
329.2	9999	73.3	19865						
7	09:42:01	-12.284	38.878	13.0	329.2	09:58:32	-11.815	40.663	16.4
309.9	6170	75.6	19928						
8	10:00:15	-11.911	40.802	16.9	308.9	10:27:01	-14.891	41.067	24.1
303.1	9999	172.1	19836						
9	10:28:01	-15.001	41.057	24.4	302.9	10:54:46	-17.652	39.530	30.0
300.7	9999	206.6	19831						
10	10:54:46	-17.653	39.530	30.0	300.7	11:21:32	-20.270	37.976	35.5
298.8	9999	208.5	19888						
11	11:21:32	-20.270	37.976	35.5	298.8	11:48:17	-22.897	36.339	40.9
297.1	9999	209.0	19956						
12	11:48:17	-22.897	36.339	40.9	297.1	12:07:34	-24.754	35.062	44.6

295.9 7204 212.1 19928
 13 12:10:10 -25.017 34.913 45.1 295.7 12:29:17 -26.071 32.740 47.7
 294.6 7144 240.2 19853
 14 12:33:38 -26.115 32.359 48.3 294.0 12:42:42 -25.125 32.456 49.9
 291.5 3387 6.6 19838
 15 12:44:07 -25.017 32.351 50.1 291.3 12:53:36 -24.991 31.132 51.0
 290.4 3545 271.4 19863
 16 12:53:43 -24.990 31.119 51.0 290.4 13:11:07 -24.628 28.889 52.7
 288.8 6504 279.2 19946
 17 13:12:51 -24.737 28.746 53.0 288.7 13:34:02 -27.002 29.332 58.7
 286.5 7916 162.6 19899
 18 13:36:30 -27.110 29.128 59.1 286.3 13:43:44 -26.557 28.415 59.9
 285.3 2705 313.4 19816
 19 13:44:56 -26.536 28.269 60.0 285.2 14:00:12 -27.026 26.385 61.8
 284.3 5707 250.0 19865
 20 14:02:05 -26.890 26.279 62.1 284.1 14:05:37 -26.584 26.562 63.0
 283.3 1320 42.9 19899
 21 14:05:44 -26.573 26.572 63.1 283.2 14:21:10 -25.377 27.858 67.4
 280.0 5762 46.5 19366

NUMBER OF FILES FOR THIS FLIGHT = 21
 TOTAL NUMBER OF SCAN LINES = 146117
 DATE THESE FILES WERE PROCESSED = 26-Sep-2002
 DATE THIS LIST WAS CREATED = Thu Sep 26

18:16:43 PDT 2002

GRANULE VERSION = 2

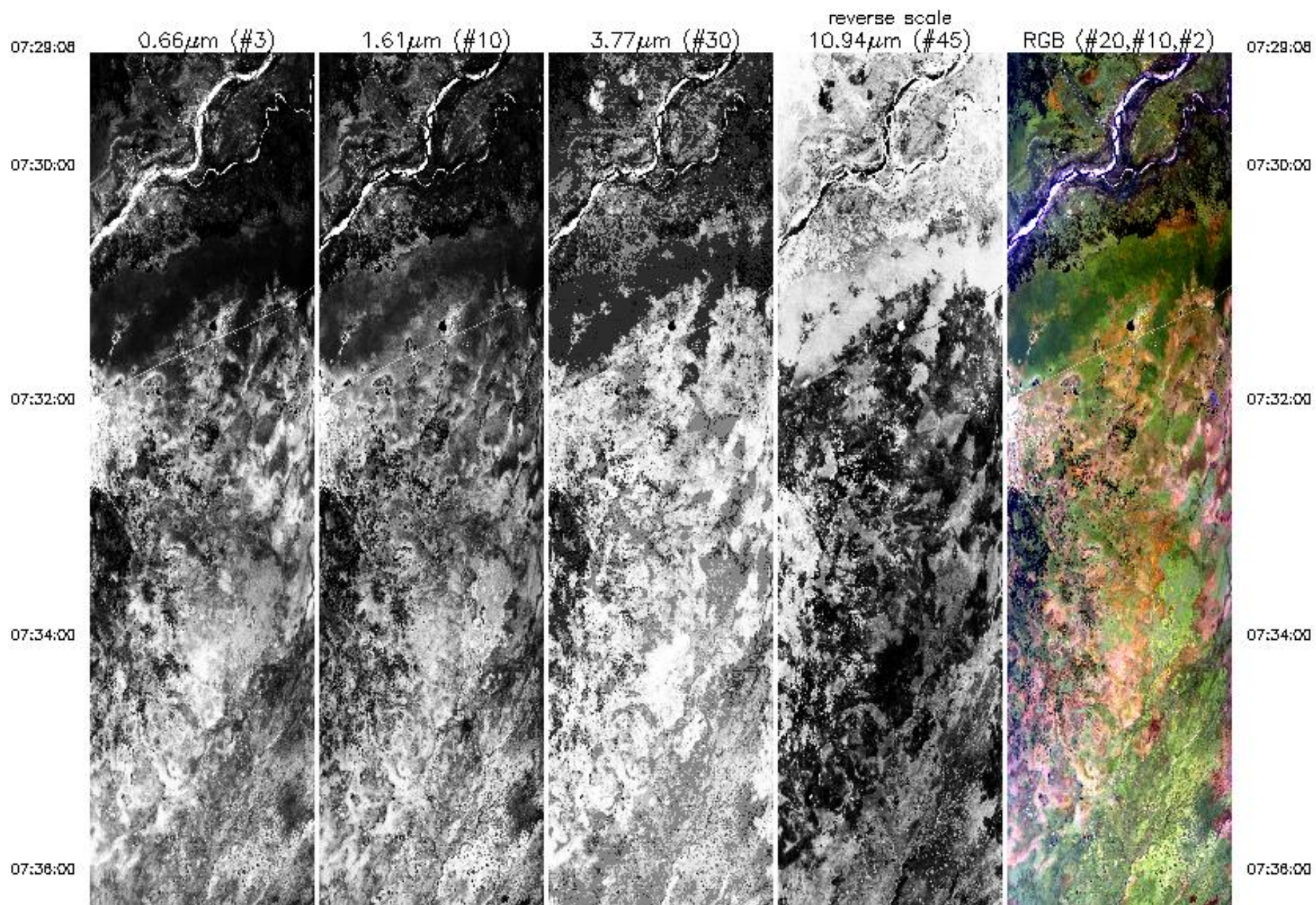
GLOBAL ATTRIBUTES

Attribute Name	Description
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CreationDate	26-Sep-2002 13:24:01
AircraftPlatform	NASA ER-2 (809)
NavFormatCode	Format (A-1)

LocationCode	Inertial (INU)
AltitudeCode	Inertial (INU)
NavDataSource	ER2 navigation recorder
NavDataPath	/nav/2000/er2/00-180
CalibrationName	SAFARI_Jul19-Oct19
Reference	NCSA HDF Reference Manual, Version 4.1r4, 2000
title	MODIS Airborne Simulator (MAS) Level-1B Data
ExperimentName	SAFARI 2000
FlightNumber	00-180
FlightDate	25 Sep 2000
SiteLineRun	void
GeographicArea	Mozambique
SRF_FTP	ftp://asapdata/mas/srf/Oct_00/
SRF_dataset	/rarray/calibrat/mas/srf/Oct_00/
FlightLineNumber	1
TotalFlightLines	21
DataUsersGuideSource	http://ltpwww.gsfc.nasa.gov/MAS/
SoftwareVersion	Level-1b Version 10.1.1 UR
CalibrationVersion	Version 1.0 Calibration
data_set	MAS SAFARI 2000
day_night_flag	D
granule_version	2
metadata_version	2.0.0
data_quality	Good
Other_Aircraft_Sensors	AirMISR, CLS, MOPPIT-A, Leonardo, RC-10
Principal_Investigator	King
lat_UL	-22.79889
lon_UL	31.72219
lat_UR	-22.49710
lon_UR	31.66208
lat_LL	-22.44394
lon_LL	33.86852
lat_LR	-22.12693
lon_LR	33.81250
begin_date	20000924 072908
end_date	20000924 074758
RunTime	475,560 ms, or 67 ms/scanline
CompletionDate	26-Sep-2002 13:36:21
producer_granule_id	

MASL1B_00180_01_20000924_0729_0747_V02.hdf

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Mozambique
Flight #00-180 Track #1



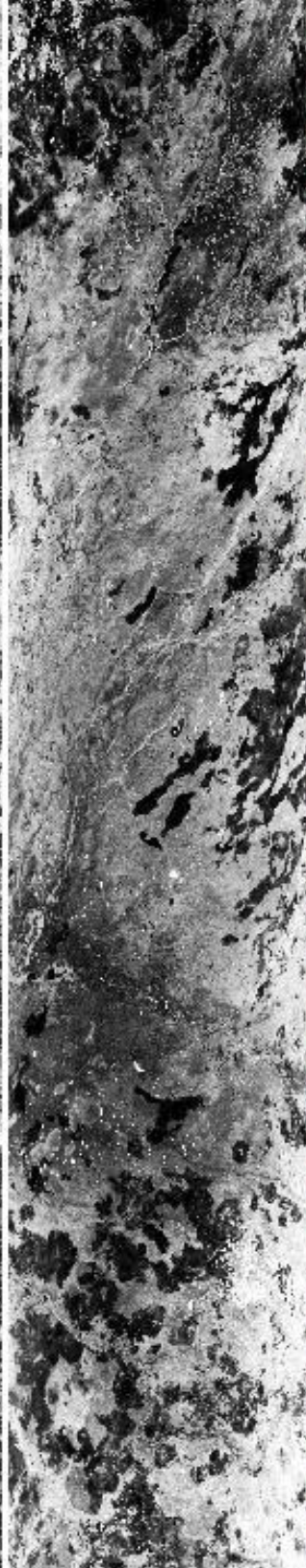
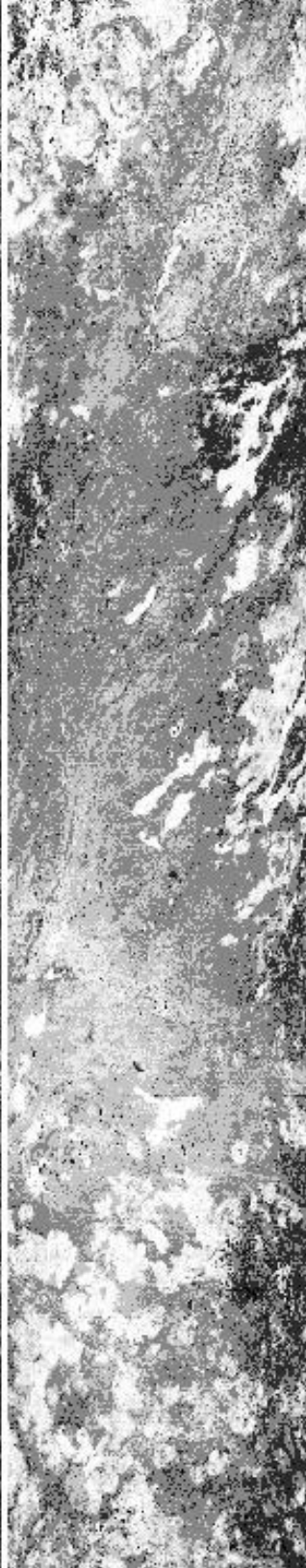
07:36:00

07:36:00

07:40:00

07:42:00

07:44:00



07:36:00

07:36:00

07:40:00

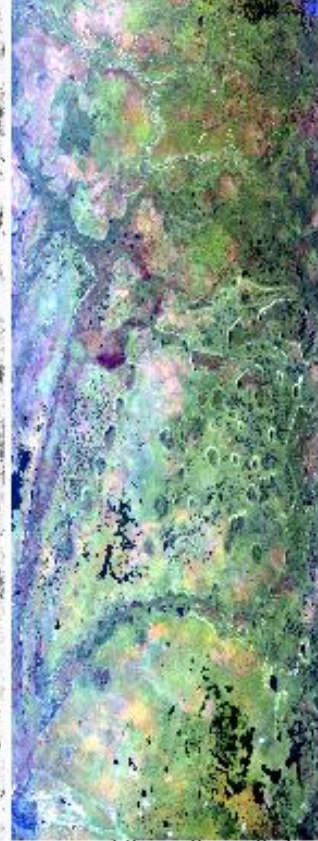
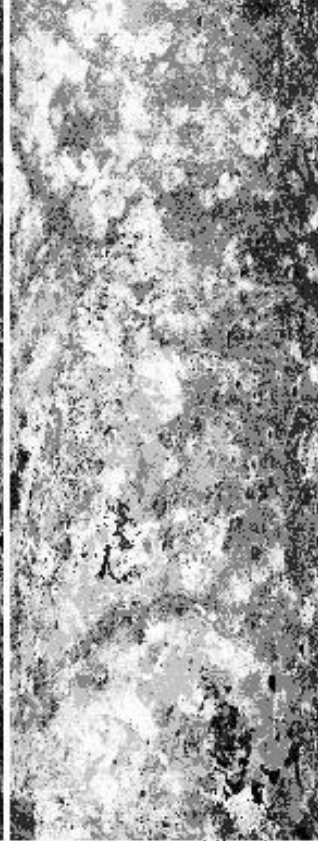
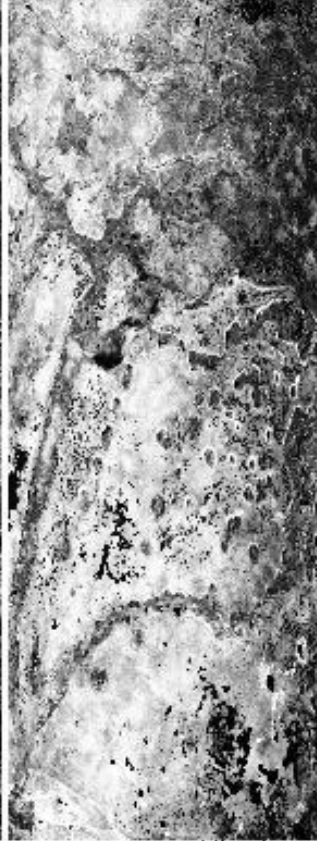
07:42:00

07:44:00

07:44:00

07:46:00

07:47:58



07:44:00

07:46:00

07:47:58

0.66µm (#3)

1.61µm (#10)

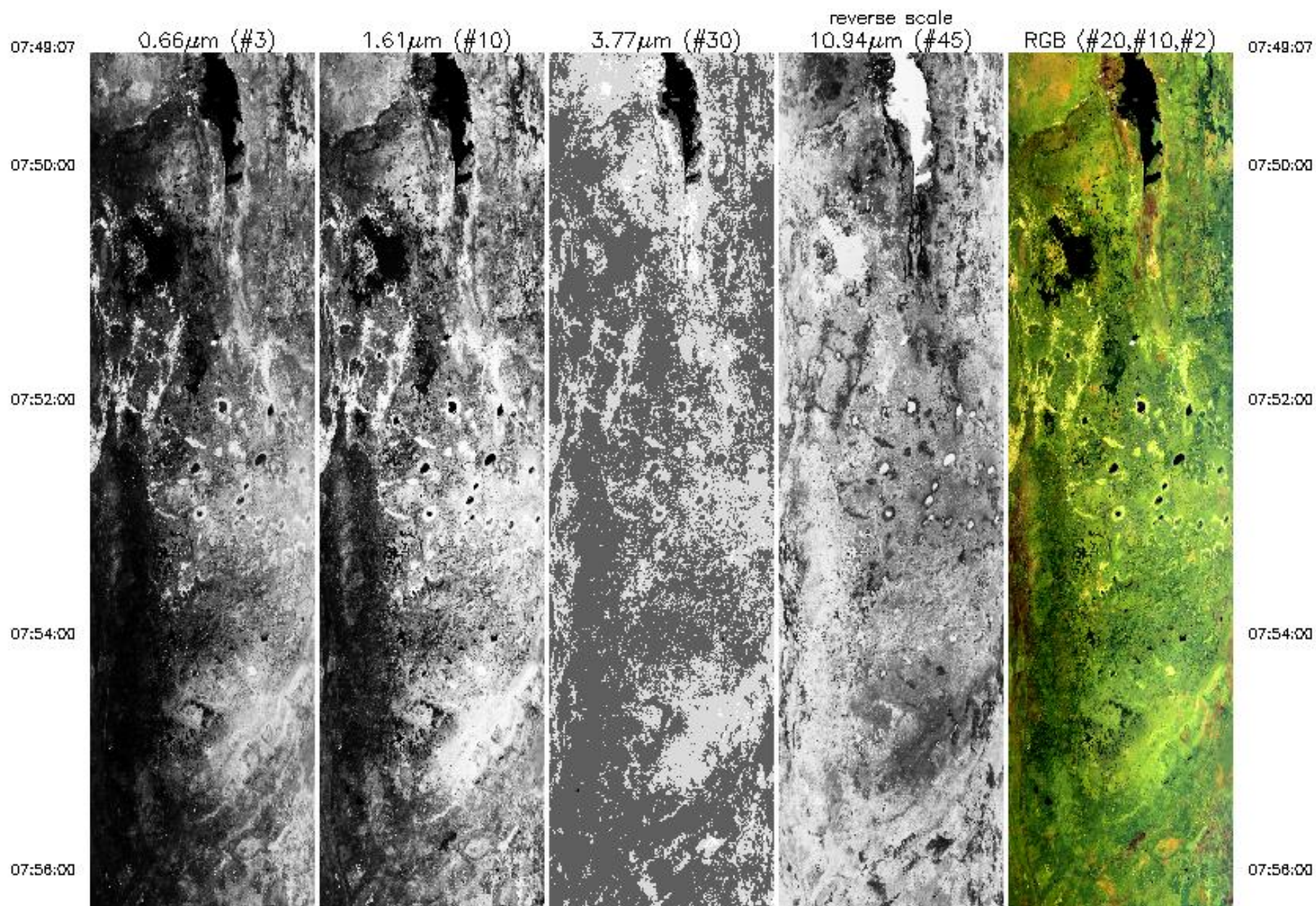
3.77µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

Upper Left Lat, Lon = -22.8° , 31.7°
 Lower Right Lat, Lon = -22.1° , 33.8°
 Aircraft Heading = 79.6°
 Solar Zenith = 39.4°
 GPS Altitude = 19175. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Mozambique
Flight #00-180 Track #2



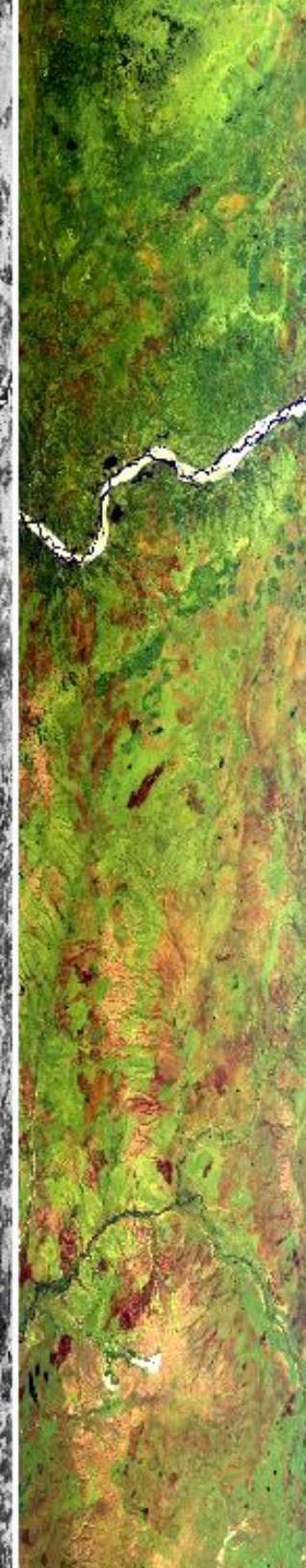
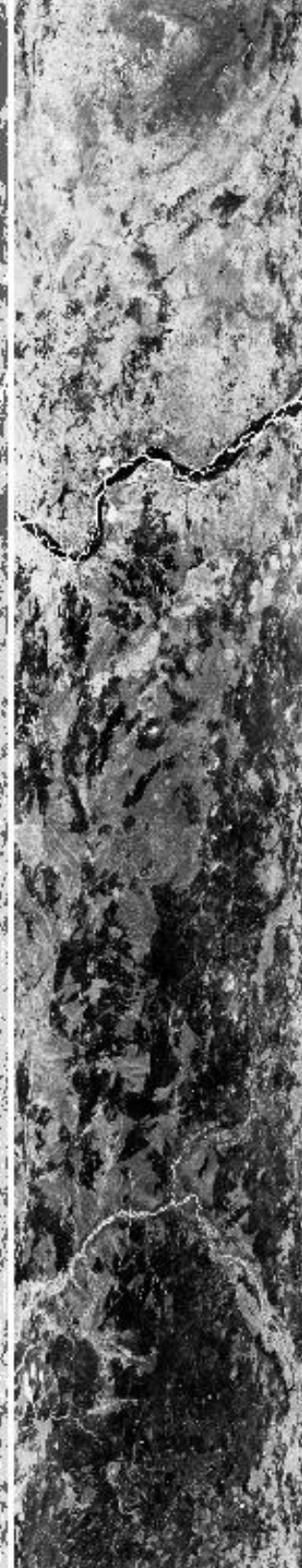
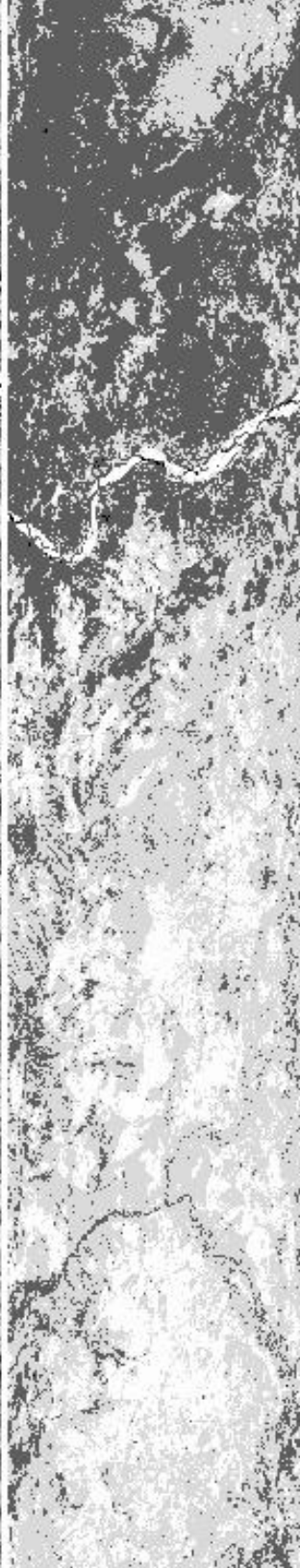
07:58:00

07:58:00

06:00:00

06:02:00

06:04:00



07:58:00

07:58:00

06:00:00

06:02:00

06:04:00

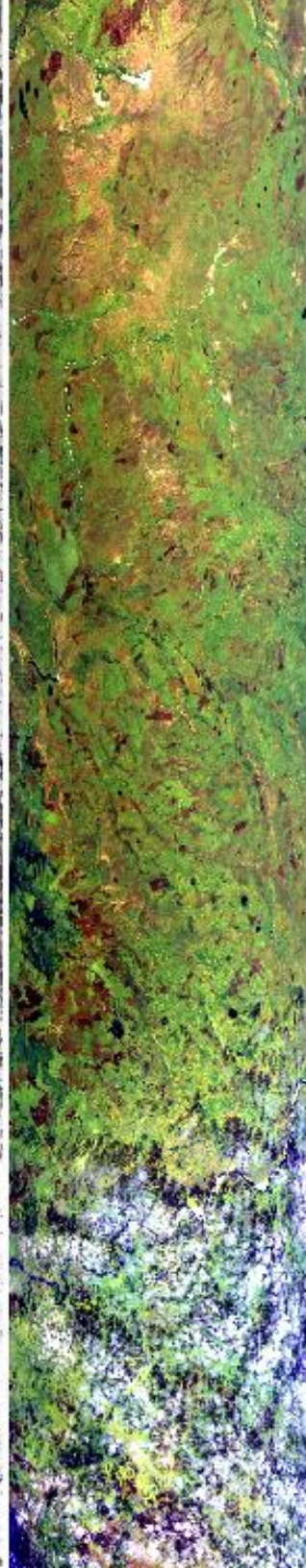
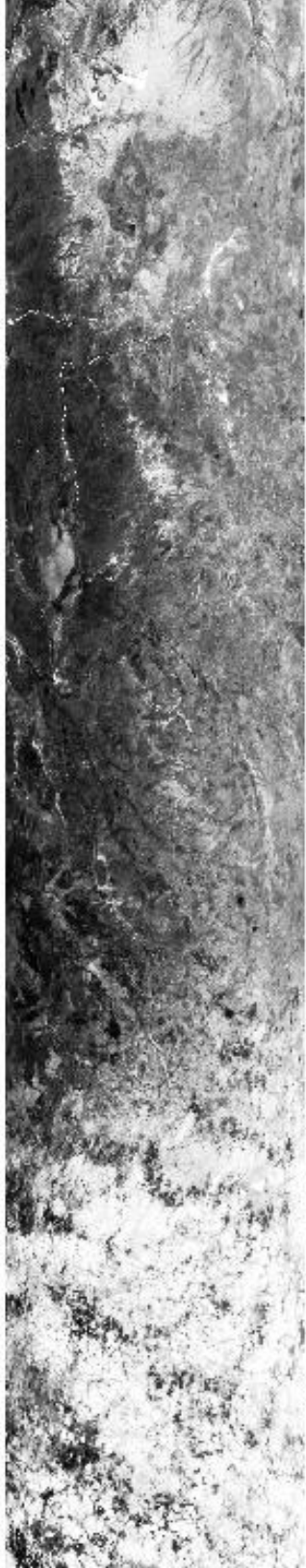
06:04:00

06:06:00

06:08:00

06:10:00

06:12:00



06:04:00

06:06:00

06:08:00

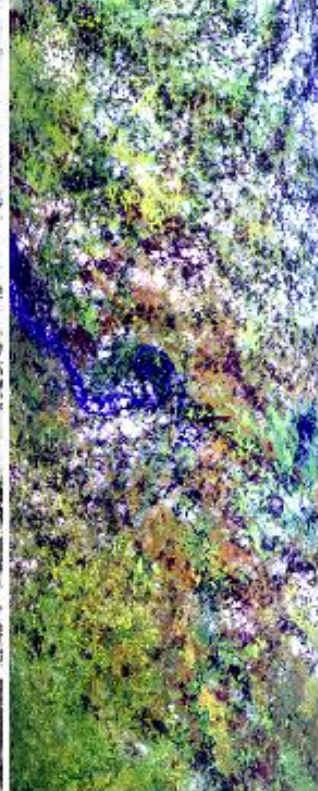
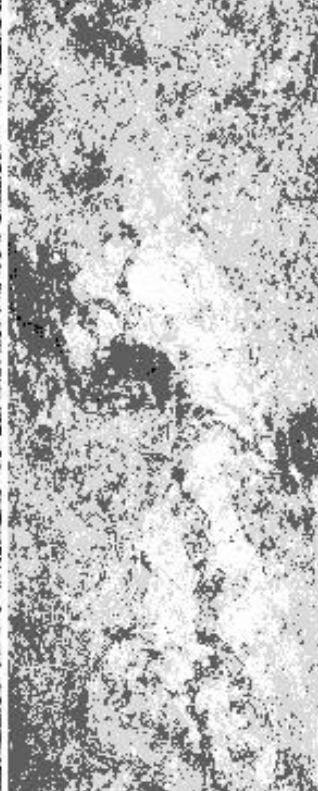
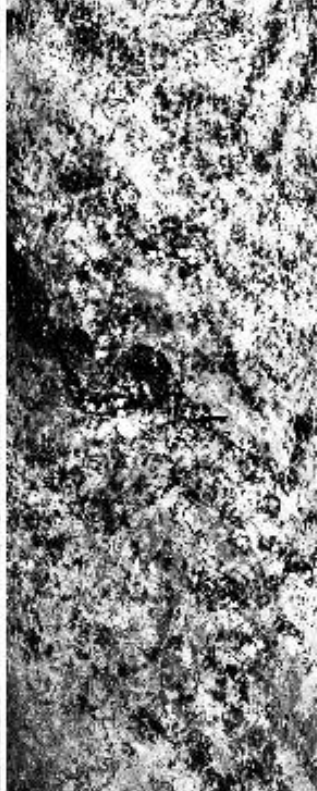
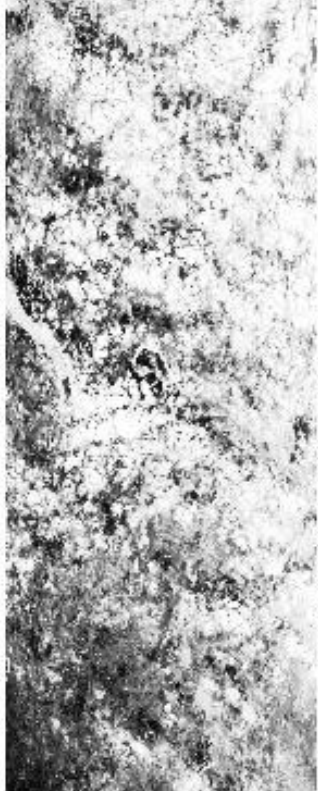
06:10:00

06:12:00

06:12:00

06:14:00

06:15:53



06:12:00

06:14:00

06:15:53

0.66µm (#3)

1.61µm (#10)

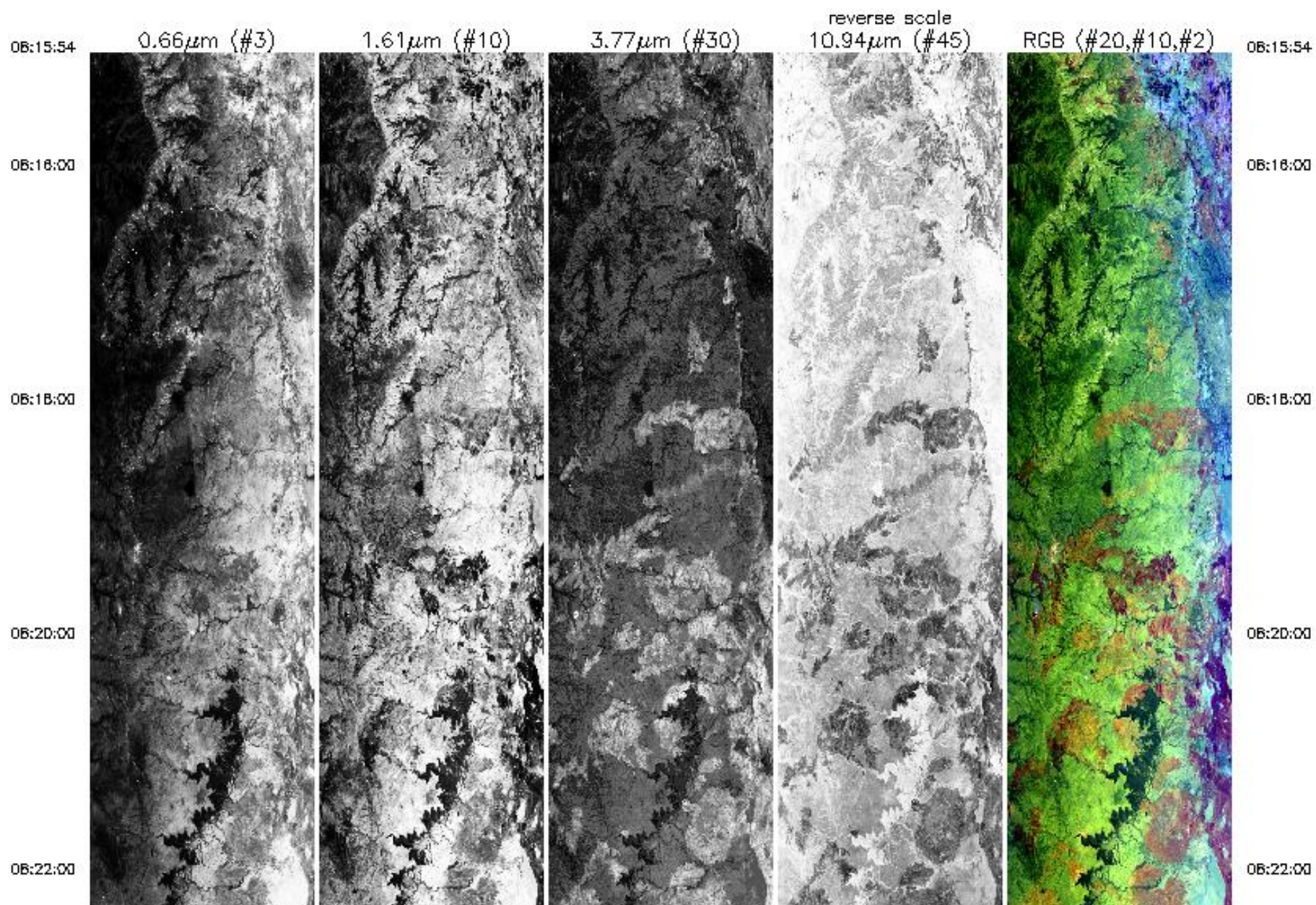
3.77µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

Upper Left Lat, Lon = -22.3° , 34.1°
 Lower Right Lat, Lon = -19.3° , 34.4°
 Aircraft Heading = 21.7°
 Solar Zenith = 33.3°
 GPS Altitude = 19586. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Mozambique
Flight #00-180 Track #3



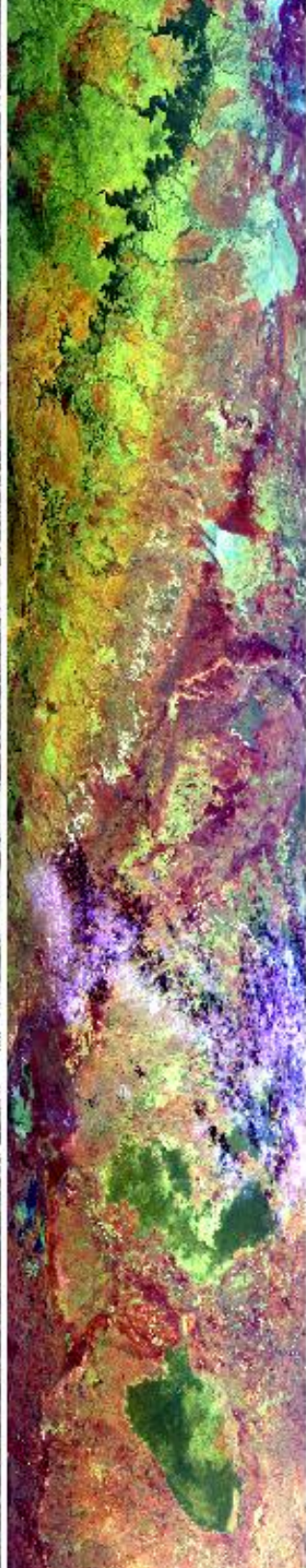
06:22:00

06:24:00

06:26:00

06:28:00

06:30:00



06:22:00

06:24:00

06:26:00

06:28:00

06:30:00

06:30:00



06:30:00

06:32:41

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

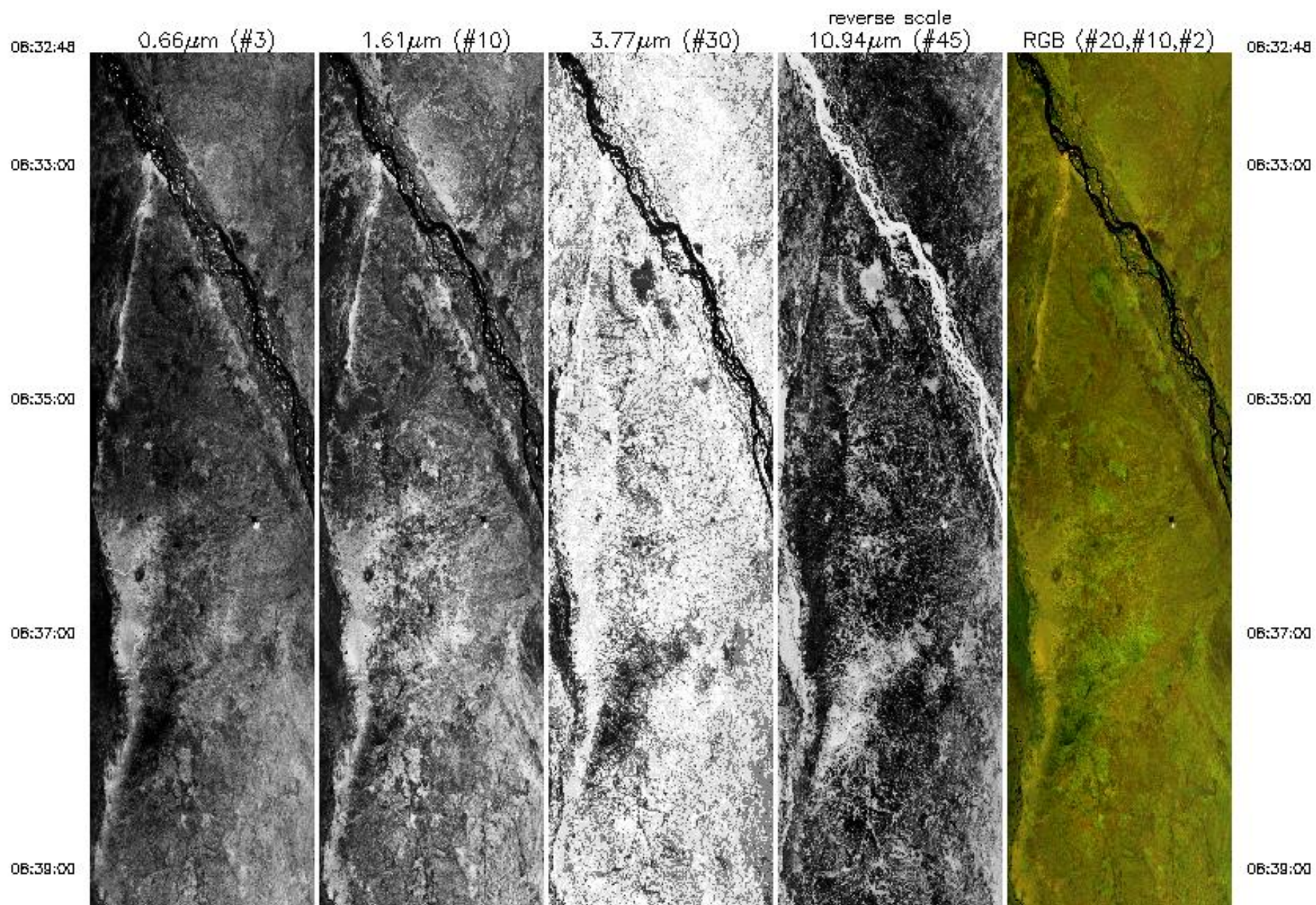
10.94µm (#45)
reverse scale

RGB (#20, #10, #2)

06:32:41

Upper Left Lat, Lon = -19.4°, 34.8°
 Lower Right Lat, Lon = -17.5°, 34.8°
 Aircraft Heading = 15.8°
 Solar Zenith = 26.2°
 GPS Altitude = 19727. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Malawi/Mozambique
Flight #00-180 Track #4



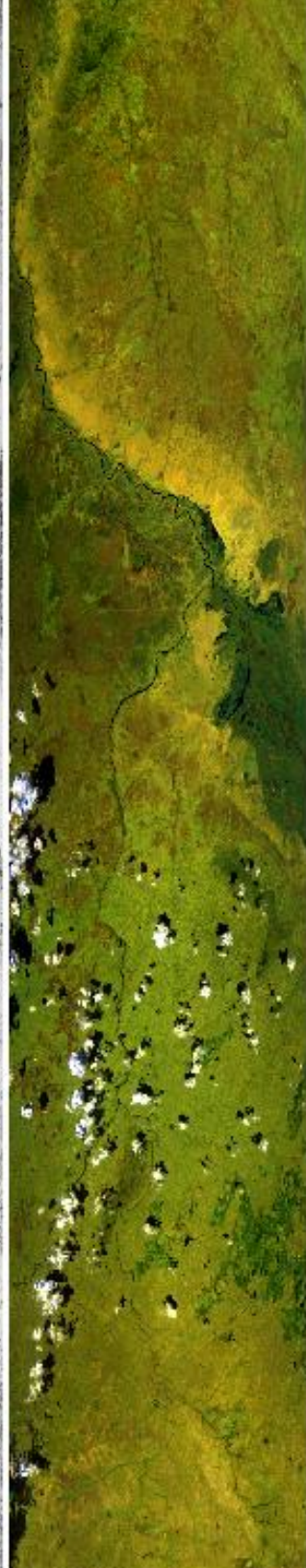
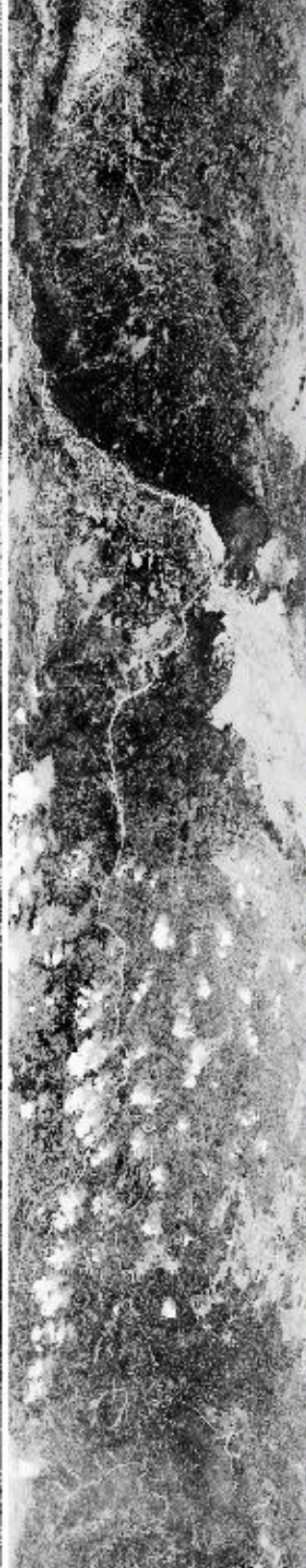
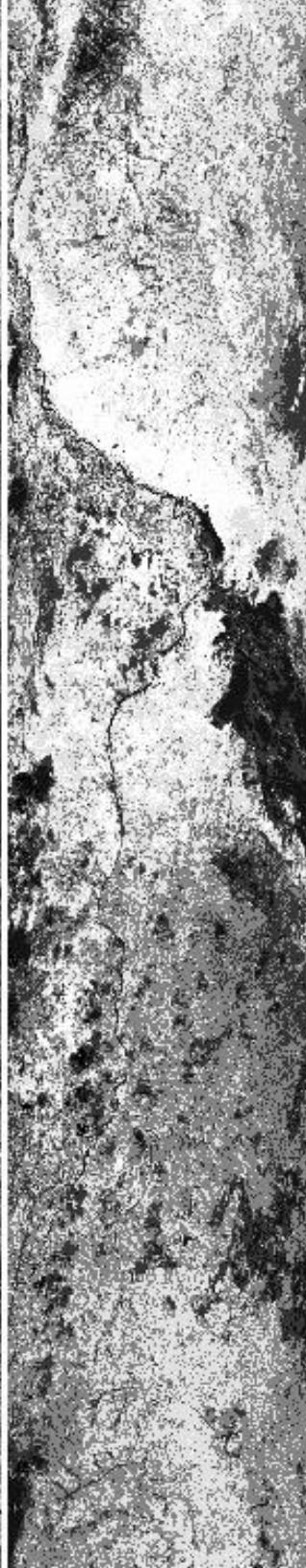
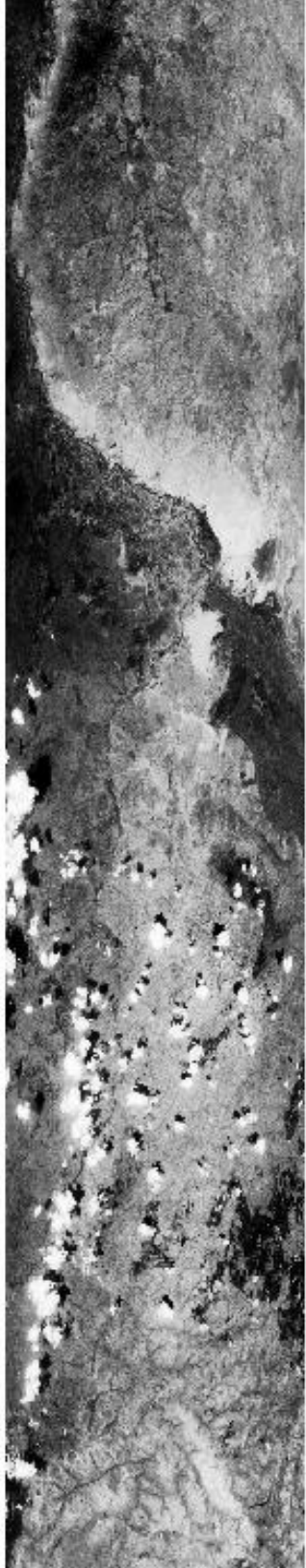
06:39:00

06:41:00

06:43:00

06:45:00

06:47:00



06:39:00

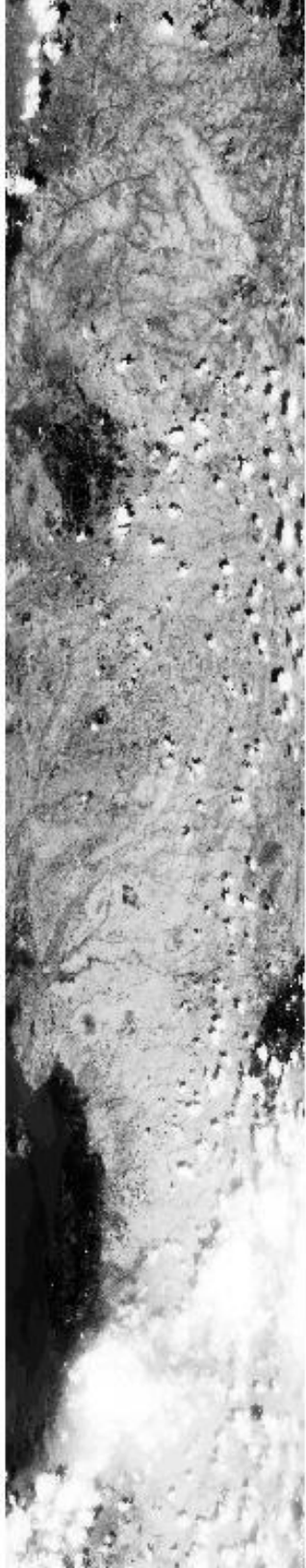
06:41:00

06:43:00

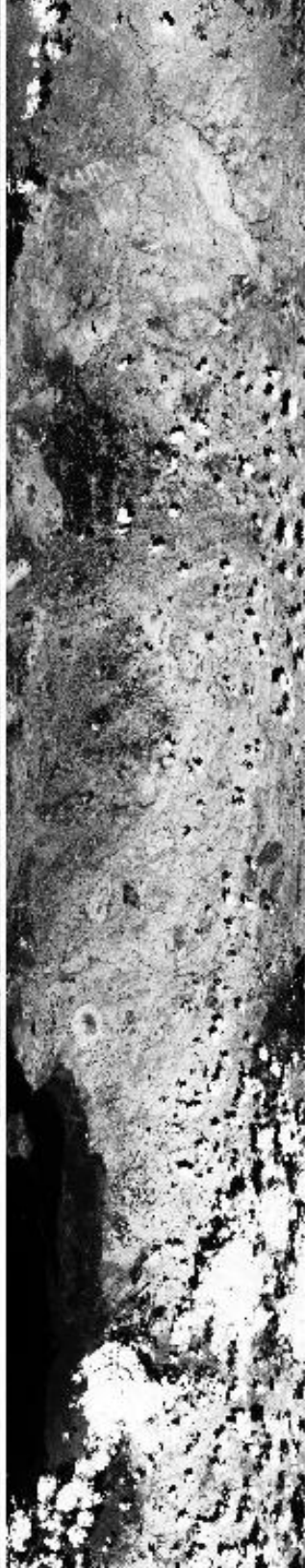
06:45:00

06:47:00

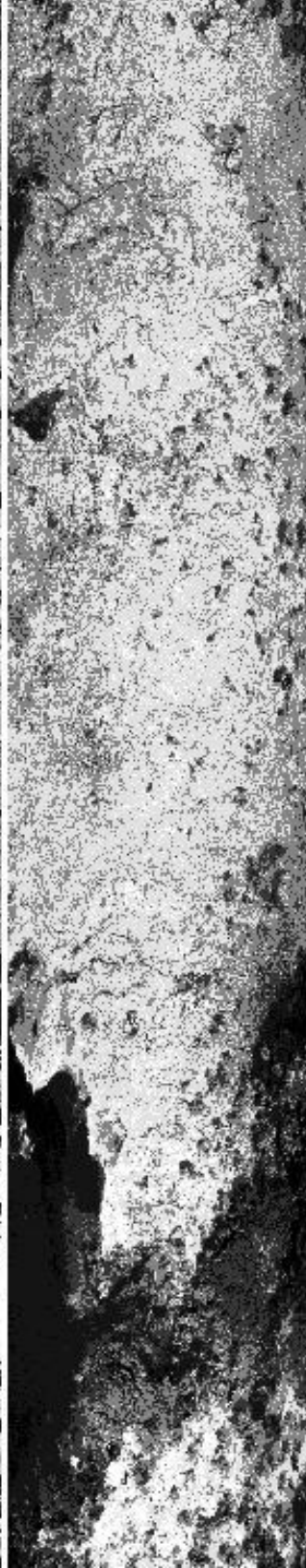
06:47:00



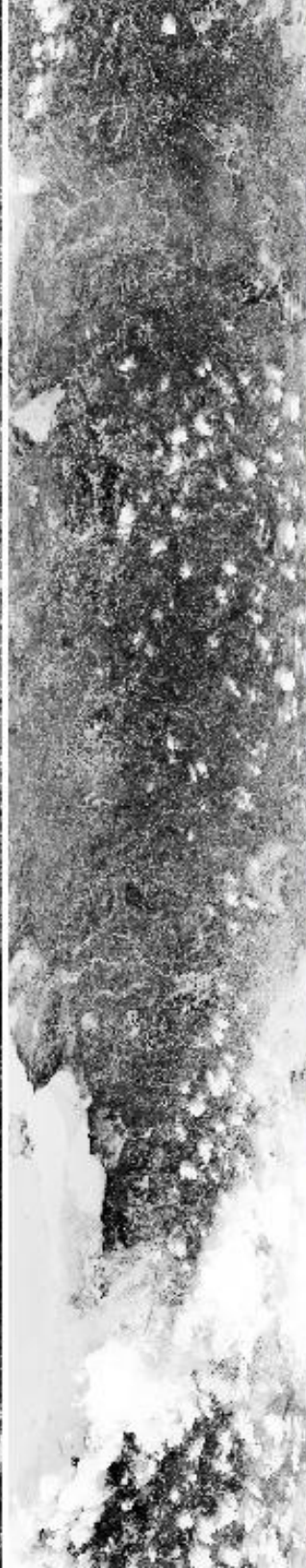
06:49:00



06:51:00



06:53:00



06:55:00



06:47:00

06:49:00

06:51:00

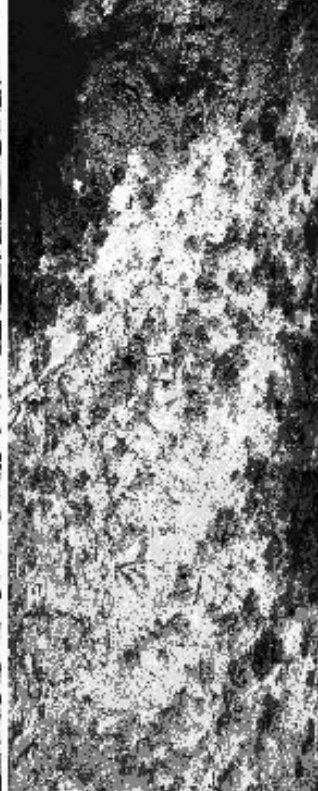
06:53:00

06:55:00

06:55:00

06:57:00

06:58:34



06:55:00

06:57:00

06:58:34

0.66µm (#3)

1.61µm (#10)

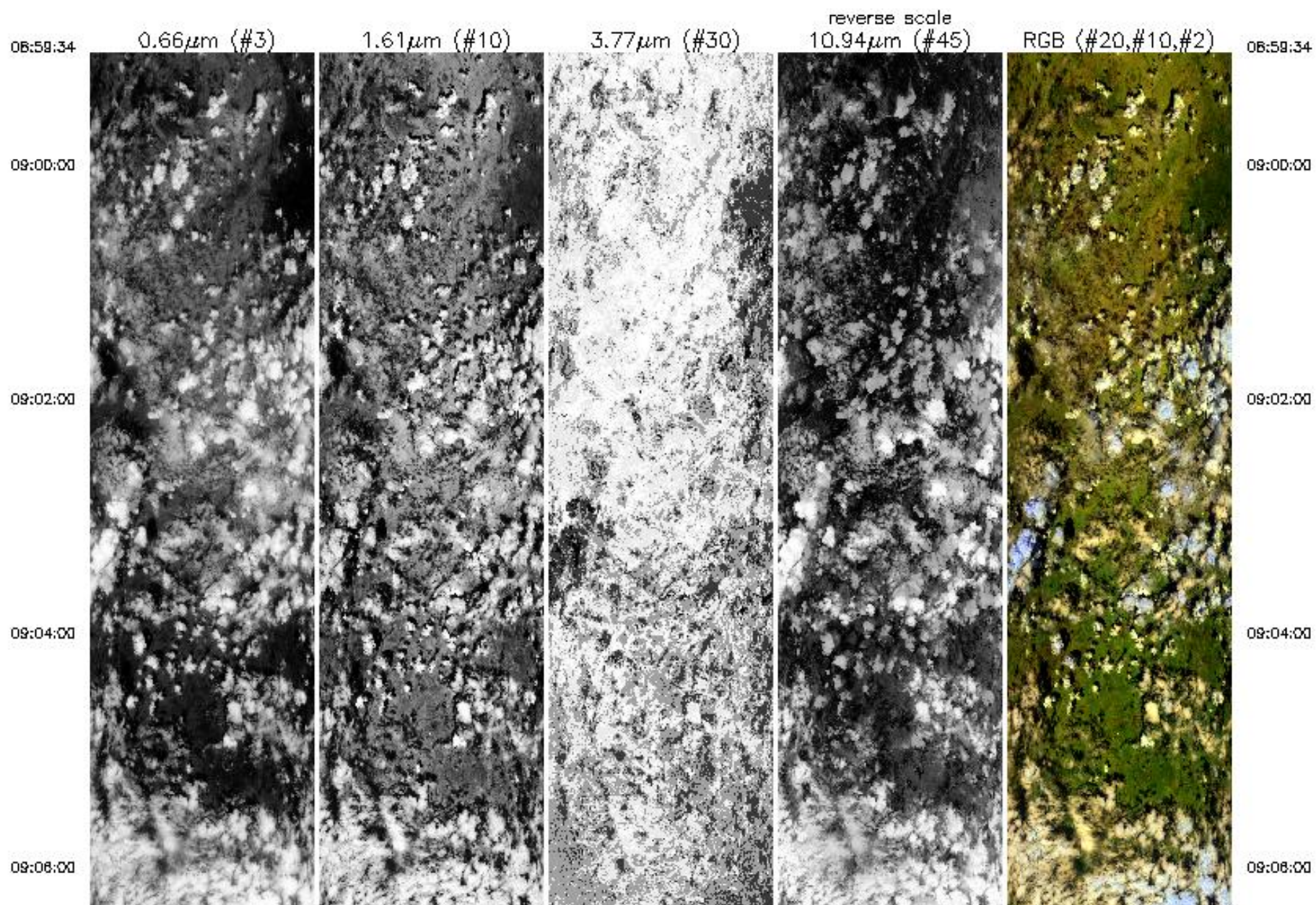
3.77µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

Upper Left Lat, Lon = -17.6° , 35.2°
 Lower Right Lat, Lon = -14.6° , 35.4°
 Aircraft Heading = 8.7°
 Solar Zenith = 21.8°
 GPS Altitude = 19773. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Mozambique
Flight #00-180 Track #5



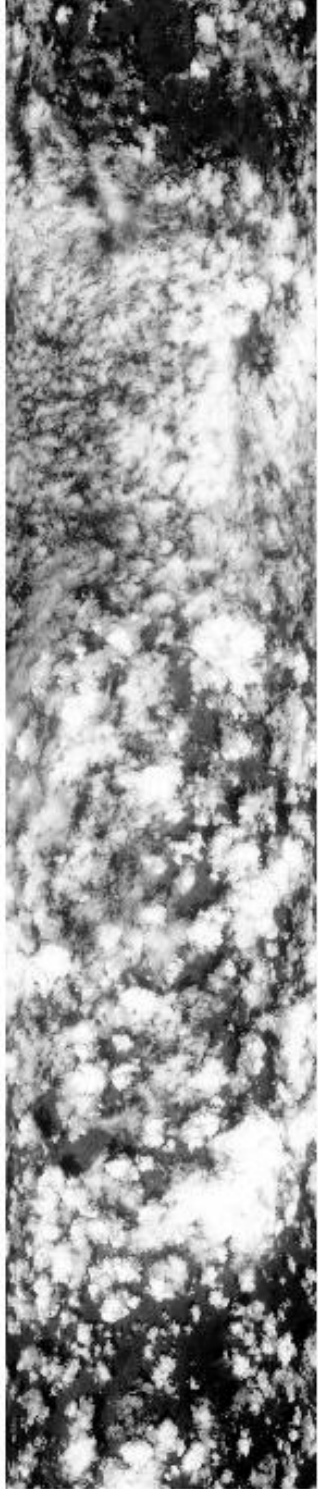
09:06:00

09:08:00

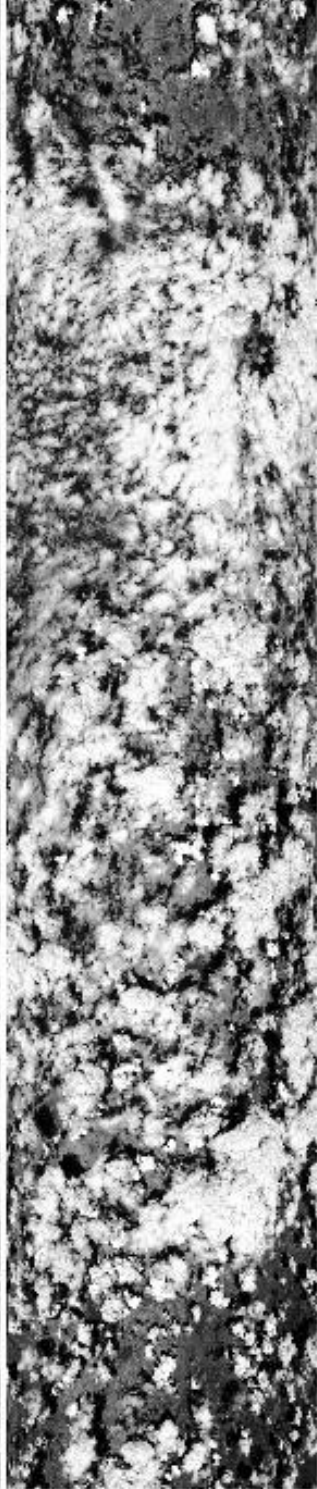
09:10:00

09:12:00

09:14:11



0.66 μ m (#3)



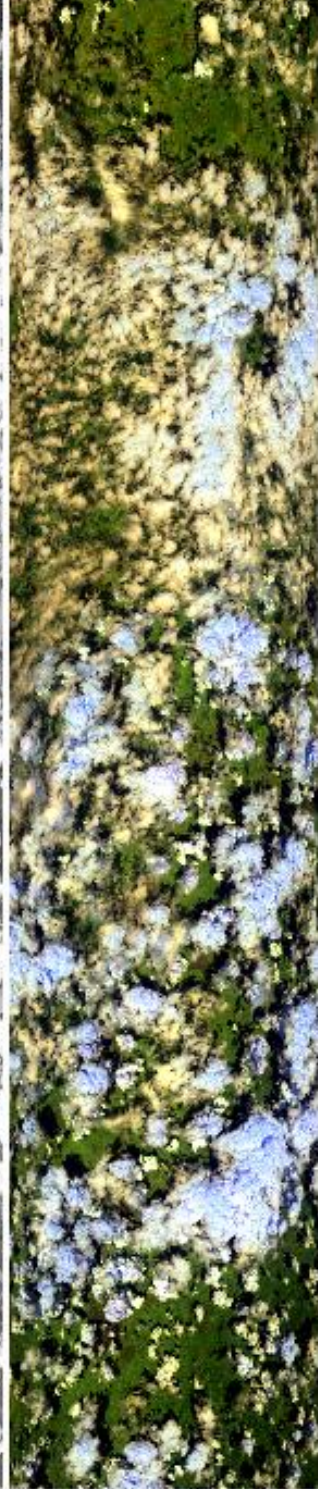
1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



RGB (#20,#10,#2)

09:06:00

09:08:00

09:10:00

09:12:00

09:14:11

Upper Left Lat, Lon = -14.7°, 35.8°
Lower Right Lat, Lon = -13.1°, 36.8°

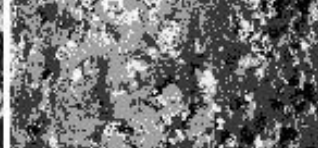
09:14:11



0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale

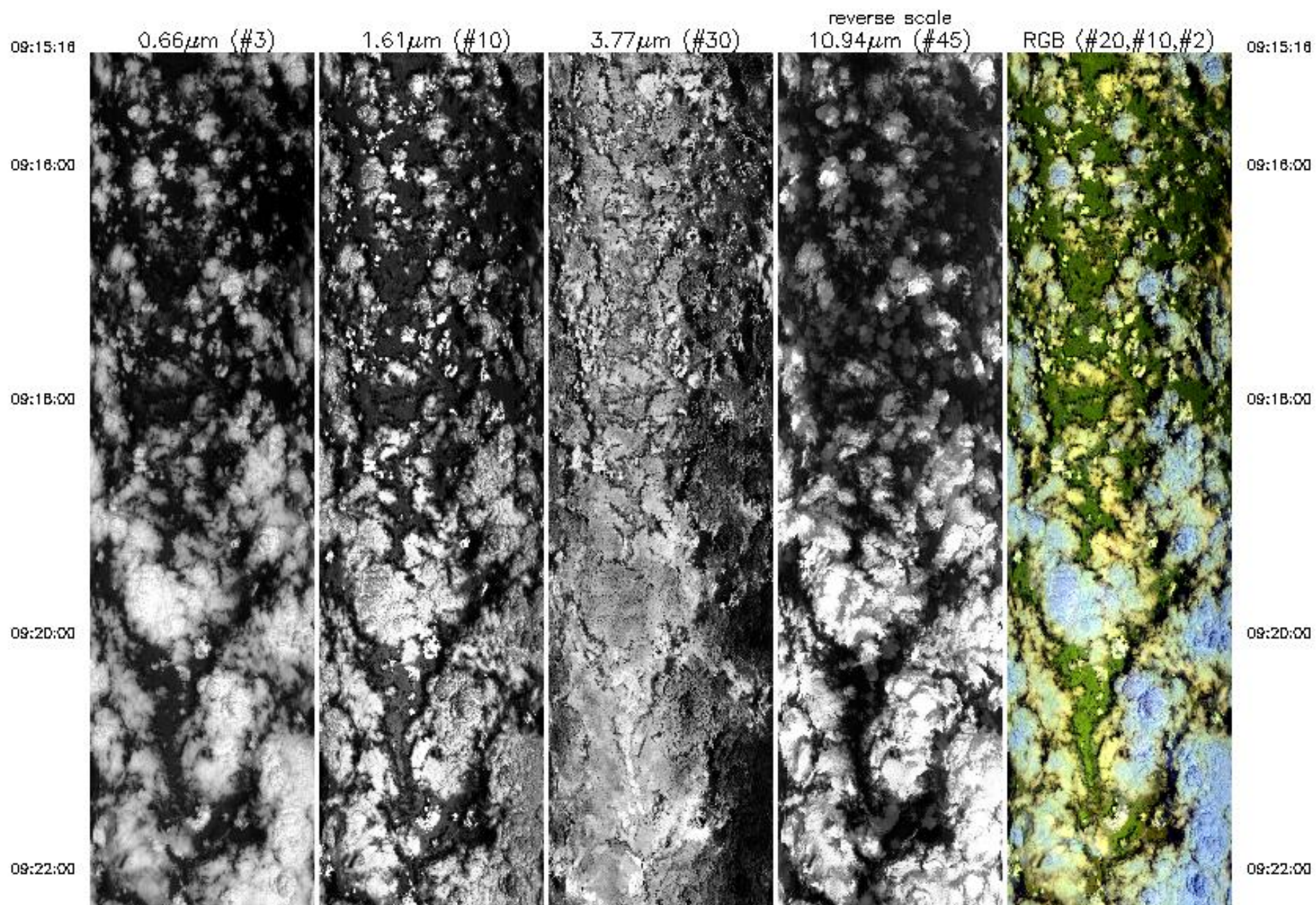


RGB (#20,#10,#2)

09:14:11

Upper Left Lat, Lon = -14.7° , 35.8°
Lower Right Lat, Lon = -13.1° , 35.8°
Aircraft Heading = 14.2°
Solar Zenith = 15.4°
GPS Altitude = 19785. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Mozambique
Flight #00-180 Track #6



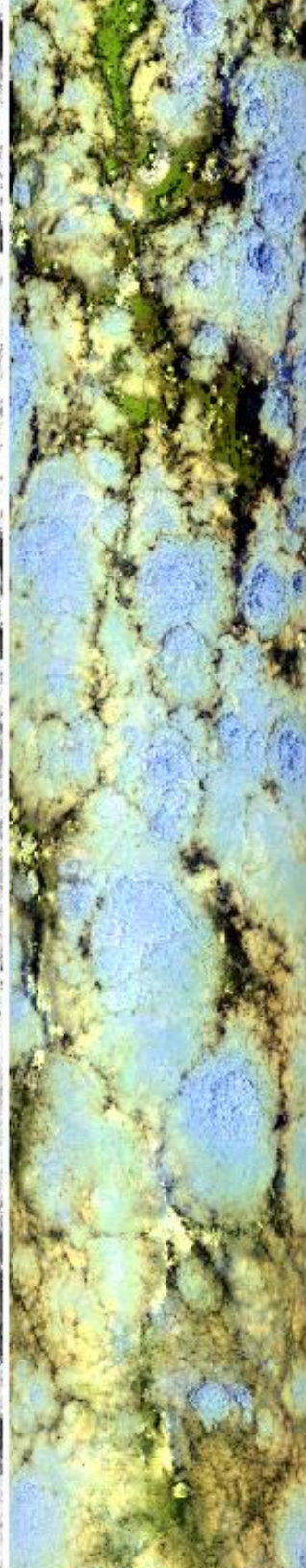
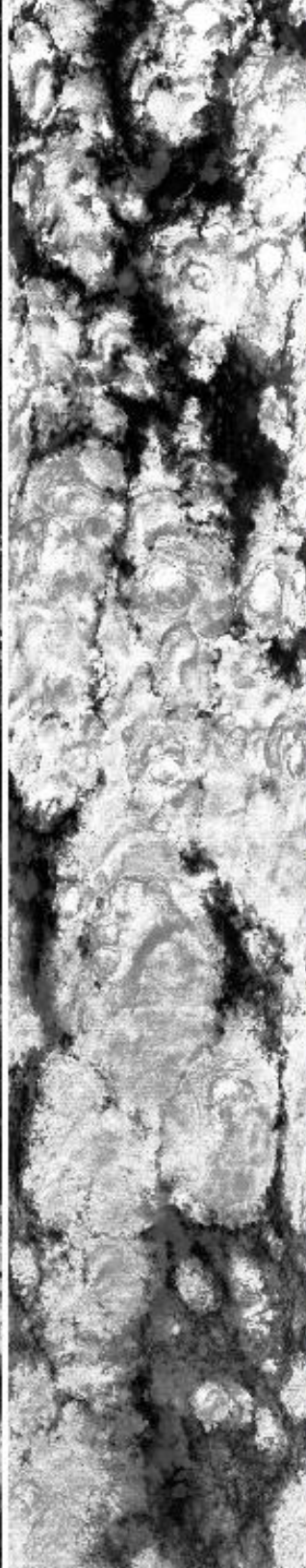
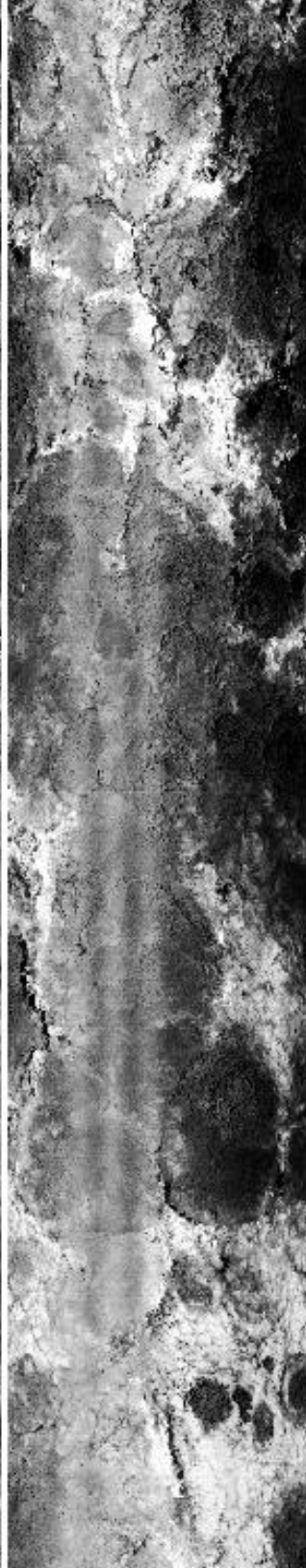
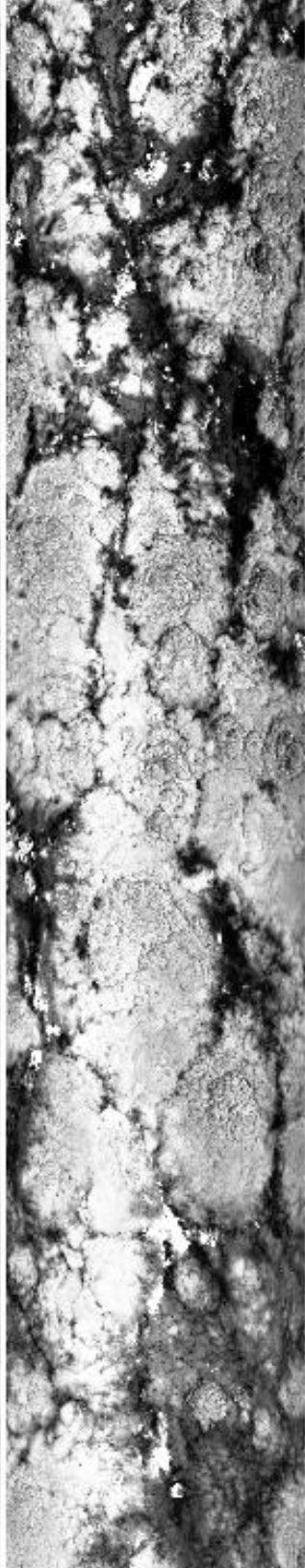
09:22:00

09:24:00

09:26:00

09:28:00

09:30:00



09:22:00

09:24:00

09:26:00

09:28:00

09:30:00

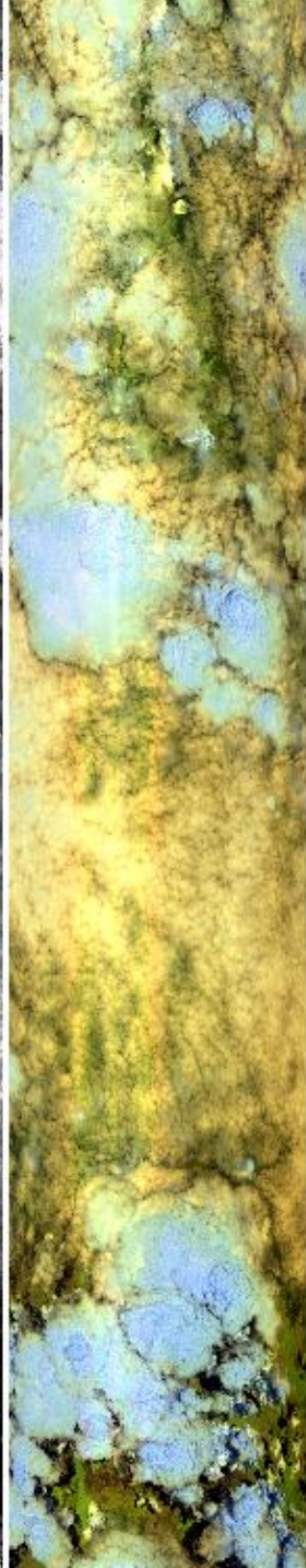
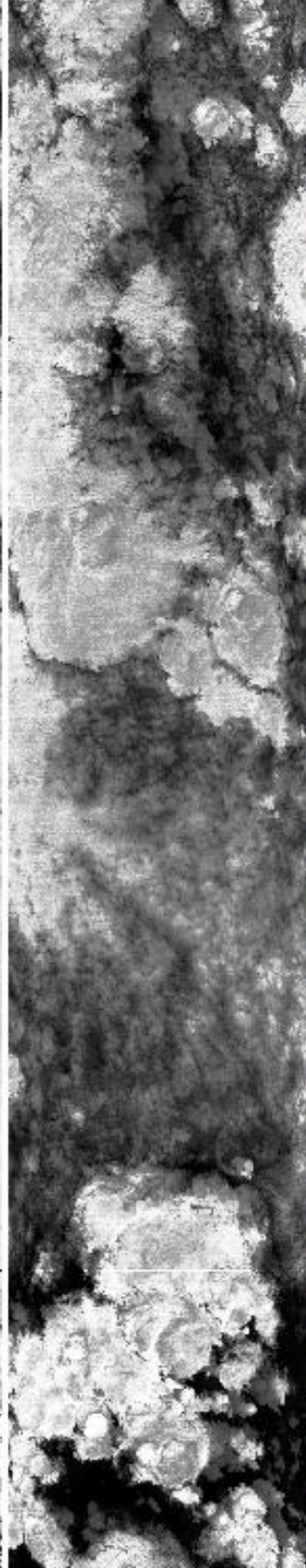
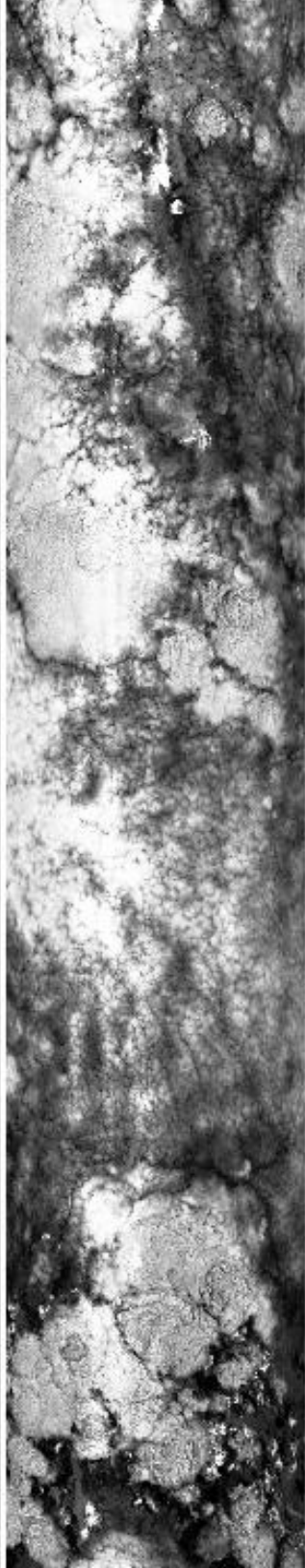
09:30:00

09:32:00

09:34:00

09:36:00

09:38:00



09:30:00

09:32:00

09:34:00

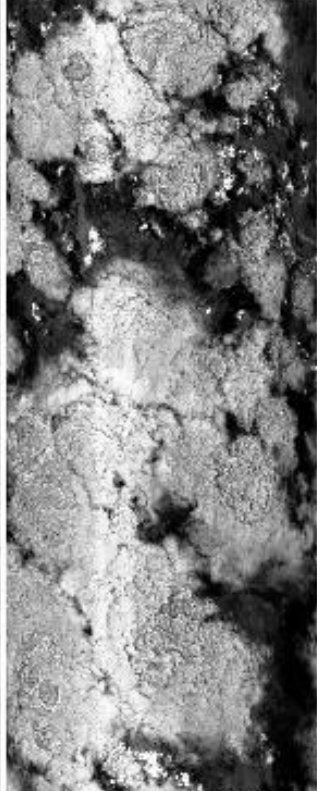
09:36:00

09:38:00

09:38:00



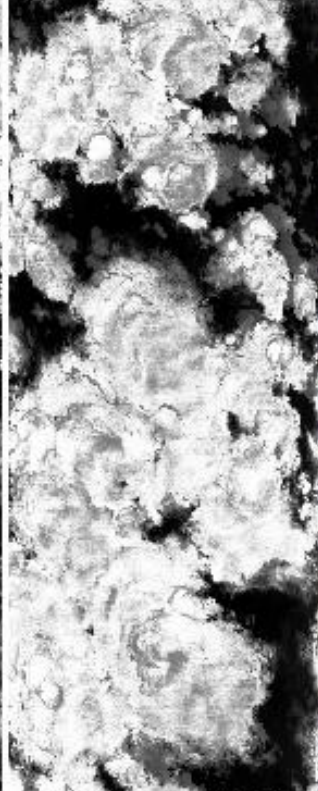
0.66µm (#3)



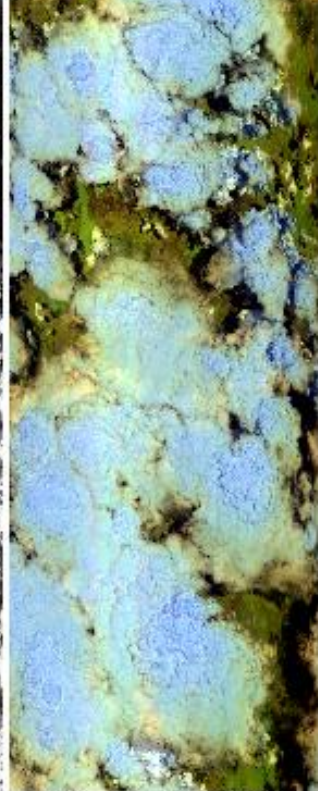
1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

09:40:00

09:42:02

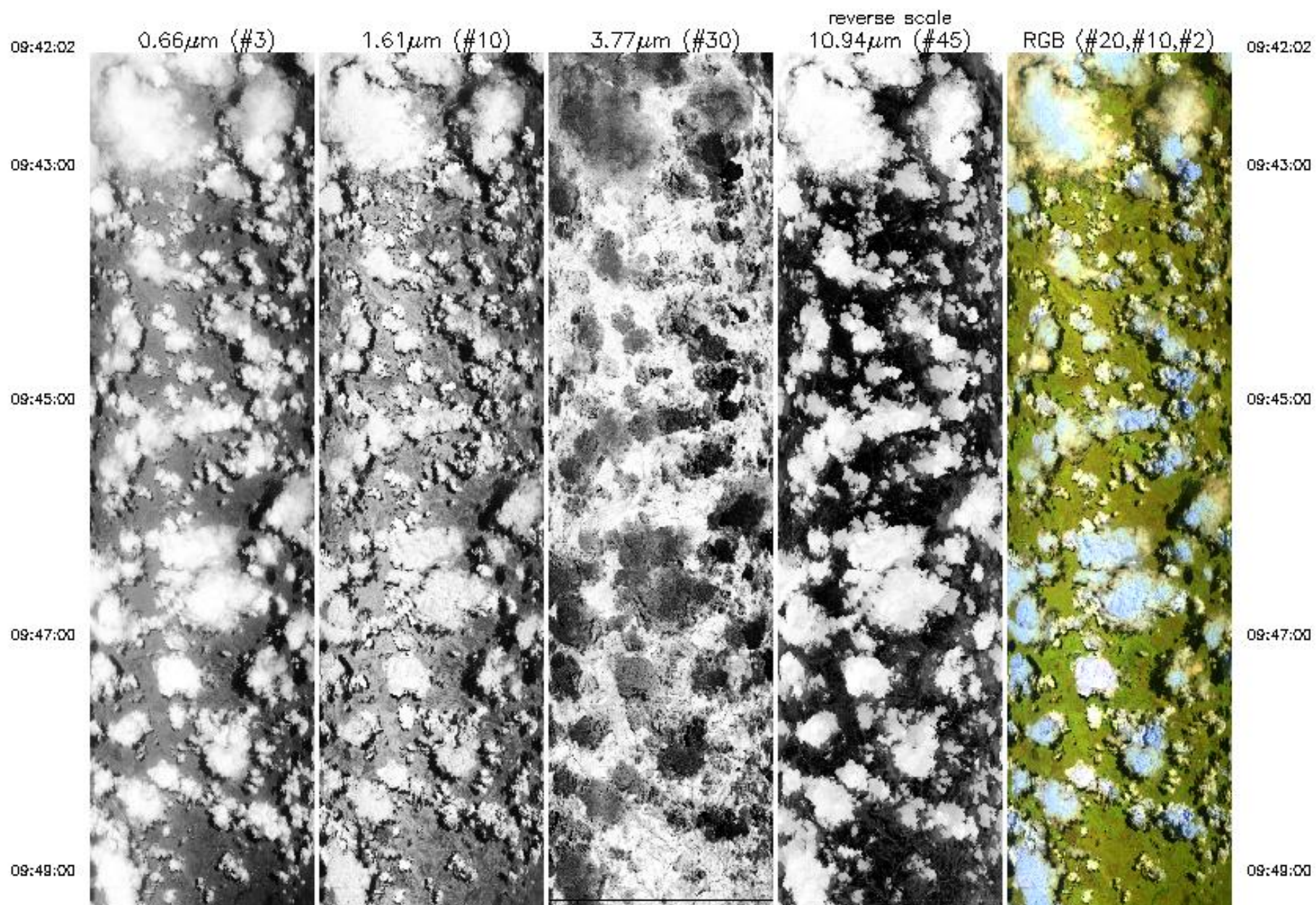
09:38:00

09:40:00

09:42:02

Upper Left Lat, Lon = -13.2° , 36.1°
 Lower Right Lat, Lon = -12.1° , 38.8°
 Aircraft Heading = 70.7°
 Solar Zenith = 12.4°
 GPS Altitude = 19871. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Mozambique
Flight #00-180 Track #7



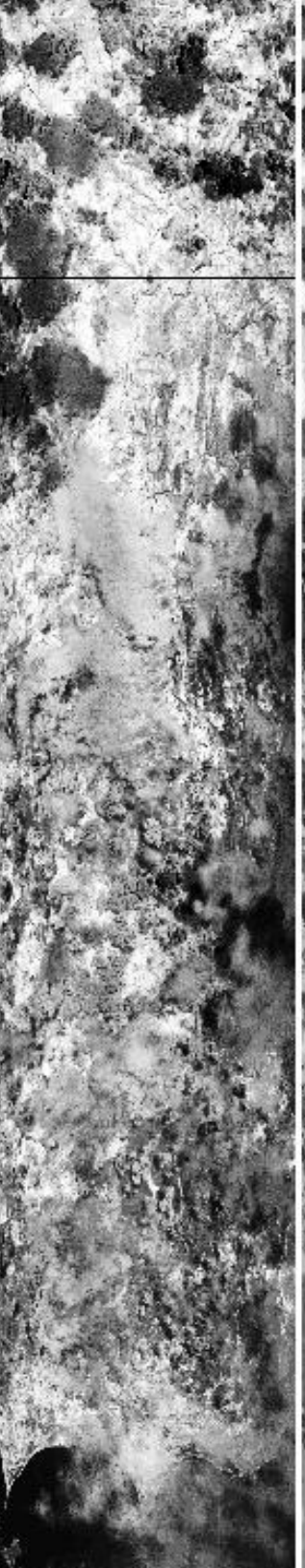
09:49:00



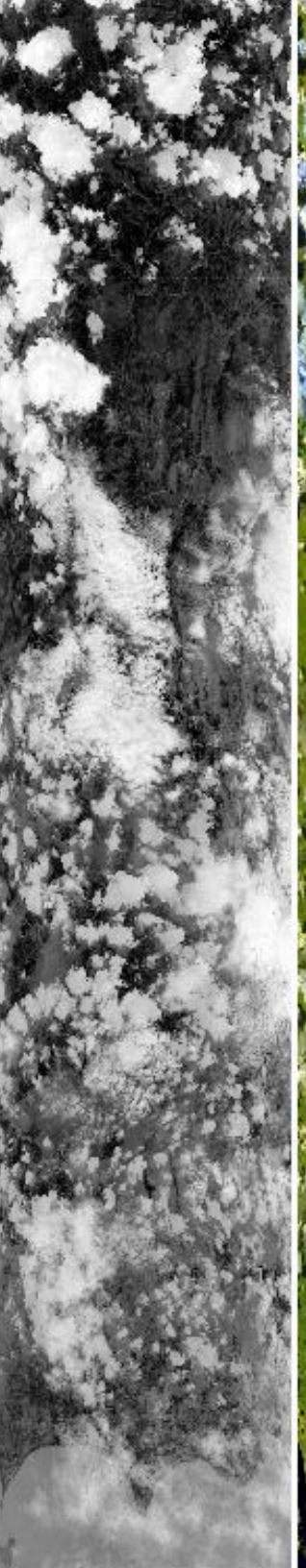
09:51:00



09:53:00



09:55:00



09:57:00



09:49:00

09:51:00

09:53:00

09:55:00

09:57:00

09:57:00



0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



RGB (#20,#10,#2)

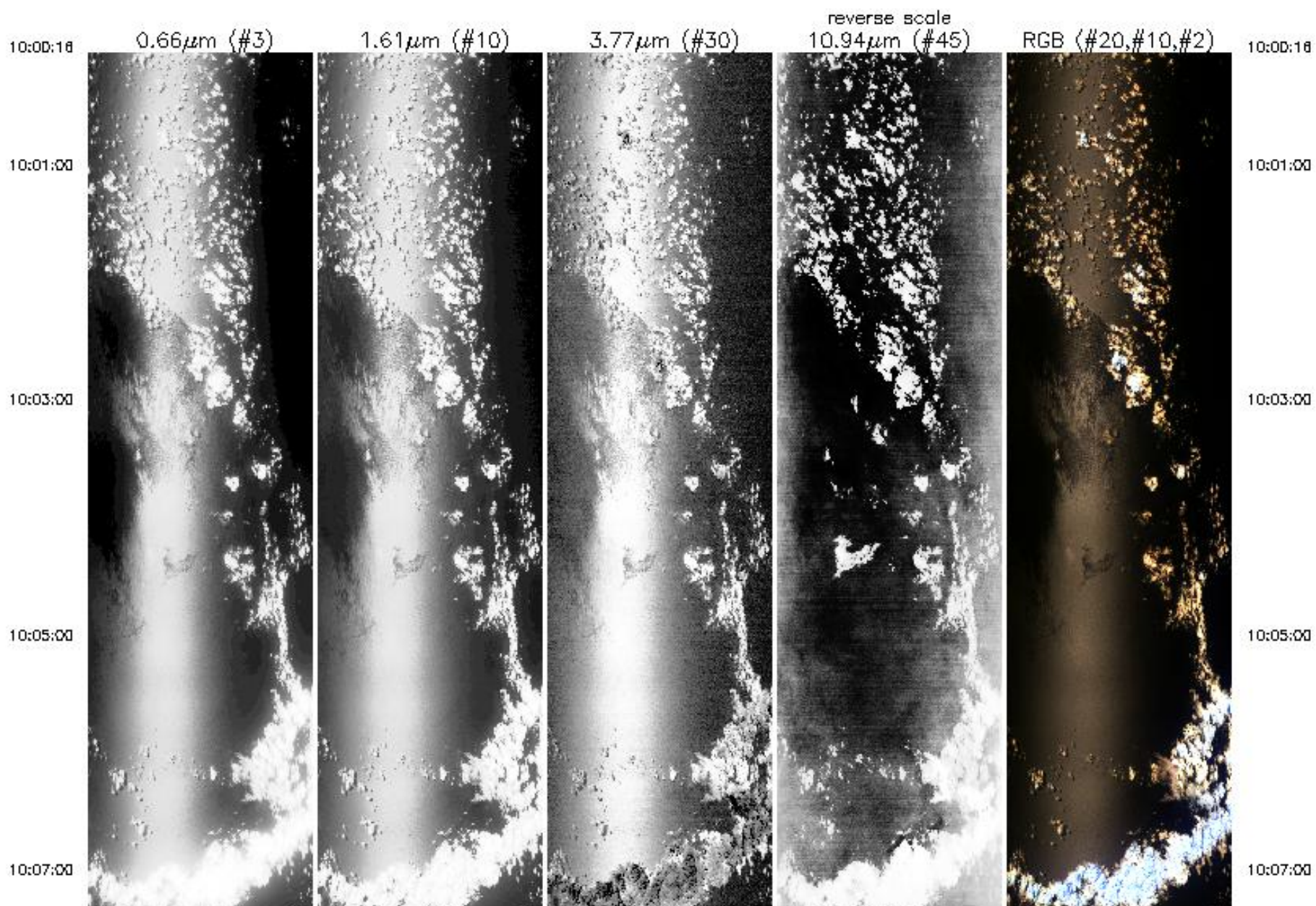
09:57:00

09:56:32

09:56:32

Upper Left Lat, Lon = -12.4° , 38.9°
Lower Right Lat, Lon = -11.7° , 40.6°
Aircraft Heading = 75.9°
Solar Zenith = 13.1°
GPS Altitude = 19934. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Indian Ocean
Flight #00-180 Track #8



10:07:00



10:08:00



10:11:00



10:13:00



10:15:00



10:07:00

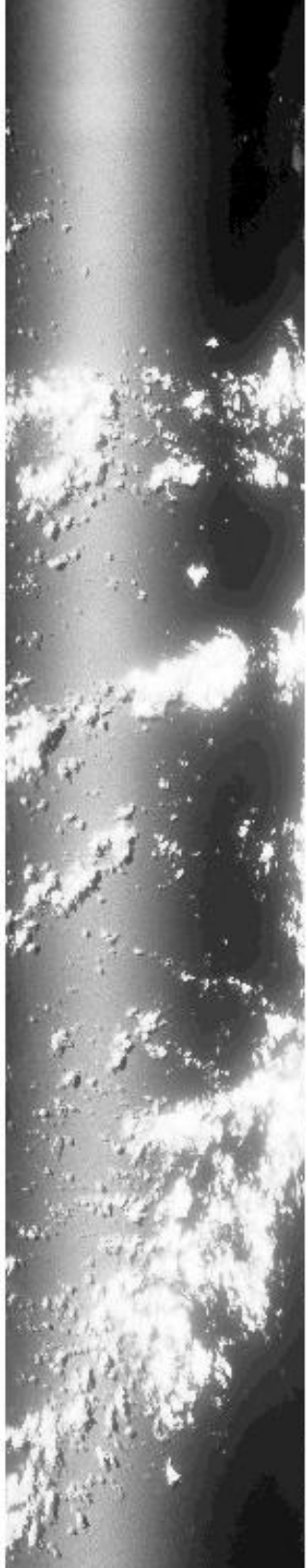
10:08:00

10:11:00

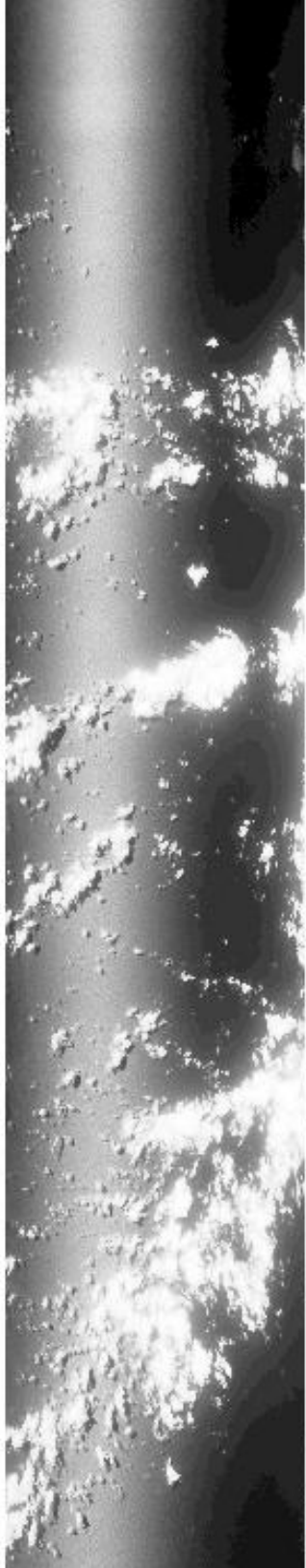
10:13:00

10:15:00

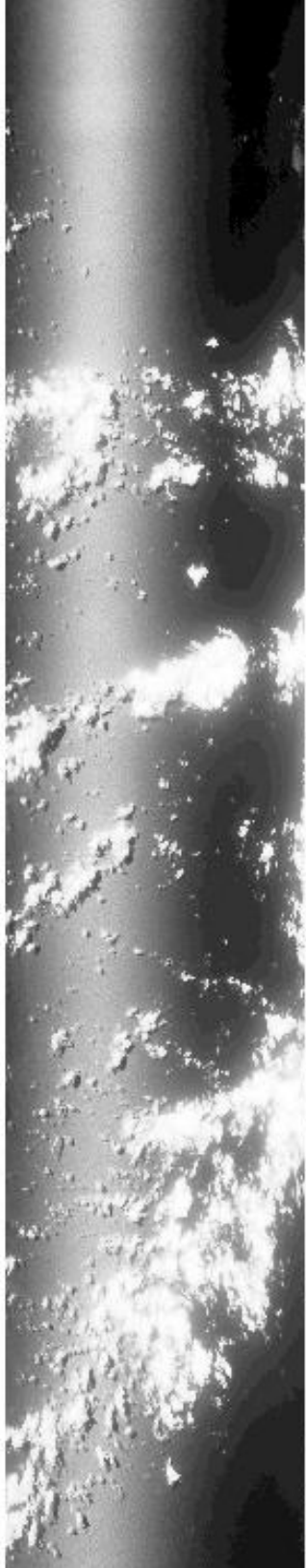
10:15:00



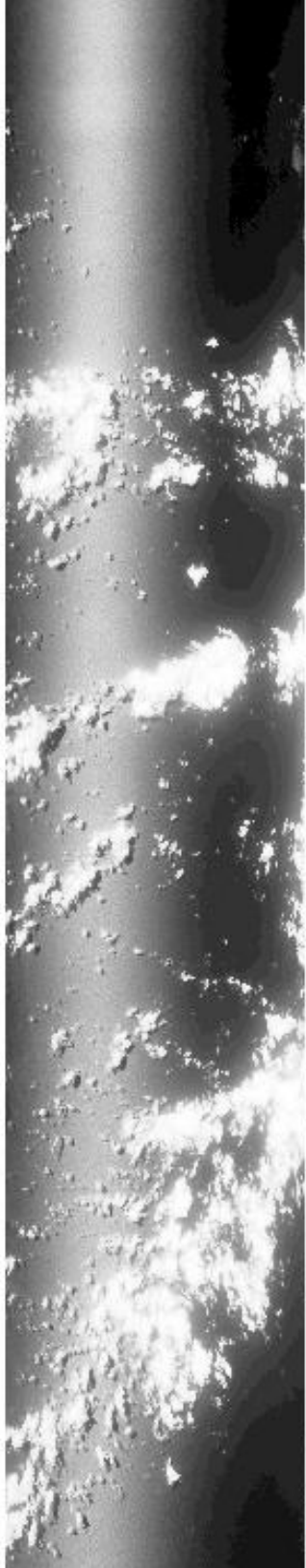
10:17:00



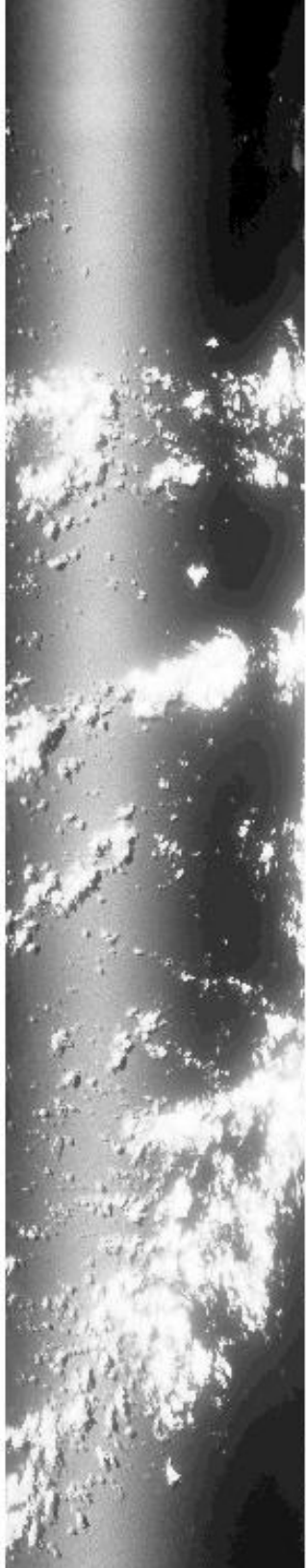
10:19:00



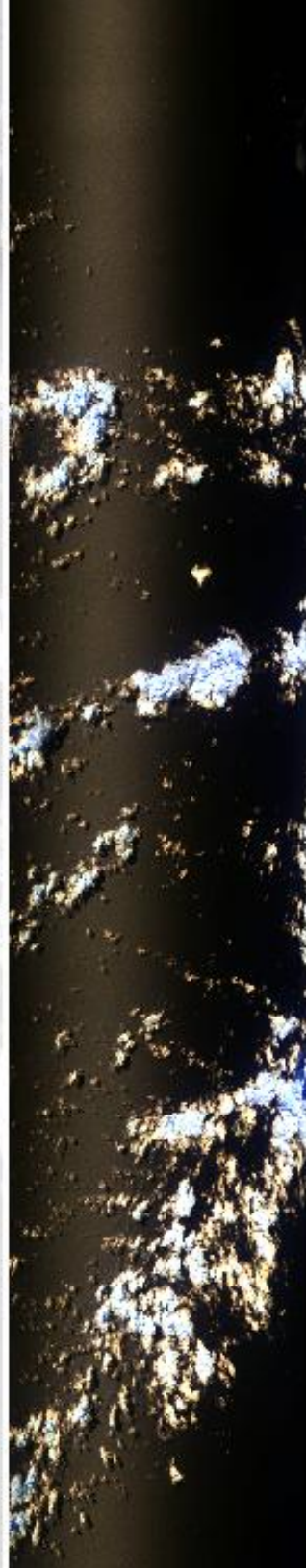
10:21:00



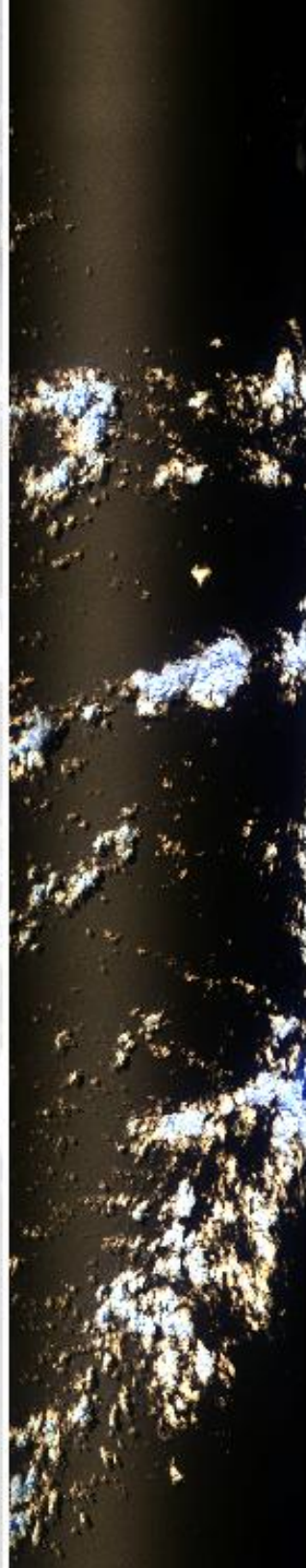
10:23:00



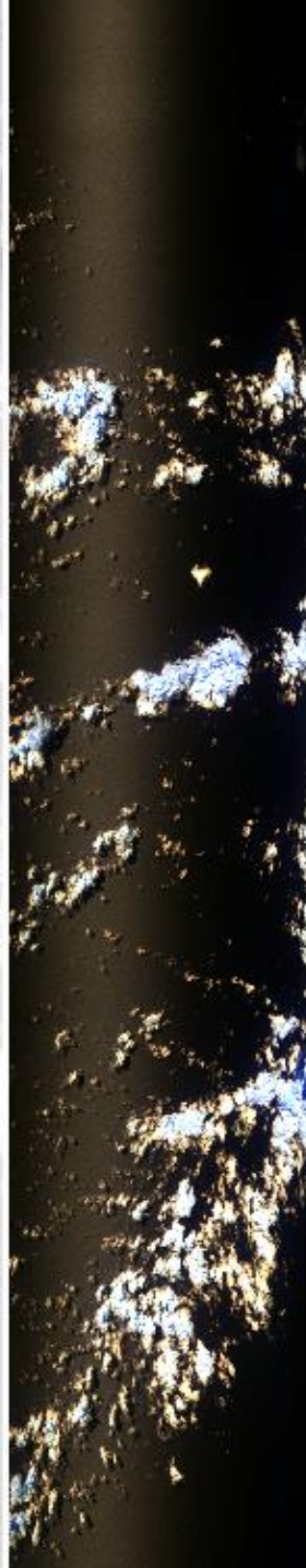
10:15:00



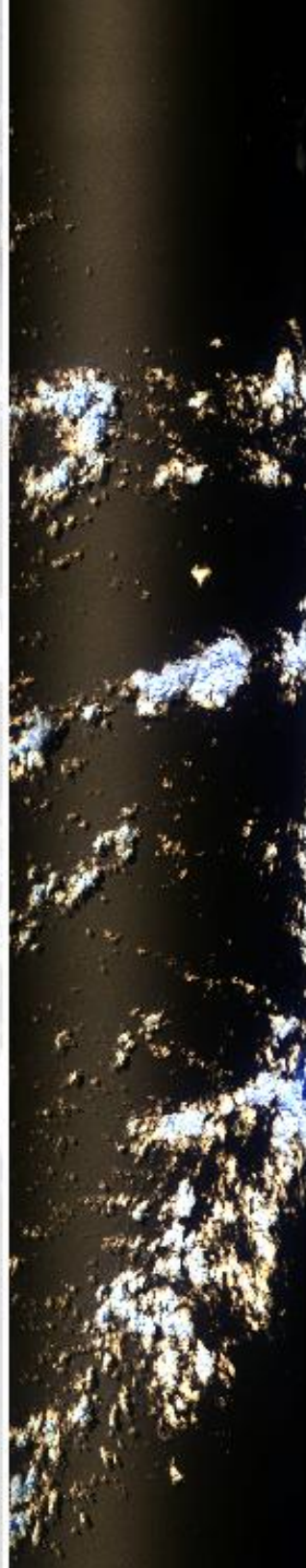
10:17:00



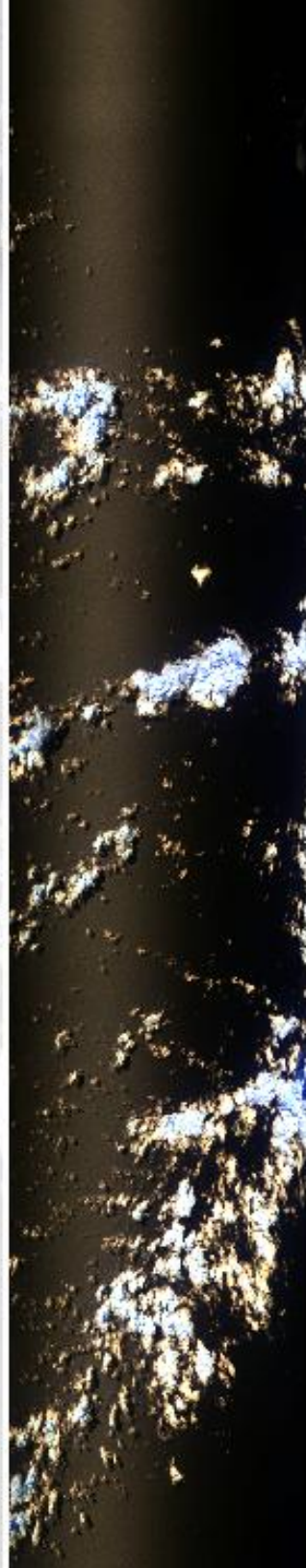
10:18:00



10:21:00



10:23:00



10:23:00

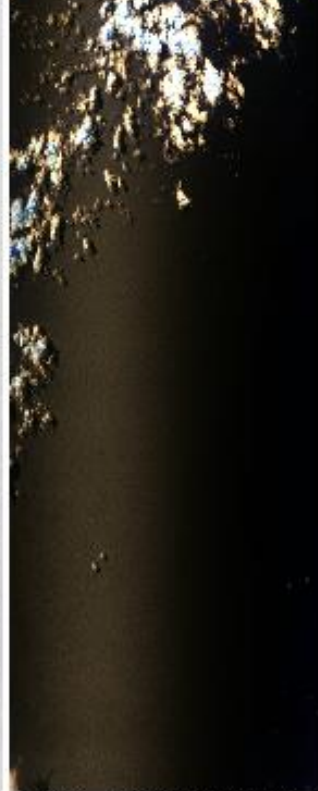
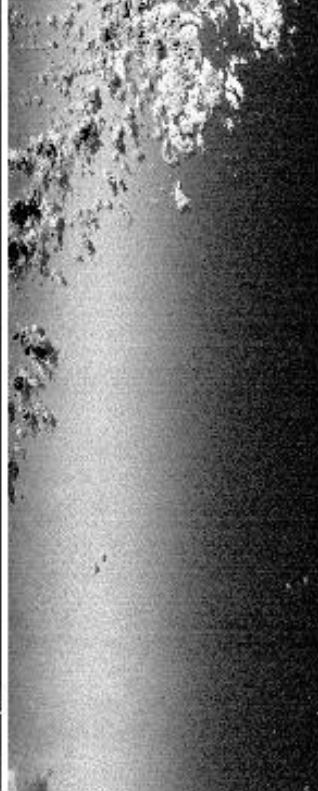
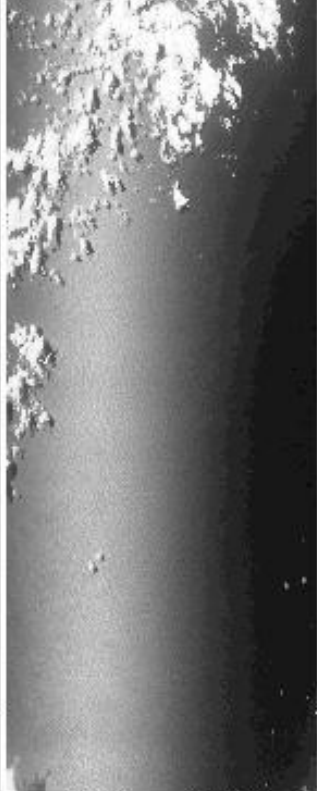
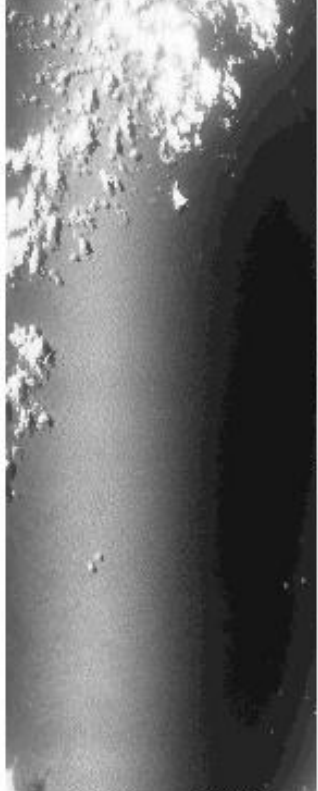
10:23:00

10:25:00

10:25:00

10:27:01

10:27:01



0.66µm (#3)

1.61µm (#10)

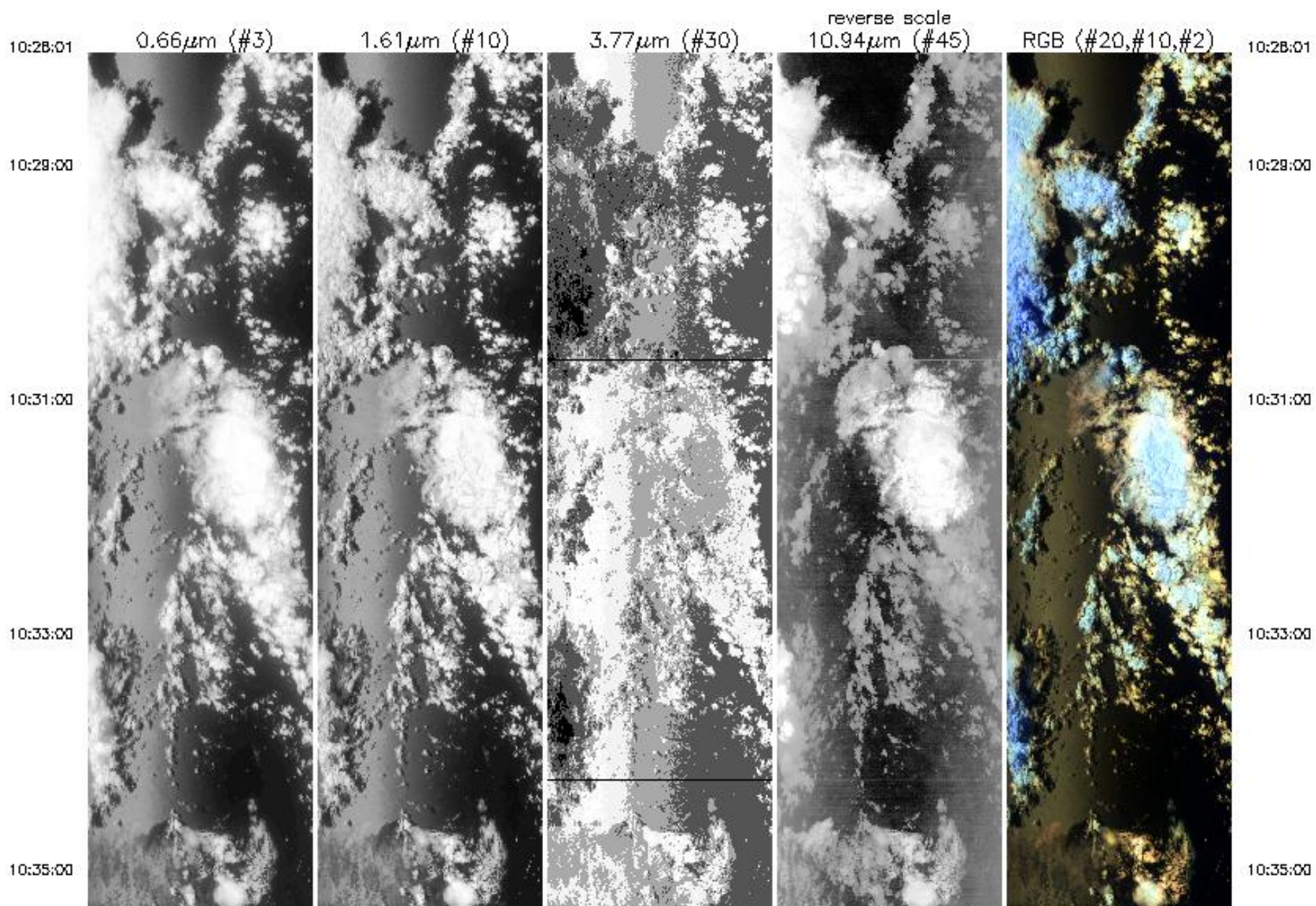
3.77µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

Upper Left Lat, Lon = -11.9°, 40.6°
 Lower Right Lat, Lon = -14.9°, 41.2°
 Aircraft Heading = 169.0°
 Solar Zenith = 16.8°
 GPS Altitude = 19830. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Indian Ocean
Flight #00-180 Track #9



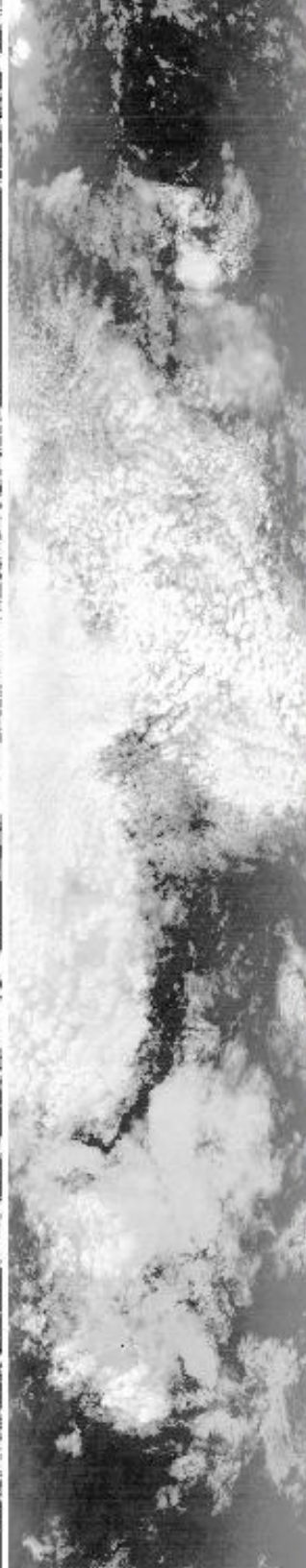
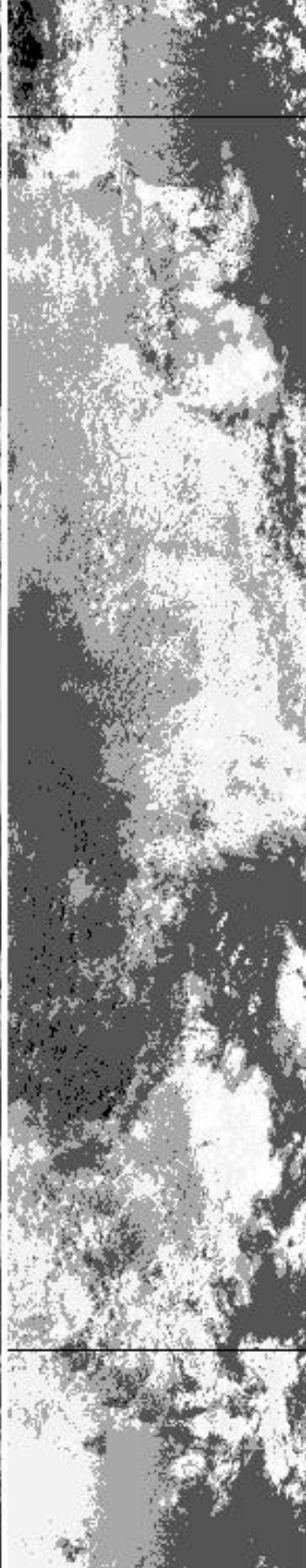
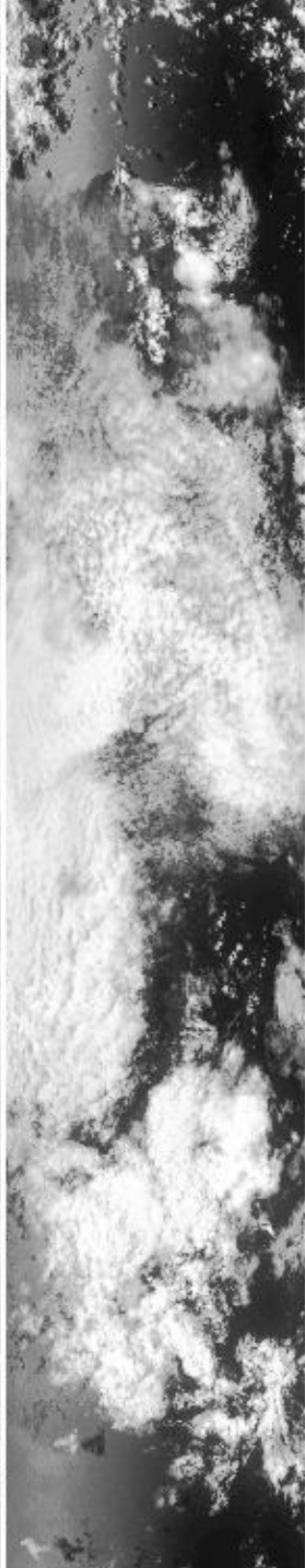
10:35:00

10:37:00

10:39:00

10:41:00

10:43:00



10:35:00

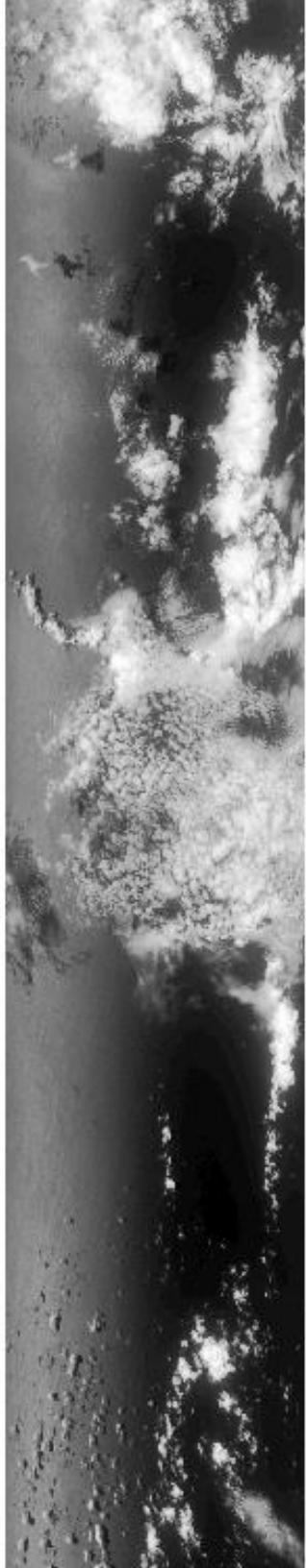
10:37:00

10:39:00

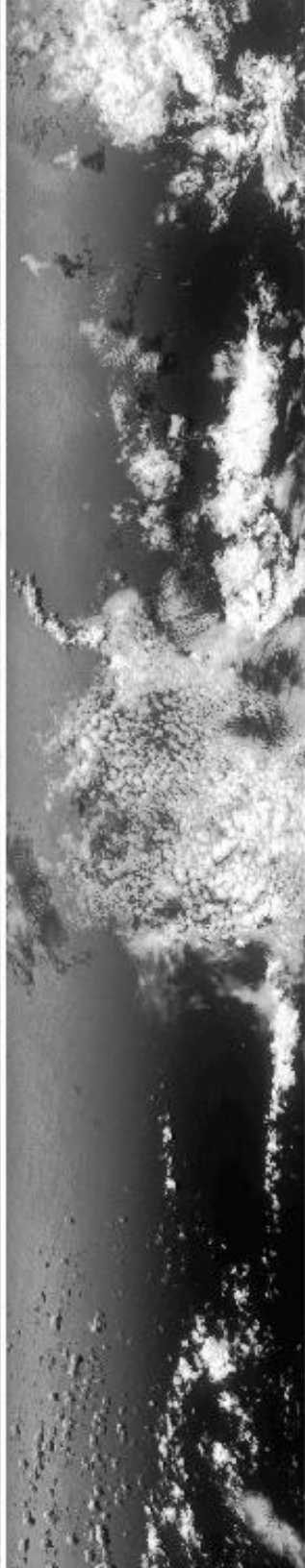
10:41:00

10:43:00

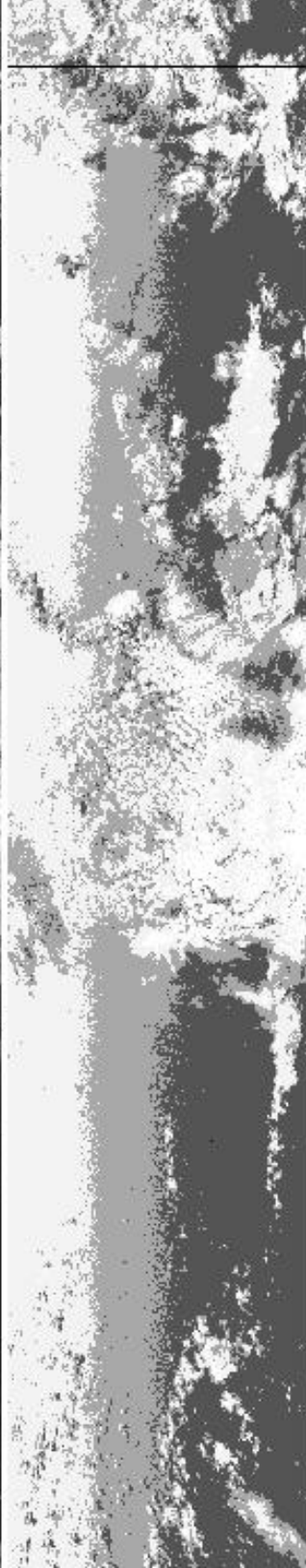
10:43:00



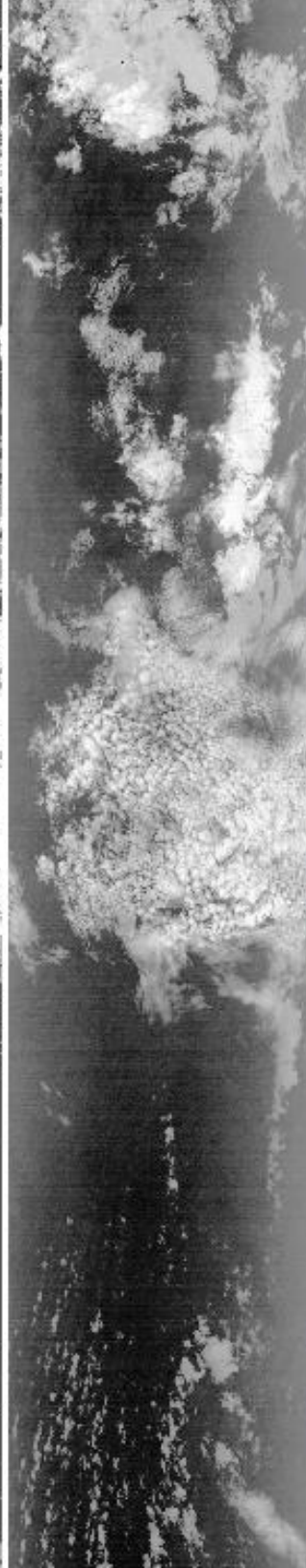
10:45:00



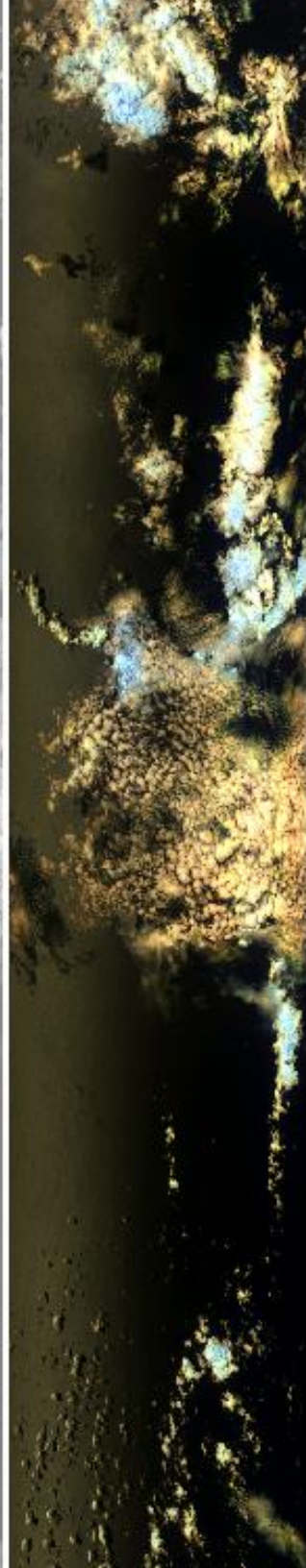
10:47:00



10:49:00



10:51:00



10:43:00

10:45:00

10:47:00

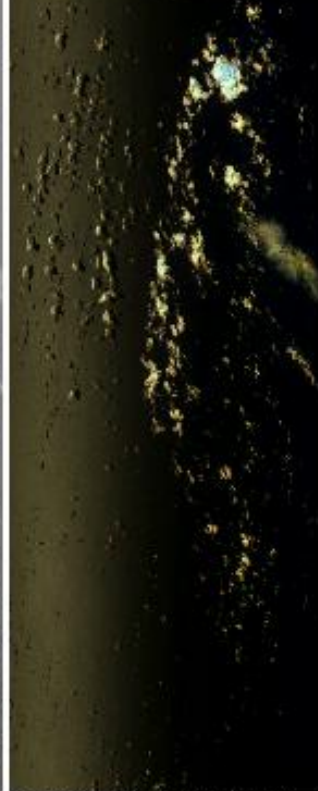
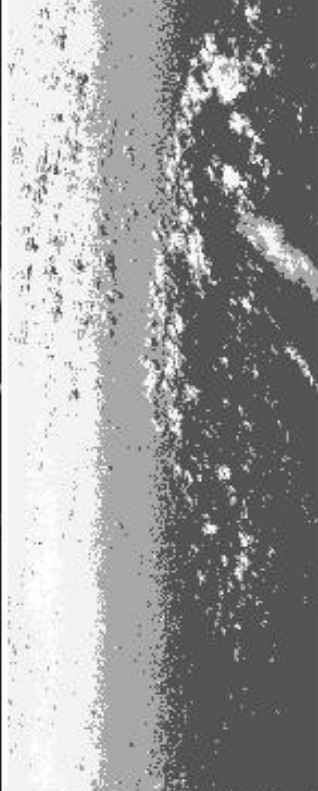
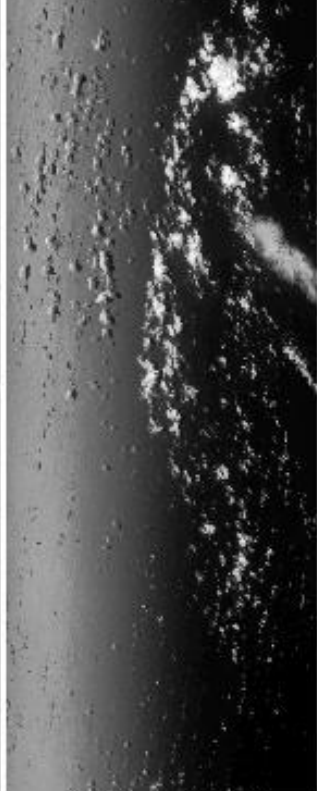
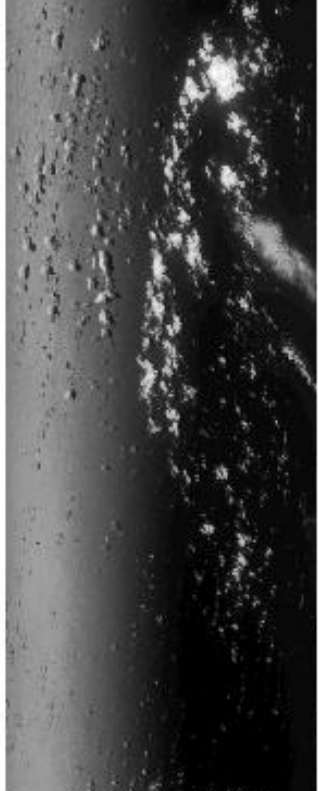
10:49:00

10:51:00

10:51:00

10:53:00

10:54:47



10:51:00

10:53:00

10:54:47

0.66 μ m (#3)

1.61 μ m (#10)

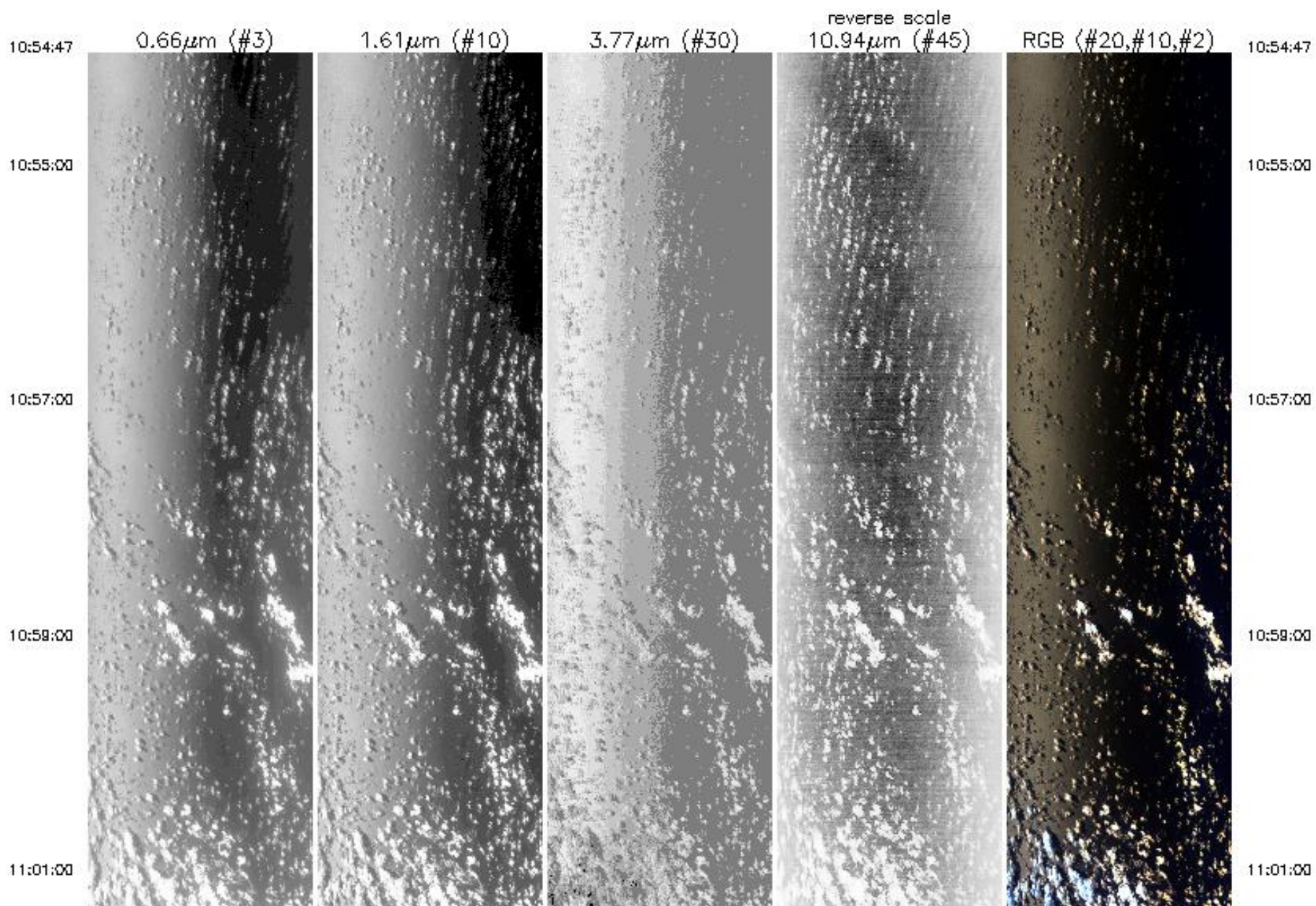
3.77 μ m (#30)

10.94 μ m (#45)
reverse scale

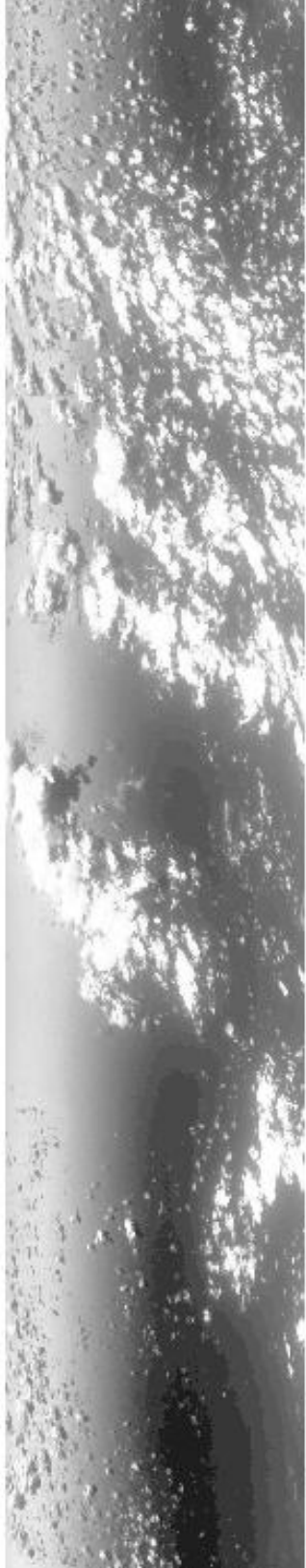
RGB (<#20,#10,#2>)

Upper Left Lat, Lon = -14.9° , 40.9°
 Lower Right Lat, Lon = -17.7° , 39.7°
 Aircraft Heading = 204.3°
 Solar Zenith = 24.2°
 GPS Altitude = 19771. m (MSL)

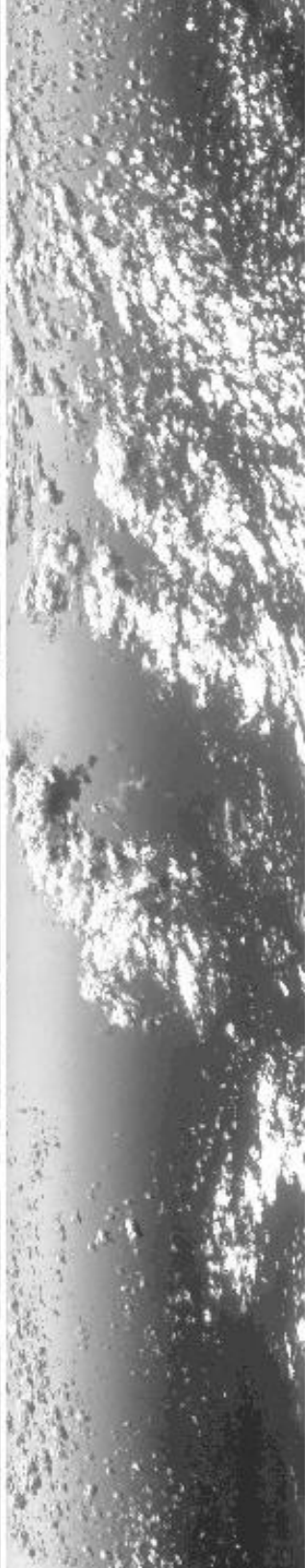
MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Indian Ocean
Flight #00-180 Track #10



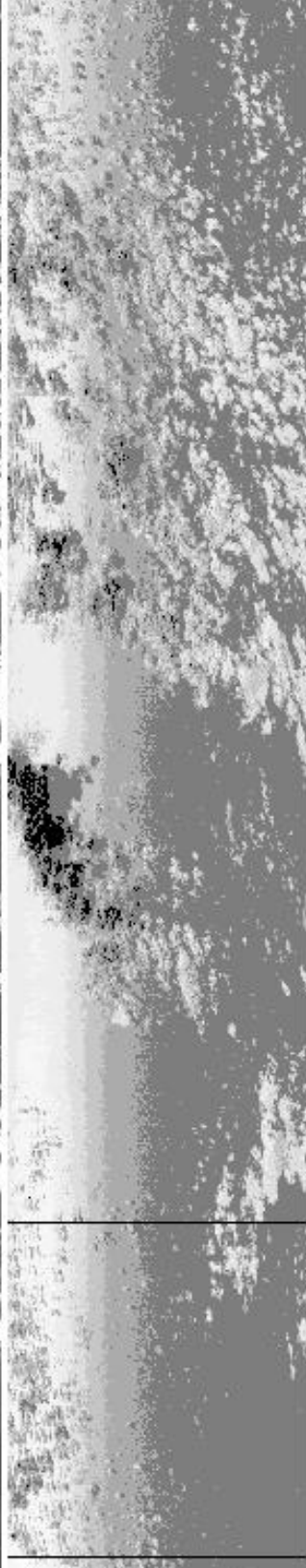
11:01:00



11:03:00



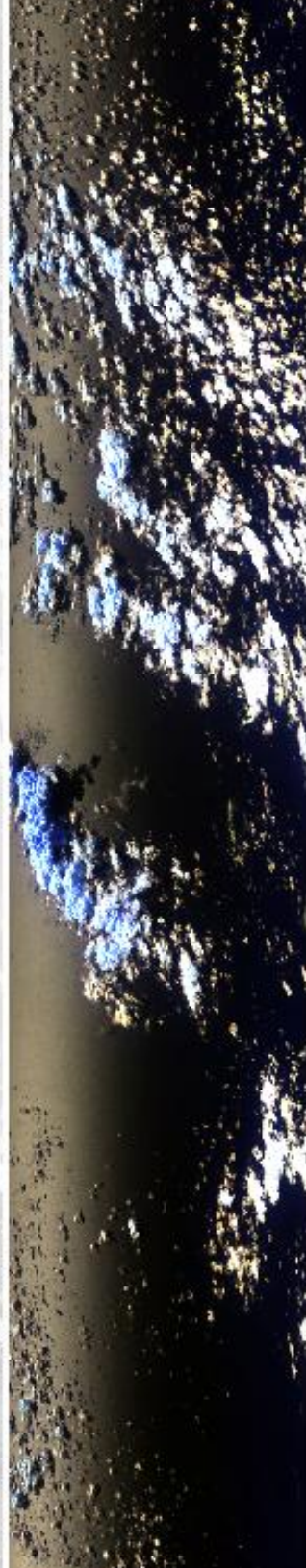
11:05:00



11:07:00



11:08:00



11:01:00

11:03:00

11:05:00

11:07:00

11:08:00

11:17:00

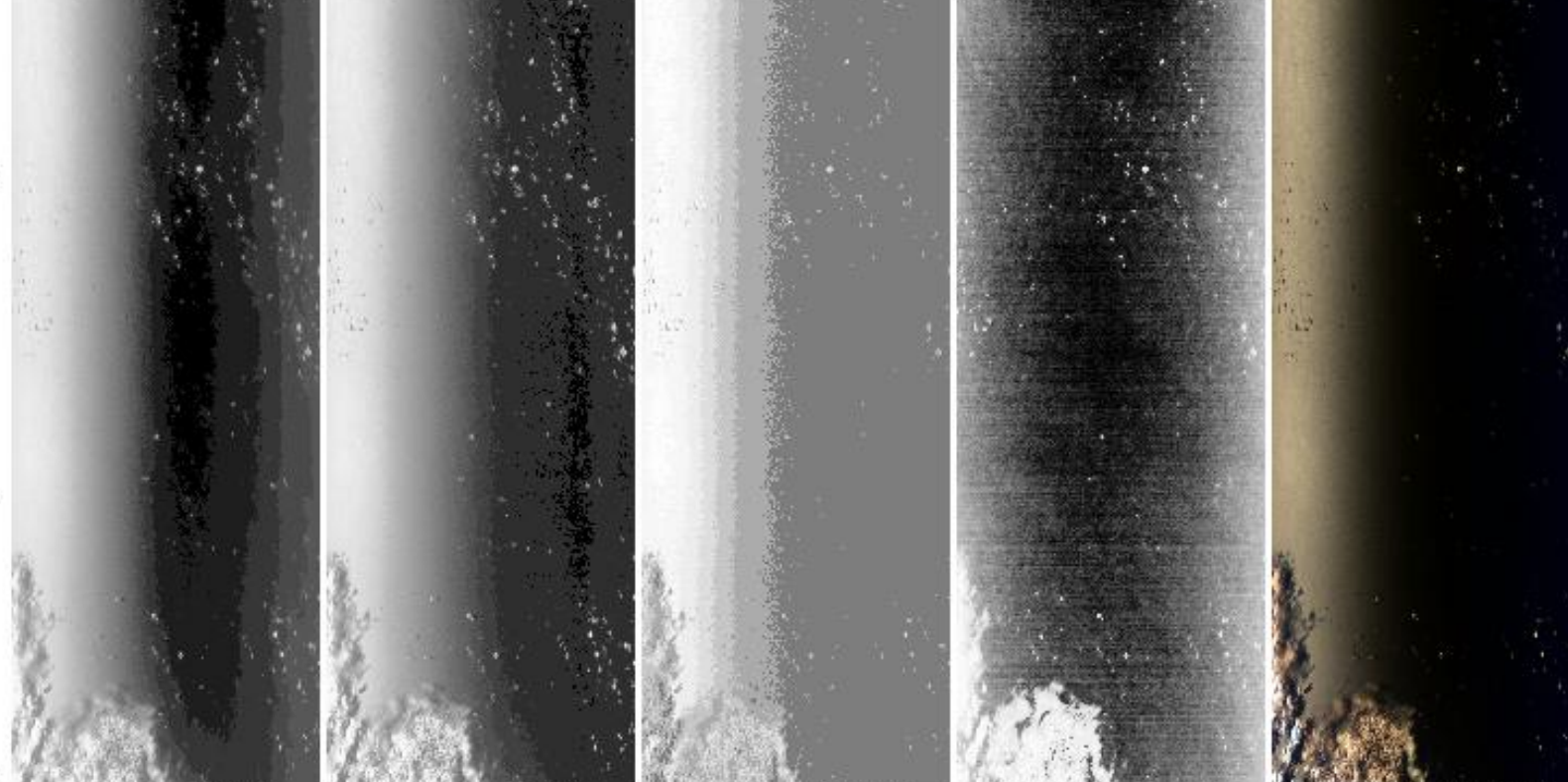
11:17:00

11:19:00

11:19:00

11:21:32

11:21:32



0.66 μm (#3)

1.61 μm (#10)

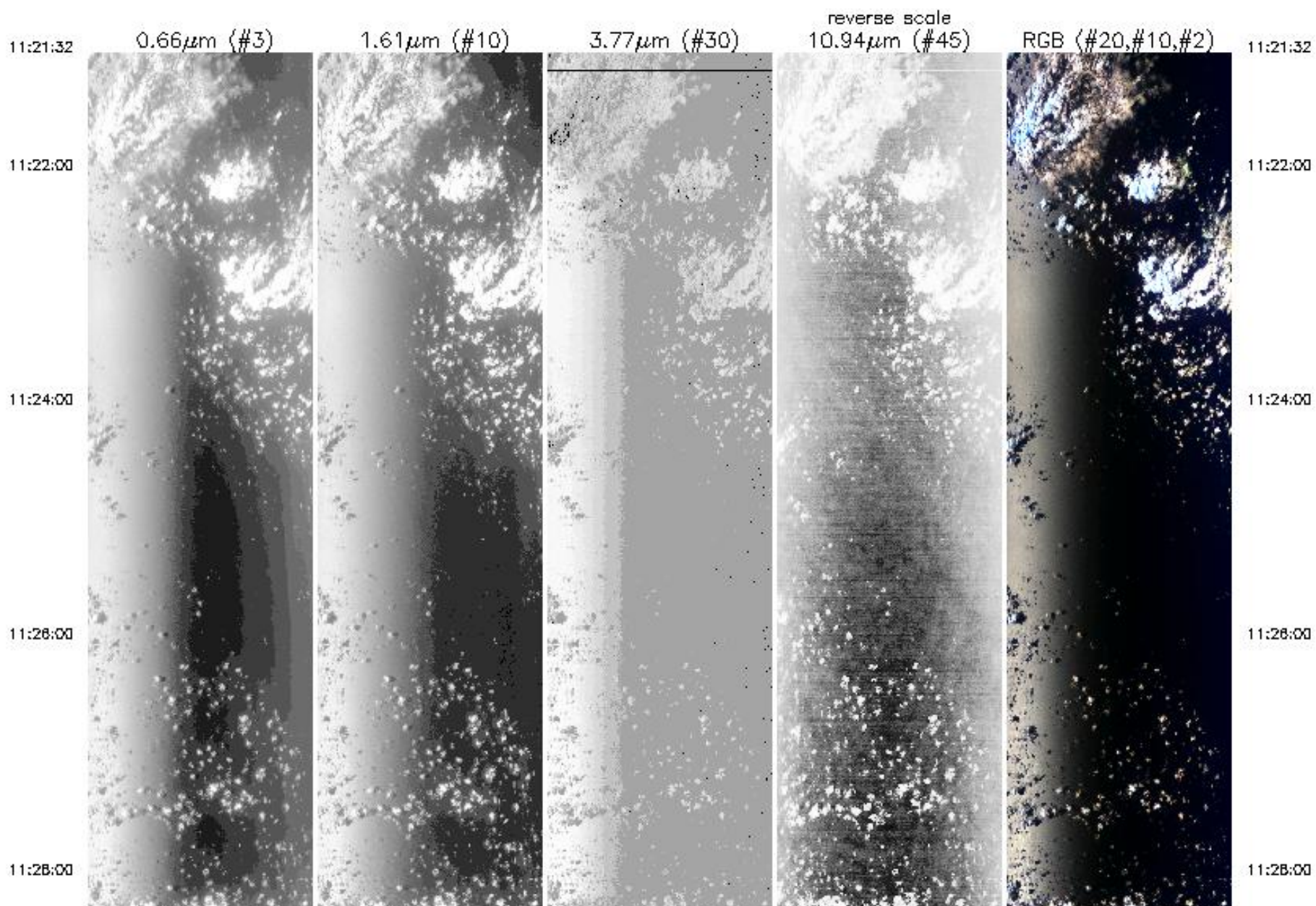
3.77 μm (#30)

10.94 μm (#45)
reverse scale

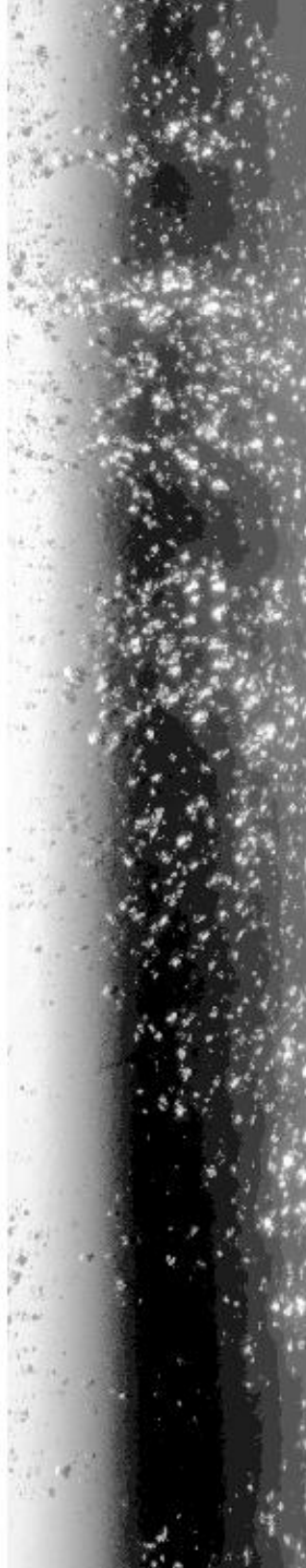
RGB (#20, #10, #2)

Upper Left Lat, Lon = -17.6° , 39.4°
Lower Right Lat, Lon = -20.3° , 38.1°
Aircraft Heading = 208.8°
Solar Zenith = 29.8°
GPS Altitude = 19869. m (MSL)

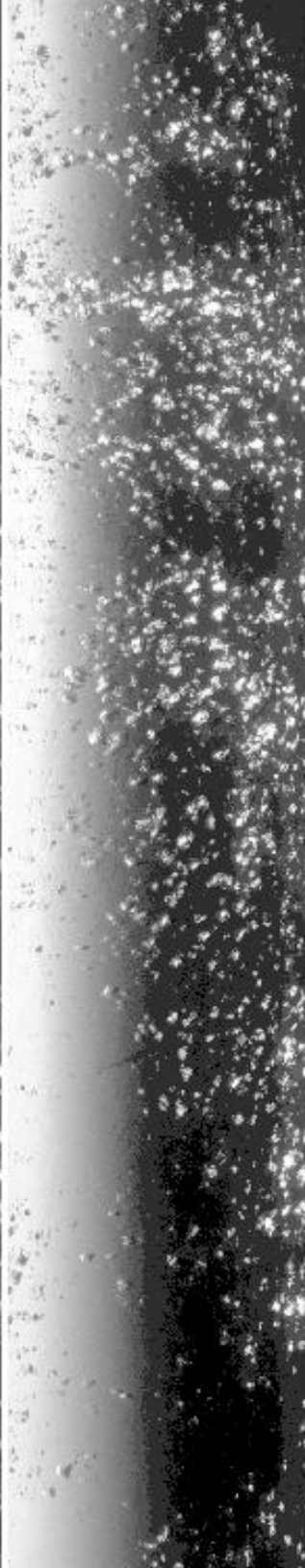
MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Indian Ocean
Flight #00-180 Track #11



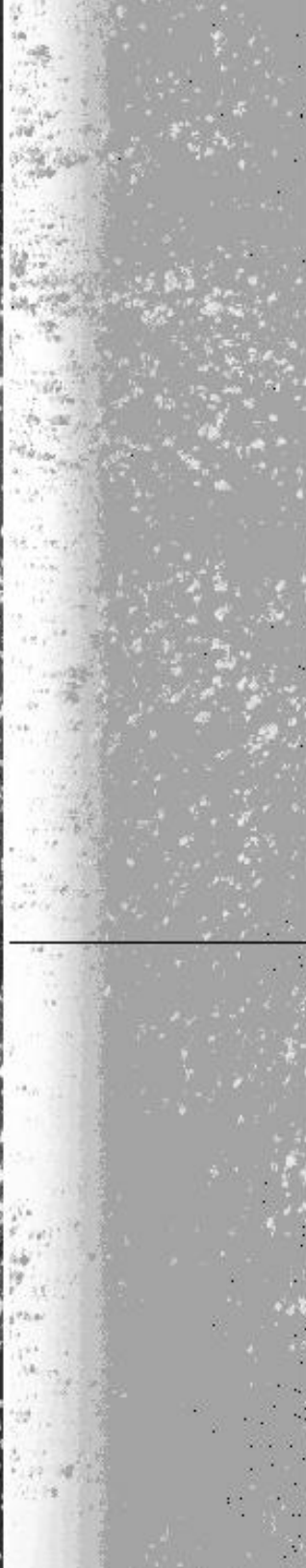
11:28:00



11:30:00



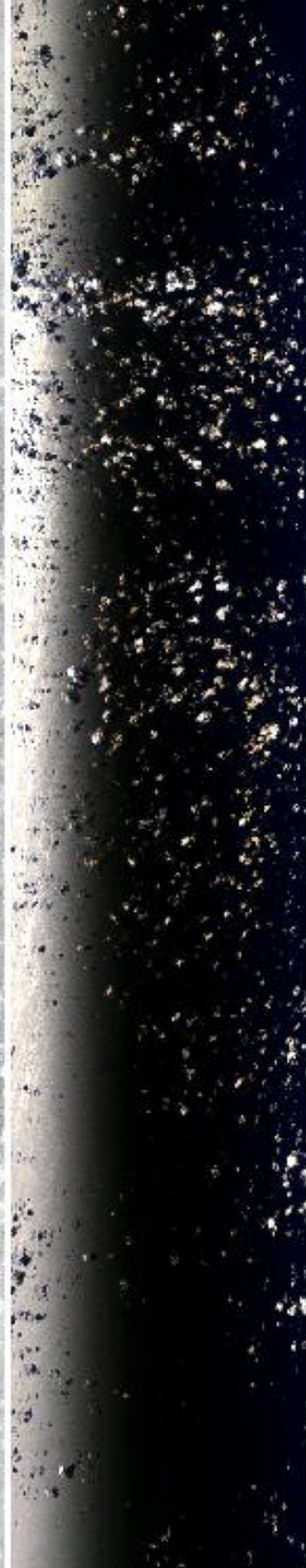
11:32:00



11:34:00



11:36:00



11:28:00

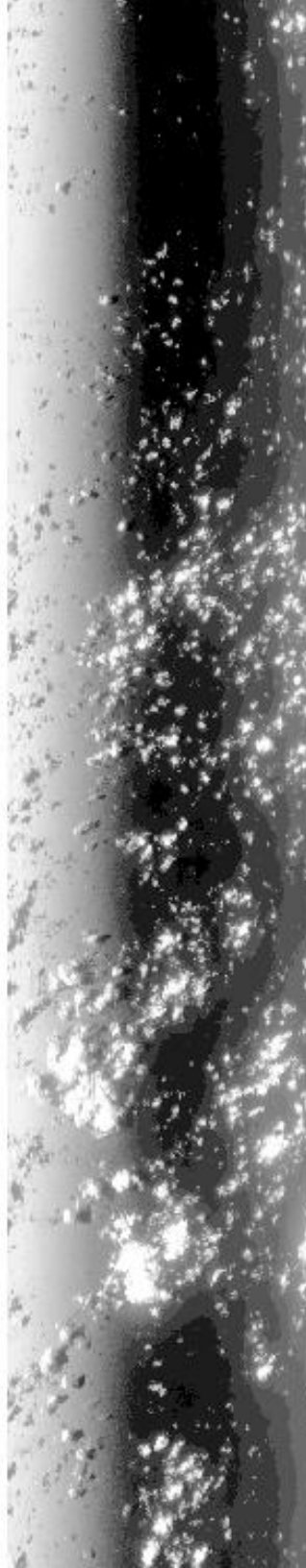
11:30:00

11:32:00

11:34:00

11:36:00

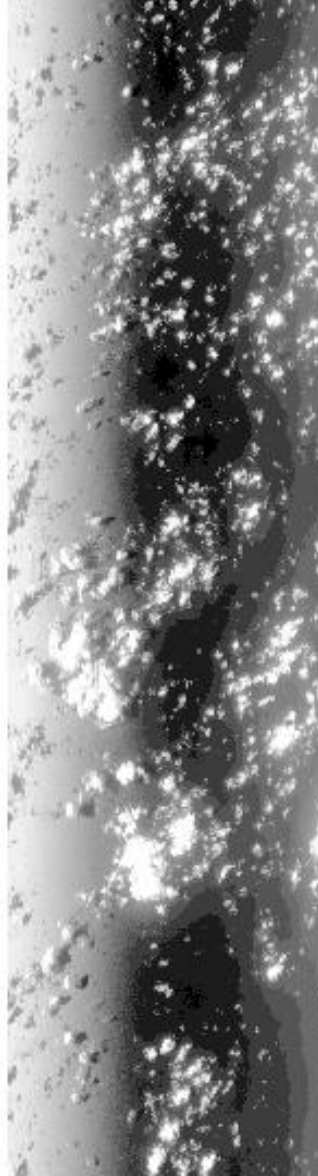
11:38:00



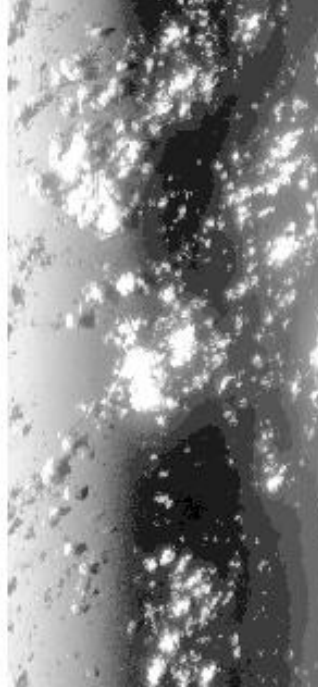
11:38:00



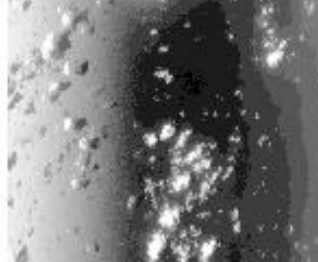
11:40:00



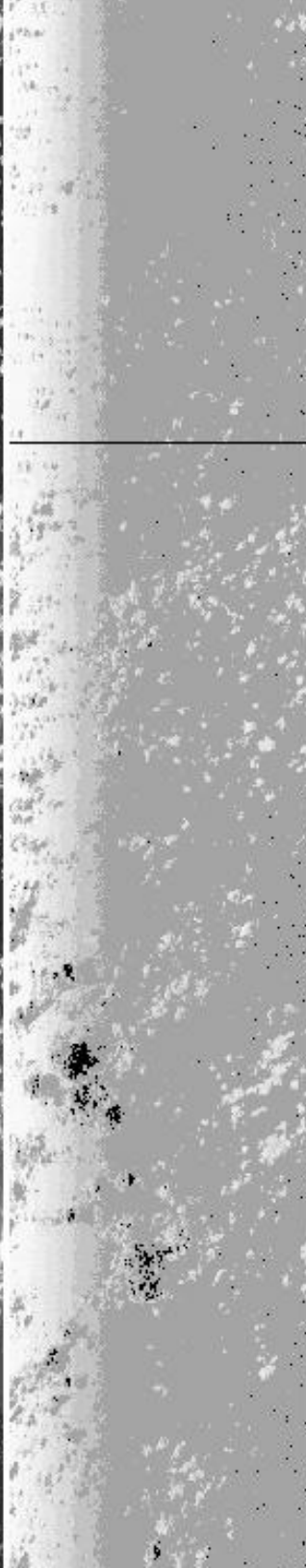
11:42:00



11:44:00



11:38:00



11:38:00



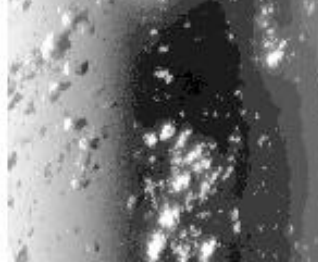
11:40:00

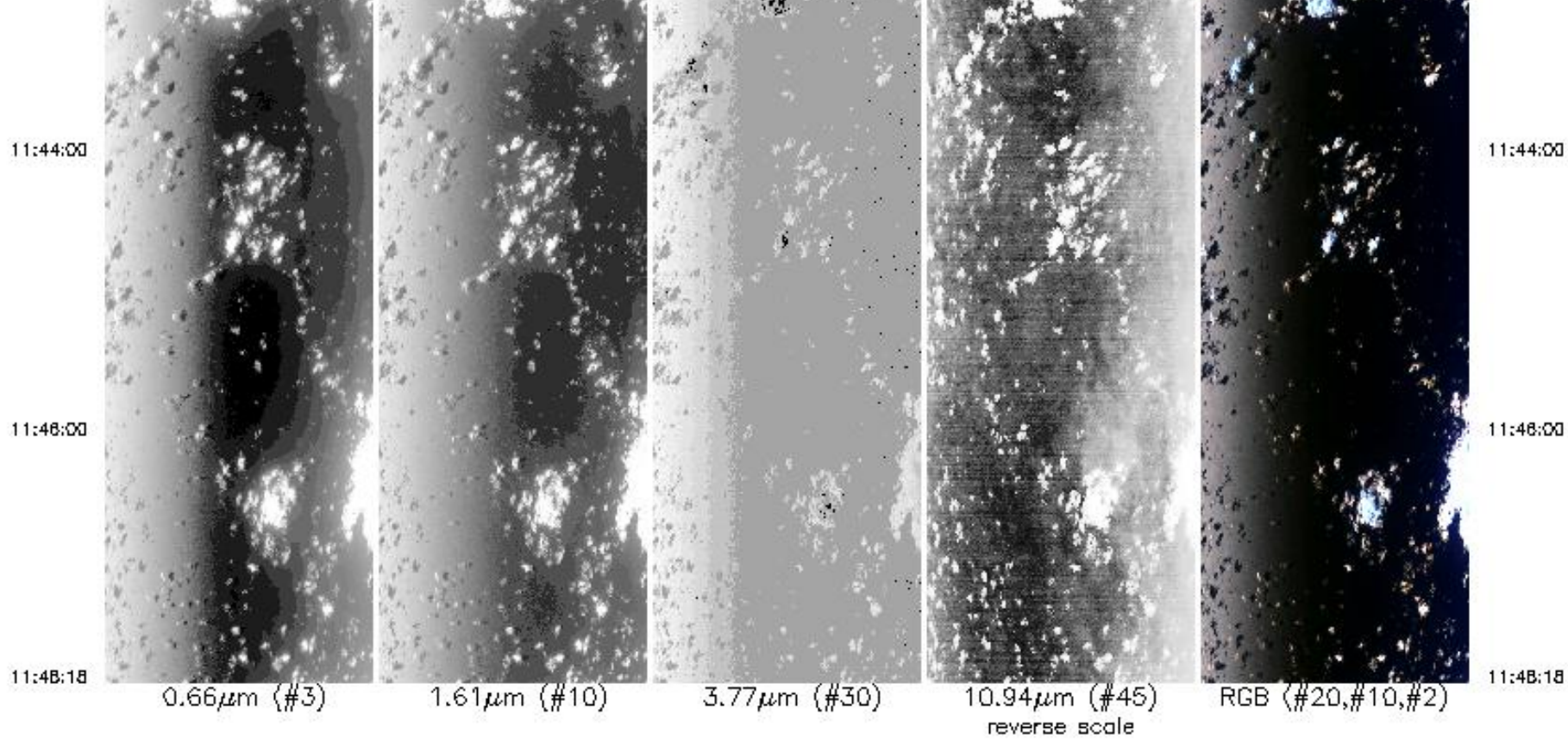


11:42:00



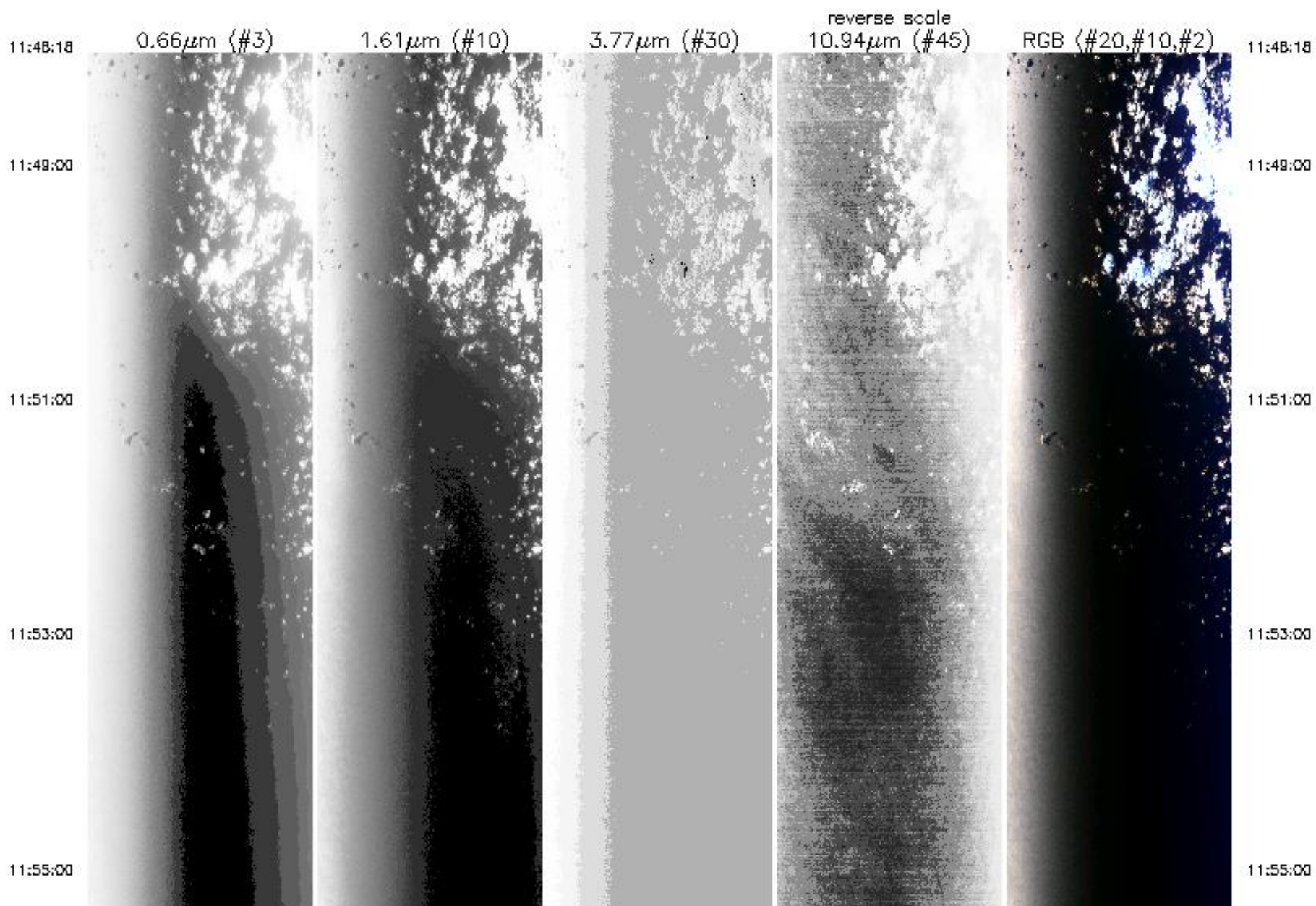
11:44:00





Upper Left Lat, Lon = -20.2° , 37.8°
 Lower Right Lat, Lon = -23.0° , 36.5°
 Aircraft Heading = 208.2°
 Solar Zenith = 35.3°
 GPS Altitude = 19970. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Indian Ocean
Flight #00-180 Track #12



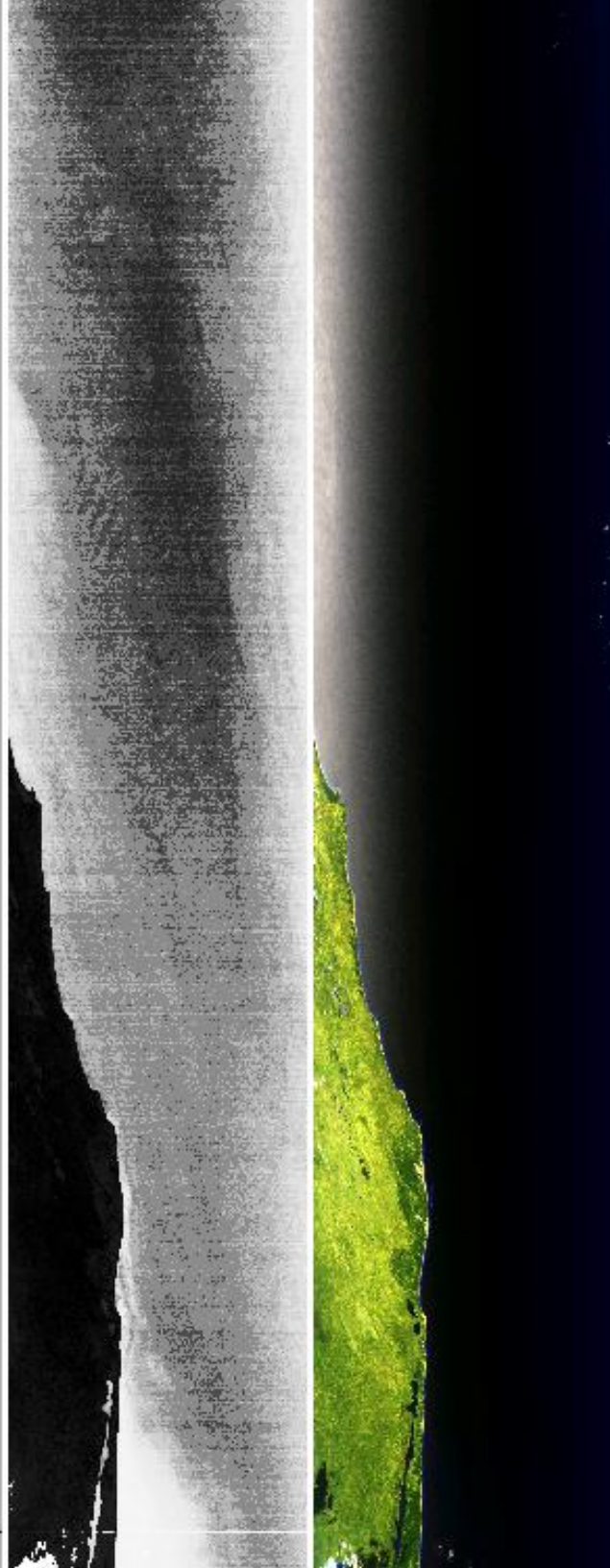
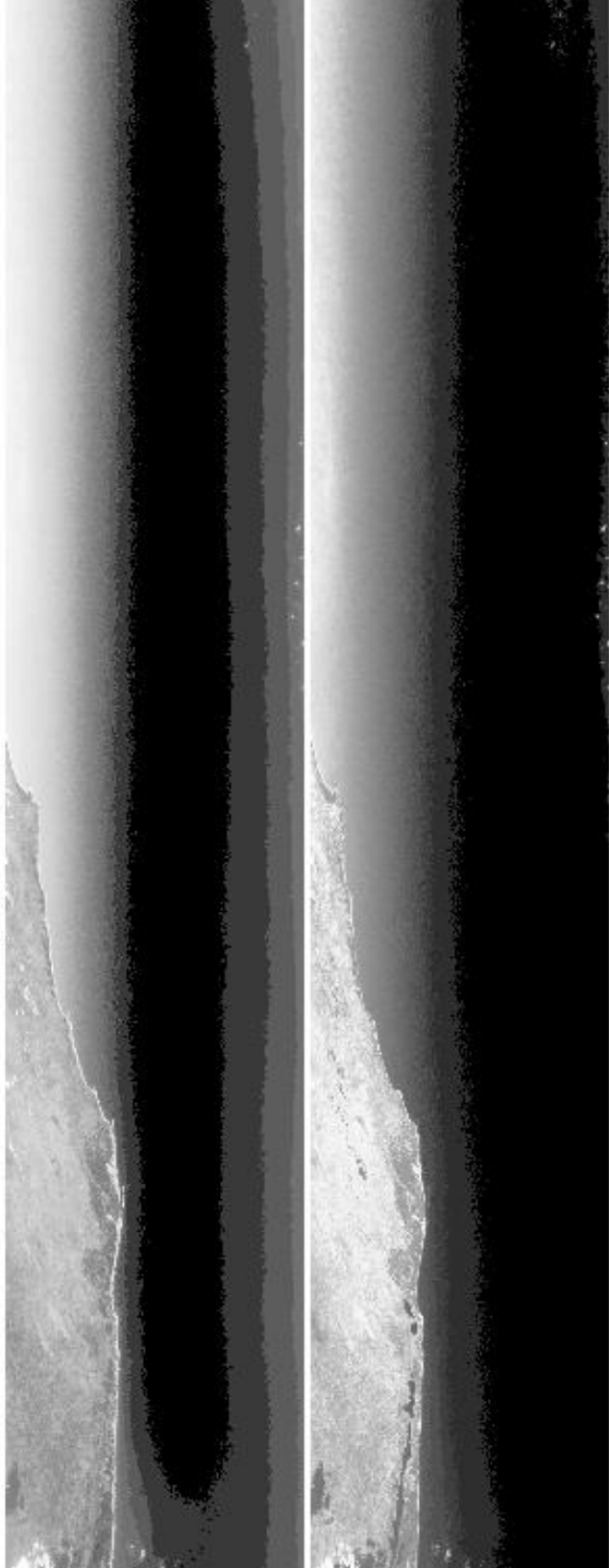
11:55:00

11:57:00

11:58:00

12:01:00

12:03:00



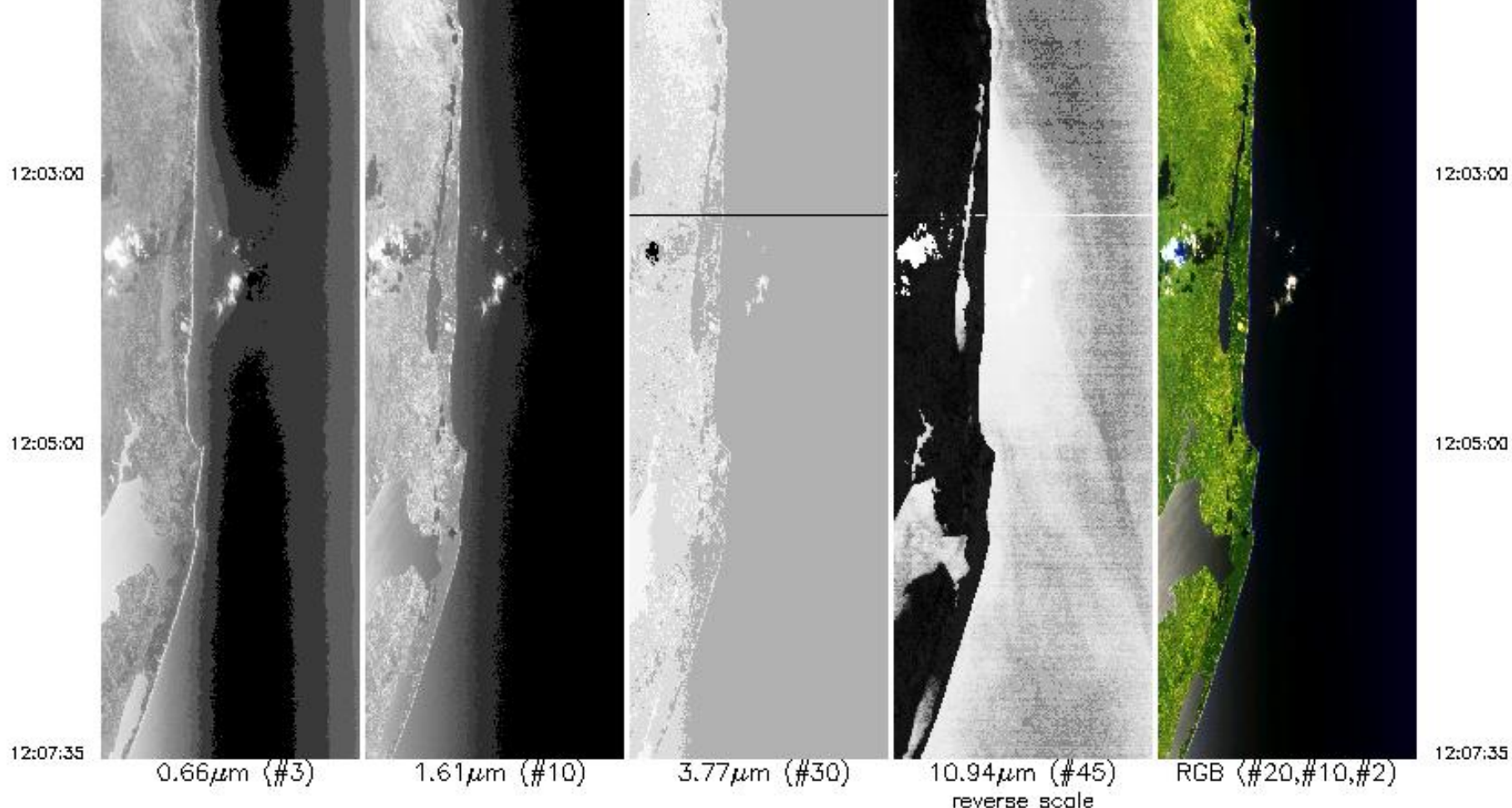
11:55:00

11:57:00

11:58:00

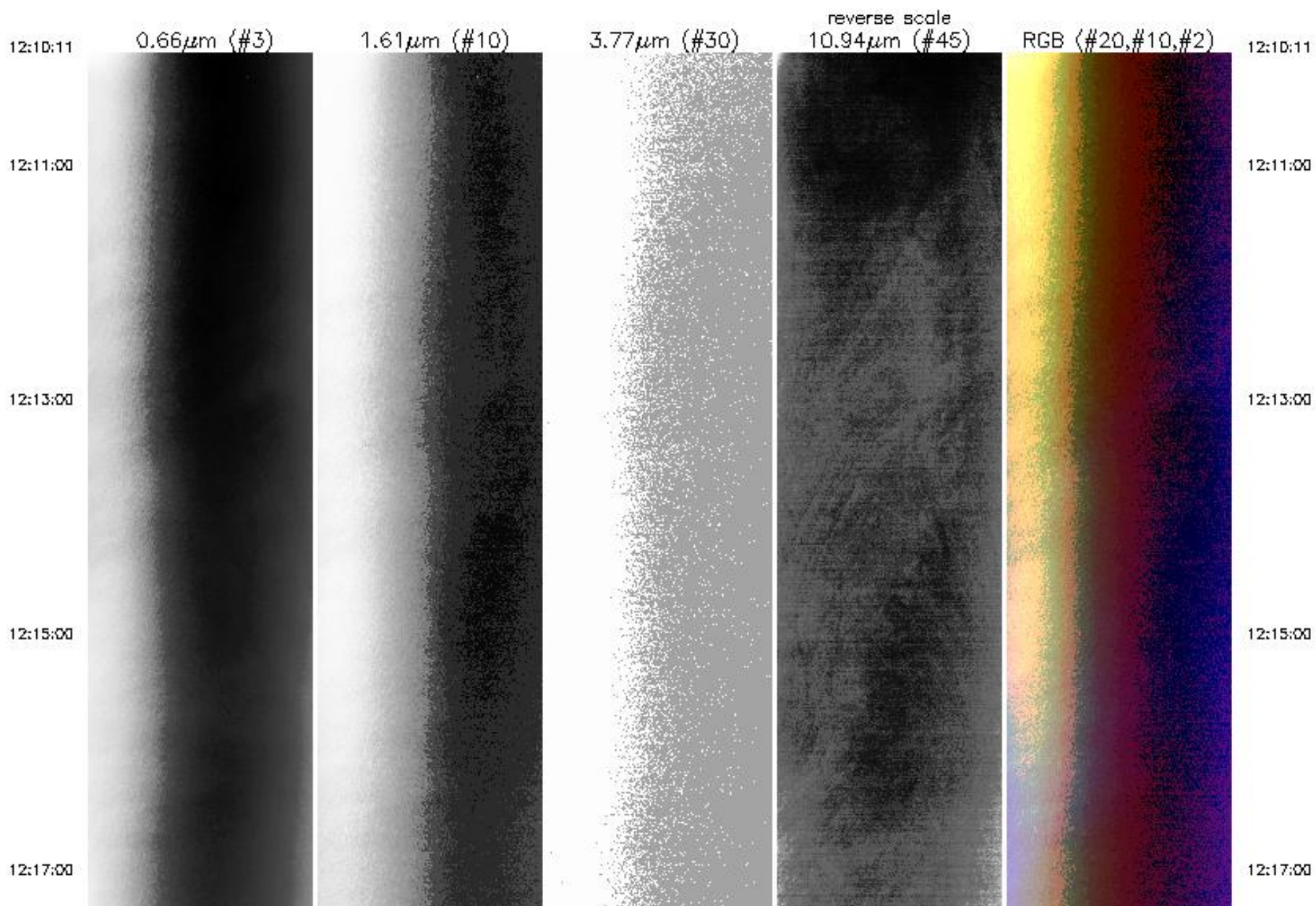
12:01:00

12:03:00



Upper Left Lat, Lon = -22.8° , 36.2°
 Lower Right Lat, Lon = -24.8° , 35.2°
 Aircraft Heading = 209.7°
 Solar Zenith = 40.7°
 GPS Altitude = 19958. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Indian Ocean
Flight #00-180 Track #13



12:17:00

12:18:00

12:21:00

12:23:00

12:25:00

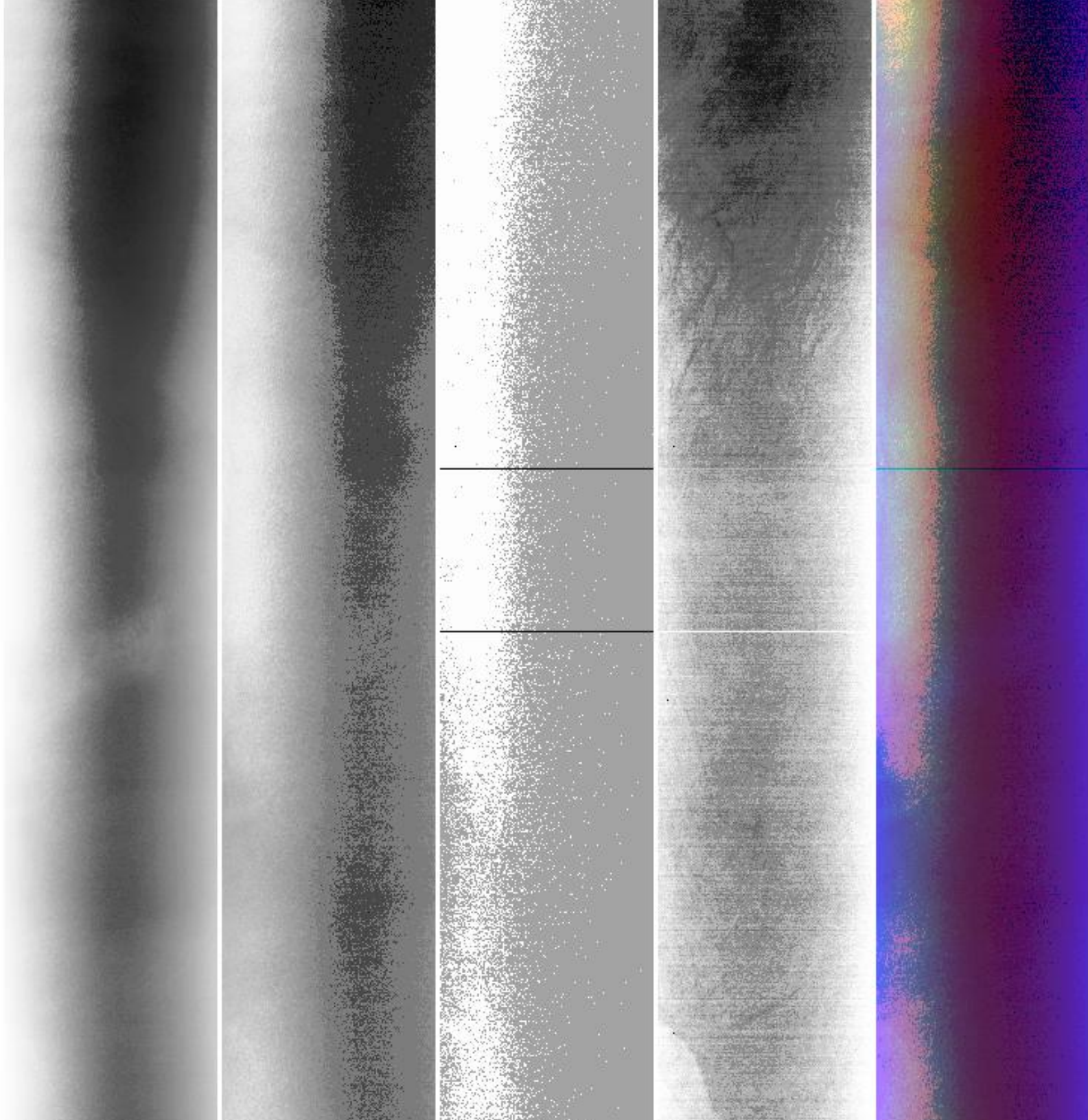
12:17:00

12:18:00

12:21:00

12:23:00

12:25:00



12:25:00

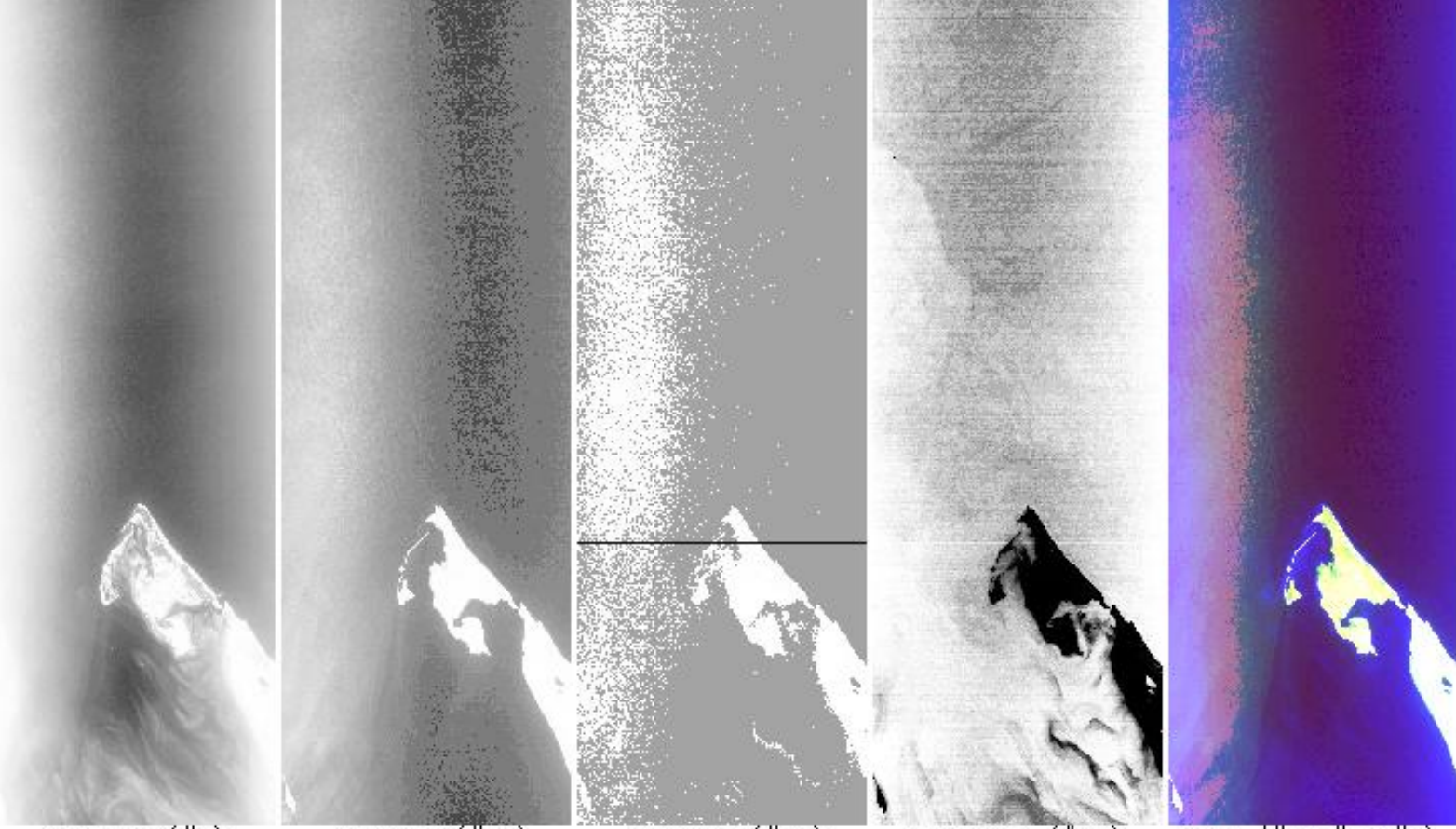
12:27:00

12:29:18

12:25:00

12:27:00

12:29:18



0.66µm (#3)

1.61µm (#10)

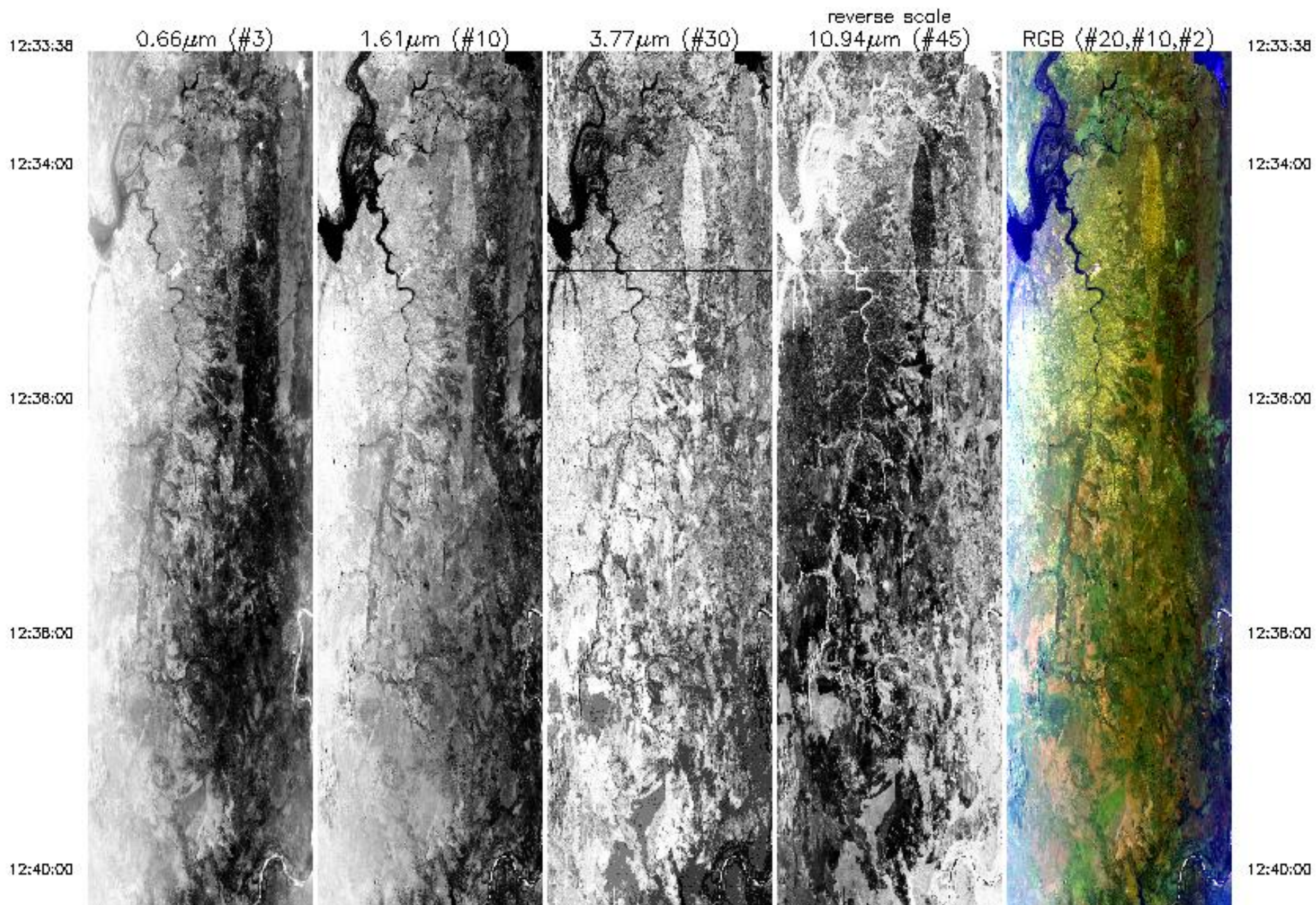
3.77µm (#30)

10.94µm (#45)
reverse scale

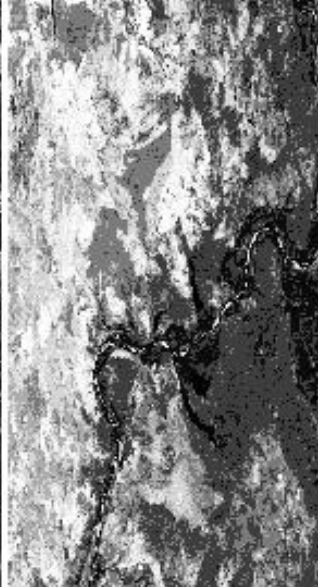
RGB (#20,#10,#2)

Upper Left Lat, Lon = -24.9°, 34.8°
Lower Right Lat, Lon = -26.2°, 32.8°
Aircraft Heading = 235.9°
Solar Zenith = 45.0°
GPS Altitude = 19816. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Mozambique
Flight #00-180 Track #14



12:40:00



12:40:00

12:42:42

0.66 μm (#3)

1.61 μm (#10)

3.77 μm (#30)

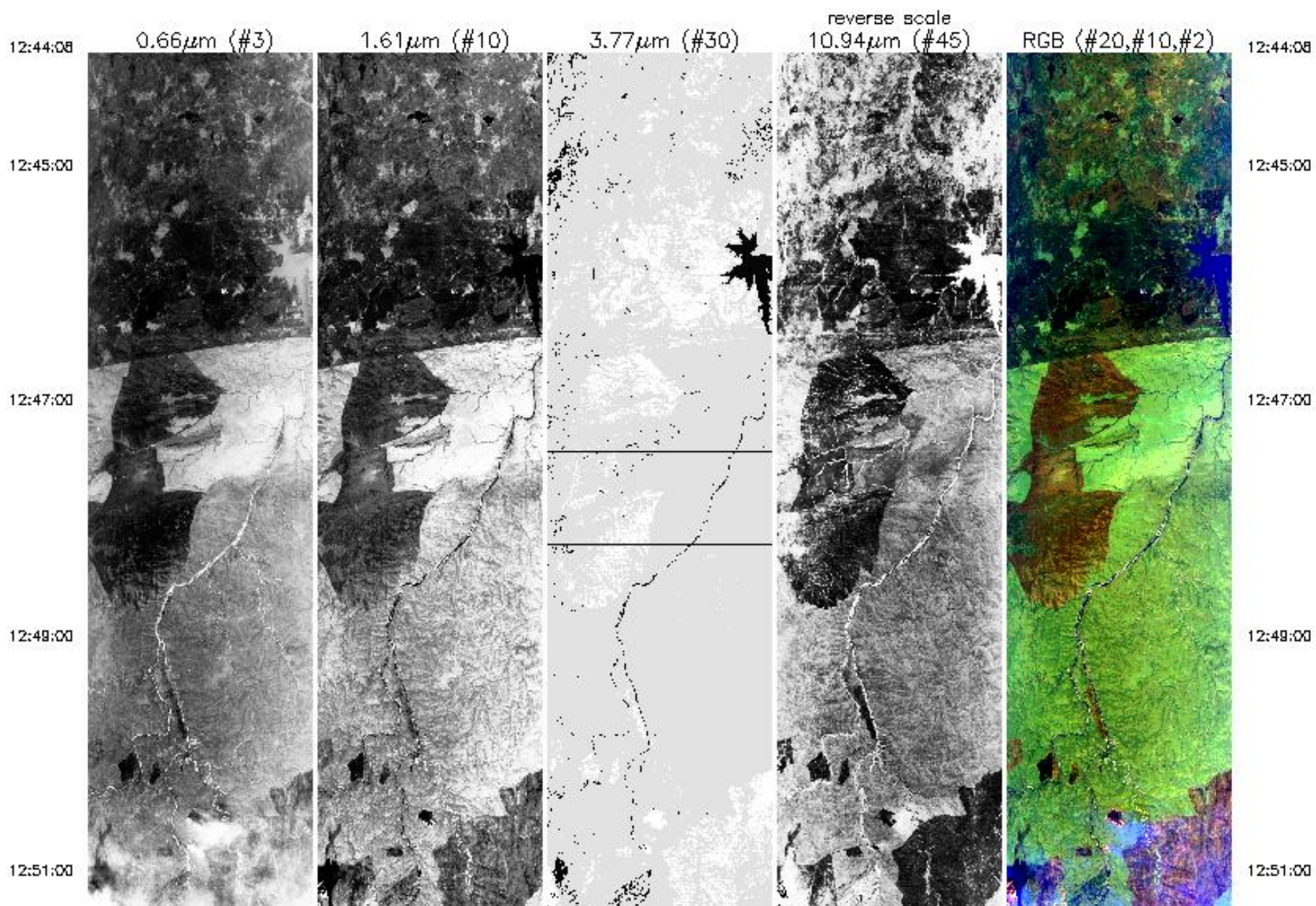
10.94 μm (#45)
reverse scale

RGB (#20,#10,#2)

12:42:42

Upper Left Lat, Lon = -26.1° , 32.5°
Lower Right Lat, Lon = -25.1° , 32.3°
Aircraft Heading = 3.7°
Solar Zenith = 48.5°
GPS Altitude = 19854. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
South Africa
Flight #00-180 Track #15



12:51:00

12:53:00

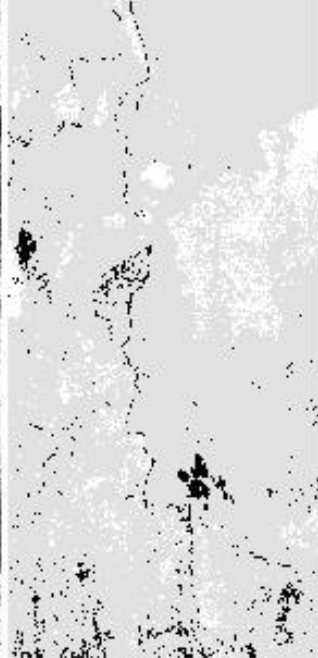
12:53:37



0.66µm (#3)



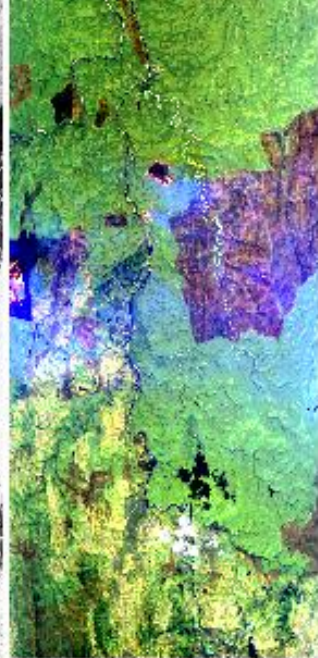
1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

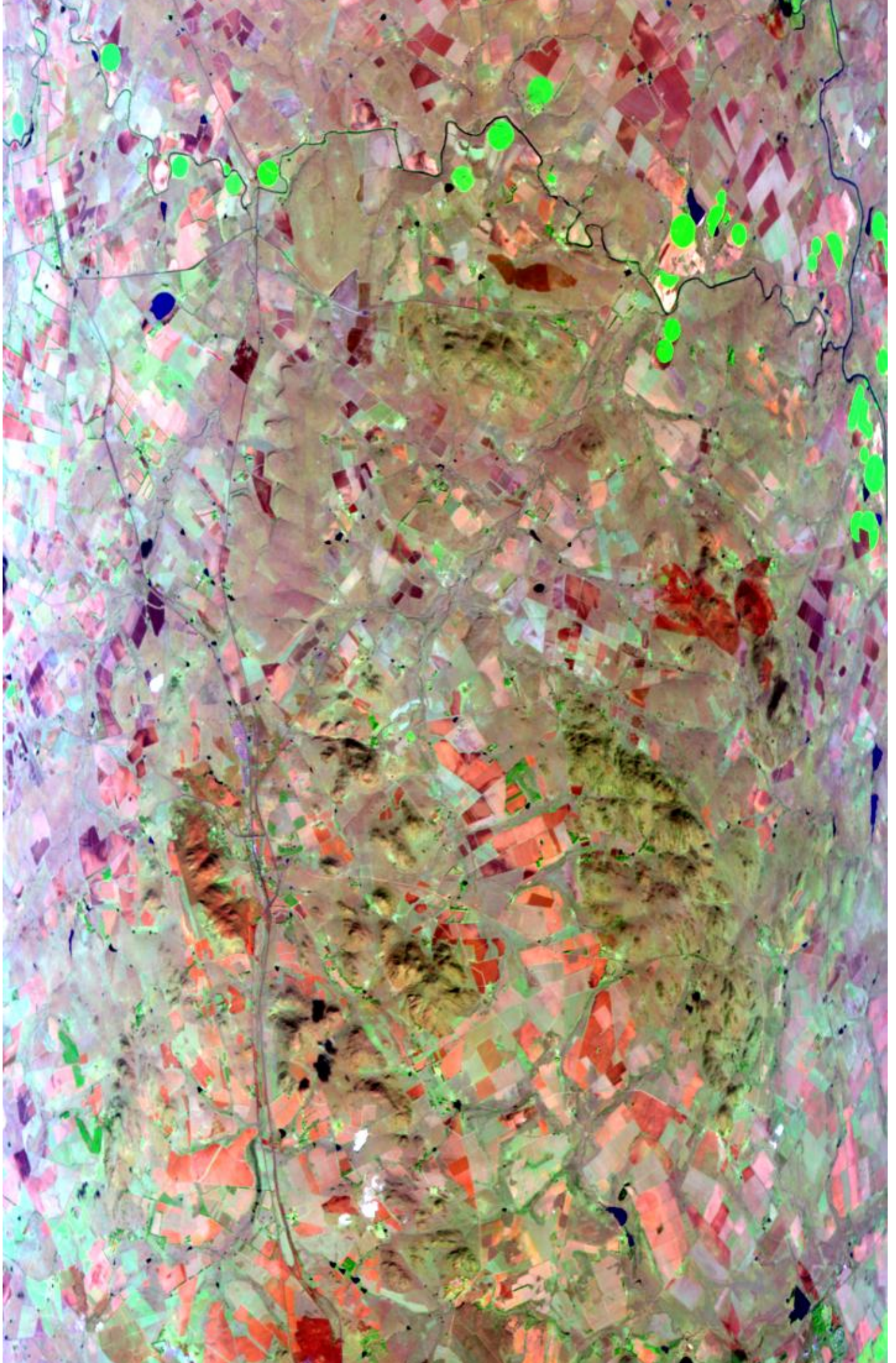
12:51:00

12:53:00

12:53:37

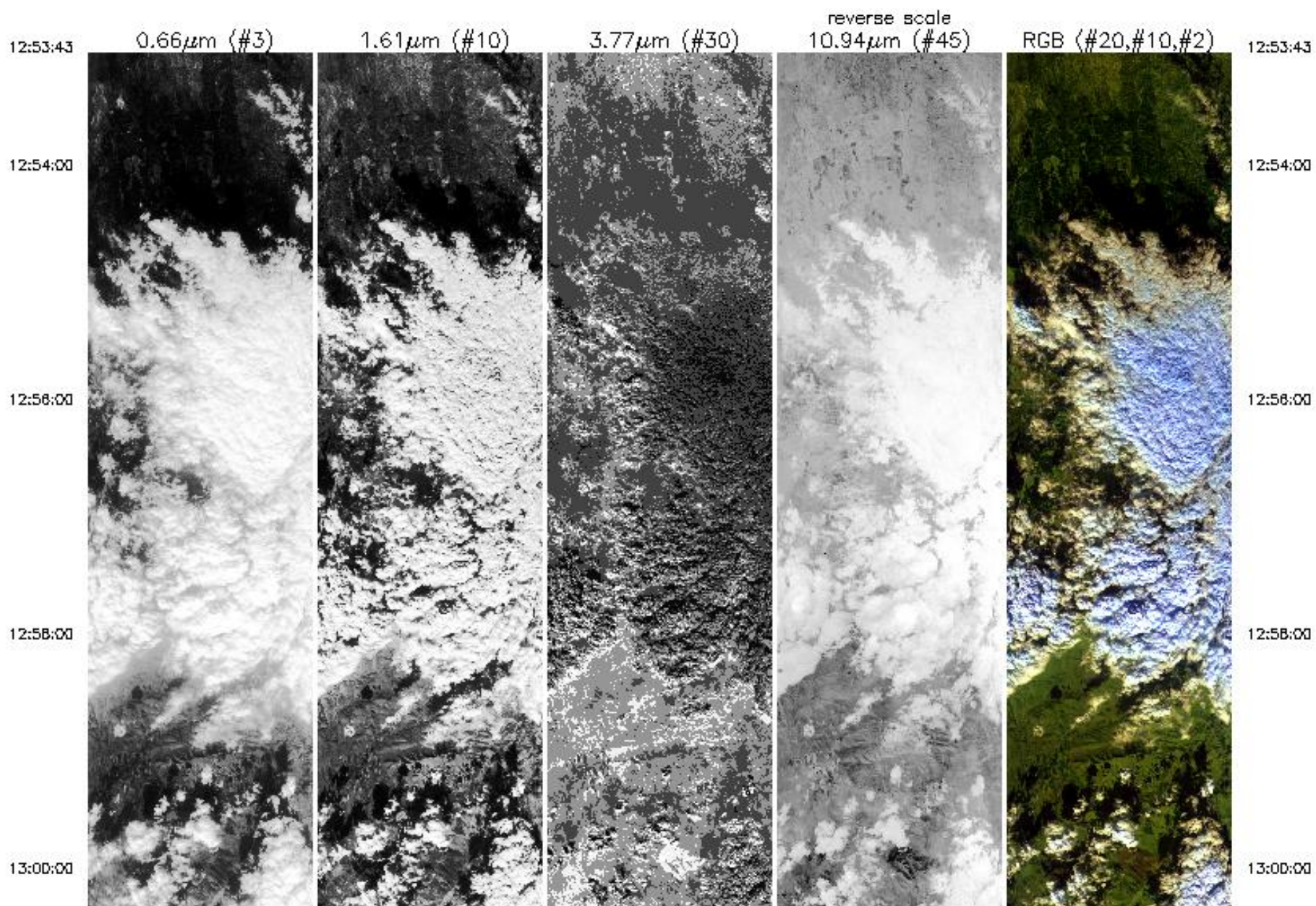
Upper Left Lat, Lon = -24.9°, 32.3°
Lower Right Lat, Lon = -25.2°, 31.1°
Aircraft Heading = 269.7°
Solar Zenith = 50.0°
GPS Altitude = 19898. m (MSL)



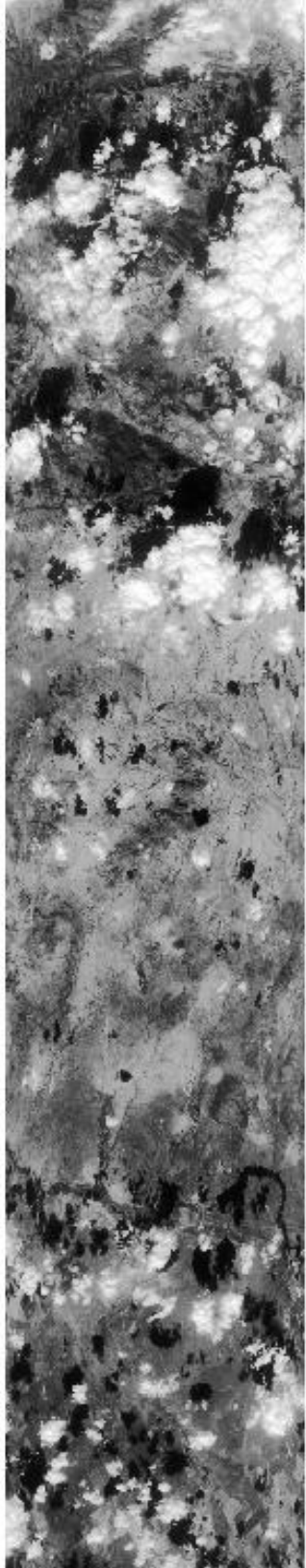




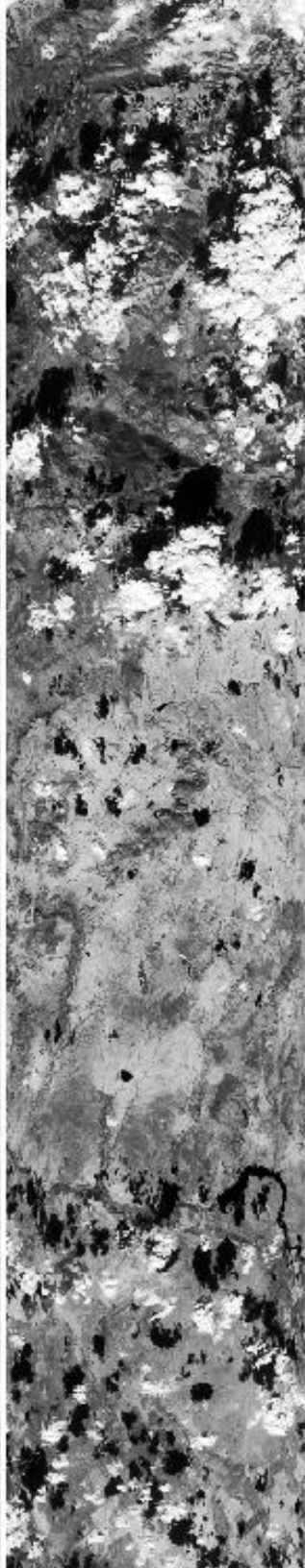
MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
South Africa
Flight #00-180 Track #16



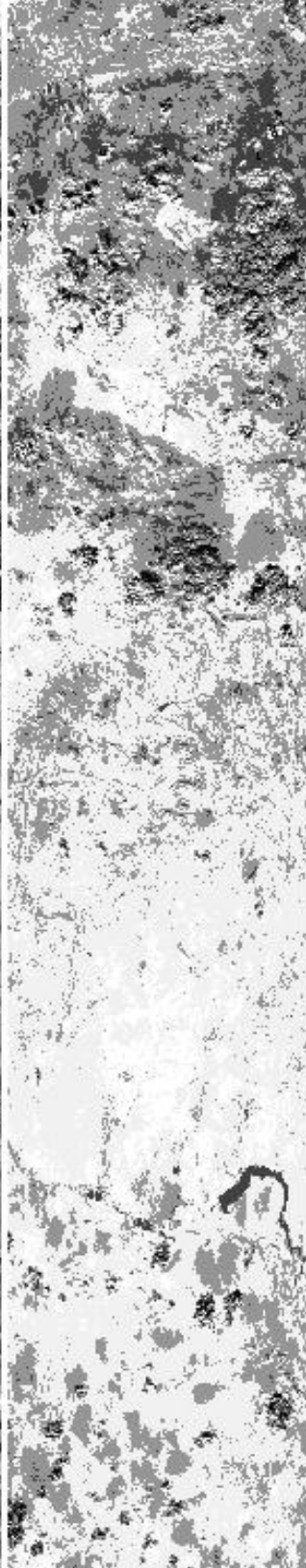
13:00:00



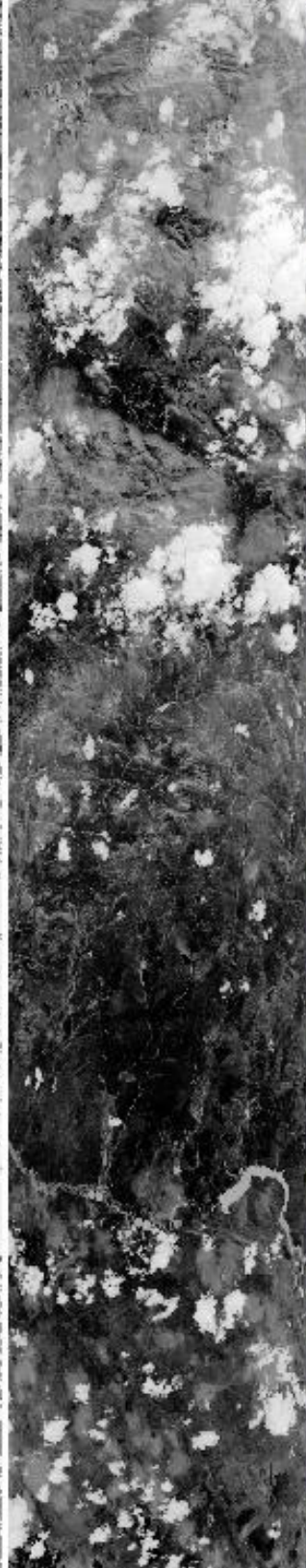
13:02:00



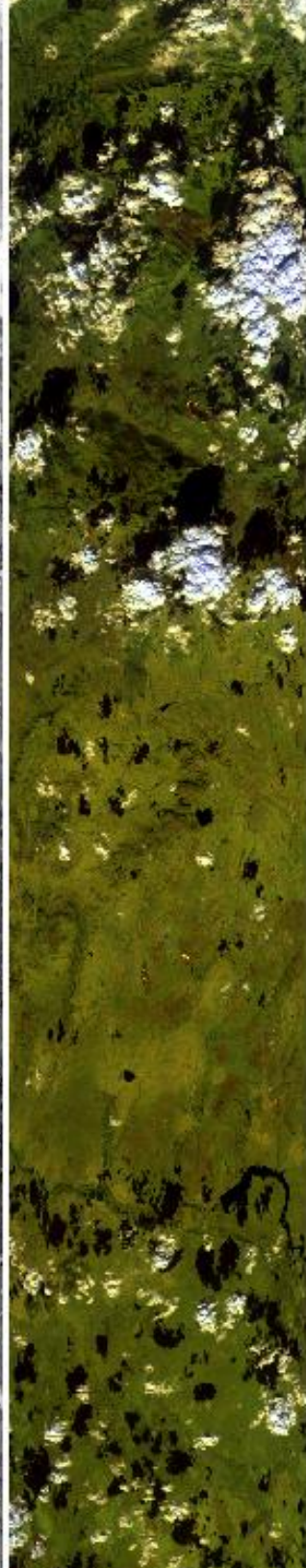
13:04:00



13:06:00



13:08:00



13:00:00

13:02:00

13:04:00

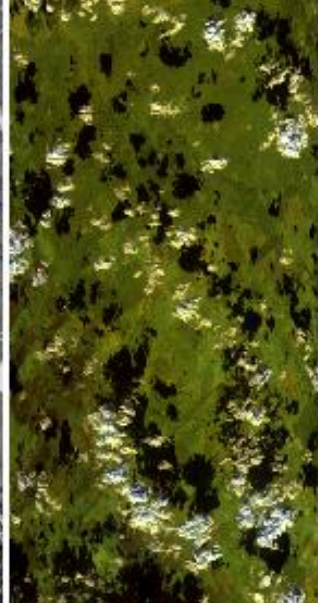
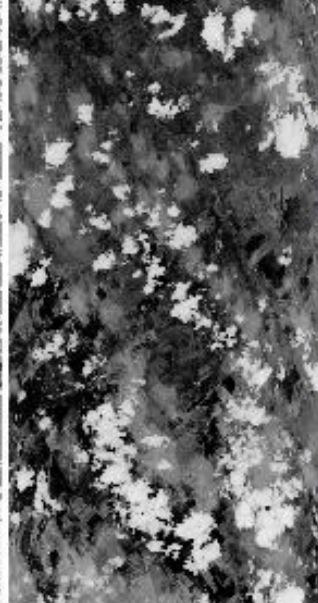
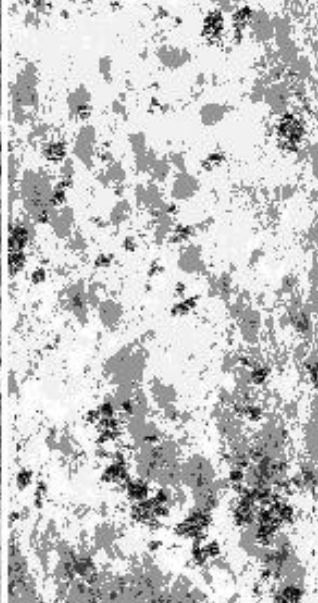
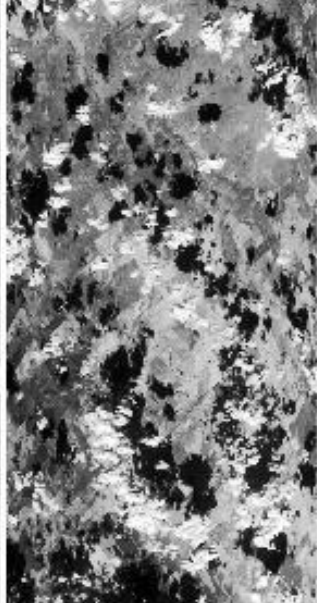
13:06:00

13:08:00

13:08:00

13:10:00

13:11:08



13:08:00

13:10:00

13:11:08

0.66 μ m (#3)

1.61 μ m (#10)

3.77 μ m (#30)

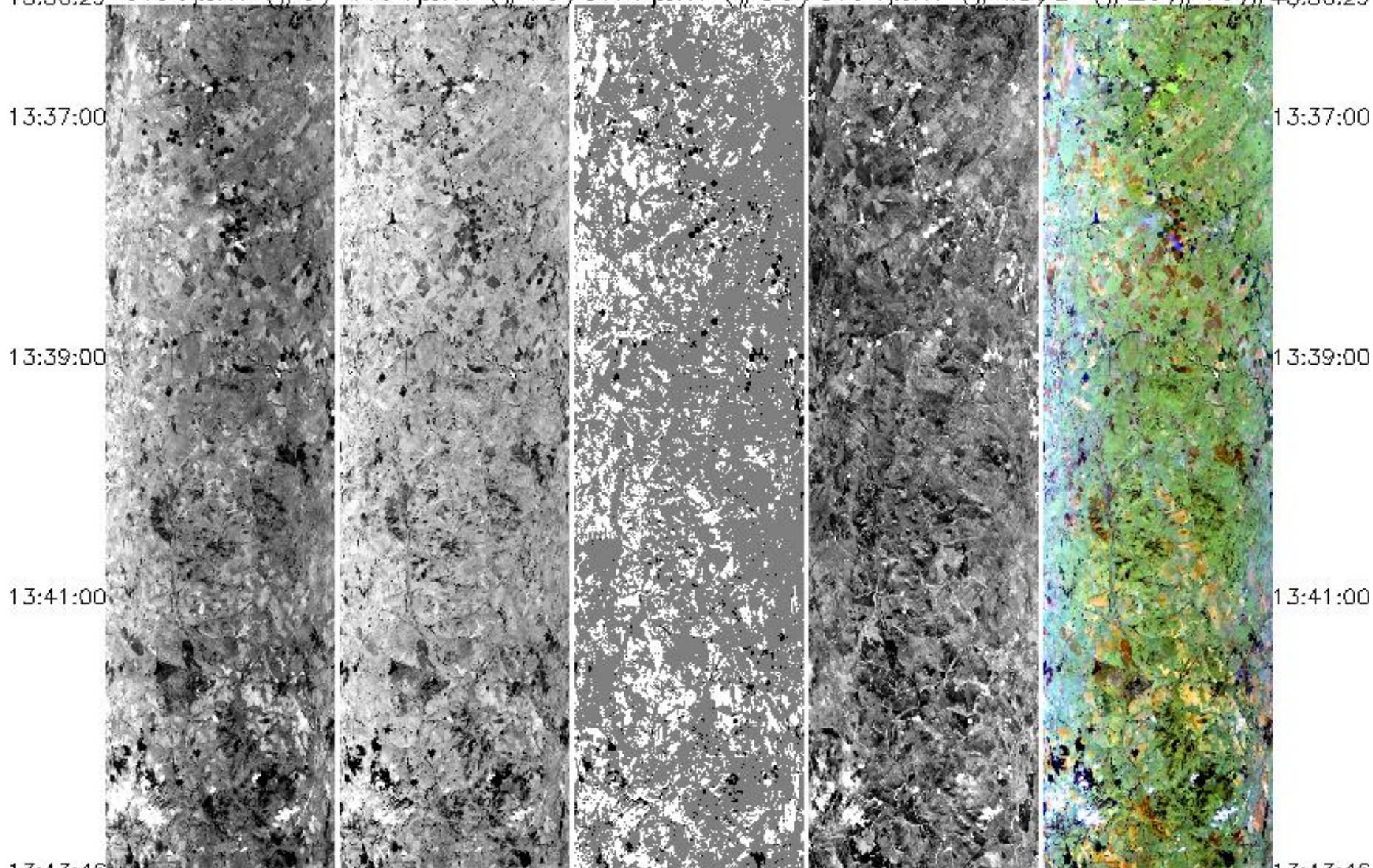
10.94 μ m (#45)
reverse scale

RGB (#20,#10,#2)

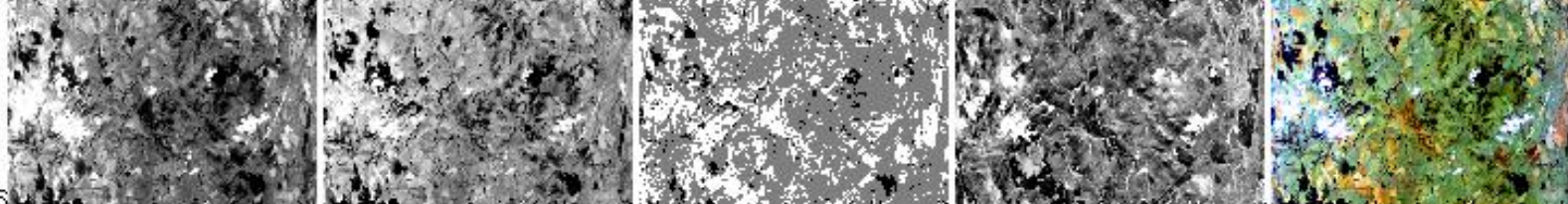
Upper Left Lat, Lon = -24.8° , 31.1°
Lower Right Lat, Lon = -24.8° , 28.8°
Aircraft Heading = 275.5°
Solar Zenith = 51.0°
GPS Altitude = 1995. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign. — 25 Sep 2000
South Africa
Flight #00-180 Track #17

13:36:29 0.66 μ m (#3) 1.61 μ m (#10) 3.77 μ m (#30) 0.94 μ m (#48) RGB (#20,#10,#2) 13:36:29
reverse scale



13:43:46 0.66 μ m (#3) 1.61 μ m (#10) 3.77 μ m (#30) 0.94 μ m (#48) RGB (#20,#10,#2) 13:43:46
reverse scale



13:43:46

0.66 μm (#3)

1.61 μm (#10)

3.77 μm (#30)

0.94 μm (#48)

RGB (#20, #10, #2)

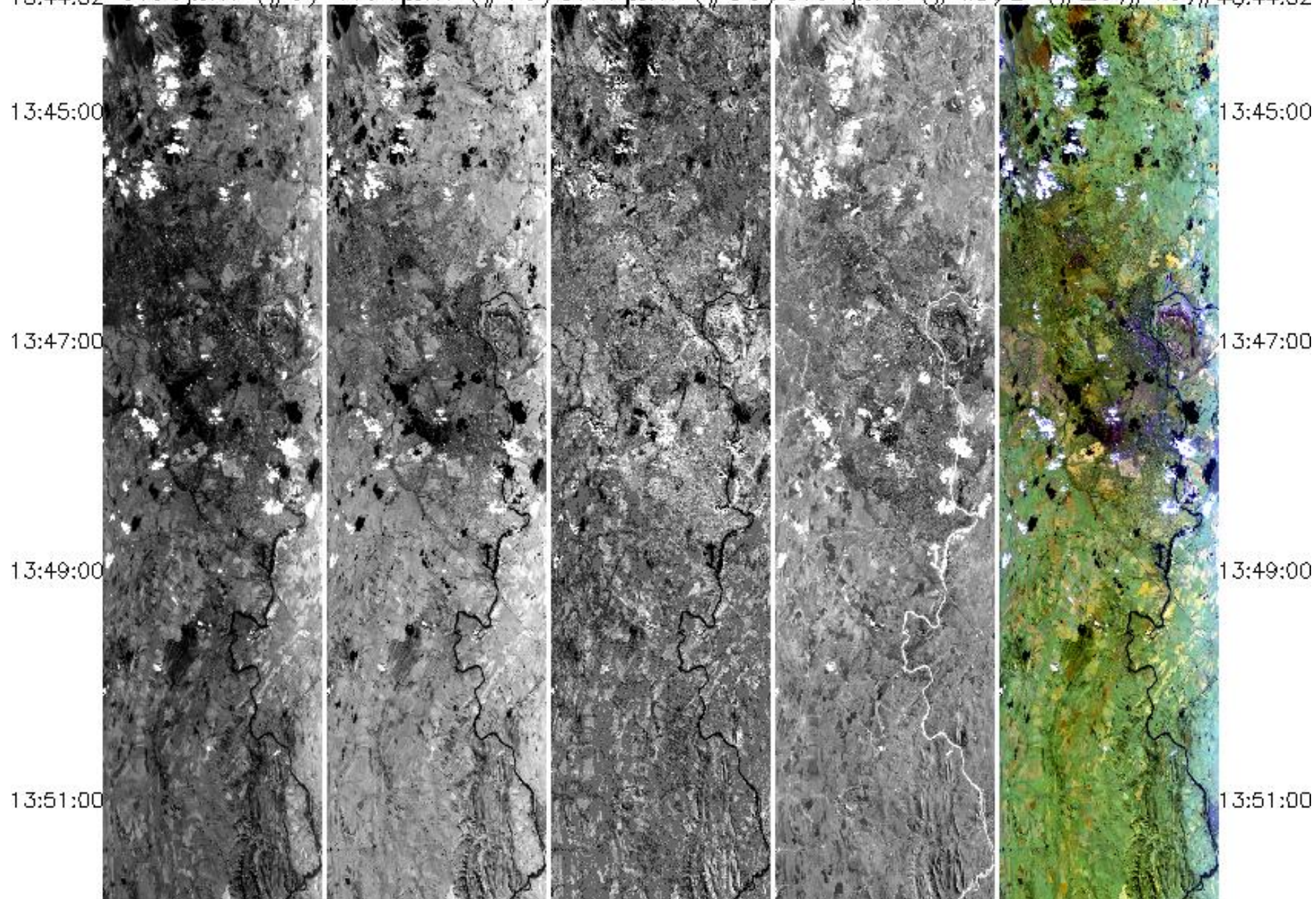
13:43:46

reverse scale

Aircraft Heading = 311.7°
Solar Zenith = 34.7°
GPS Altitude = 19808. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign. — 25 Sep 2000
South Africa
Flight #00-180 Track #18

13:44:52 0.66 μ m (#3) 1.61 μ m (#10) 3.77 μ m (#30) 0.94 μ m (#48) ^{reverse scale} CB (#20,#10,#2) 13:44:52



13:51:00

13:53:00

13:55:00

13:57:00

13:59:00

14:00:14

13:51:00

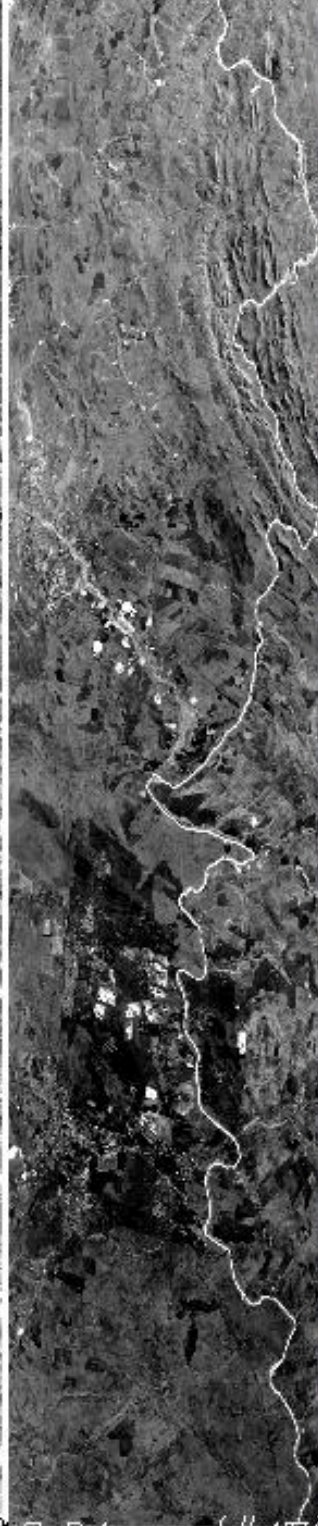
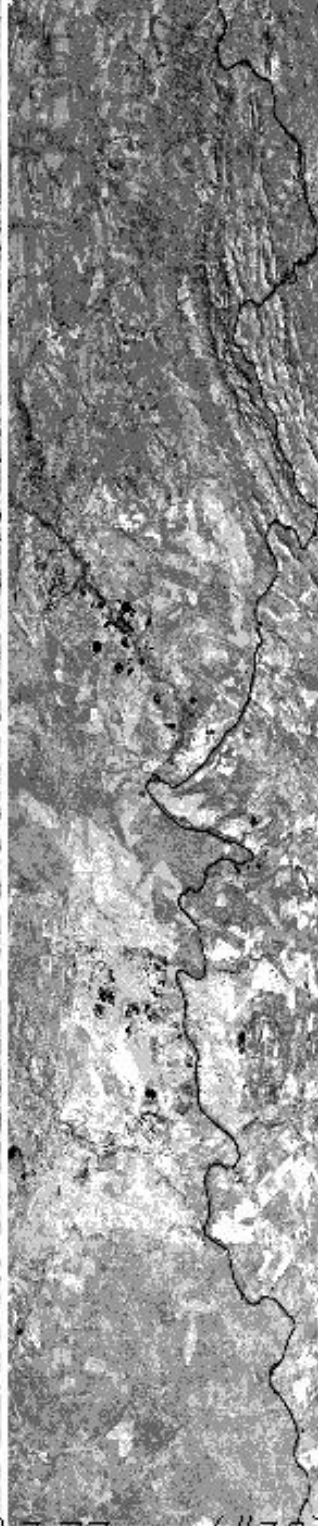
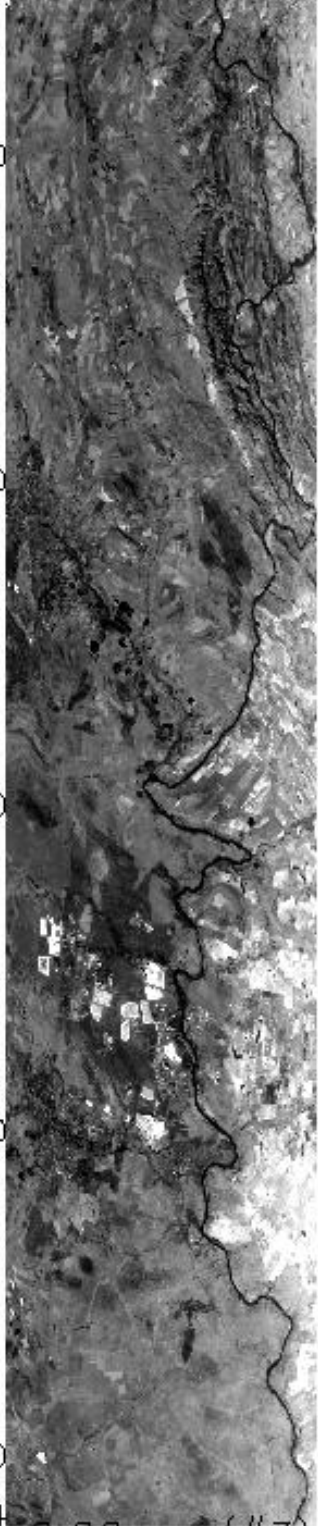
13:53:00

13:55:00

13:57:00

13:59:00

14:00:14



0.66 μm (#3)

1.61 μm (#10)

3.77 μm (#30)

0.94 μm (#4)

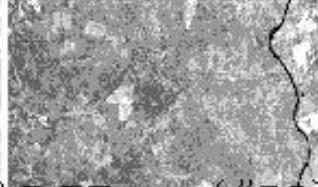
RGB (#20, #10, #2)

reverse scale

Aircraft Heading = 249.7°

13:59:00

14:00:14



13:59:00

14:00:14

0.66 μm (#3)

1.61 μm (#10)

3.77 μm (#30)

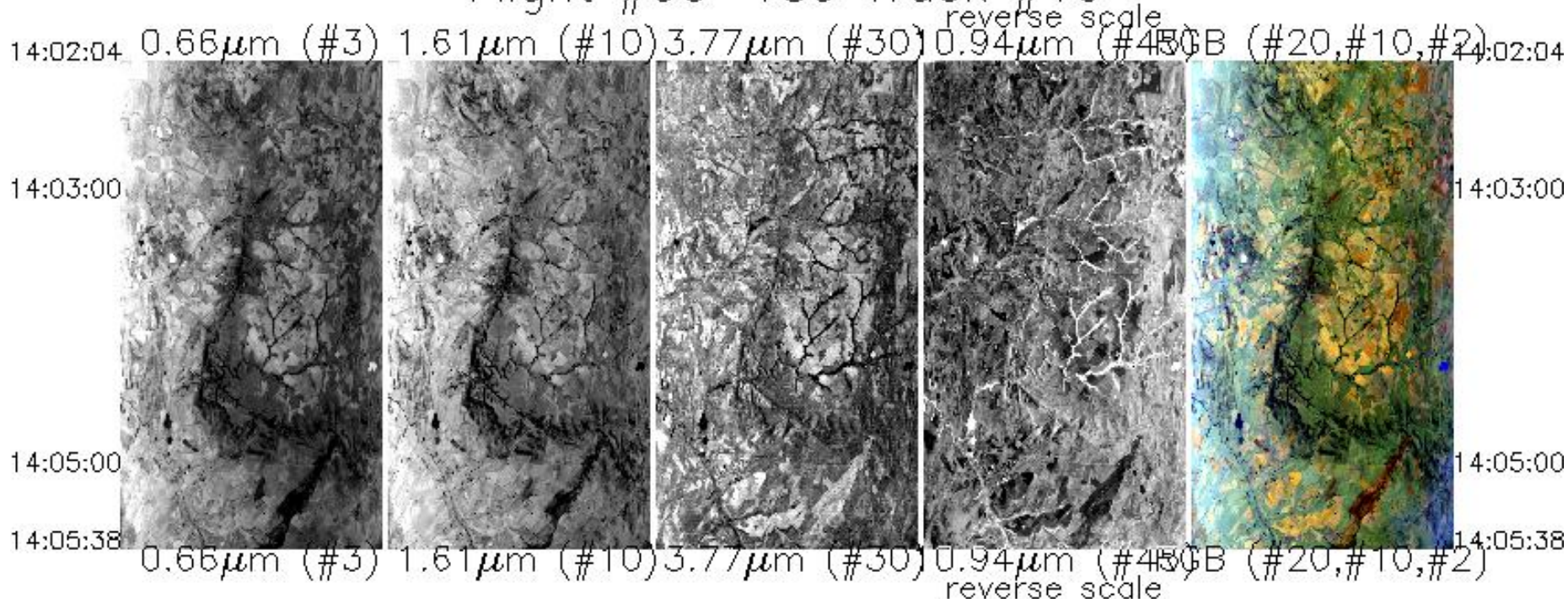
0.94 μm (#45)

RGB (#20, #10, #2)

reverse scale

Aircraft Heading = 249.7°
 Solar Zenith = 35.7°
 GPS Altitude = 19903. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign. — 25 Sep 2000
 South Africa
 Flight #00-180 Track #19

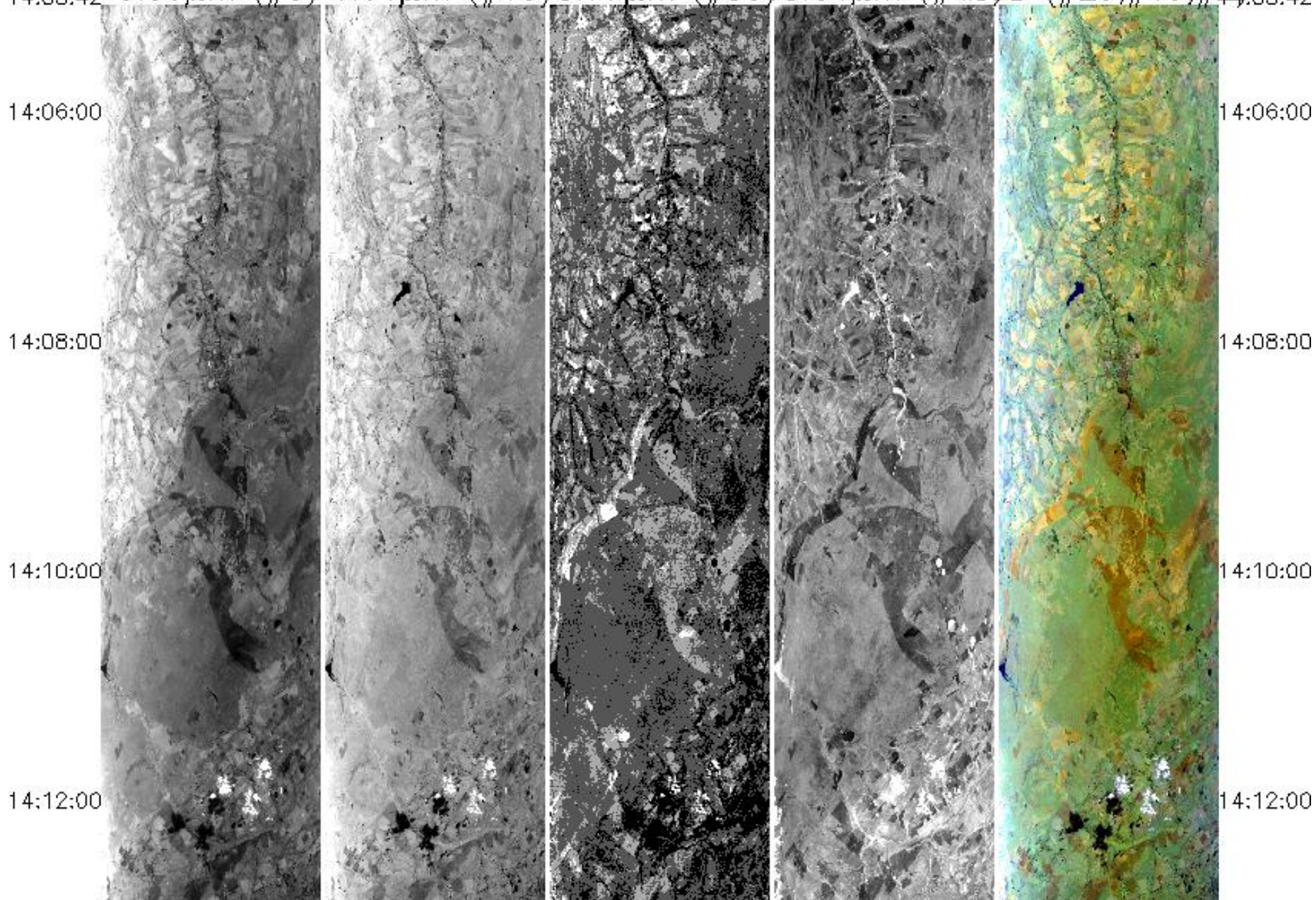


Aircraft Heading = 41.4°
 Solar Zenith = 39.1°
 GPS Altitude = 19897. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign. — 25 Sep 2000

South Africa
Flight #00-180 Track #20

14:05:42 0.66 μ m (#3) 1.61 μ m (#10) 3.77 μ m (#30) 0.94 μ m (#48) CB (#20,#10,#2) 14:05:42
reverse scale



14:12:00

14:14:00

14:16:00

14:18:00

14:20:00

14:21:10

14:12:00

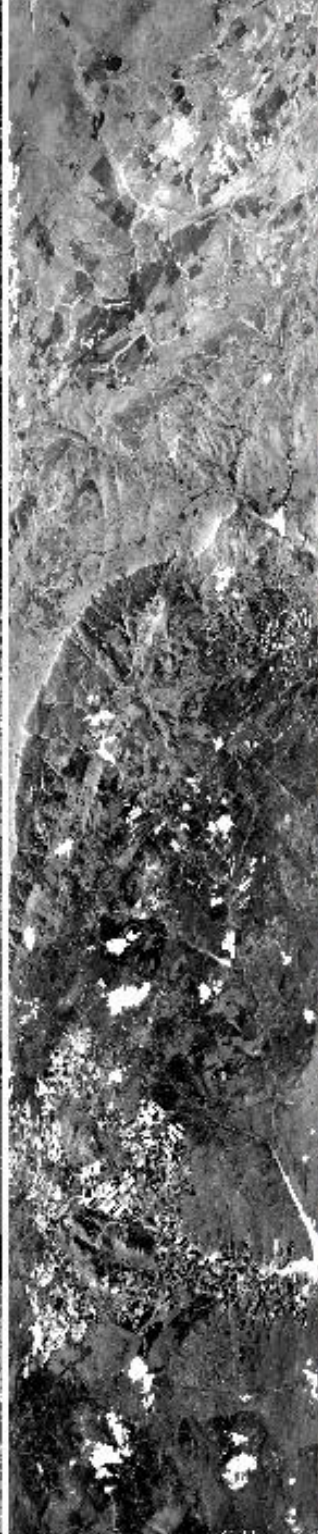
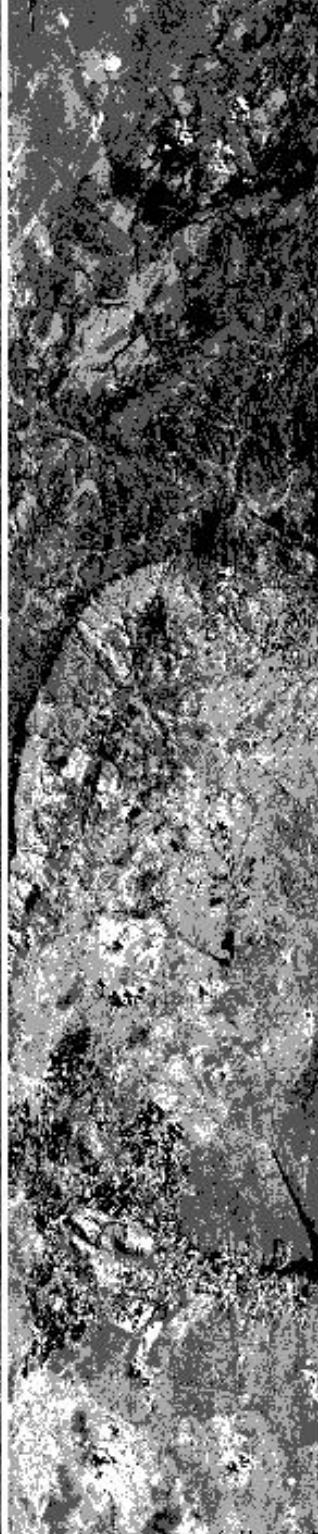
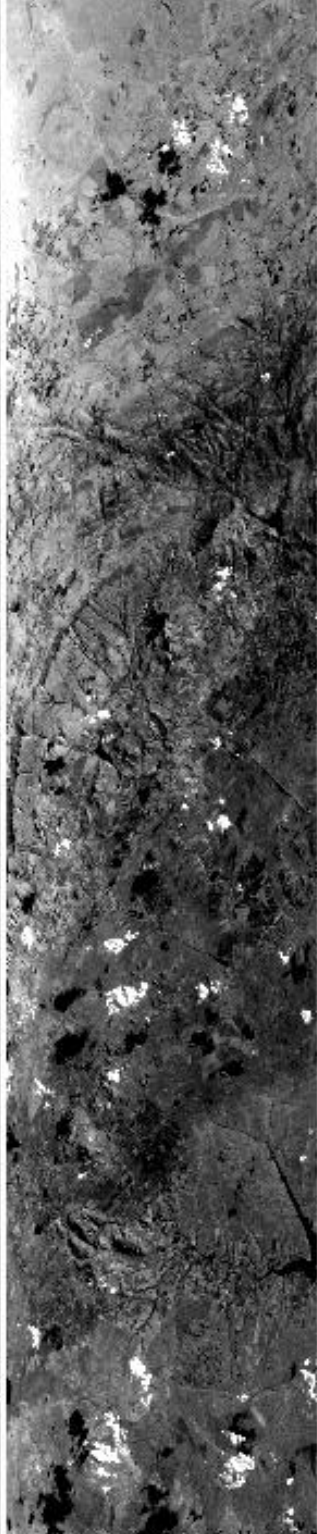
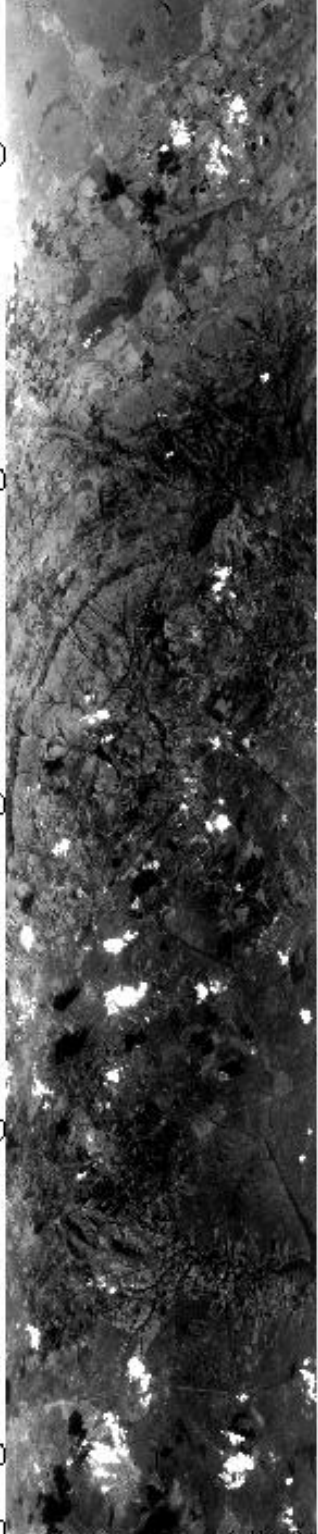
14:14:00

14:16:00

14:18:00

14:20:00

14:21:10



0.66 μm (#3)

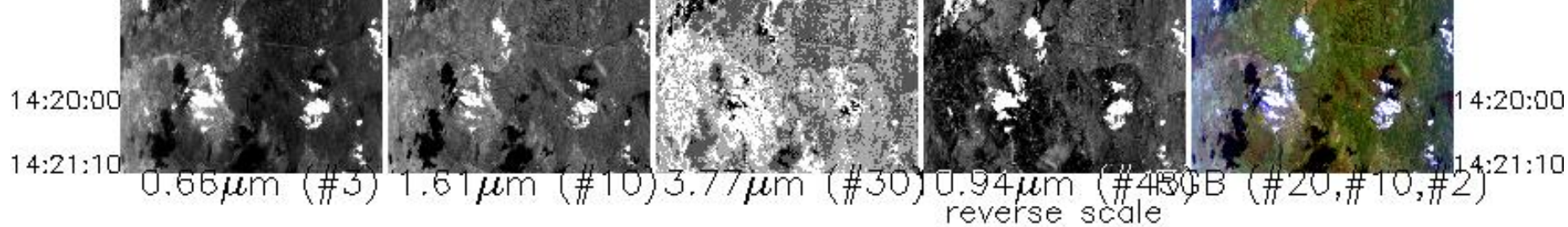
1.61 μm (#10)

3.77 μm (#30)

0.94 μm (#4) reverse scale

RGB (#20, #10, #2)

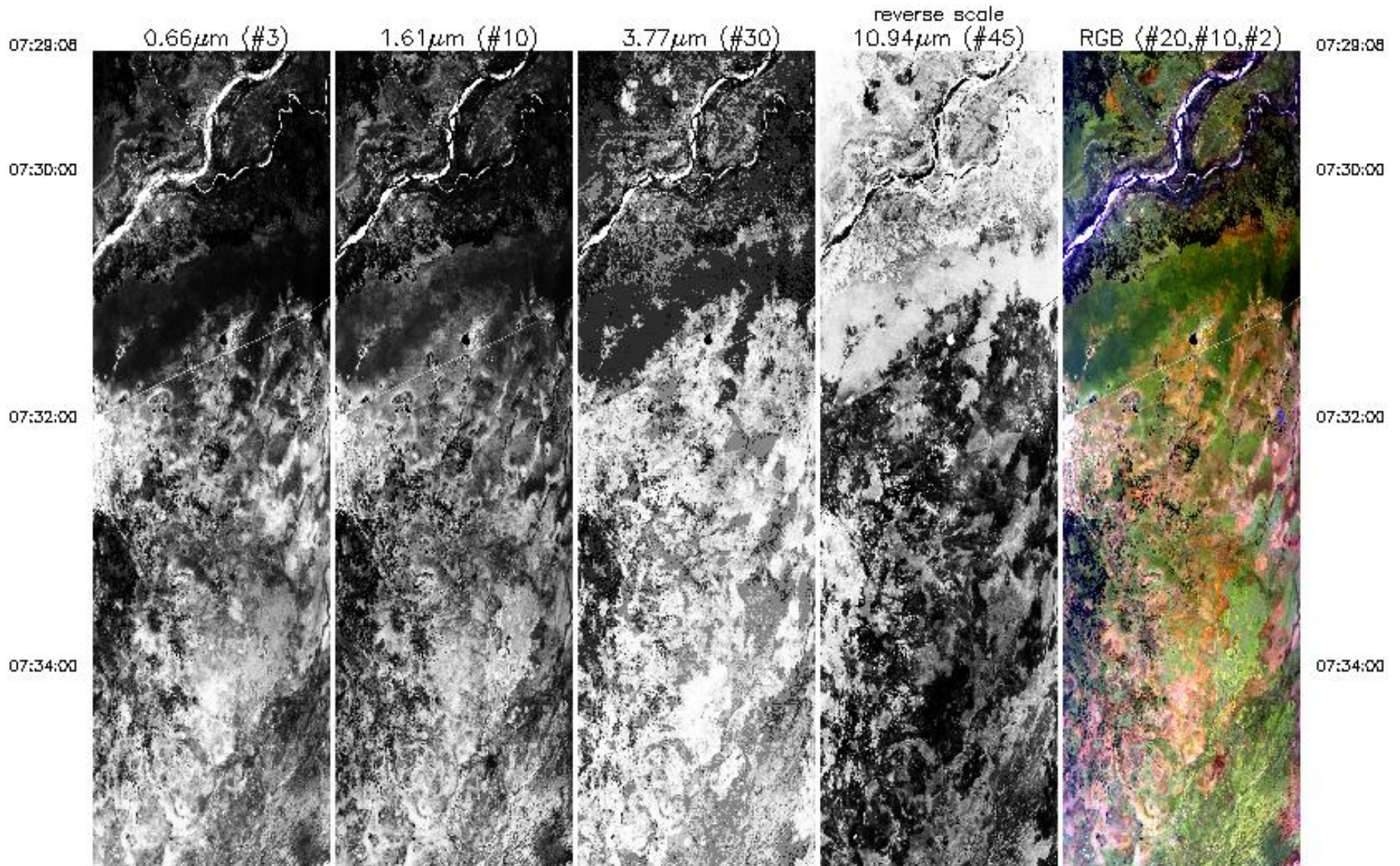
Aircraft Heading = 45.5°



Aircraft Heading = 45.5°
 Solar Zenith = 39.5°
 GPS Altitude = 19591. m (MSL)

Flight #00-180 Browse Imagery

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Mozambique
Flight #00-180 Track #1



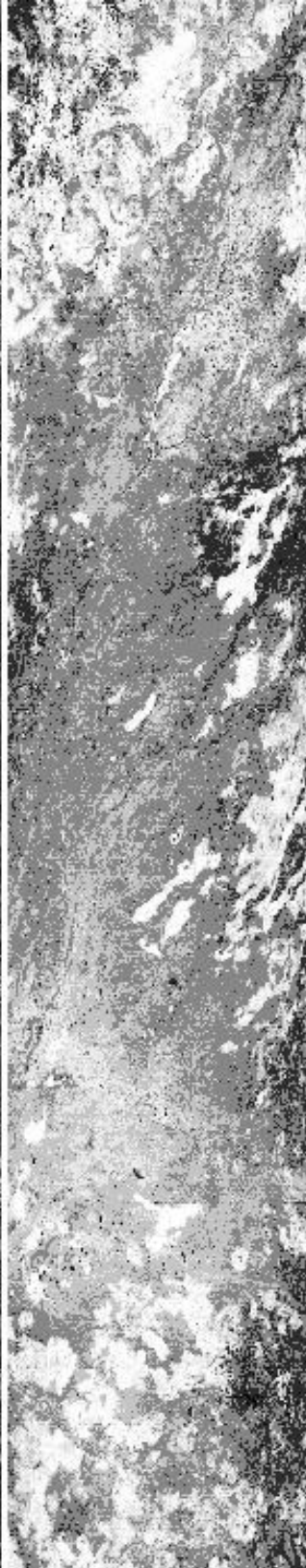
07:34:00



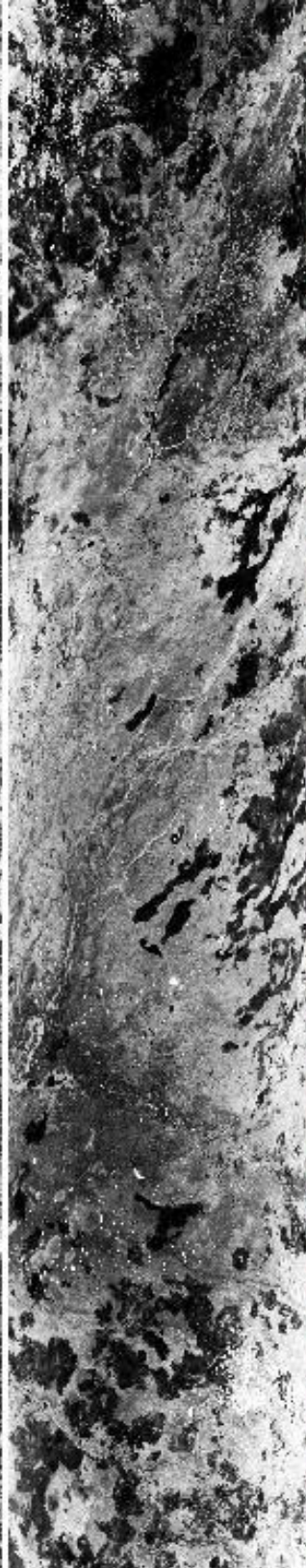
07:36:00



07:38:00



07:40:00



07:42:00



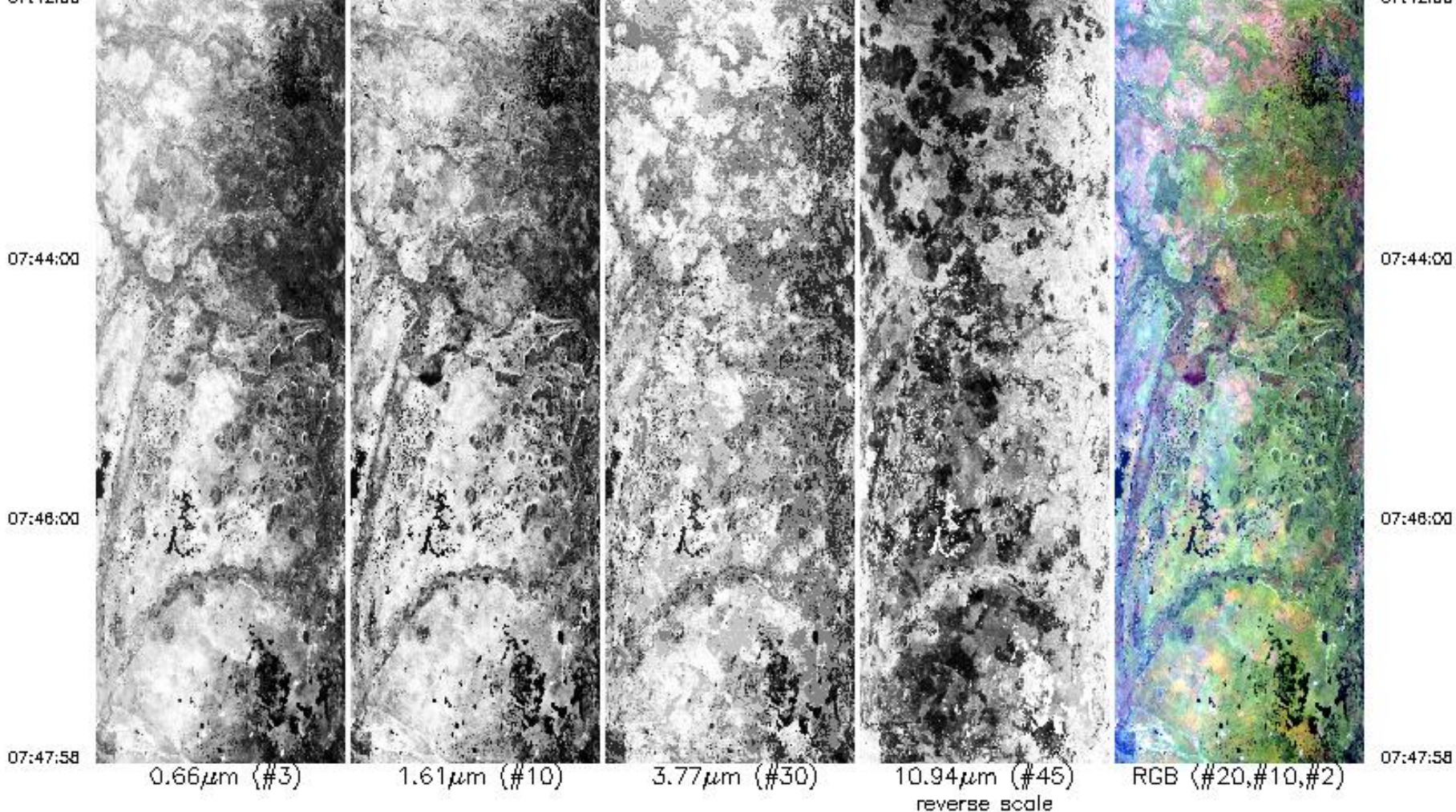
07:34:00

07:36:00

07:38:00

07:40:00

07:42:00

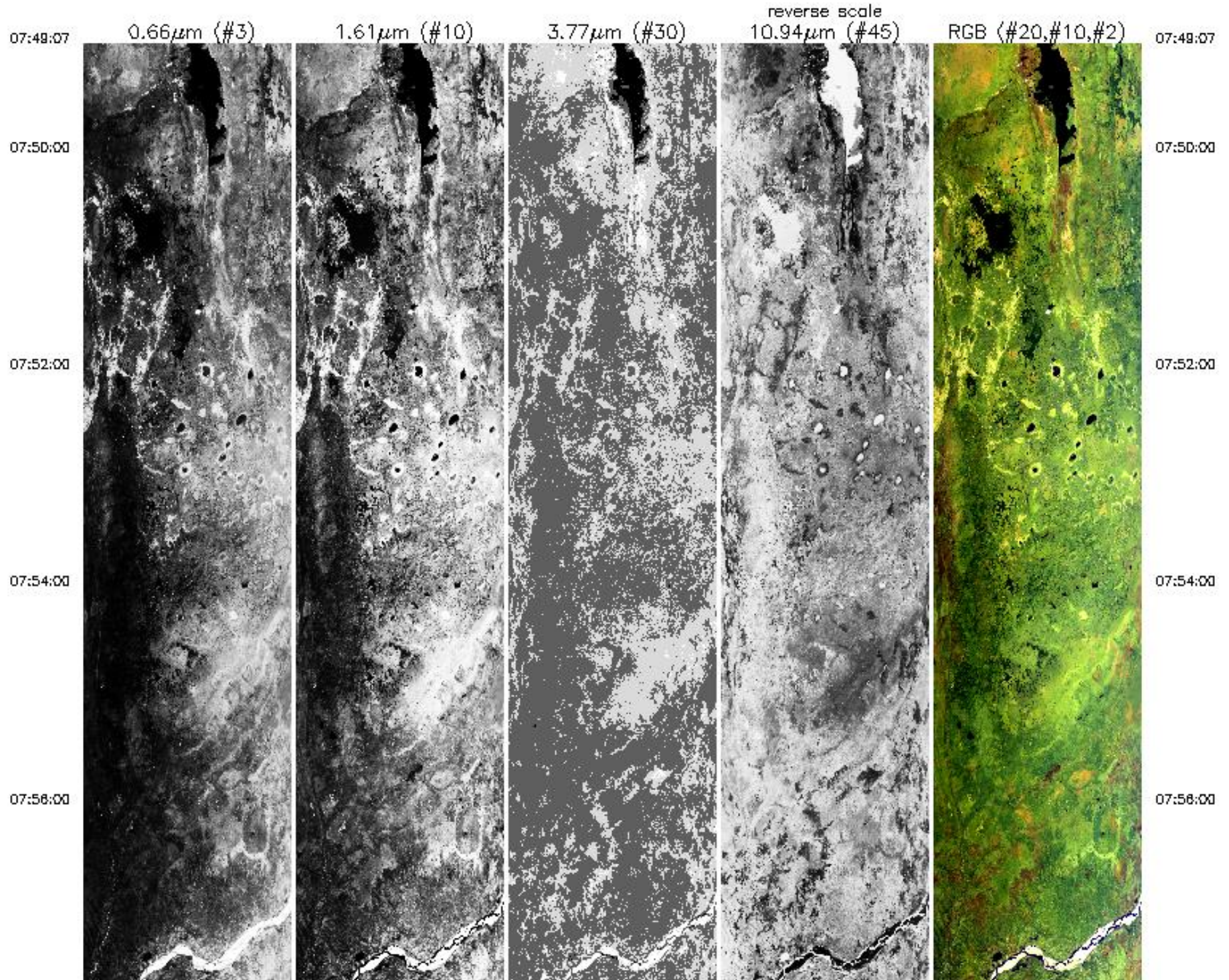


Upper Left Lat, Lon = -22.8° , 31.7°
 Lower Right Lat, Lon = -22.1° , 33.8°
 Aircraft Heading = 79.6°
 Solar Zenith = 39.4°
 GPS Altitude = 19175. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 25 Sep 2000
 Mozambique
 Flight #00-180 Track #2



Mozambique
Flight #00-180 Track #2



07:58:00



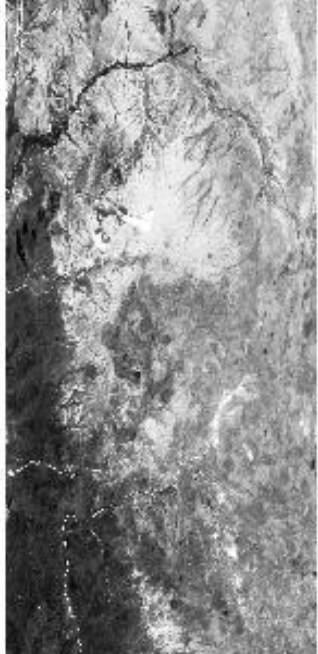
07:58:00



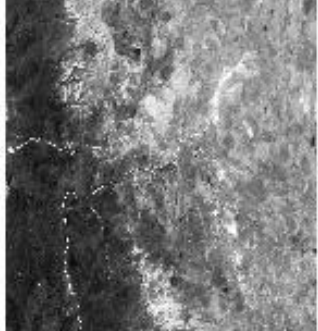
06:00:00



06:02:00



06:04:00



07:58:00



07:58:00

06:00:00

06:02:00

06:04:00

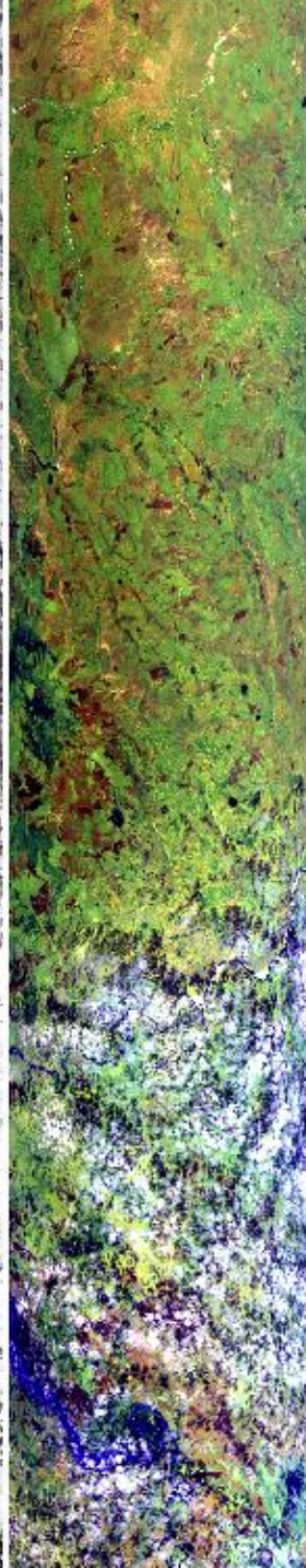
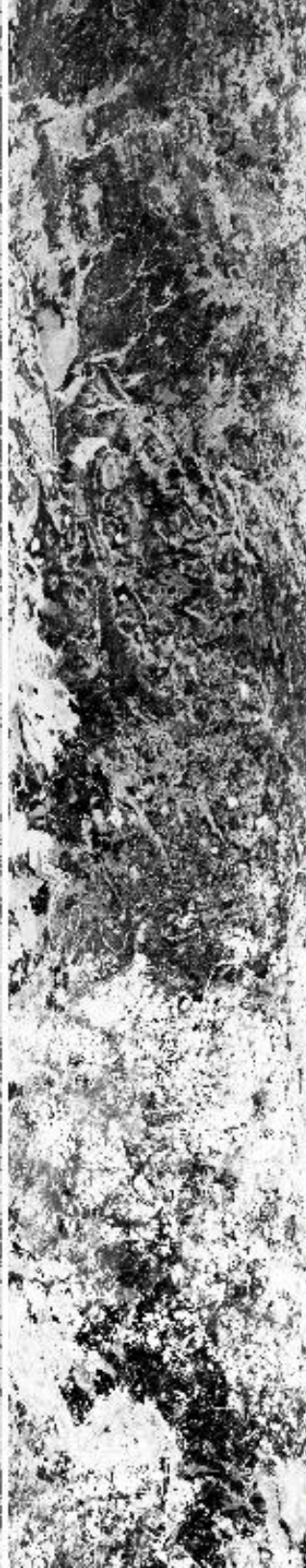
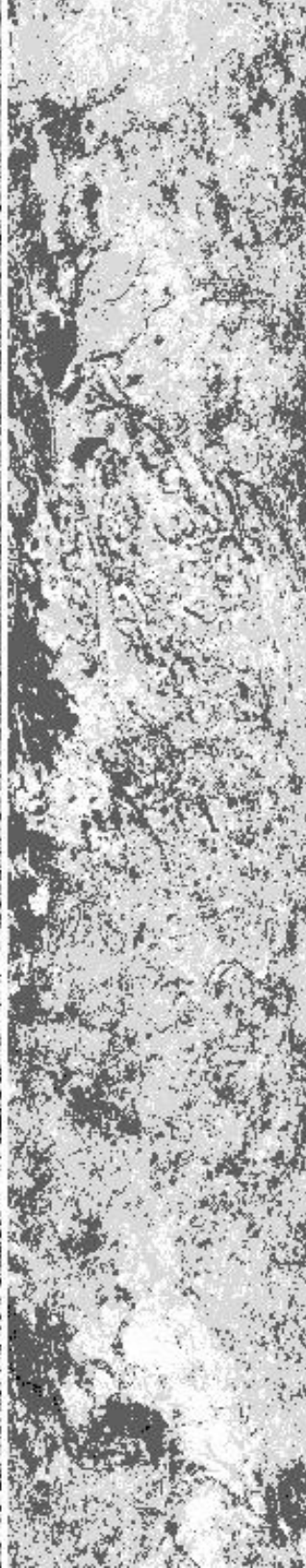
06:08:00

06:08:00

06:10:00

06:12:00

06:14:00



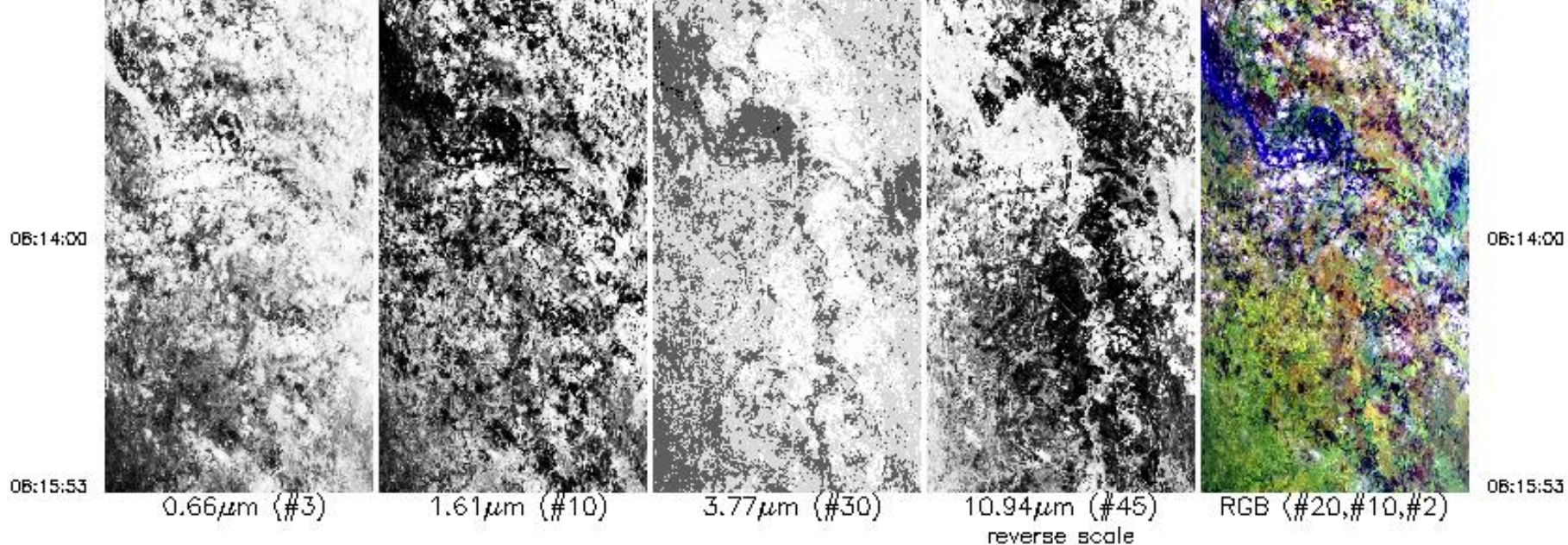
06:08:00

06:08:00

06:10:00

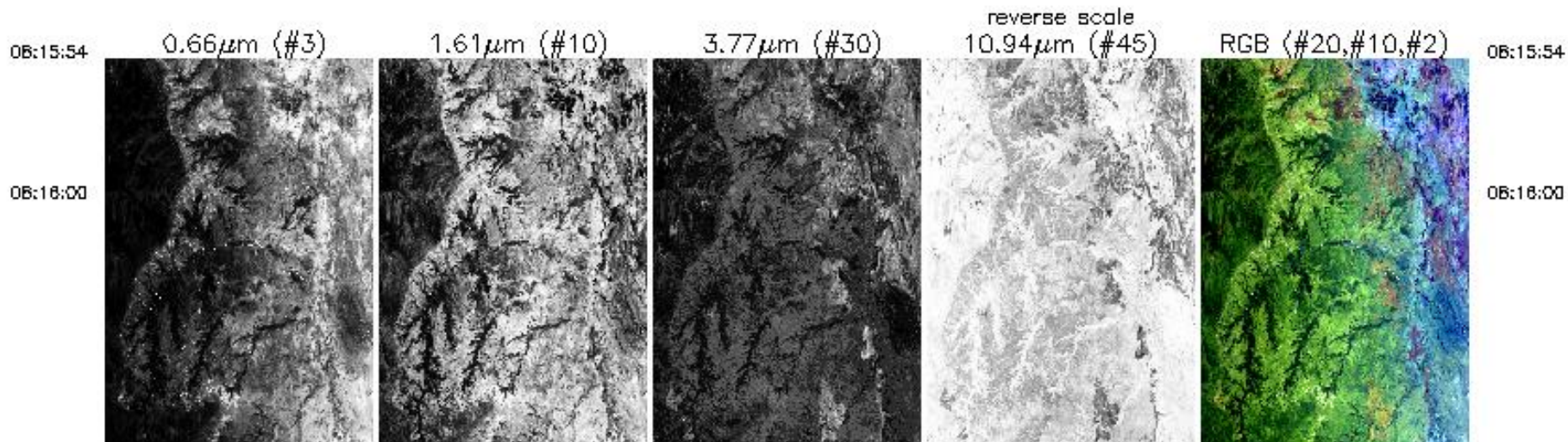
06:12:00

06:14:00



Upper Left Lat, Lon = -22.3° , 34.1°
 Lower Right Lat, Lon = -19.3° , 34.4°
 Aircraft Heading = 21.7°
 Solar Zenith = 33.3°
 GPS Altitude = 19586. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 25 Sep 2000
 Mozambique
 Flight #00-180 Track #3



06:16:00

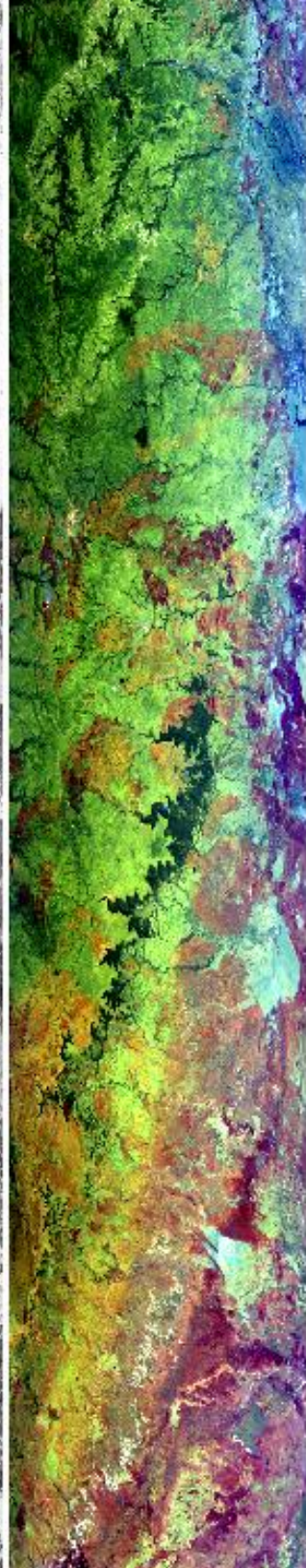
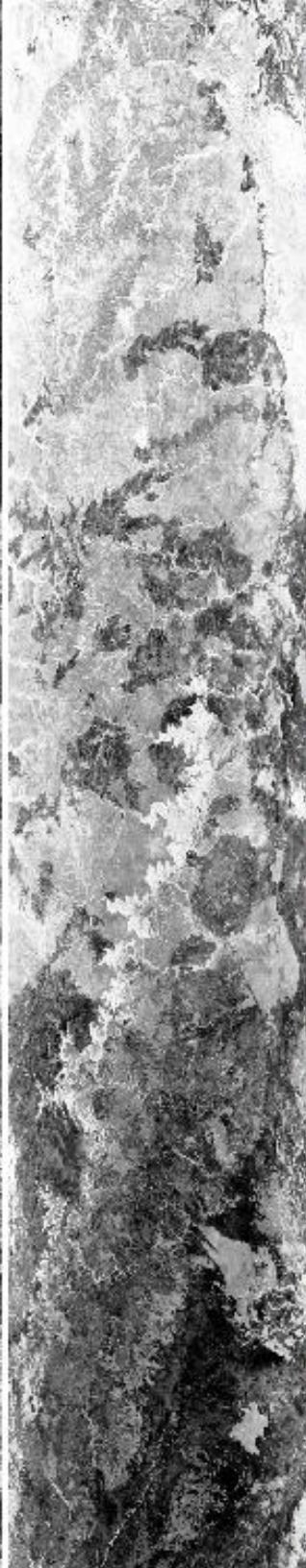
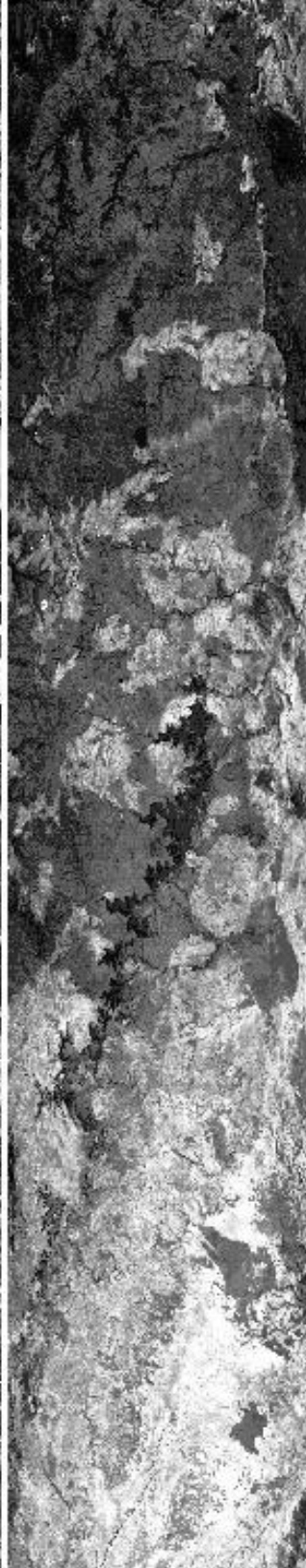
06:18:00

06:20:00

06:22:00

06:24:00

06:26:00



06:16:00

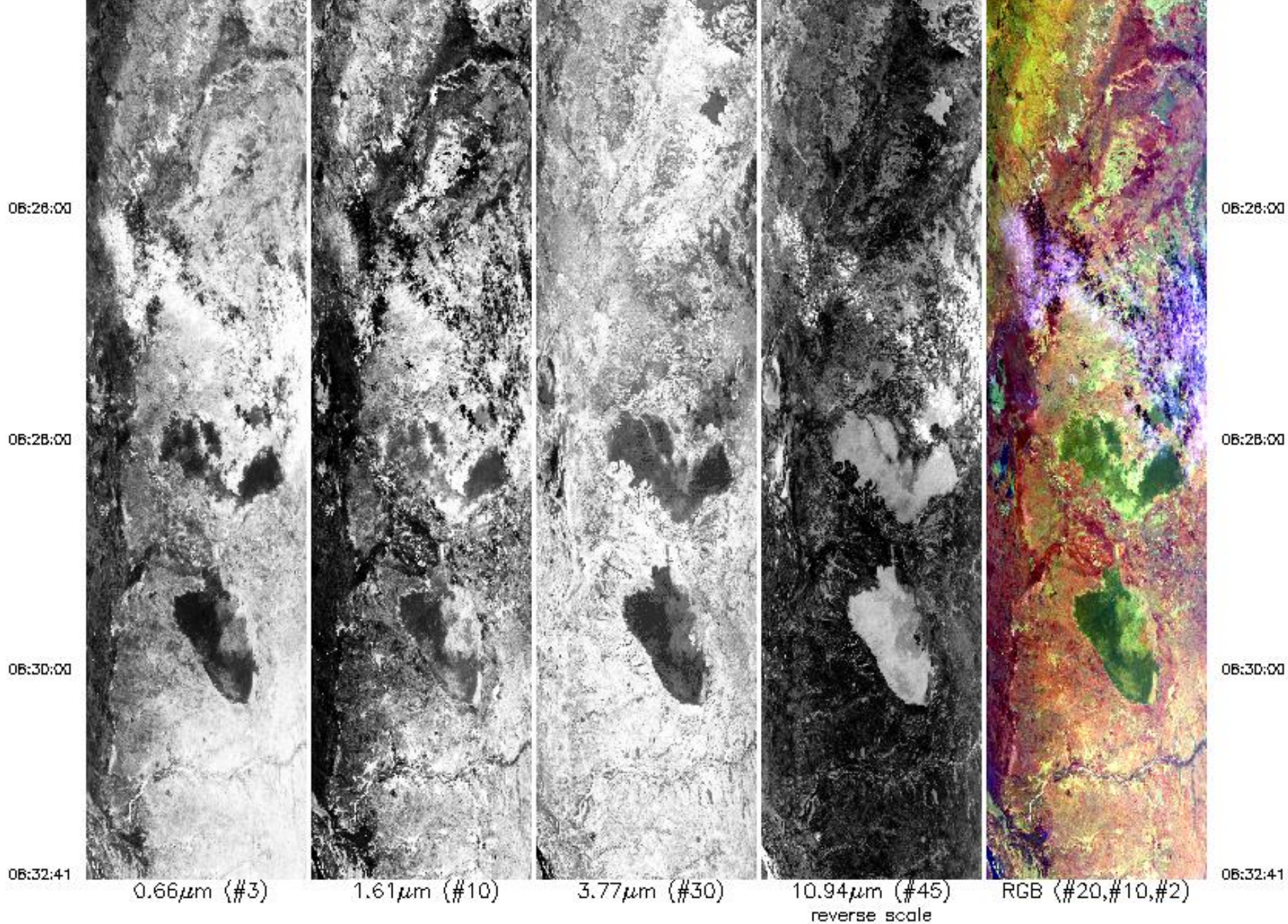
06:18:00

06:20:00

06:22:00

06:24:00

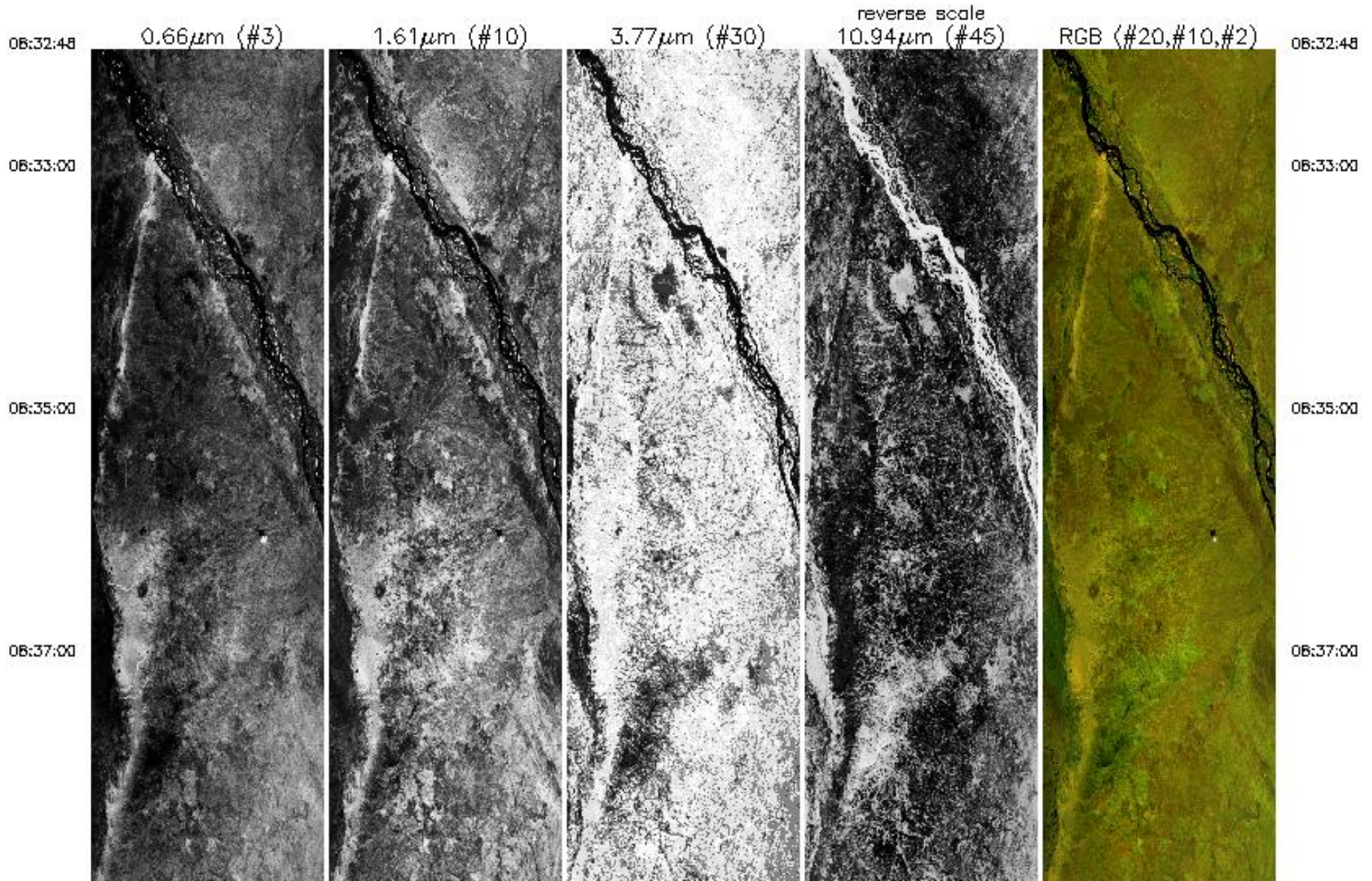
06:26:00



Upper Left Lat, Lon = -19.4° , 34.8°
 Lower Right Lat, Lon = -17.5° , 34.8°
 Aircraft Heading = 15.8°
 Solar Zenith = 26.2°
 GPS Altitude = 19727. m (MSL)

Upper Left Lat, Lon = -19.4°, 34.8°
Lower Right Lat, Lon = -17.5°, 34.8°
Aircraft Heading = 15.8°
Solar Zenith = 26.2°
GPS Altitude = 19727. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign - 25 Sep 2000
Malawi/Mozambique
Flight #00-180 Track #4



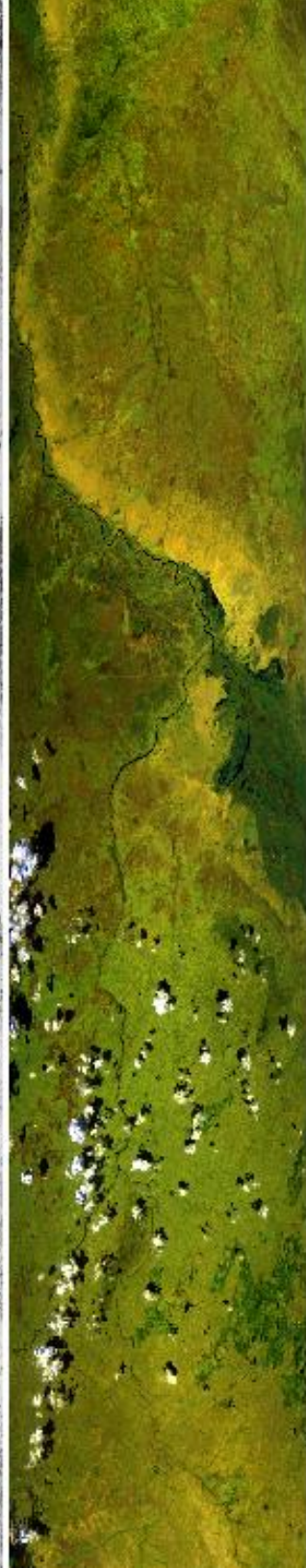
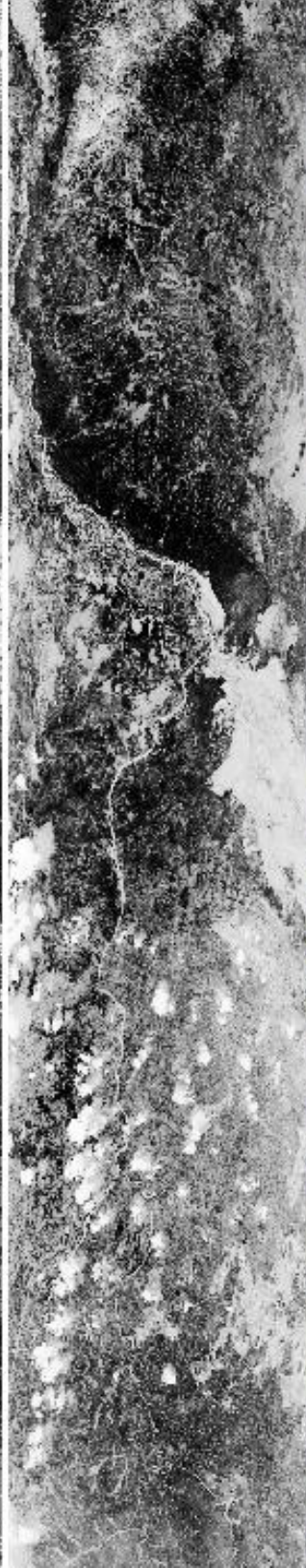
06:39:00

06:41:00

06:43:00

06:45:00

06:47:00



06:39:00

06:41:00

06:43:00

06:45:00

06:47:00

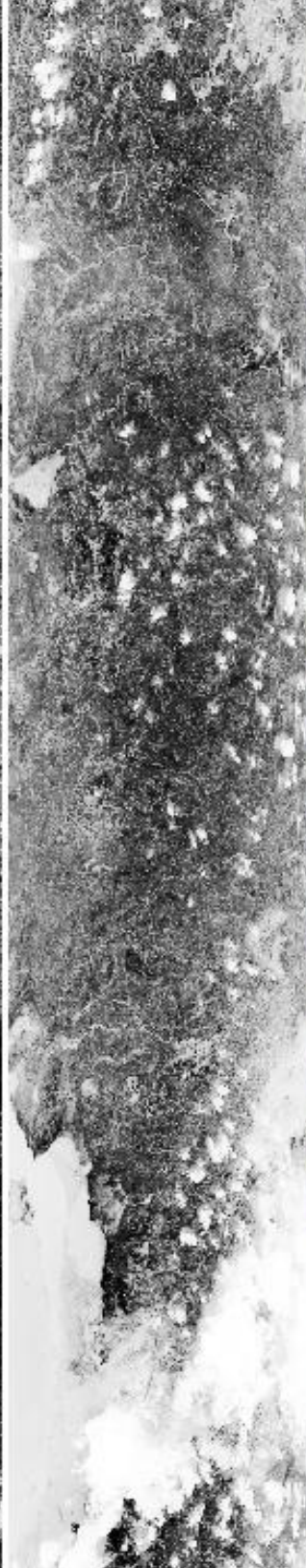
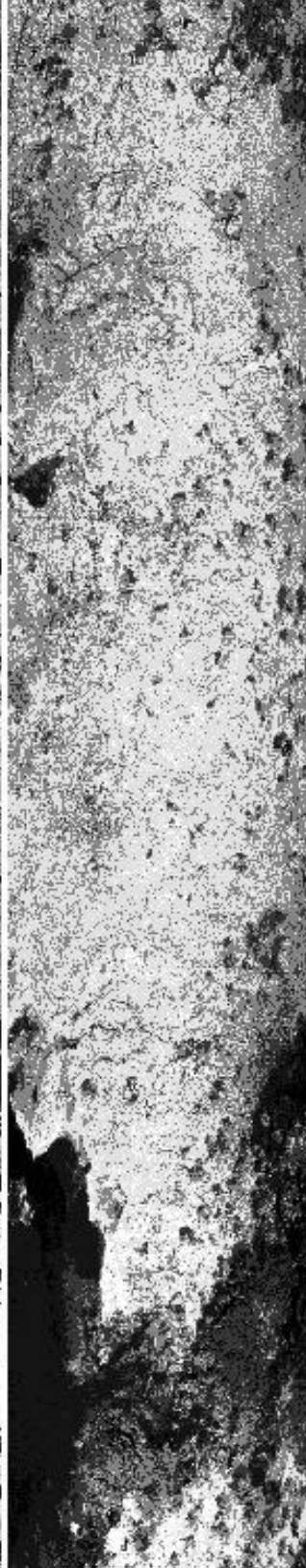
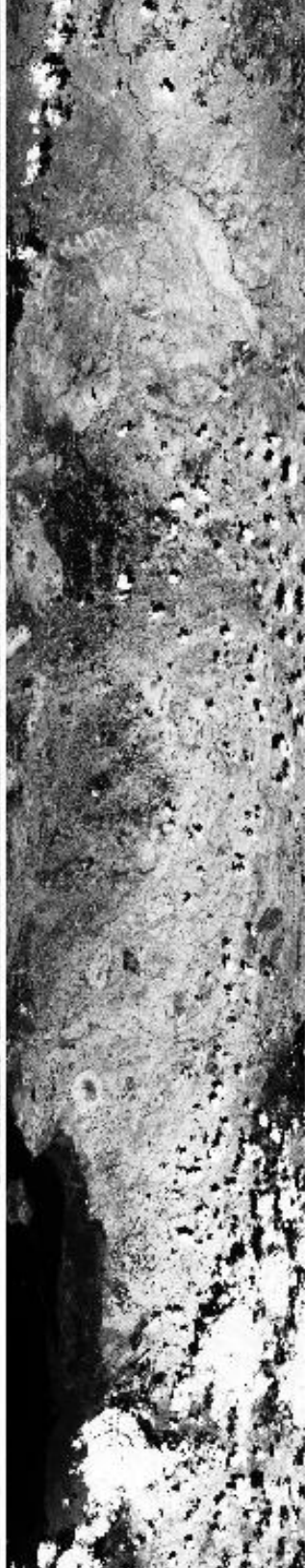
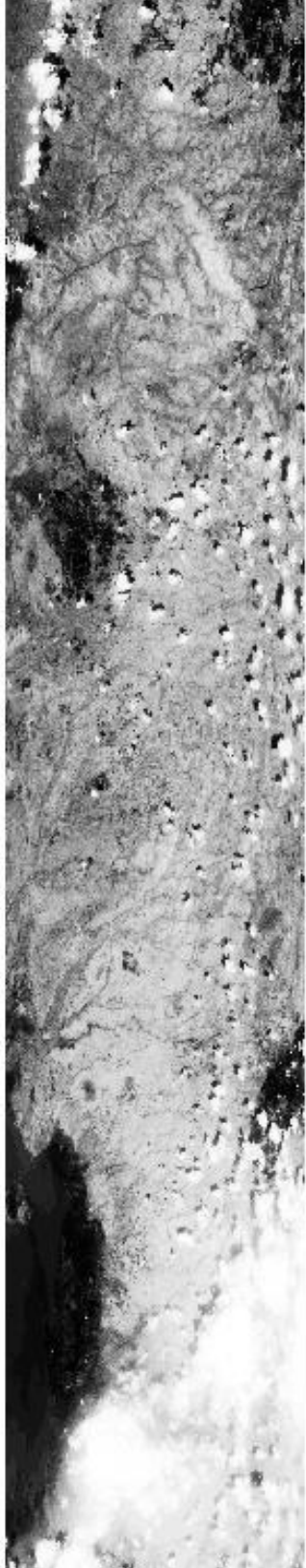
06:47:00

06:49:00

06:51:00

06:53:00

06:55:00



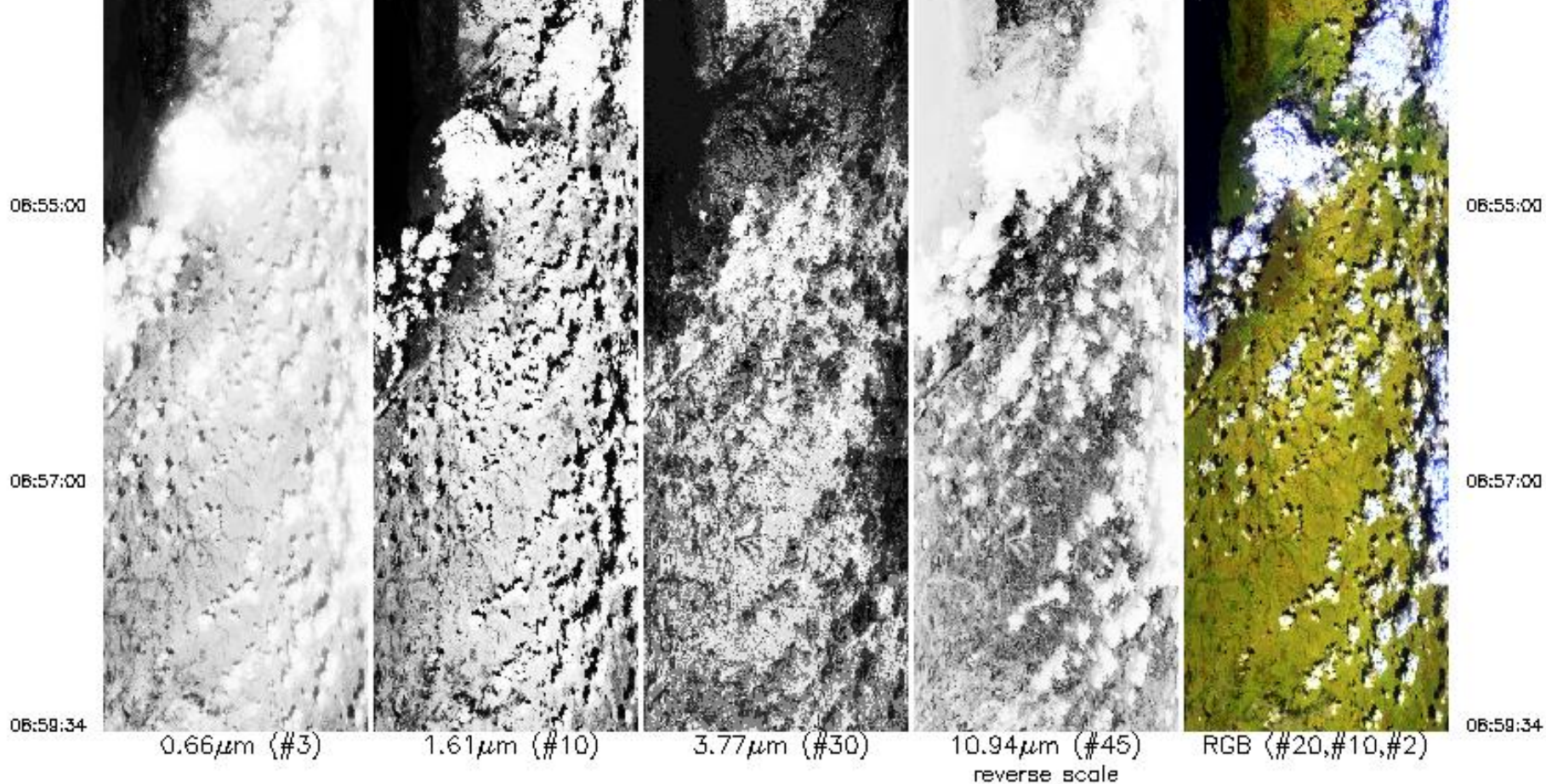
06:47:00

06:49:00

06:51:00

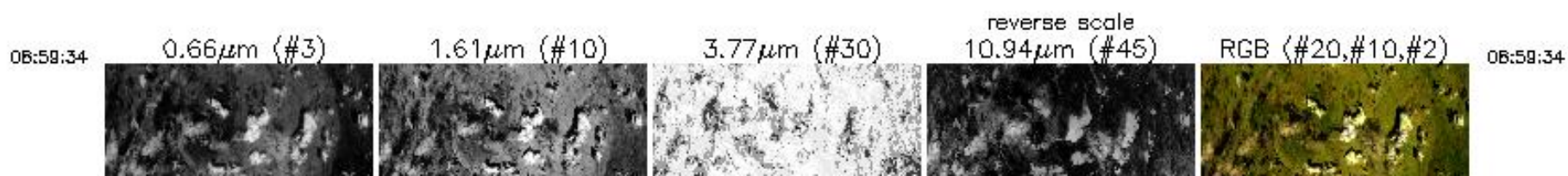
06:53:00

06:55:00



Upper Left Lat, Lon = -17.6° , 35.2°
 Lower Right Lat, Lon = -14.6° , 35.4°
 Aircraft Heading = 8.7°
 Solar Zenith = 21.8°
 GPS Altitude = 19773. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 25 Sep 2000
 Mozambique
 Flight #00–180 Track #5



06:59:34 0.66 μ m (#3) 1.61 μ m (#10) 3.77 μ m (#30) reverse scale 10.94 μ m (#45) RGB (#20,#10,#2) 06:59:34

09:00:00

09:02:00

09:04:00

09:06:00

09:08:00

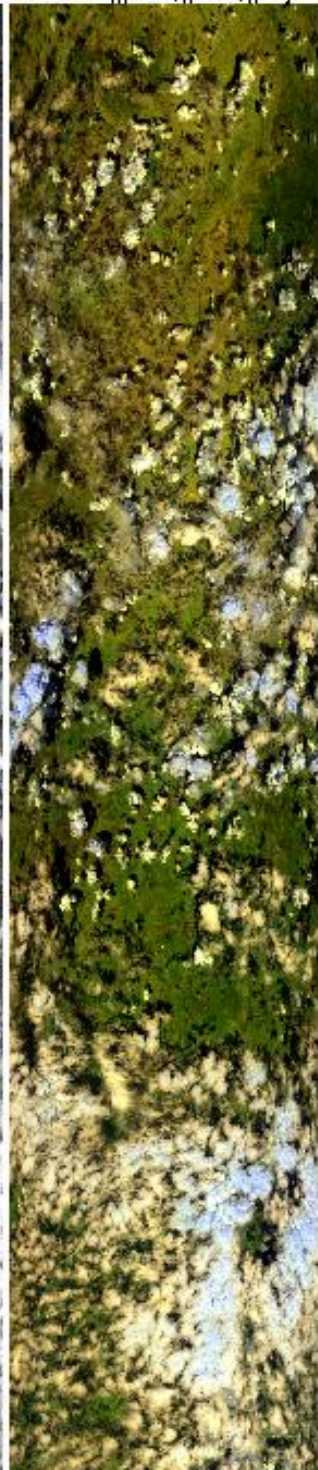
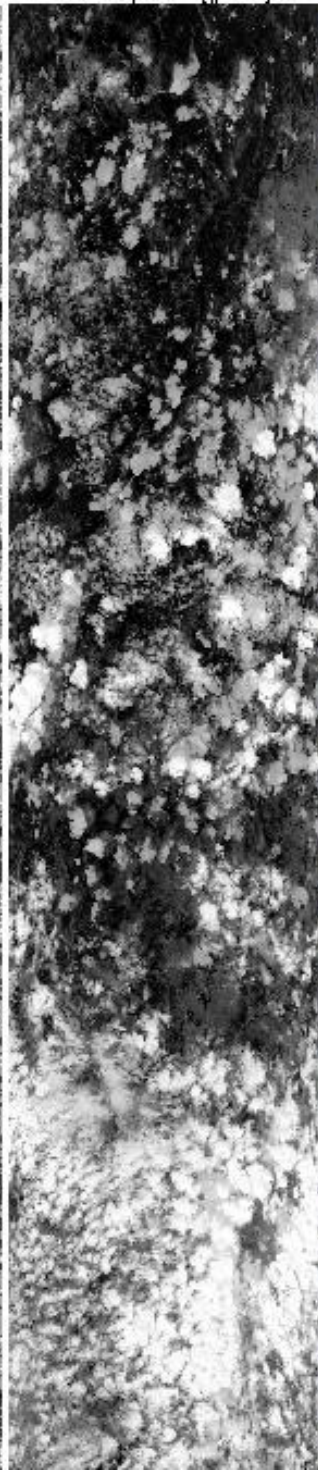
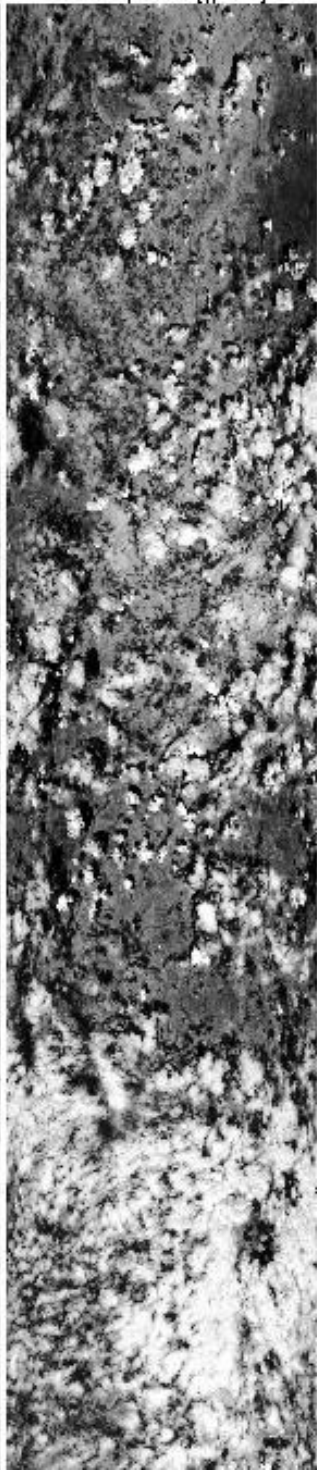
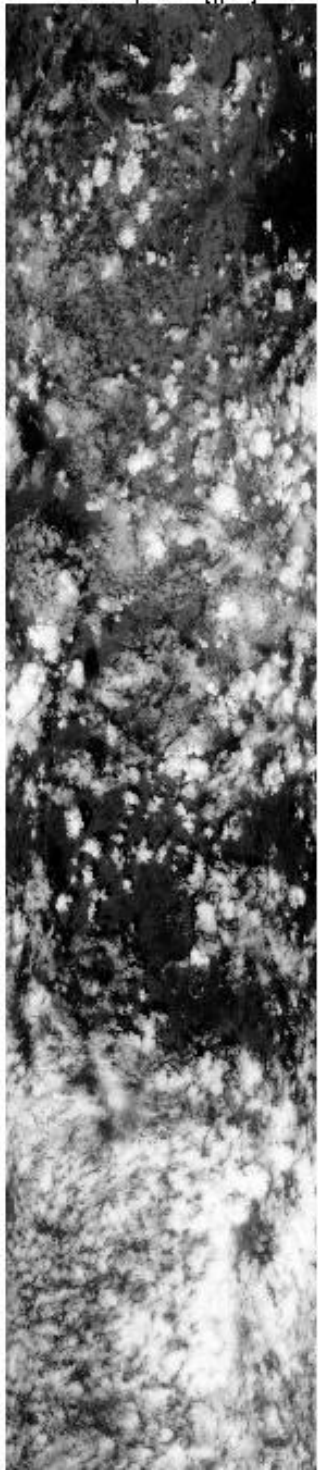
09:00:00

09:02:00

09:04:00

09:06:00

09:08:00

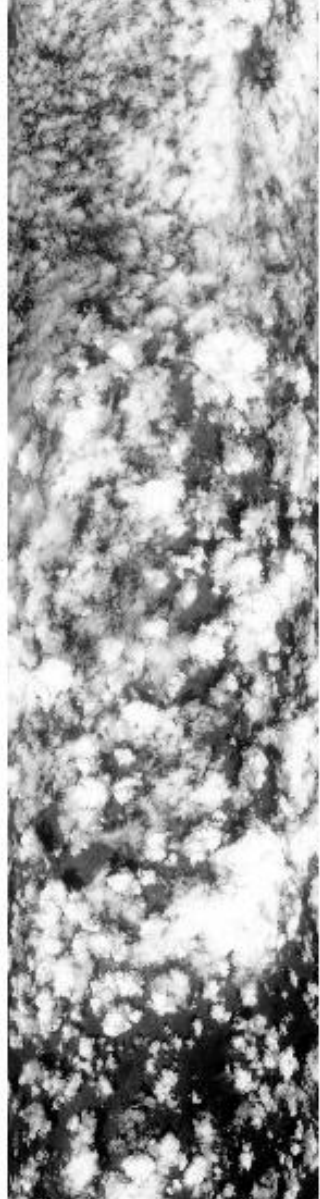


09:06:00

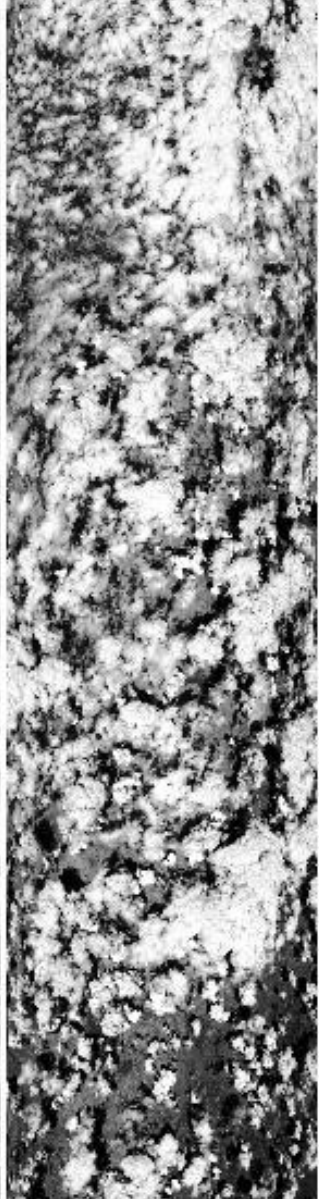
09:10:00

09:12:00

09:14:11



0.66 μ m (#3)



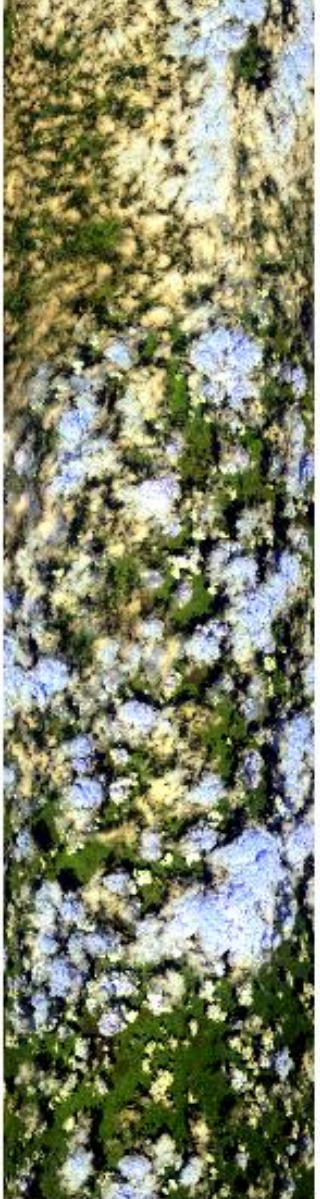
1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



RGB (#20,#10,#2)

09:06:00

09:10:00

09:12:00

09:14:11

Upper Left Lat, Lon = -14.7° , 35.8°

Lower Right Lat, Lon = -13.1° , 35.8°

Aircraft Heading = 14.2°

Solar Zenith = 15.4°

GPS Altitude = 19785. m (MSL)

Lower Right Lat, Lon = -13.1, 35.8°

Aircraft Heading = 14.2°

Solar Zenith = 15.4°

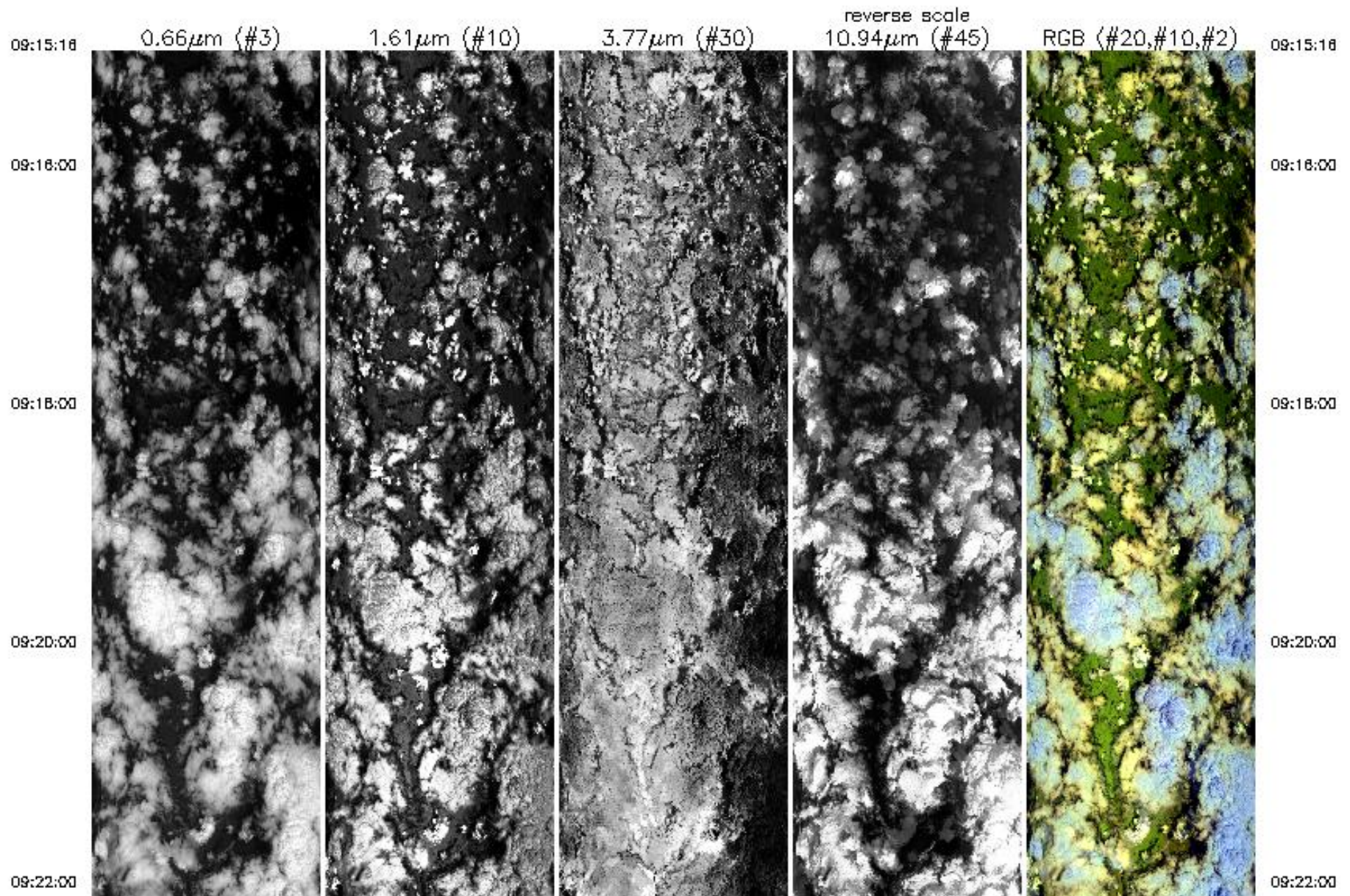
GPS Altitude = 19785. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign - 25 Sep 2000

Mozambique

Flight #00-180 Track #6



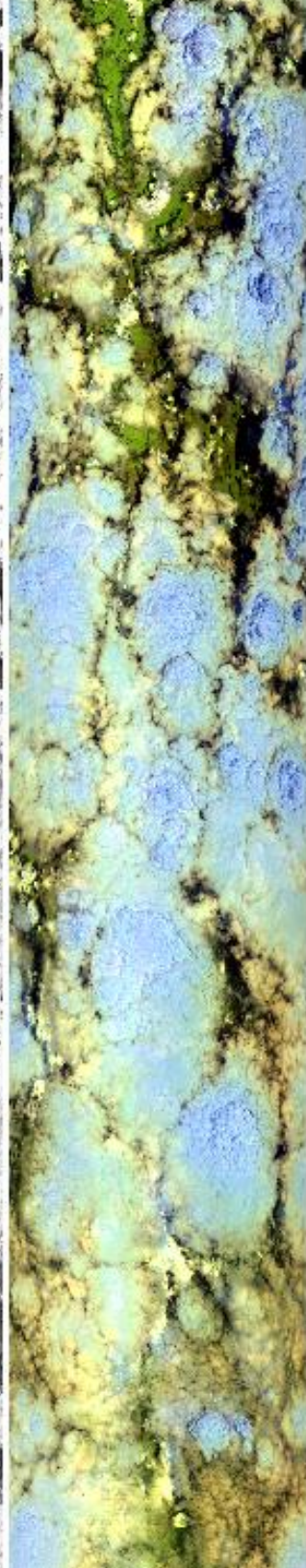
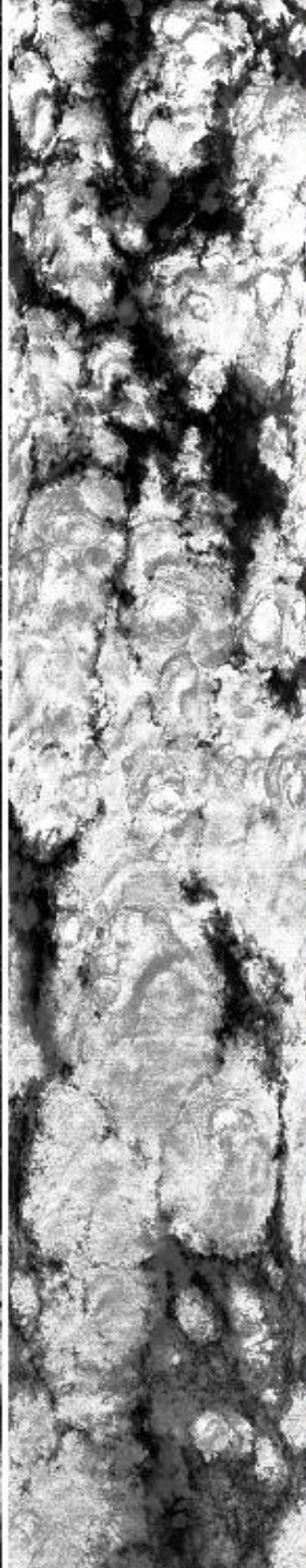
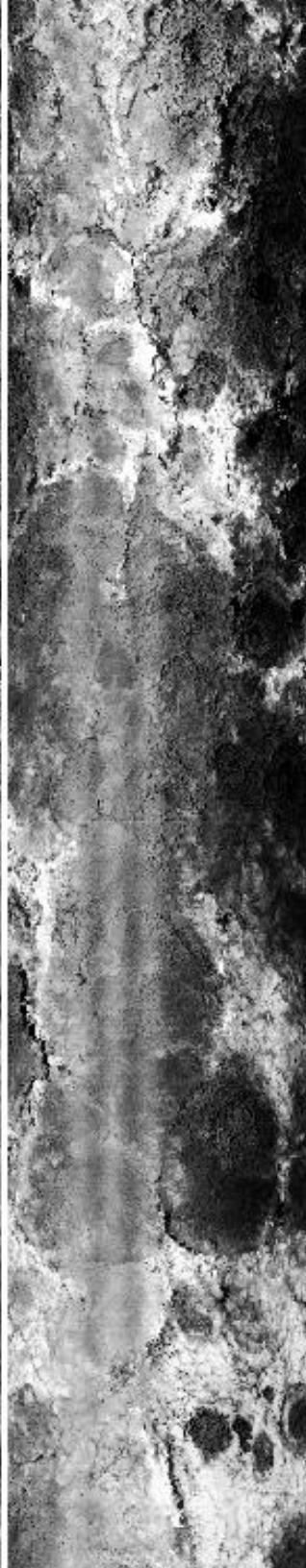
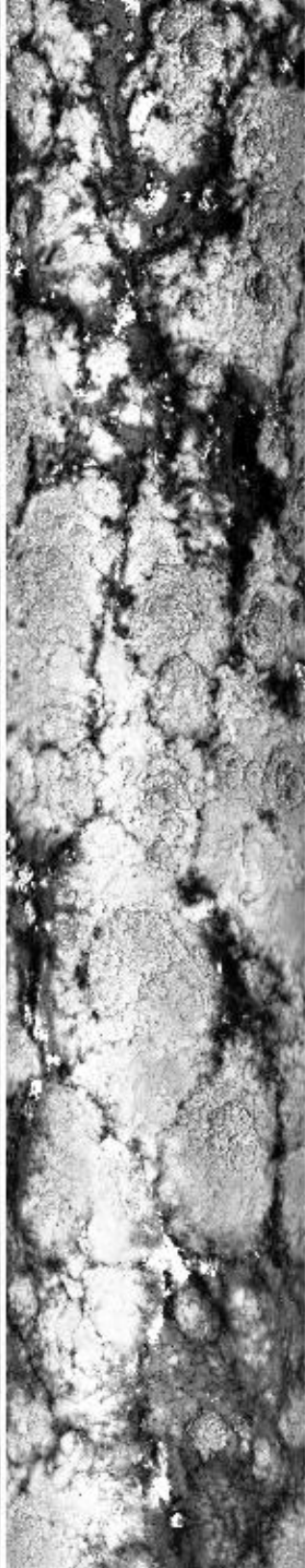
09:22:00

09:24:00

09:26:00

09:28:00

09:30:00



09:22:00

09:24:00

09:26:00

09:28:00

09:30:00

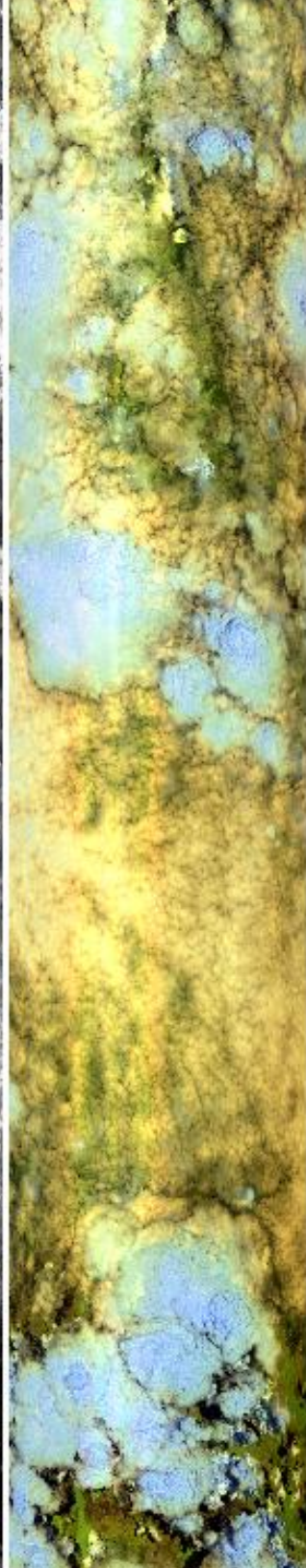
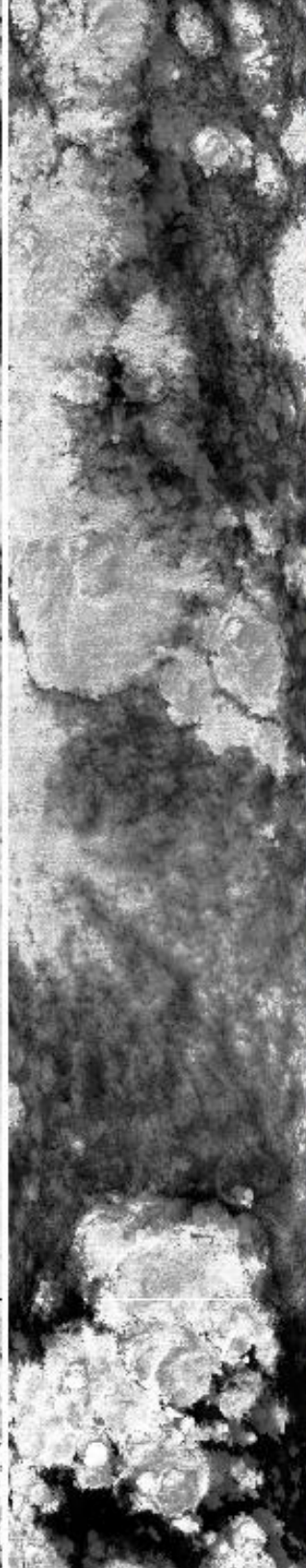
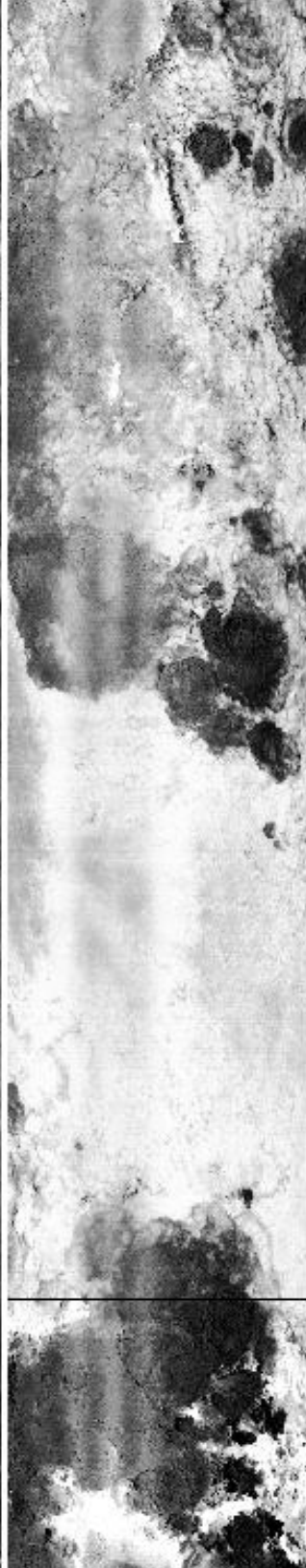
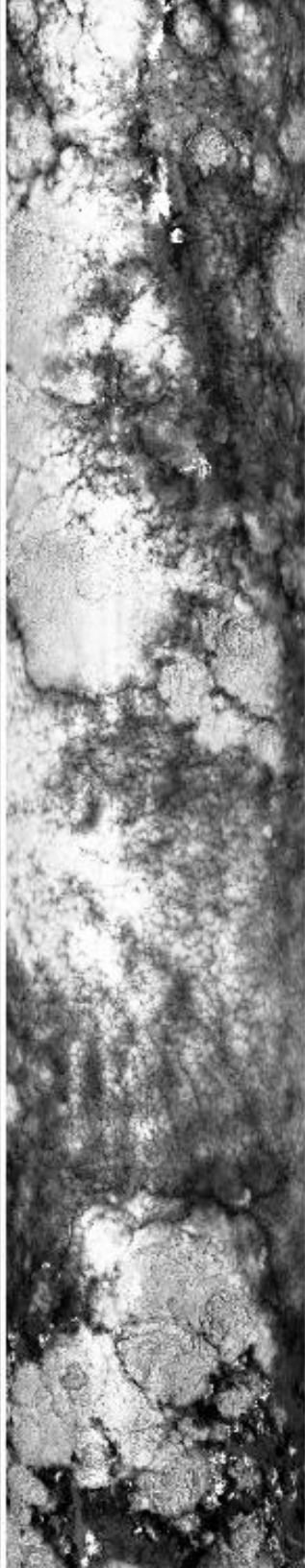
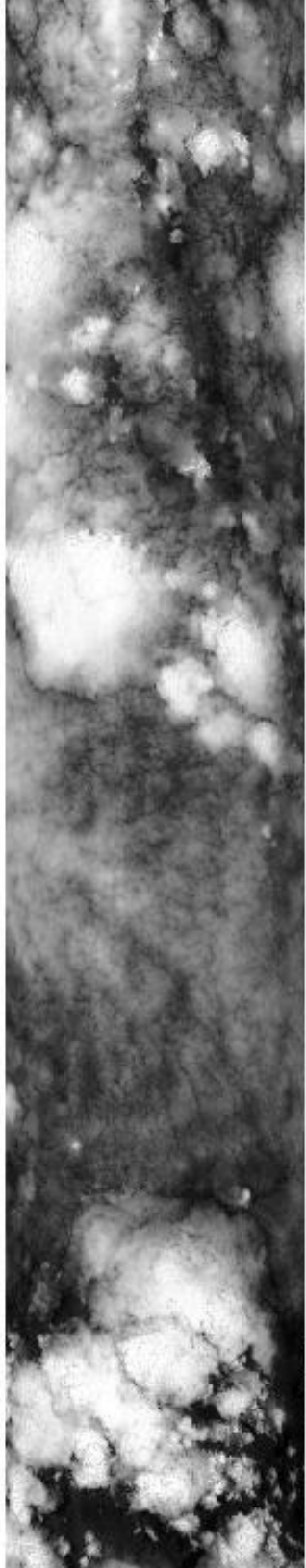
09:30:00

09:32:00

09:34:00

09:36:00

09:38:00



09:30:00

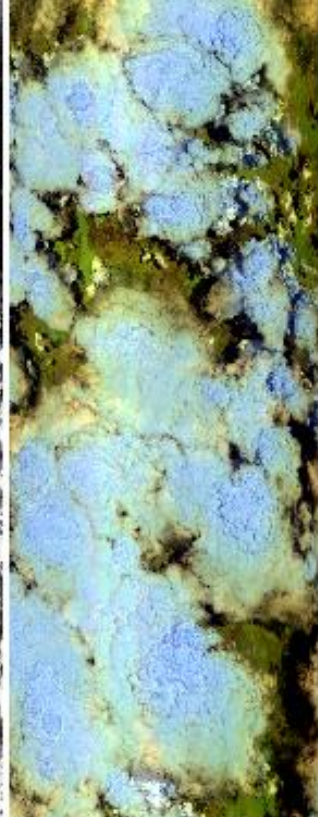
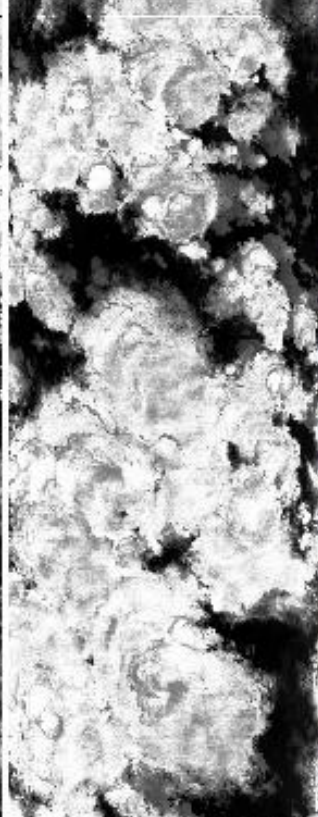
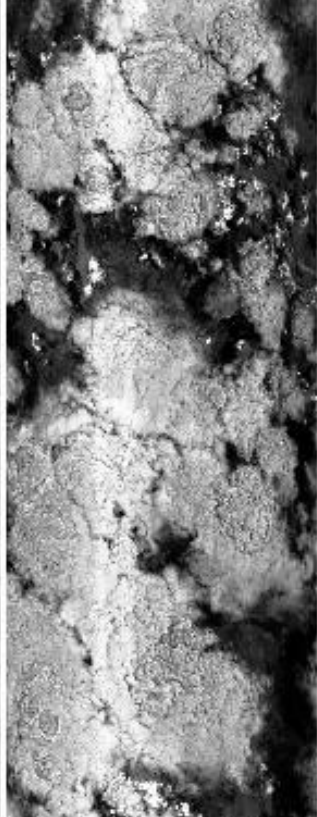
09:32:00

09:34:00

09:36:00

09:38:00

09:36:00



09:36:00

09:40:00

09:42:02

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)
reverse scale

RGB (#20, #10, #2)

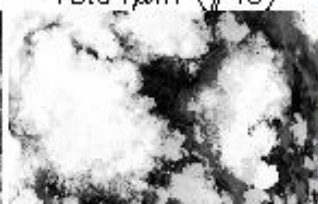
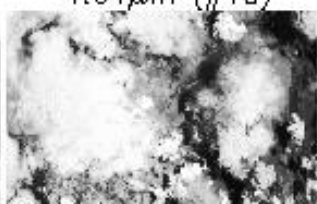
09:40:00

09:42:02

Upper Left Lat, Lon = -13.2°, 36.1°
 Lower Right Lat, Lon = -12.1°, 38.8°
 Aircraft Heading = 70.7°
 Solar Zenith = 12.4°
 GPS Altitude = 19871. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign - 25 Sep 2000
 Mozambique
 Flight #00-180 Track #7

09:42:02



09:42:02

09:43:00

09:43:00

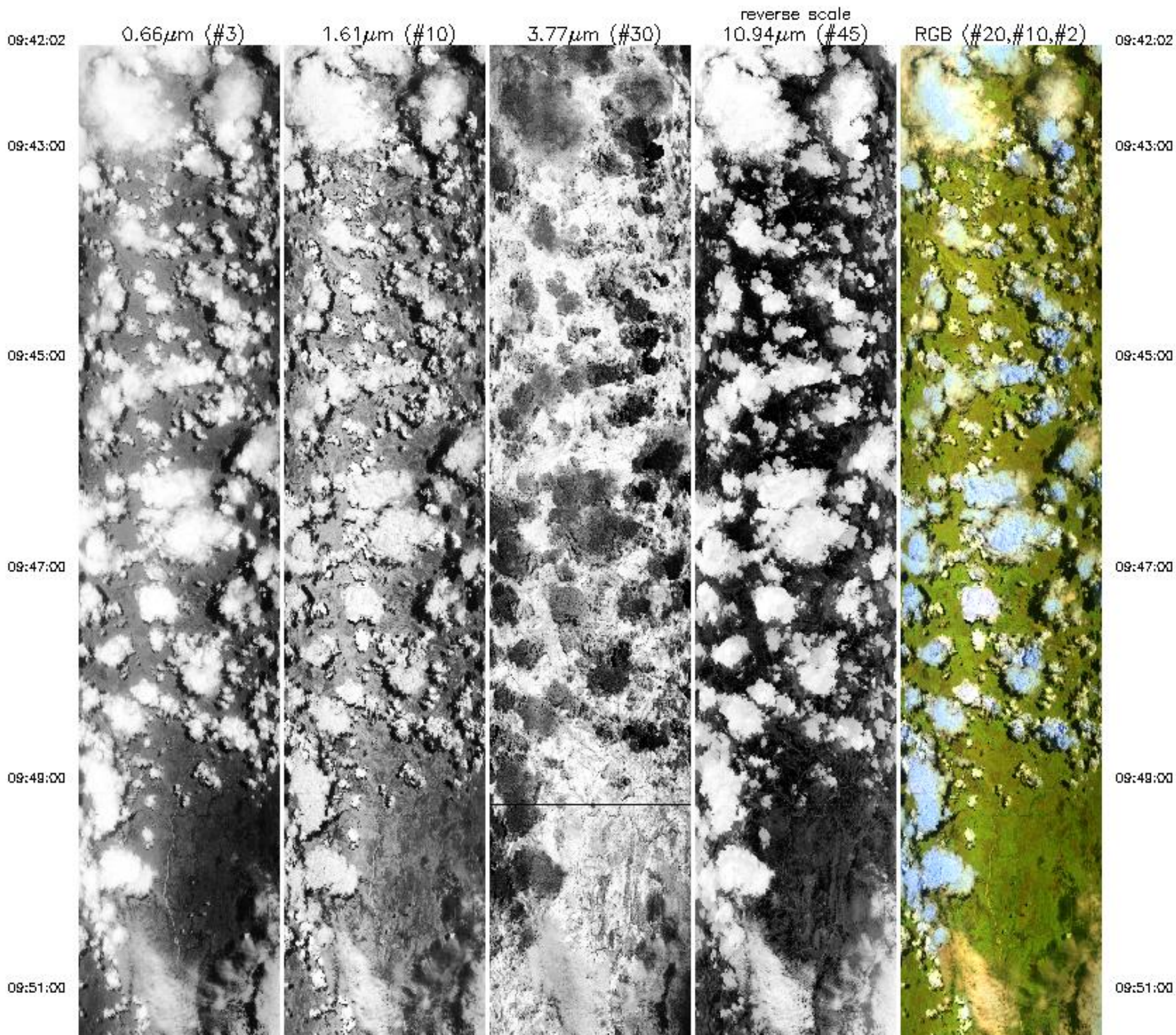
0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

reverse scale
10.94µm (#45)

RGB (#20, #10, #2)



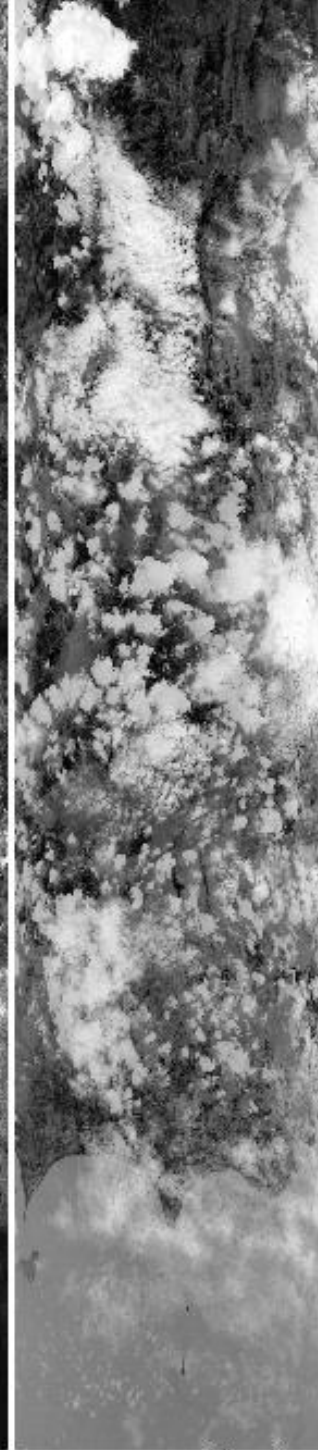
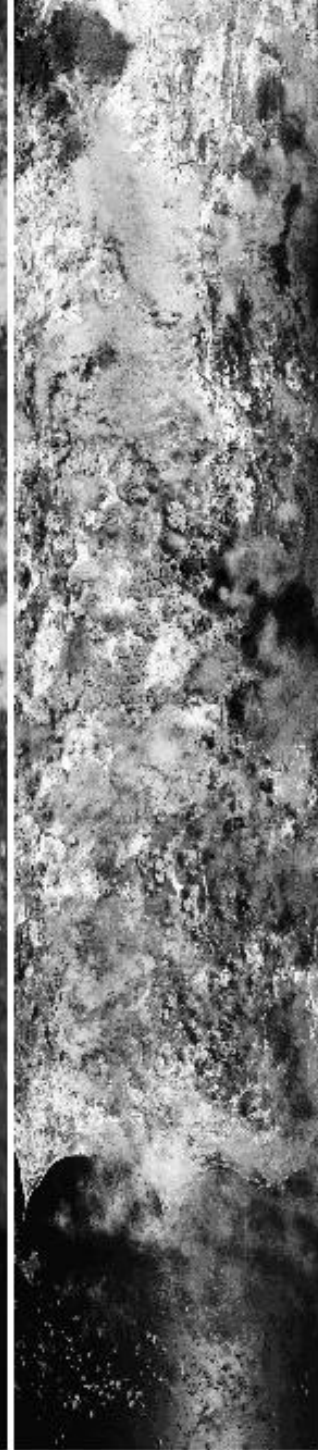
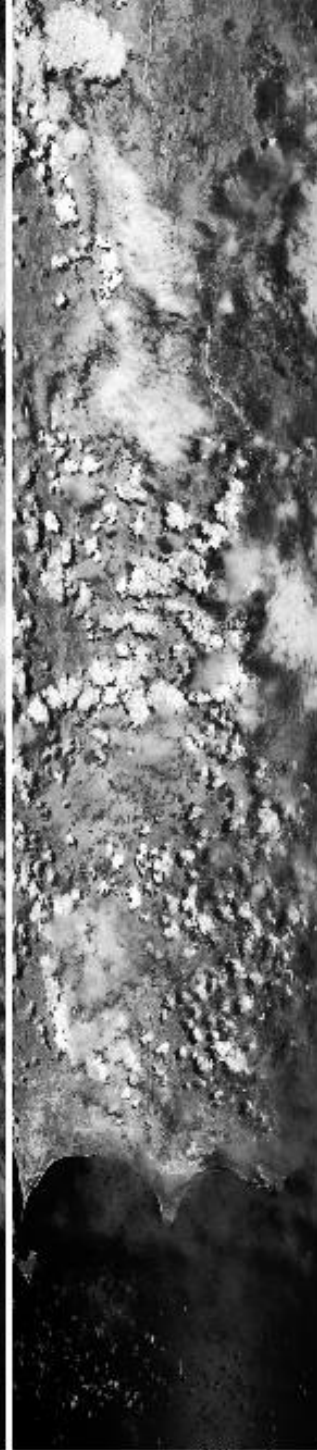
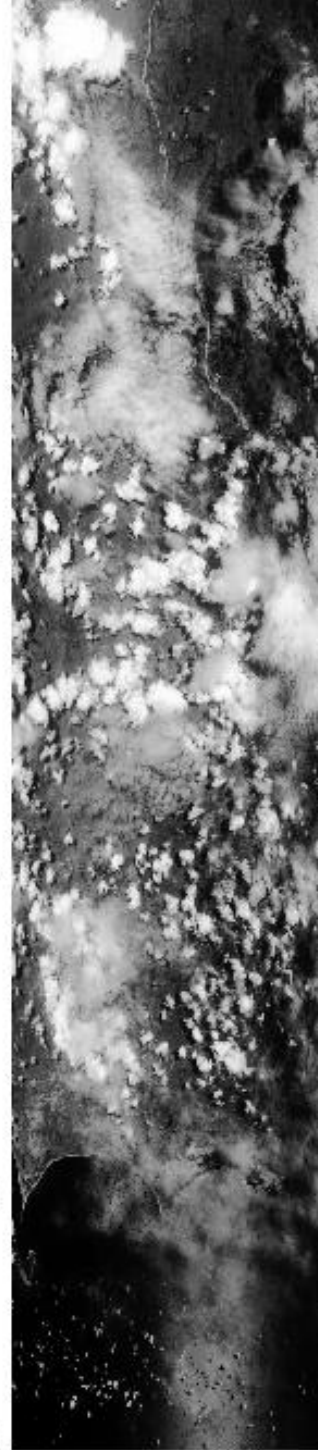
09:51:00

09:53:00

09:55:00

09:57:00

09:58:32



09:51:00

09:53:00

09:55:00

09:57:00

09:58:32

0.66 μ m (#3)

1.61 μ m (#10)

3.77 μ m (#30)

10.94 μ m (#45)
reverse scale

RGB (#20,#10,#2)

Upper Left Lat, Lon = -12.4°, 38.9°

Lower Right Lat, Lon = -11.7°, 40.6°

Aircraft Heading = 75.0°

09:56:32



0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (<#20,#10,#2)

09:56:32

Upper Left Lat, Lon = -12.4°, 38.9°

Lower Right Lat, Lon = -11.7°, 40.6°

Aircraft Heading = 75.9°

Solar Zenith = 13.1°

GPS Altitude = 19934. m (MSL)

MODIS Airborne Simulator Browse Imagery

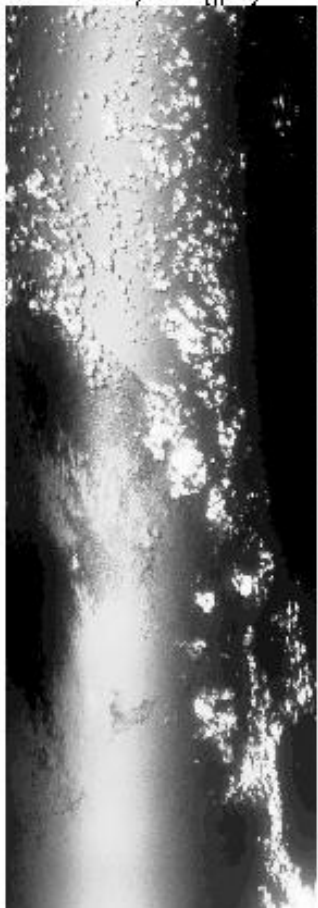
SAFARI 2000 Campaign - 25 Sep 2000

Indian Ocean

Flight #00-180 Track #8

10:00:16

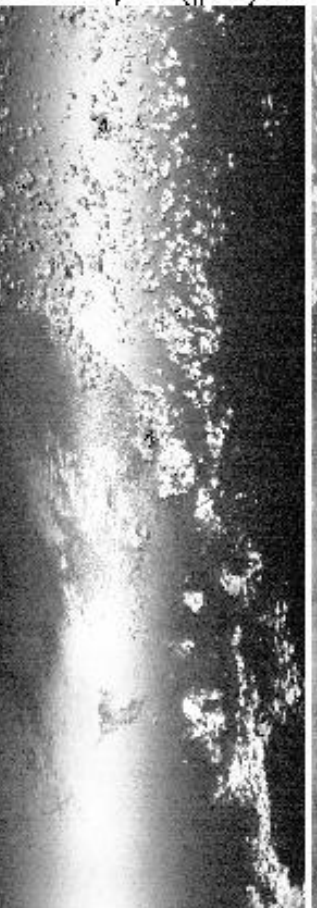
0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



reverse scale
10.94µm (#45)



RGB (<#20,#10,#2)



10:00:16

10:01:00

10:03:00

10:05:00

10:01:00

10:03:00

10:05:00

10:05:00



10:07:00



10:08:00



10:11:00



10:13:00



10:05:00



10:07:00



10:08:00



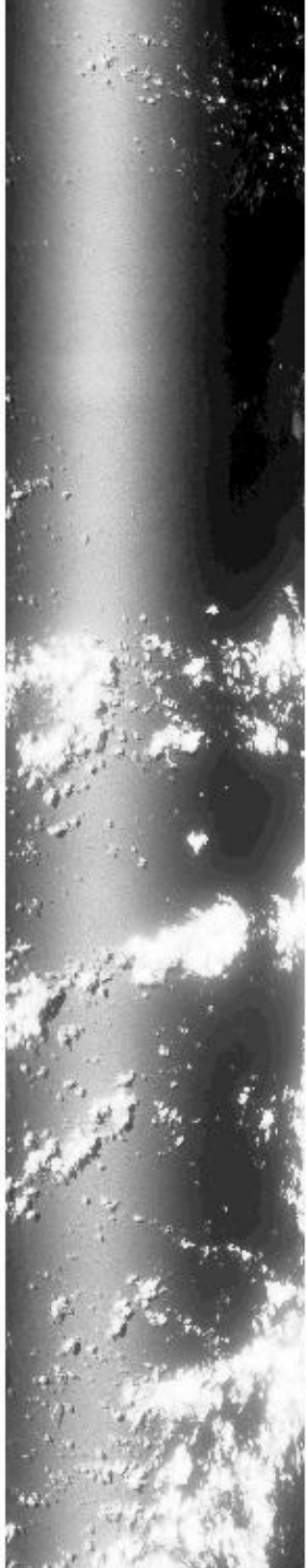
10:11:00



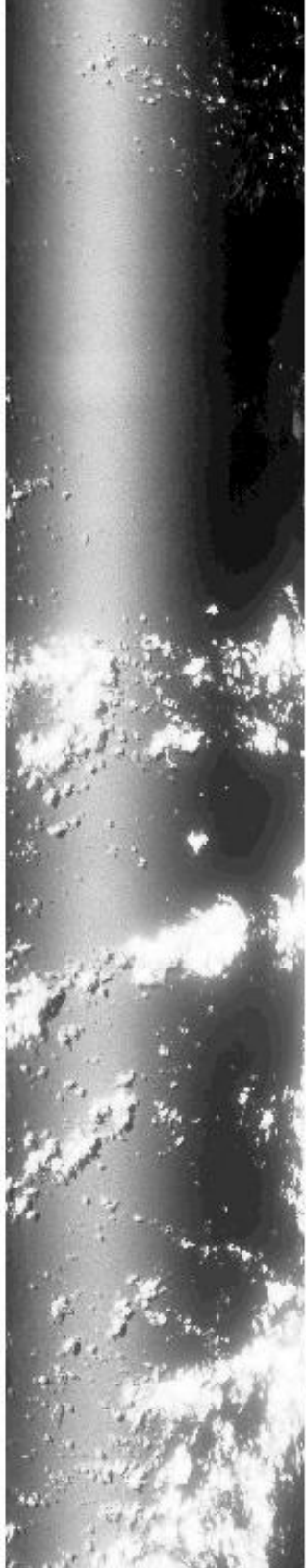
10:13:00



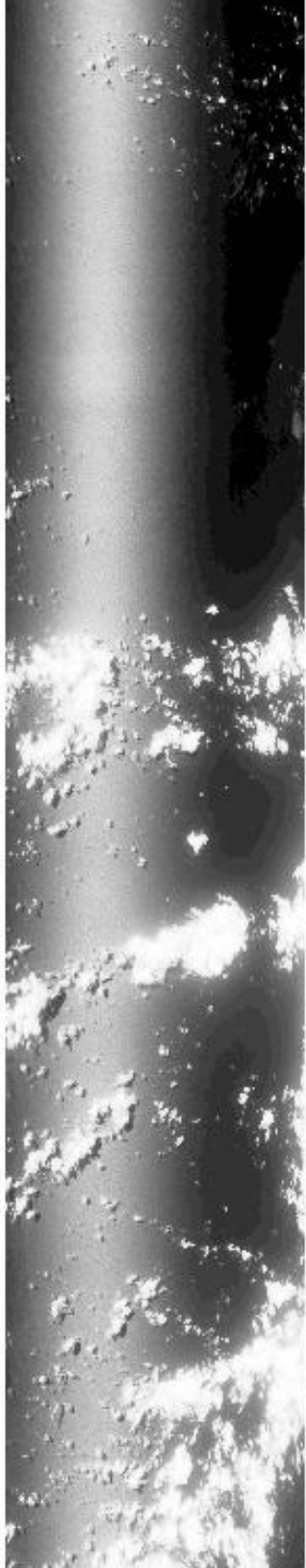
10:13:00



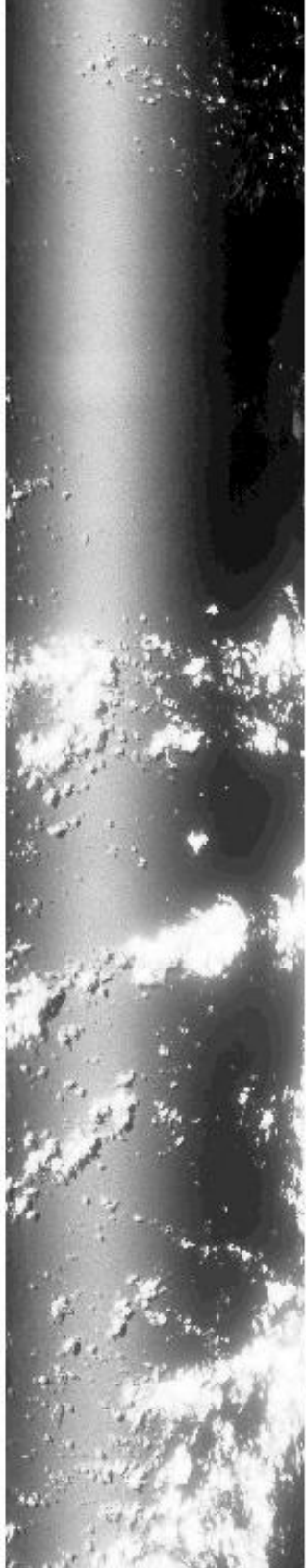
10:15:00



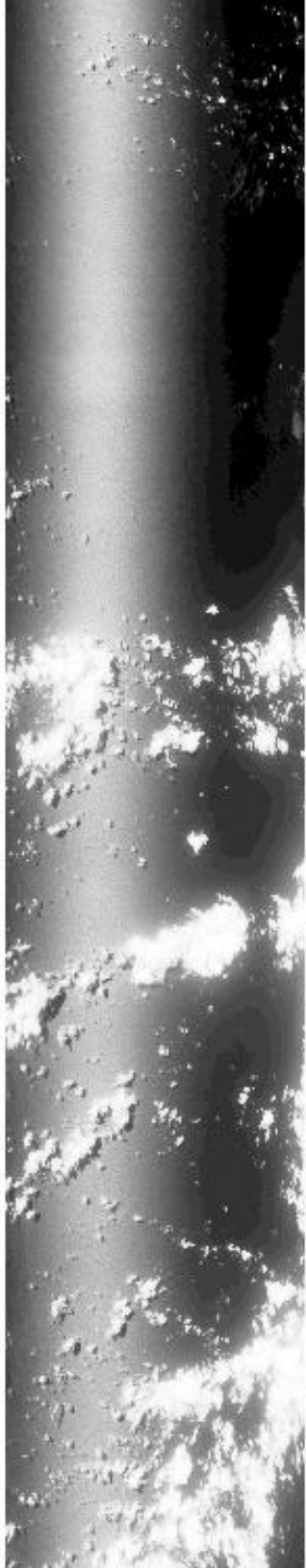
10:17:00



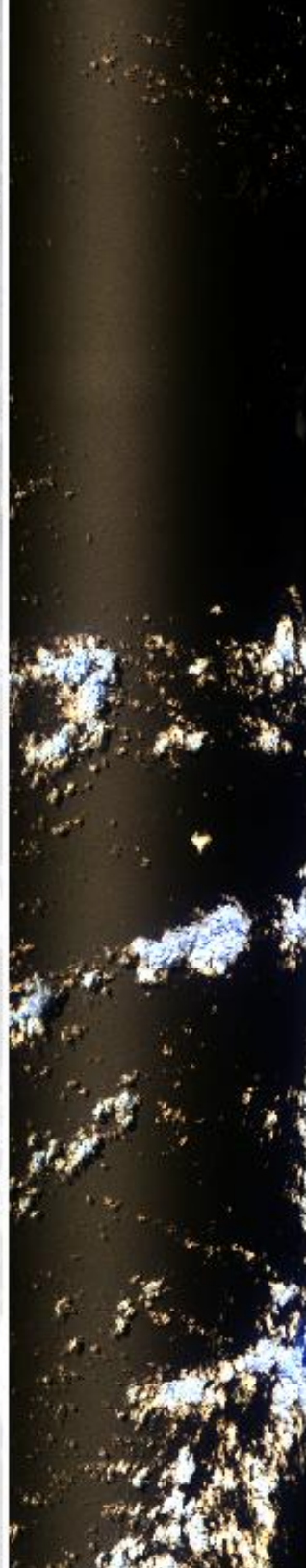
10:19:00



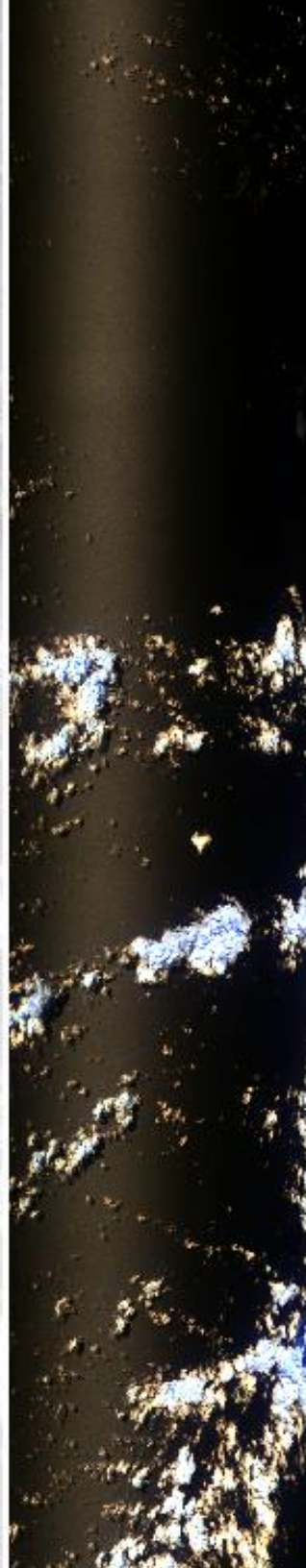
10:21:00



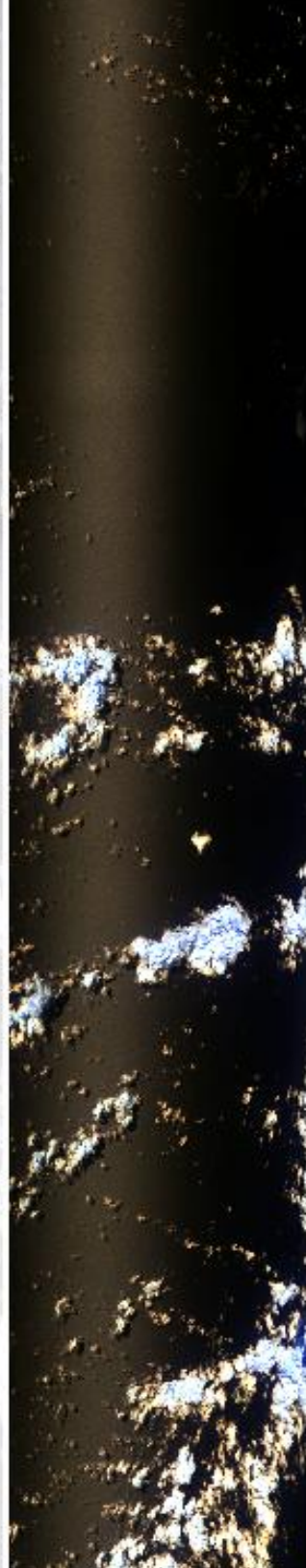
10:13:00



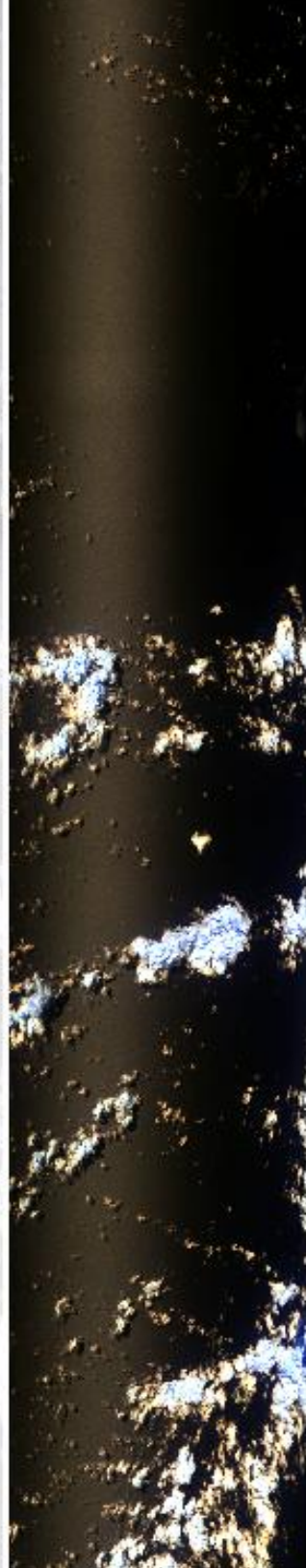
10:15:00



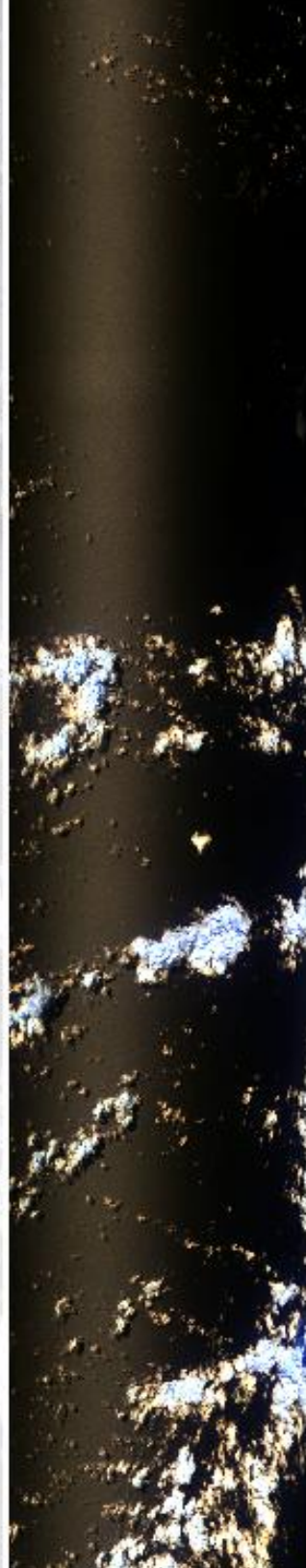
10:17:00



10:19:00



10:21:00



10:21:00

10:21:00

10:23:00

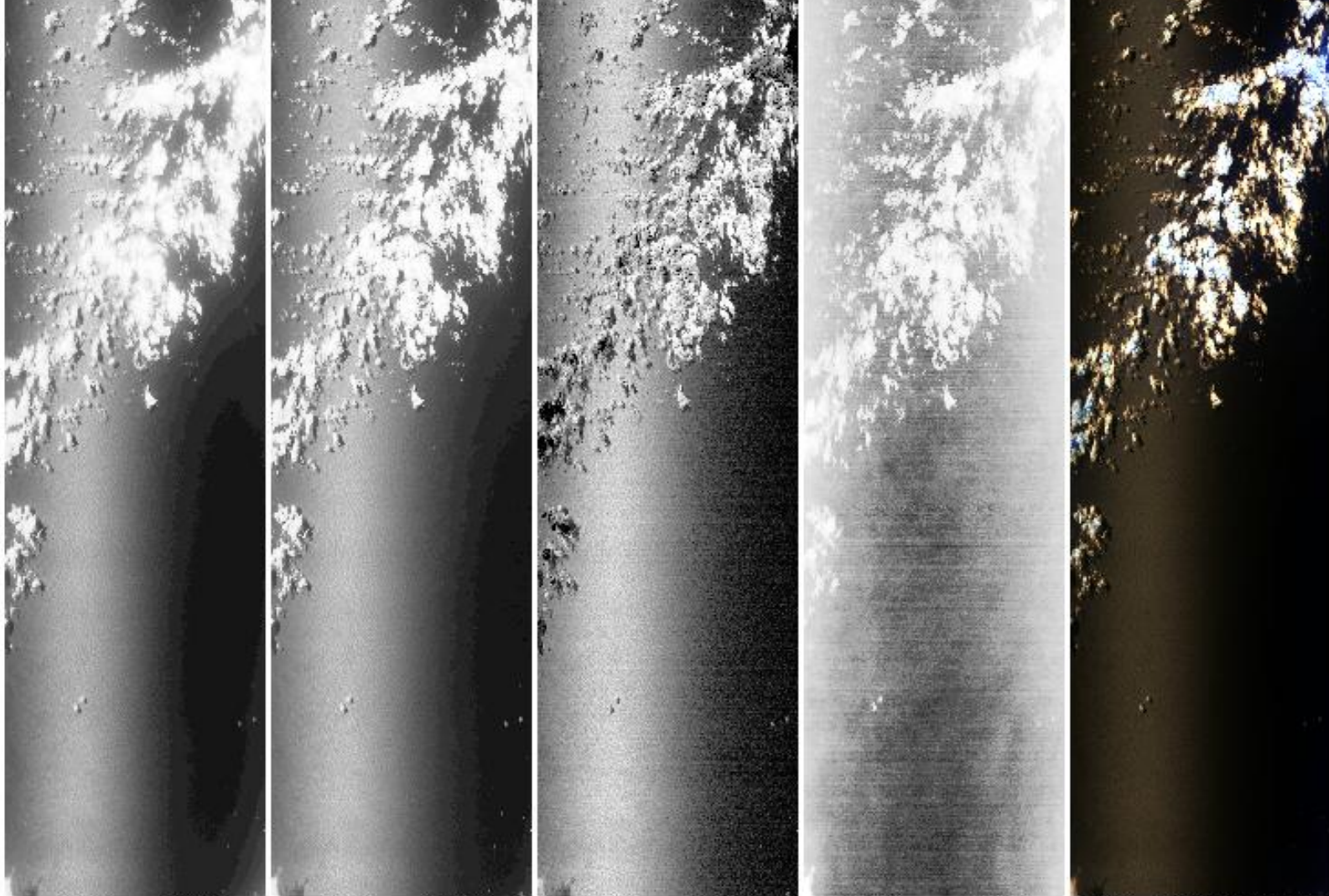
10:23:00

10:25:00

10:25:00

10:27:01

10:27:01



0.66 μ m (#3)

1.61 μ m (#10)

3.77 μ m (#30)

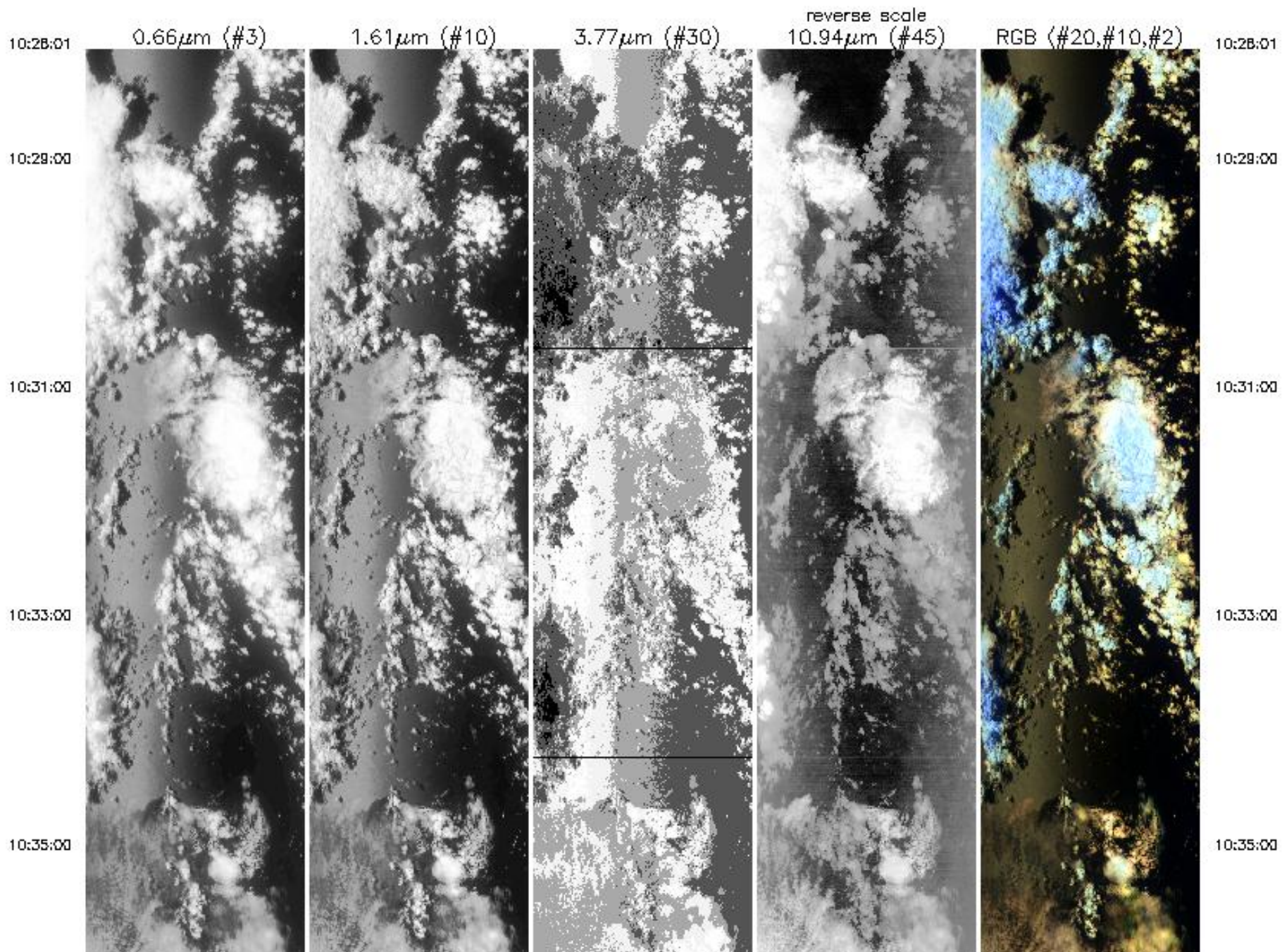
10.94 μ m (#45)
reverse scale

RGB (#20, #10, #2)

Upper Left Lat, Lon = -11.9° , 40.6°
 Lower Right Lat, Lon = -14.9° , 41.2°
 Aircraft Heading = 169.0°
 Solar Zenith = 16.8°
 GPS Altitude = 19830. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign - 25 Sep 2000
 Indian Ocean
 Flight #00-180 Track #9

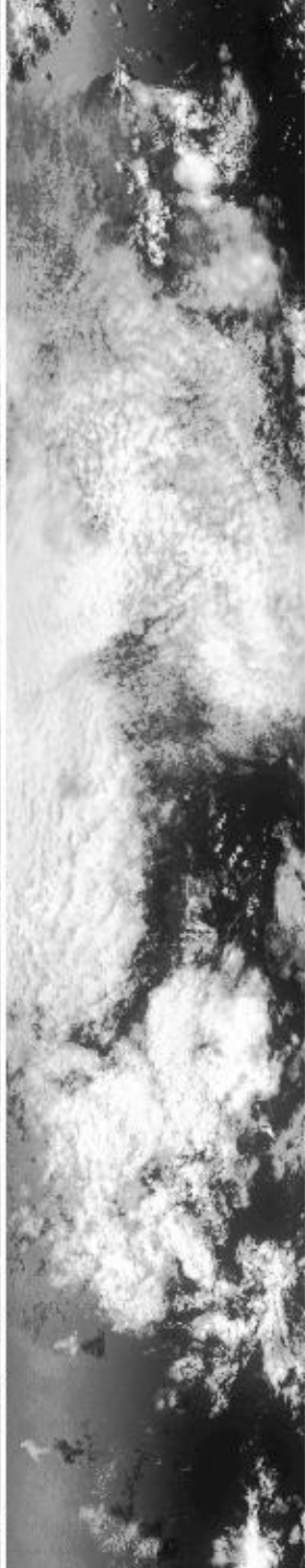
MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Indian Ocean
Flight #00-180 Track #9



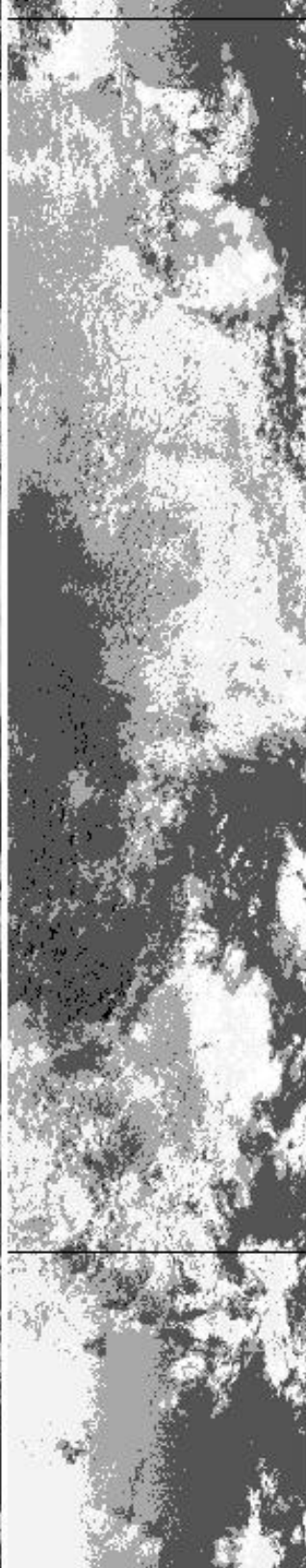
10:35:00



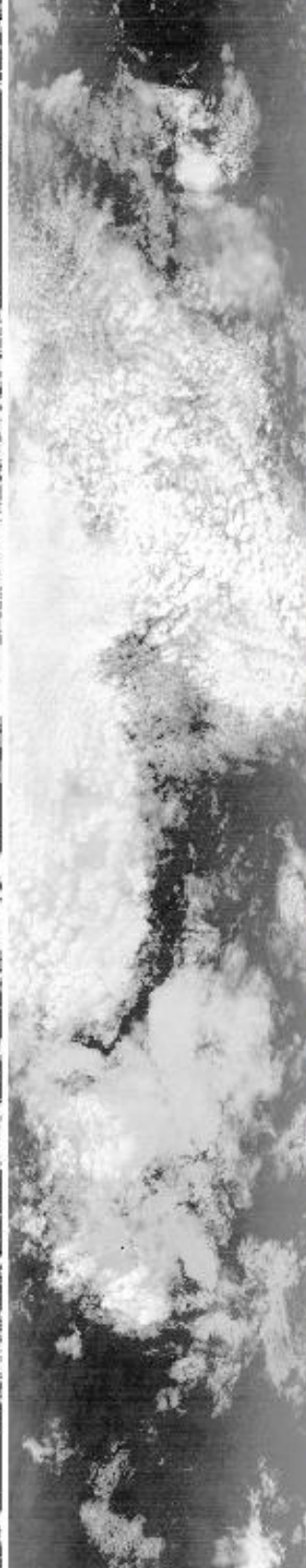
10:37:00



10:38:00



10:41:00



10:43:00



10:35:00

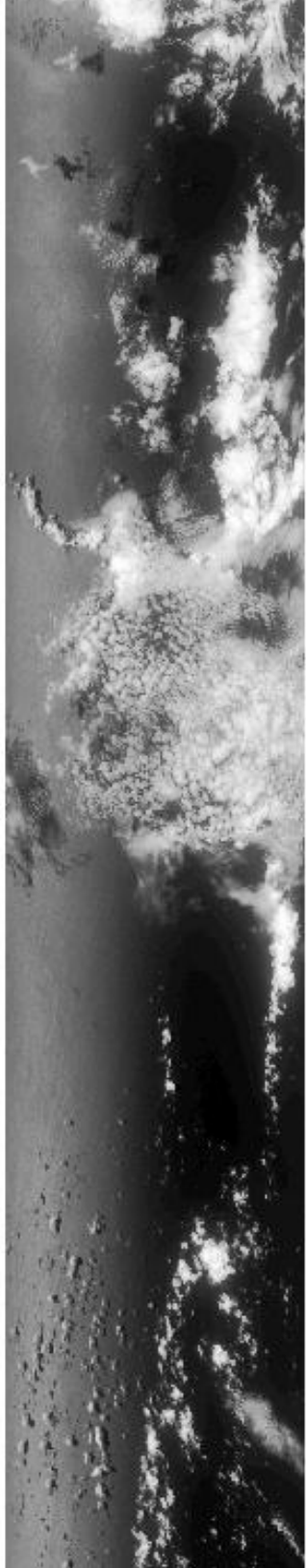
10:37:00

10:38:00

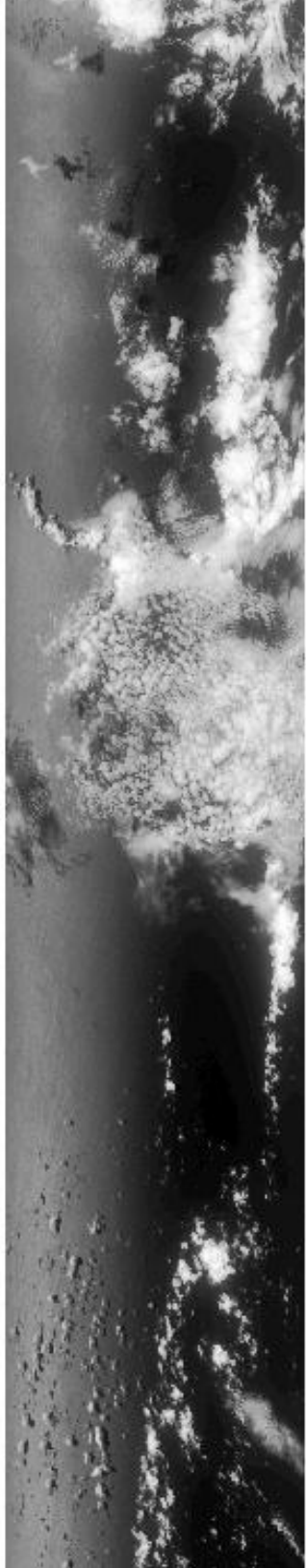
10:41:00

10:43:00

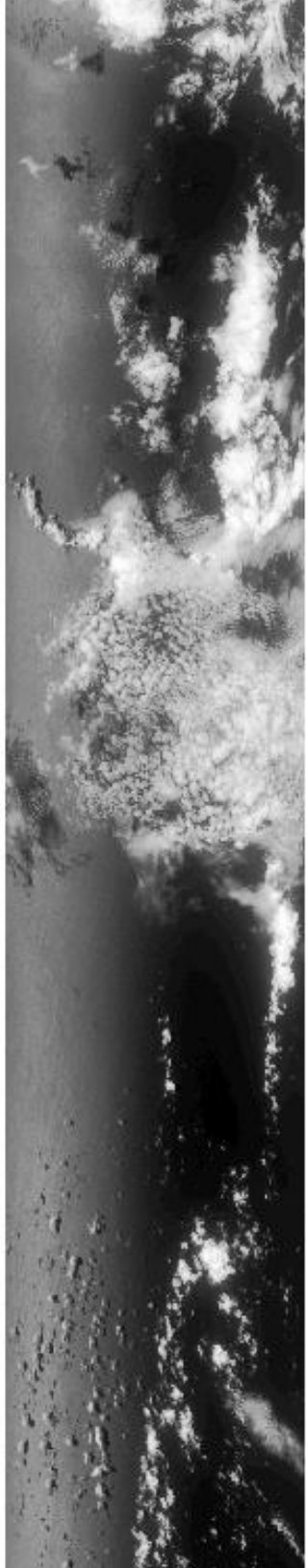
10:43:00



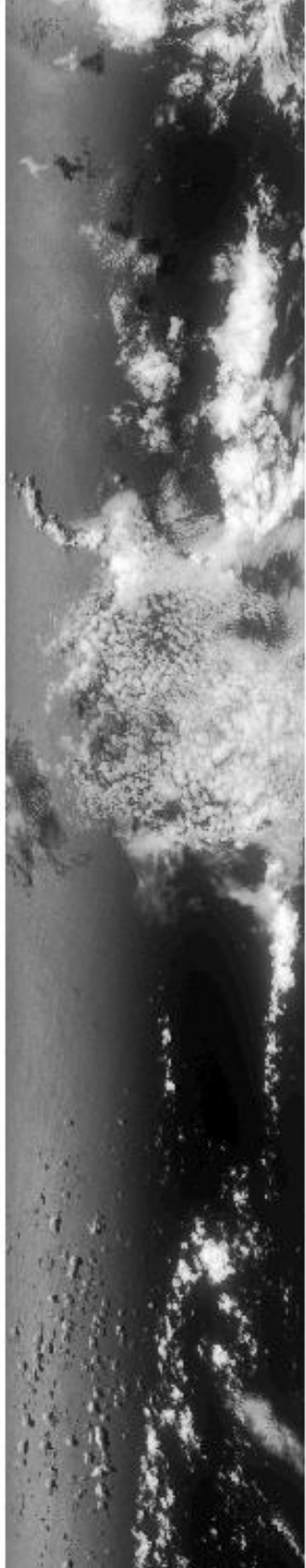
10:45:00



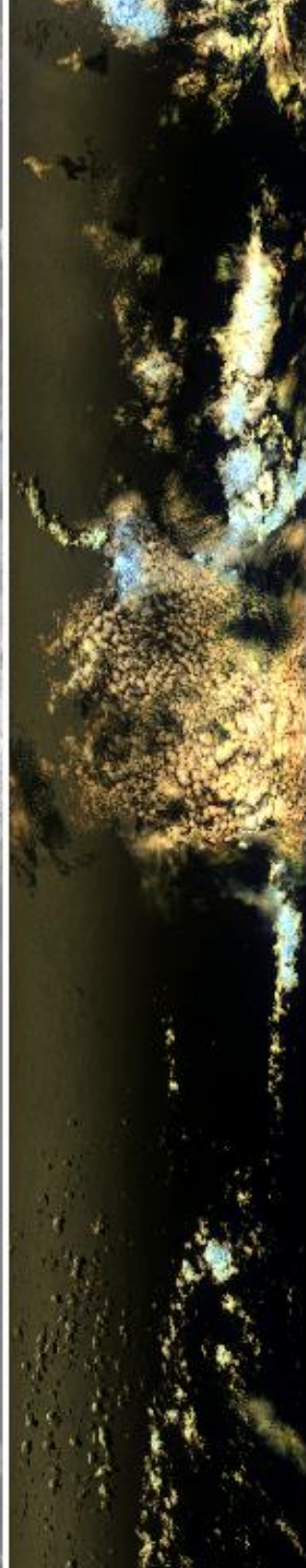
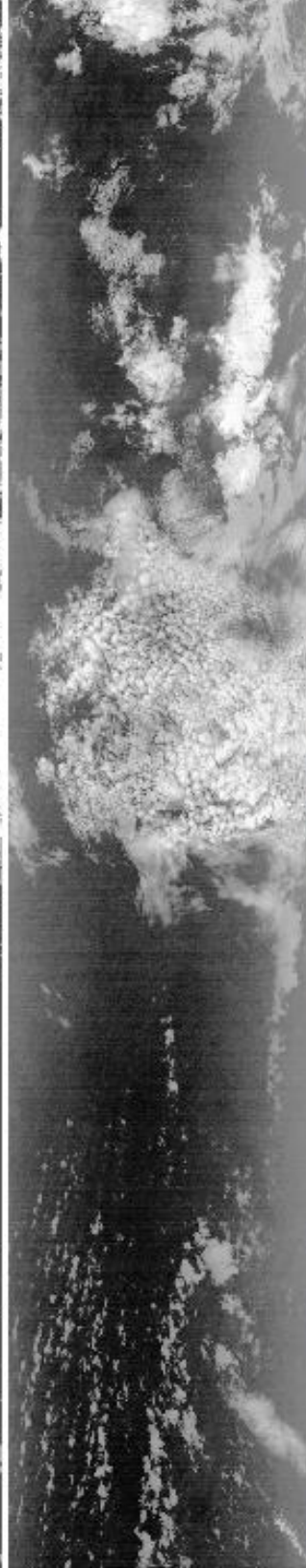
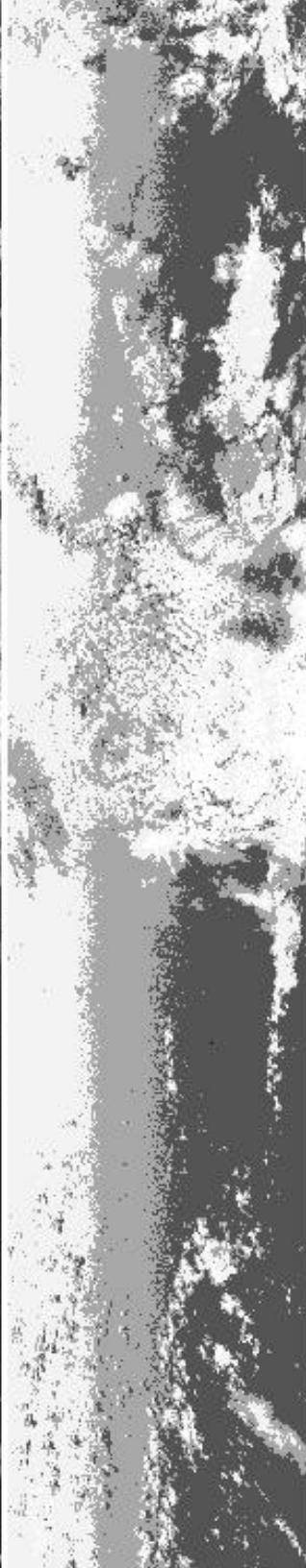
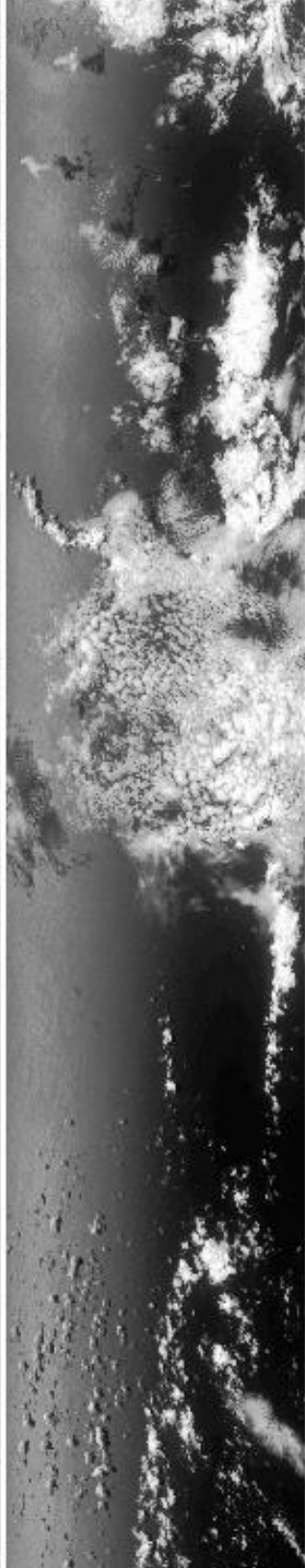
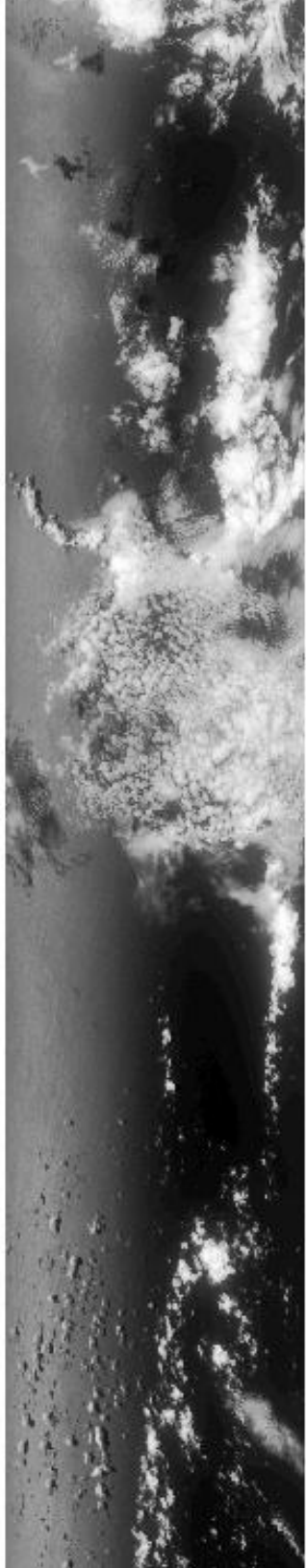
10:47:00



10:48:00



10:51:00



10:43:00

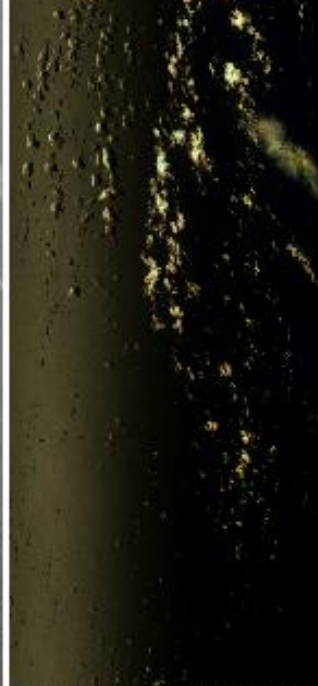
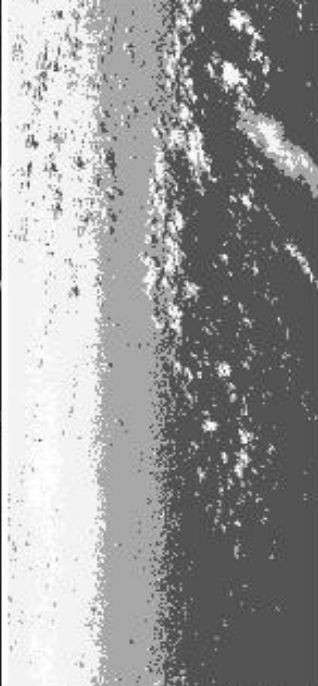
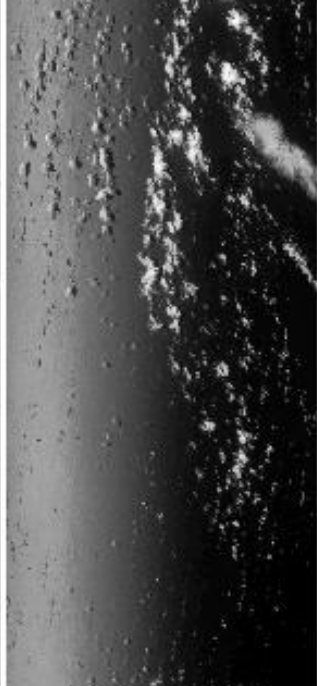
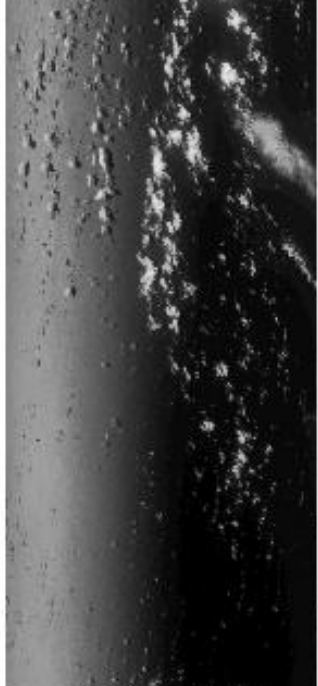
10:45:00

10:47:00

10:48:00

10:51:00

10:51:00



10:51:00

10:53:00

10:53:00

10:54:47

10:54:47

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

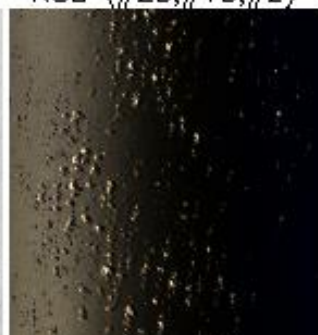
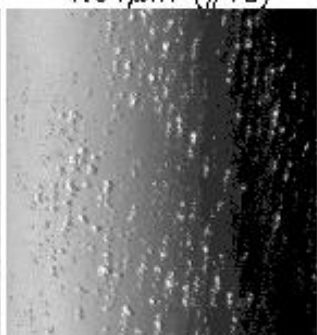
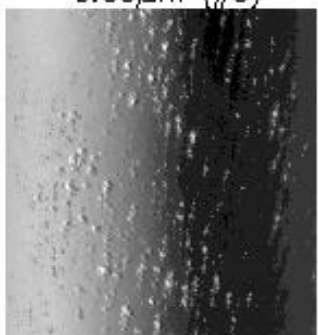
10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

Upper Left Lat, Lon = -14.9°, 40.9°
 Lower Right Lat, Lon = -17.7°, 39.7°
 Aircraft Heading = 204.3°
 Solar Zenith = 24.2°
 GPS Altitude = 19771. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign - 25 Sep 2000
 Indian Ocean
 Flight #00-180 Track #10

10:54:47



10:54:47

10:55:00

10:55:00

0.66µm (#3)

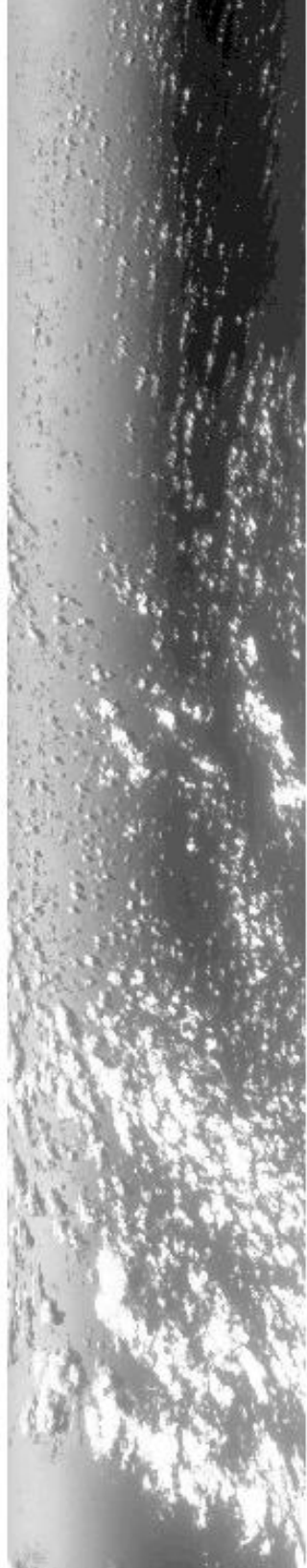
1.61µm (#10)

3.77µm (#30)

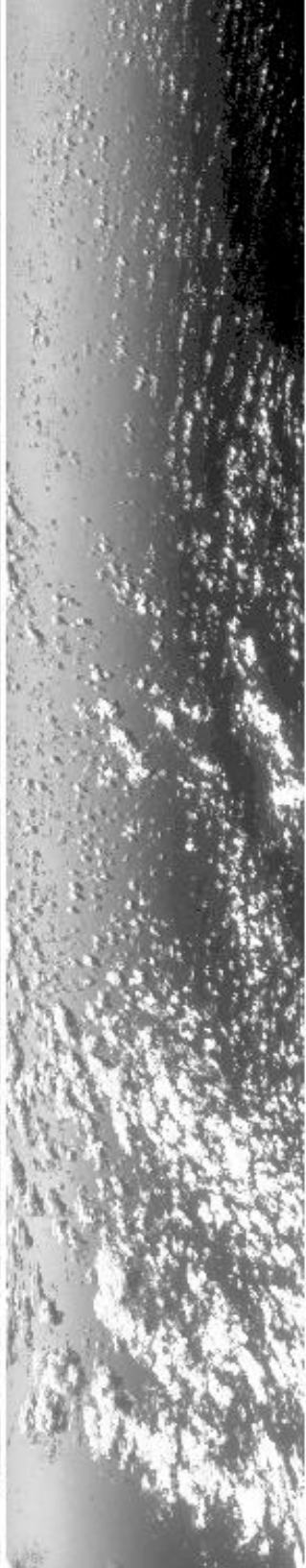
reverse scale
10.94µm (#45)

RGB (#20,#10,#2)

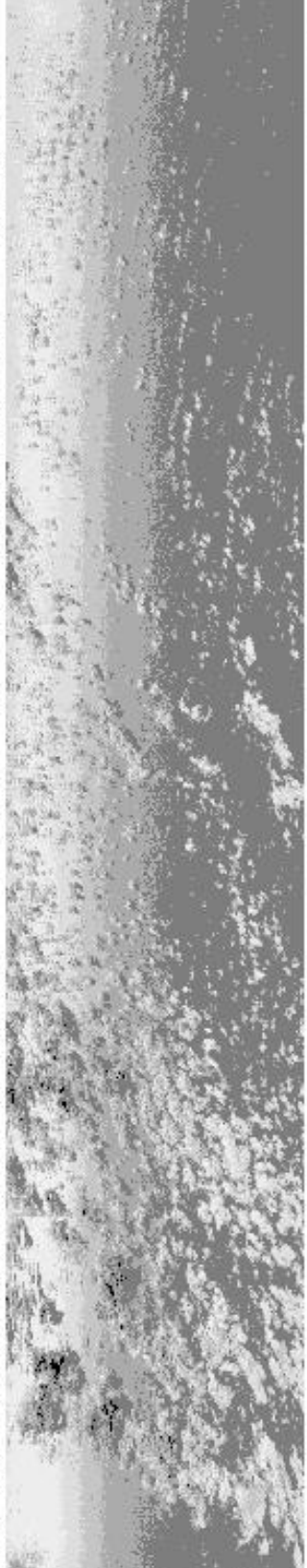
10:55:00



10:57:00



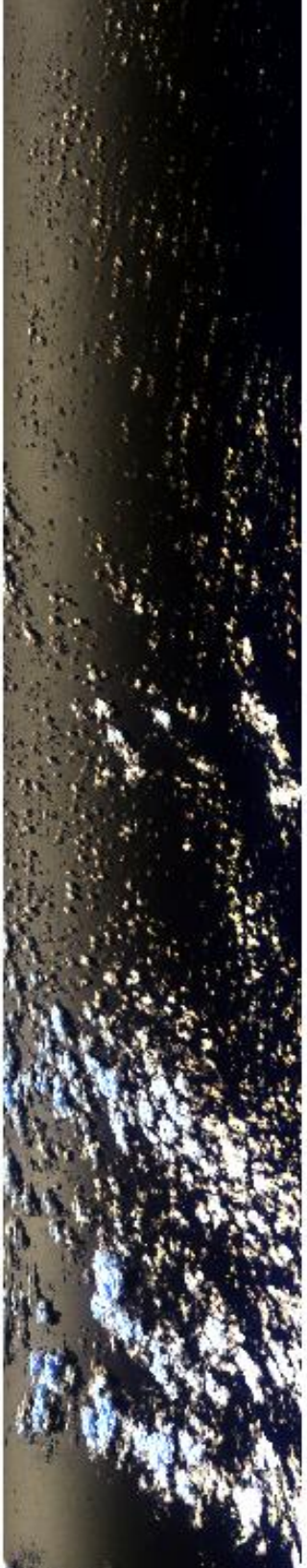
10:58:00



11:01:00



11:03:00



10:55:00

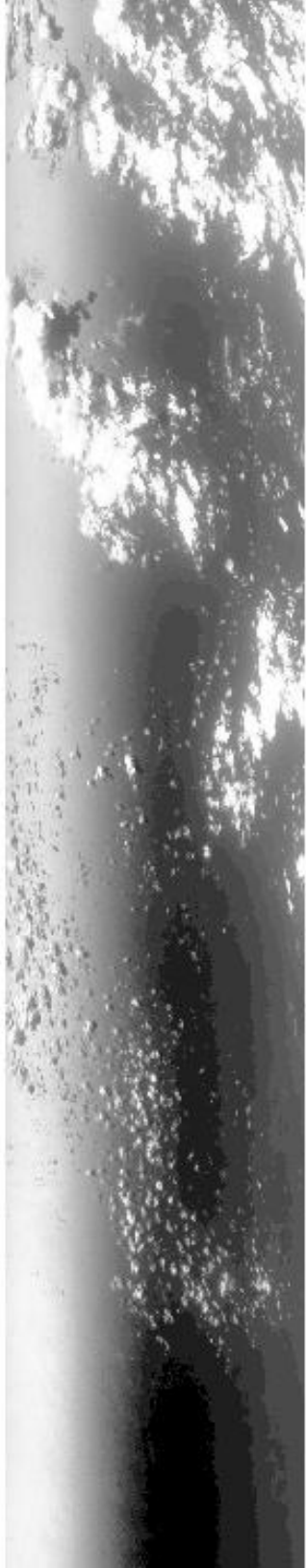
10:57:00

10:58:00

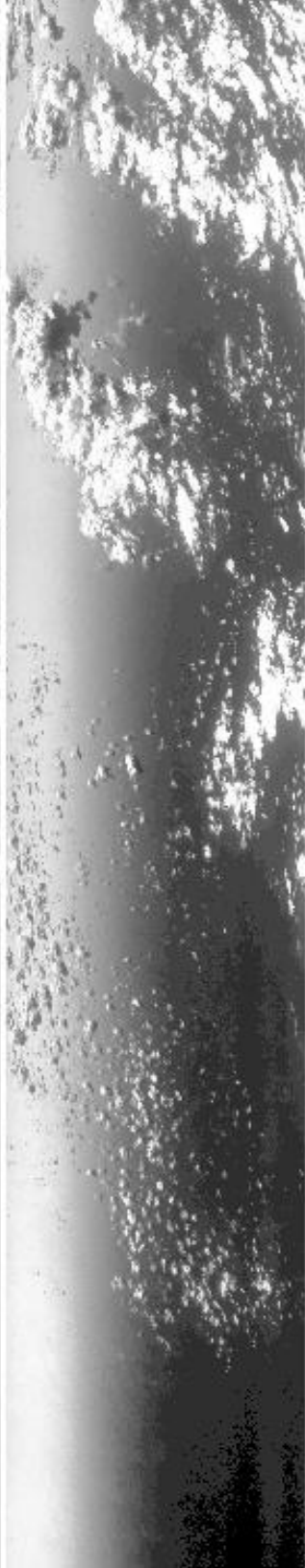
11:01:00

11:03:00

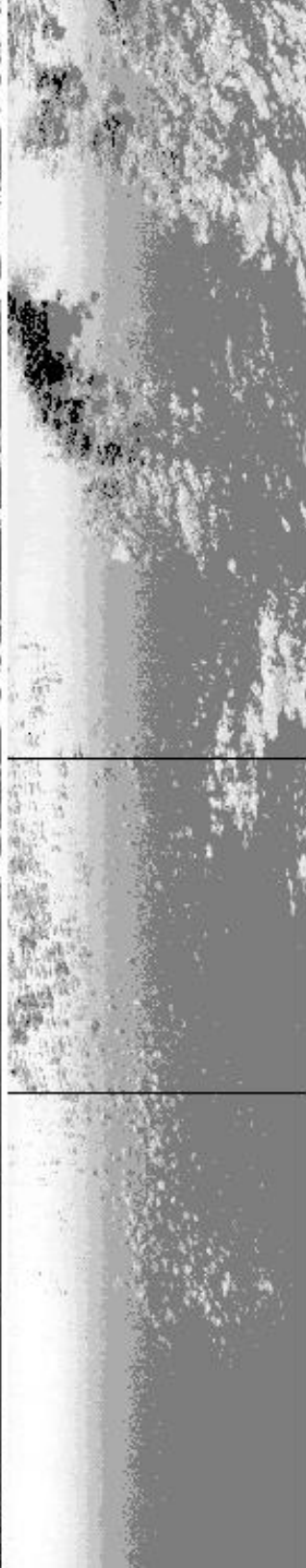
11:03:00



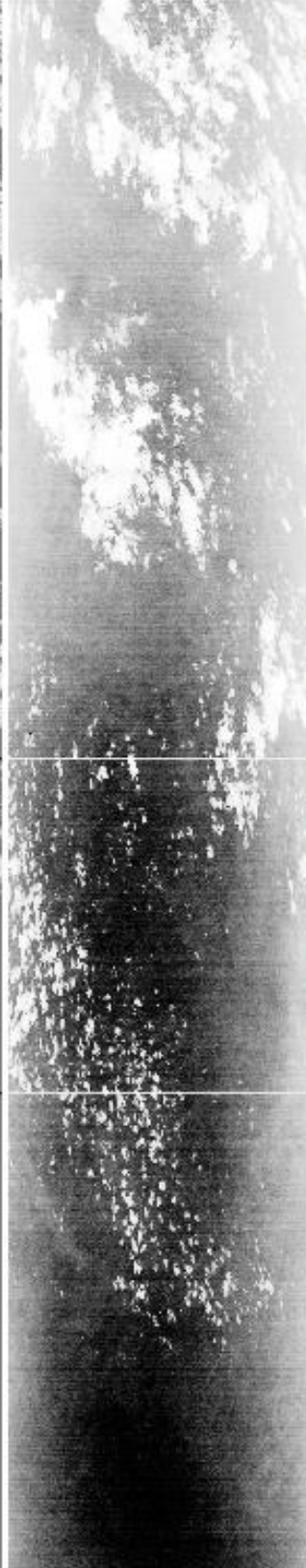
11:05:00



11:07:00



11:08:00



11:11:00



11:03:00

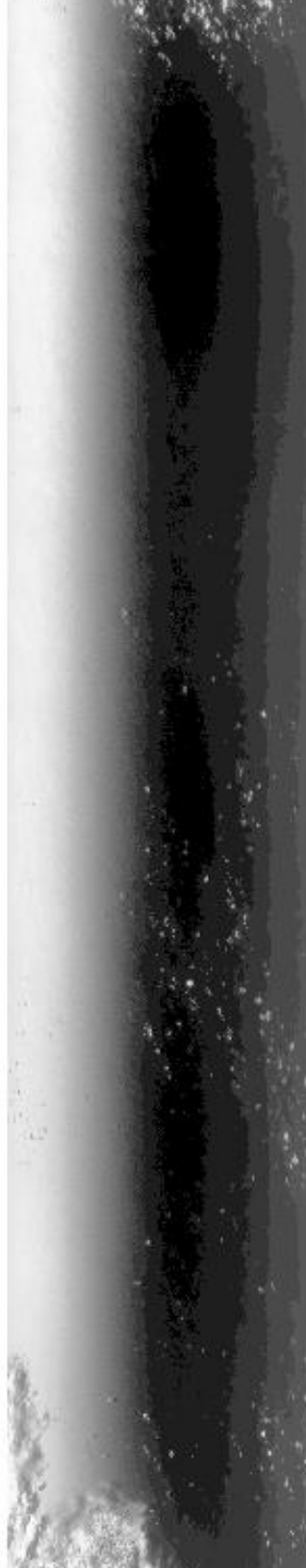
11:05:00

11:07:00

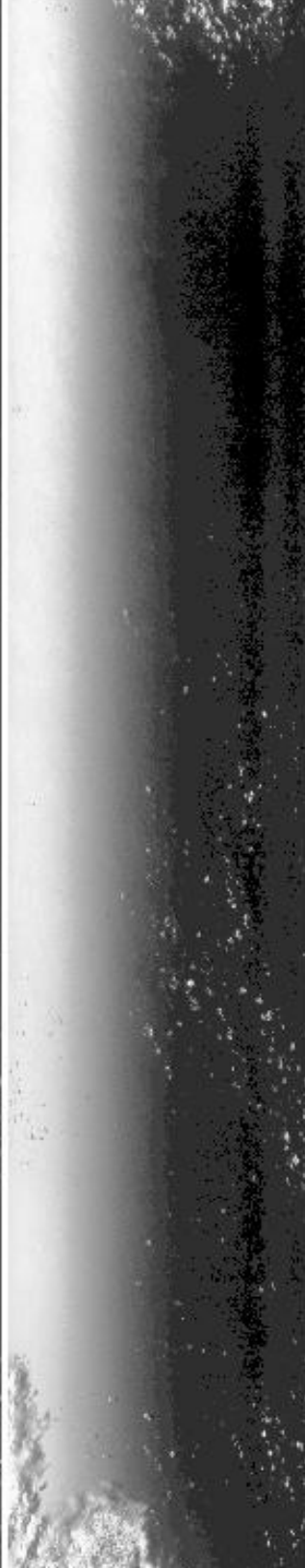
11:08:00

11:11:00

11:11:00



11:13:00



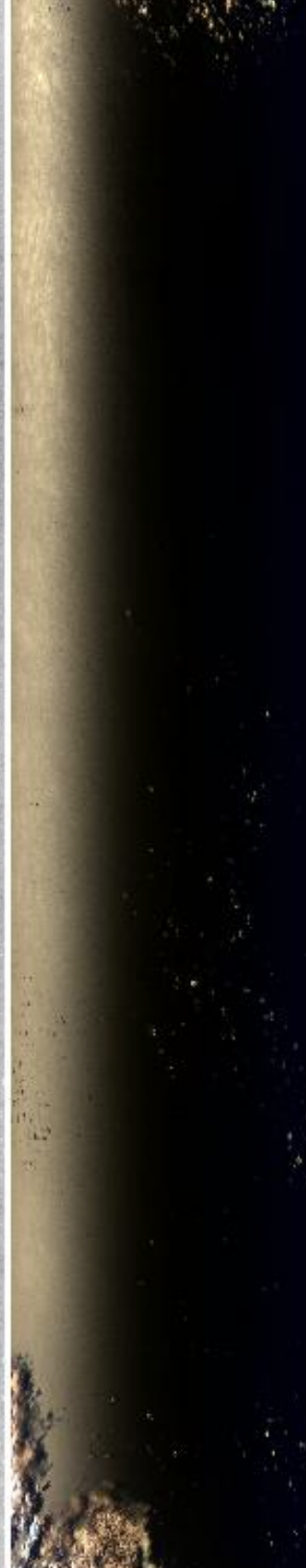
11:15:00



11:17:00



11:19:00



11:11:00

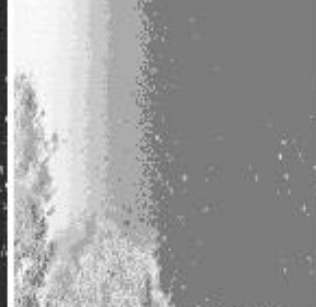
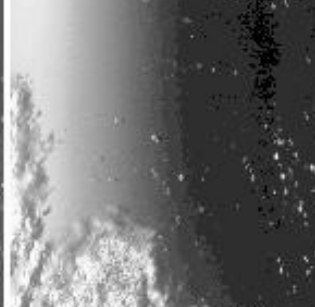
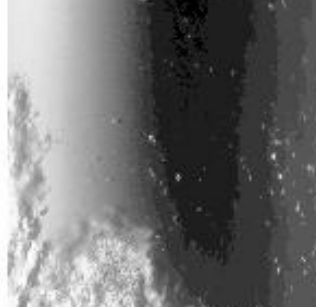
11:13:00

11:15:00

11:17:00

11:19:00

11:19:00



11:19:00

11:21:32

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)

RGB (<#20,#10,#2)

11:21:32

reverse scale

Upper Left Lat, Lon = -17.6°, 39.4°

Lower Right Lat, Lon = -20.3°, 38.1°

Aircraft Heading = 208.8°

Solar Zenith = 29.8°

GPS Altitude = 19869. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign - 25 Sep 2000

Indian Ocean

Flight #00-180 Track #11

11:21:32

0.66µm (#3)

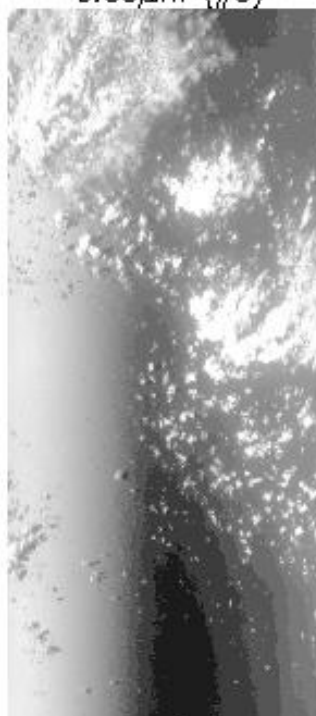
1.61µm (#10)

3.77µm (#30)

reverse scale
10.94µm (#45)

RGB (<#20,#10,#2)

11:21:32



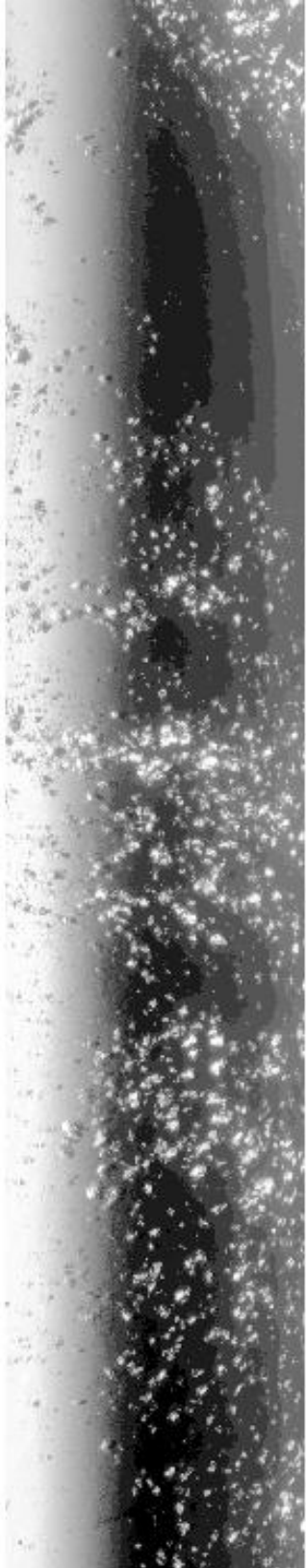
11:22:00

11:22:00

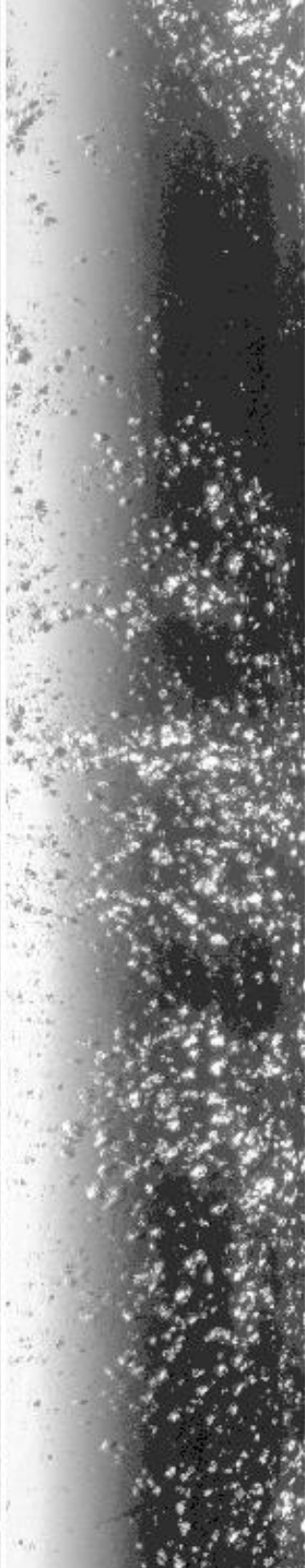
11:24:00

11:24:00

11:24:00



11:26:00



11:28:00



11:30:00



11:32:00



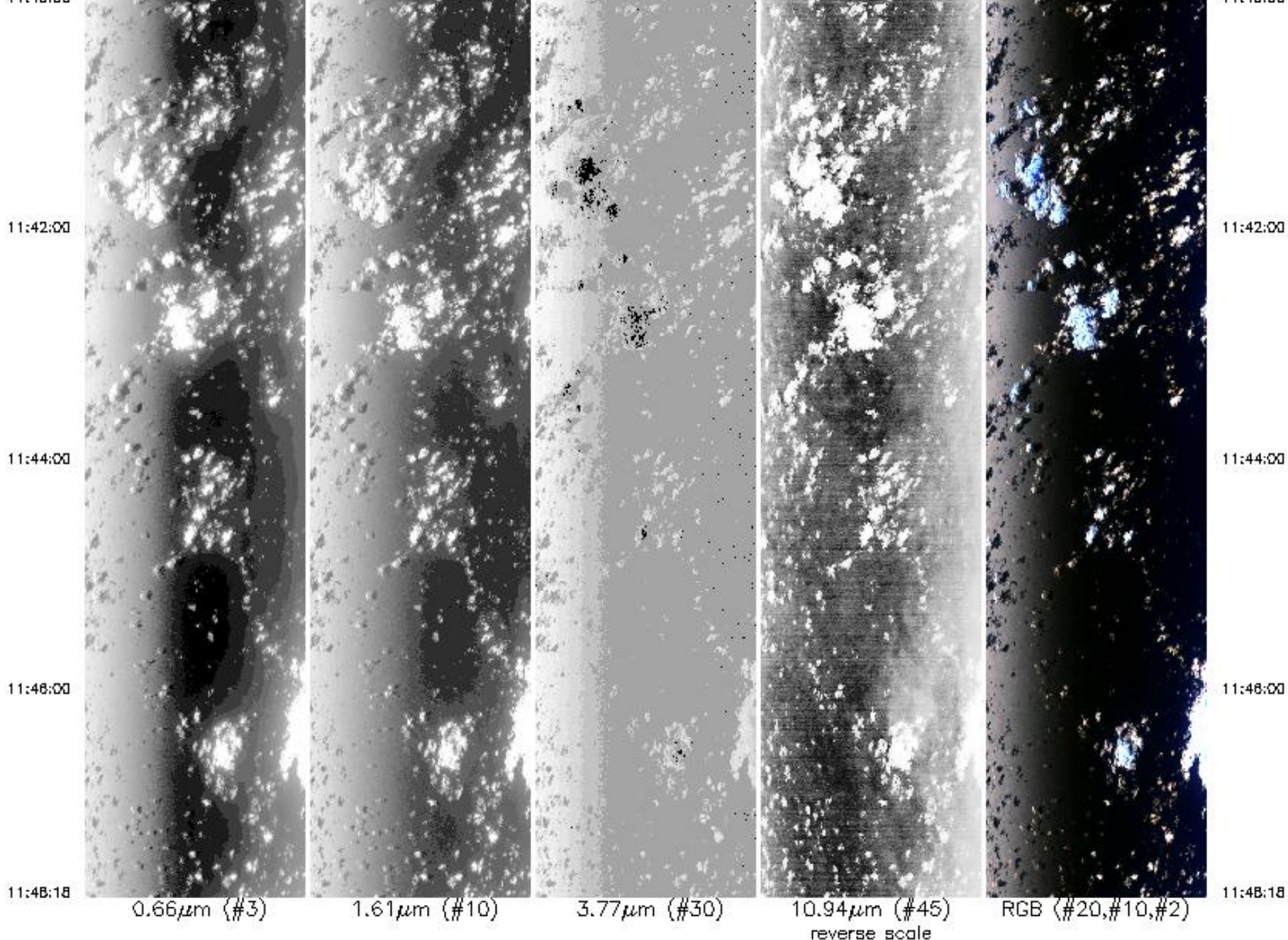
11:24:00

11:26:00

11:28:00

11:30:00

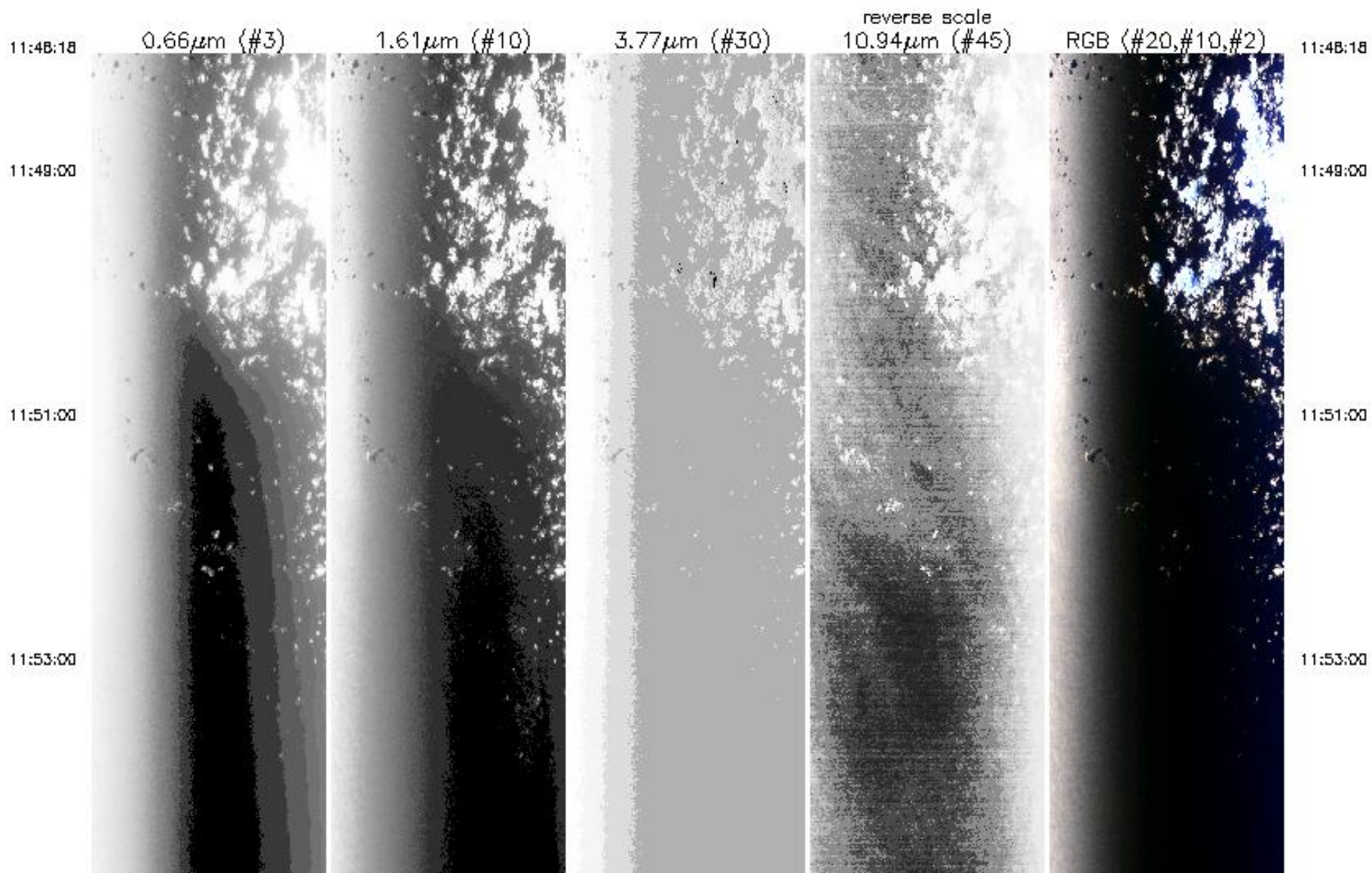
11:32:00



Upper Left Lat, Lon = -20.2° , 37.8°
 Lower Right Lat, Lon = -23.0° , 36.5°
 Aircraft Heading = 208.2°
 Solar Zenith = 35.3°
 GPS Altitude = 19970. m (MSL)

Upper Left Lat, Lon = -20.2° , 37.8°
Lower Right Lat, Lon = -23.0° , 36.5°
Aircraft Heading = 208.2°
Solar Zenith = 35.3°
GPS Altitude = 19970. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Indian Ocean
Flight #00-180 Track #12



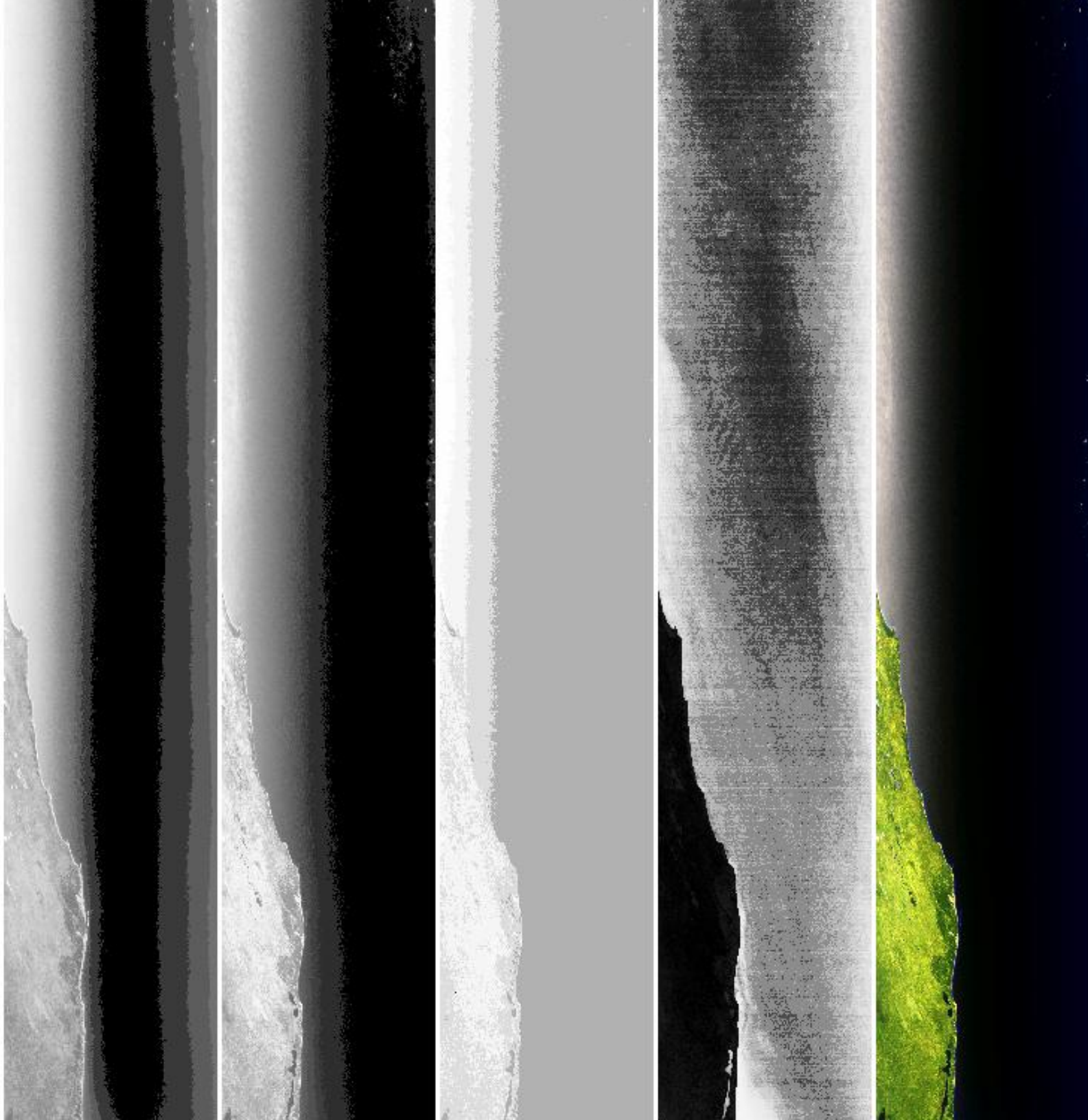
11:53:00

11:55:00

11:57:00

11:58:00

12:01:00



11:53:00

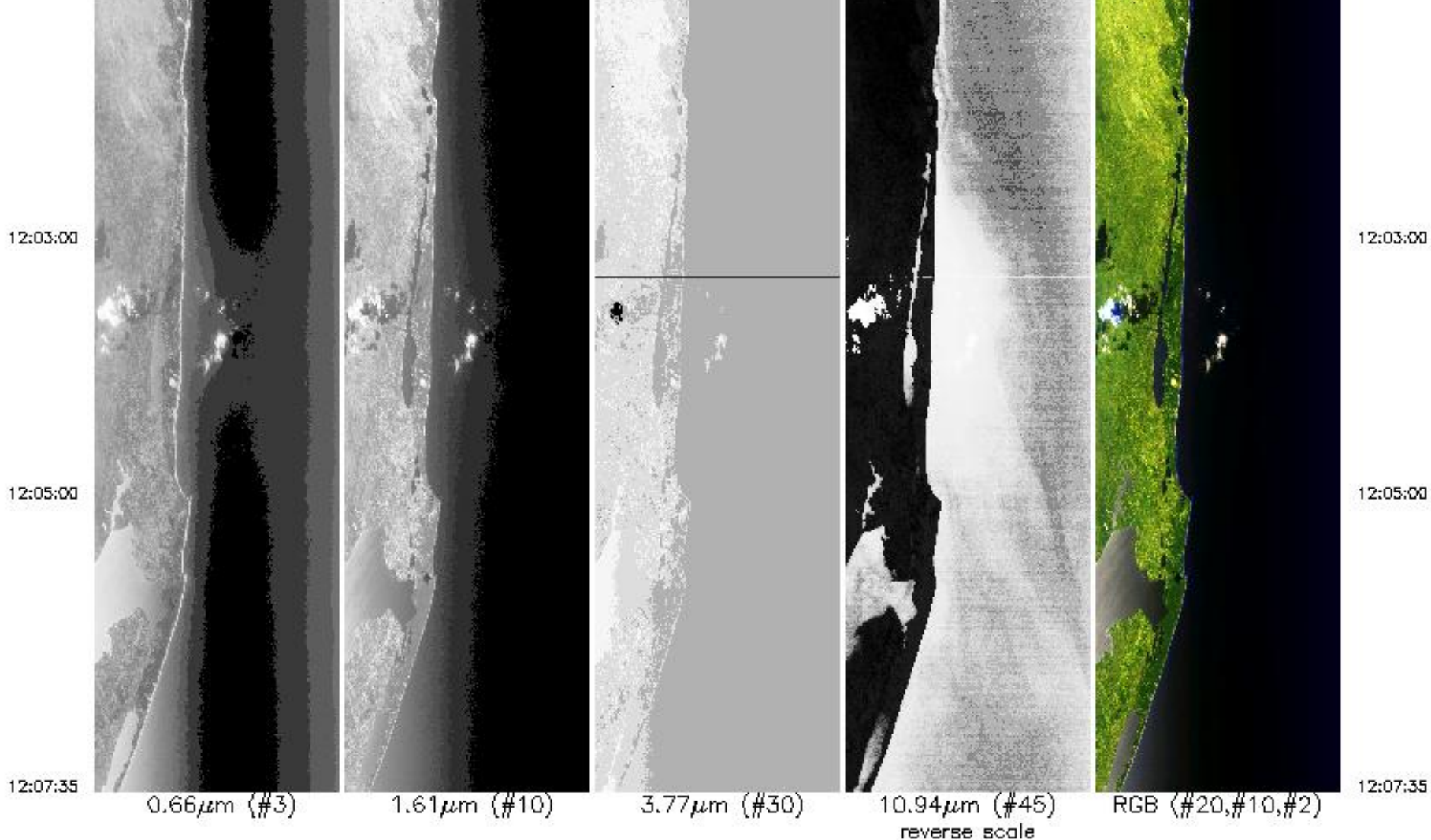
11:55:00

11:57:00

11:58:00

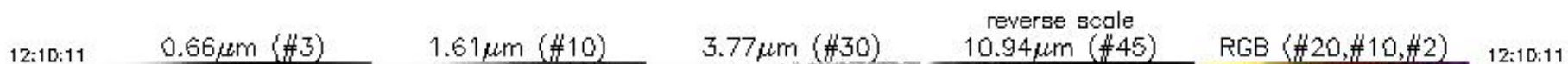
12:01:00



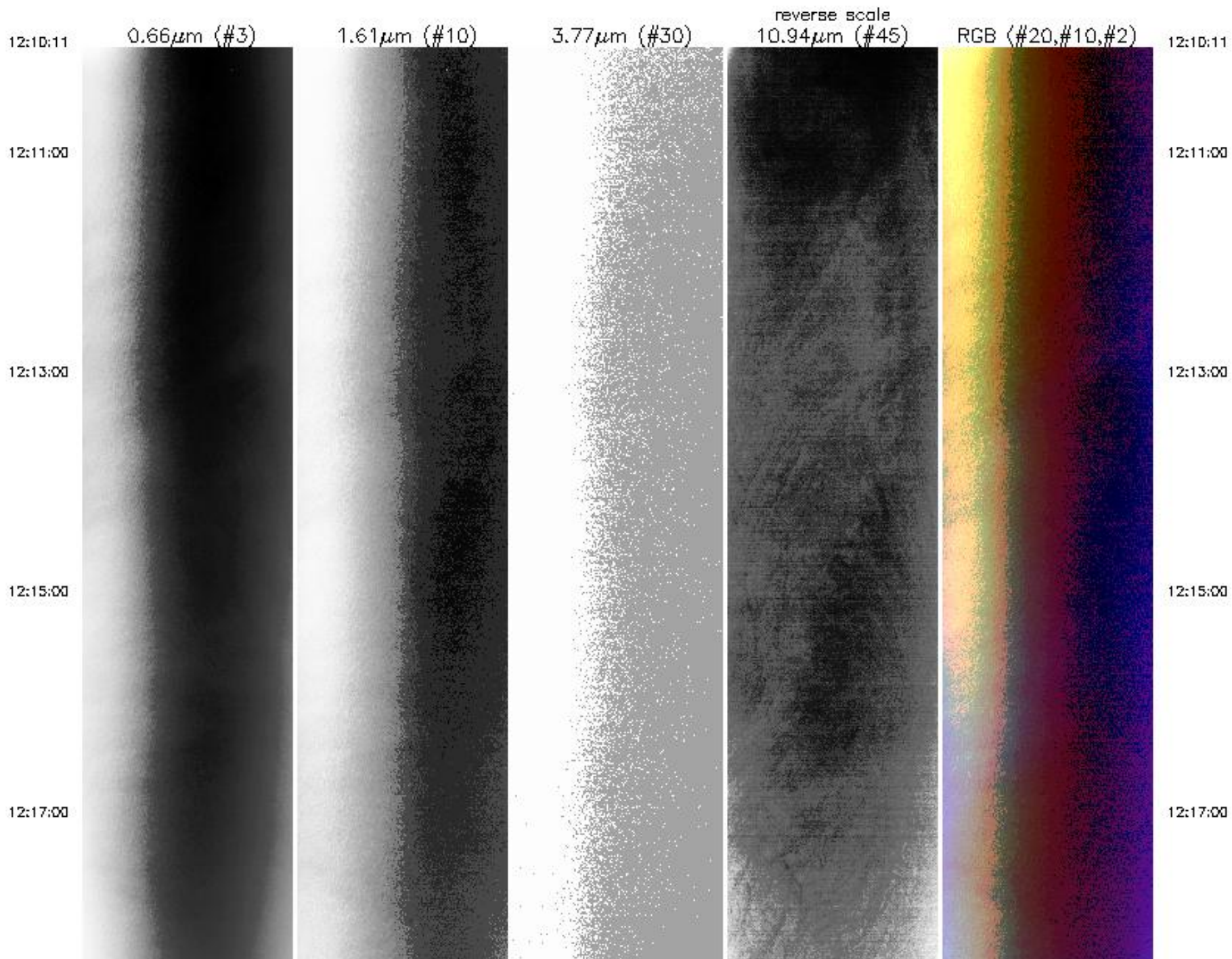


Upper Left Lat, Lon = -22.8° , 36.2°
 Lower Right Lat, Lon = -24.8° , 35.2°
 Aircraft Heading = 209.7°
 Solar Zenith = 40.7°
 GPS Altitude = 19958. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign - 25 Sep 2000
 Indian Ocean
 Flight #00-180 Track #13



MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
Indian Ocean
Flight #00-180 Track #13



12:17:00

12:19:00

12:21:00

12:23:00

12:25:00

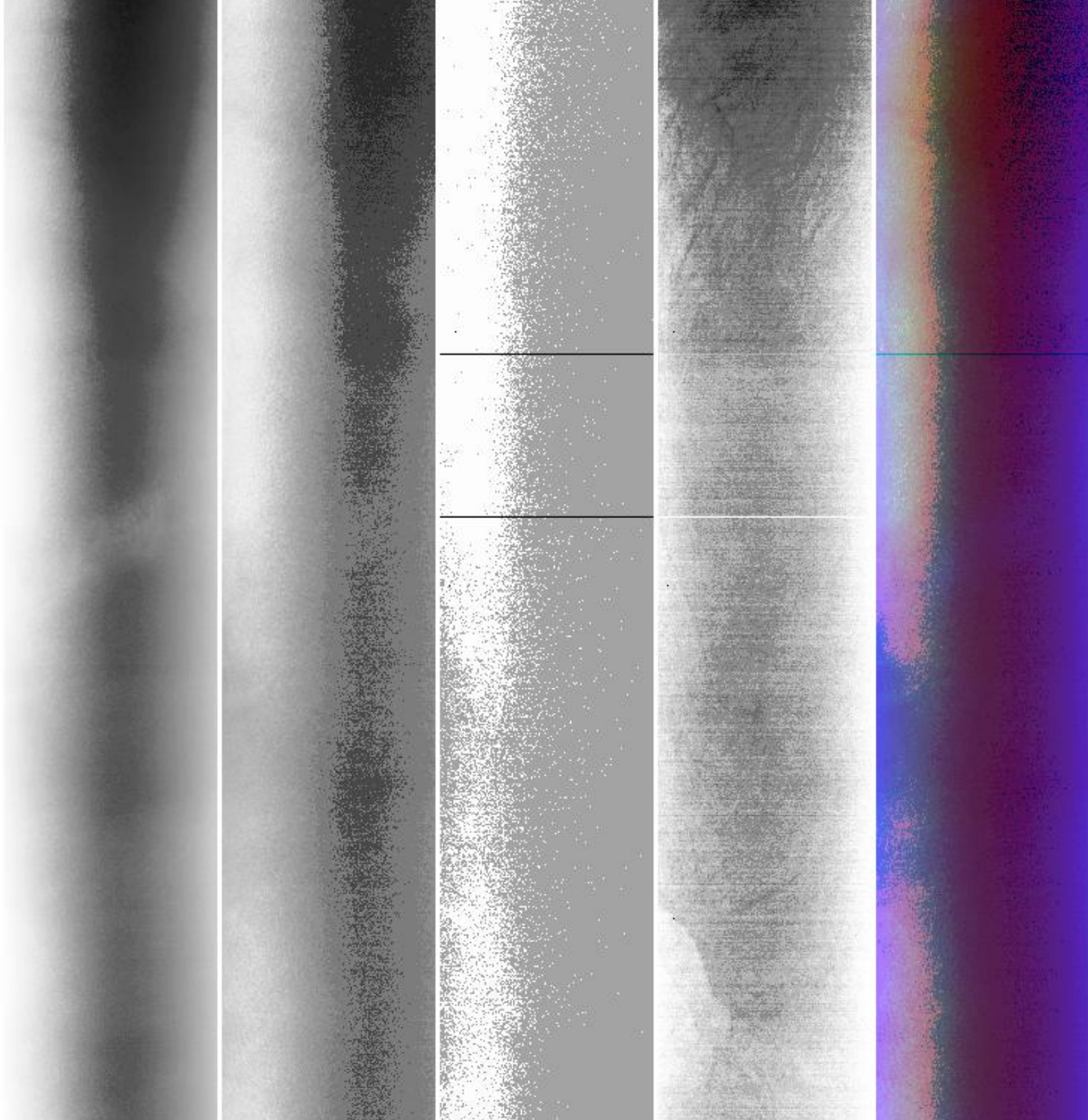
12:17:00

12:19:00

12:21:00

12:23:00

12:25:00



12:25:00

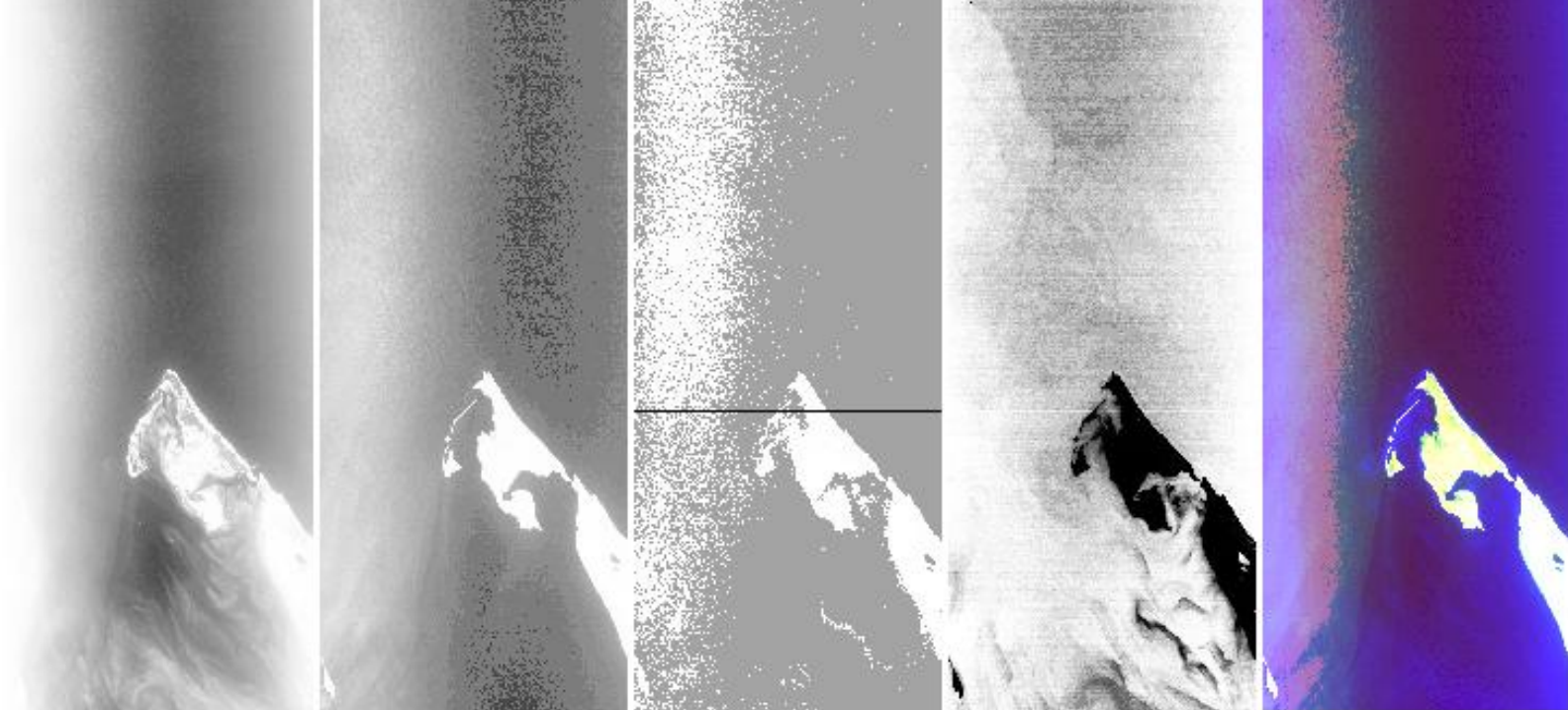
12:25:00

12:27:00

12:27:00

12:29:18

12:29:18



0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

Upper Left Lat, Lon = -24.9°, 34.8°

Lower Right Lat, Lon = -26.2°, 32.8°

Aircraft Heading = 235.9°

Solar Zenith = 45.0°

GPS Altitude = 19816. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign - 25 Sep 2000

Mozambique

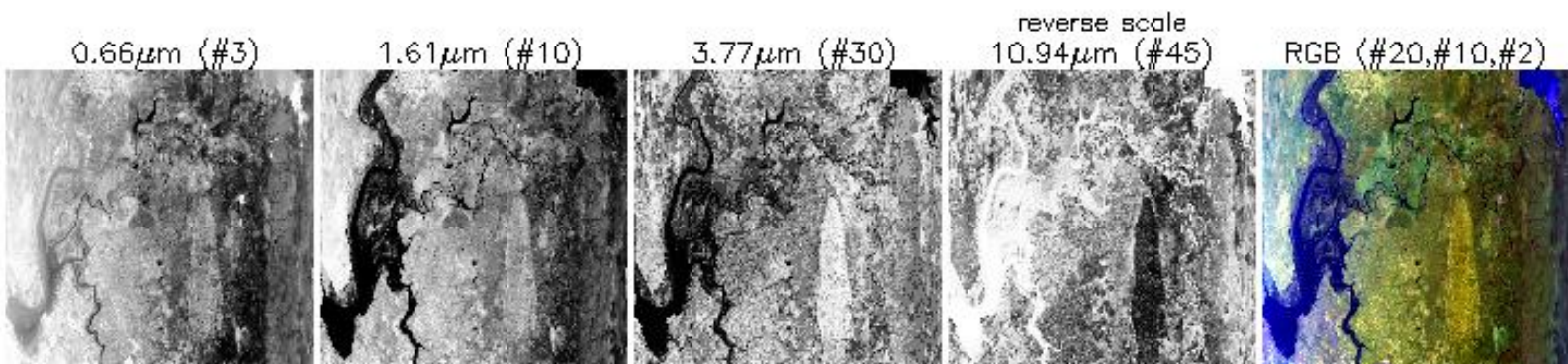
Flight #00-180 Track #14

12:33:38

12:33:38

12:34:00

12:34:00



0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

reverse scale
10.94µm (#45)

RGB (#20,#10,#2)

12:34:00

12:36:00

12:38:00

12:40:00

12:42:42



0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



RGB (#20,#10,#2)

12:34:00

12:36:00

12:38:00

12:40:00

12:42:42

Upper Left Lat, Lon = -26.1°, 32.5°

Lower Right Lat, Lon = -25.1°, 32.3°

12:42:42



0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



10.94µm (#45)

reverse scale



RGB (#20,#10,#2)

12:42:42

Upper Left Lat, Lon = -26.1°, 32.5°

Lower Right Lat, Lon = -25.1°, 32.3°

Aircraft Heading = 3.7°

Solar Zenith = 48.5°

GPS Altitude = 19854. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 25 Sep 2000
South Africa
Flight #00–180 Track #15

12:44:08

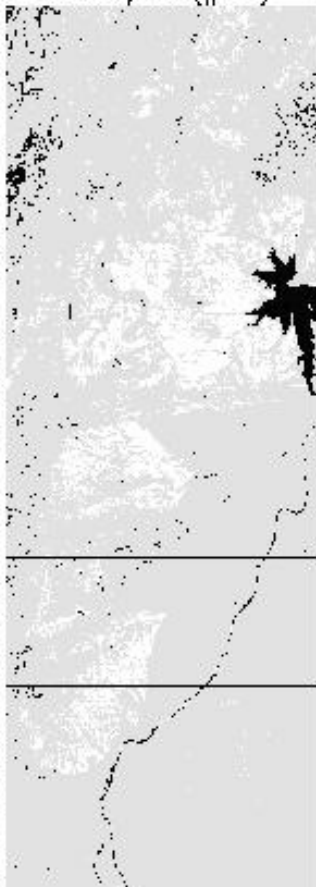
0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



reverse scale
10.94µm (#45)

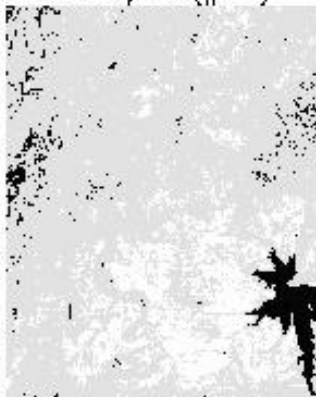
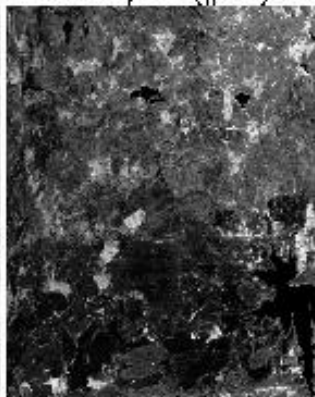


RGB (#20,#10,#2)



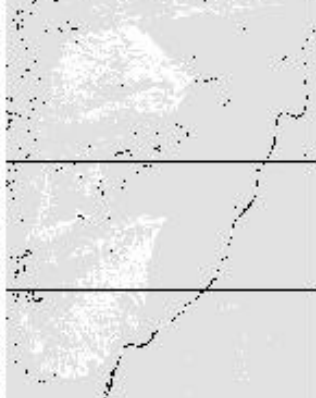
12:44:08

12:45:00



12:45:00

12:47:00



12:47:00

12:48:00



12:48:00

12:48:00

12:51:00

12:53:00

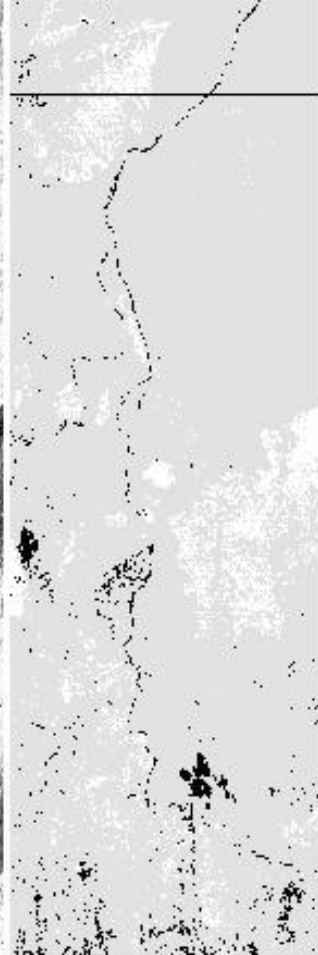
12:53:37



0.66µm (#3)



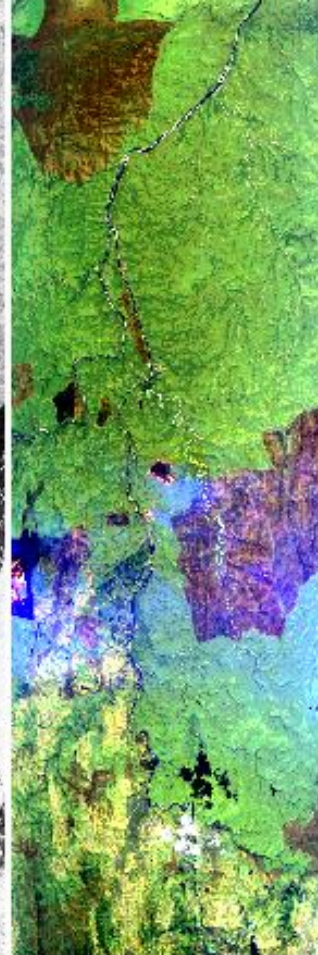
1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

12:48:00

12:51:00

12:53:00

12:53:37

Upper Left Lat, Lon = -24.9°, 32.3°

Lower Right Lat, Lon = -25.2°, 31.1°

Aircraft Heading = 269.7°

Solar Zenith = 50.0°

GPS Altitude = 19898. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign - 25 Sep 2000

South Africa

Flight #00-180 Track #16

12:53:43



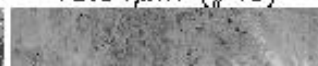
0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



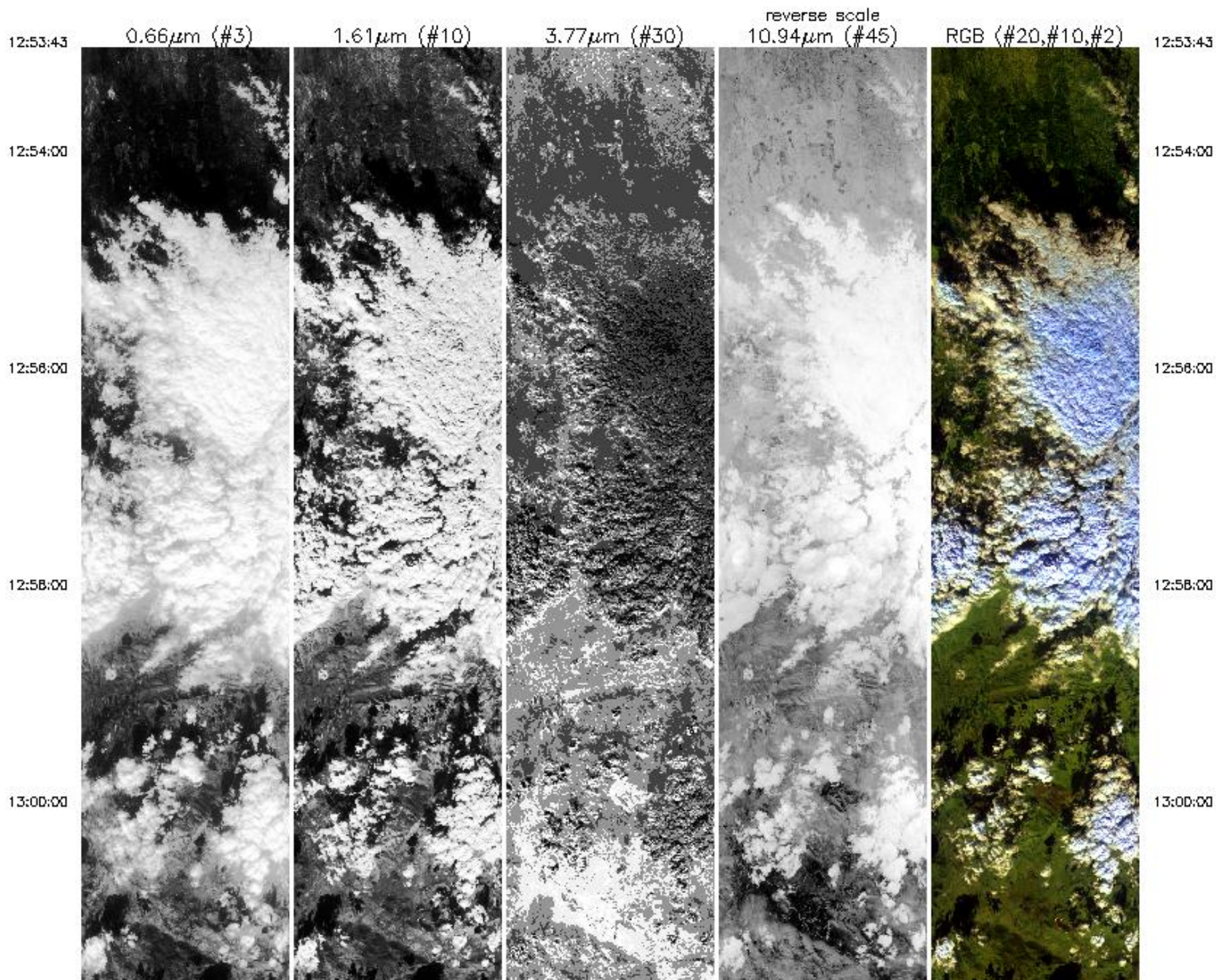
reverse scale
10.94µm (#45)



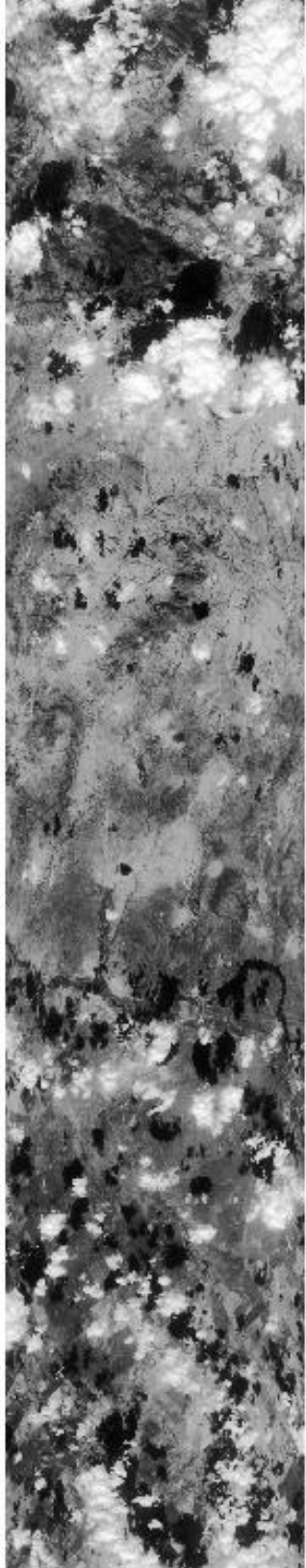
RGB (#20,#10,#2)

12:53:43

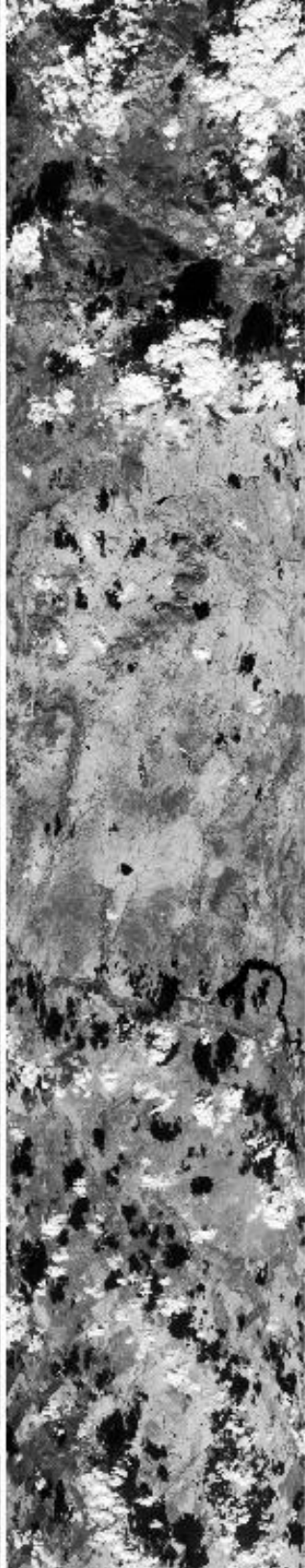
SAFARI 2000 Campaign 25 Sep 2000
South Africa
Flight #00-180 Track #16



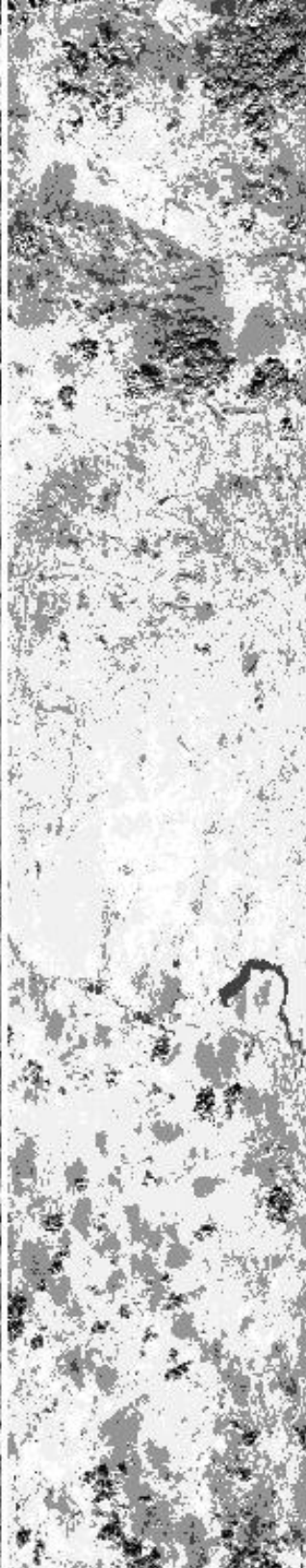
13:00:00



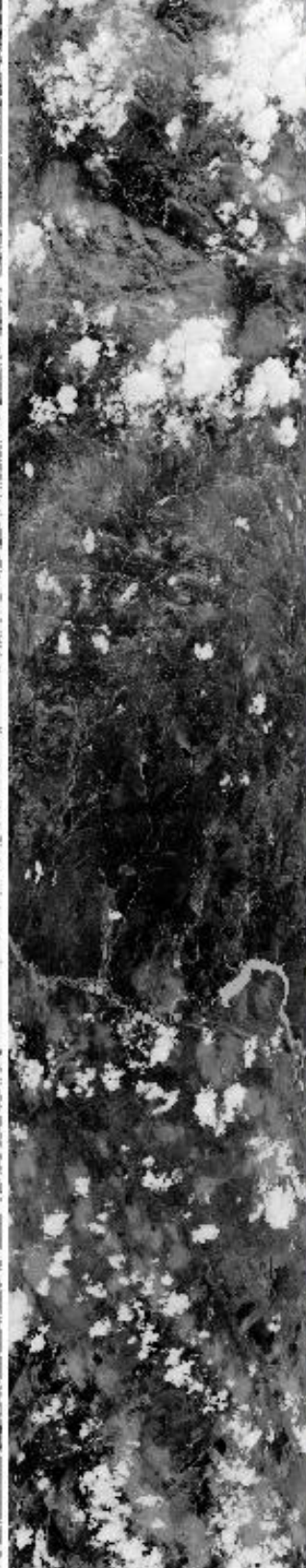
13:02:00



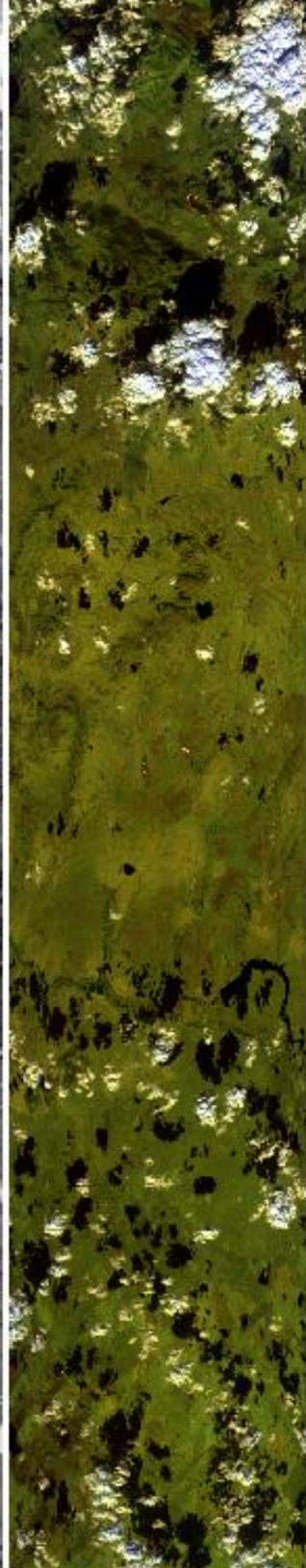
13:04:00



13:06:00



13:08:00



13:00:00



13:02:00



13:04:00



13:06:00

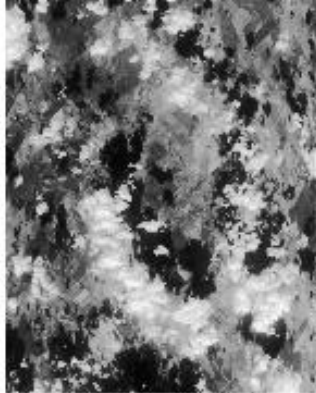


13:08:00

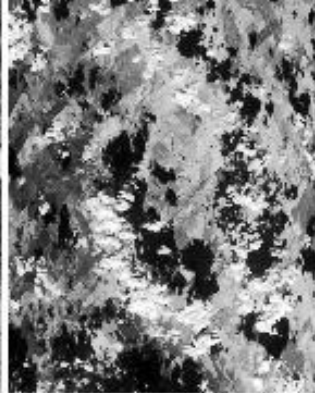


13:10:00

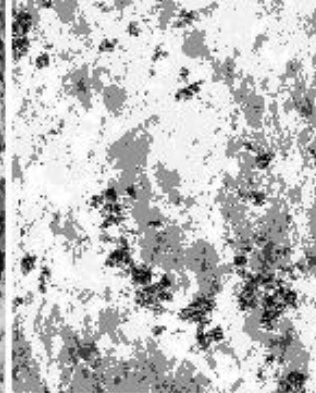
13:11:08



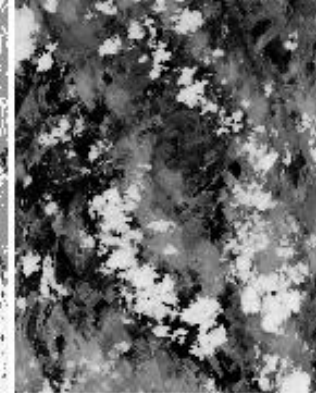
0.66 μ m (#3)



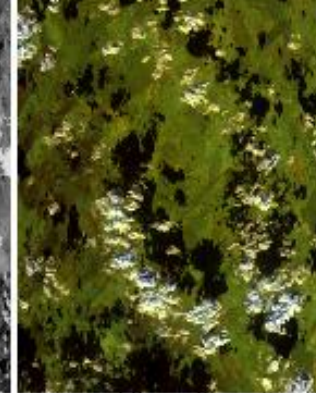
1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



RGB (#20,#10,#2)

13:10:00

13:11:08

Upper Left Lat, Lon = -24.8° , 31.1°
Lower Right Lat, Lon = -24.8° , 28.8°
Aircraft Heading = 275.5°
Solar Zenith = 51.0°
GPS Altitude = 19955. m (MSL)