

SAFARI 2000 MAS Flight 00158

The SAFARI 2000 MAS contains 146 GB of data. Individual HDF files may exceed the size of a CD, and are best written to DVD. You may use this automated interface to order data from selected tracks (flight segments). If you require large portions of this data, we recommend that you contact us by email or phone and make special arrangements.

Flight #00-158

RBG Images

[Click Image](#)

Track #04



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

Track #18

Summary Information

Date: **September 07, 2000**

ER-2 Flight Number: **00-158**

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

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

Flight Scientist: **Chris Moeller (UW CIMSS)**

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**

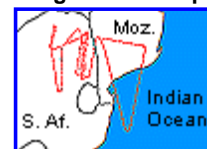
Level-1B Browse Imagery

Straight Line Flight Tracks: **19 processed**

Scanlines Processed: **91650**

[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 (msl)
<input type="checkbox"/>	01	07:56-08:10	65	23.99-23.37	29.71-31.25	5171	19205
<input type="checkbox"/>	02	08:12-08:29	193	23.42-25.19	31.47-31.10	6035	19872
<input type="checkbox"/>	03	08:34-08:50	8	25.41-23.55	31.06-31.43	6205	19941
<input type="checkbox"/>	04	08:56-09:13	189	23.32-25.19	31.48-31.10	6477	20068
<input type="checkbox"/>	05	09:19-09:34	10	25.31-23.59	31.52-31.85	5657	20217
<input type="checkbox"/>	06	09:36-09:41	156	23.54-23.97	32.09-32.30	1647	20314
<input type="checkbox"/>	07	09:41-10:08	162	23.98-26.85	32.31-33.15	9999	20422
<input type="checkbox"/>	08	10:08-10:18	165	26.85-27.98	33.15-33.49	3970	20613
<input type="checkbox"/>	09	10:21-10:48	13	27.96-24.93	33.72-34.33	9999	20663
<input type="checkbox"/>	10	10:48-10:56	13	24.93-24.04	34.33-34.50	2991	20805
<input type="checkbox"/>	11	11:11-11:17	283	23.60-23.47	32.78-32.00	2366	20865
<input type="checkbox"/>	12	11:18-11:34	186	23.55-25.26	31.85-31.53	5703	20887
<input type="checkbox"/>	13	11:36-11:38	279	25.38-25.34	31.38-31.09	849	20973
<input type="checkbox"/>	14	11:41-11:55	15	25.02-23.47	31.01-31.31	5209	20994
<input type="checkbox"/>	15	11:57-12:13	189	23.43-25.14	31.13-30.81	5711	21053



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

16	12:16-12:18	50	25.21-25.06	31.02-31.20	745	20941
17	12:19-12:34	355	24.93-23.18	31.30-31.05	5742	21145
18	12:37-12:46	219	23.11-23.91	30.81-30.08	3342	21219
19	12:47-12:57	175	24.03-25.19	30.00-30.00	3832	21266
All images in sequence						

ER-2 Flight Log

Author: **Chris Moeller**
 Mission Scientist: **Dr. Michael King**
 ER-2 Pilot: **Dave Wright**
 Takeoff: **07Sep2000 0000 UTC**
 Landing: **07Sep2000 0000 UTC**
 Duration: **06:10:00**

Objective:

Three overpasses of the Timbavati 1000-3000 hectare controlled burn (~24°21'56"S, 31°15'40"E) on a 15 minute line parallel with the Terra overpass (overpass at 0828UTC on 1st leg), then over fly Skukuza airfield to the east on a line parallel to the Timbavati fire line but offset by about 20nm to the east; then vector to TOMS orbital track on 30 minute line centered on about Inhaca Island (overpass at 0919 UTC) but about 50 minutes after overpass time. Then turn northward for a run parallel to Terra for MODIS off nadir L1B radiance comparisons. Then return to burn region to make cross sections of aging smoke plume (3 passes) and finish with line over Phalaborwa industrial site and N-S run crossing the Oliphants river valley.

Key Flight Legs:

Timbavati fire burning intensely (ignition about 0813 UTC) on each overpass with smoke plume advecting to NNW (surface wind from south; 5000ft wind from west). CV-580 monitoring smoke plume underneath. The skies were very clear with very good visibility (low aerosol concentration). Clear skies on Skukuza over flight as well. TOMS line mostly cloudy (alto cu) down to about Inhaca Island with sct to clr conditions southward from there. Terra line over water from south to north sequenced from sct to bkn to ovc sky conditions until reaching Mozambique coast. Smoke plume from Timbavati fire was evident to pilot on return and was cross sectioned (clean-plume-clean) twice (~1145 and 1205 UTC) by the ER-2. Phalaborwa and Oliphants River valley also clear. RC-10 on fire lines, one smoke line and Phalaborwa line; AirMISR on fire lines, Skukuza line, 2nd smoke line, and Phalaborwa line.

Highlights: ER-2/CV-580 over large fire. Smoke plumes. Terra (off nadir) and TOMS under flight (partly cloudy and clear)

AERONET sites were overflown during this mission:

- Skukuza (20°01.2'S, 31°29.8'E)
- Inhaca Island (26°02'S, 32°54'E)

Pilot Report:

No comments were noted.

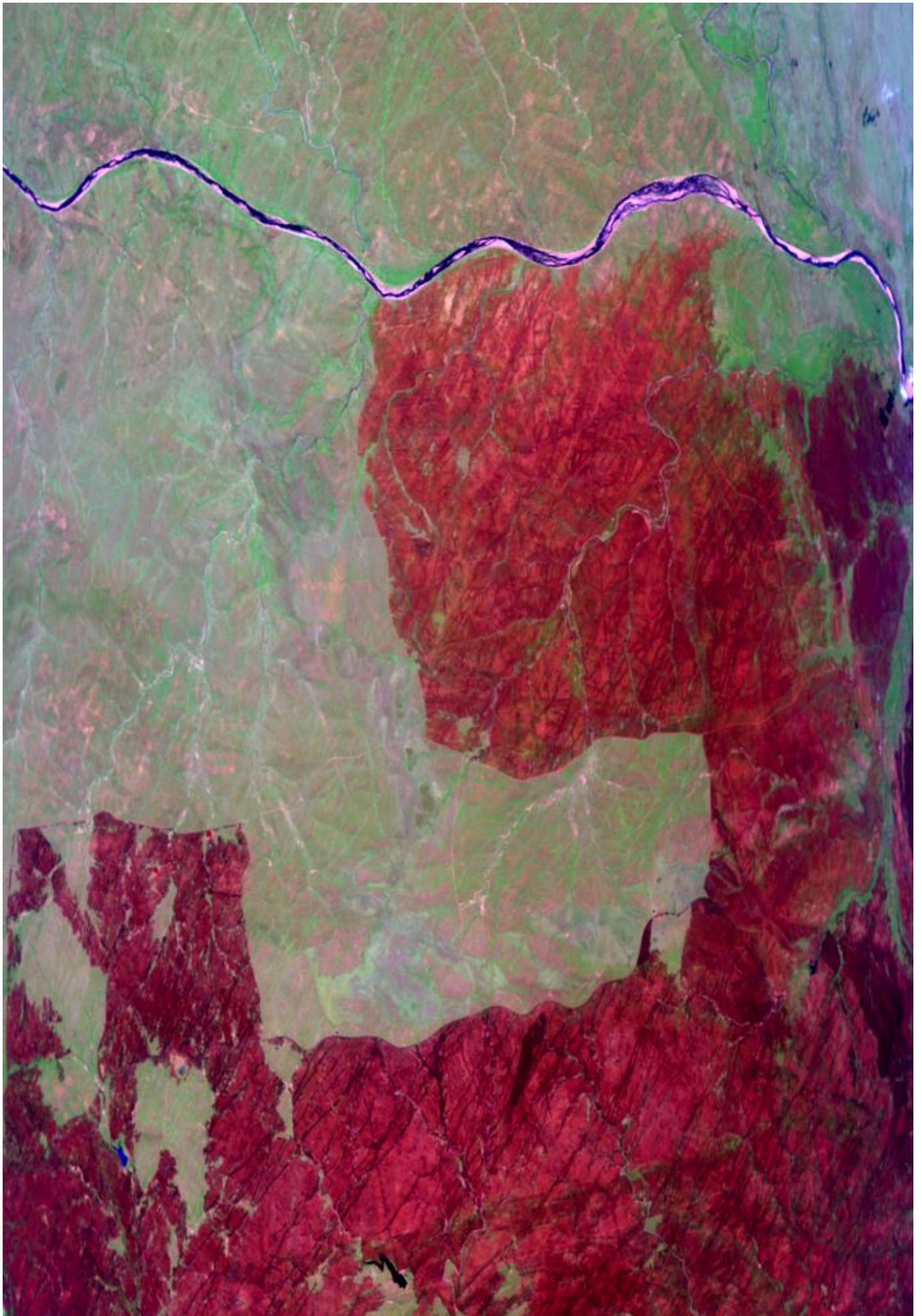
Meteorology:

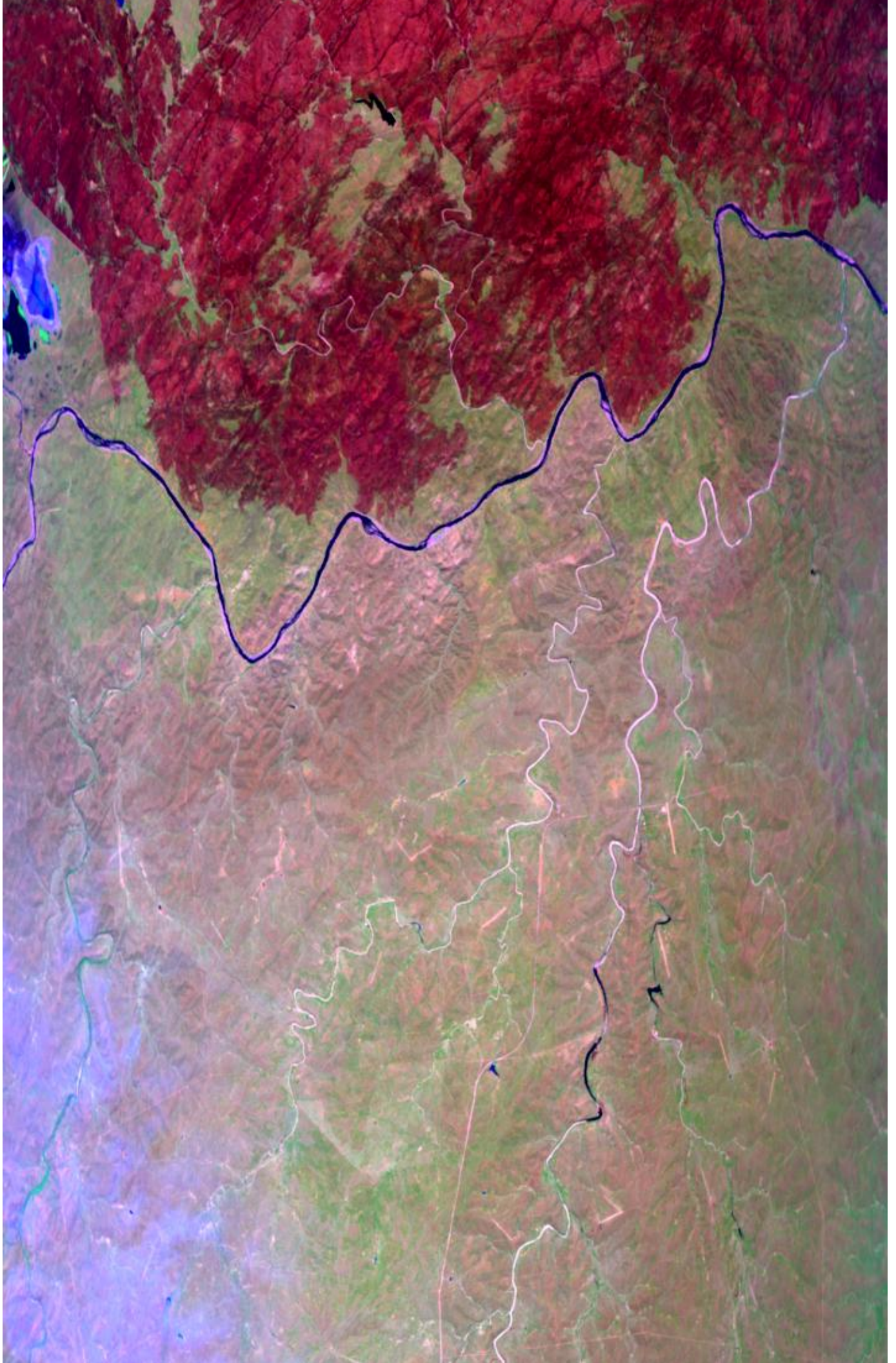
The south Atlantic high is ridging across the southern parts of the sub-continent and is beginning to bulge out on the east coast, causing an onshore flow there, aided by a coastal low in the Maputo area. An offshore berg wind situation is developing along the Cape west coast and the southern Namibian coast, south of a coastal low on the central Namibian coast. The upper flow has become zonal, with a weak jet to the north and a stronger more pronounced one south of the country. Upper troughs are well to the east and the west of the continent. Today's weather is generally fine, except patches of low cloud along the northern Kwazulu Natal coast and the southern Mozambique coast. Foggy areas and low stratus was also in evidence over the northern Namibian coast to the north of the coastal low.

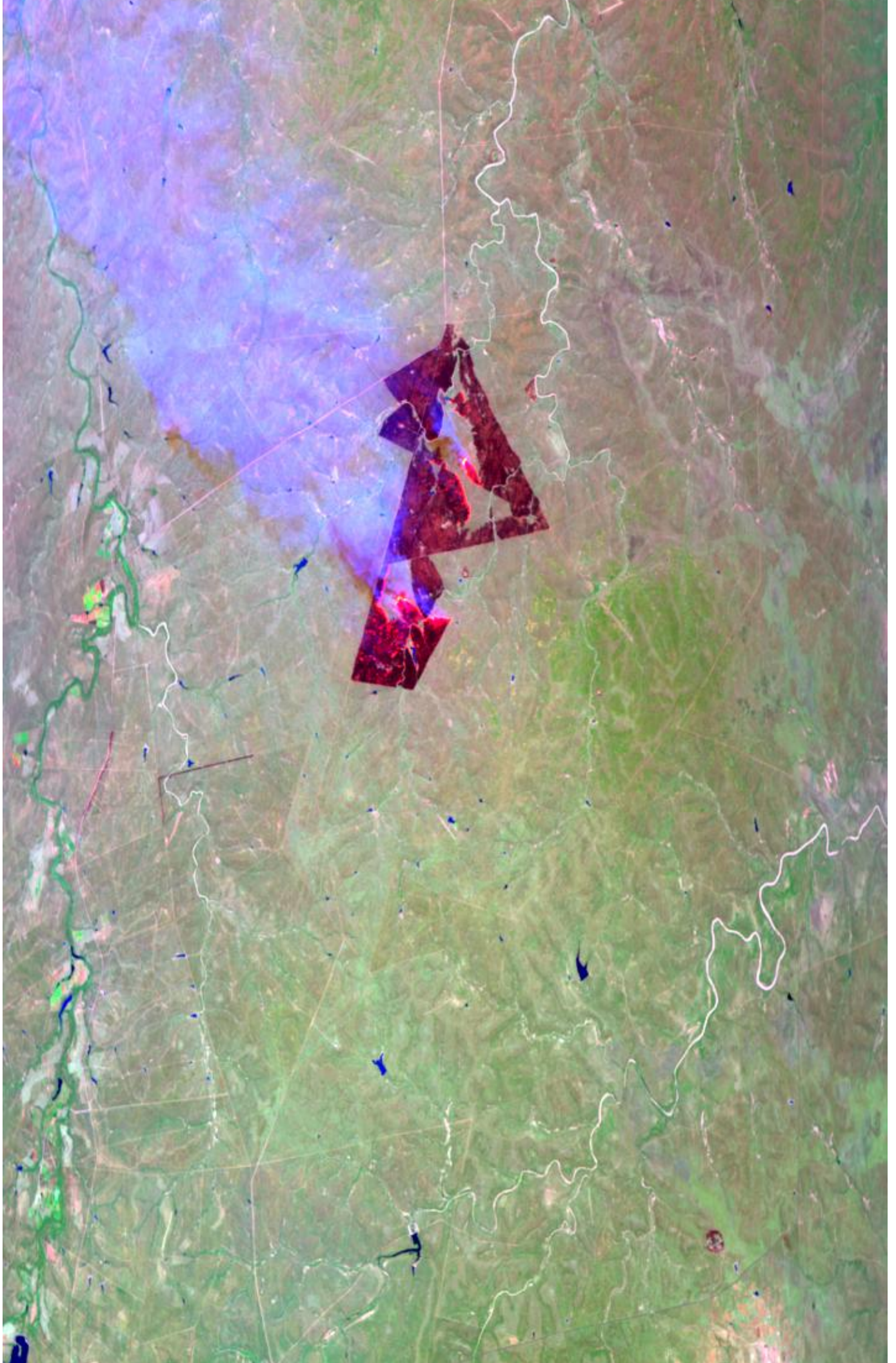
Instrument Status:

- AirMISR (Airborne Multi-angle Imaging Spectroradiometer): worked well

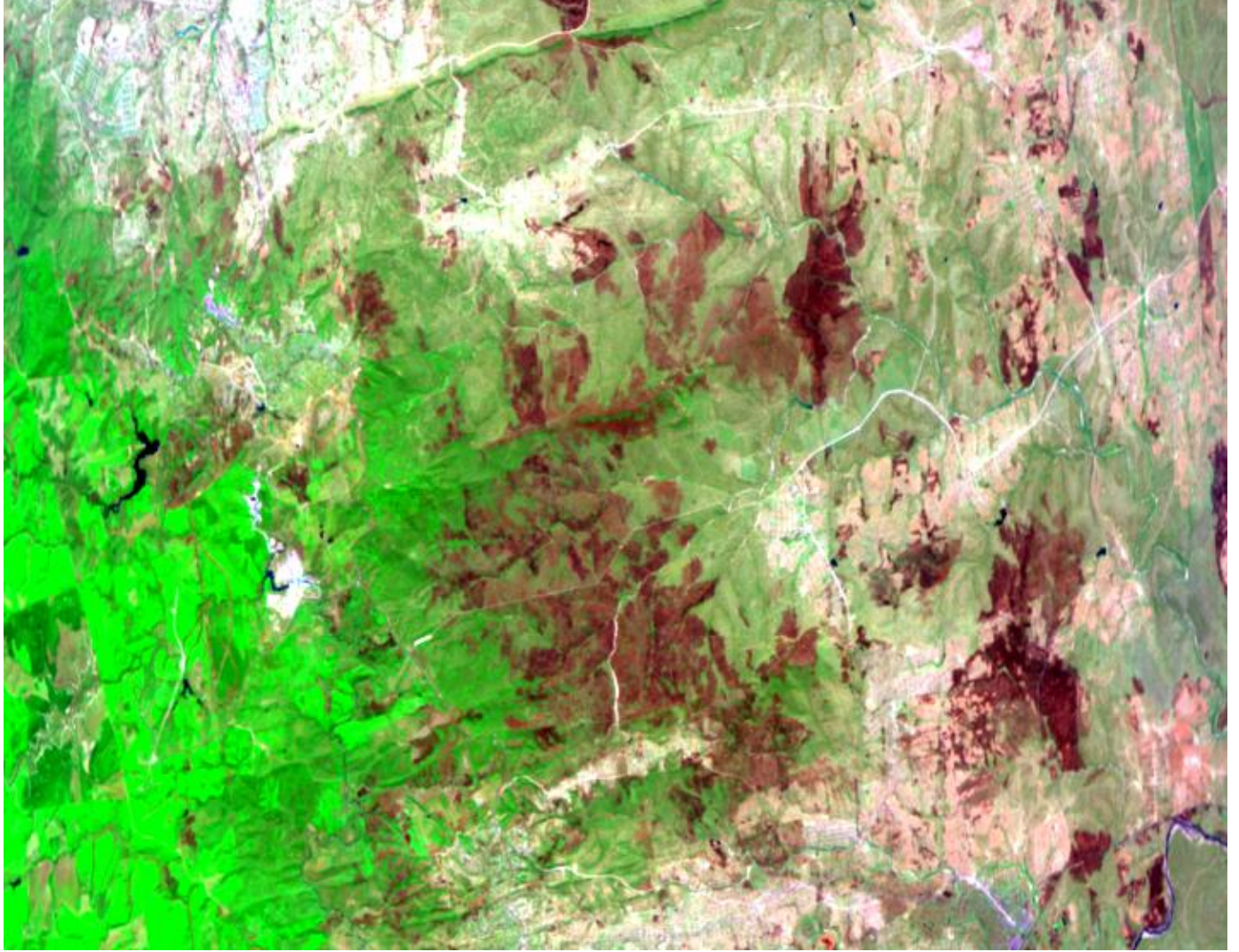
- CLS (Cloud Lidar System): Lidar worked properly, but navigation data not recorded
- LAS (Leonardo Airborne Simulator): not operated (ballast)
- MAS (MODIS Airborne Simulator): worked well
- MOPITT-A (MOPITT Airborne Simulator): Worked well
- S-HIS (High-resolution Interferometer Sounder): operated in nadir mode; worked well
- SSFR (Solar Spectral Flux Radiometer): Worked well

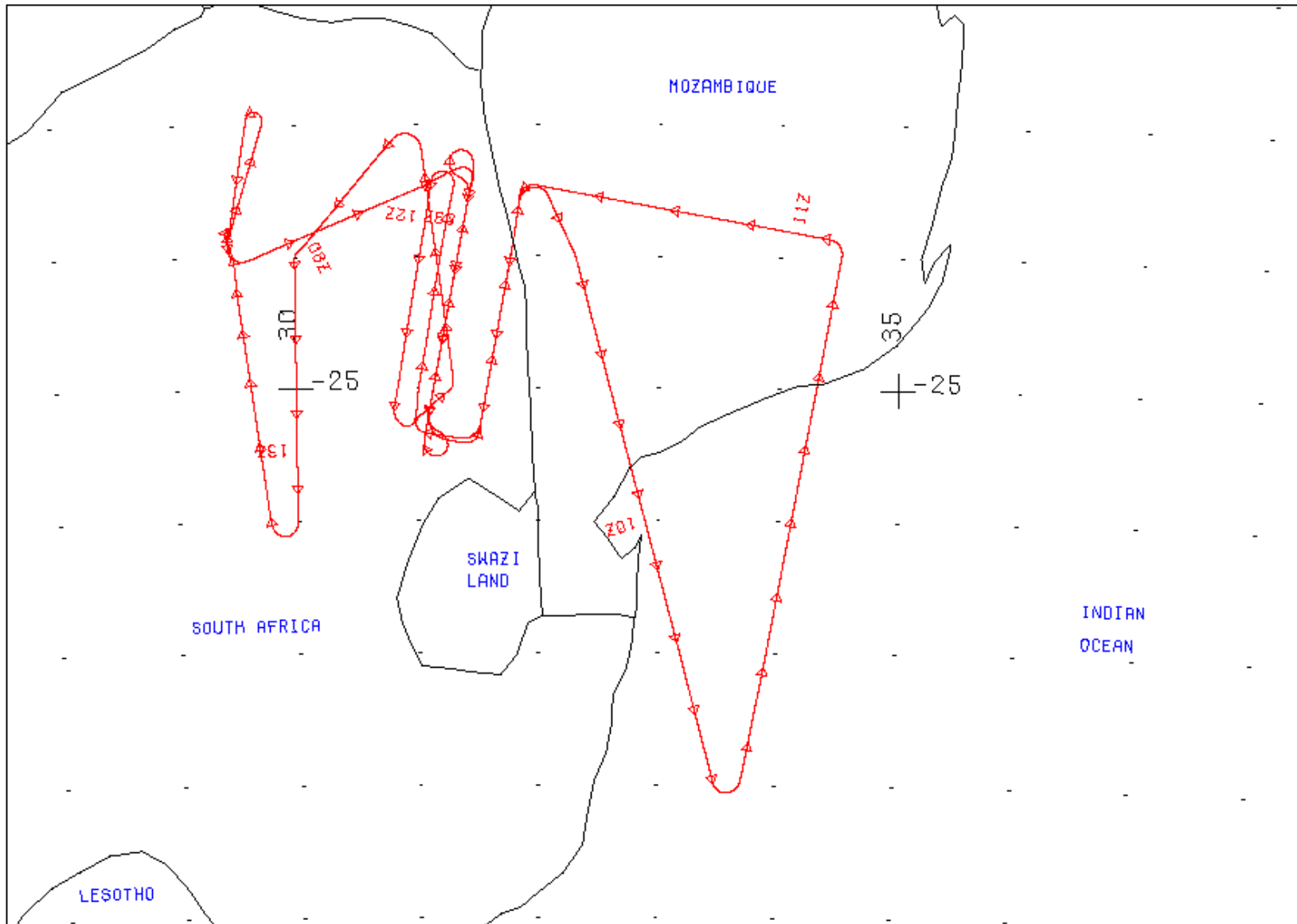












FLIGHT 00-158

7 SEPTEMBER 2000

A/C 809

SAFARI

FLIGHT 00-158

7 SEPTEMBER 2000

A/C 809

SAFARI

50 MAS Configuration for 00-158 07 Sep 2000 S. Africa and Mozambique

01	01	16	0	0.038538	0.0000	0.452	0.472	0.493	0.100	1981.92
02	02	16	0	0.041260	0.0000	0.534	0.554	0.577	0.100	1857.88
03	03	16	0	0.027891	0.0000	0.635	0.658	0.689	0.100	1549.55
04	04	16	0	0.032622	0.0000	0.687	0.708	0.731	0.100	1386.41
05	05	16	0	0.024809	0.0000	0.729	0.750	0.773	0.100	1260.07
06	06	16	0	0.025545	0.0000	0.810	0.830	0.855	0.100	1053.65
07	07	16	0	0.025433	0.0000	0.853	0.874	0.895	0.100	962.82
08	08	16	0	0.020437	0.0000	0.893	0.912	0.934	0.100	869.28
09	09	16	0	0.022095	0.0000	0.933	0.954	0.974	0.100	784.92
10	10	16	0	0.003515	0.0000	1.586	1.612	1.640	0.100	244.16
11	11	16	0	0.006525	0.0000	1.642	1.668	1.695	0.010	227.32
12	12	16	0	0.003058	0.0000	1.698	1.722	1.749	0.010	201.29
13	13	16	0	0.003024	0.0000	1.751	1.776	1.801	0.010	176.56
14	14	16	0	0.003111	0.0000	1.805	1.830	1.855	0.010	156.28
15	15	16	0	0.002973	0.0000	1.855	1.880	1.906	0.010	139.66
16	16	16	0	0.002821	0.0000	1.906	1.932	1.956	0.100	131.21
17	17	16	0	0.002558	0.0000	1.956	1.982	2.006	0.010	122.76
18	18	16	0	0.002499	0.0000	2.006	2.032	2.057	0.010	109.78
19	19	16	0	0.002412	0.0000	2.058	2.082	2.107	0.010	98.67
20	20	16	0	0.002450	0.0000	2.107	2.132	2.157	0.010	86.28
21	21	16	0	0.005150	0.0000	2.156	2.180	2.205	0.010	76.85
22	22	16	0	0.002797	0.0000	2.205	2.230	2.255	0.010	73.57
23	23	16	0	0.002868	0.0000	2.255	2.280	2.305	0.010	68.38
24	24	16	0	0.002686	0.0000	2.306	2.330	2.354	0.010	58.53
25	25	16	0	0.002621	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/er2/00-158
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 07 Sep 2000
 NASA FLIGHT NUMBER 00-158

LINE	START OF FLIGHT LINE FLIGHT DATA					END OF FLIGHT			
	TIME	LAT	LON	SOLAR		TIME	LAT	LON	
	SOLAR	SCAN	HEAD	ALT	ZEN	AZIM	HH:MM:SS	DEG	DEG
	HH:MM:SS	DEG	DEG	ZEN	AZIM	HH:MM:SS	DEG	DEG	DEG
	ZEN	AZIM	LINES	DEG	M (GPS)				
1	07:56:38	-23.988	29.706	42.2	48.9	08:10:29	-23.374	31.253	38.5
43.7	5171	64.8	19205						
2	08:12:54	-23.419	31.471	38.0	42.6	08:29:03	-25.187	31.100	37.2
36.3	6035	192.9	19872						
3	08:34:20	-25.408	31.060	36.7	34.3	08:50:57	-23.545	31.435	33.0
28.8	6205	8.2	19941						
4	08:56:30	-23.315	31.475	32.2	26.6	09:13:50	-25.188	31.099	32.5
18.6	6477	188.5	20068						
5	09:19:01	-25.311	31.521	32.2	15.4	09:34:09	-23.591	31.851	29.7
8.2	5657	10.1	20217						
6	09:36:48	-23.537	32.086	29.5	6.4	09:41:13	-23.971	32.301	29.9
3.7	1647	156.0	20314						
7	09:41:21	-23.984	32.307	29.9	3.6	10:08:07	-26.846	33.153	33.2
349.5	9999	161.6	20422						
8	10:08:07	-26.846	33.154	33.2	349.5	10:18:45	-27.983	33.495	34.9
344.7	3970	165.1	20613						
9	10:21:18	-27.959	33.725	35.0	343.2	10:48:05	-24.933	34.332	34.9
329.6	9999	12.7	20663						
10	10:48:05	-24.933	34.332	34.9	329.6	10:56:06	-24.040	34.501	35.2
325.6	2991	12.6	20805						
11	11:11:06	-23.598	32.784	35.9	322.4	11:17:26	-23.465	31.995	36.3
321.1	2366	282.7	20865						
12	11:18:57	-23.553	31.854	36.5	320.9	11:34:13	-25.258	31.531	39.8

317.8	5703	186.1	20887						
13	11:36:00	-25.380	31.378	40.1	317.5	11:38:16	-25.340	31.086	40.2
317.1	849	278.5	20973						
14	11:41:29	-25.022	31.011	40.5	316.0	11:55:26	-23.465	31.313	41.9
310.4	5209	15.2	20994						
15	11:57:50	-23.427	31.131	42.2	310.0	12:13:07	-25.135	30.813	45.7
307.8	5711	188.9	21053						
16	12:16:04	-25.212	31.020	46.5	307.0	12:18:03	-25.064	31.202	46.9
306.2	745	50.3	20941						
17	12:19:36	-24.931	31.302	47.1	305.7	12:34:59	-23.185	31.048	48.9
301.3	5742	354.9	21145						
18	12:37:29	-23.113	30.812	49.2	300.9	12:46:26	-23.910	30.081	50.8
300.3	3342	219.0	21219						
19	12:47:42	-24.027	29.997	51.0	300.2	12:57:58	-25.187	29.999	53.6
299.0	3832	175.4	21266						

NUMBER OF FILES FOR THIS FLIGHT = 19
 TOTAL NUMBER OF SCAN LINES = 91650
 DATE THESE FILES WERE PROCESSED = 13-Sep-2002
 DATE THIS LIST WAS CREATED = Mon Sep 16

09:58:28 PDT 2002

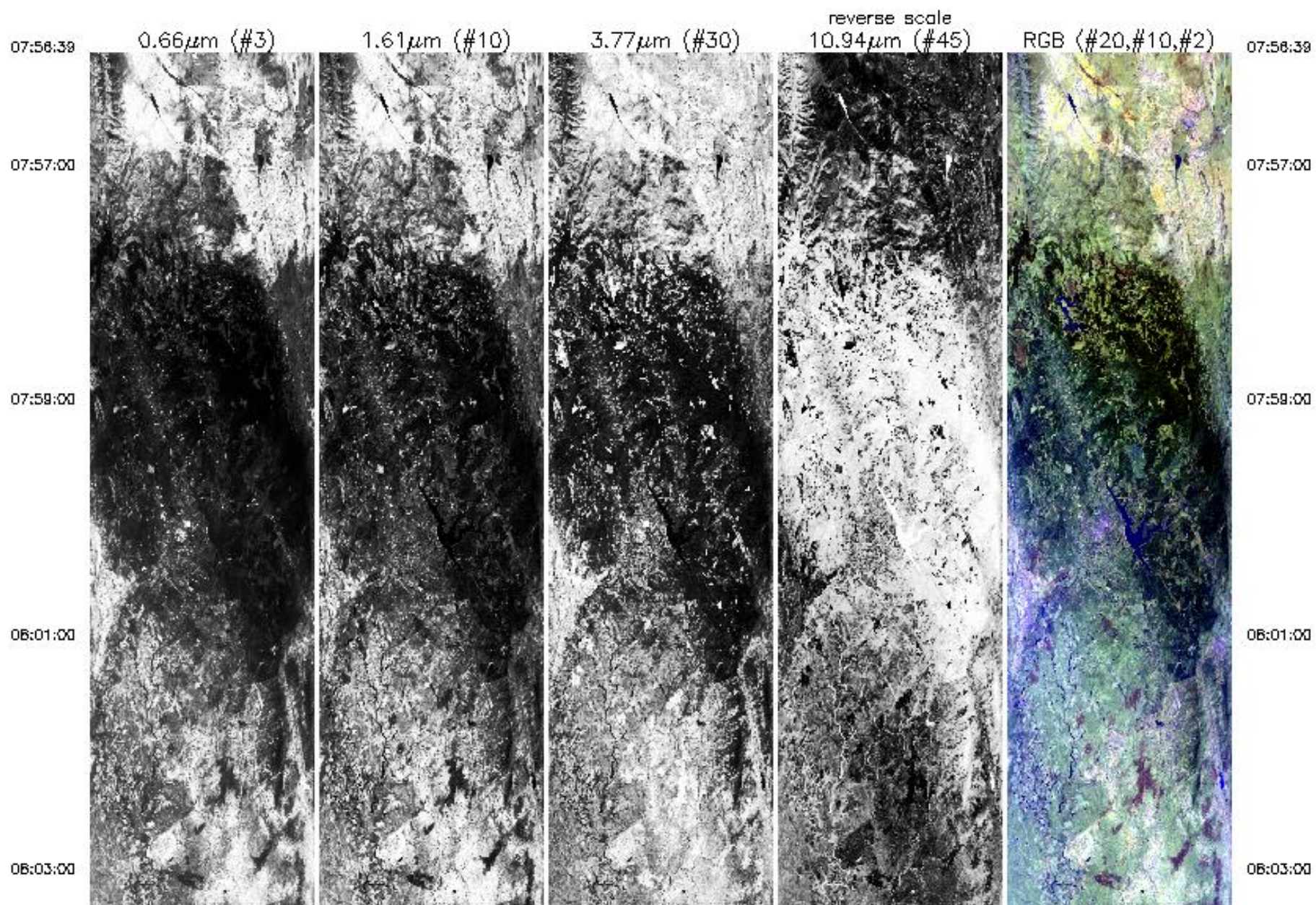
GRANULE VERSION = 2

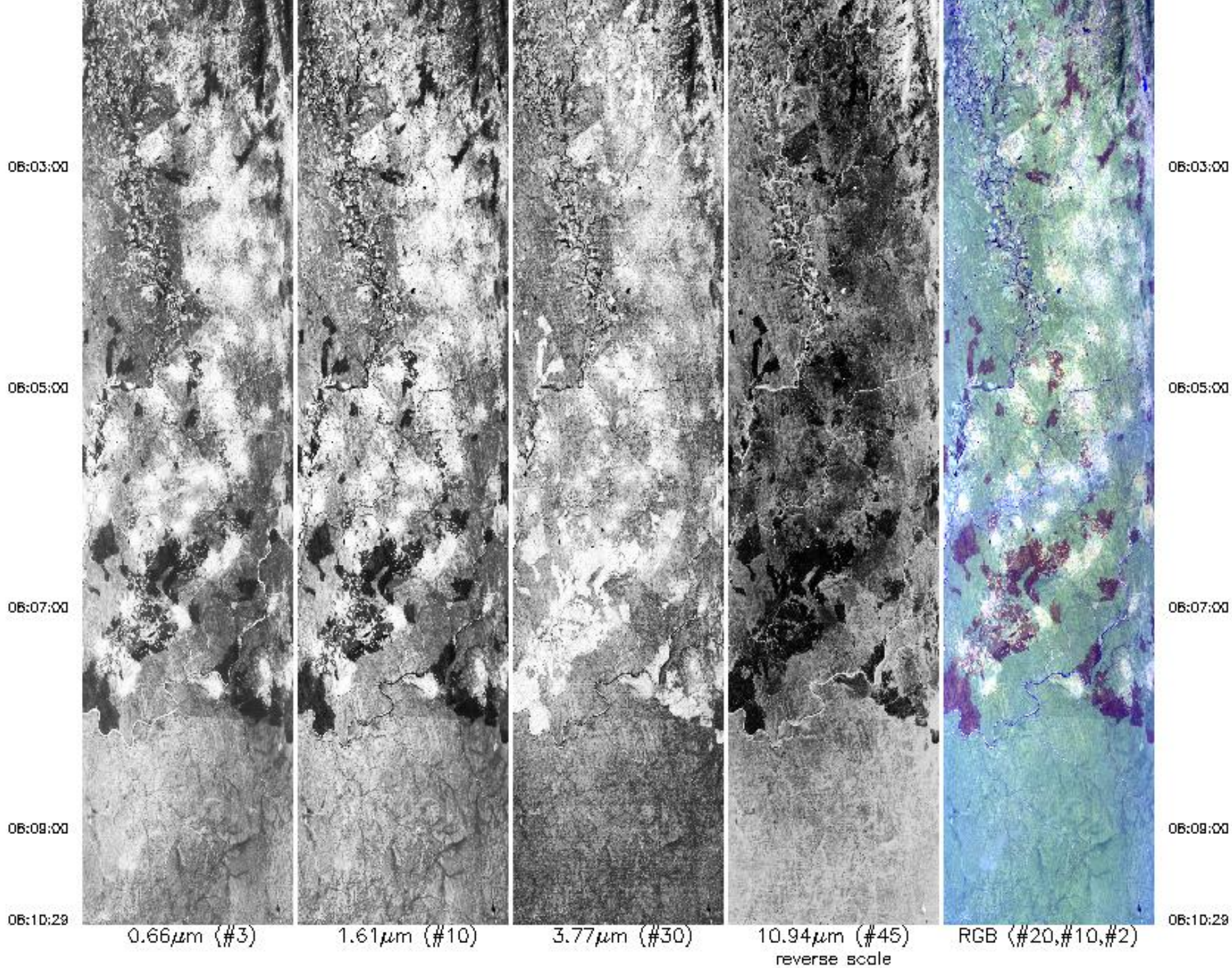
GLOBAL ATTRIBUTES

Attribute Name	Description
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CreationDate	13-Sep-2002 23:00:04
AircraftPlatform	NASA ER-2 (809)
NavFormatCode	Format (A-1)
LocationCode	Inertial (INU)
AltitudeCode	Inertial (INU)
NavDataSource	ER2 navigation recorder
NavDataPath	/nav/2000/er2/00-158

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	00-158
FlightDate	07 Sep 2000
SiteLineRun	void
GeographicArea	South Africa
SRF_FTP	ftp://mas.arc.nasa.gov/srf/Oct_00/
SRF_dataset	/rarray/calibrat/mas/srf/Oct_00/
FlightLineNumber	1
TotalFlightLines	19
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
Principal_Investigator	King
lat_UL	-24.12720
lon_UL	29.77899
lat_UR	-23.84437
lon_UR	29.64730
lat_LL	-23.51829
lon_LL	31.33693
lat_LR	-23.22942
lon_LR	31.17447
begin_date	20000906 075639
end_date	20000906 081029
RunTime	355,540 ms, or 68 ms/scanline
CompletionDate	13-Sep-2002 23:09:28
producer_granule_id	
MASL1B_00158_01_20000906_0756_0810_V02.hdf	

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #1





Upper Left Lat, Lon = -24.1° , 29.8°
 Lower Right Lat, Lon = -23.2° , 31.2°
 Aircraft Heading = 67.0°
 Solar Zenith = 42.2°

ORF AIRCRAFT 10070 (MCL)

06:10:29

0.66 μ m (#3)

1.61 μ m (#10)

3.77 μ m (#30)

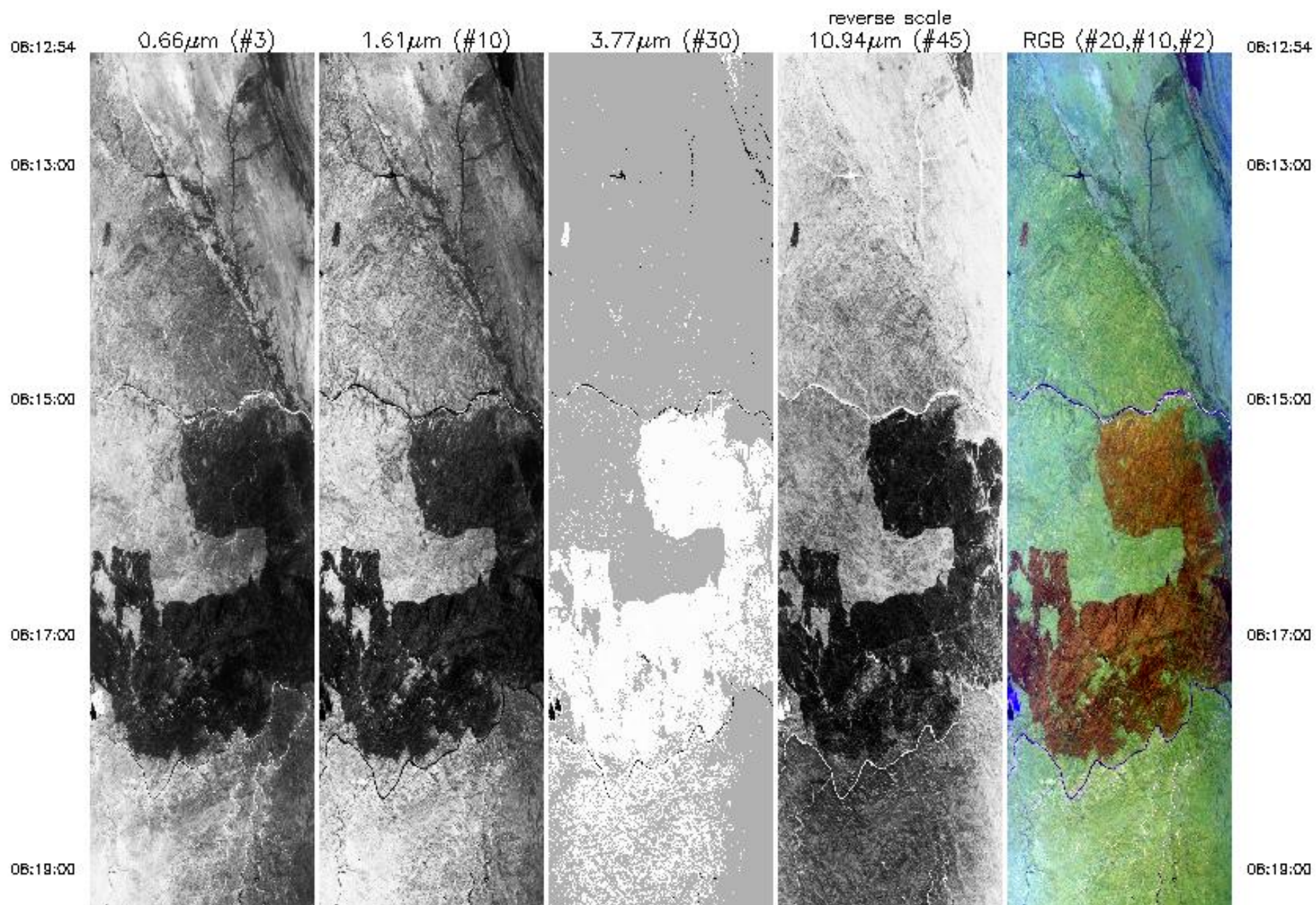
10.94 μ m (#45)
reverse scale

RGB (#20,#10,#2)

06:10:29

Upper Left Lat, Lon = -24.1°, 29.8°
Lower Right Lat, Lon = -23.2°, 31.2°
Aircraft Heading = 67.0°
Solar Zenith = 42.2°
GPS Altitude = 19278. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #2



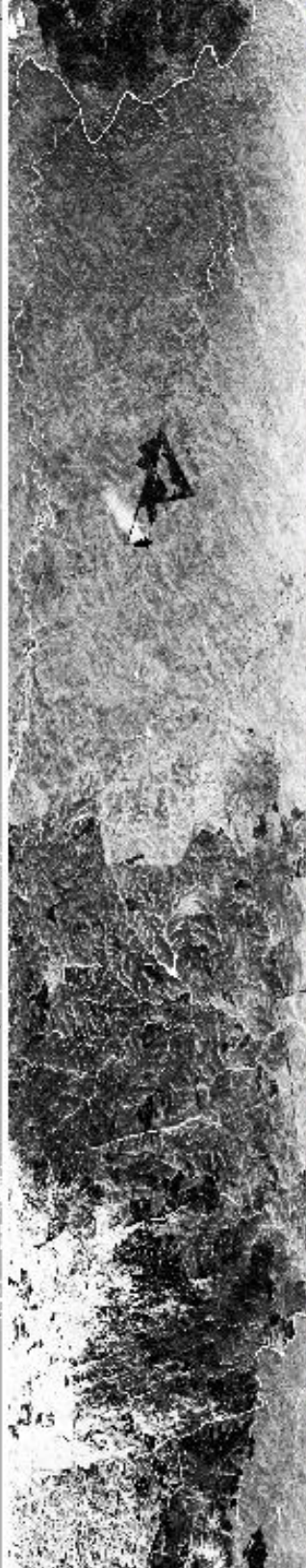
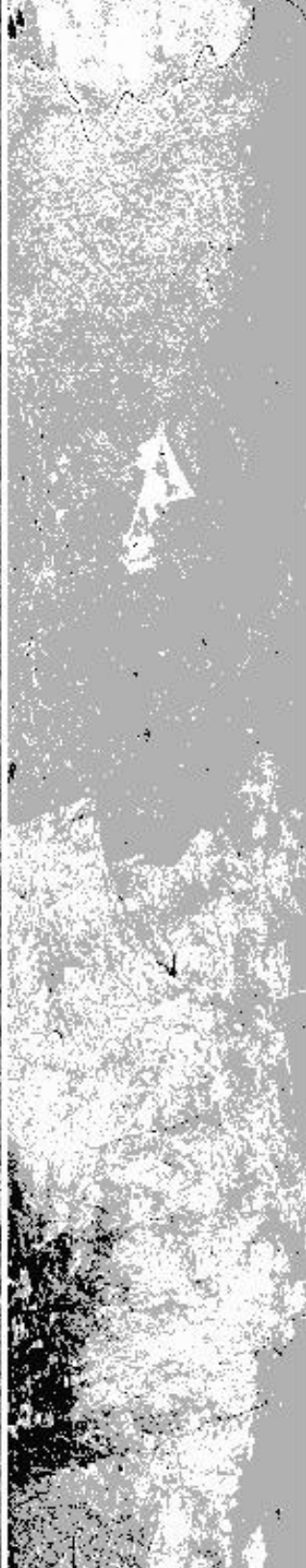
06:19:00

06:21:00

06:23:00

06:25:00

06:27:00



06:19:00

06:21:00

06:23:00

06:25:00

06:27:00

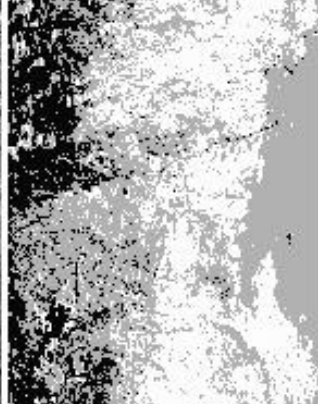
06:27:00



0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

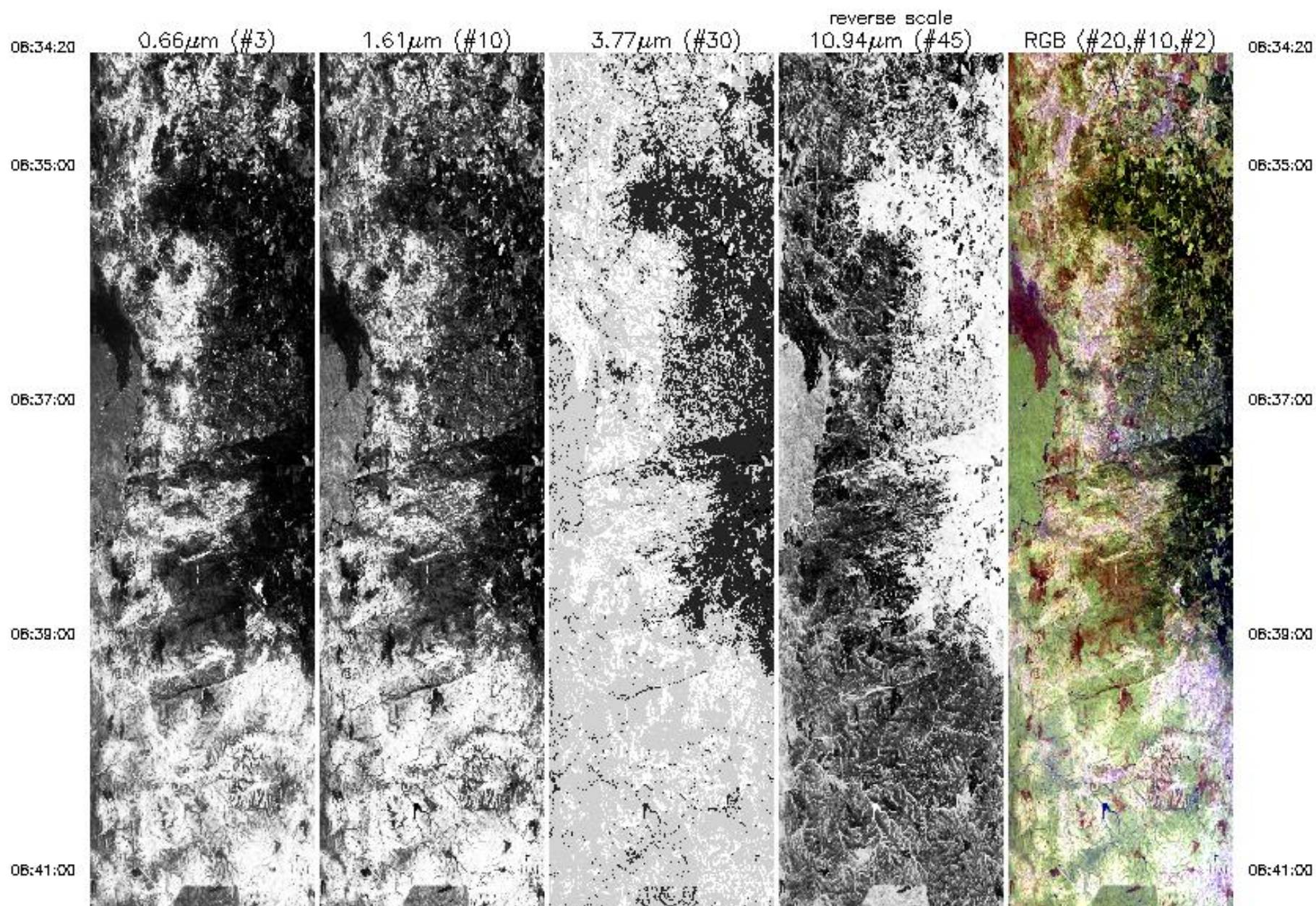
06:27:00

06:29:03

06:29:03

Upper Left Lat, Lon = -23.4°, 31.3°
Lower Right Lat, Lon = -25.2°, 31.3°
Aircraft Heading = 194.9°
Solar Zenith = 38.1°
GPS Altitude = 19910. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #3



06:41:00



06:43:00



06:45:00



06:47:00



06:49:00



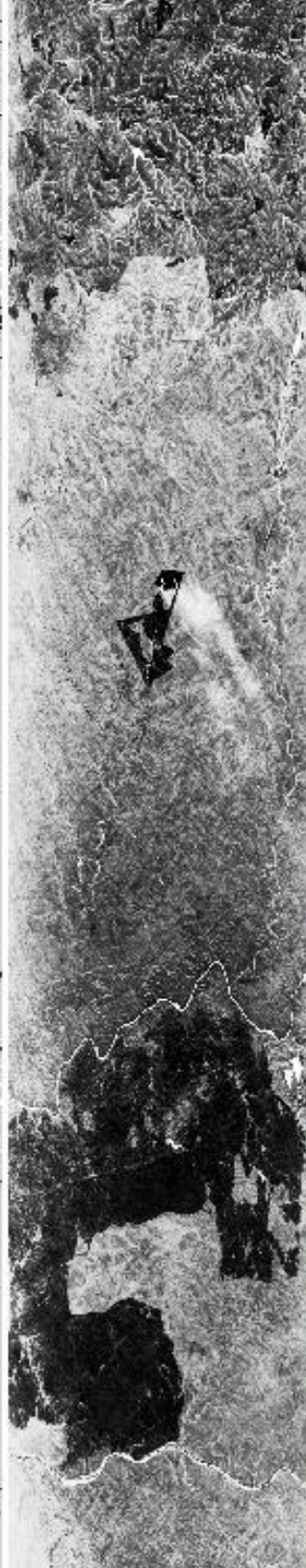
06:41:00



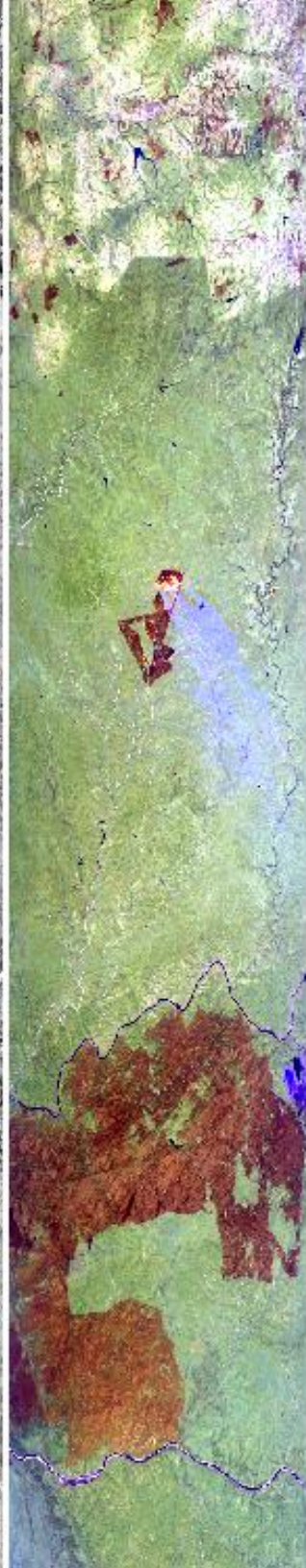
06:43:00



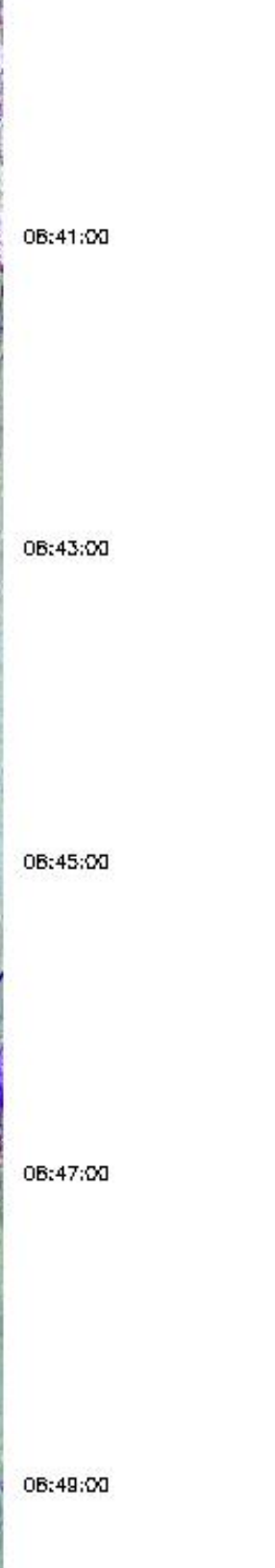
06:45:00



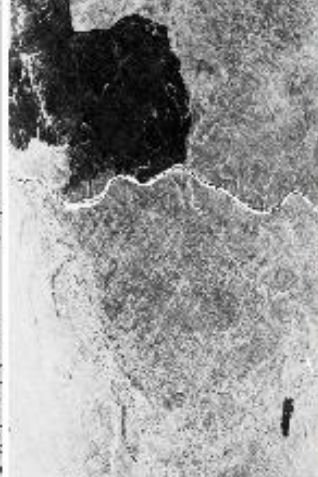
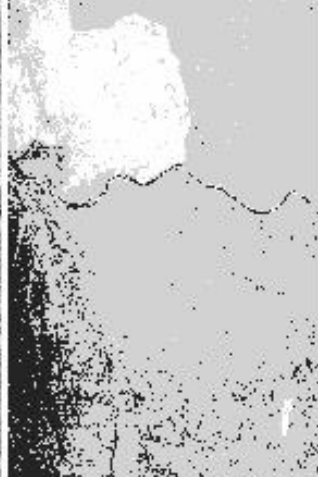
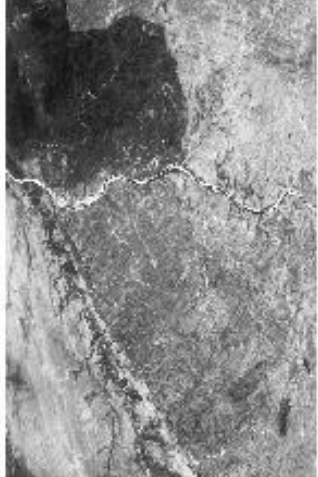
06:47:00



06:49:00



06:49:00



06:49:00

06:50:57

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

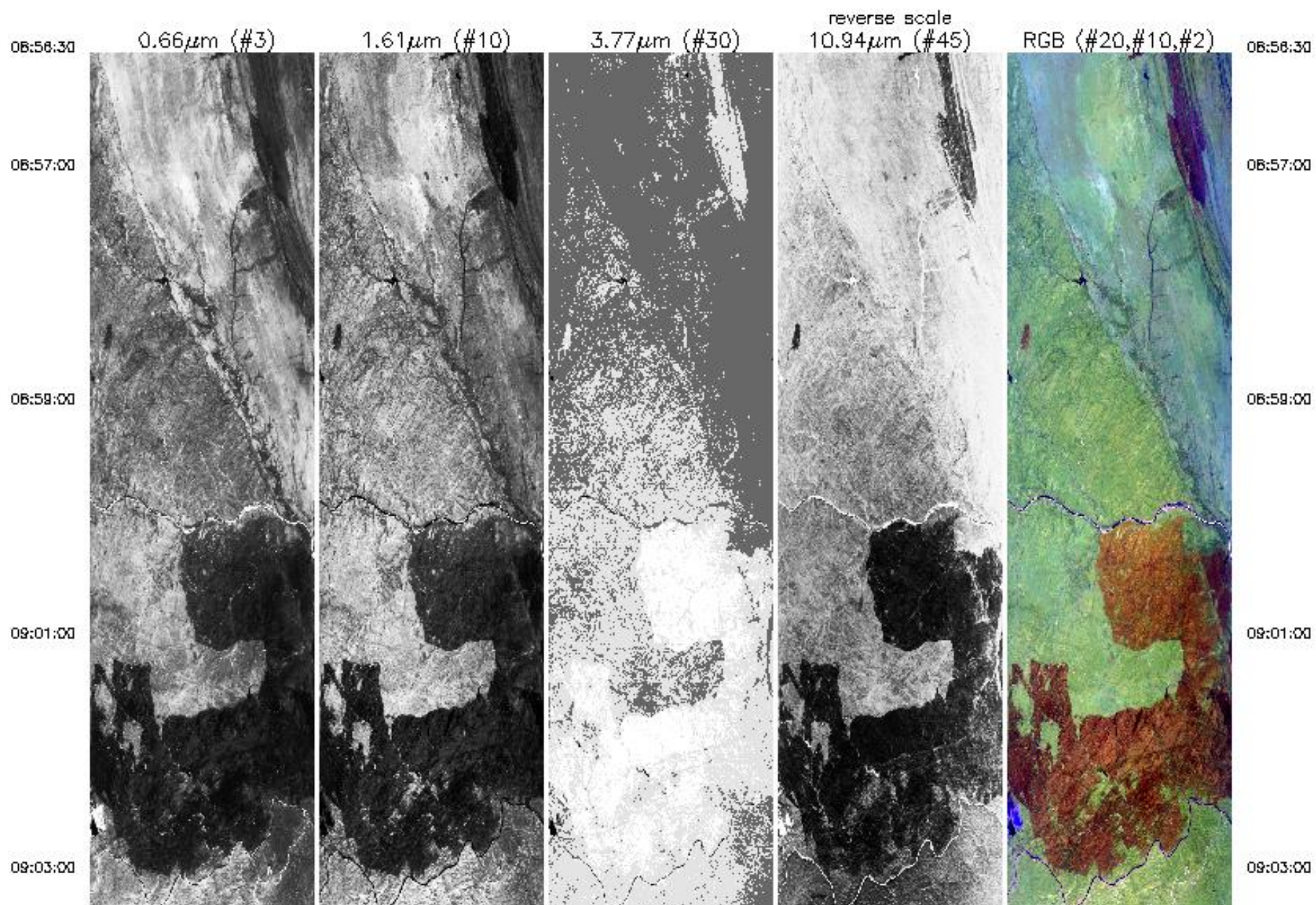
10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

06:50:57

Upper Left Lat, Lon = -25.4°, 31.2°
 Lower Right Lat, Lon = -23.5°, 31.3°
 Aircraft Heading = 4.4°
 Solar Zenith = 36.6°
 GPS Altitude = 19989. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00–158 Track #4



09:03:00

09:05:00

09:07:00

09:09:00

09:11:00



09:03:00

09:05:00

09:07:00

09:09:00

09:11:00

09:11:00

09:13:00

09:13:51



0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

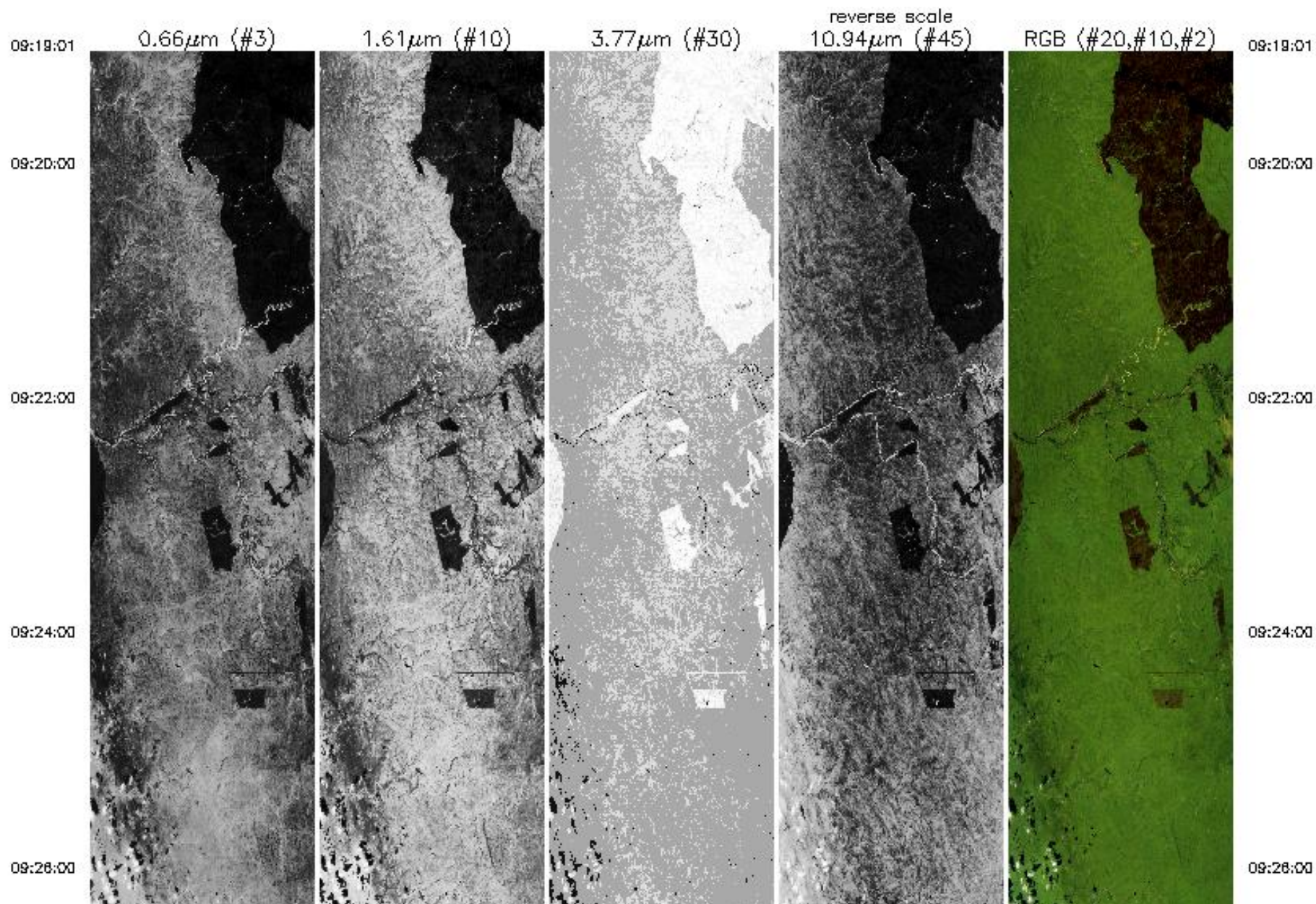
09:11:00

09:13:00

09:13:51

Upper Left Lat, Lon = -23.3° , 31.3°
 Lower Right Lat, Lon = -25.2° , 31.3°
 Aircraft Heading = 186.1°
 Solar Zenith = 32.2°
 GPS Altitude = 20151. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #5



09:26:00

09:26:00

09:30:00

09:32:00

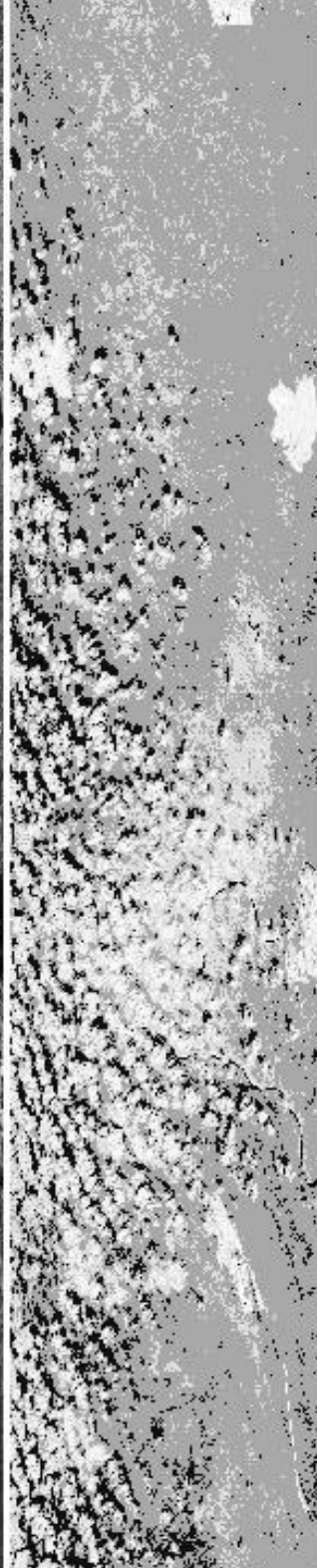
09:34:10



0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

09:26:00

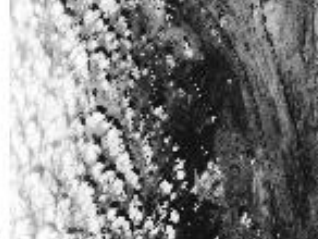
09:26:00

09:30:00

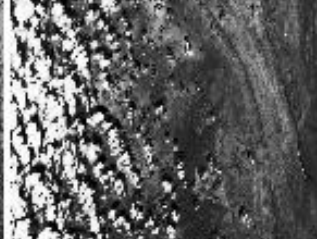
09:32:00

09:34:10

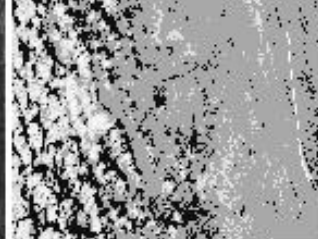
09:34:10



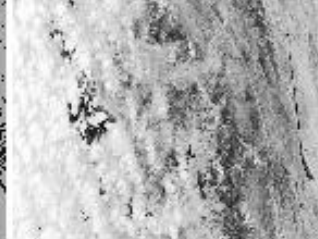
0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale

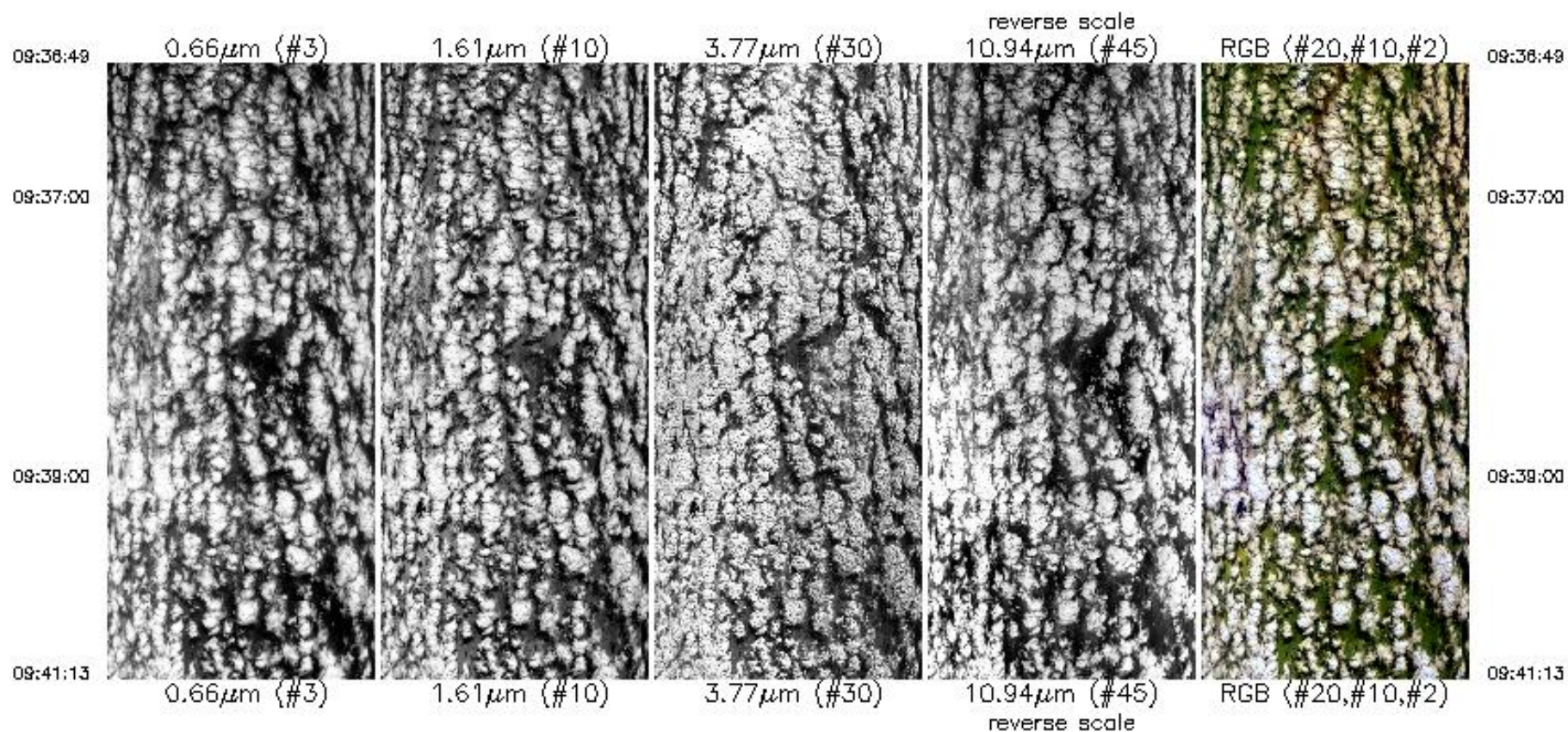


RGB (#20,#10,#2)

09:34:10

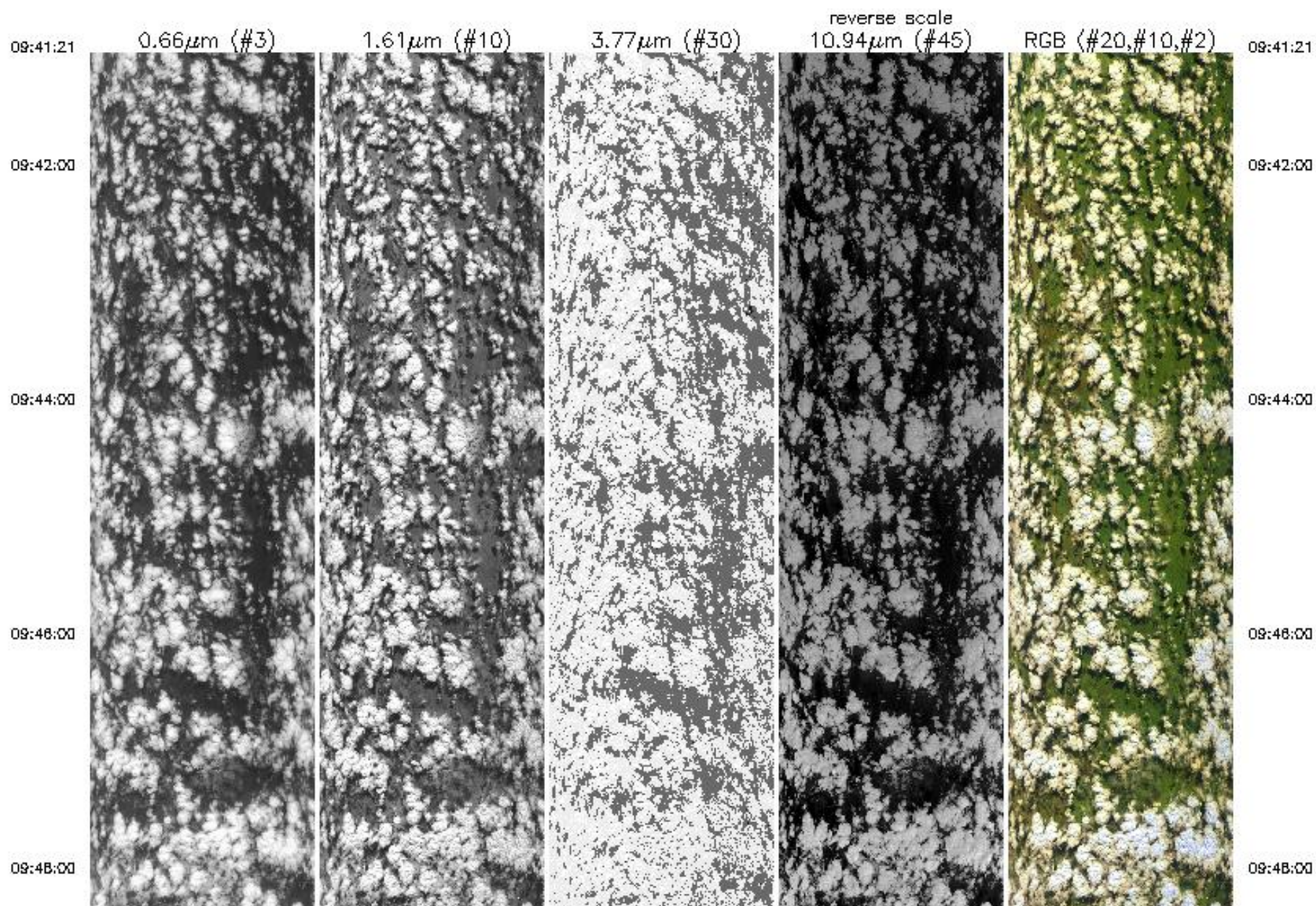
Upper Left Lat, Lon = -25.3°, 31.7°
Lower Right Lat, Lon = -23.6°, 31.7°
Aircraft Heading = 9.5°
Solar Zenith = 32.1°
GPS Altitude = 20228. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #6



Upper Left Lat, Lon = -23.6° , 31.9°
Lower Right Lat, Lon = -23.9° , 32.5°
Aircraft Heading = 157.1°
Solar Zenith = 29.6°
GPS Altitude = 20311. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
Mozambique
Flight #00-158 Track #7



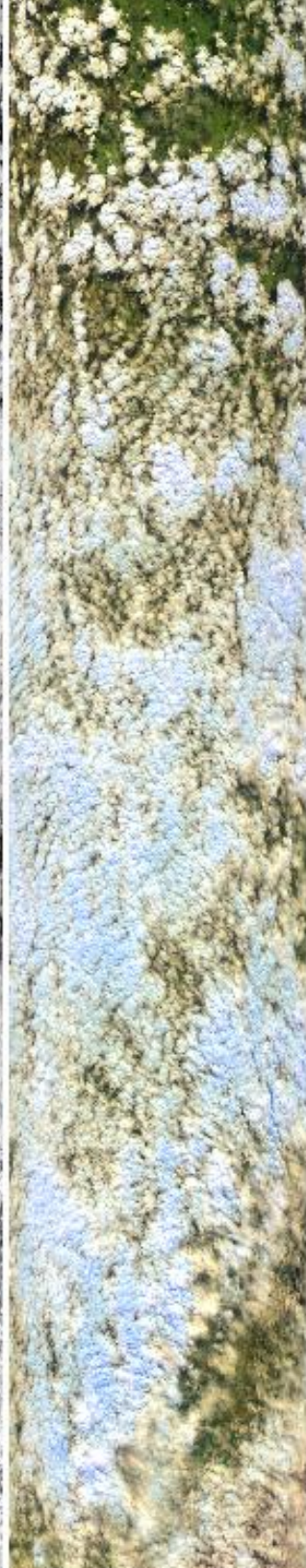
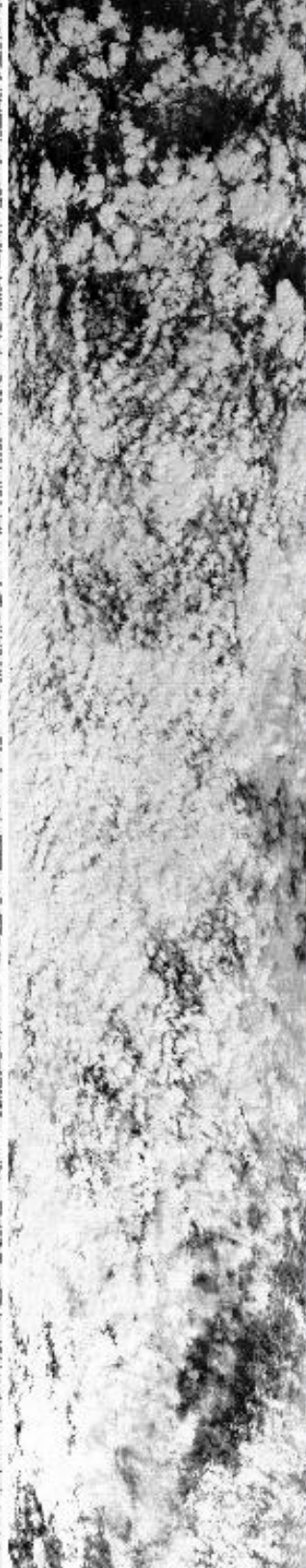
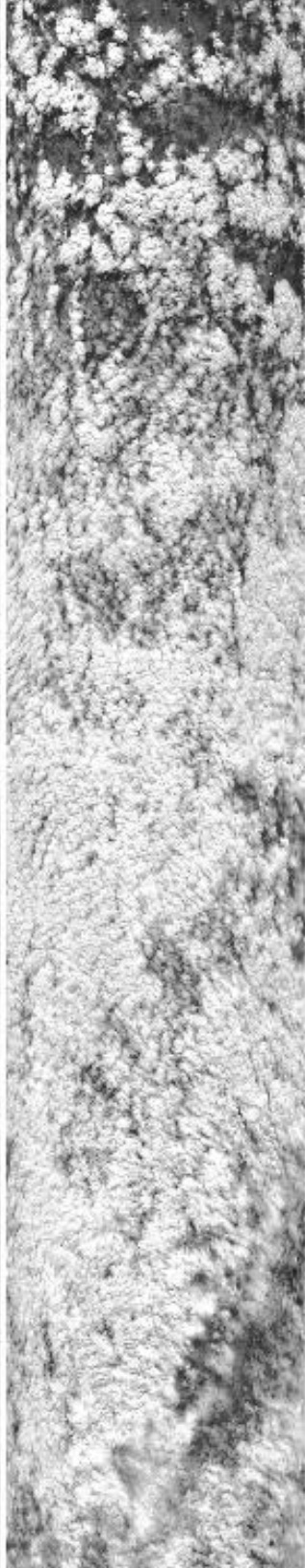
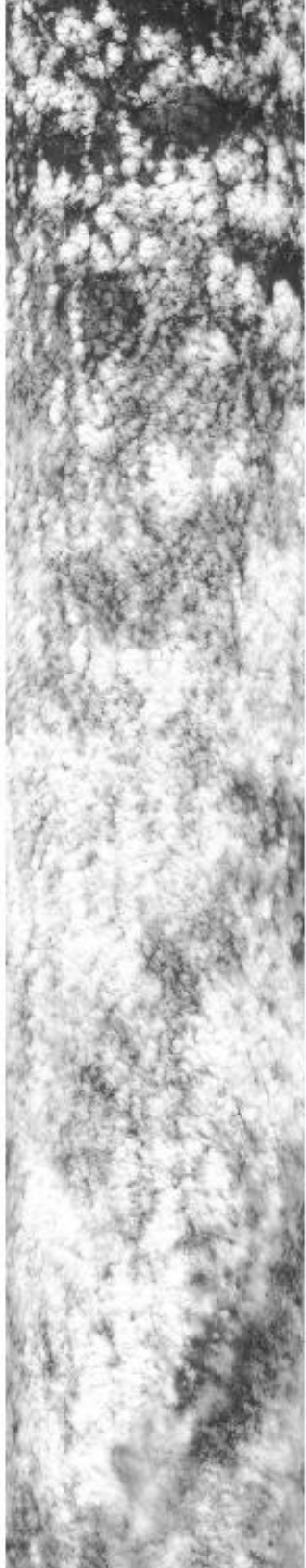
09:48:00

09:50:00

09:52:00

09:54:00

09:56:00



09:48:00

09:50:00

09:52:00

09:54:00

09:56:00

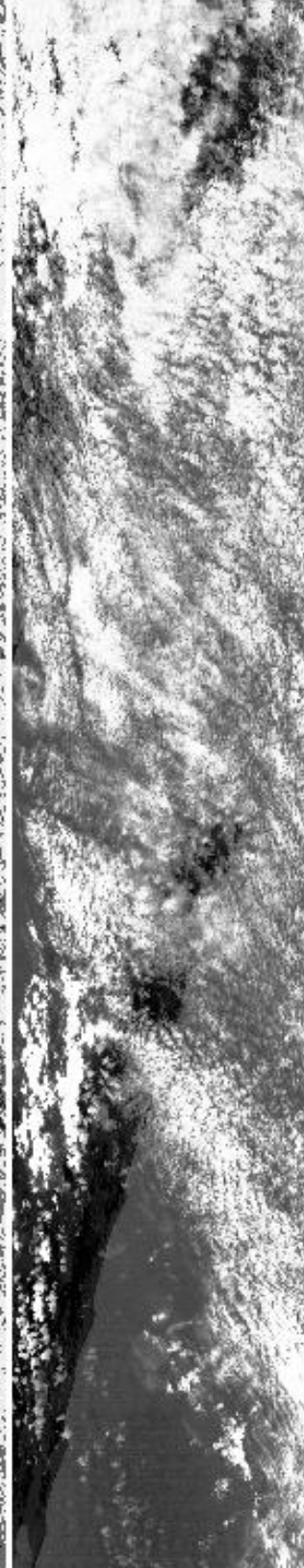
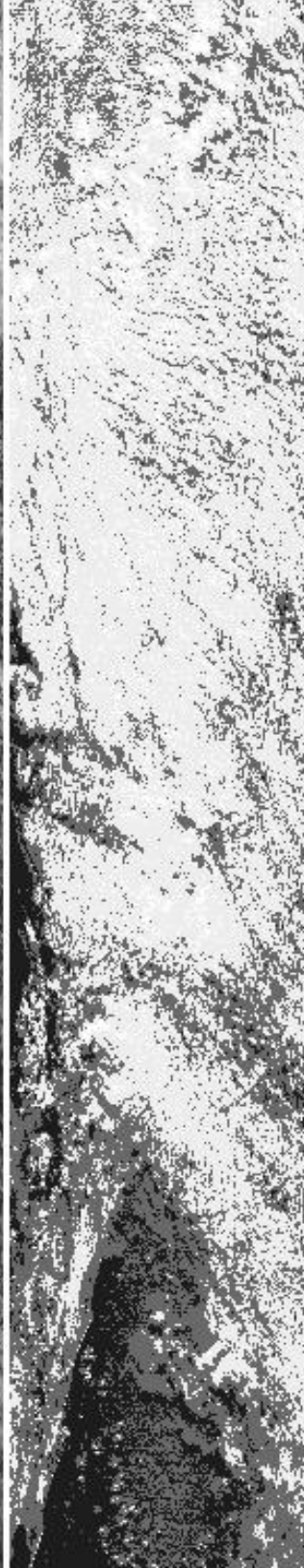
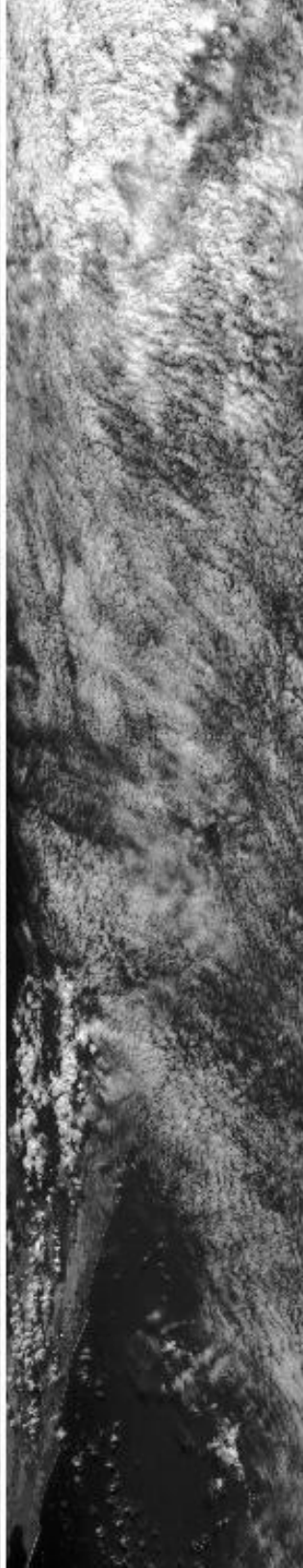
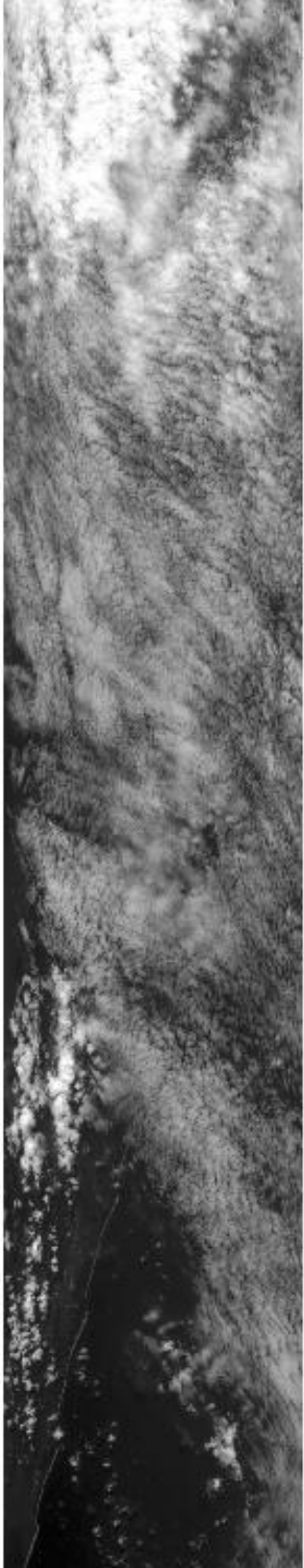
09:58:00

09:58:00

10:00:00

10:02:00

10:04:00



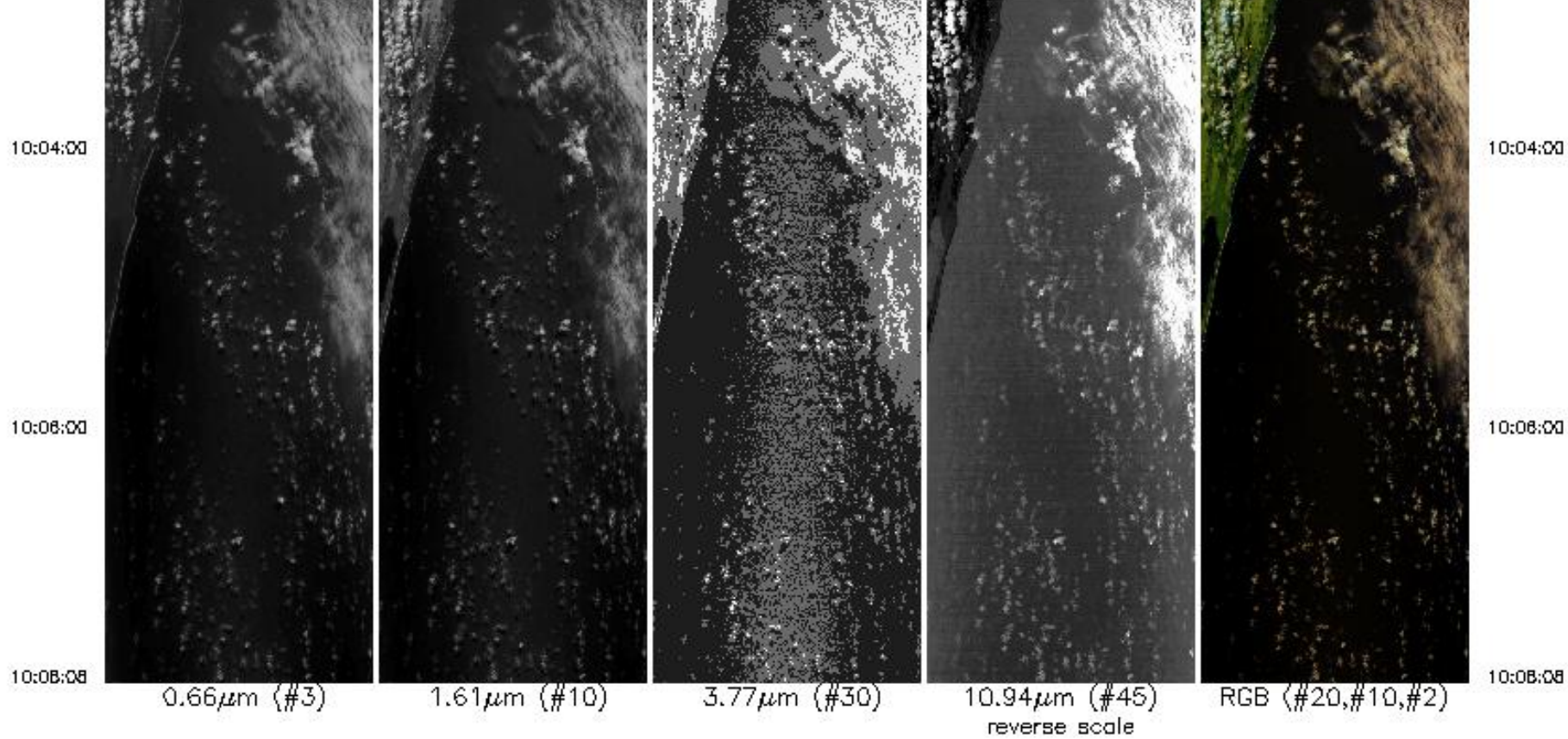
09:58:00

09:58:00

10:00:00

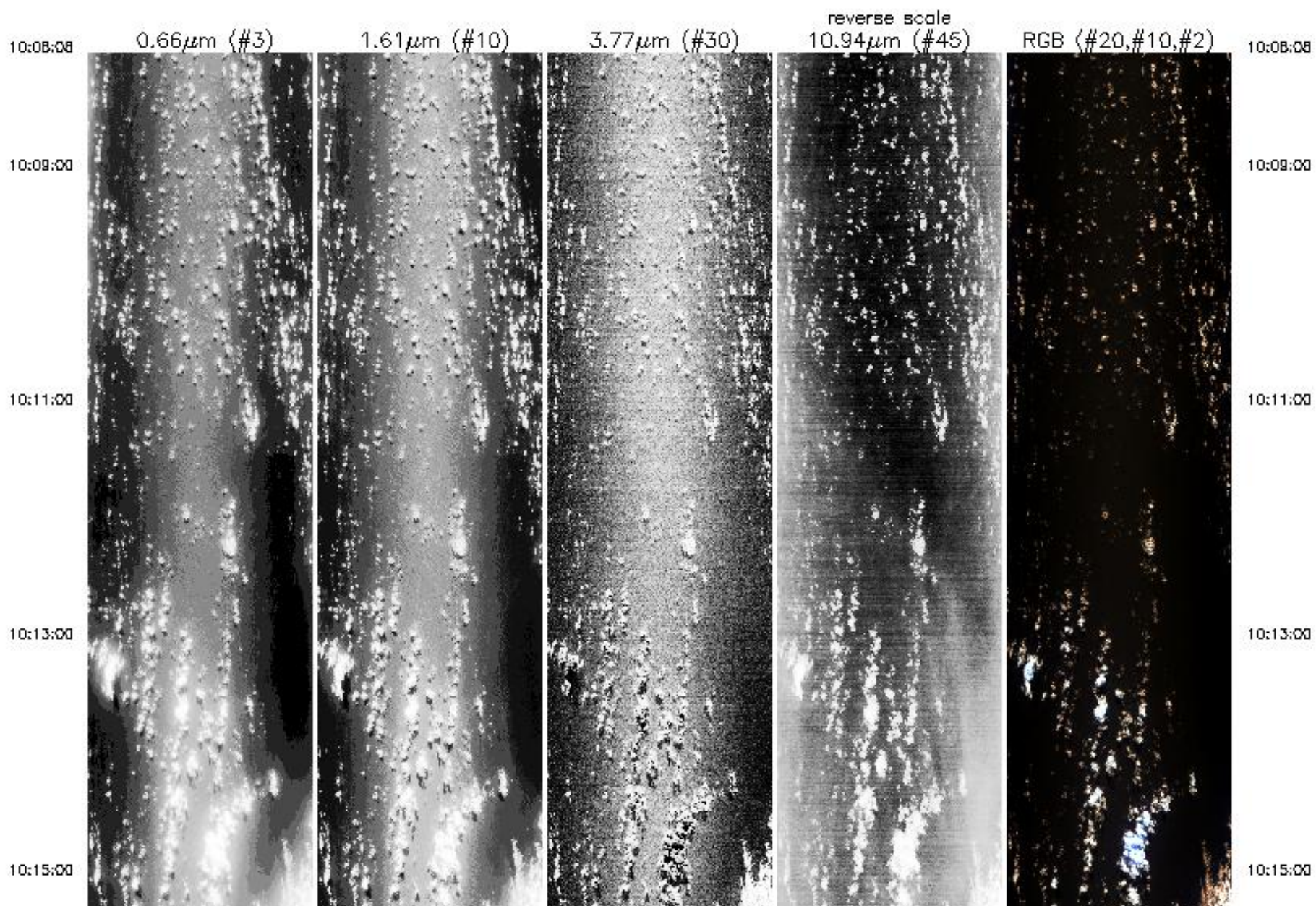
10:02:00

10:04:00



Upper Left Lat, Lon = -24.0° , 32.1°
Lower Right Lat, Lon = -26.8° , 33.3°
Aircraft Heading = 158.4°
Solar Zenith = 30.0°
GPS Altitude = 20447. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
Indian Ocean
Flight #00-158 Track #8



10:15:00

10:17:00

10:18:48



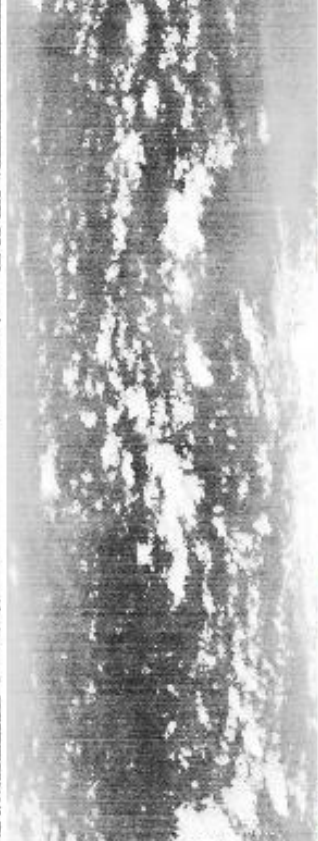
0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20, #10, #2)

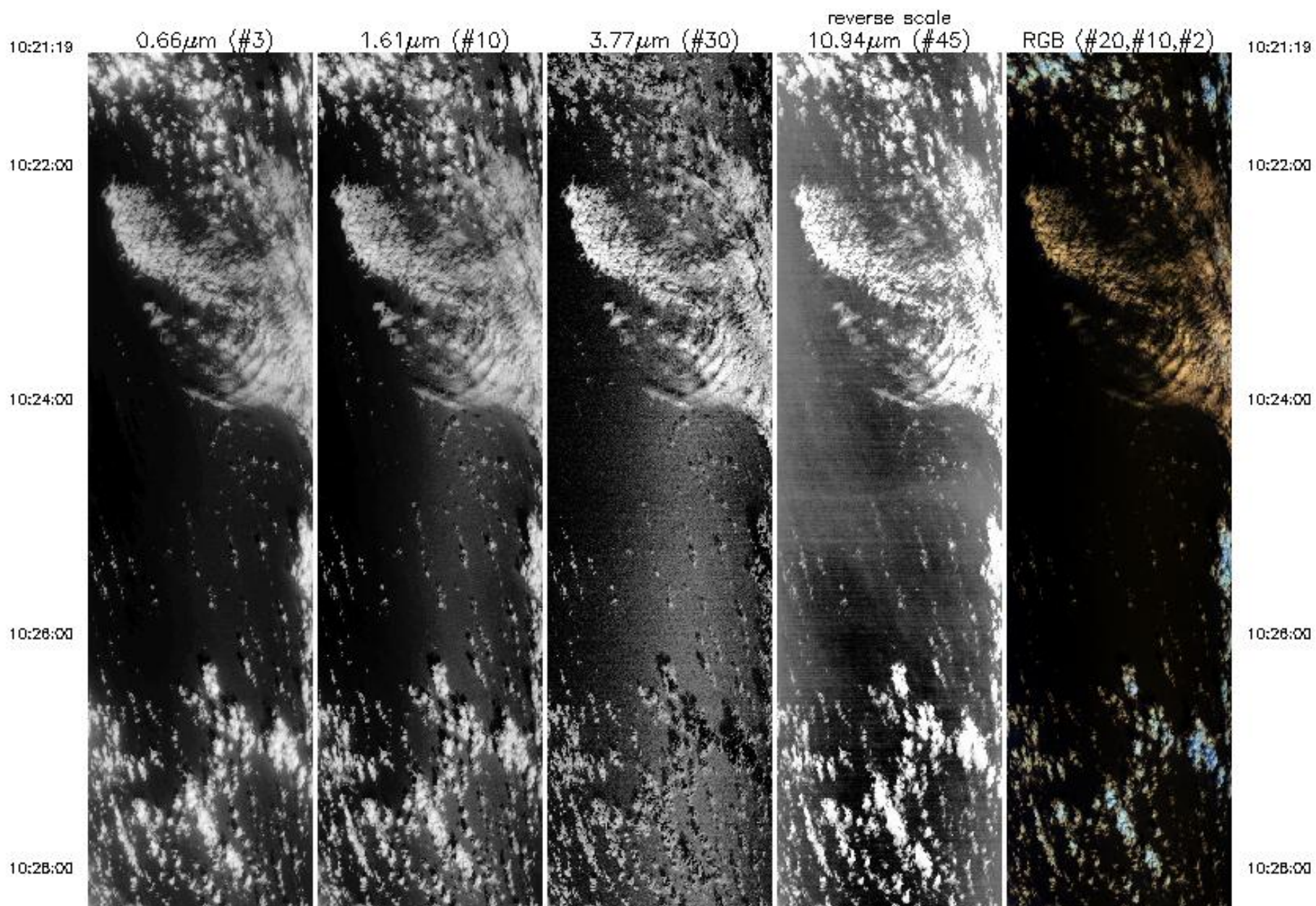
10:15:00

10:17:00

10:18:48

Upper Left Lat, Lon = -26.9° , 33.0°
Lower Right Lat, Lon = -27.9° , 33.7°
Aircraft Heading = 164.8°
Solar Zenith = 33.2°
GPS Altitude = 20643. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
Indian Ocean
Flight #00–158 Track #9



10:28:00



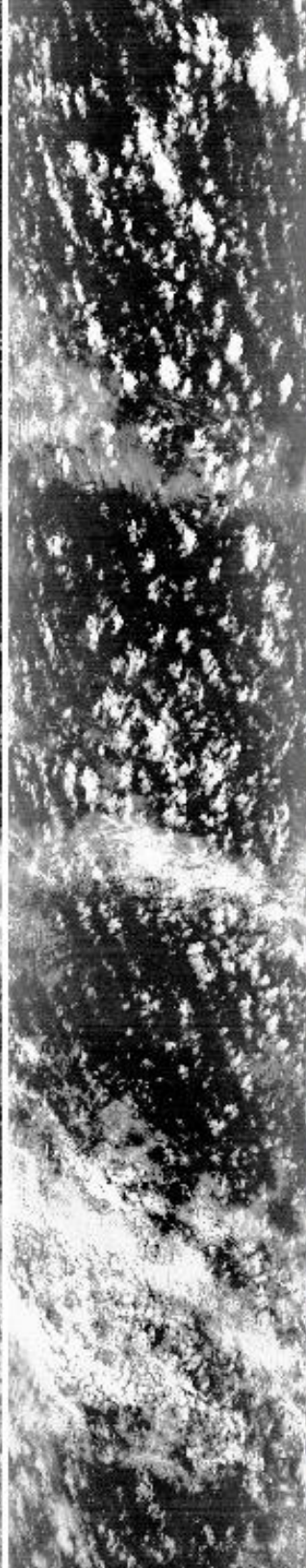
10:30:00



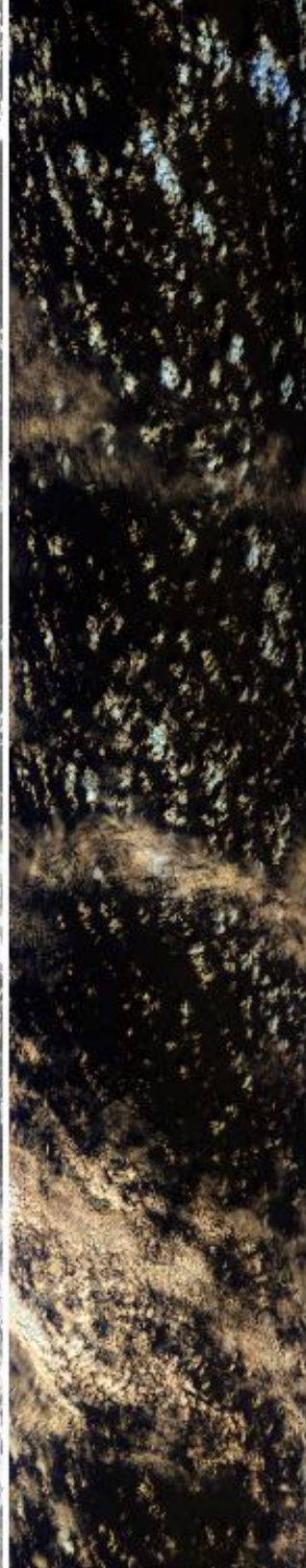
10:32:00



10:34:00



10:36:00



10:28:00

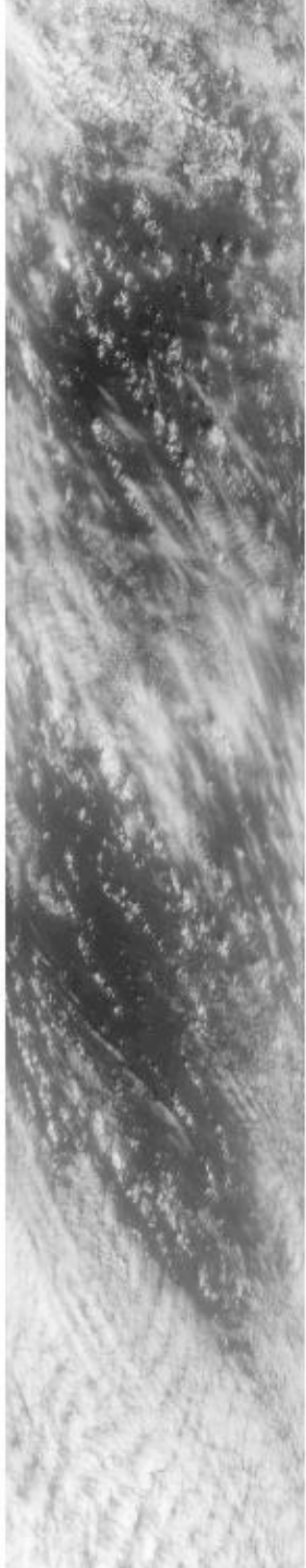
10:30:00

10:32:00

10:34:00

10:36:00

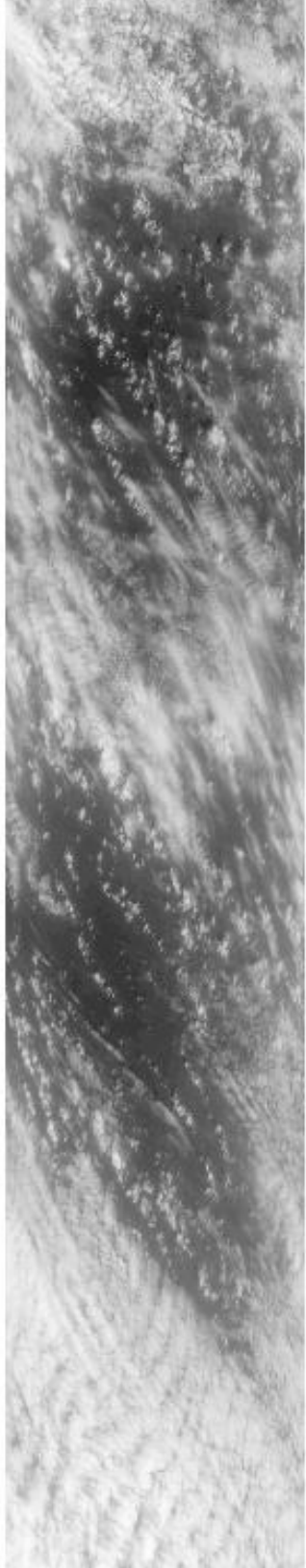
10:38:00



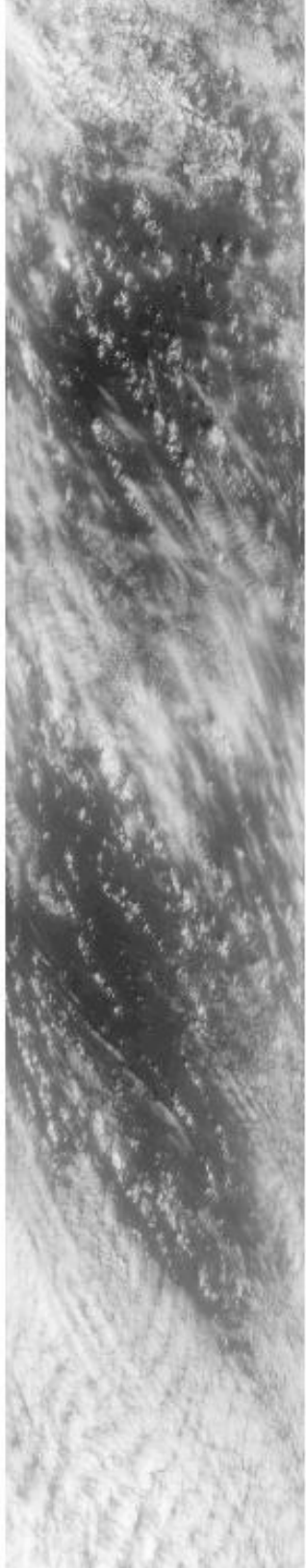
10:38:00



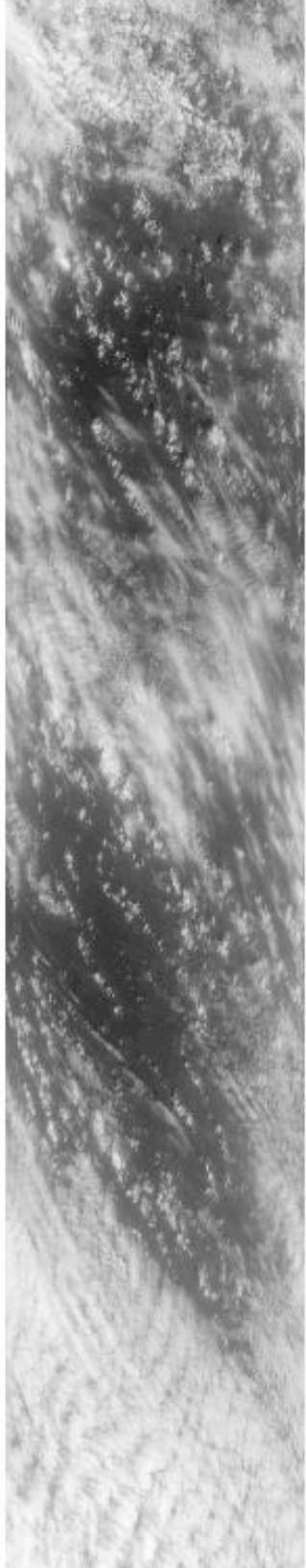
10:40:00



10:42:00



10:44:00



10:38:00



10:38:00



10:40:00

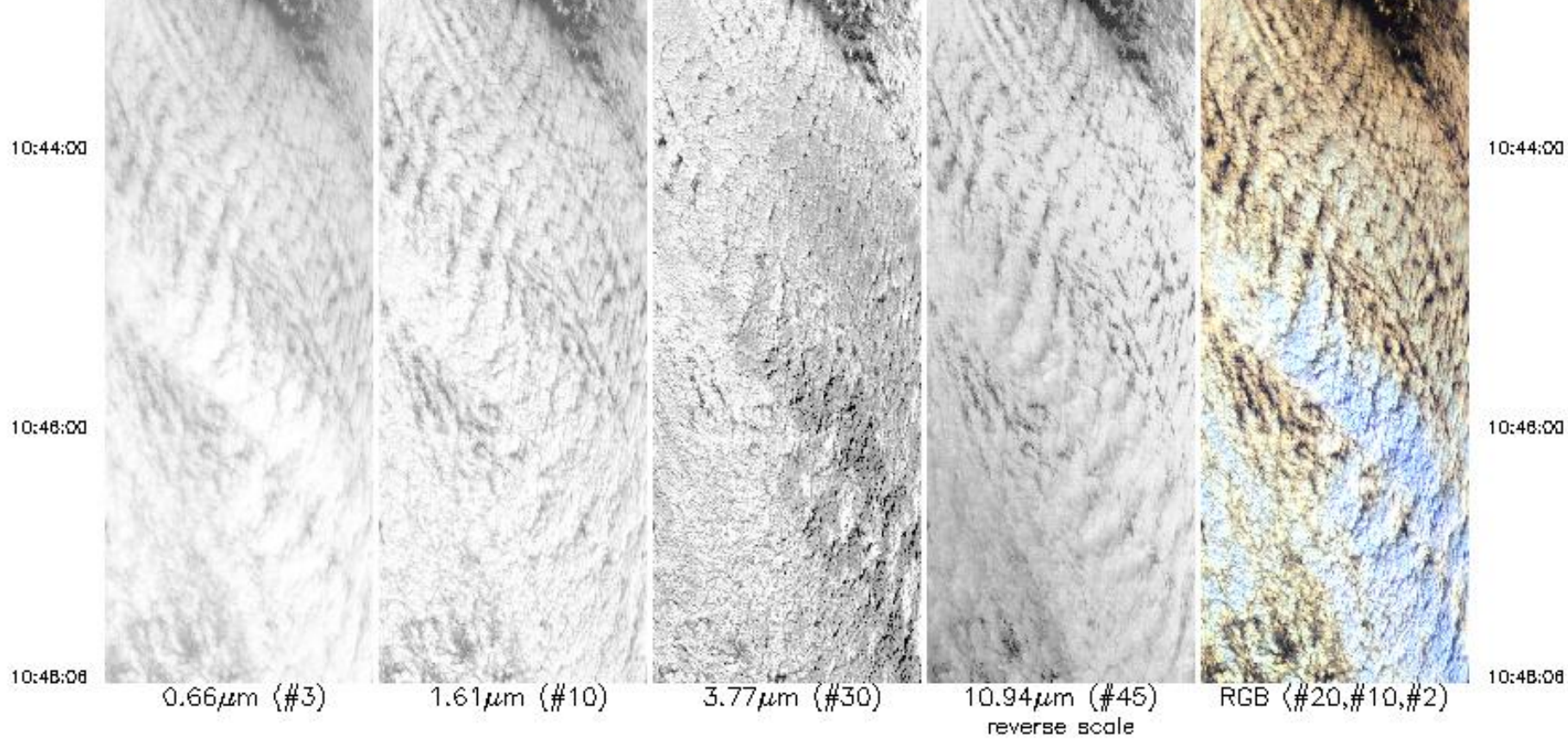


10:42:00



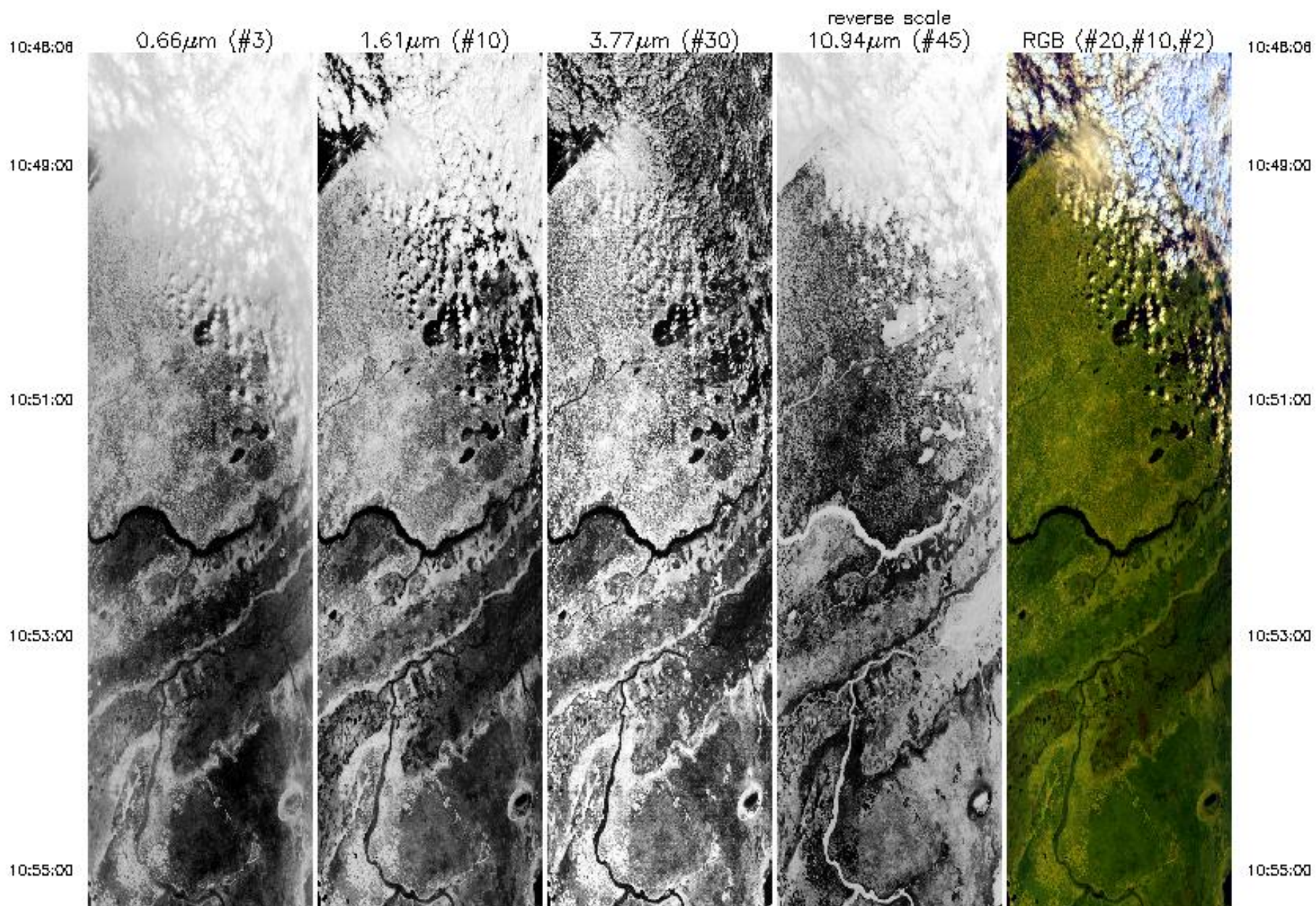
10:44:00





Upper Left Lat, Lon = -28.0° , 33.9°
 Lower Right Lat, Lon = -24.9° , 34.1°
 Aircraft Heading = 12.9°
 Solar Zenith = 35.1°
 GPS Altitude = 20720. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
Mozambique
Flight #00-158 Track #10



10:55:00

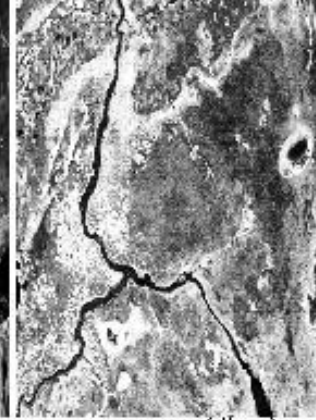
10:58:08



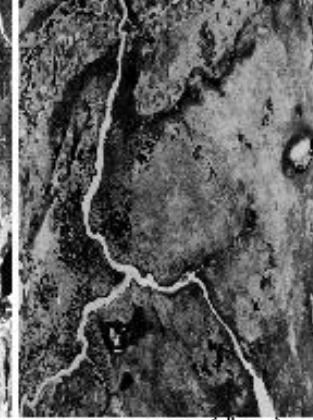
0.66 μ m (#3)



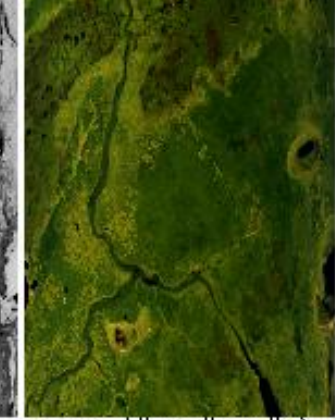
1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



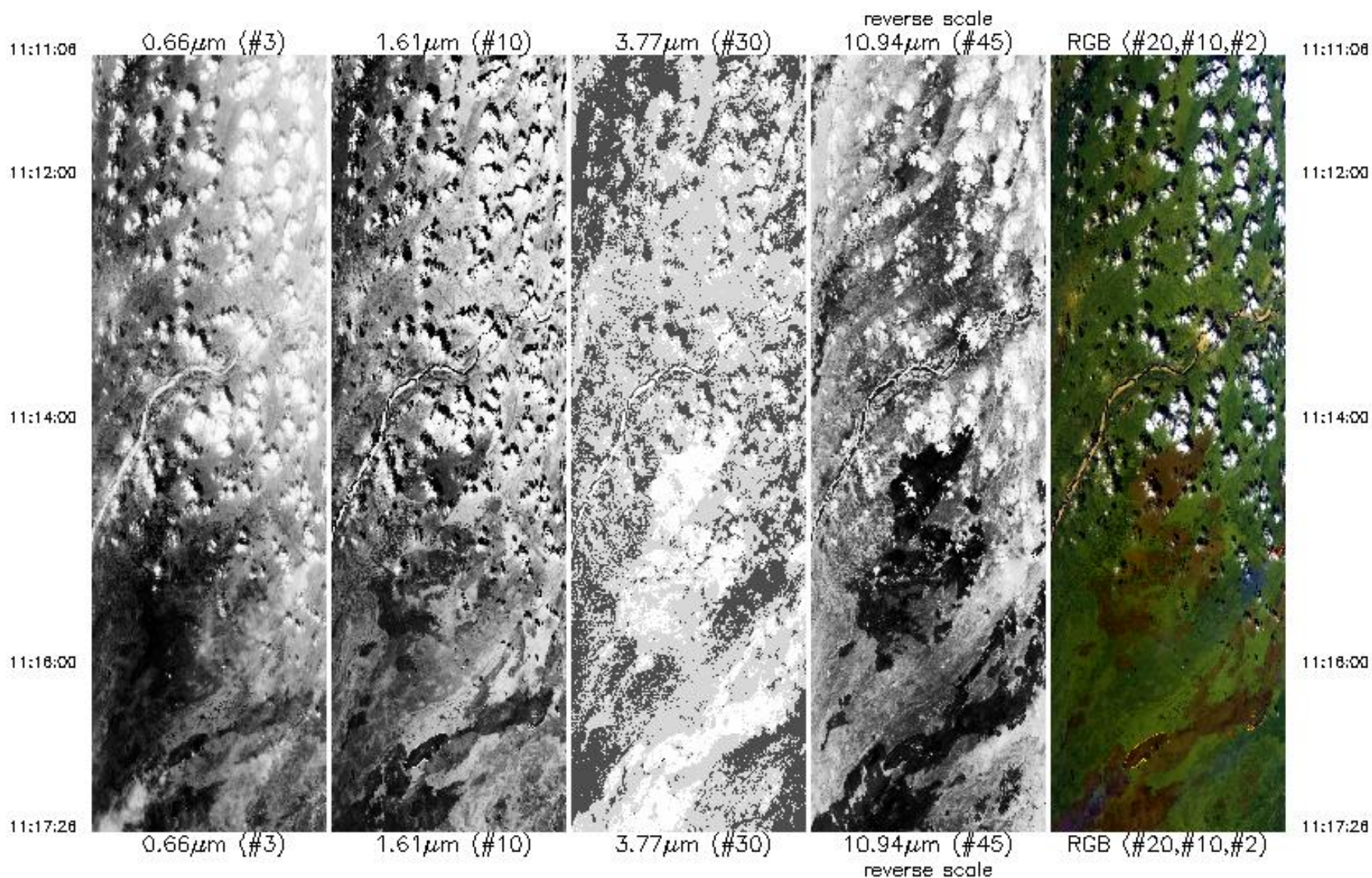
RGB (#20,#10,#2)

10:55:00

10:58:08

Upper Left Lat, Lon = -25.0°, 34.5°
Lower Right Lat, Lon = -24.0°, 34.3°
Aircraft Heading = 12.4°
Solar Zenith = 35.0°
GPS Altitude = 20803. m (MSL)

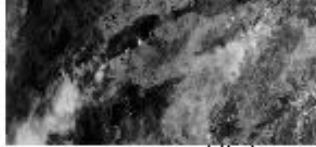
MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 07 Sep 2000
 Mozambique
 Flight #00-158 Track #11



Upper Left Lat, Lon = -23.4°, 32.8°

Lower Right Lat, Lon = -23.6°, 32.0°

11:17:28



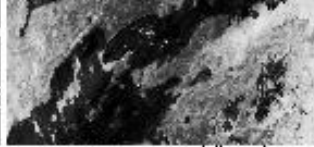
0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale

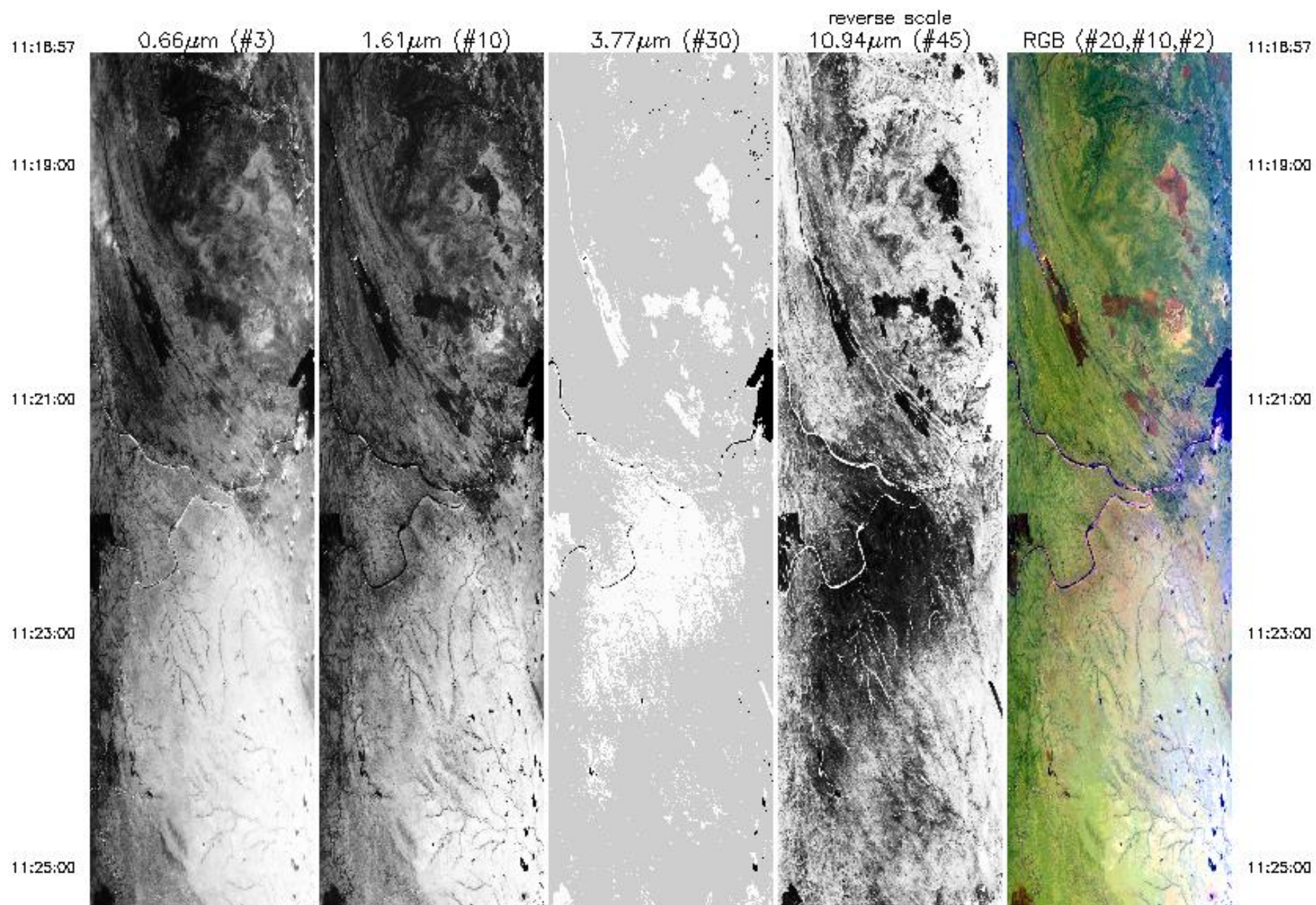


RGB (#20,#10,#2)

11:17:28

Upper Left Lat, Lon = -23.4° , 32.8°
Lower Right Lat, Lon = -23.6° , 32.0°
Aircraft Heading = 282.4°
Solar Zenith = 35.8°
GPS Altitude = 20864. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #12



11:25:00

11:27:00

11:29:00

11:31:00

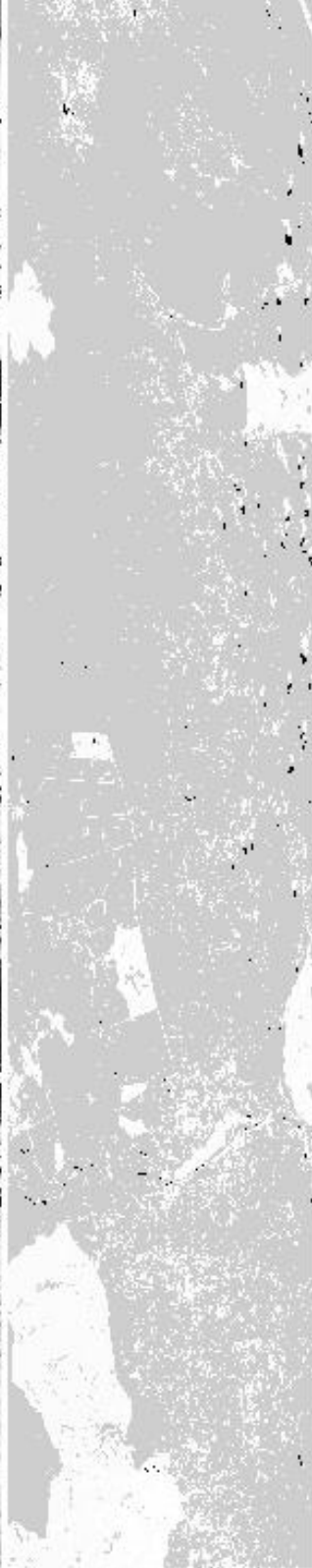
11:34:14



0.66 μm (#3)



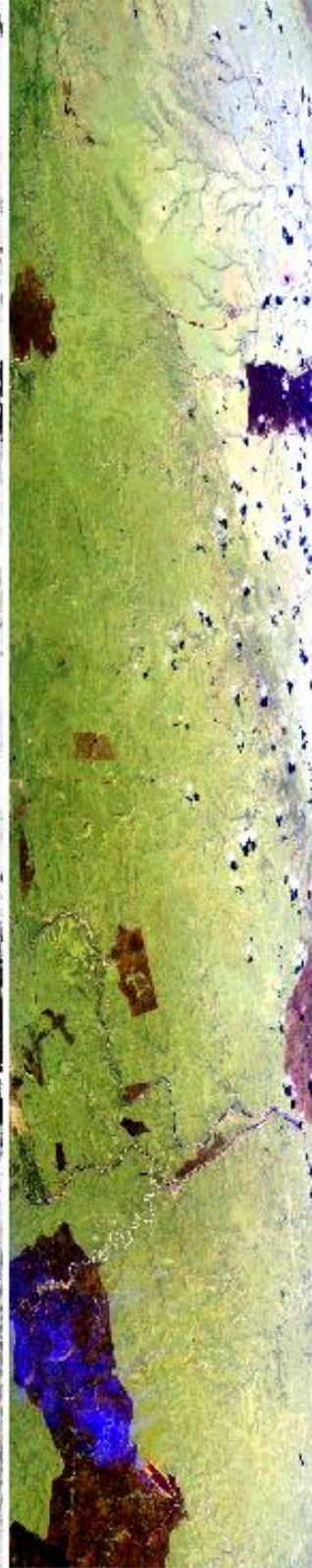
1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)



RGB (#20,#10,#2)

11:25:00

11:27:00

11:29:00

11:31:00

11:34:14

11:34:14



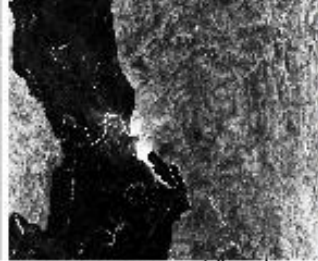
0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale

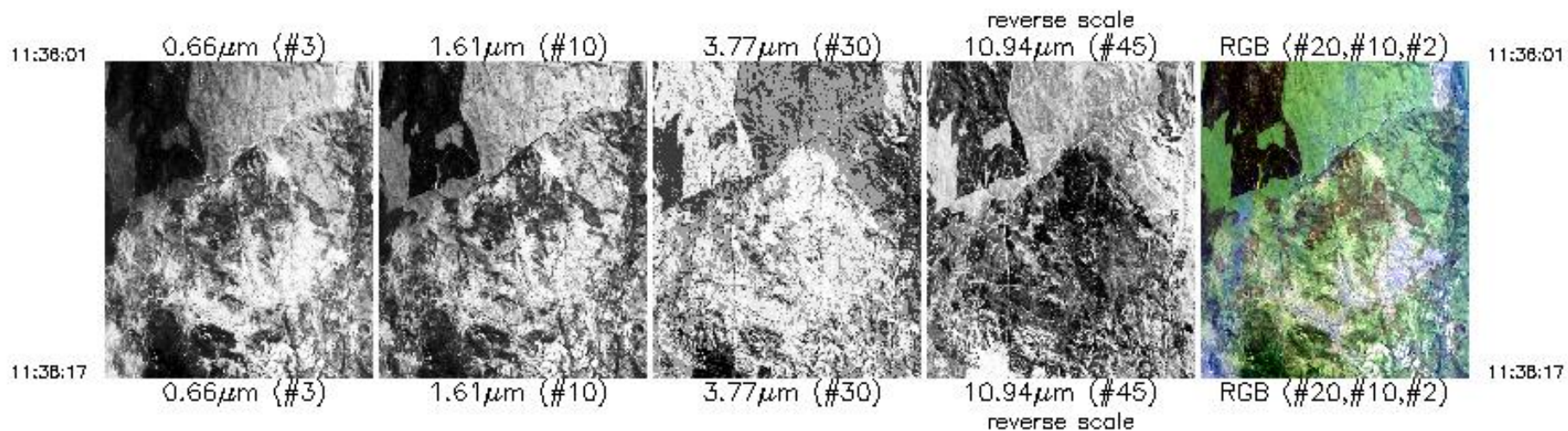


RGB (#20,#10,#2)

11:34:14

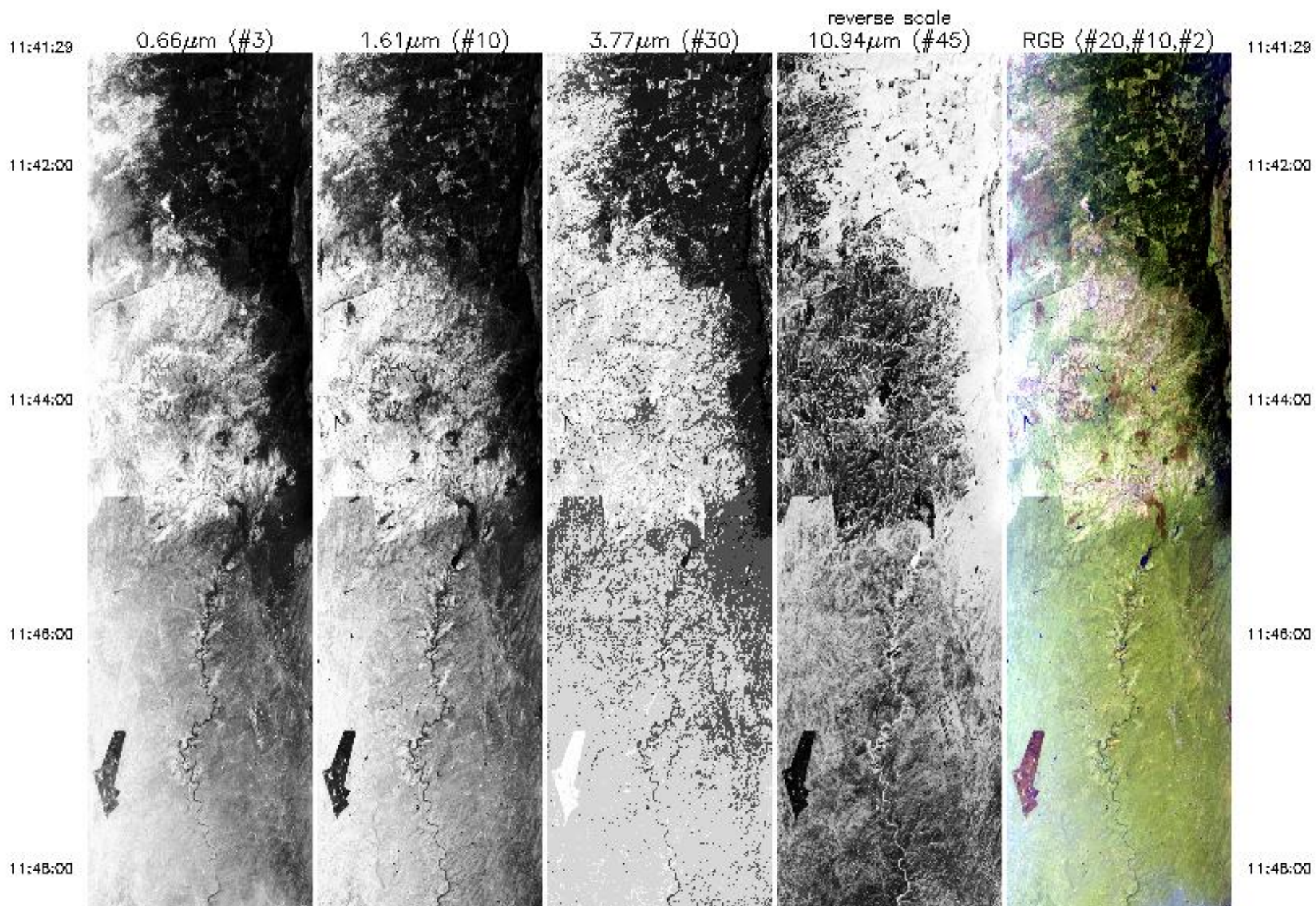
Upper Left Lat, Lon = -23.5°, 31.7°
Lower Right Lat, Lon = -25.3°, 31.7°
Aircraft Heading = 184.3°
Solar Zenith = 36.4°
GPS Altitude = 20932. m (MSL)

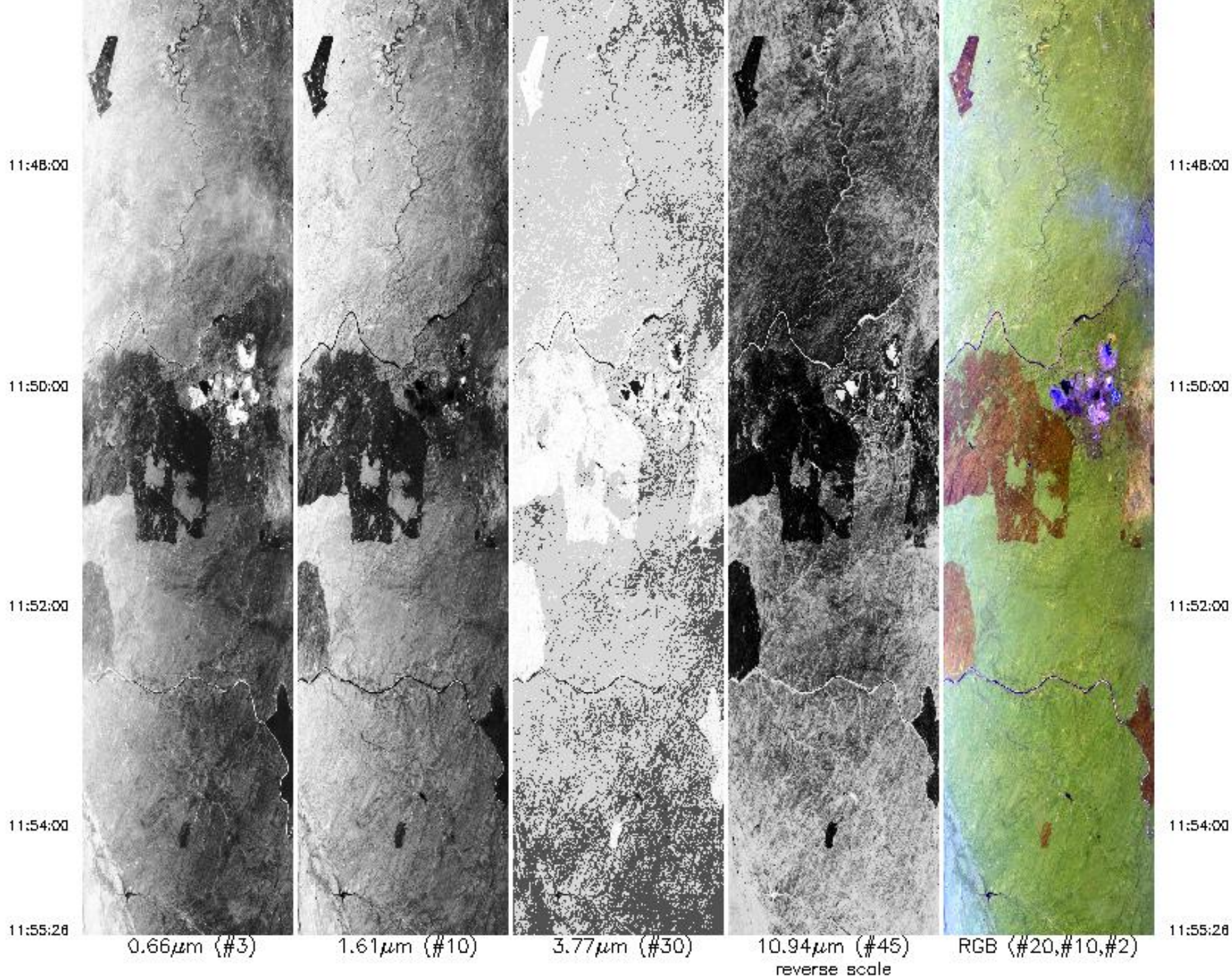
MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 07 Sep 2000
 South Africa
 Flight #00-158 Track #13



Upper Left Lat, Lon = -25.2°, 31.4°
 Lower Right Lat, Lon = -25.5°, 31.1°
 Aircraft Heading = 278.1°
 Solar Zenith = 40.0°
 GPS Altitude = 20972. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #14





Upper Left Lat, Lon = -25.1° , 31.2°
 Lower Right Lat, Lon = -23.4° , 31.1°
 Aircraft Heading = 15.2°
 Solar Zenith = 40.6°

11:55:26

0.66 μ m (#3)

1.61 μ m (#10)

3.77 μ m (#30)

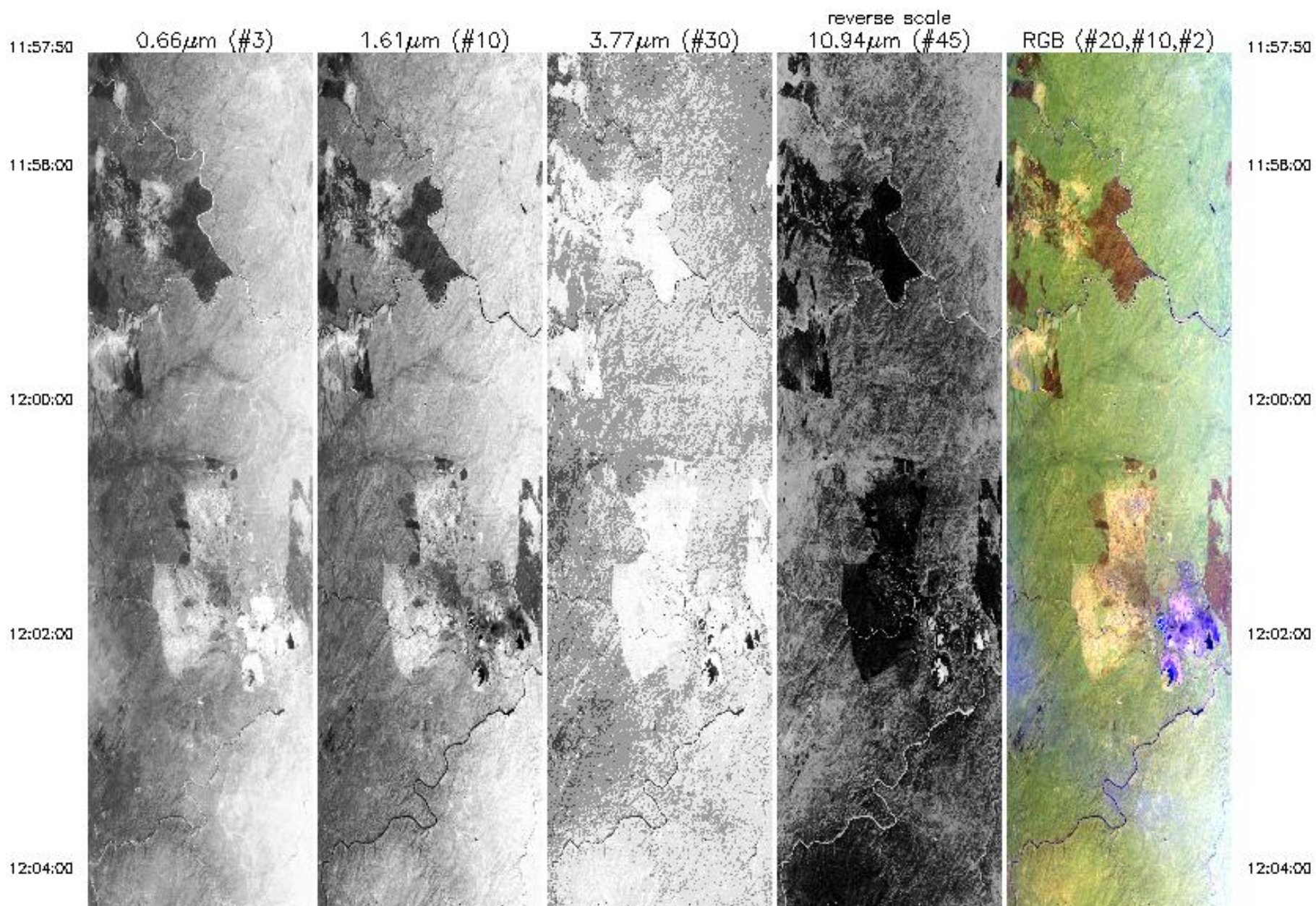
10.94 μ m (#45)
reverse scale

RGB (#20,#10,#2)

11:55:26

Upper Left Lat, Lon = -25.1°, 31.2°
Lower Right Lat, Lon = -23.4°, 31.1°
Aircraft Heading = 15.2°
Solar Zenith = 40.6°
GPS Altitude = 21035. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #15



12:04:00

12:08:00

12:08:00

12:10:00

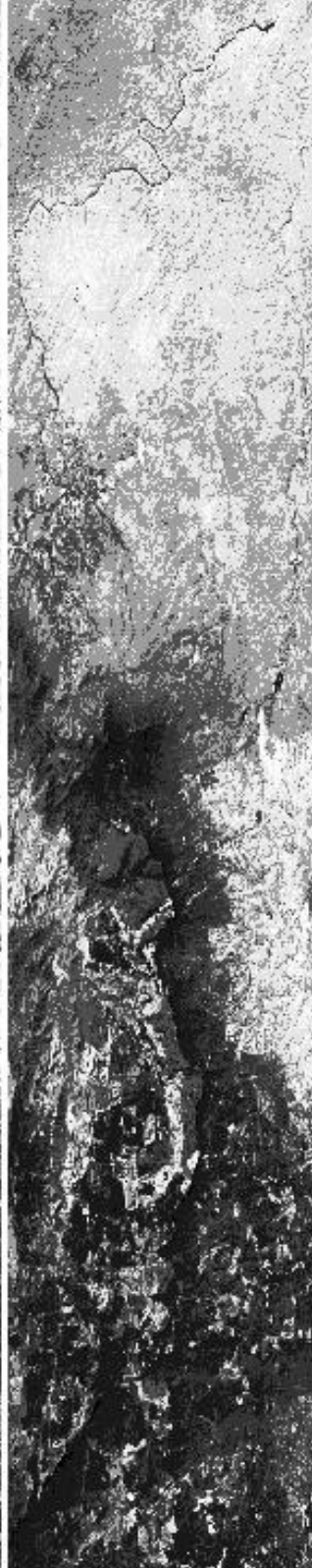
12:13:08



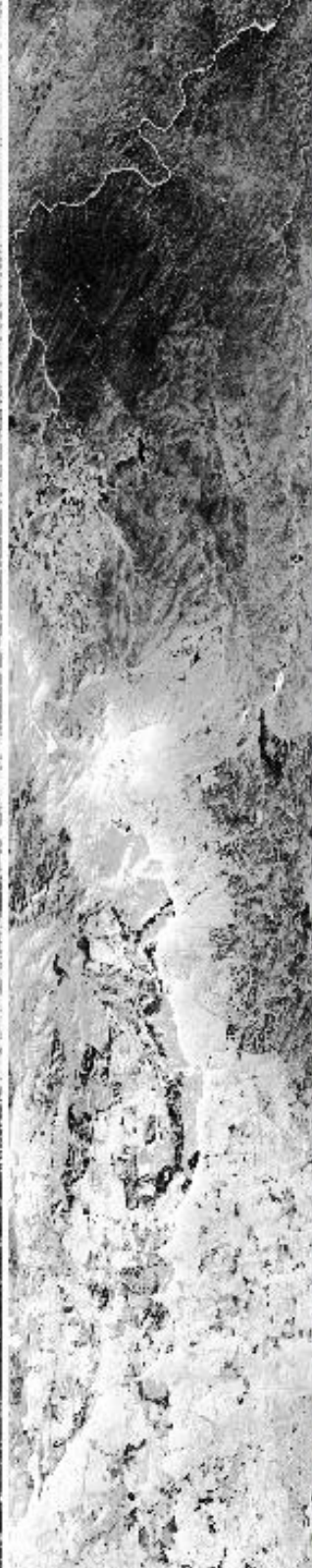
0.66 μm (#3)



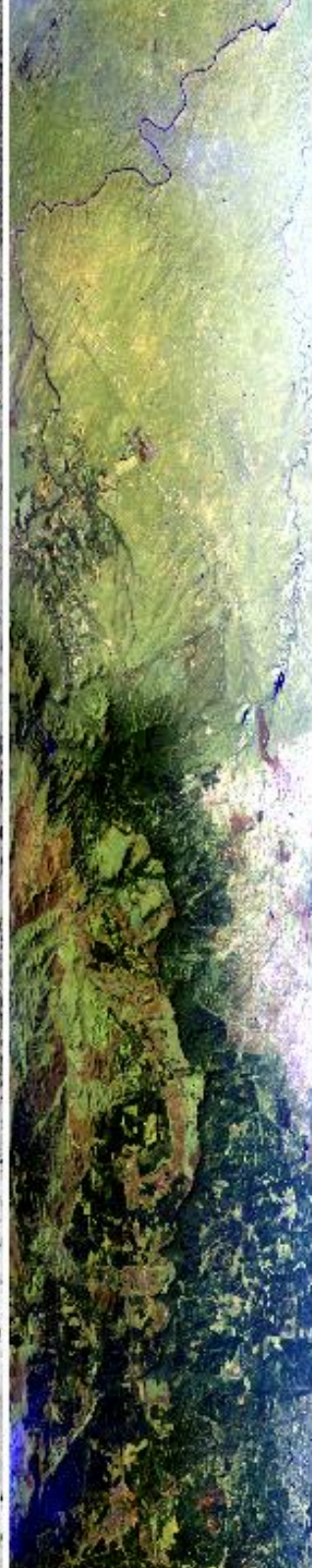
1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)



RGB (#20, #10, #2)

12:04:00

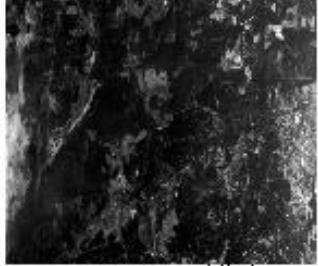
12:08:00

12:08:00

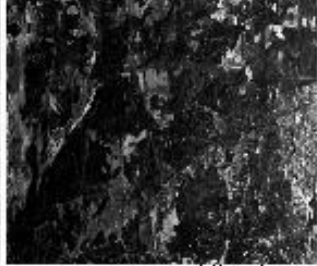
12:10:00

12:13:08

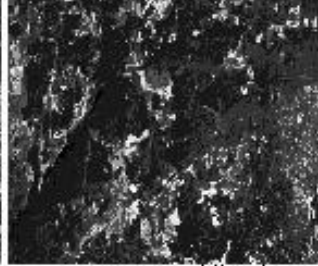
12:13:08



0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale

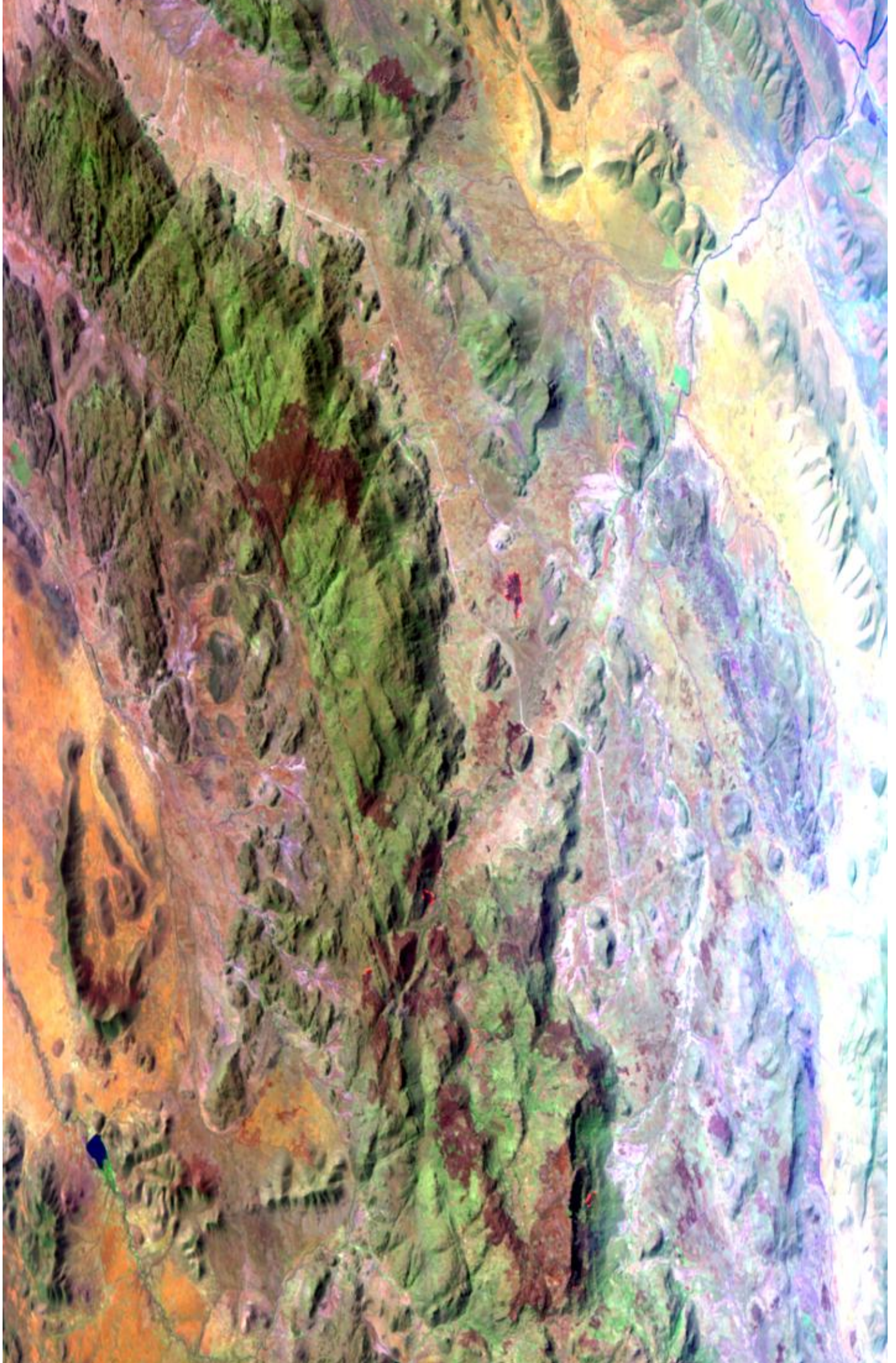


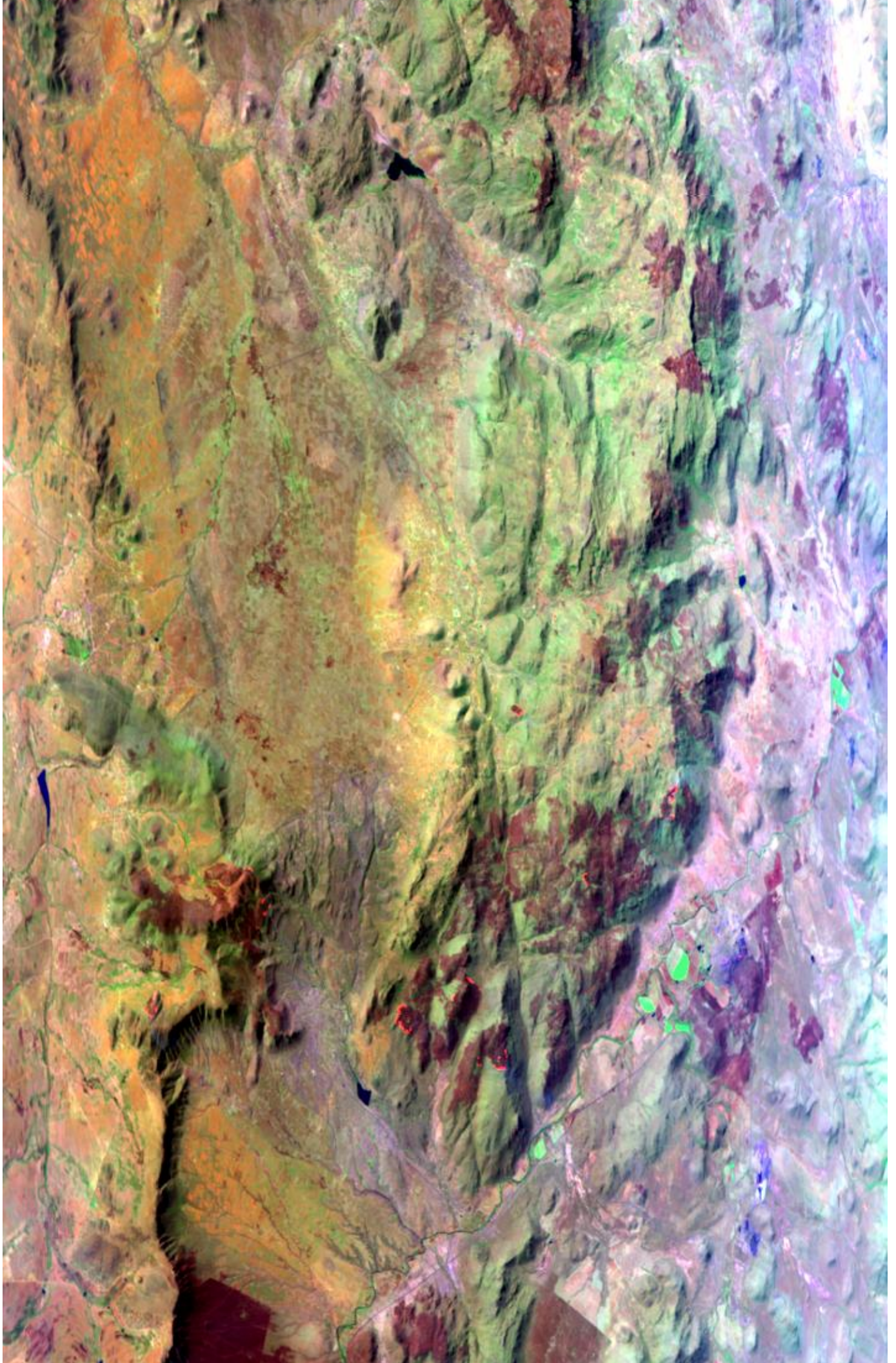
RGB (#20,#10,#2)

12:13:08

Upper Left Lat, Lon = -23.4° , 30.9°
Lower Right Lat, Lon = -25.2° , 31.0°
Aircraft Heading = 190.3°
Solar Zenith = 42.0°
GPS Altitude = 21080. m (MSL)

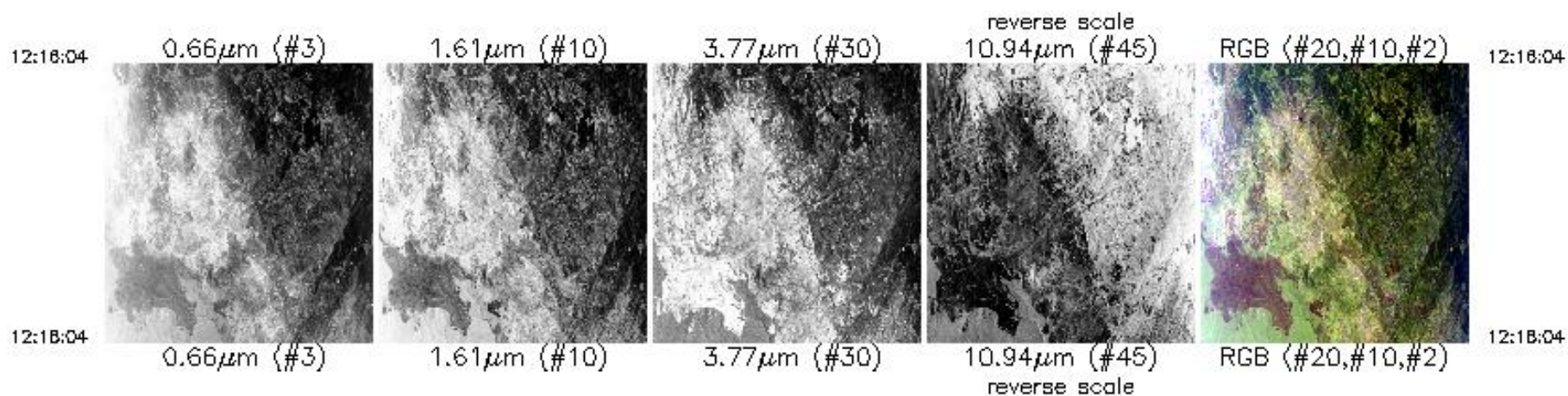






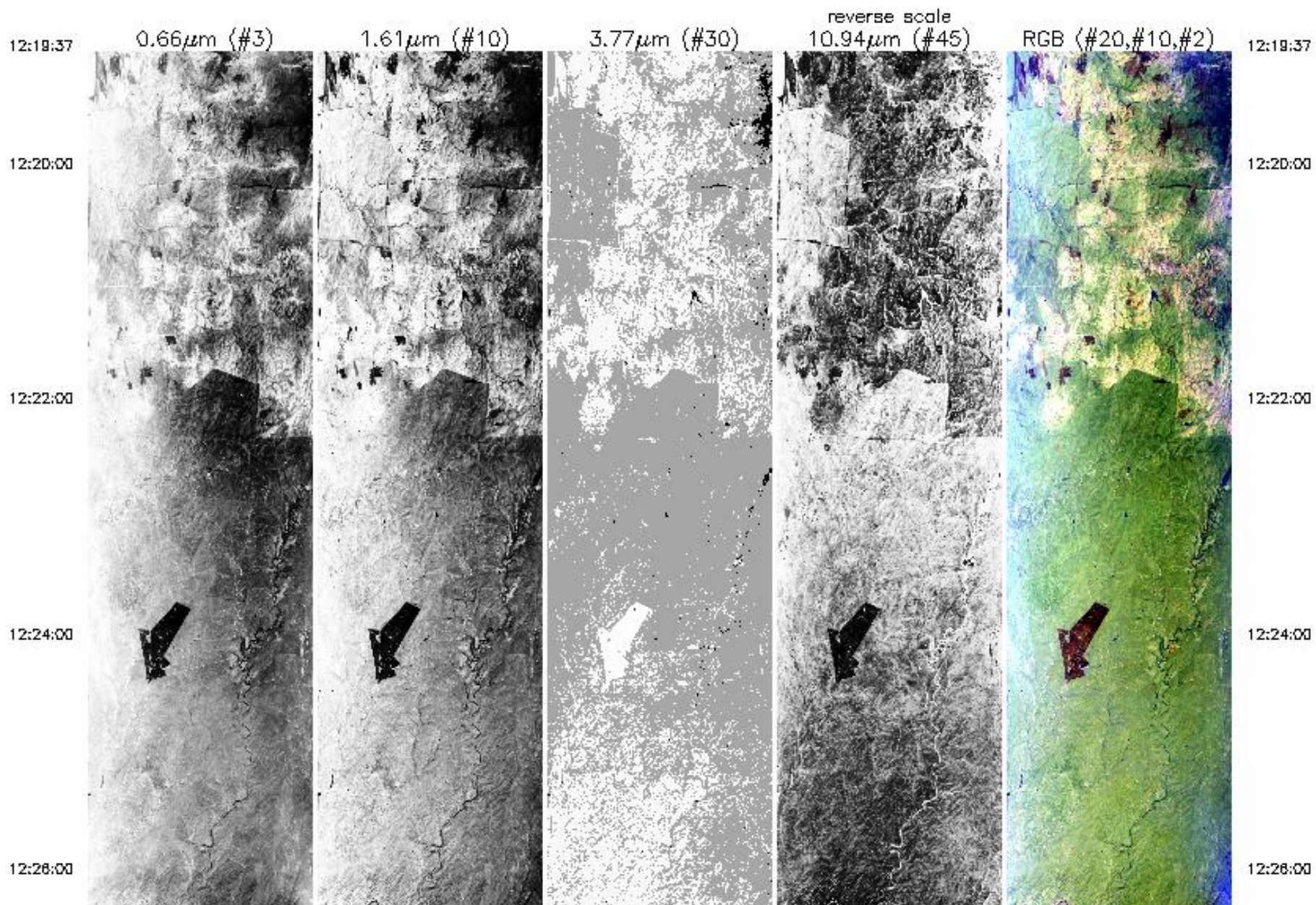


MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 07 Sep 2000
 South Africa
 Flight #00-158 Track #16



Upper Left Lat, Lon = -25.3°, 31.1°
 Lower Right Lat, Lon = -24.9°, 31.1°
 Aircraft Heading = 49.7°
 Solar Zenith = 46.6°
 GPS Altitude = 20940. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #17



12:26:00

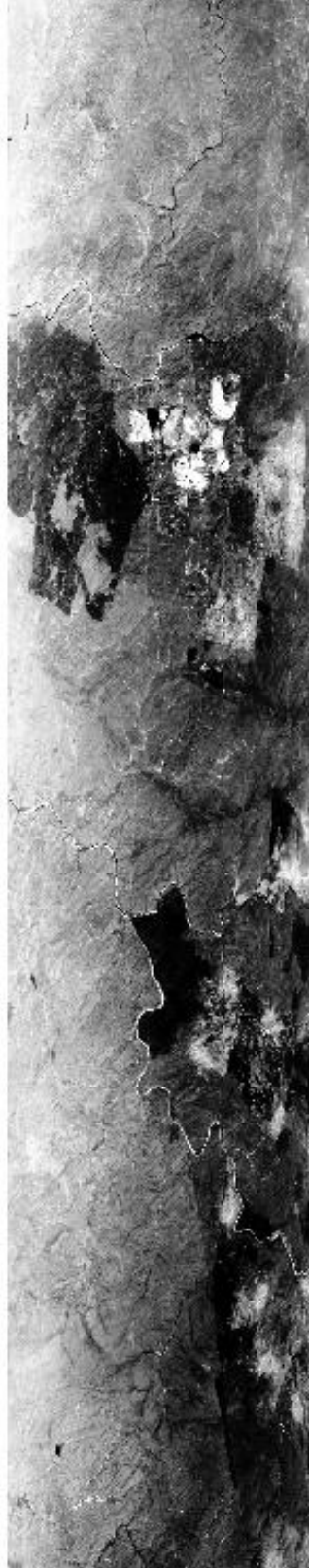
12:26:00

12:30:00

12:32:00

12:34:00

12:34:58



0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)



RCB (#20 #10 #2)

12:26:00

12:26:00

12:30:00

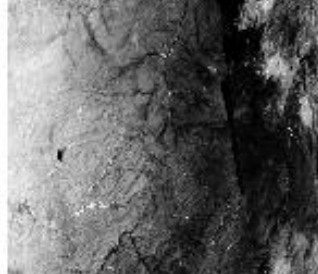
12:32:00

12:34:00

12:34:58

12:34:00

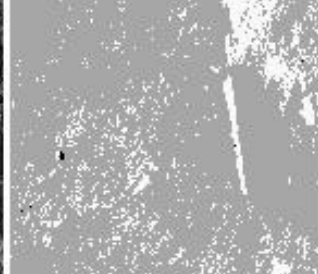
12:34:59



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

12:34:59

Upper Left Lat, Lon = -24.9° , 31.5°

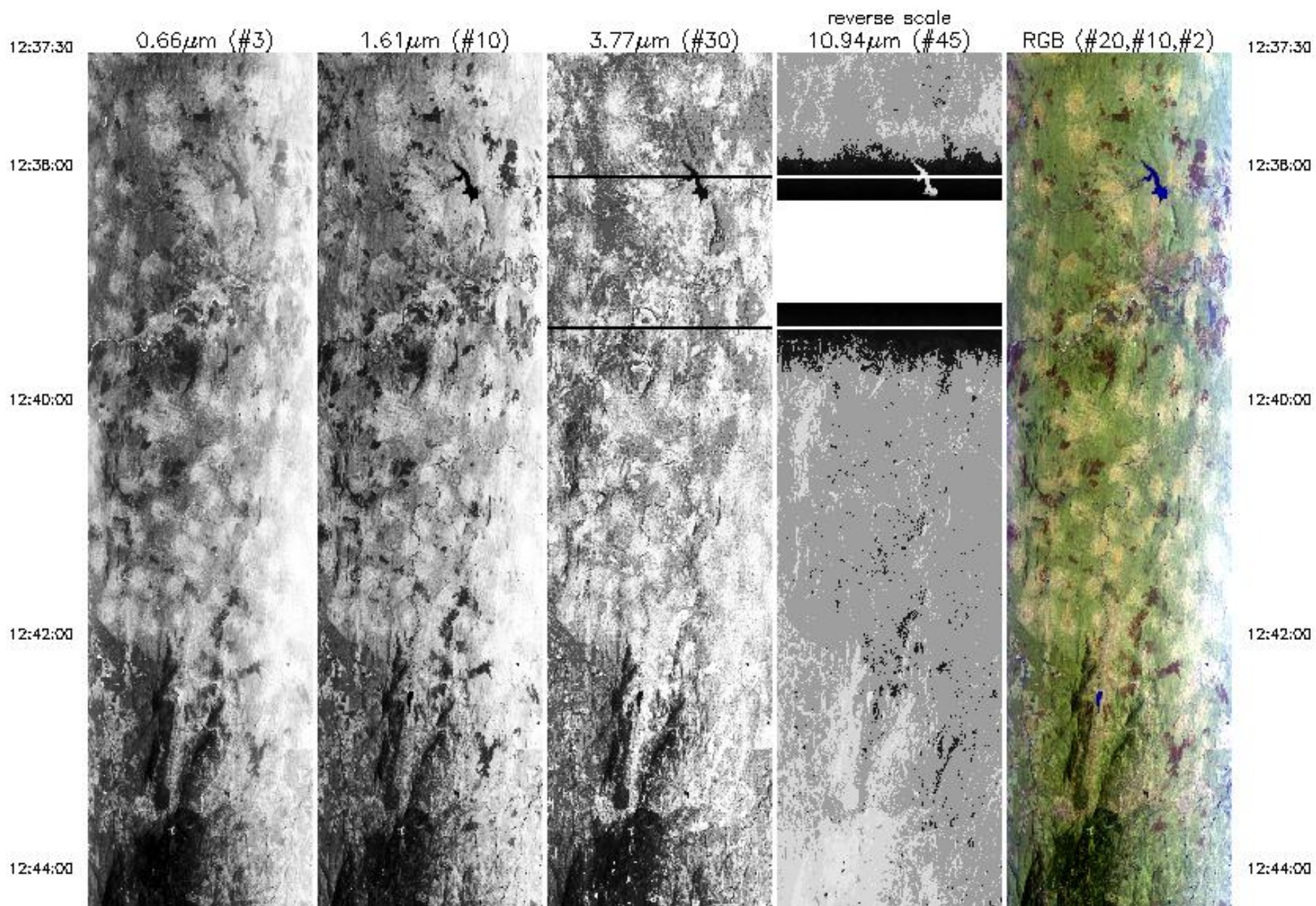
Lower Right Lat, Lon = -23.2° , 30.9°

Aircraft Heading = 353.4°

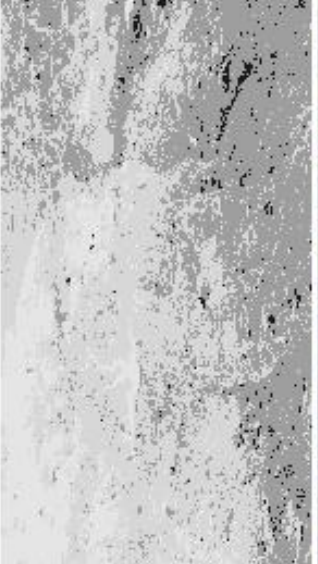
Solar Zenith = 47.3°

GPS Altitude = 21175. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #18



12:44:00



12:44:00

12:48:27

0.66 μm (#3)

1.61 μm (#10)

3.77 μm (#30)

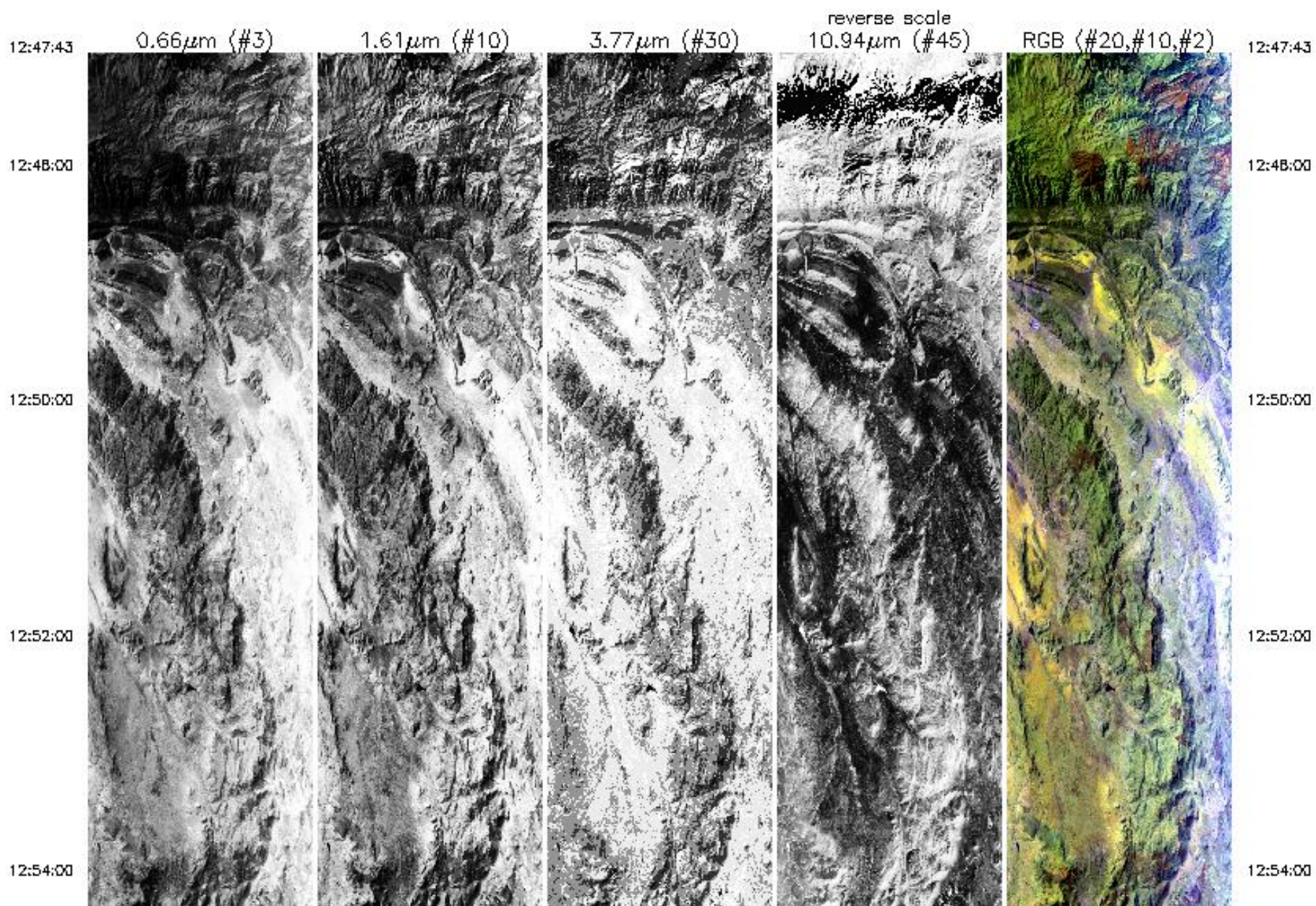
10.94 μm (#45)
reverse scale

RGB (#20,#10,#2)

12:48:27

Upper Left Lat, Lon = -23.0° , 30.7°
Lower Right Lat, Lon = -24.0° , 30.2°
Aircraft Heading = 220.0°
Solar Zenith = 49.0°
GPS Altitude = 21202. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #19



12:54:00

12:56:00

12:57:58



0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20, #10, #2)

12:54:00

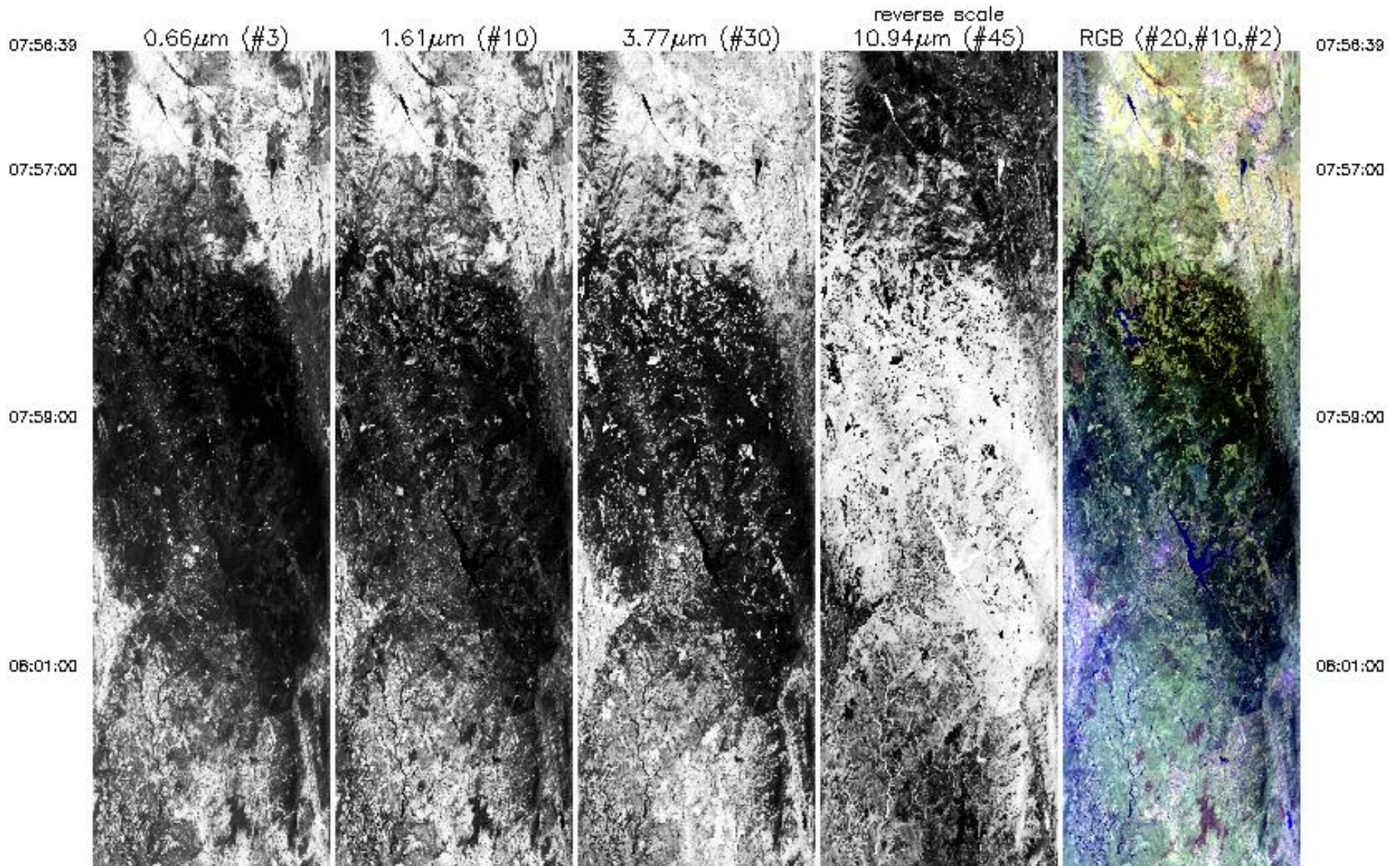
12:56:00

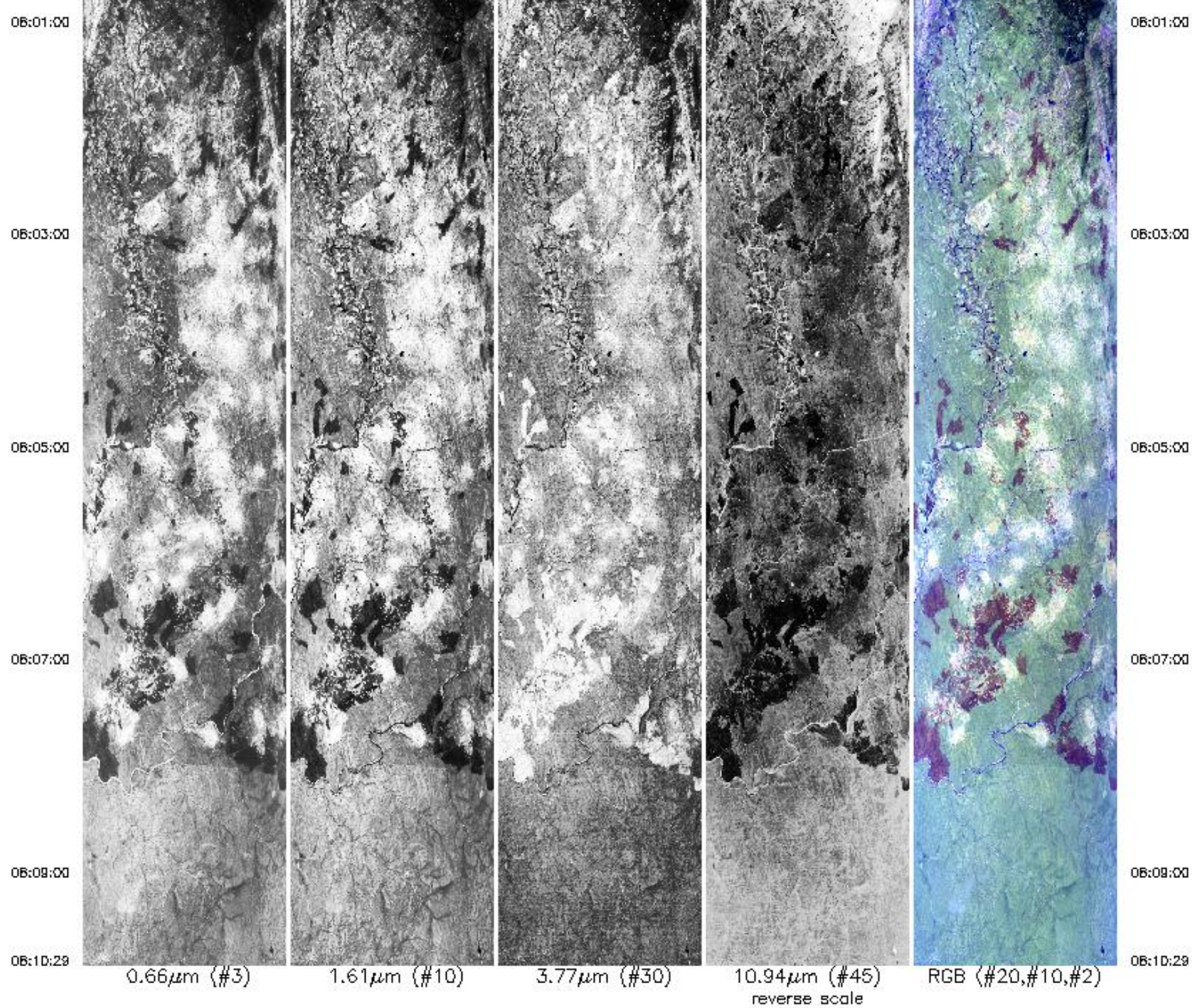
12:57:58

Upper Left Lat, Lon = -24.1° , 29.8°
Lower Right Lat, Lon = -25.2° , 30.2°
Aircraft Heading = 173.0°
Solar Zenith = 50.9°
GPS Altitude = 21271. m (MSL)

Flight #00-158 Browse Imagery

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #1





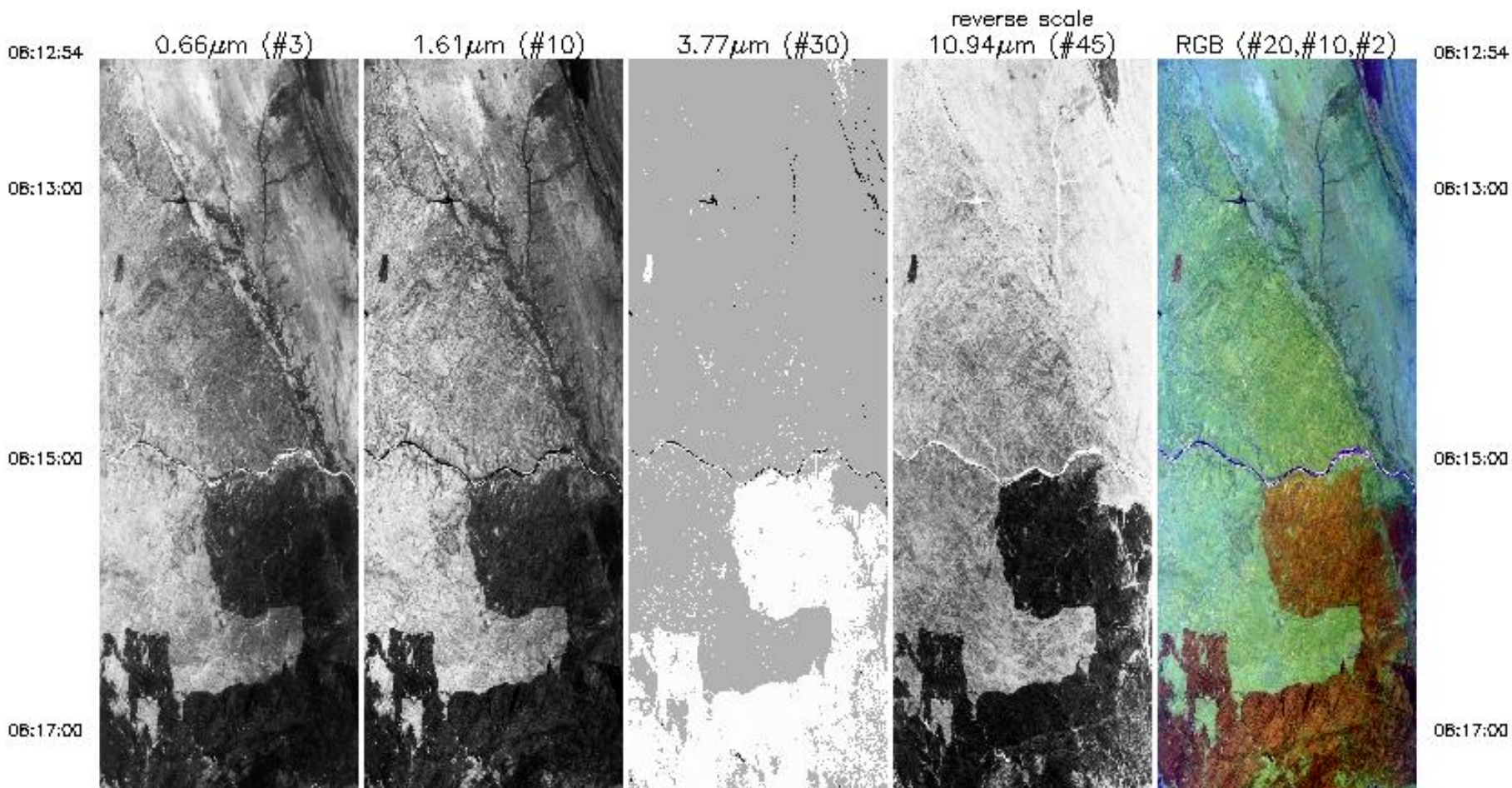
Upper Left Lat, Lon = -24.1° , 29.8°

Lower Right Lat, Lon = -23.2° , 31.2°



Upper Left Lat, Lon = -24.1°, 29.8°
 Lower Right Lat, Lon = -23.2°, 31.2°
 Aircraft Heading = 67.0°
 Solar Zenith = 42.2°
 GPS Altitude = 19278. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign - 07 Sep 2000
 South Africa
 Flight #00-158 Track #2



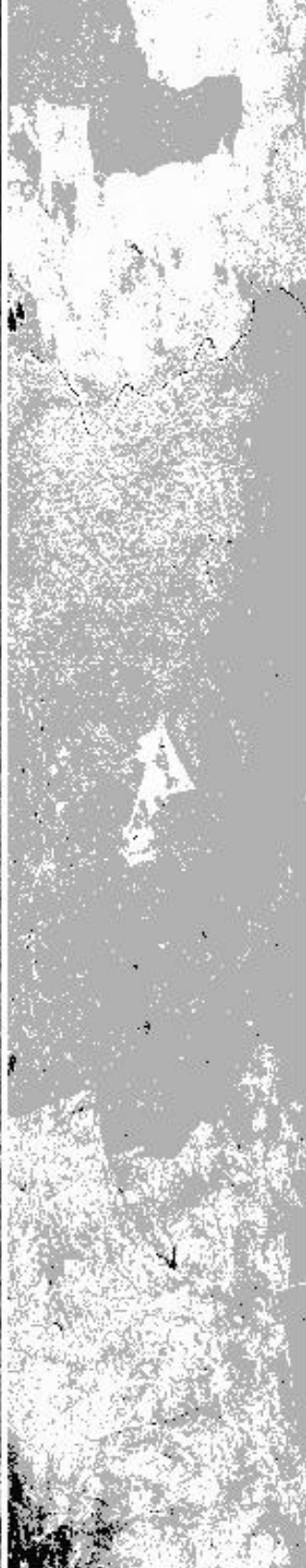
06:17:00



06:19:00



06:21:00



06:23:00



06:25:00



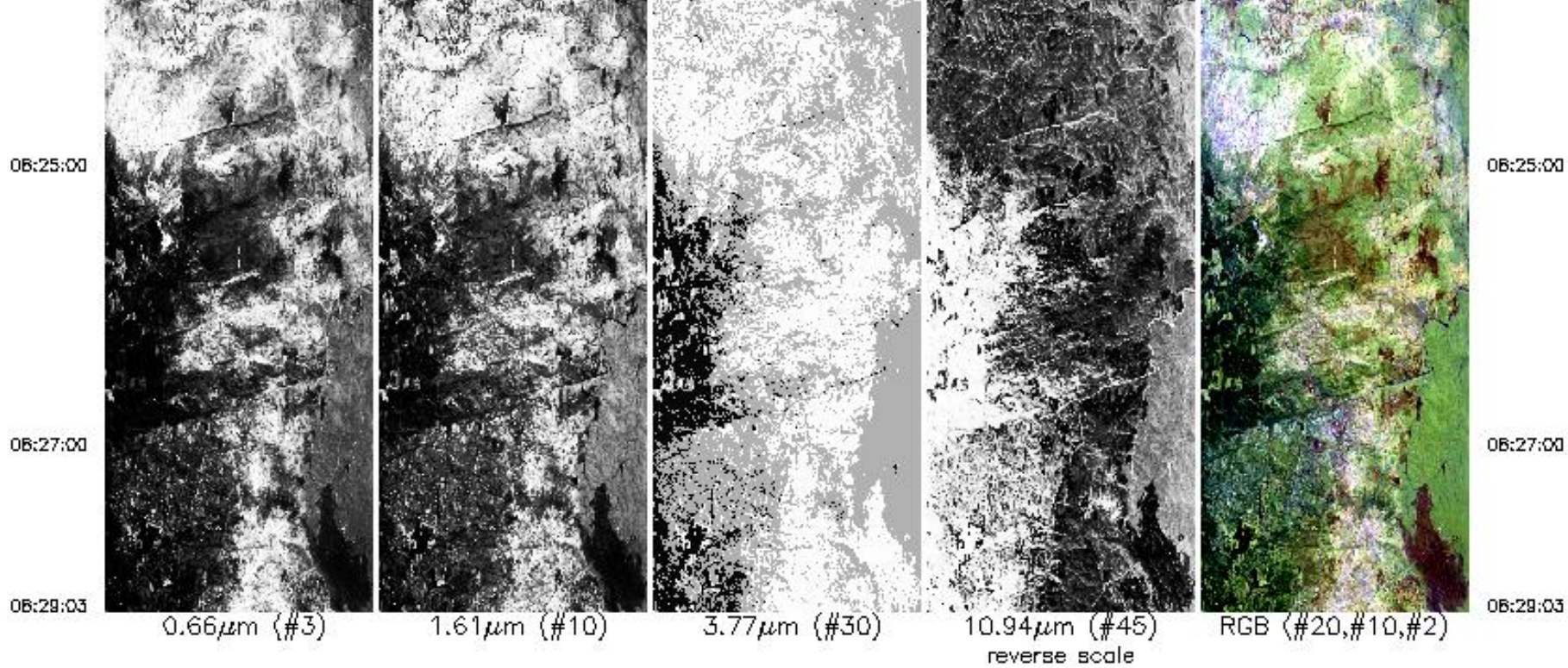
06:17:00

06:19:00

06:21:00

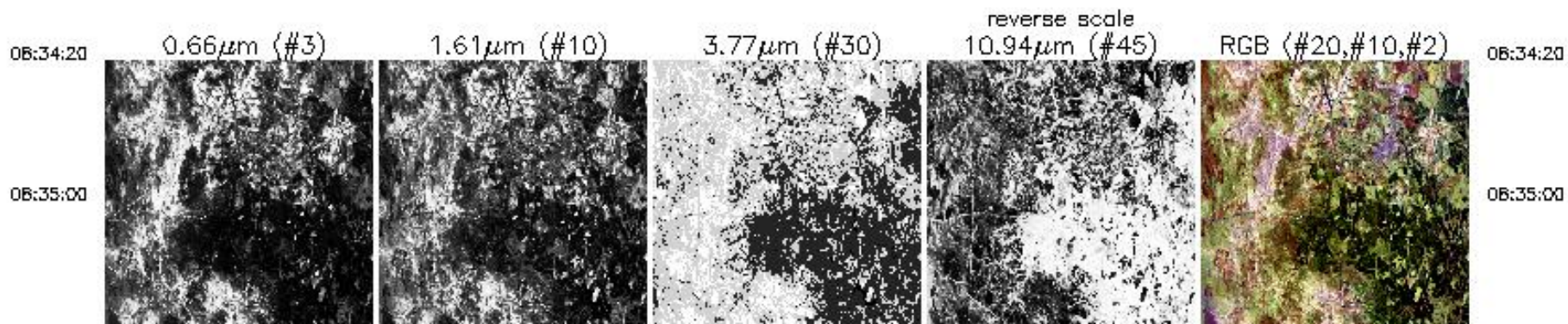
06:23:00

06:25:00



Upper Left Lat, Lon = -23.4°, 31.3°
 Lower Right Lat, Lon = -25.2°, 31.3°
 Aircraft Heading = 194.9°
 Solar Zenith = 38.1°
 GPS Altitude = 19910. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign - 07 Sep 2000
 South Africa
 Flight #00-158 Track #3



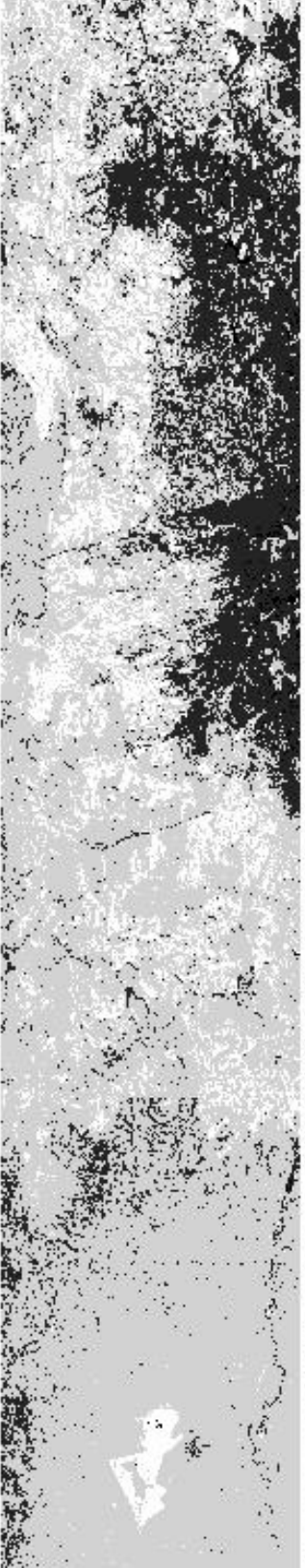
06:35:00



06:37:00



06:39:00



06:41:00



06:43:00



06:35:00



06:37:00

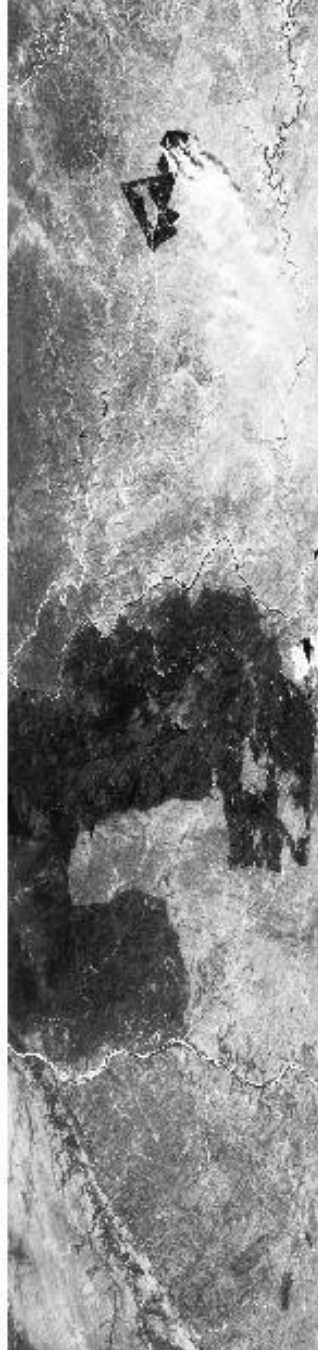
06:39:00

06:41:00

06:43:00



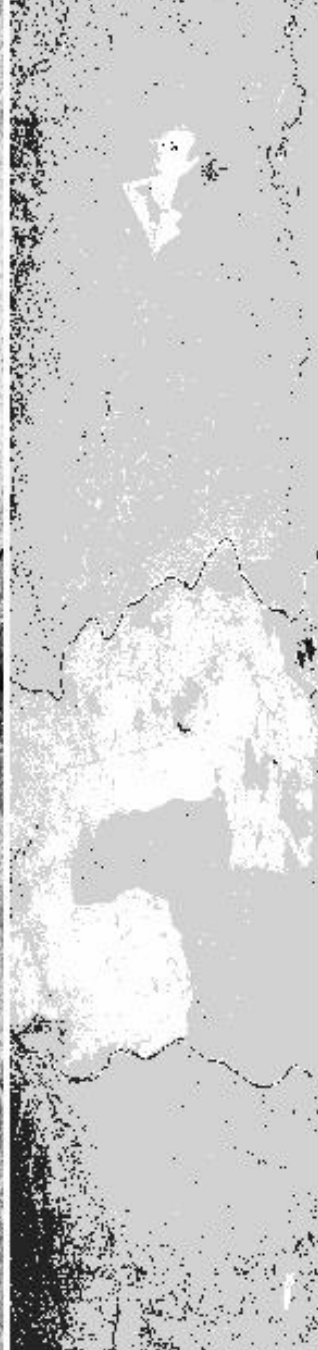
06:43:00



0.66µm (#3)



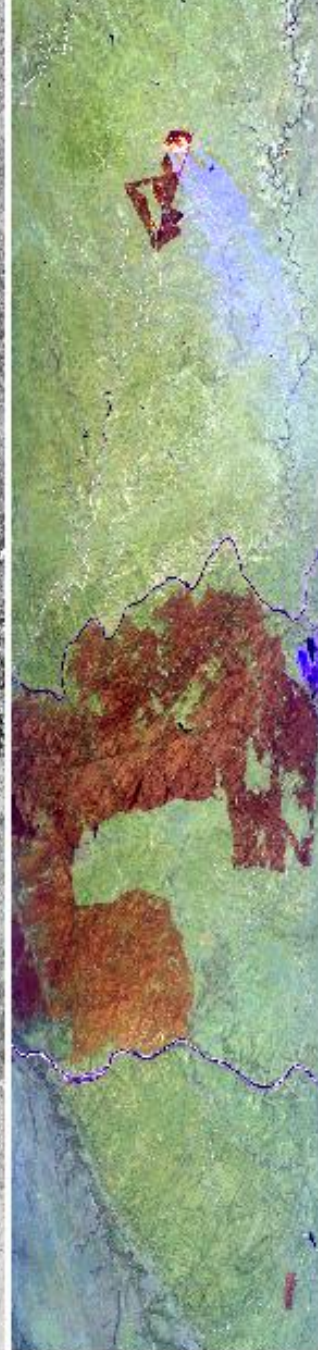
1.61µm (#10)



3.77µm (#30)



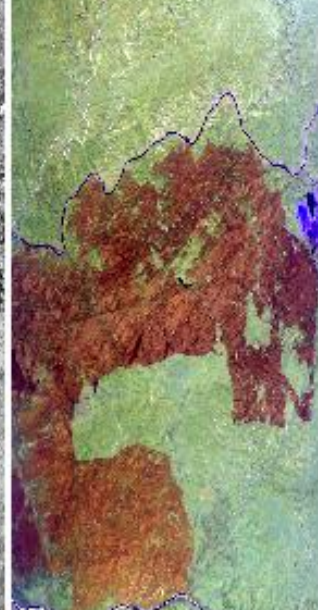
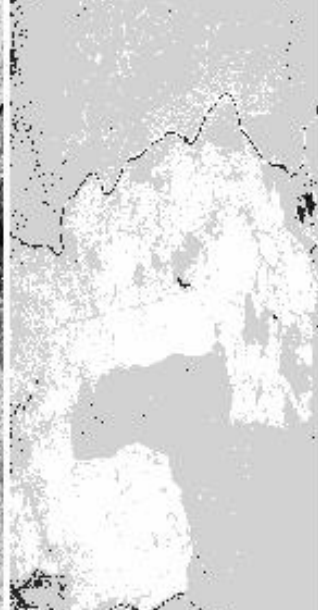
10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

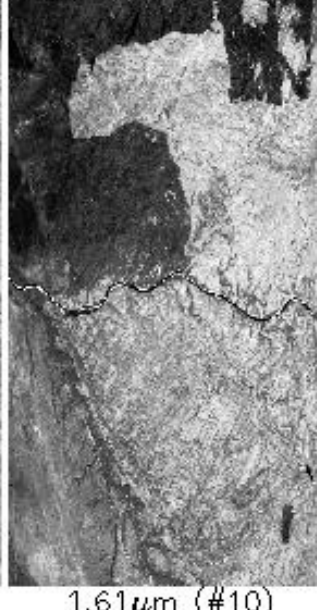
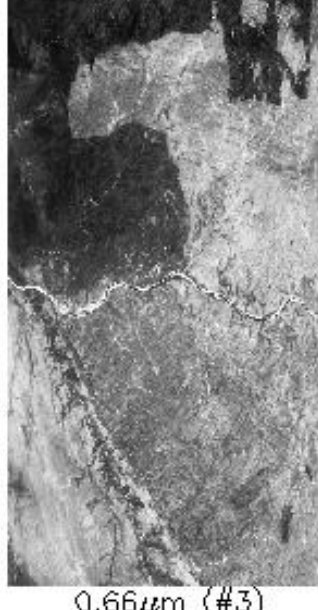
06:43:00

06:45:00



06:45:00

06:47:00



06:47:00

06:48:00



06:48:00

06:50:57

06:50:57

Upper Left Lat, Lon = -25.4°, 31.2°

Lower Right Lat, Lon = -23.5°, 31.3°

Aircraft Heading = 4.4°

Solar Zenith = 36.6°

GPS Altitude = 19989 m (MSL)

06:50:57

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)

06:50:57

Upper Left Lat, Lon = -25.4°, 31.2°

Lower Right Lat, Lon = -23.5°, 31.3°

Aircraft Heading = 4.4°

Solar Zenith = 36.6°

GPS Altitude = 19989. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign - 07 Sep 2000
South Africa
Flight #00-158 Track #4

06:58:30

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)

06:58:30

06:57:00

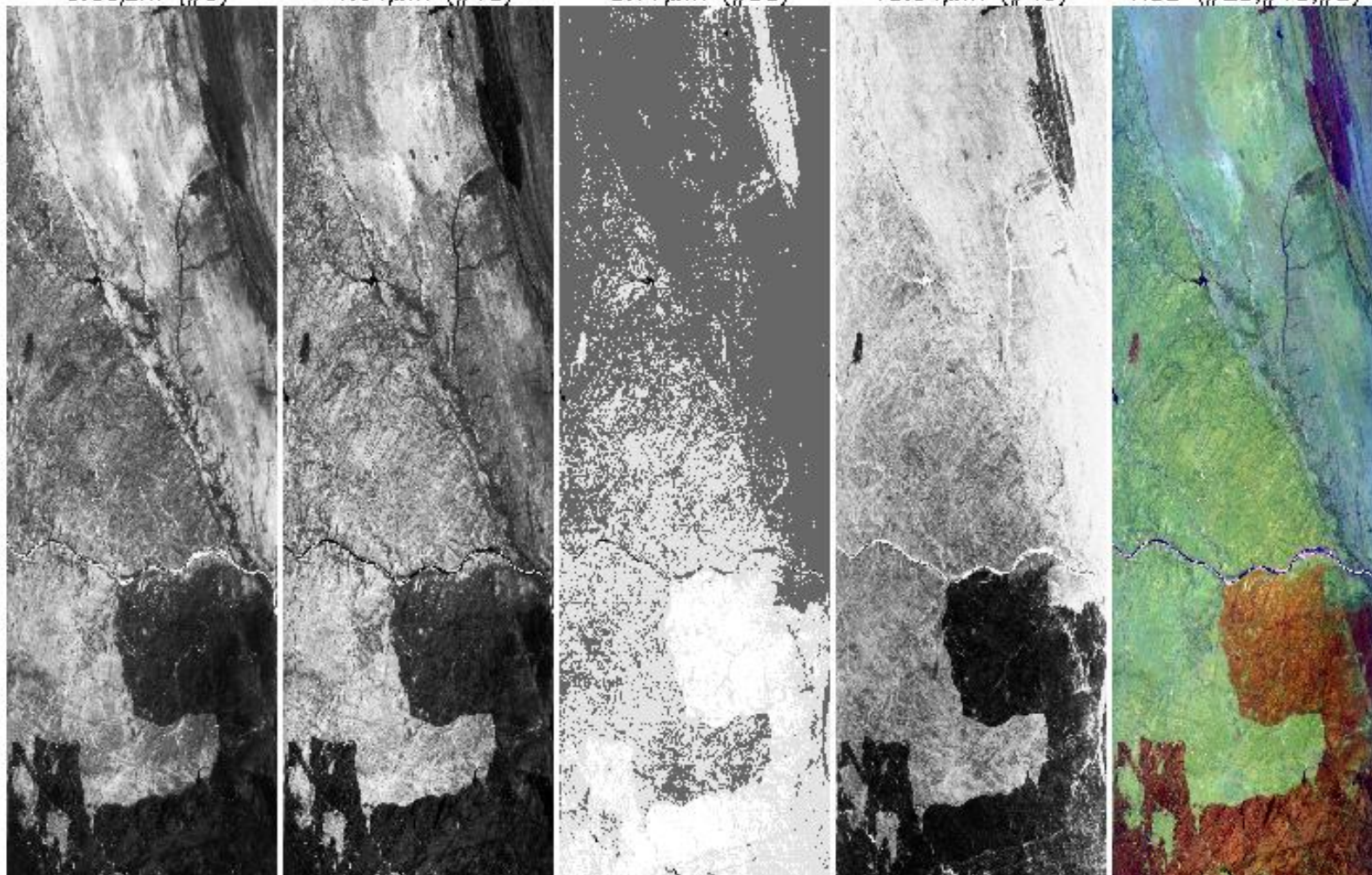
06:57:00

06:59:00

06:59:00

09:01:00

09:01:00



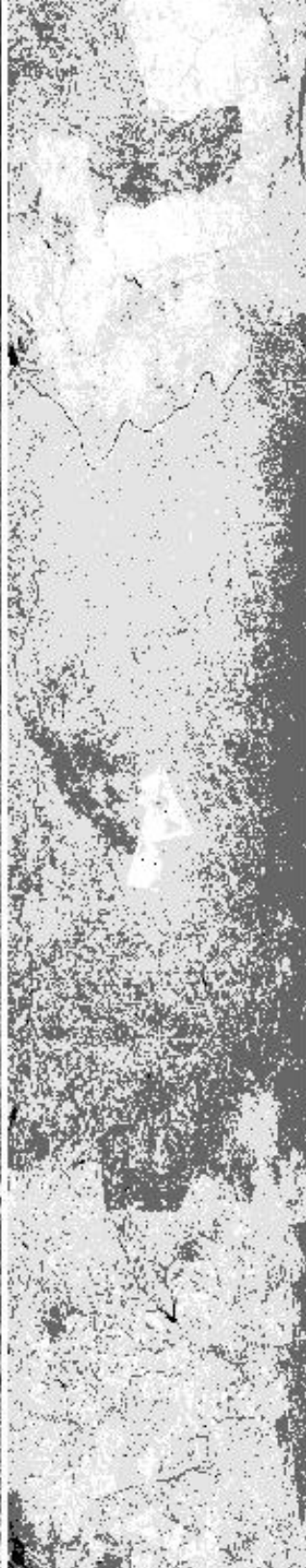
09:01:00



09:03:00



09:05:00



09:07:00



09:09:00



09:01:00

09:03:00

09:05:00

09:07:00

09:09:00

09:09:00



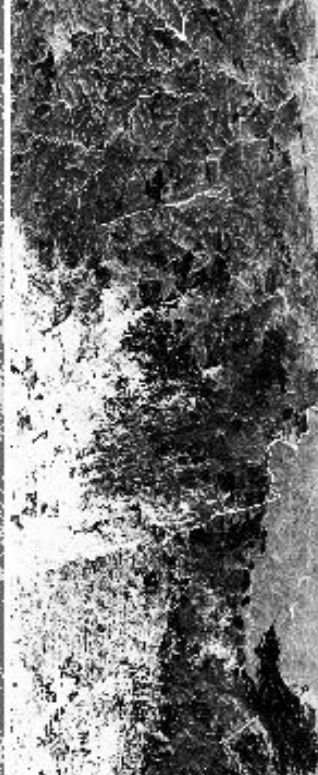
0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

09:09:00

09:11:00

09:11:00

09:13:00

09:13:00

09:13:51

09:13:51

Upper Left Lat, Lon = -23.3°, 31.3°
Lower Right Lat, Lon = -25.2°, 31.3°
Aircraft Heading = 186.1°
Solar Zenith = 32.2°
GPS Altitude = 20151. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign - 07 Sep 2000
South Africa
Flight #00-158 Track #5

09:18:01

0.66µm (#3)



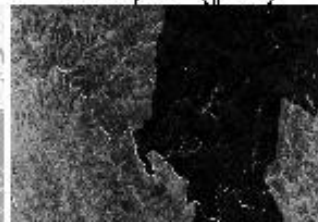
1.61µm (#10)



3.77µm (#30)



reverse scale
10.94µm (#45)



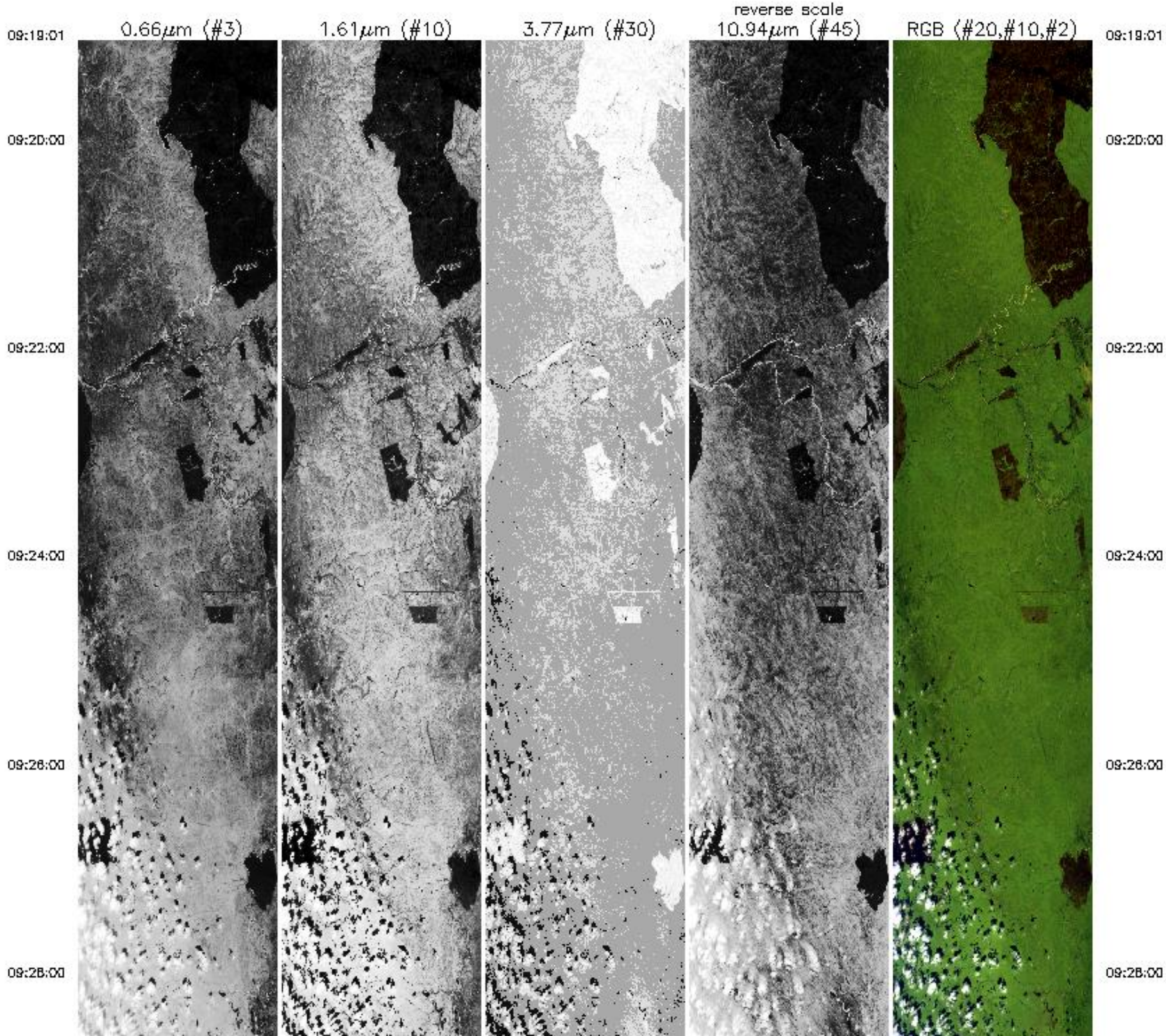
RGB (#20,#10,#2)



09:18:01

09:20:00

09:20:00



09:28:00

09:30:00

09:32:00

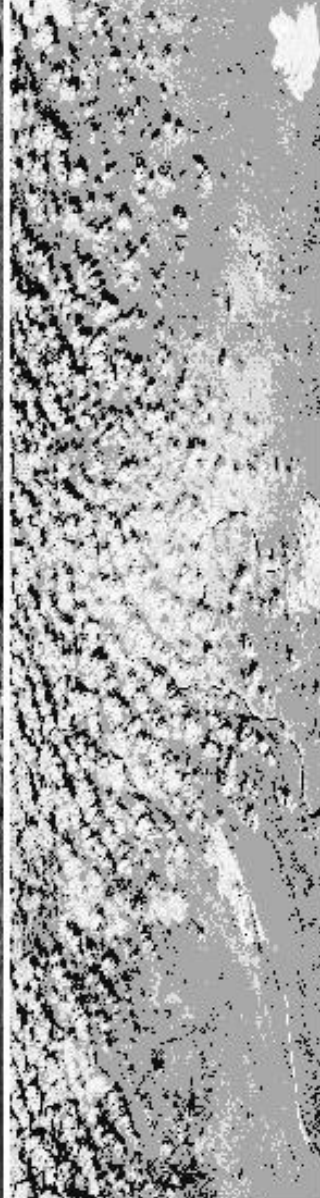
09:34:10



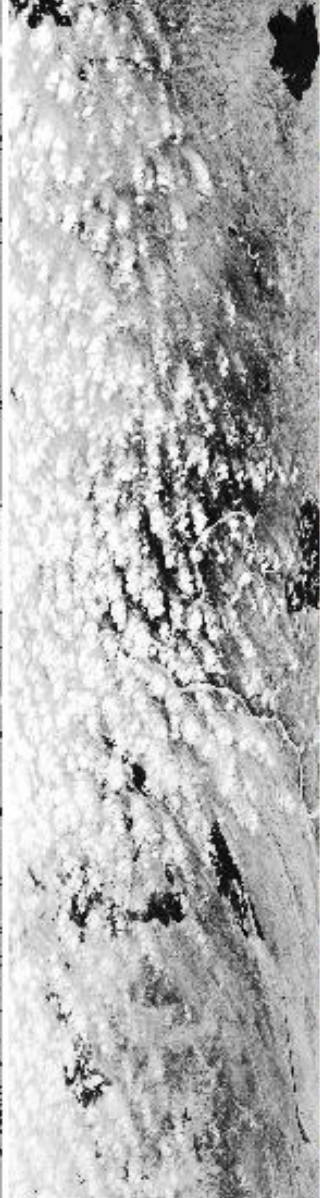
0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20,#10,#2)

09:28:00

09:30:00

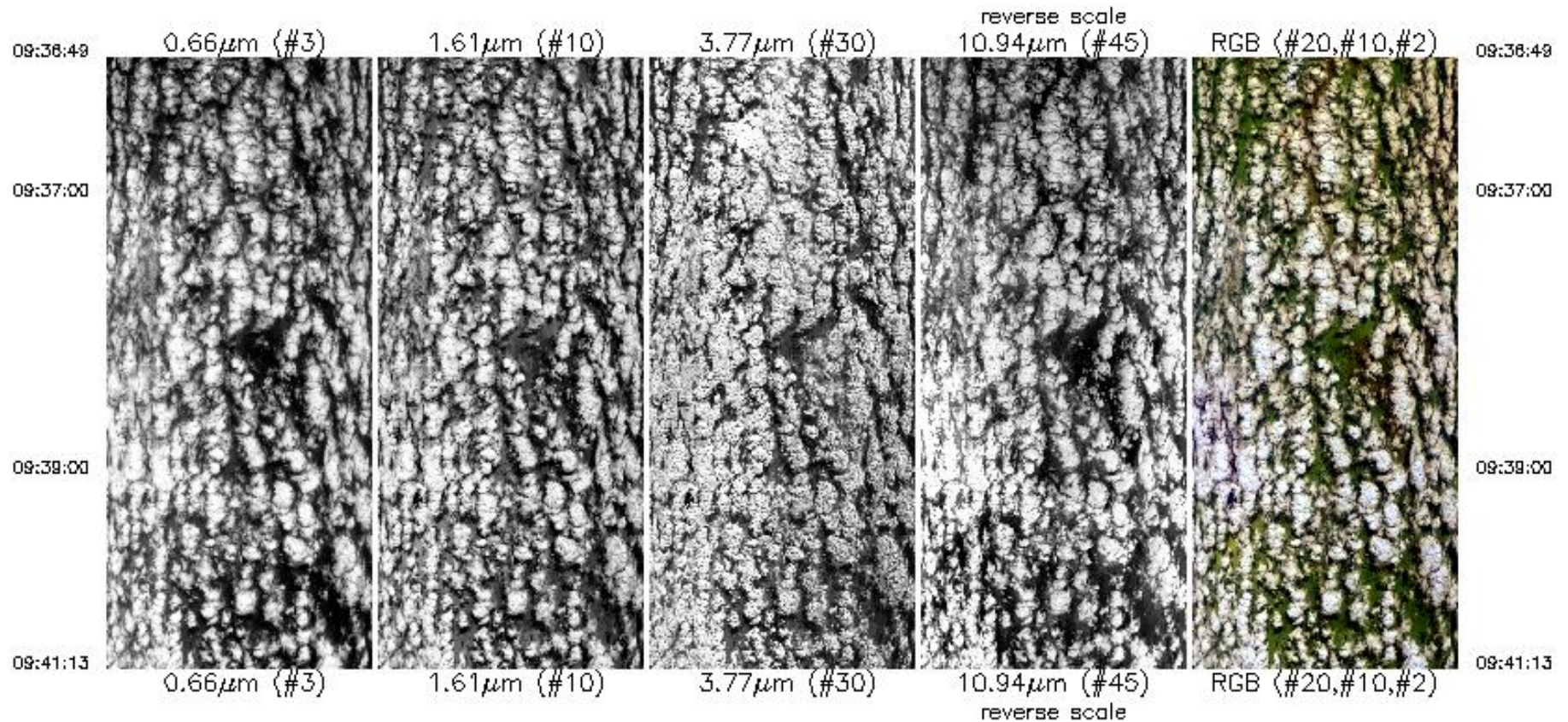
09:32:00

09:34:10

Upper Left Lat, Lon = -25.3° , 31.7°
Lower Right Lat, Lon = -23.6° , 31.7°
Aircraft Heading = 9.5°
Solar Zenith = 32.1°
GPS Altitude = 20228. m (MSL)

Lower Right Lat, Lon = -23.6°, 31.7°
Aircraft Heading = 9.5°
Solar Zenith = 32.1°
GPS Altitude = 20228. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign - 07 Sep 2000
South Africa
Flight #00-158 Track #6



Upper Left Lat, Lon = -23.6°, 31.9°
Lower Right Lat, Lon = -23.9°, 32.5°
Aircraft Heading = 157.1°
Solar Zenith = 29.6°
GPS Altitude = 20311. m (MSL)

Lower Right Lat, Lon = -23.9, 32.5

Aircraft Heading = 157.1°

Solar Zenith = 29.6°

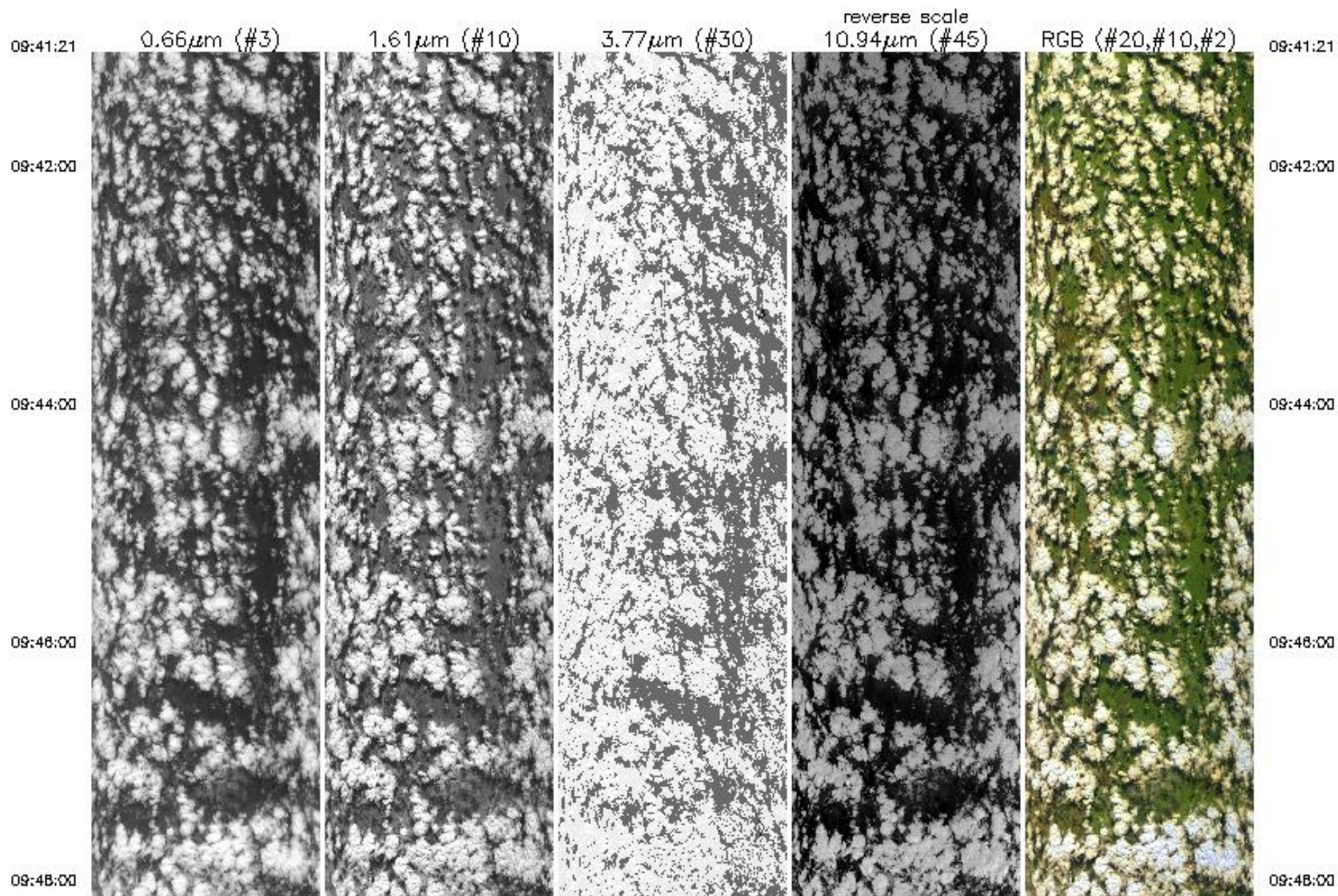
GPS Altitude = 20311. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign - 07 Sep 2000

Mozambique

Flight #00-158 Track #7



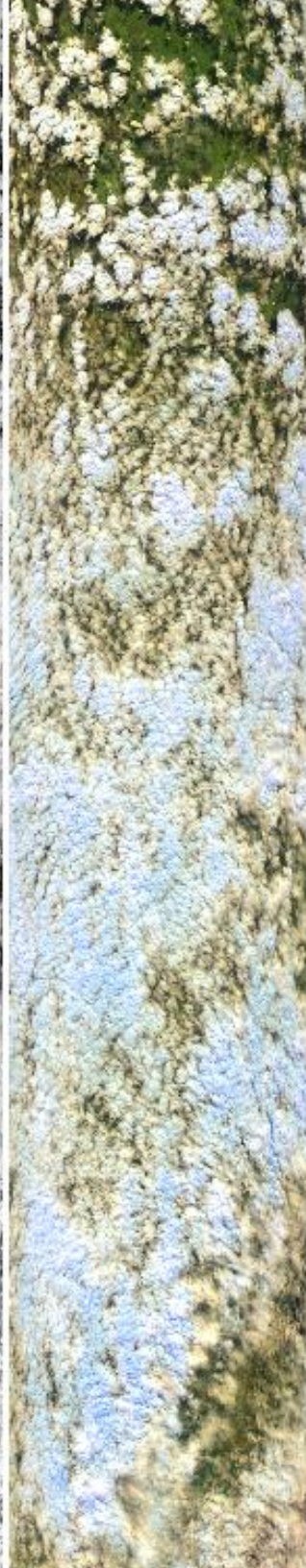
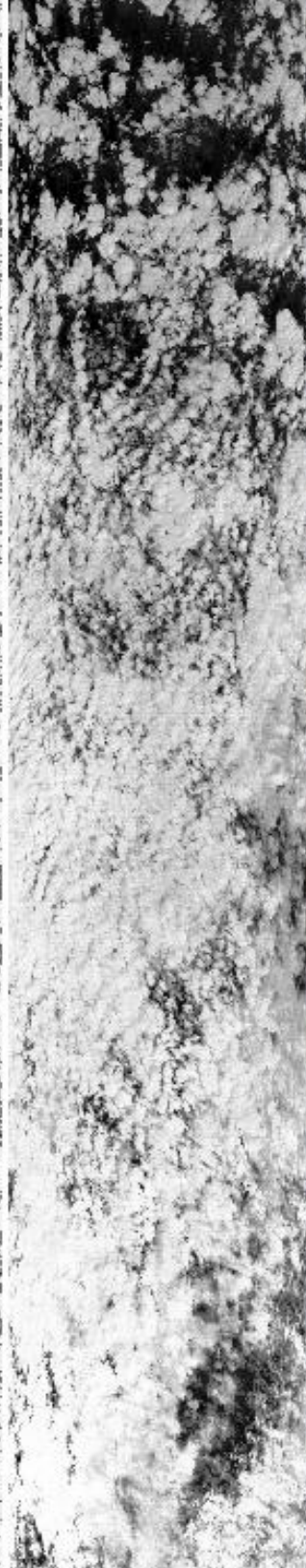
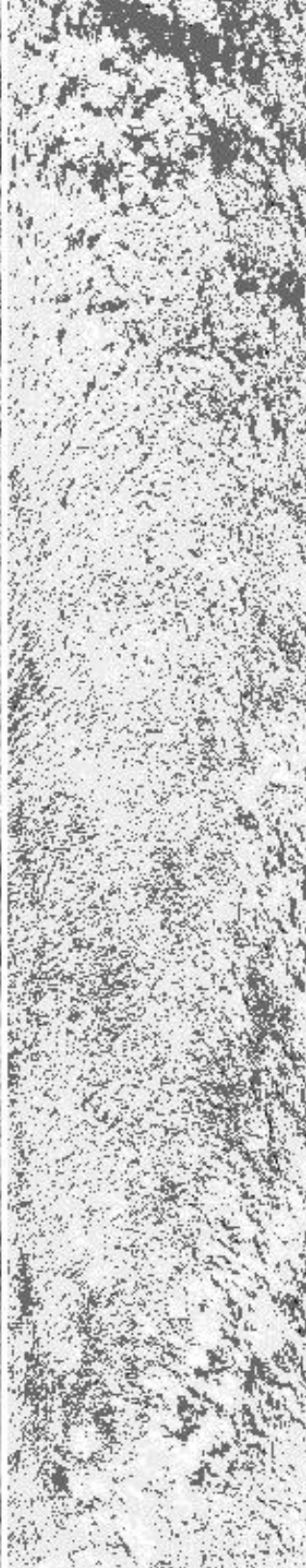
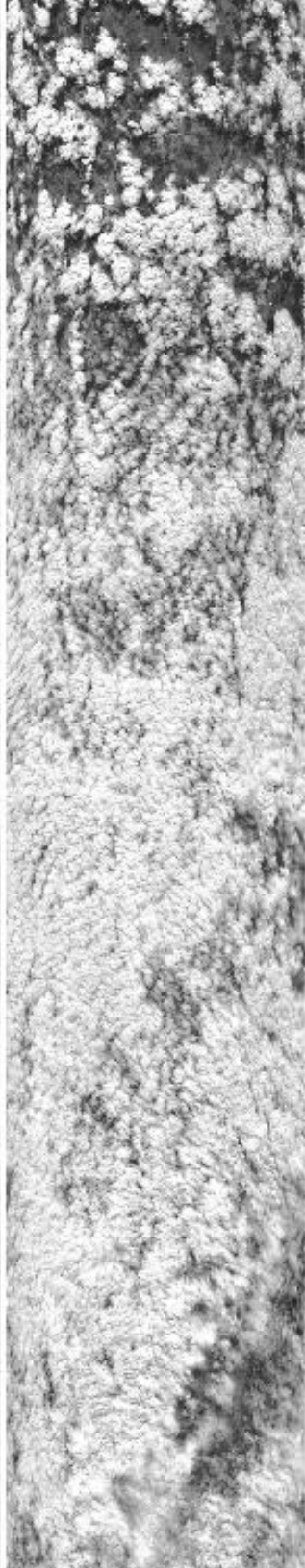
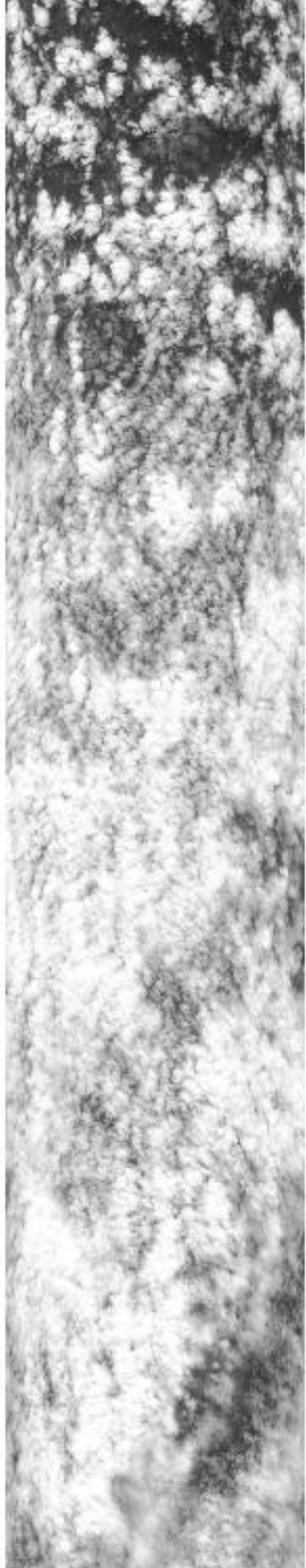
09:48:00

09:50:00

09:52:00

09:54:00

09:56:00



09:48:00

09:50:00

09:52:00

09:54:00

09:56:00

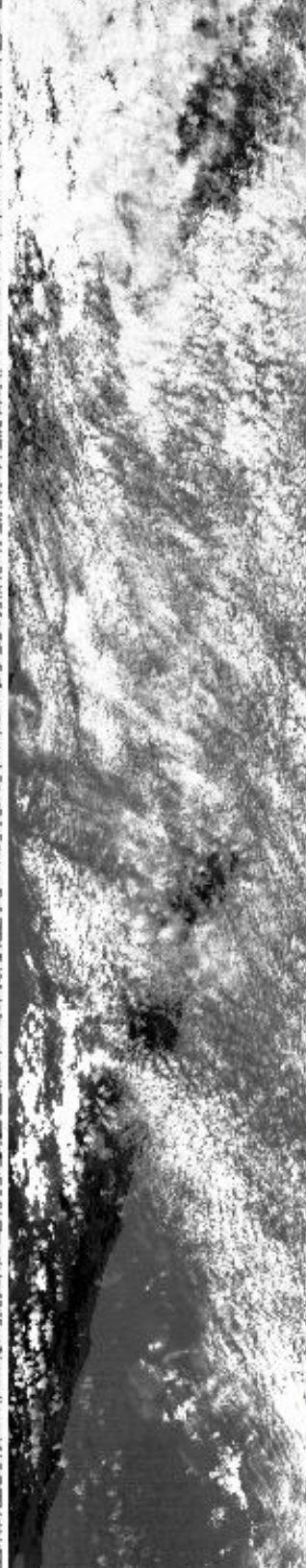
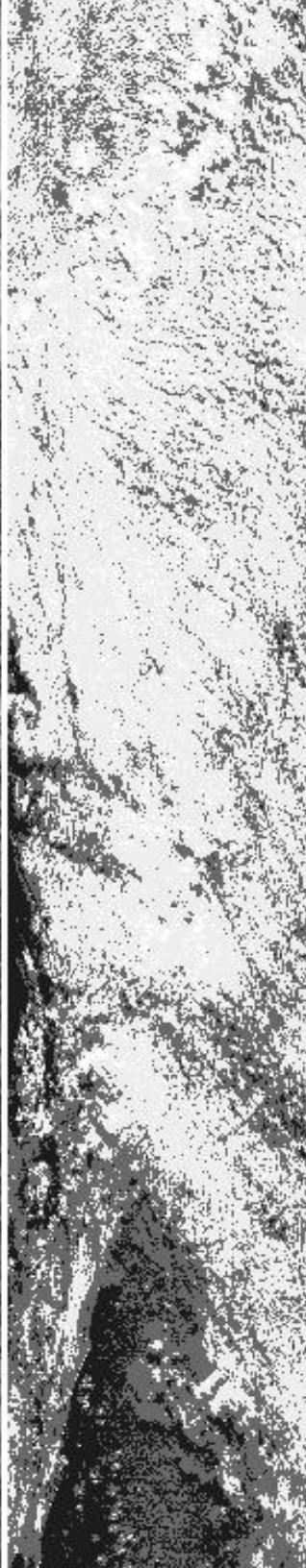
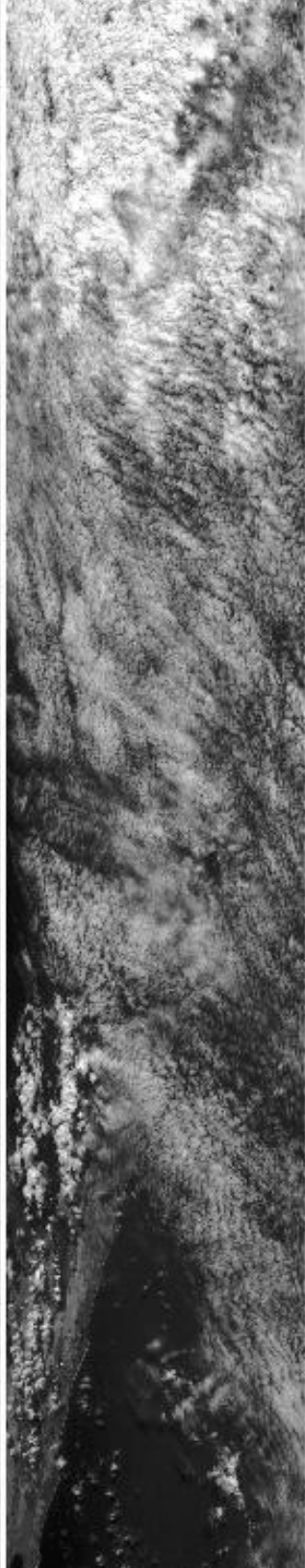
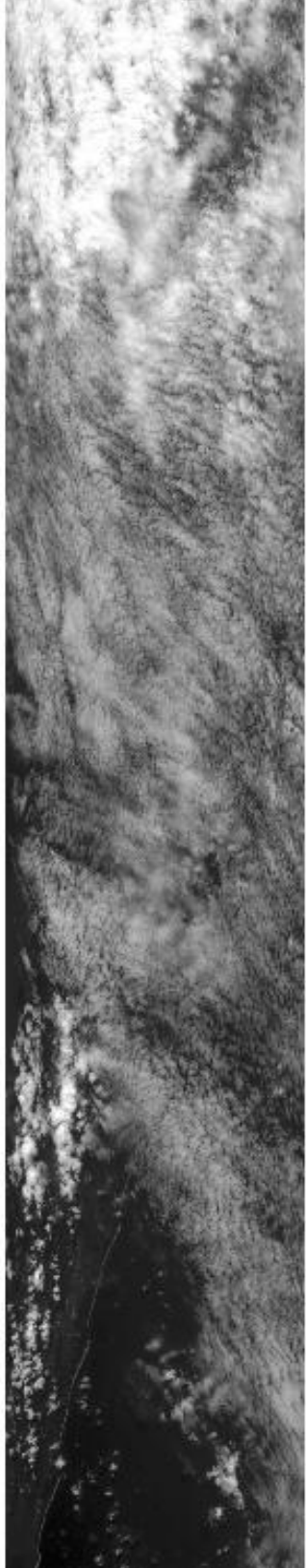
09:56:00

09:58:00

10:00:00

10:02:00

10:04:00



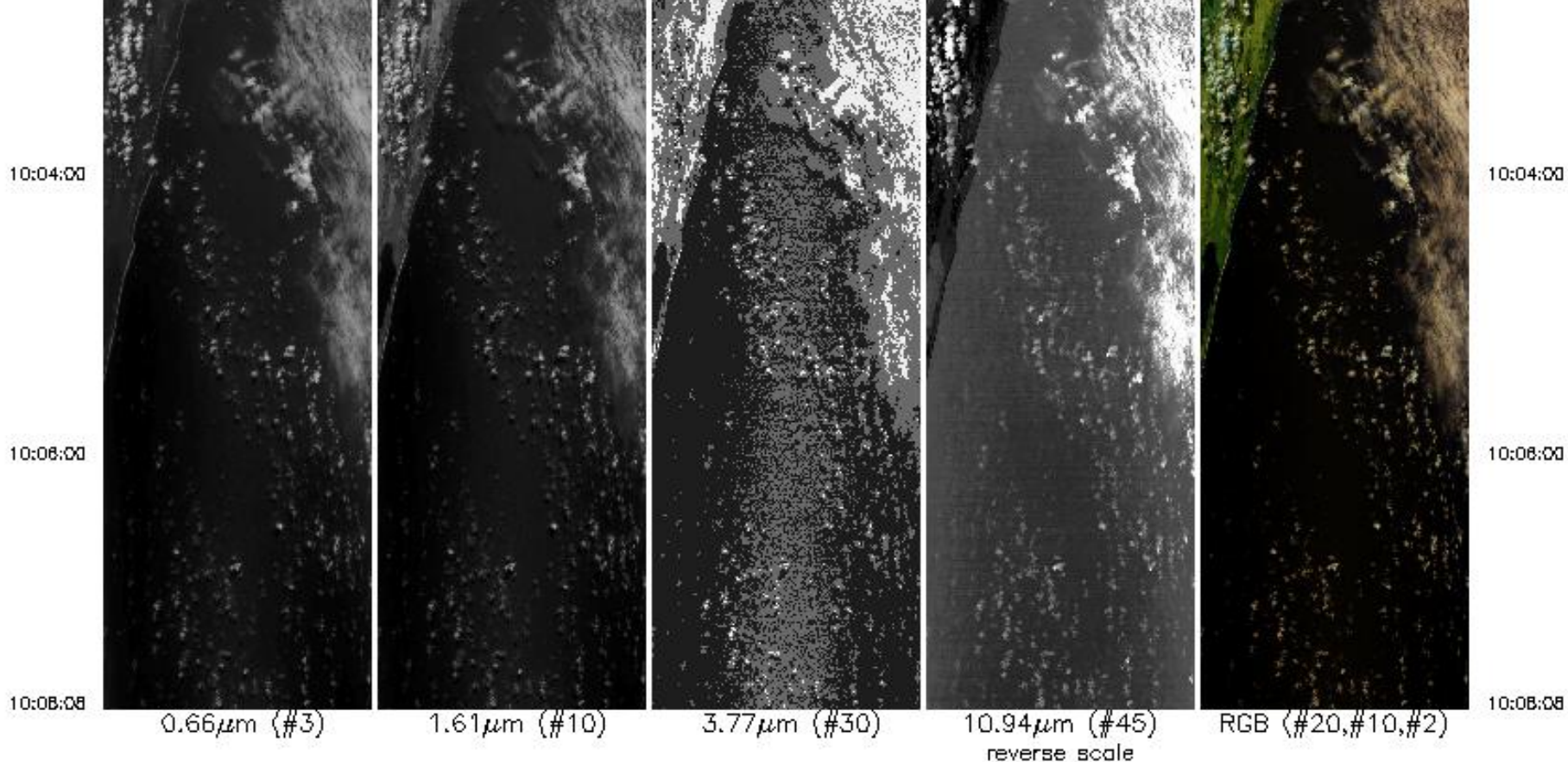
09:56:00

09:58:00

10:00:00

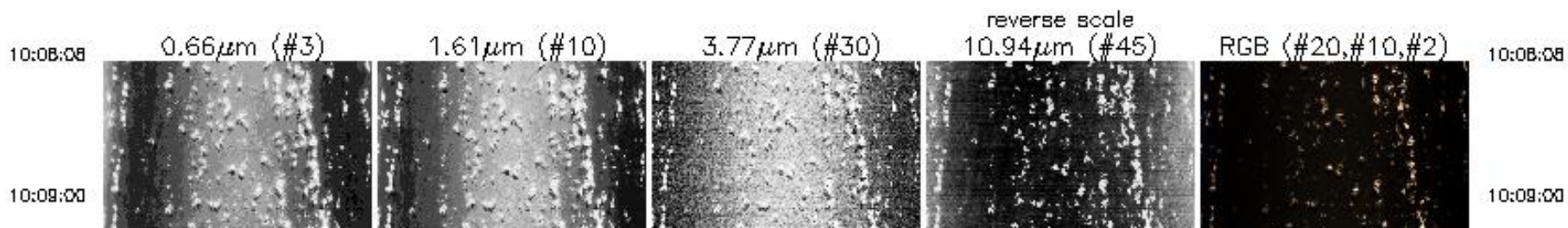
10:02:00

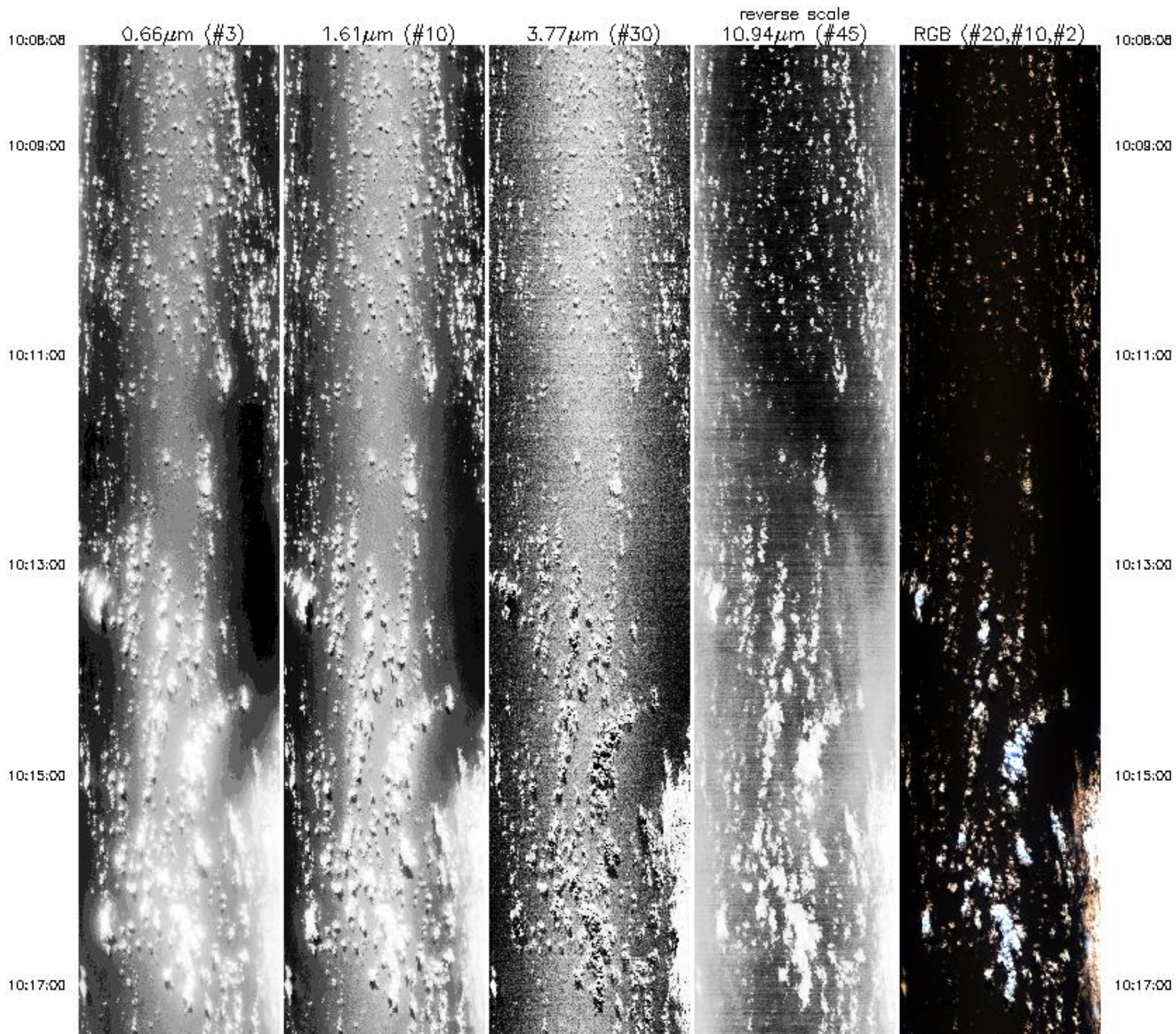
10:04:00



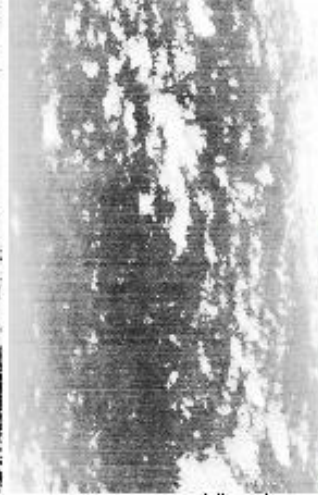
Upper Left Lat, Lon = -24.0° , 32.1°
 Lower Right Lat, Lon = -26.8° , 33.3°
 Aircraft Heading = 158.4°
 Solar Zenith = 30.0°
 GPS Altitude = 20447. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 07 Sep 2000
 Indian Ocean
 Flight #00-158 Track #8





10:17:00



10:17:00

10:18:48

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

10:18:48

Upper Left Lat, Lon = -26.9°, 33.0°
Lower Right Lat, Lon = -27.9°, 33.7°
Aircraft Heading = 164.8°
Solar Zenith = 33.2°
GPS Altitude = 20643. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign - 07 Sep 2000
Indian Ocean
Flight #00-158 Track #9

10:21:19

0.66µm (#3)

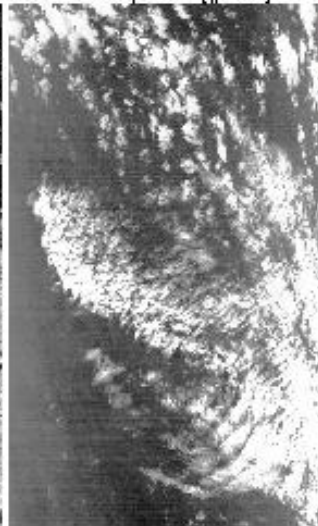
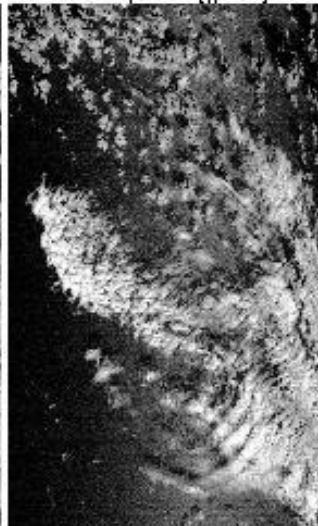
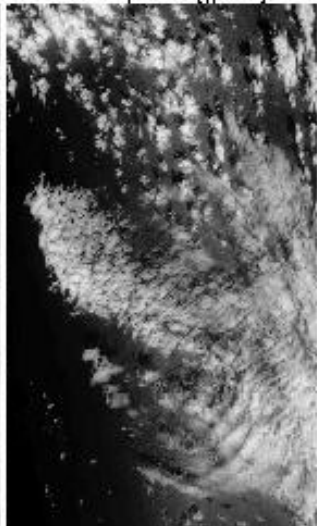
1.61µm (#10)

3.77µm (#30)

reverse scale
10.94µm (#45)

RGB (#20,#10,#2)

10:21:19



10:22:00

10:22:00

10:24:00

10:24:00

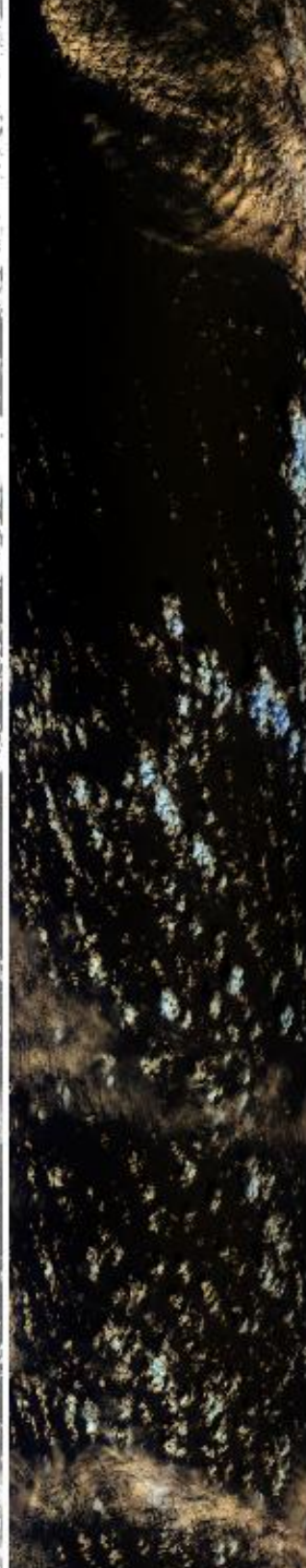
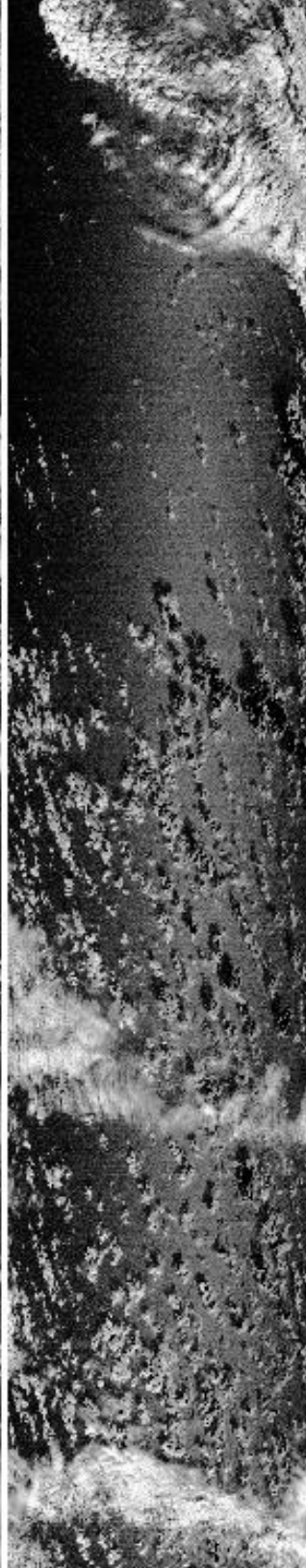
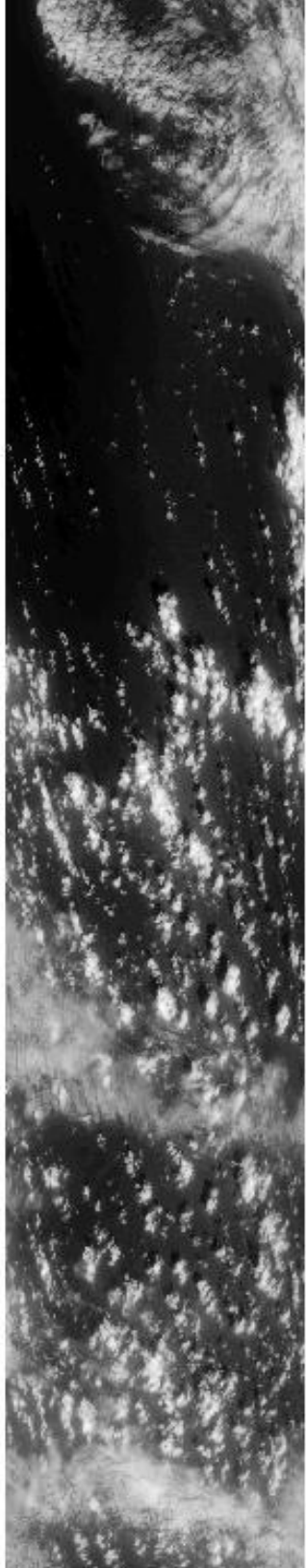
10:24:00

10:26:00

10:28:00

10:30:00

10:32:00



10:24:00

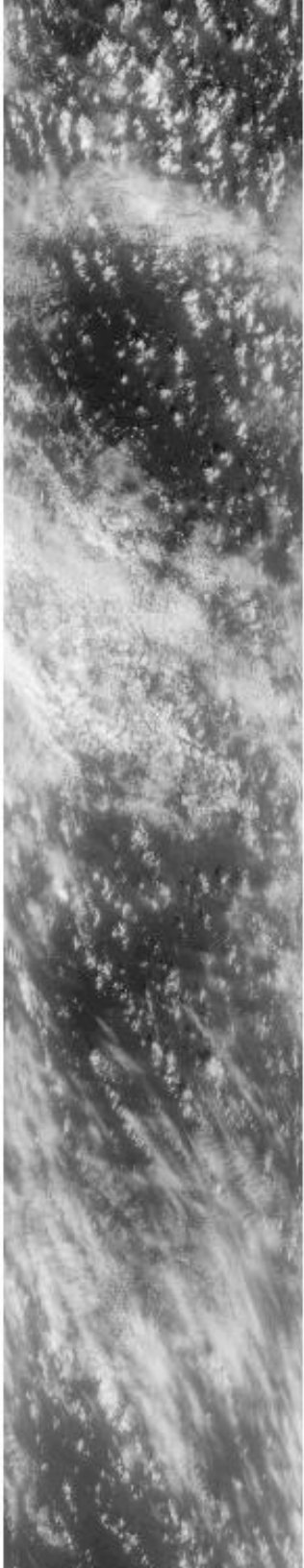
10:26:00

10:28:00

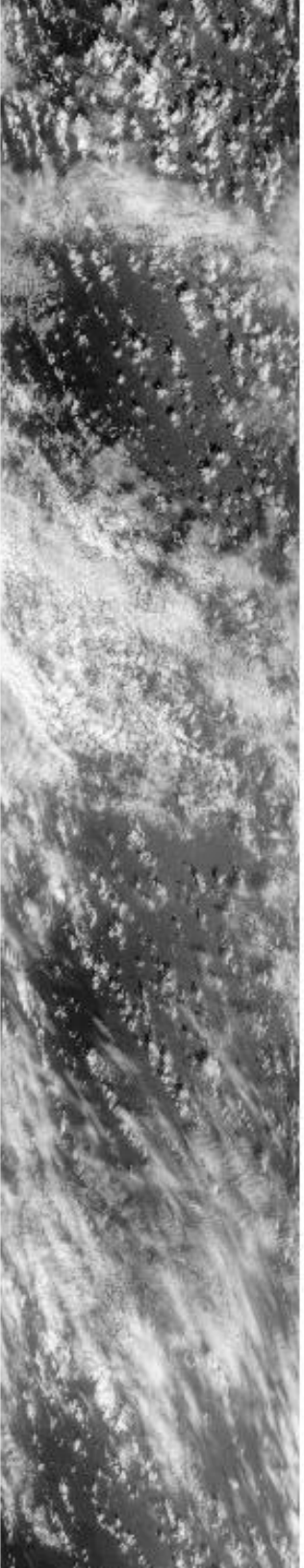
10:30:00

10:32:00

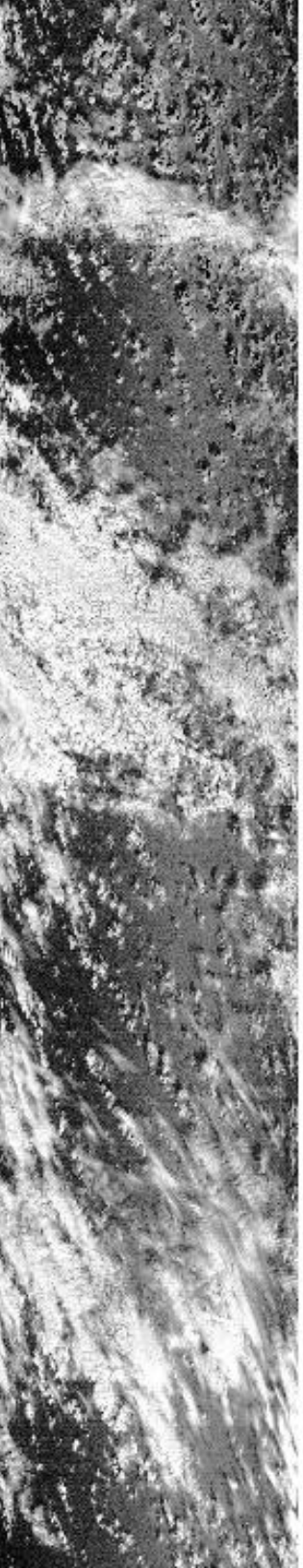
10:32:00



10:34:00



10:36:00



10:38:00



10:40:00



10:32:00

10:34:00

10:36:00

10:38:00

10:40:00

10:40:00

10:42:00

10:44:00

10:46:00

10:48:08

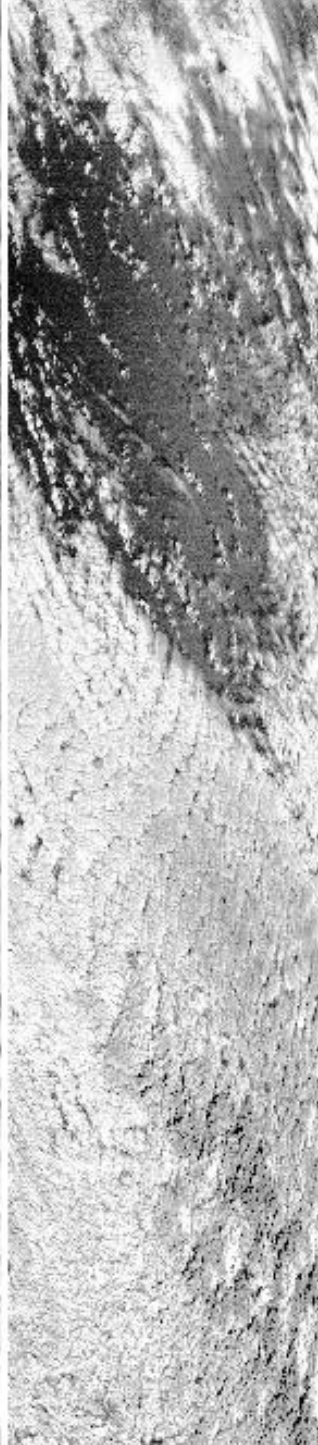
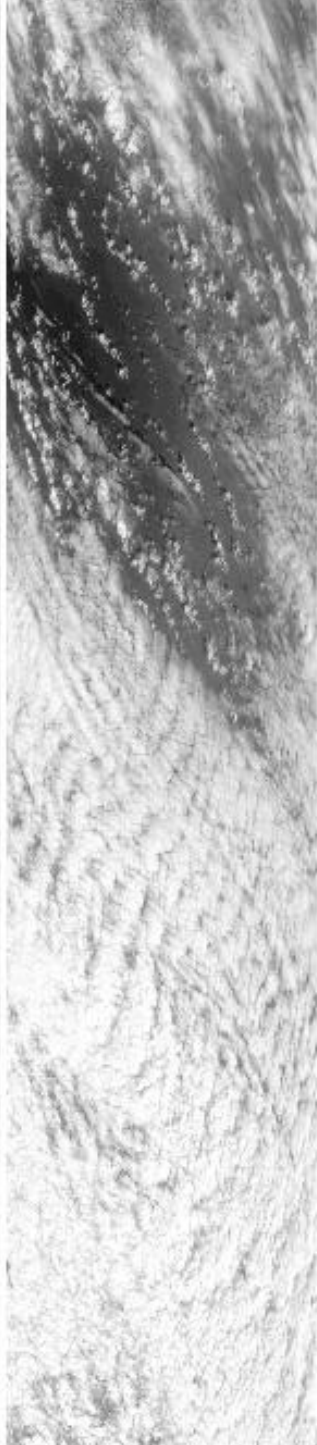
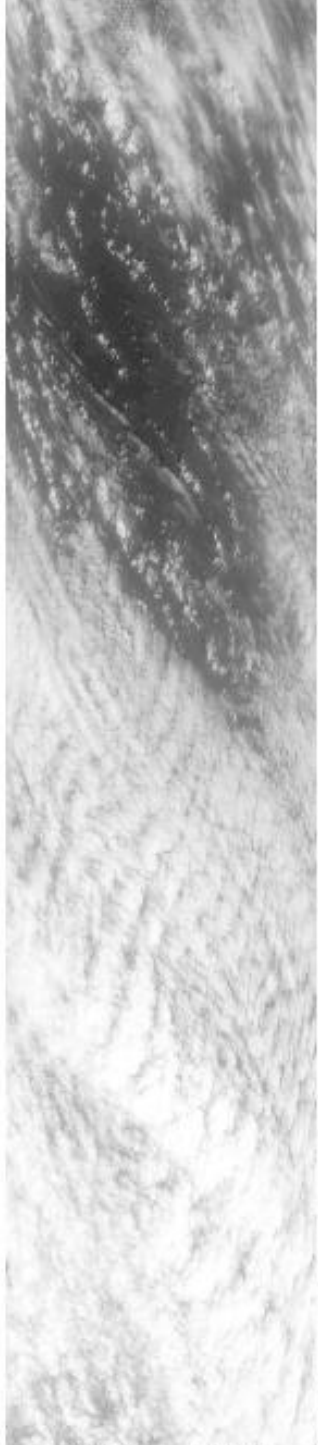
10:40:00

10:42:00

10:44:00

10:46:00

10:48:08



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 = -28.0° , 33.9°

Lower Right Lat, Lon = -24.9° , 34.1°

Aircraft Heading = 10.0°

10:48:08



0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

10:48:08

Upper Left Lat, Lon = -28.0°, 33.9°

Lower Right Lat, Lon = -24.9°, 34.1°

Aircraft Heading = 12.9°

Solar Zenith = 35.1°

GPS Altitude = 20720. m (MSL)

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SAFARI 2000 Campaign - 07 Sep 2000
Mozambique
Flight #00-158 Track #10

10:48:08

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

reverse scale
10.94µm (#45)

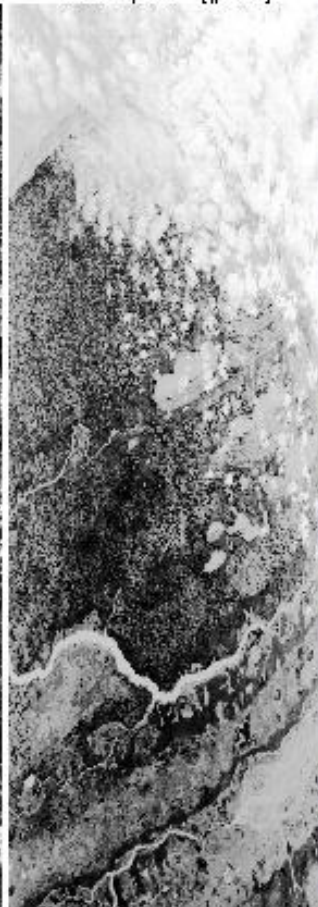
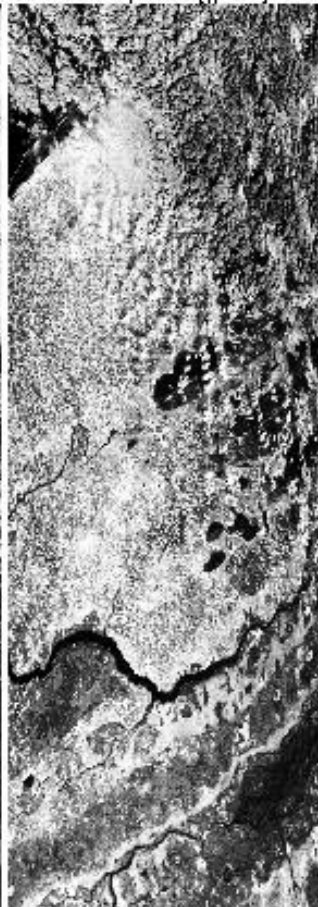
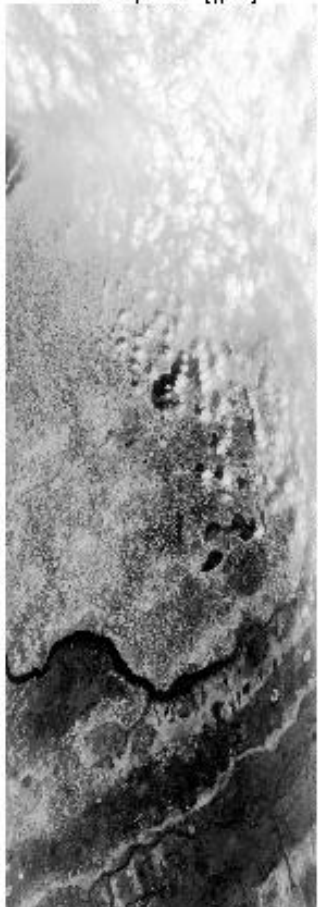
RGB (#20,#10,#2)

10:48:08

10:48:00

10:51:00

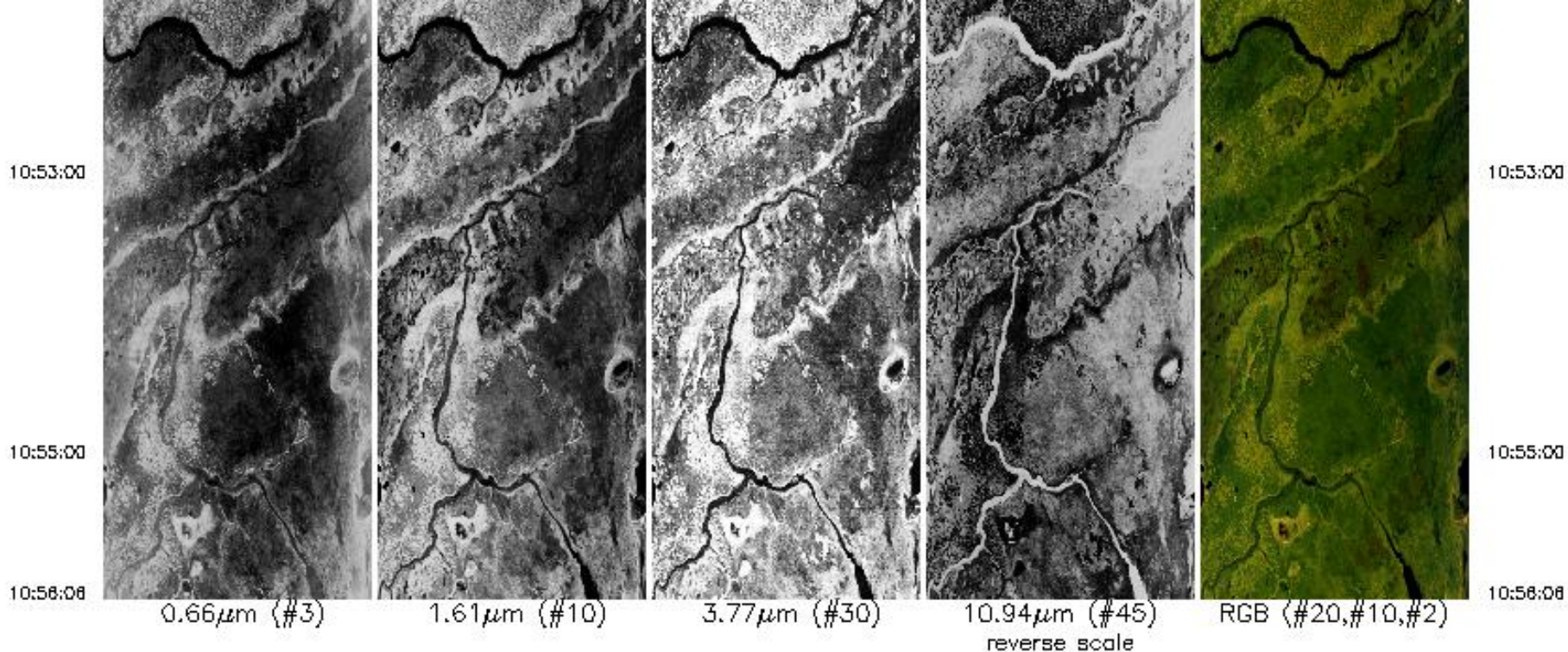
10:53:00



10:48:00

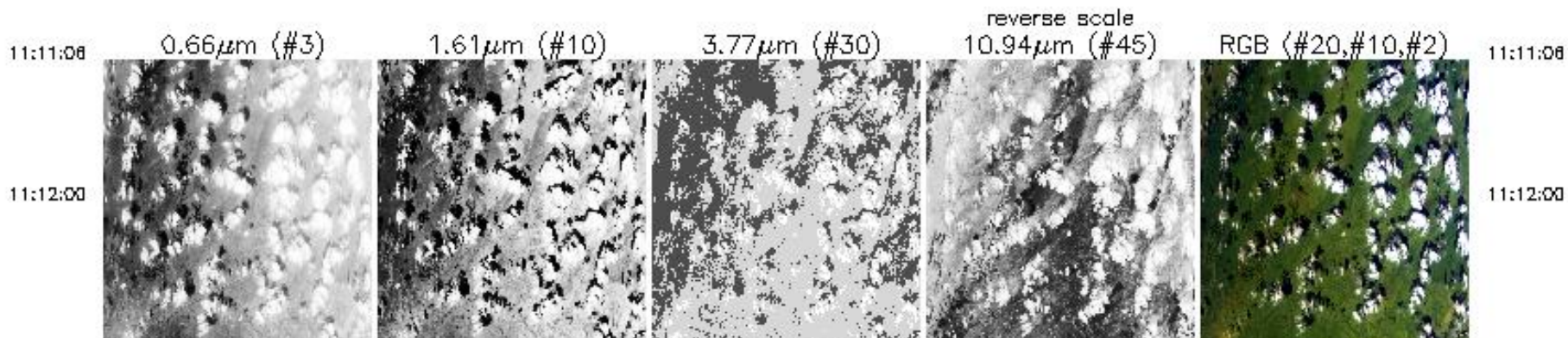
10:51:00

10:53:00



Upper Left Lat, Lon = -25.0° , 34.5°
 Lower Right Lat, Lon = -24.0° , 34.3°
 Aircraft Heading = 12.4°
 Solar Zenith = 35.0°
 GPS Altitude = 20803. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 07 Sep 2000
 Mozabique
 Flight #00–158 Track #11

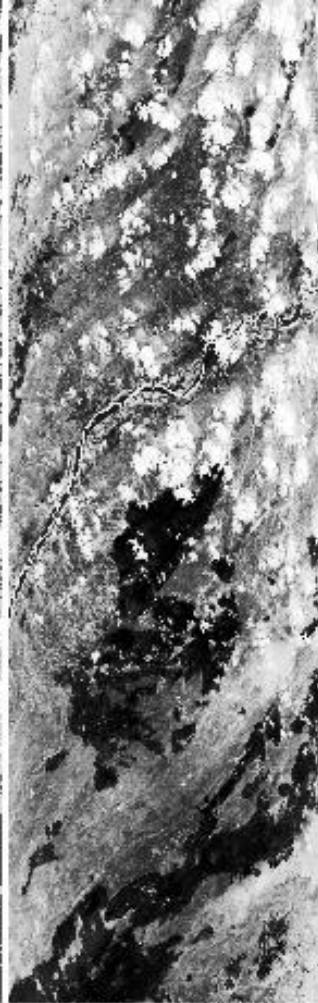
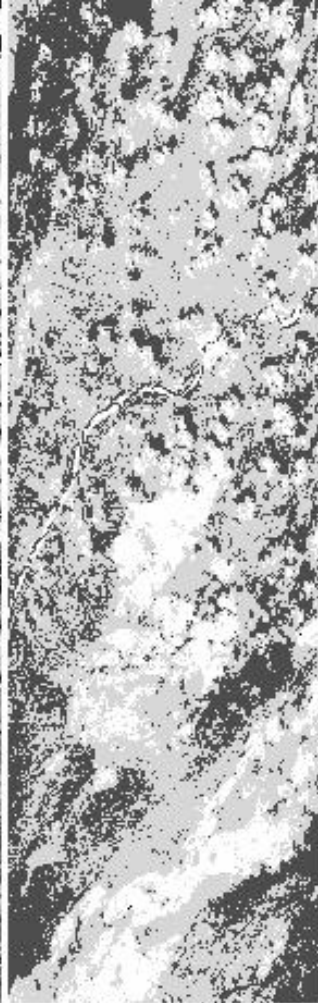
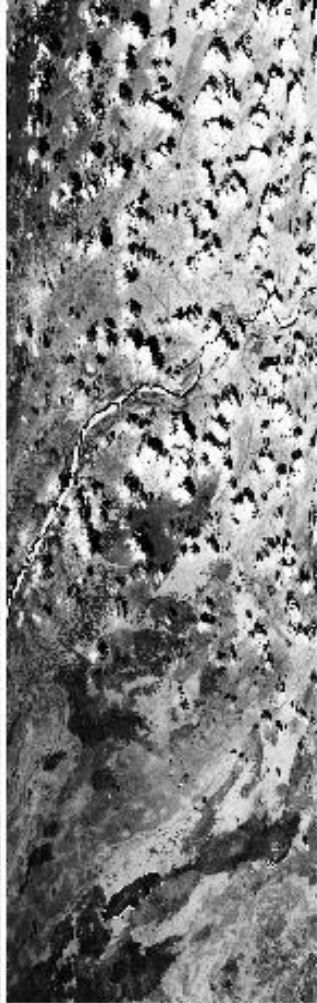


11:12:00

11:14:00

11:16:00

11:17:26



11:12:00

11:14:00

11:16:00

11:17:26

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

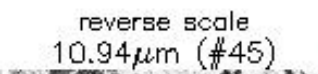
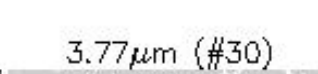
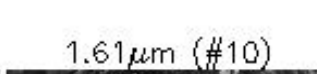
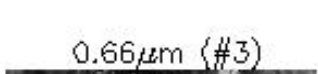
10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

Upper Left Lat, Lon = -23.4°, 32.8°
Lower Right Lat, Lon = -23.6°, 32.0°
Aircraft Heading = 282.4°
Solar Zenith = 35.8°
GPS Altitude = 20864. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign - 07 Sep 2000
South Africa
Flight #00-158 Track #12

11:18:57



11:18:57

0.66µm (#3)

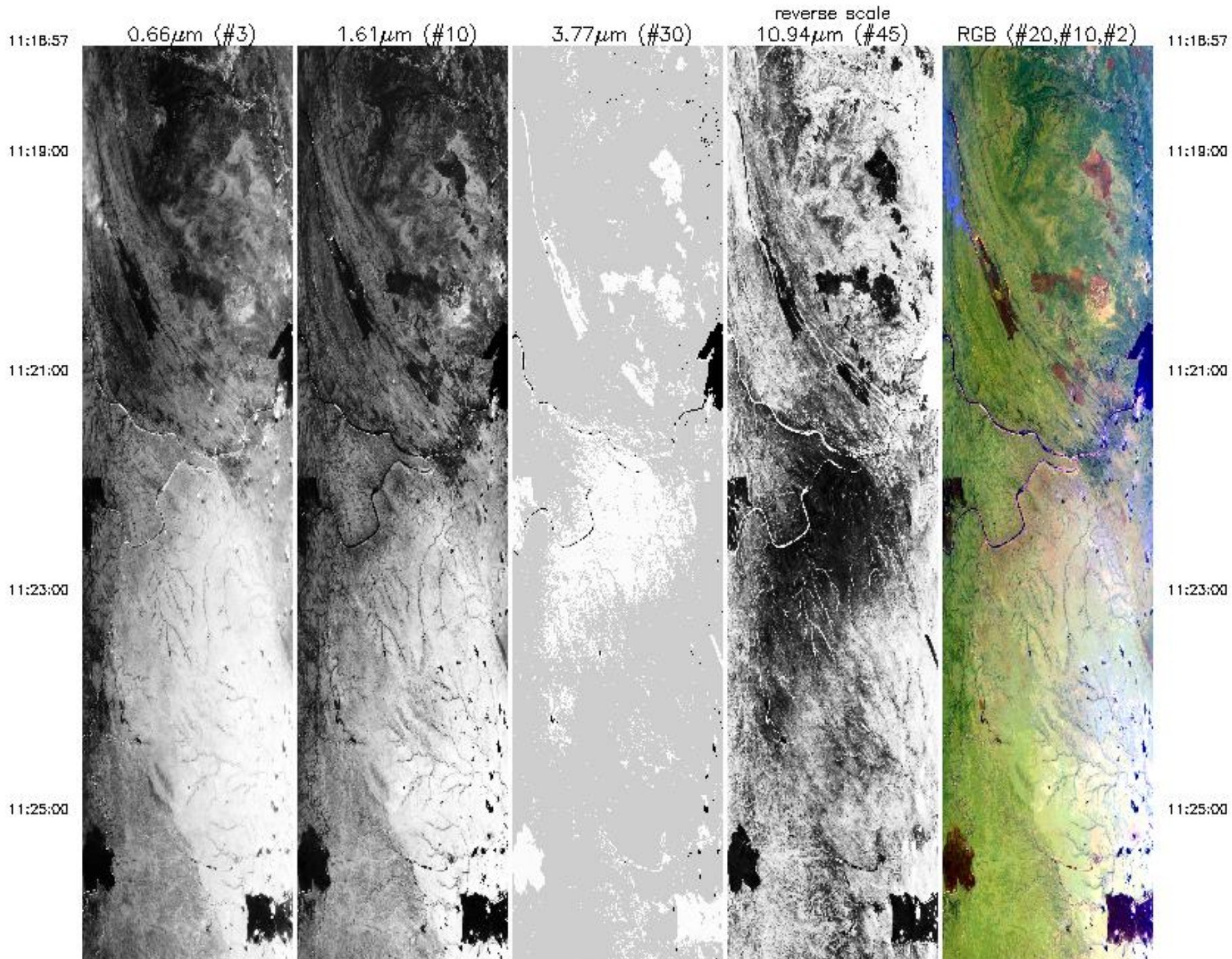
1.61µm (#10)

3.77µm (#30)

reverse scale
10.94µm (#45)

RGB (#20,#10,#2)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign - 07 Sep 2000
South Africa
Flight #00-158 Track #12



11:25:00

11:25:00

11:27:00

11:27:00

11:28:00

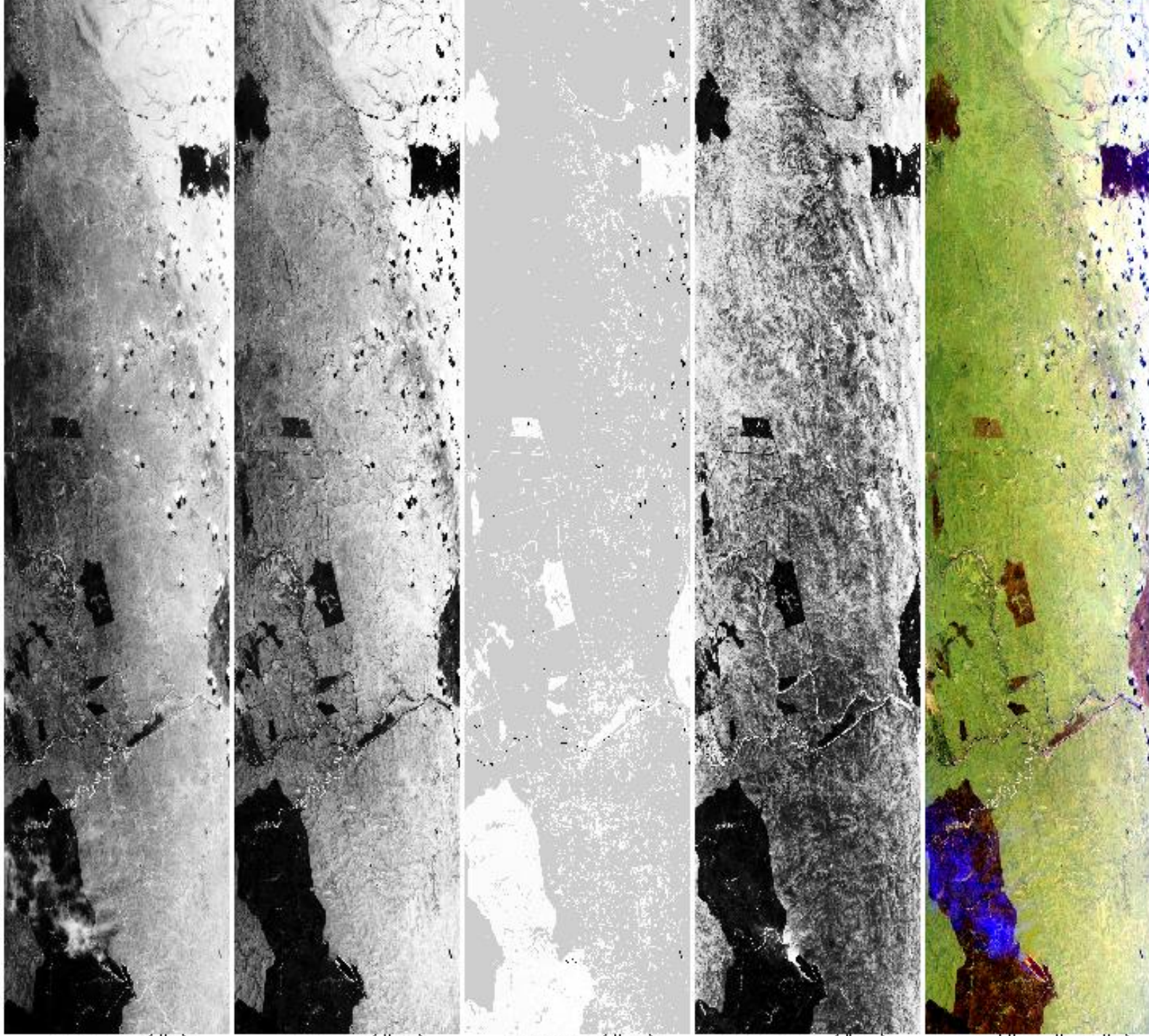
11:28:00

11:31:00

11:31:00

11:34:14

11:34:14



0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)

RGB (#20,#10,#2)

reverse scale

Upper Left Lat, Lon = -23.5°, 31.7°

Lower Right Lat, Lon = -25.3°, 31.7°

Aircraft Heading = 184.3°

11:34:14



0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)
reverse scale

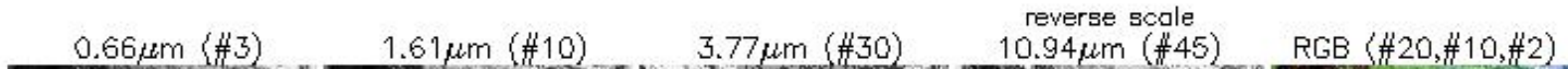
RGB (#20,#10,#2)

11:34:14

Upper Left Lat, Lon = -23.5°, 31.7°
 Lower Right Lat, Lon = -25.3°, 31.7°
 Aircraft Heading = 184.3°
 Solar Zenith = 36.4°
 GPS Altitude = 20932. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign - 07 Sep 2000
 South Africa
 Flight #00-158 Track #13

11:38:01



0.66µm (#3)

1.61µm (#10)

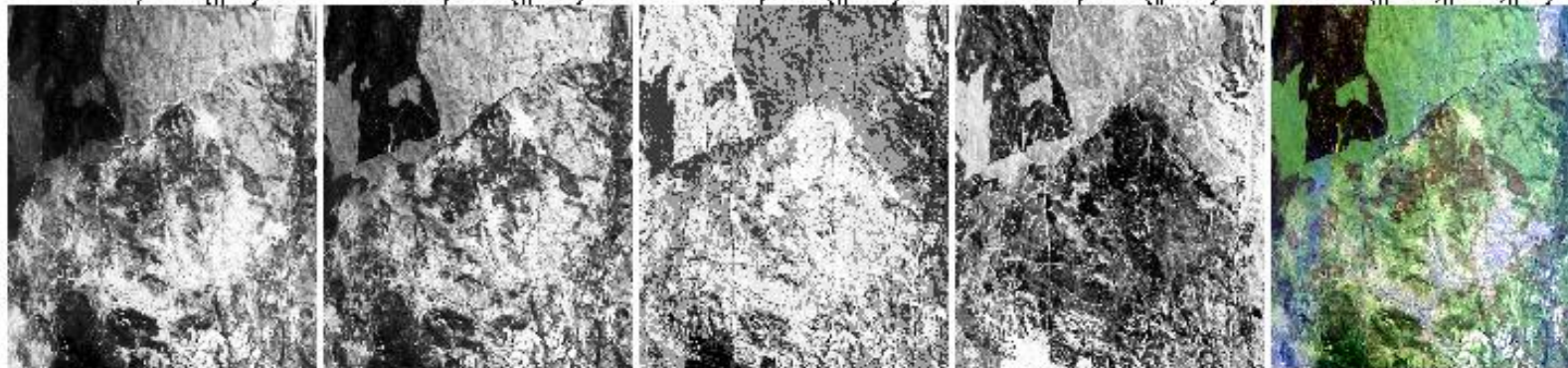
3.77µm (#30)

reverse scale
10.94µm (#45)

RGB (#20,#10,#2)

11:38:01

11:38:17



0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)
reverse scale

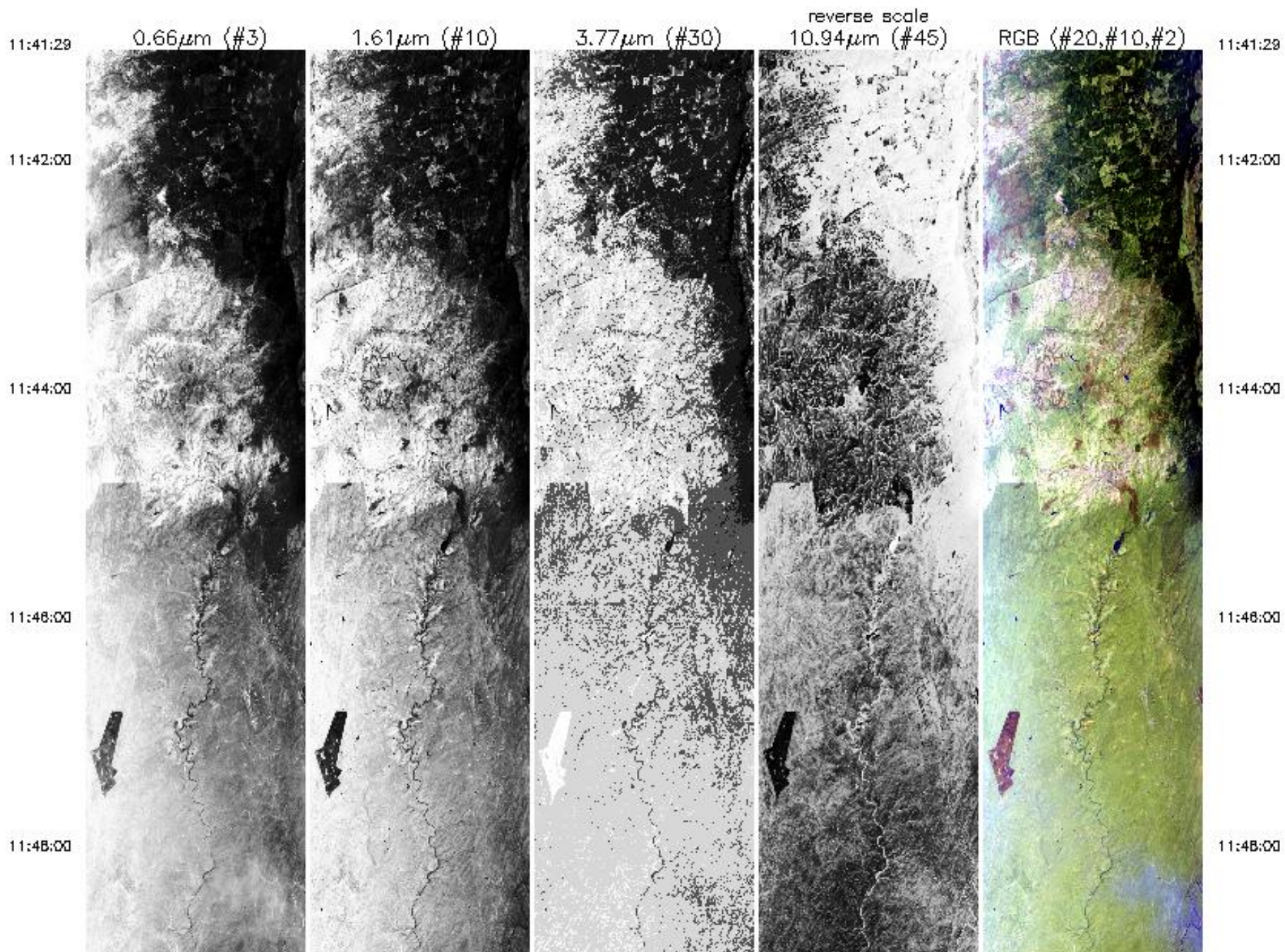
RGB (#20,#10,#2)

11:38:17

Upper Left Lat, Lon = -25.2°, 31.4°
 Lower Right Lat, Lon = -25.5°, 31.1°
 Aircraft Heading = 278.1°
 Solar Zenith = 40.0°
 GPS Altitude = 20972. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign - 07 Sep 2000
 South Africa
 Flight #00-158 Track #14

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #14



11:48:00

11:50:00

11:52:00

11:54:00

11:55:28



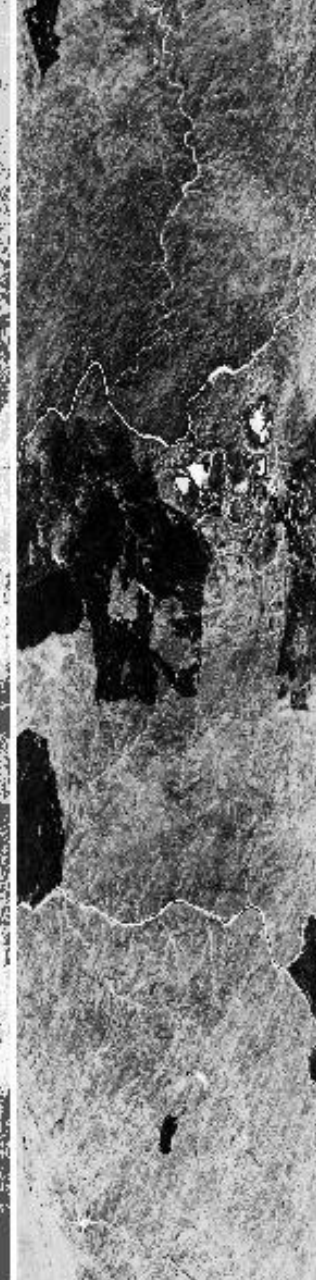
0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



RGB (#20,#10,#2)

11:48:00

11:50:00

11:52:00

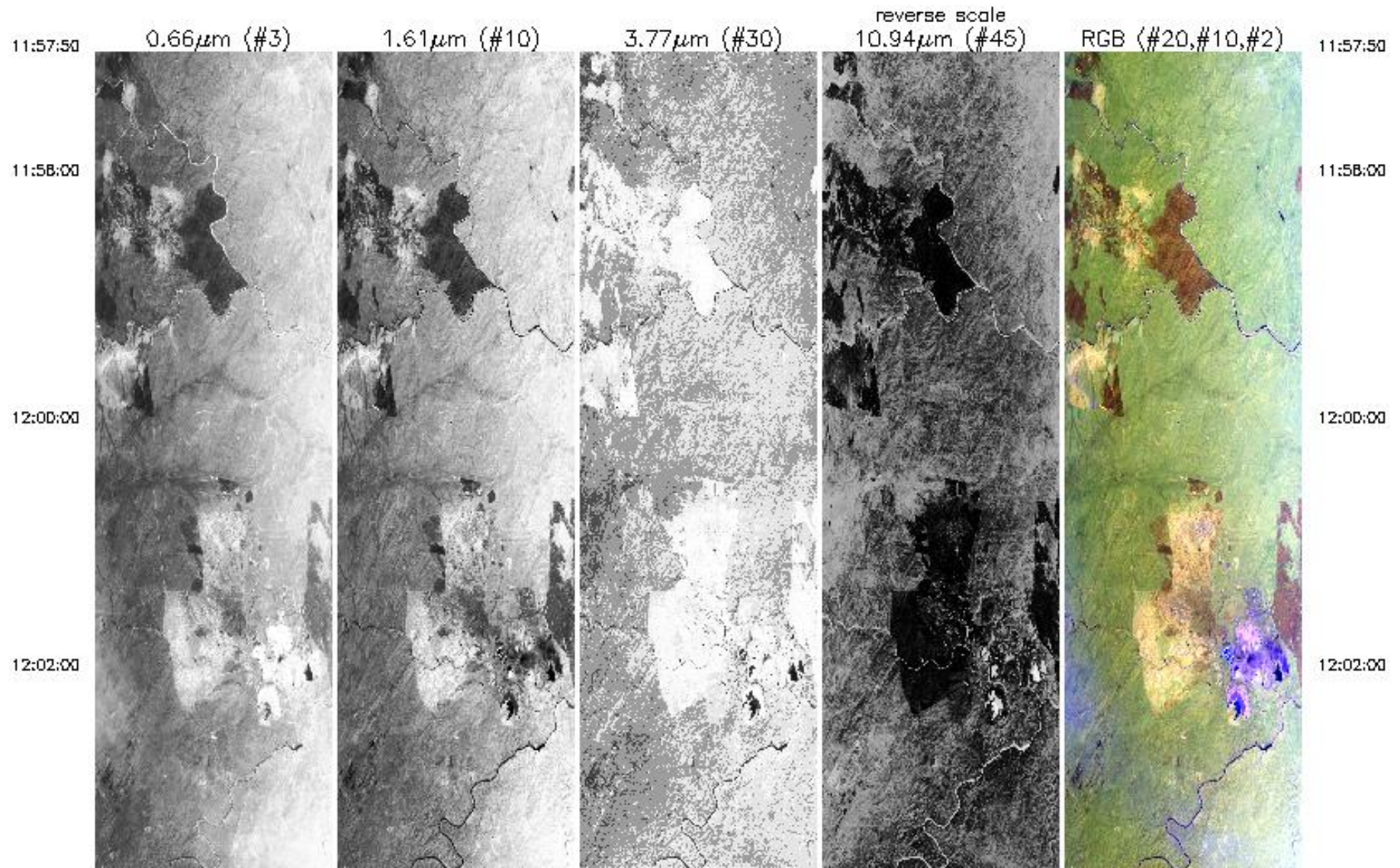
11:54:00

11:55:28

Upper Left Lat, Lon = -25.1°, 31.2°
Lower Right Lat, Lon = -23.4°, 31.1°
Aircraft Heading = 15.2°
Solar Zenith = 40.6°
GPS Altitude = 21035. m (MSL)

Upper Left Lat, Lon = -25.1° , 31.2°
Lower Right Lat, Lon = -23.4° , 31.1°
Aircraft Heading = 15.2°
Solar Zenith = 40.6°
GPS Altitude = 21035. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 07 Sep 2000
South Africa
Flight #00-158 Track #15



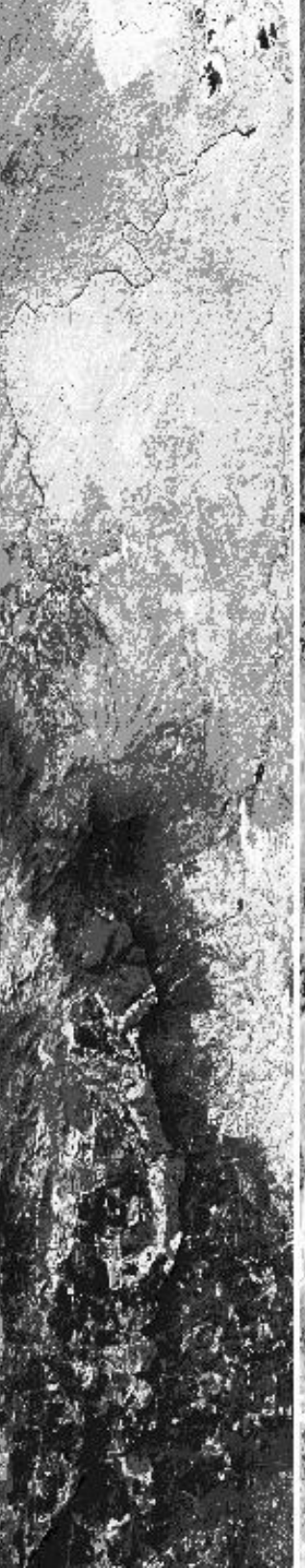
12:02:00



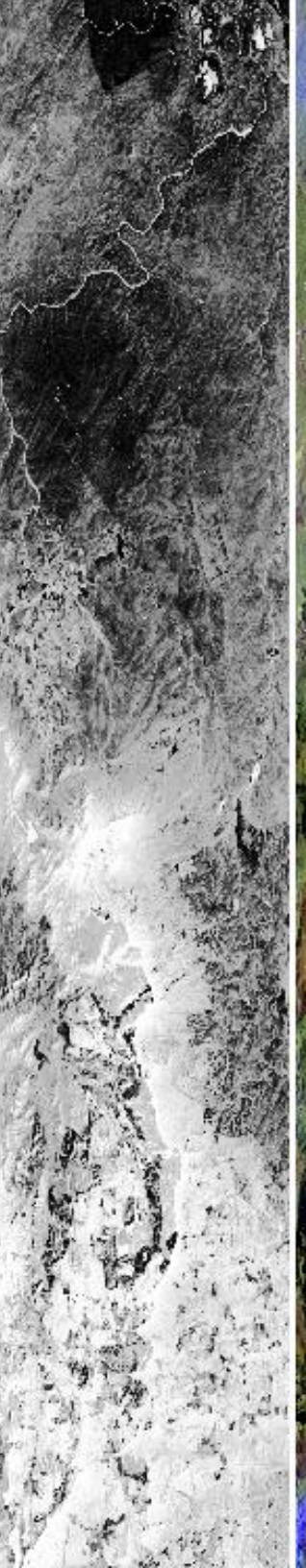
12:04:00



12:06:00



12:08:00



12:10:00



12:02:00

12:04:00

12:06:00

12:08:00

12:10:00

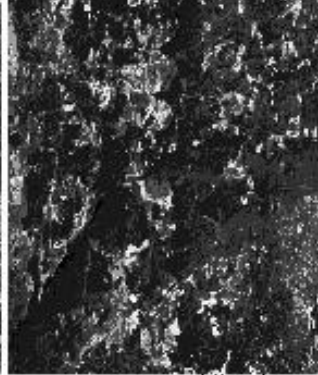
12:13:08



0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale

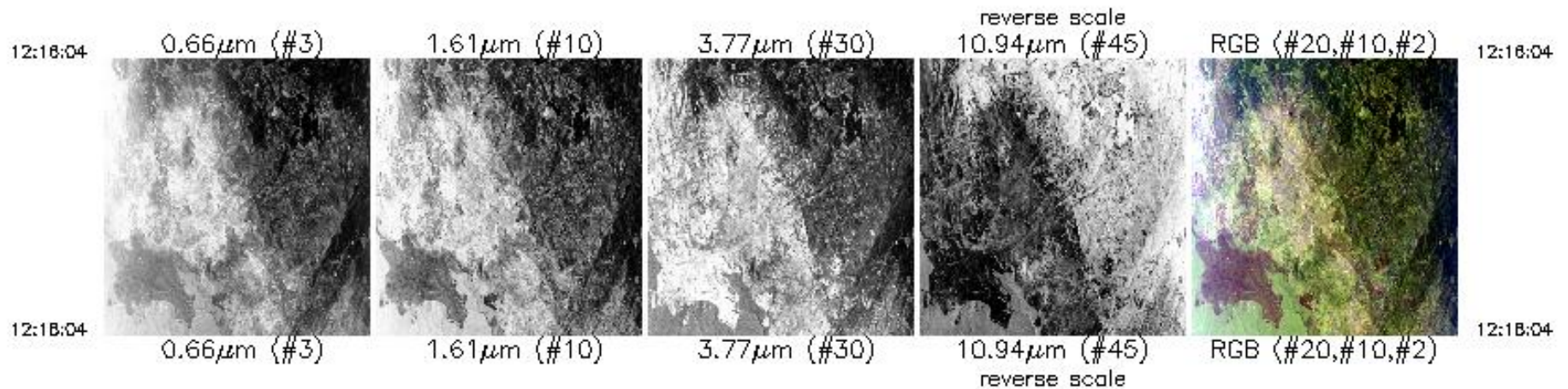


RGB (#20, #10, #2)

12:13:08

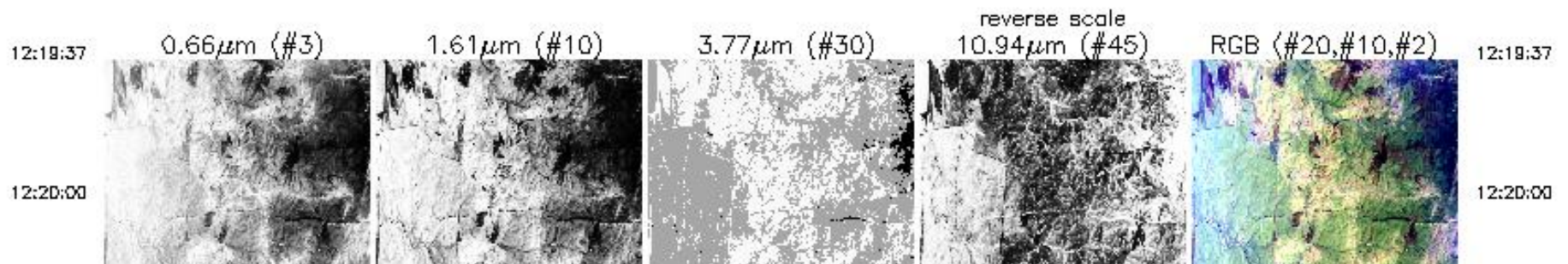
Upper Left Lat, Lon = -23.4° , 30.9°
Lower Right Lat, Lon = -25.2° , 31.0°
Aircraft Heading = 190.3°
Solar Zenith = 42.0°
GPS Altitude = 21080. m (MSL)

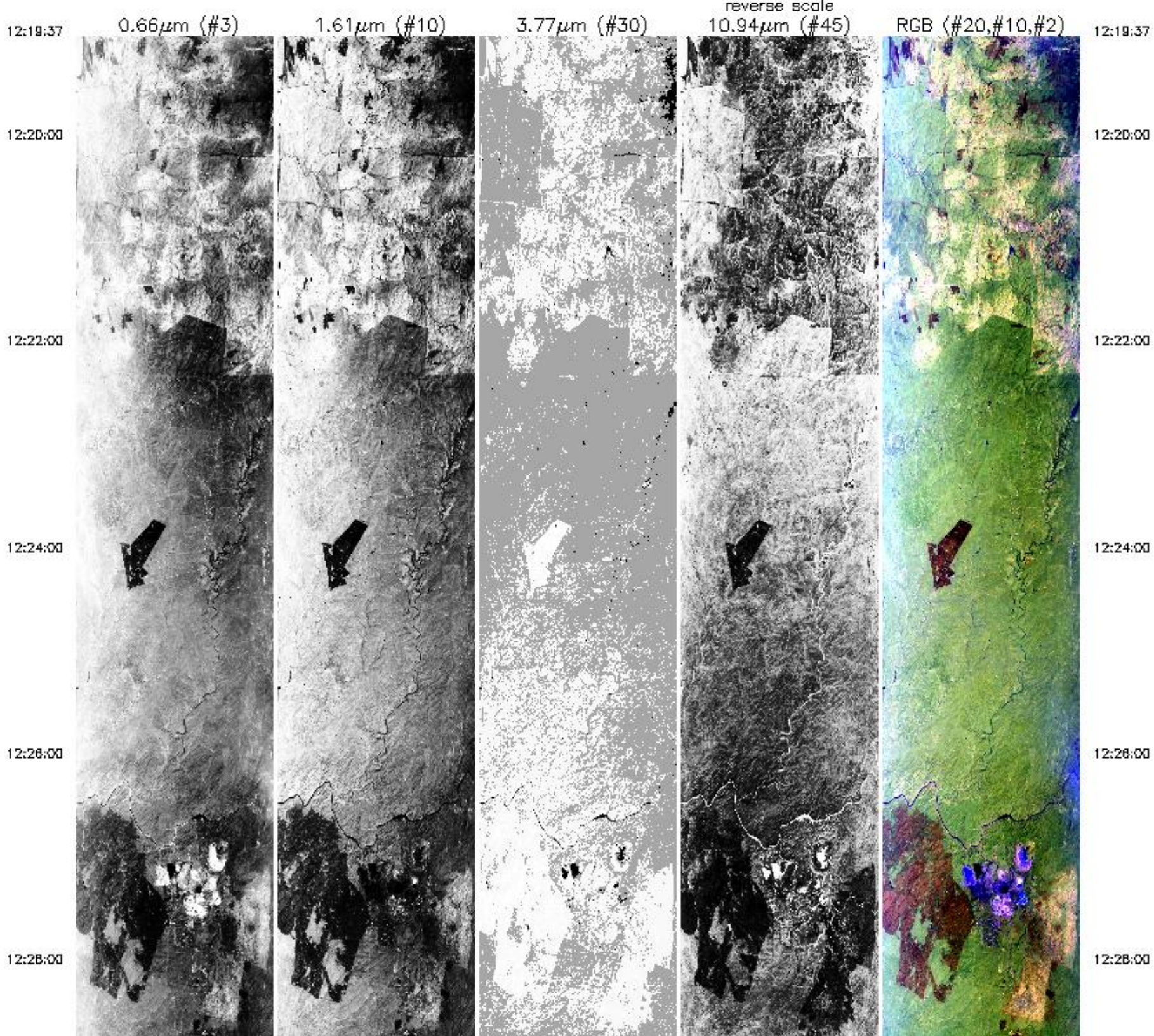
MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 07 Sep 2000
 South Africa
 Flight #00-158 Track #16



Upper Left Lat, Lon = -25.3° , 31.1°
 Lower Right Lat, Lon = -24.9° , 31.1°
 Aircraft Heading = 49.7°
 Solar Zenith = 46.6°
 GPS Altitude = 20940. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 07 Sep 2000
 South Africa
 Flight #00-158 Track #17





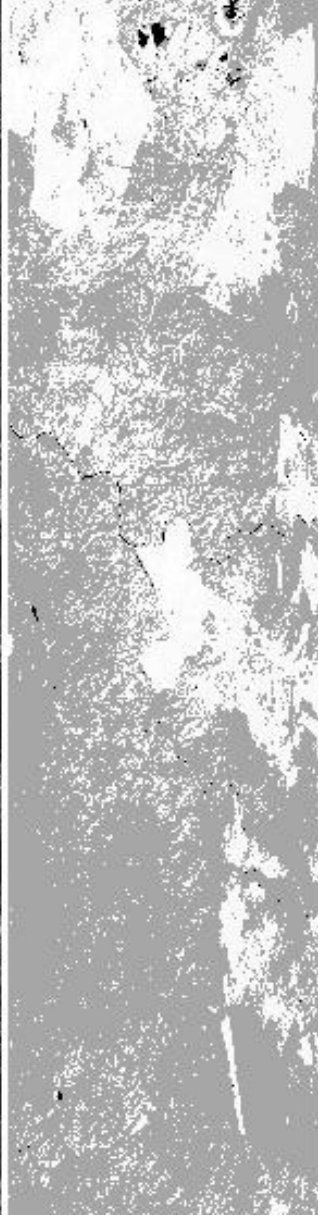
12:28:00

12:30:00

12:32:00

12:34:00

12:34:58



12:28:00

12:30:00

12:32:00

12:34:00

12:34:58

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 = -24.9°, 31.5°
 Lower Right Lat, Lon = -23.2°, 30.9°
 Aircraft Heading = 353.4°
 Solar Zenith = 47.3°
 GPS Altitude = 21175. m (MSL)

Lower Right Lat, Lon = -23.2° , 30.9°

Aircraft Heading = 353.4°

Solar Zenith = 47.3°

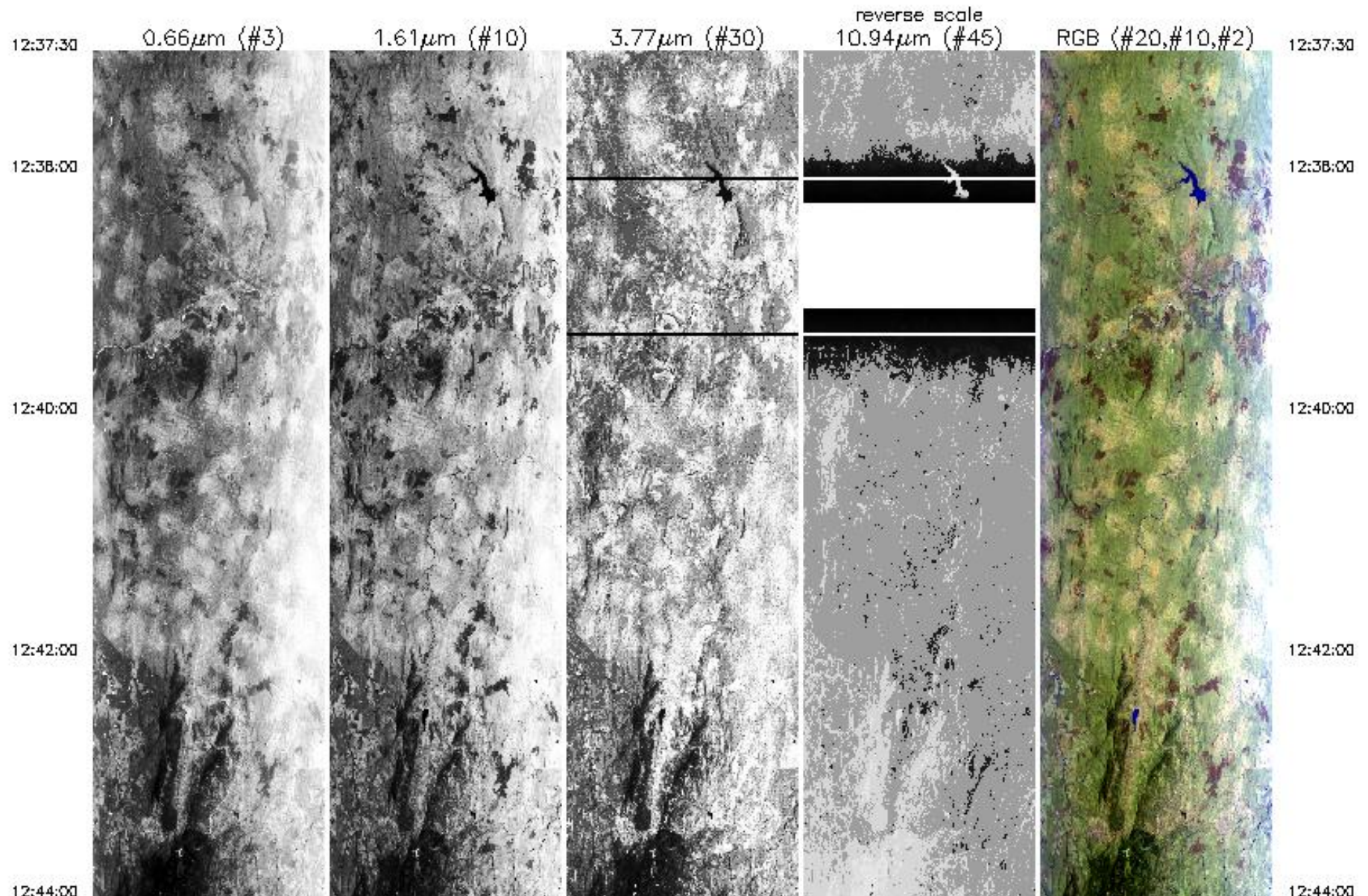
GPS Altitude = 21175. m (MSL)

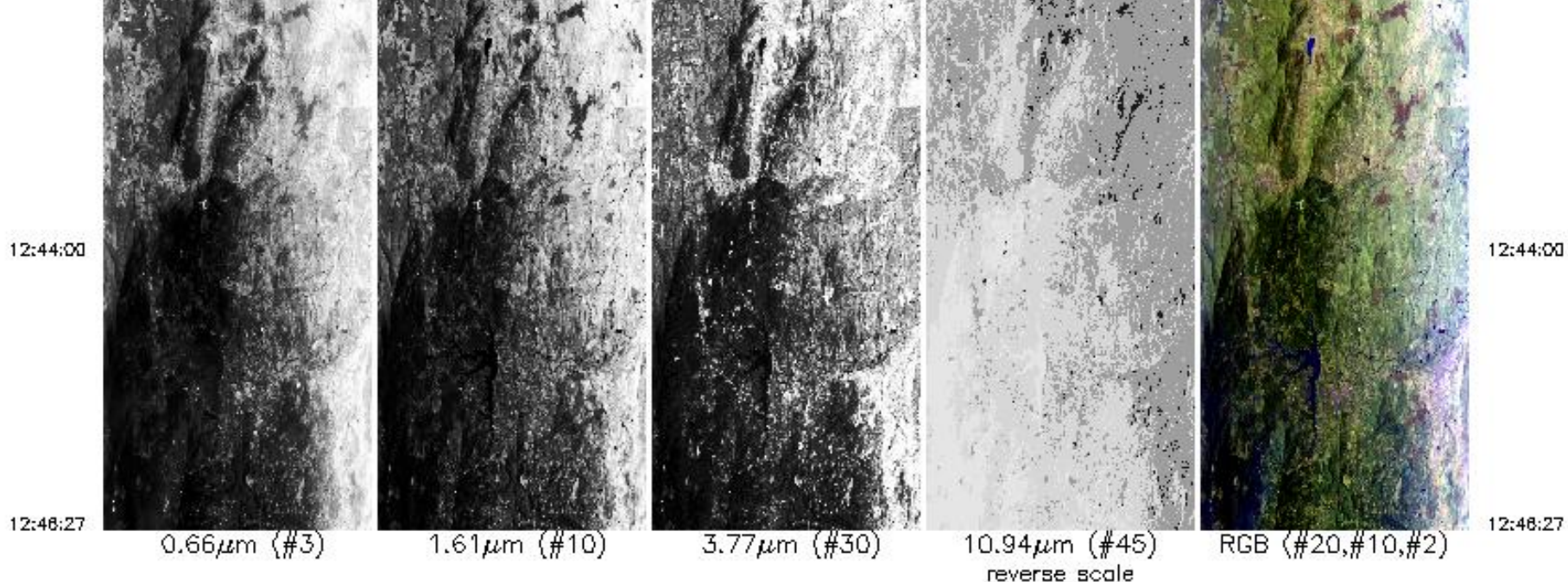
MODIS Airborne Simulator Browse Imagery

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South Africa

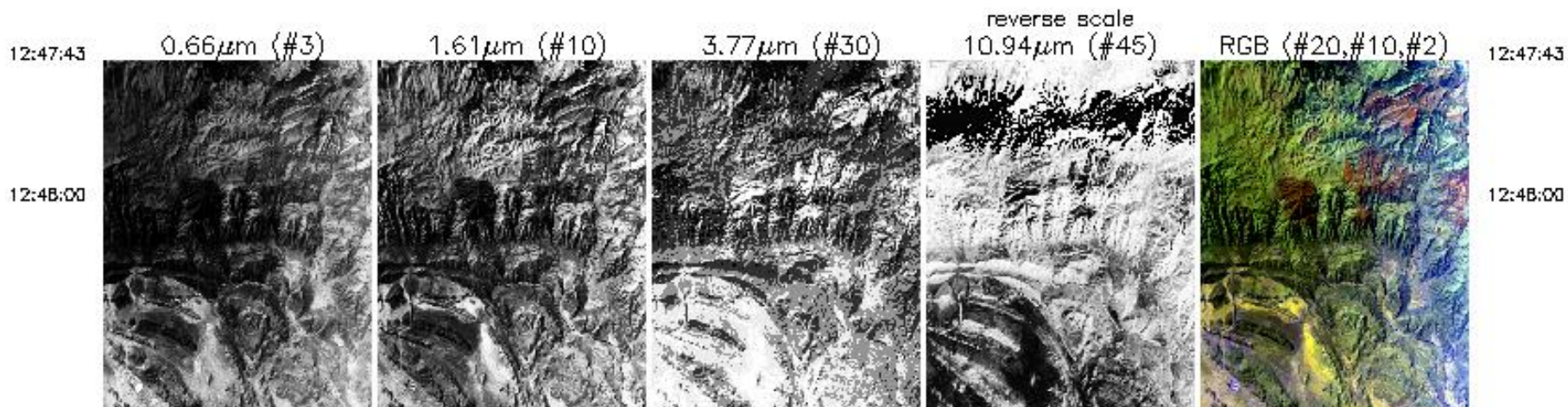
Flight #00–158 Track #18





Upper Left Lat, Lon = -23.0°, 30.7°
 Lower Right Lat, Lon = -24.0°, 30.2°
 Aircraft Heading = 220.0°
 Solar Zenith = 49.0°
 GPS Altitude = 21202. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign - 07 Sep 2000
 South Africa
 Flight #00-158 Track #19



12:48:00

12:50:00

12:52:00

12:54:00

12:56:00

12:57:58



0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20,#10,#2)

12:48:00

12:50:00

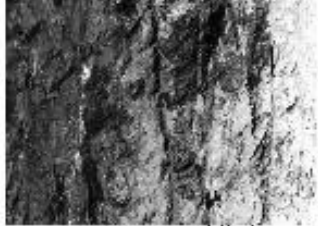
12:52:00

12:54:00

12:56:00

12:57:58

12:58:00



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)

12:58:00

12:57:58

12:57:58

Upper Left Lat, Lon = -24.1°, 29.8°
Lower Right Lat, Lon = -25.2°, 30.2°
Aircraft Heading = 173.0°
Solar Zenith = 50.9°
GPS Altitude = 21271. m (MSL)