

SAFARI 2000 MAS Flight 00150

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 #00-150

RBG Images

[Click Image](#)

Track #01



Summary Information

Date: **August 24, 2000**
 ER-2 Flight Number: **00-150**
 Location: **South Africa to Indian Ocean**
 Principal Investigator: **Dr. Michael King (NASA GSFC)**
 Flight Scientist:
 Additional Sensors: **AirMISR, CLS, LAS, MAS, MOPITT-A, S-HIS, SSFR** (see [Instrument Status](#) below)

Flight Track Map



[Click to enlarge](#)

Processing Information

Level-1B Data processed by: **Ames Research Center**
 Level-1B Data Version: **#0.1**
 Level-1B Configuration: ([sample file](#))
 Calibration Type: **Final**
 Calibration Version: **1.0**

Level-1B Browse Imagery

Straight Line Flight Tracks: **9 processed**
 Scanlines Processed: **0**
[Solar Azimuth and Zenith Angles](#)

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	09:18-09:29	46	19.66-18.75	36.92-37.80	4158	0
<input type="checkbox"/>	02	09:29-09:38	45	18.74-18.03	37.81-38.49	3256	0
<input type="checkbox"/>	03	09:39-09:41	16	17.94-17.78	38.53-38.56	542	0
<input type="checkbox"/>	04	09:41-09:47	14	17.73-17.03	38.58-38.72	2359	0
<input type="checkbox"/>	05	09:49-09:58	14	16.87-15.83	38.76-38.97	3541	0
<input type="checkbox"/>	06	10:00-10:02	14	15.69-15.37	39.00-39.07	1096	0
<input type="checkbox"/>	07	10:05-10:08	13	15.10-14.71	39.12-39.20	1351	0
<input type="checkbox"/>	08	10:09-10:16	13	14.66-13.92	39.21-39.36	2528	0
<input type="checkbox"/>	09	10:16-10:19	13	13.87-13.53	39.37-39.44	1177	0
<input type="checkbox"/>	10	lost info	0	lost info	lost info	0	0

[All images in sequence](#)

ER-2 Flight Log

Author: **Dr. Michael King**
 Mission Scientist: **Dr. Michael King**
 ER-2 Pilot: **Ken Broda**
 Takeoff: **24Aug2000 0000 UTC**
 Landing: **24Aug2000 0000 UTC**

R: 11.01 microns
G: 2.15 microns
B: 0.46 microns

Duration: 06:55:00

Objective:

The objective of this mission was to fly the ER-2 over the surface site at Inhaca Island (26°02'S, 32°54'E), paralleling the Terra orbital inclination of 11.4°. Terra passed over Inhaca Island at 0816 UTC, coincident with the ER-2 overpass of the island, with a satellite viewing zenith angle $q = 0.80^\circ$. The ER-2 then flew over Maputo Bay and north through Mozambique, before turning westbound and flying a long flight line down the Terra orbital track through Malawi and towards Inhaca Island. During the final part of the flight, the ER-2 flew west over southern Mozambique and turned south along a geological feature in the northern part of Kruger National Park, before turning back to Pietersburg.

Key Flight Legs:

The mission was coordinated with the CV-580 and JRA over Inhaca Island at the time of the Terra overpass, with JRA measuring CCN at low levels and the CV-580 flying radiation runs at multiple levels over the island making solar spectral flux and aerosol optical thickness measurements. The RC-10 camera was turned on for flights over Inhaca Island, northeastern Mozambique, Malawi, the Zambezi River, and northern Kruger National Park.

Pilot Report:

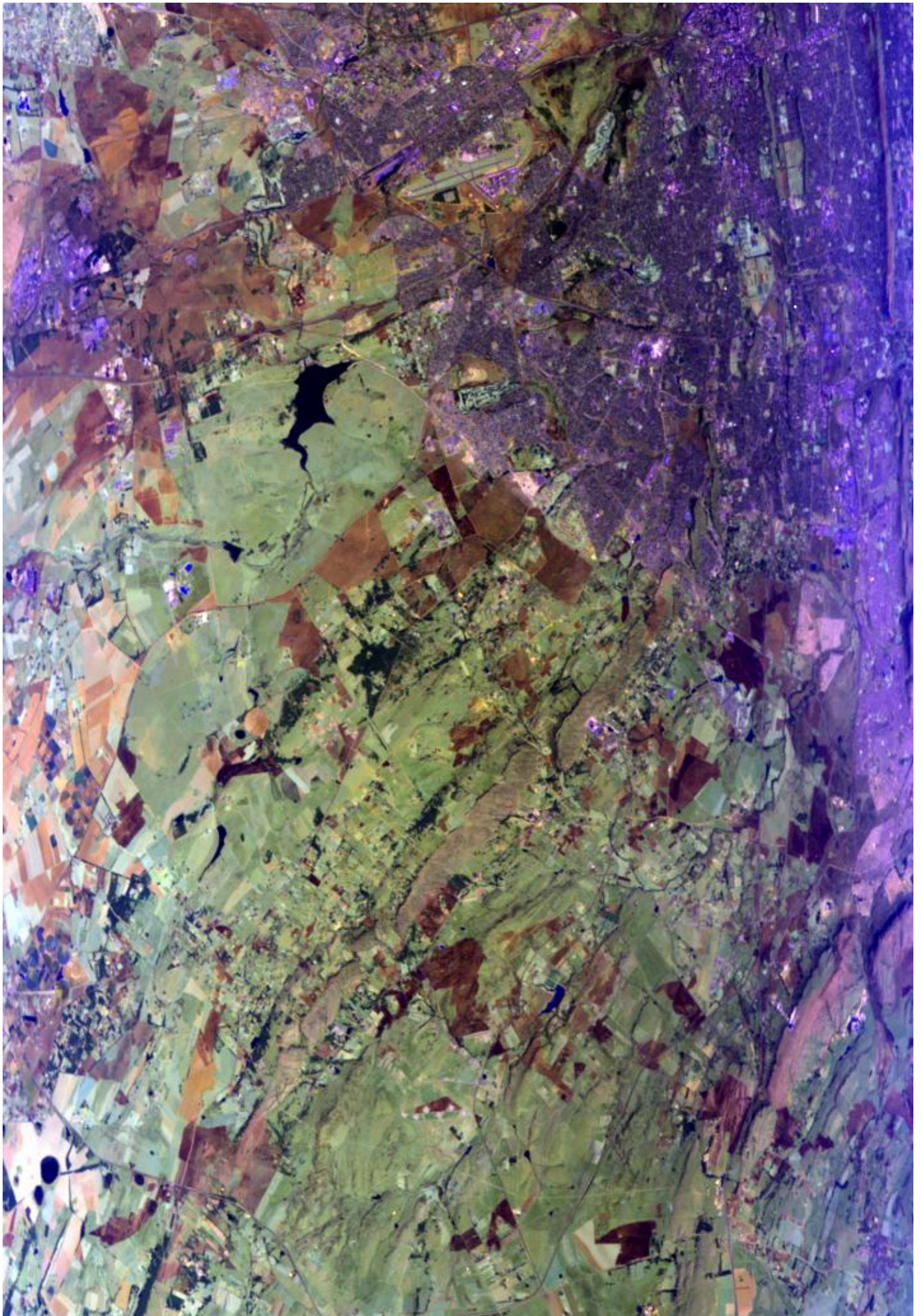
The skies were largely cloud free, with only small scattered cumulus humilis clouds, near Maputo and Inhaca Island. Further north, in northeastern Mozambique, the ER-2 overflew extensive clouds before heading inland. Over southern Malawi and central Mozambique, the ER-2 pilot observed extensive clouds topped with smoke that appeared to be a result of the smoke plumes themselves. During the overpass of Kruger National Park, the skies were quite clear and the geological feature readily apparent.

Meteorology:

The circulation was dominated by a ridge of high pressure across the central parts of South Africa. A trough of low pressure developed along the west coast with another trough over the Mozambique channel. Aloft, an upper trough lay over the western interior. Early morning fog occurred over the northeastern areas of South Africa. A band of disturbed weather lay over the central interior where a few light showers were expected.

Instrument Status:

- AirMISR (Airborne Multi-angle Imaging Spectroradiometer): Not on plane; being repaired
- CLS (Cloud Lidar System): Lidar worked properly, but navigation data not recorded
- LAS (Leonardo Airborne Simulator): Worked well
- MAS (MODIS Airborne Simulator): Worked intermittently, recording data during four periods of the mission only (Inhaca Island, the southern part of the over water pass, the northeastern pass of Mozambique, and a small section of smoke-cloud interaction just south of the Malawi border)
- MOPITT-A (MOPITT Airborne Simulator): Worked well
- S-HIS (High-resolution Interferometer Sounder): Worked well
- SSFR (Solar Spectral Flux Radiometer): Worked well

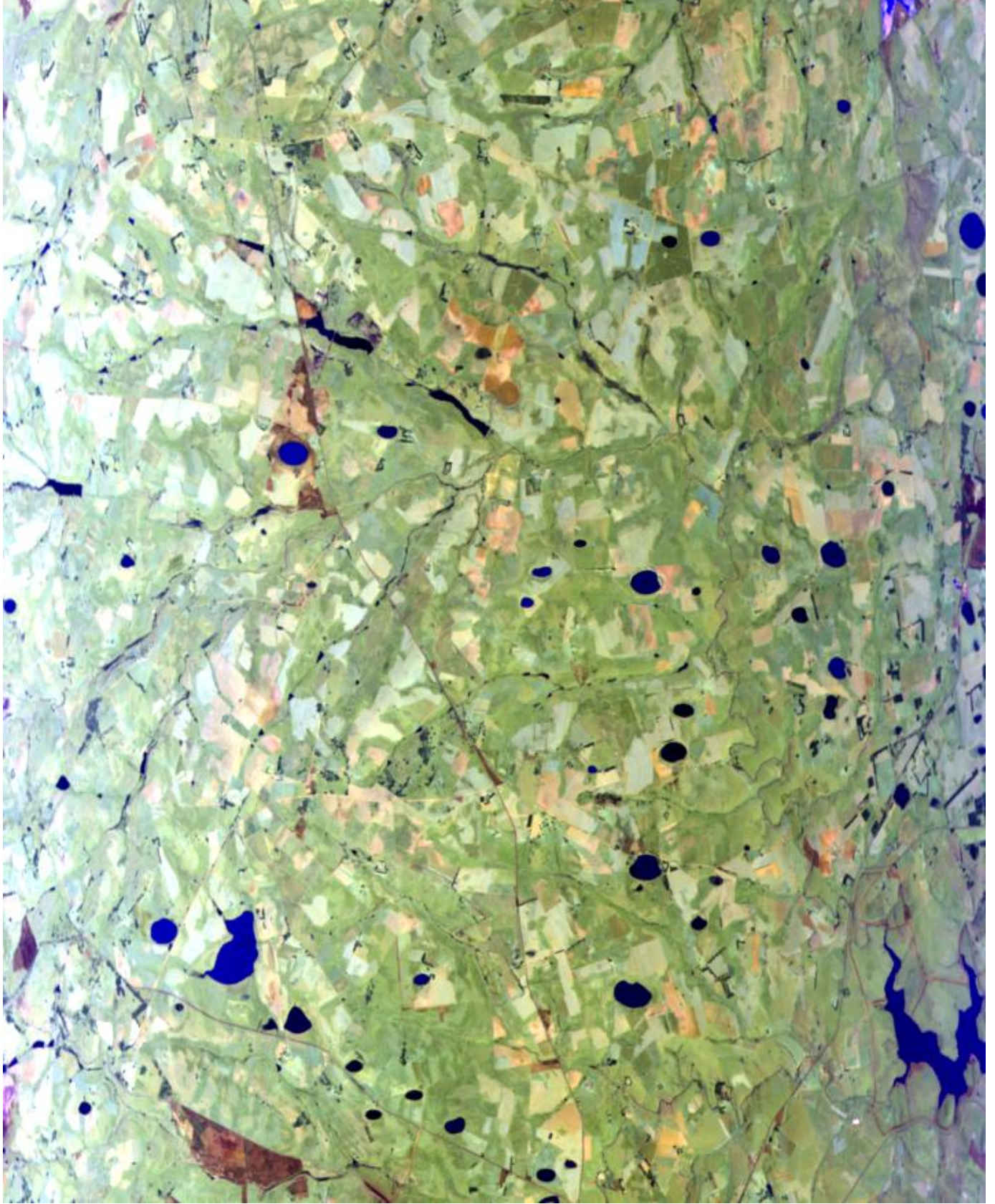


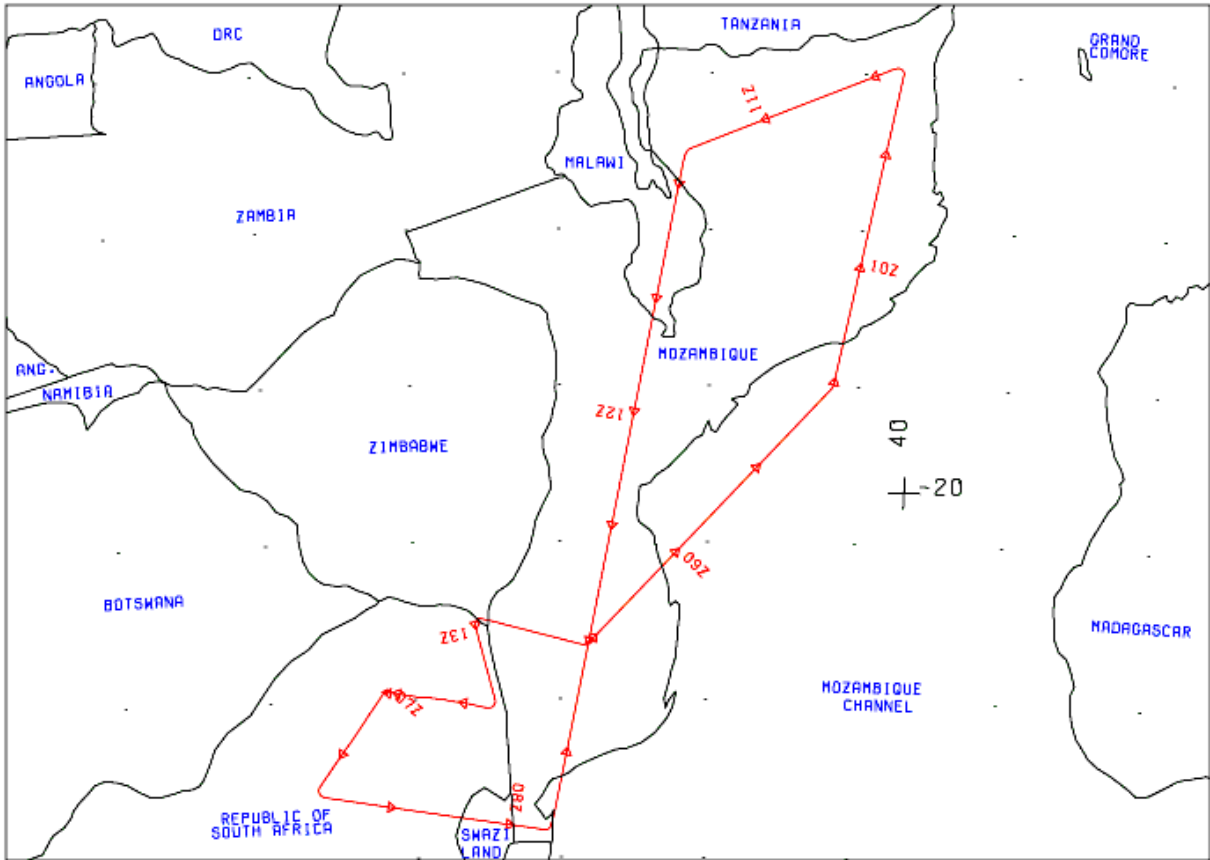












FLIGHT 00-150

24 AUGUST 2000

A/C 809

SAFARI

50 MAS Configuration for 00-150 24 Aug 00 SAFARI 2000

01	01	16	0	0	0	0.034697	0.0000	0.452	0.472	0.493	0	0.00	0.00	0.100	1981.92
02	02	16	0	0	0	0.037032	0.0000	0.534	0.554	0.577	0	0.00	0.00	0.100	1857.88
03	03	16	0	0	0	0.025496	0.0000	0.635	0.658	0.689	0	0.00	0.00	0.100	1549.55
04	04	16	0	0	0	0.030094	0.0000	0.687	0.708	0.731	0	0.00	0.00	0.100	1386.41
05	05	16	0	0	0	0.023096	0.0000	0.729	0.750	0.773	0	0.00	0.00	0.100	1260.07
06	06	16	0	0	0	0.024276	0.0000	0.810	0.830	0.855	0	0.00	0.00	0.100	1053.65
07	07	16	0	0	0	0.024194	0.0000	0.853	0.874	0.895	0	0.00	0.00	0.100	962.82
08	08	16	0	0	0	0.019490	0.0000	0.893	0.912	0.934	0	0.00	0.00	0.100	869.28
09	09	16	0	0	0	0.020971	0.0000	0.933	0.954	0.974	0	0.00	0.00	0.100	784.92
10	10	16	0	0	0	0.003319	0.0000	1.588	1.614	1.641	0	0.00	0.00	0.100	243.58
11	11	16	0	0	0	0.006135	0.0000	1.643	1.668	1.696	0	0.00	0.00	0.010	226.82
12	12	16	0	0	0	0.002860	0.0000	1.699	1.724	1.750	0	0.00	0.00	0.010	200.54
13	13	16	0	0	0	0.002818	0.0000	1.752	1.778	1.803	0	0.00	0.00	0.010	176.01
14	14	16	0	0	0	0.002861	0.0000	1.806	1.830	1.855	0	0.00	0.00	0.010	155.94
15	15	16	0	0	0	0.002730	0.0000	1.856	1.882	1.907	0	0.00	0.00	0.010	139.51
16	16	16	0	0	0	0.002606	0.0000	1.907	1.932	1.957	0	0.00	0.00	0.100	131.13
17	17	16	0	0	0	0.002379	0.0000	1.957	1.982	2.008	0	0.00	0.00	0.010	122.59
18	18	16	0	0	0	0.002342	0.0000	2.007	2.034	2.059	0	0.00	0.00	0.010	109.58
19	19	16	0	0	0	0.002272	0.0000	2.058	2.082	2.107	0	0.00	0.00	0.010	98.67
20	20	16	0	0	0	0.002305	0.0000	2.107	2.132	2.157	0	0.00	0.00	0.010	86.28
21	21	16	0	0	0	0.004861	0.0000	2.156	2.180	2.205	0	0.00	0.00	0.010	76.85
22	22	16	0	0	0	0.002653	0.0000	2.205	2.230	2.255	0	0.00	0.00	0.010	73.57
23	23	16	0	0	0	0.002749	0.0000	2.255	2.280	2.305	0	0.00	0.00	0.010	68.38
24	24	16	0	0	0	0.002550	0.0000	2.306	2.330	2.354	0	0.00	0.00	0.010	58.53
25	25	16	0	0	0	0.002469	0.0000	2.355	2.380	2.404	0	0.00	0.00	0.010	57.88
26	26	16	0	0	1	0.000000	0.0000	3.064	3.135	3.218	0	0.00	0.00	0.001	21.11
27	27	16	0	0	1	0.000000	0.0000	3.217	3.285	3.362	0	0.00	0.00	0.001	18.29
28	28	16	0	0	1	0.000000	0.0000	3.365	3.445	3.519	0	0.00	0.00	0.001	15.68
29	29	16	0	0	1	0.000000	0.0000	3.522	3.595	3.677	0	0.00	0.00	0.001	13.49
30	30	16	0	0	1	0.000000	0.0000	3.677	3.745	3.809	0	0.00	0.00	0.001	11.76
31	31	16	0	0	1	0.000000	0.0000	3.822	3.905	3.983	0	0.00	0.00	0.001	10.27
32	32	16	0	0	1	0.000000	0.0000	3.986	4.060	4.139	0	0.00	0.00	0.001	8.99
33	33	16	0	0	1	0.000000	0.0000	4.138	4.210	4.291	0	0.00	0.00	0.001	7.73
34	34	16	0	0	1	0.000000	0.0000	4.288	4.360	4.441	0	0.00	0.00	0.001	6.71
35	35	16	0	0	1	0.000000	0.0000	4.446	4.520	4.595	0	0.00	0.00	0.001	5.80
36	36	16	0	0	1	0.000000	0.0000	4.600	4.675	4.750	0	0.00	0.00	0.001	5.00
37	37	16	0	0	1	0.000000	0.0000	4.749	4.825	4.904	0	0.00	0.00	0.001	4.38
38	38	16	0	0	1	0.000000	0.0000	4.899	4.980	5.052	0	0.00	0.00	0.001	3.87
39	39	16	0	0	1	0.000000	0.0000	5.045	5.115	5.200	0	0.00	0.00	0.001	3.44
40	40	16	0	0	1	0.000000	0.0000	5.199	5.265	5.339	0	0.00	0.00	0.001	3.08
41	41	16	0	0	1	0.000000	0.0000	5.317	5.375	5.411	0	0.00	0.00	0.001	2.84
42	42	16	0	0	1	0.000000	0.0000	8.334	8.564	8.771	0	0.00	0.00	0.010	0.45
43	43	16	0	0	1	0.000000	0.0000	9.501	9.736	9.979	0	0.00	0.00	0.010	0.27

44	44	16	0	0	1	0.000000	0.0000	10.222	10.478	10.712	0	0.00	0.00	0.010	0.20
45	45	16	0	0	1	0.000000	0.0000	10.694	10.943	11.217	0	0.00	0.00	0.010	0.17
46	46	16	0	0	1	0.000000	0.0000	11.675	11.964	12.205	0	0.00	0.00	0.010	0.12
47	47	16	0	0	1	0.000000	0.0000	12.579	12.803	13.051	0	0.00	0.00	0.010	0.09
48	48	16	0	0	1	0.000000	0.0000	12.950	13.203	13.463	0	0.00	0.00	0.010	0.08
49	49	16	0	0	1	0.000000	0.0000	13.431	13.733	14.031	0	0.00	0.00	0.010	0.07
50	50	16	0	0	1	0.000000	0.0000	13.958	14.213	14.416	0	0.00	0.00	0.010	0.06

```

| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | =(!)
| | | | | | | | | | | | | | | | |= Factor
| | | | | | | | | | | | | | | | |= Coef # 2
| | | | | | | | | | | | | | | | |= Coef # 1
| | | | | | | | | | | | | | | | |= # of Count adjust Coef
| | | | | | | | | | | | | | | | |= 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)
| | | | | | | | | | | | | | | | 0 => visible band, 1 => thermal infrared band
| | | | | | | | | | | | | | | | =----- Position of extra bits in bit bucket
| | | | | | | | | | | | | | | | =----- Number of channel used for bit bucket (if 10 bit)
| | | | | | | | | | | | | | | | =----- 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: Calibration technique was taken from :
MODIS Airborne Simulator VIS and NIR
Version 0.1 Calibration (7/00 SRF)
SAFARI Deployment
by Mike Fitzgerald (NASA/Ames)
7/2000

Conversion from counts to radiance in VIS and NIR channels is
Note: there was no instrument temperature correction performed!

$$\text{rad} = (\text{count} - (\text{cbb_avg})) * \text{slope}$$

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 Channel 45 scan head count and convert it to a brightness temperature using UWisc subroutine TEMBCK.F (from Liam Gumley (UWisc))
2. Call subroutine MASCAL.F (from Liam Gumley (UWisc)) which uses the chan45 scan head temperature and the cold and warm black body counts/temperatures for computing the corrected slope and intercept for all IR bands.

Emissivities used were

from Liam Gumleys (UWisc) MASCAL.F program

BB effective emissivity estimates for all 50 channels

Emissivity effective date 1/03/2000

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

For Bands 1 thru 50:

1.0,1.0,1.0,1.0,1.0,
 1.0,1.0,1.0,1.0,1.0,
 1.0,1.0,1.0,1.0,1.0,
 1.0,1.0,1.0,1.0,1.0,
 1.0,1.0,1.0,1.0,1.0,
 0.96095, 0.96185, 0.96693, 0.95546, 0.95079,
 0.94837, 0.94633, 0.94466, 0.94347, 0.94147,
 0.93989, 0.93923, 0.93851, 0.93749, 0.93655,
 0.93712, 0.96984, 0.96657, 0.96363, 0.96112,
 0.95200, 0.94747, 0.95288, 0.94397, 0.94739

NOTE: Factor in column 15 is used to scale radiances in calibrated data by the following method: value_stored = int(radiance / factor) for each channel

Files and software modified by:
 M.Fitzgerald G.Cleven and J.Penick
 MAS Level-1B Processing Manager
 (650) 604-6252

25 July 2000

MODIS AIRBORNE SIMULATOR (MAS) FLIGHT LINE
 INFORMATION FOR 18-AUG-2000 FLIGHT 00-150

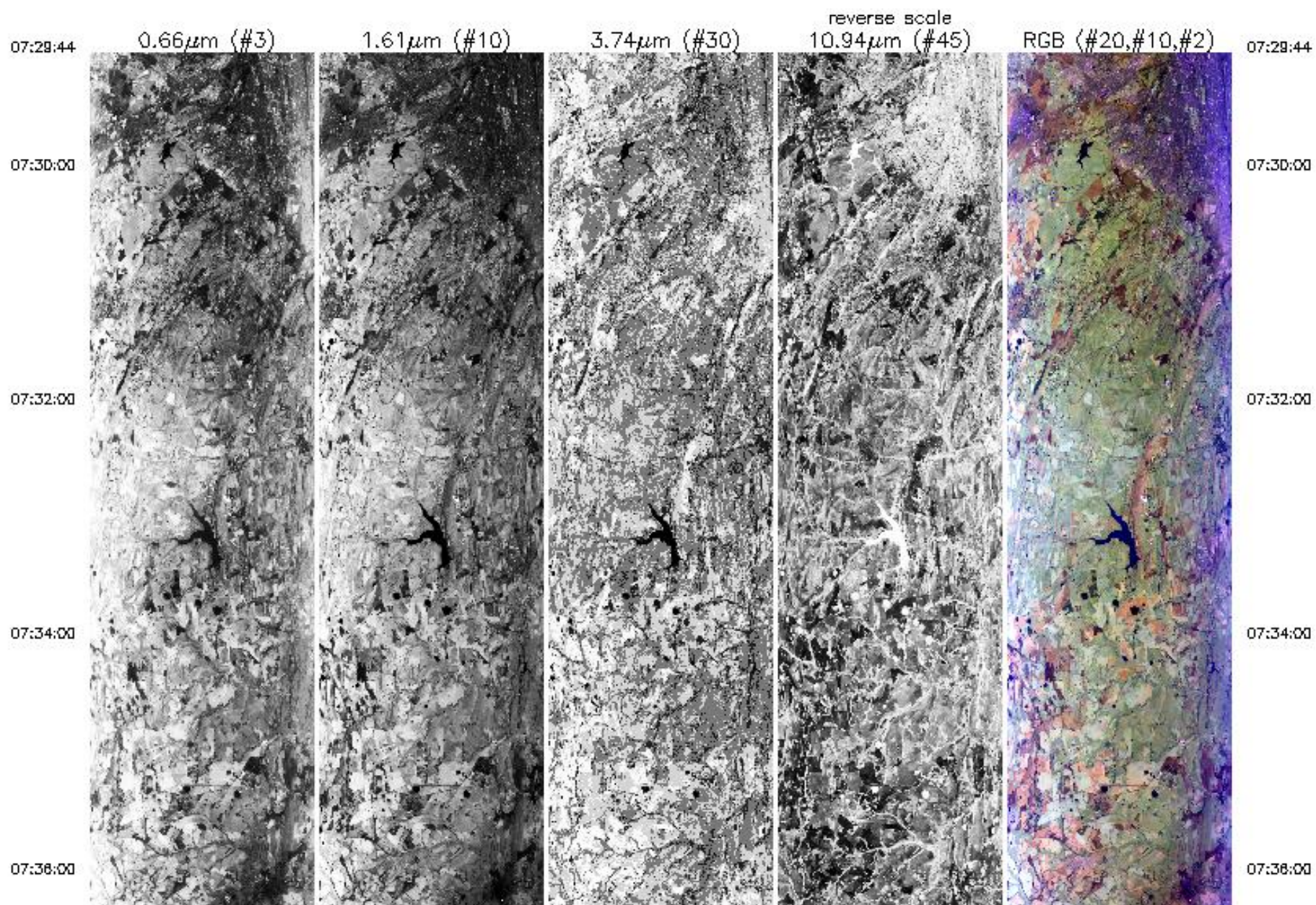
START OF FLIGHT LINE						END OF FLIGHT LINE			
LINE	TIME	LAT	LON	SOLAR	START	TIME	LAT		
LON	SOLAR	SCAN							
HH:MM:SS	DEG	DEG	ZEN	AZIM	HEADING	HH:MM:SS			
DEG	DEG	ZEN	AZIM	LINES					
1	09:18:46	-19.658	36.919	32.9	7.7	45.75	09:29:54	-18.746	37.803
31.8	1.1	4158							
2	09:29:58	-18.740	37.808	31.8	1.1	45.02	09:38:41	-18.029	38.489
31.1	355.7	3256							
3	09:39:34	-17.942	38.530	31.0	355.1	15.62	09:41:01	-17.784	38.563
30.9	354.3	542							
4	09:41:33	-17.725	38.575	30.8	354.1	13.63	09:47:52	-17.031	38.722
30.3	350.6	2359							
5	09:49:18	-16.873	38.755	30.3	349.8	13.91	09:58:46	-15.826	38.973
29.8	344.5	3541							
6	10:00:01	-15.690	39.001	29.7	343.8	13.57	10:02:57	-15.369	39.067
29.7	342.1	1096							
7	10:05:22	-15.104	39.122	29.6	340.7	12.99	10:08:59	-14.707	39.203
29.6	338.7	1351							
8	10:09:23	-14.663	39.212	29.6	338.4	13.18	10:16:09	-13.924	39.362
29.6	334.6	2528							
9	10:16:37	-13.874	39.372	29.6	334.3	13.10	10:19:46	-13.531	39.442
29.7	332.5	1177							

NUMBER OF FILES FOR THIS FLIGHT = 10
 TOTAL NUMBER OF SCAN LINES = 28897
 DATE THESE FILES WERE PROCESSED = 27-Aug-00
 DATE THIS LIST WAS CREATED = 27-Aug-00
 GRANULE VERSION = 9

GLOBAL ATTRIBUTES

Attribute Name	Description
title	MODIS Airborne Simulator (MAS) Level-1B Data
ExperimentName	SAFARI_2000
FlightDate	24 August 2000
FlightNumber	00-150
GeographicArea	Inhaca Island
ClockUsedToProcess	GPS Clock
DataSliceNumber	1
Credits	Gumley & Hubanks/design, Fitzgerald & Cleven/ modify, maintain
DataVersion	Version 1.0
SoftwareVersion	Version 9.0
CalibrationVersion	SAFARI 2000 v0.1
data_set	MAS SAFARI_2000
data_product	straight-line flight tracks
geog_flag	c
day_night_flag	d
granule_version	1
metadata_version	1a
producer_granule_id	Version 1.0 SAFARI 2000 v0.1
data_quality	OK (intermediate calibration)
granule_size	809432320.00000
Principal_Investigator	King, Michael
Other_Aircraft_Sensors	
Lots	

MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign – 24 August 2000
Inhaca Island
Flight #00-150 Track #1



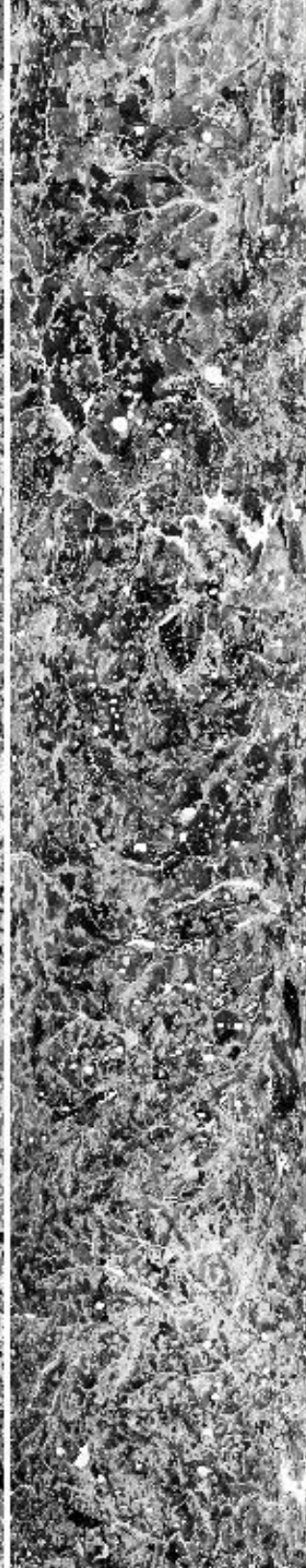
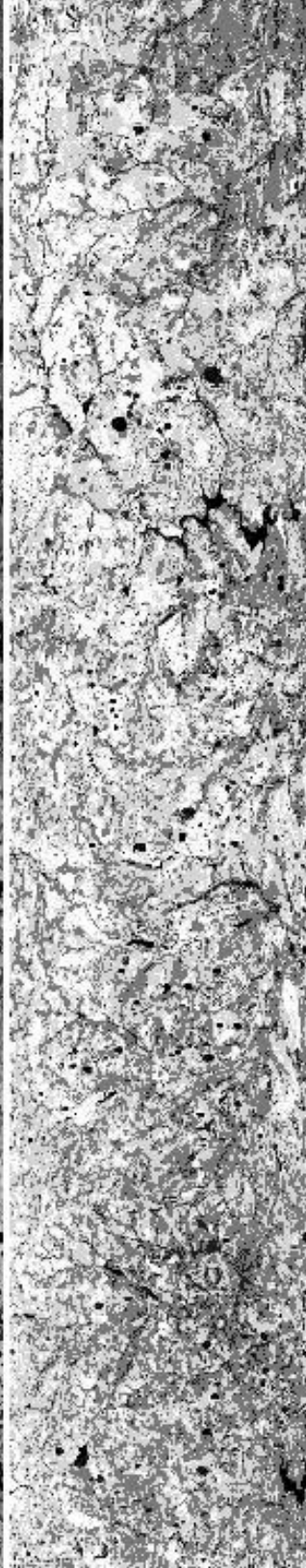
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07:36:00

07:40:00

07:42:00

07:44:00



07:36:00

07:36:00

07:40:00

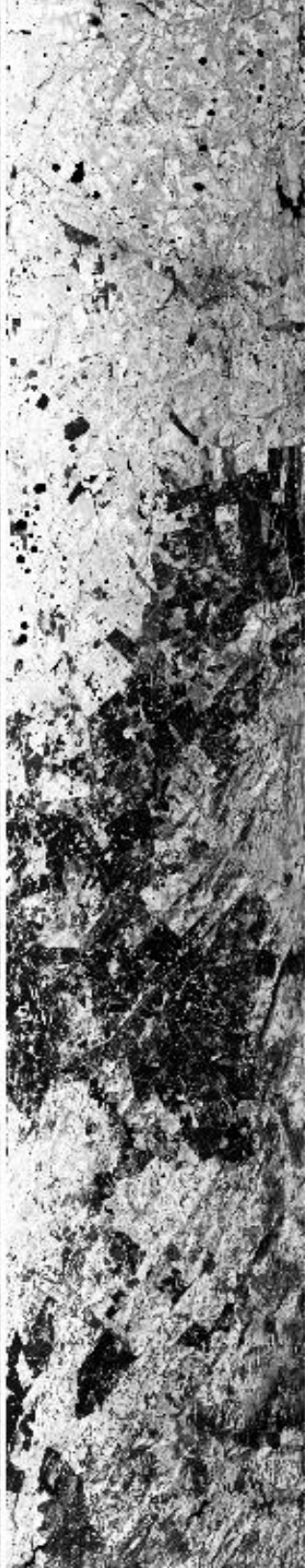
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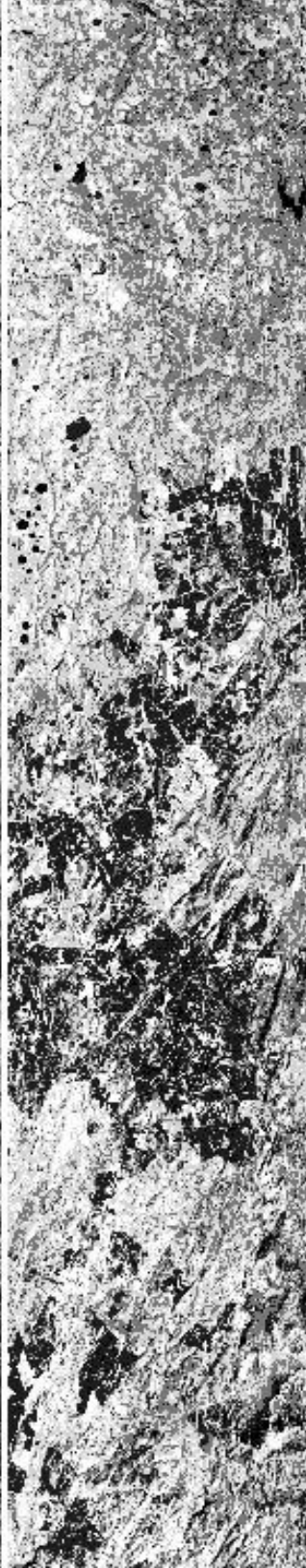
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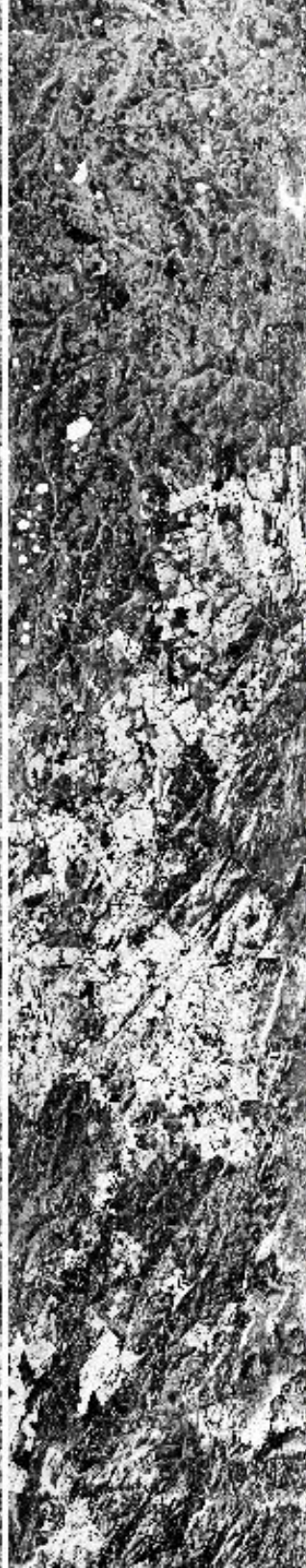
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07:50:00



07:52:00



07:44:00

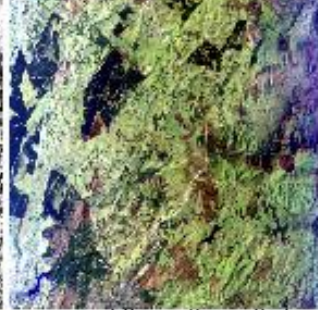
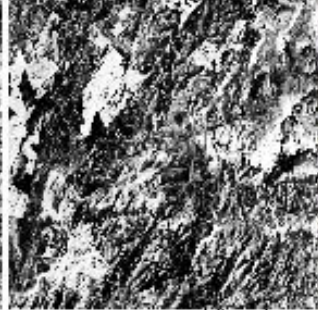
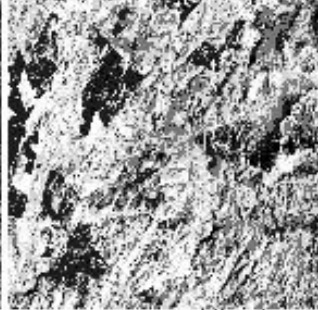
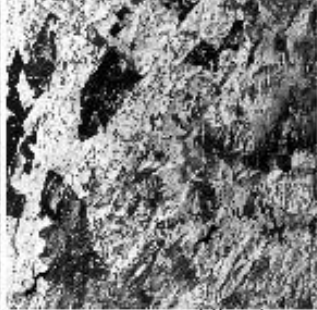
07:46:00

07:48:00

07:50:00

07:52:00

07:52:00



07:52:00

07:53:32

0.66µm (#3)

1.61µm (#10)

3.74µm (#30)

10.94µm (#45)

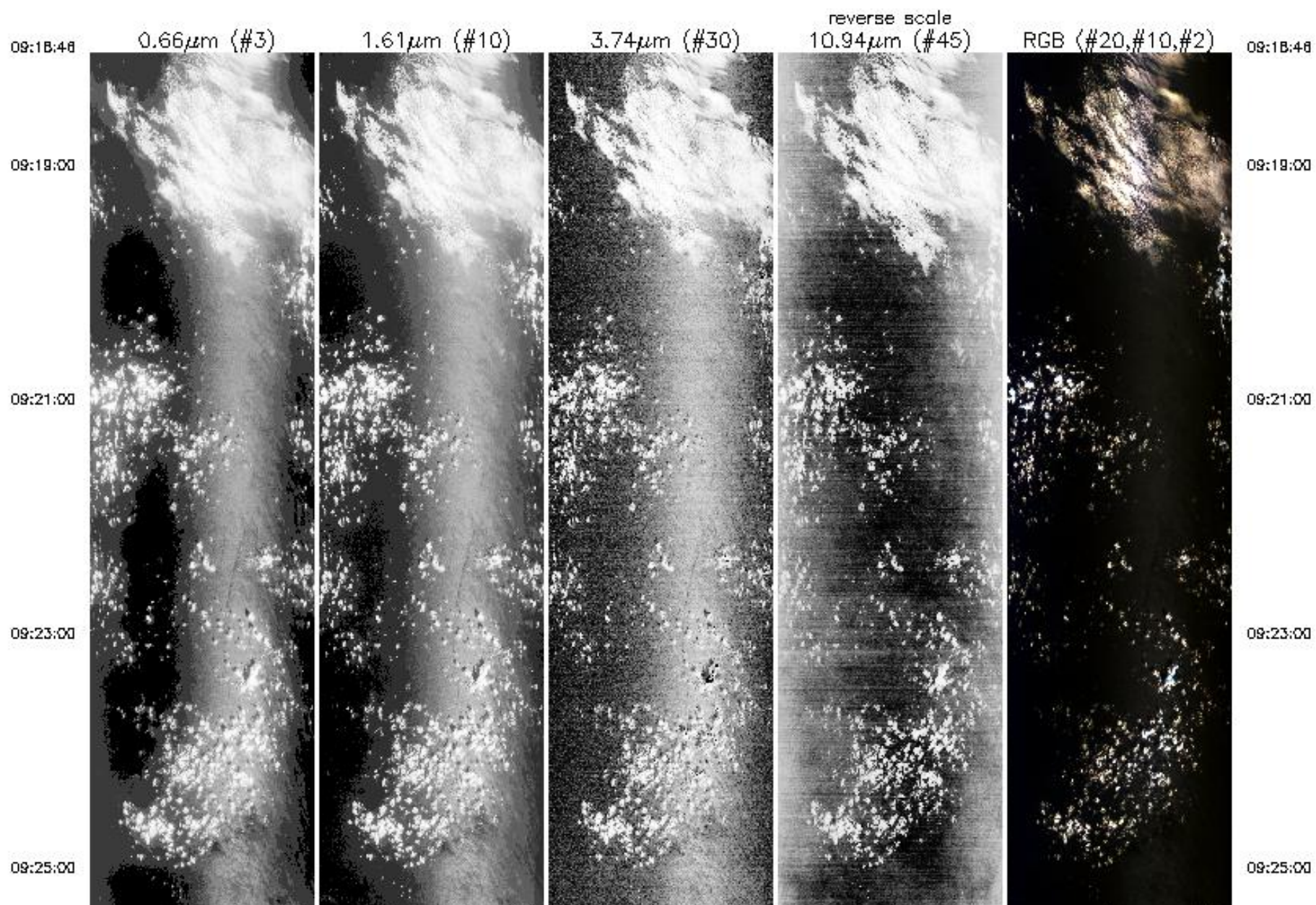
RGB (#20,#10,#2)

07:53:32

reverse scale

Upper Left Lat, Lon = -26.0°, 28.1°
 Lower Right Lat, Lon = -26.1°, 31.2°
 Aircraft Heading = 99.2°
 Solar Zenith = 55.3°
 GPS Altitude = 19880. m (MSL)

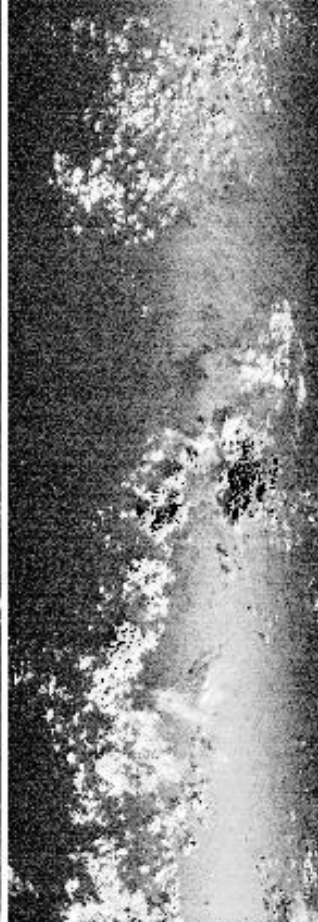
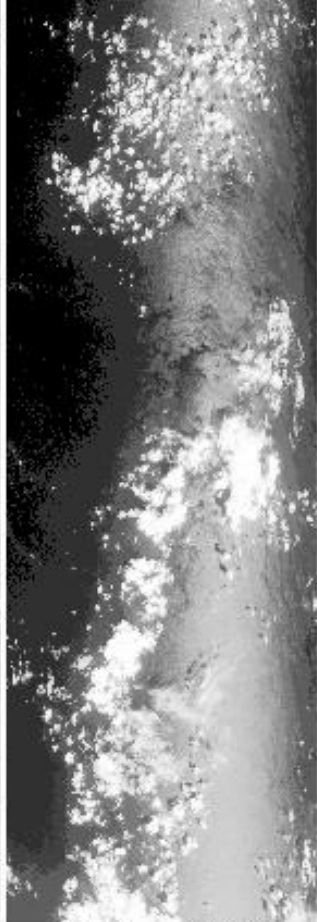
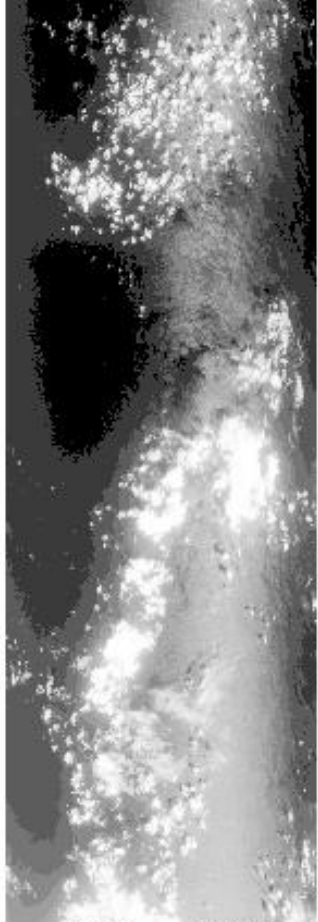
MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign – 24 August 2000
Inhaca Island
Flight #00-150 Track #2



08:25:00

08:27:00

08:28:54



08:25:00

08:27:00

08:28:54

0.66 μ m (#3)

1.61 μ m (#10)

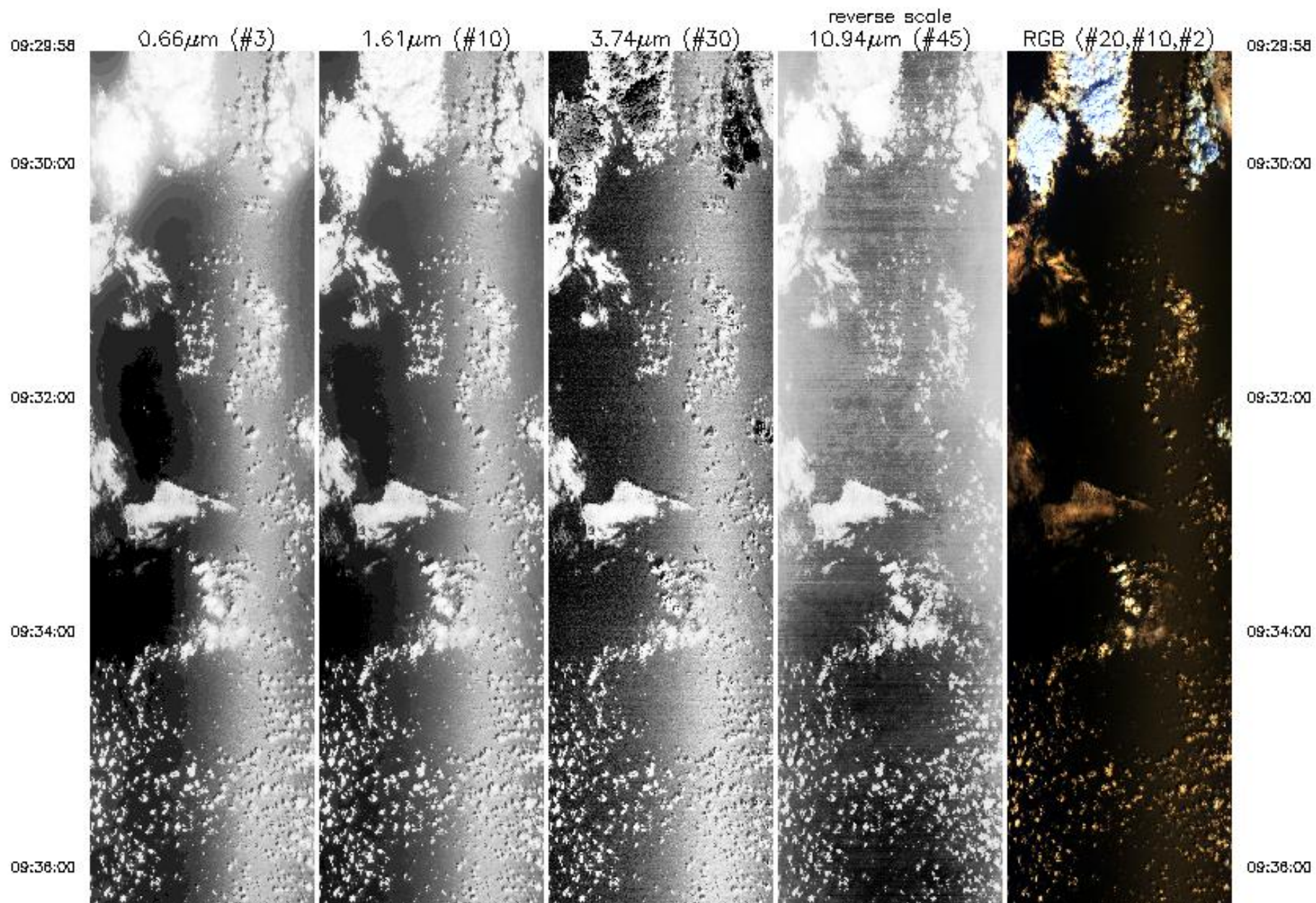
3.74 μ m (#30)

10.94 μ m (#45)
reverse scale

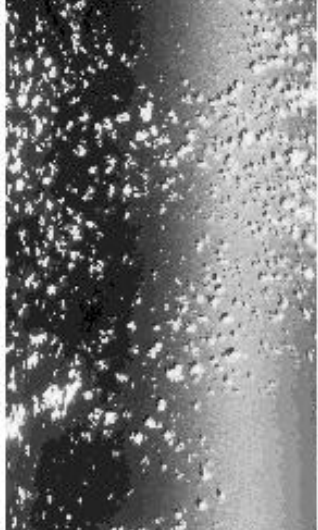
RGB (#20,#10,#2)

Upper Left Lat, Lon = -19.8°, 37.0°
 Lower Right Lat, Lon = -18.6°, 37.7°
 Aircraft Heading = 45.8°
 Solar Zenith = 33.0°
 GPS Altitude = 20029. m (MSL)

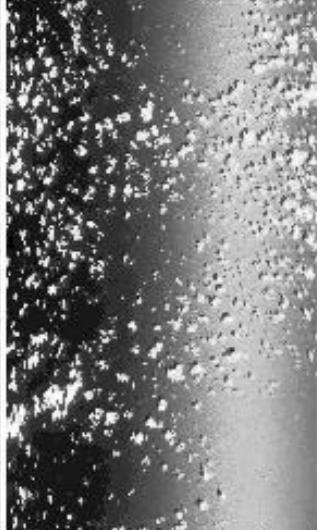
MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign – 24 August 2000
Inhaca Island
Flight #00-150 Track #3



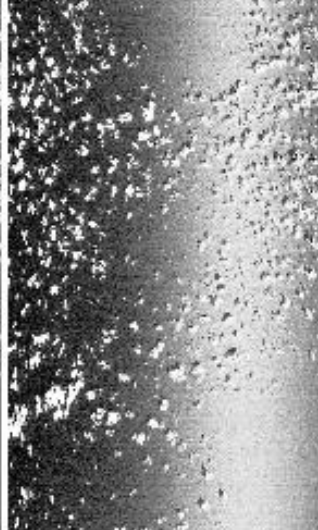
09:38:00



0.66 μ m (#3)



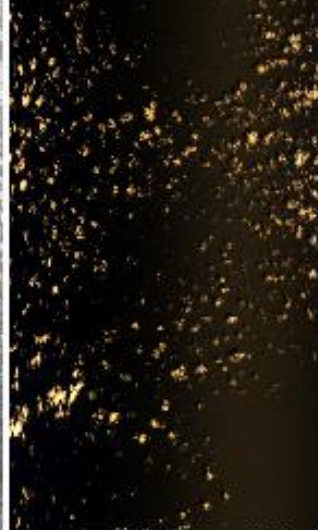
1.61 μ m (#10)



3.74 μ m (#30)



10.94 μ m (#45)
reverse scale



RGB (#20,#10,#2)

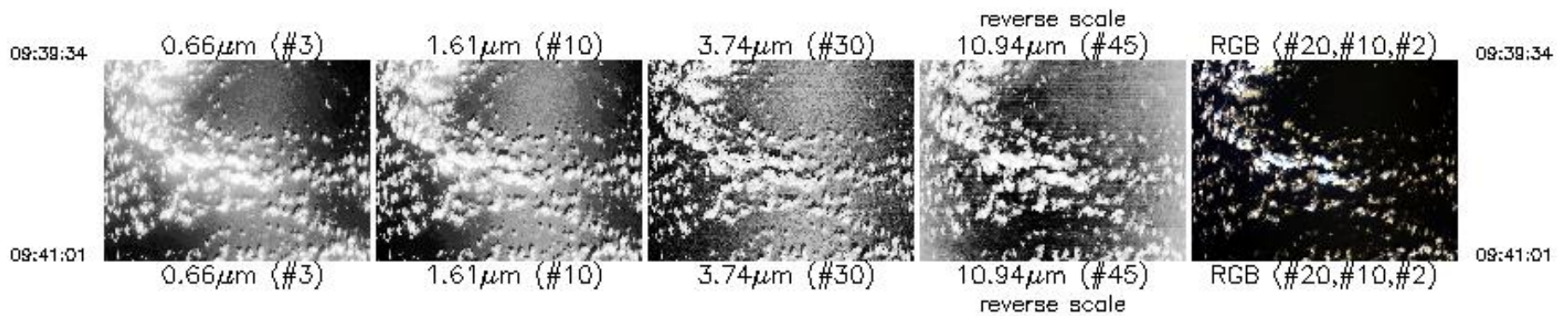
09:38:00

09:38:41

09:38:41

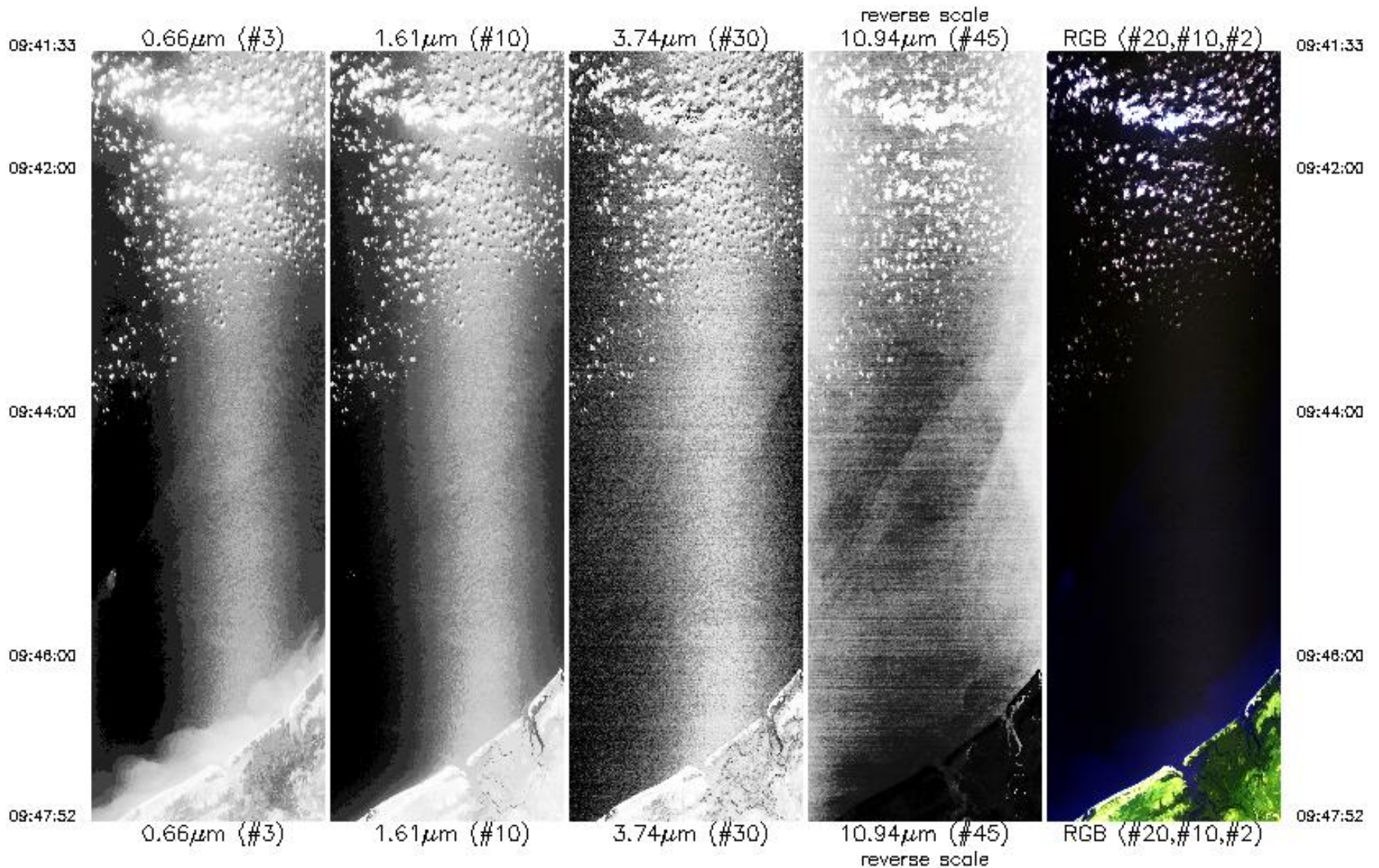
Upper Left Lat, Lon = -18.9° , 37.9°
Lower Right Lat, Lon = -17.9° , 38.4°
Aircraft Heading = 45.0°
Solar Zenith = 31.8°
GPS Altitude = 20077. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign – 24 August 2000
Inhaca Island
Flight #00–150 Track #4



Upper Left Lat, Lon = -18.0° , 38.7°
Lower Right Lat, Lon = -17.7° , 38.4°
Aircraft Heading = 15.6°
Solar Zenith = 31.0°
GPS Altitude = 20076. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI_2000 Campaign – 24 August 2000
 Inhaca Island
 Flight #00-150 Track #5



Upper Left Lat, Lon = -17.8° , 38.7°

Lower Right Lat, Lon = -17.0° , 38.6°

09:47:52



0.66 μm (#3)



1.61 μm (#10)



3.74 μm (#30)



10.94 μm (#45)
reverse scale

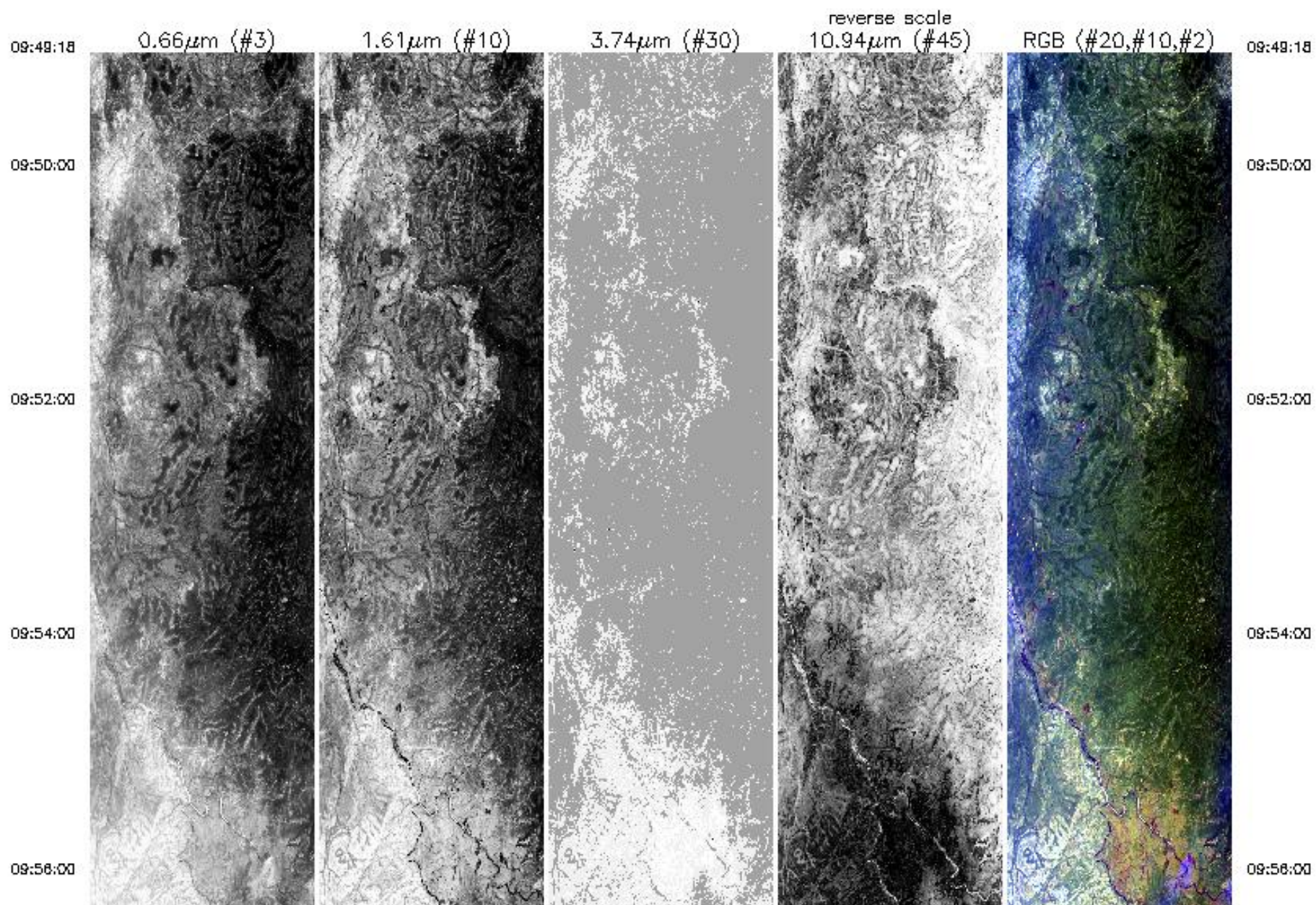


RGB (#20,#10,#2)

09:47:52

Upper Left Lat, Lon = -17.8° , 38.7°
Lower Right Lat, Lon = -17.0° , 38.6°
Aircraft Heading = 13.6°
Solar Zenith = 30.8°
GPS Altitude = 20051. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign – 24 August 2000
Inhaca Island
Flight #00-150 Track #6



09:58:00

09:58:00

09:58:47



09:58:00

09:58:00

09:58:47

0.66µm (#3)

1.61µm (#10)

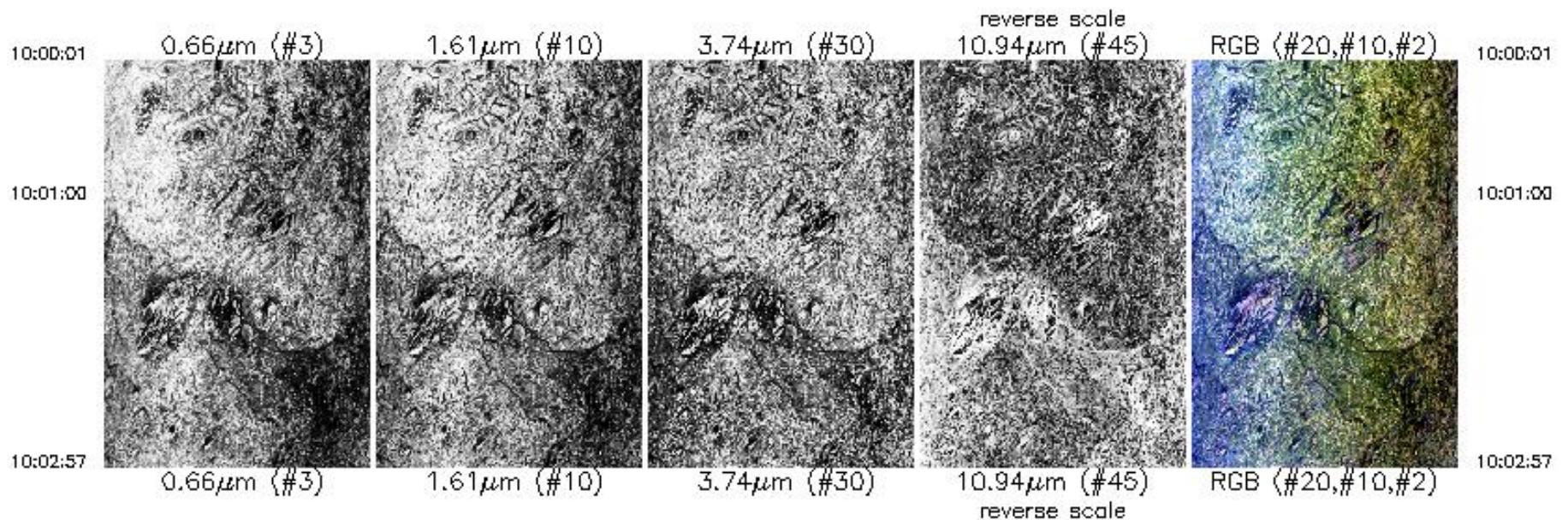
3.74µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

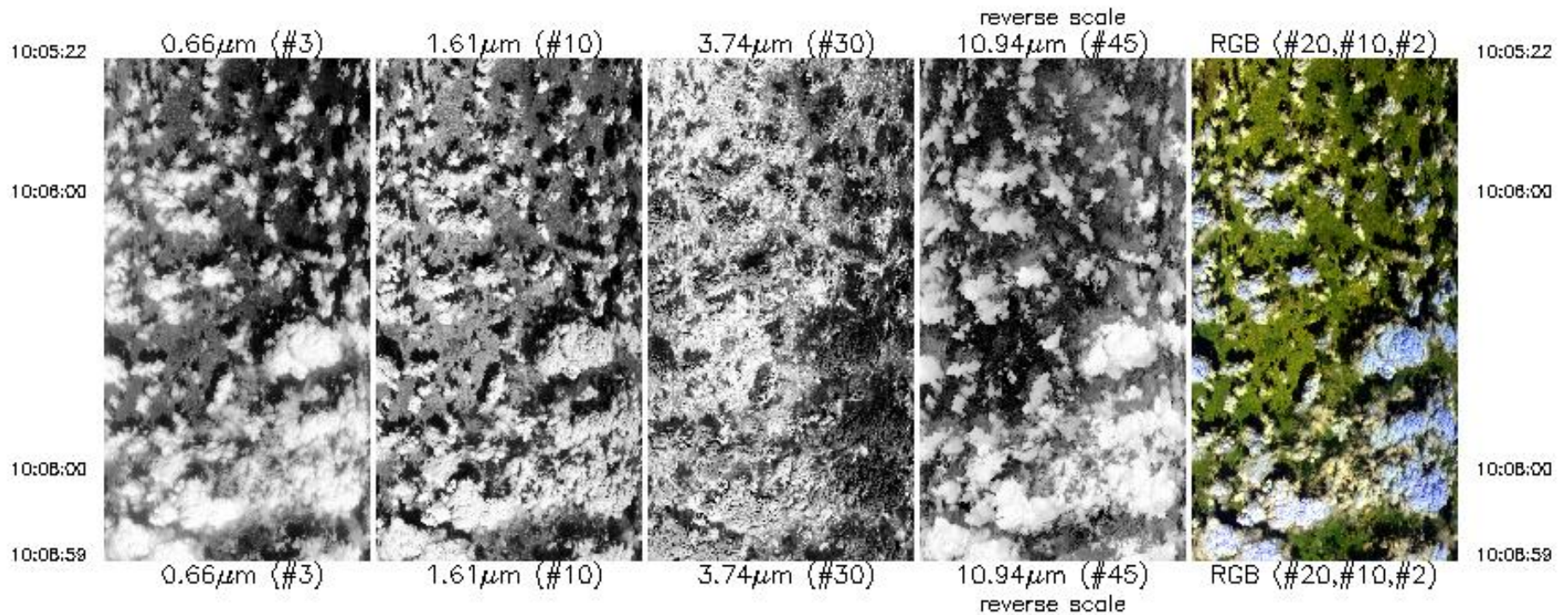
Upper Left Lat, Lon = -16.9°, 38.9°
 Lower Right Lat, Lon = -15.8°, 38.8°
 Aircraft Heading = 13.9°
 Solar Zenith = 30.3°
 GPS Altitude = 20074. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI_2000 Campaign – 24 August 2000
 Inhaca Island
 Flight #00–150 Track #7



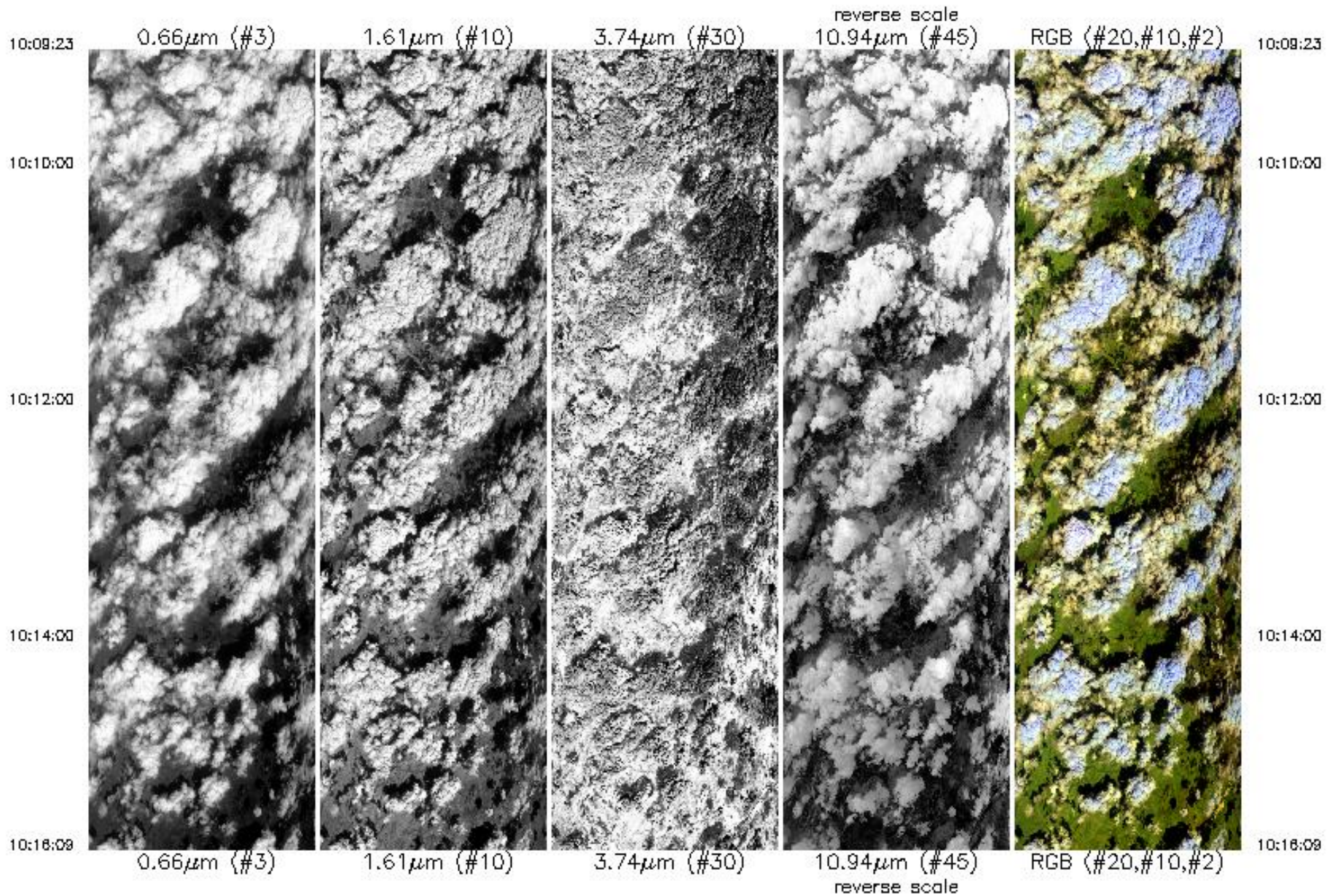
Upper Left Lat, Lon = -15.7°, 39.2°
 Lower Right Lat, Lon = -15.3°, 38.9°
 Aircraft Heading = 13.6°
 Solar Zenith = 29.8°
 GPS Altitude = 20138. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI_2000 Campaign – 24 August 2000
 Inhaca Island
 Flight #00-150 Track #8



Upper Left Lat, Lon = -15.1° , 39.3°
 Lower Right Lat, Lon = -14.7° , 39.0°
 Aircraft Heading = 13.0°
 Solar Zenith = 29.6°
 GPS Altitude = 20128. m (MSL)

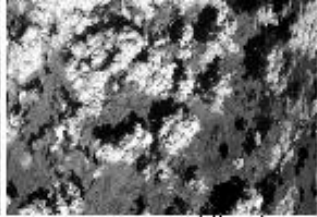
MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign – 24 August 2000
Inhaca Island
Flight #00-150 Track #9



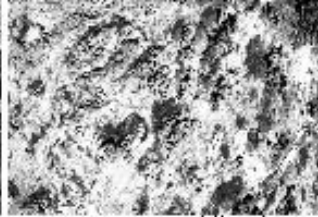
10:18:09



0.66 μ m (#3)



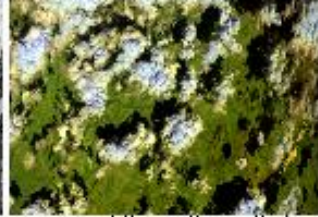
1.61 μ m (#10)



3.74 μ m (#30)



10.94 μ m (#45)
reverse scale

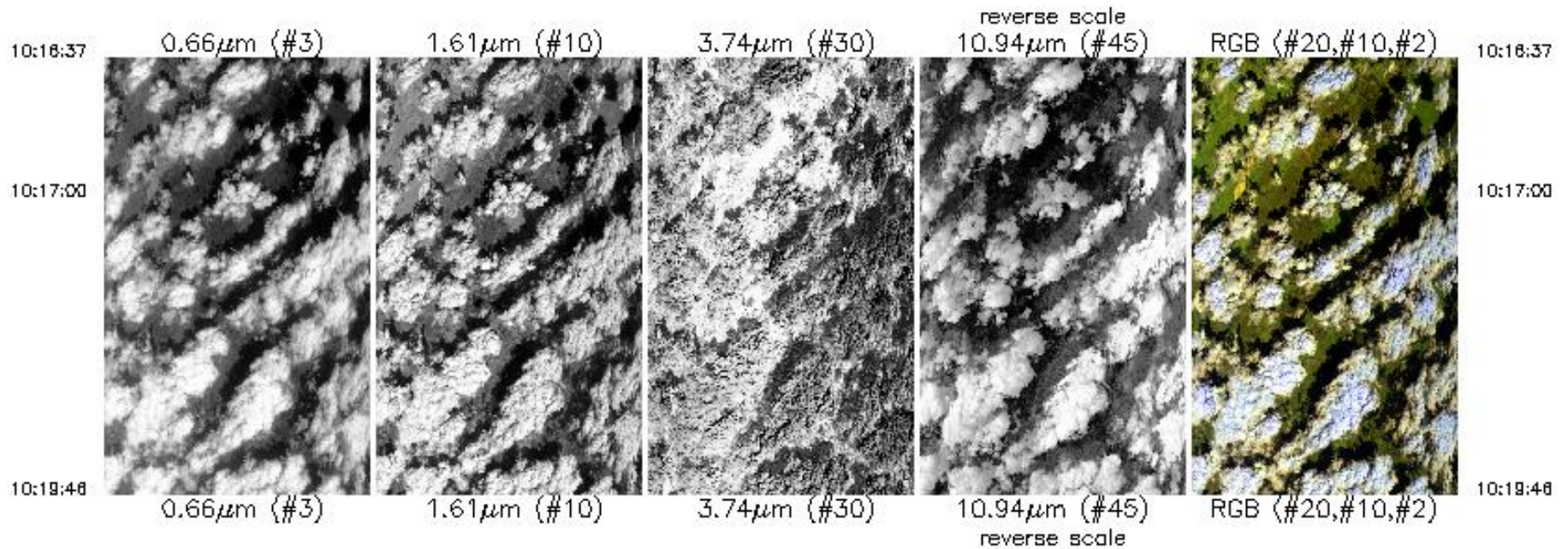


RGB (#20,#10,#2)

10:18:09

Upper Left Lat, Lon = -14.7° , 39.4°
Lower Right Lat, Lon = -13.9° , 39.2°
Aircraft Heading = 13.2°
Solar Zenith = 29.6°
GPS Altitude = 20203. m (MSL)

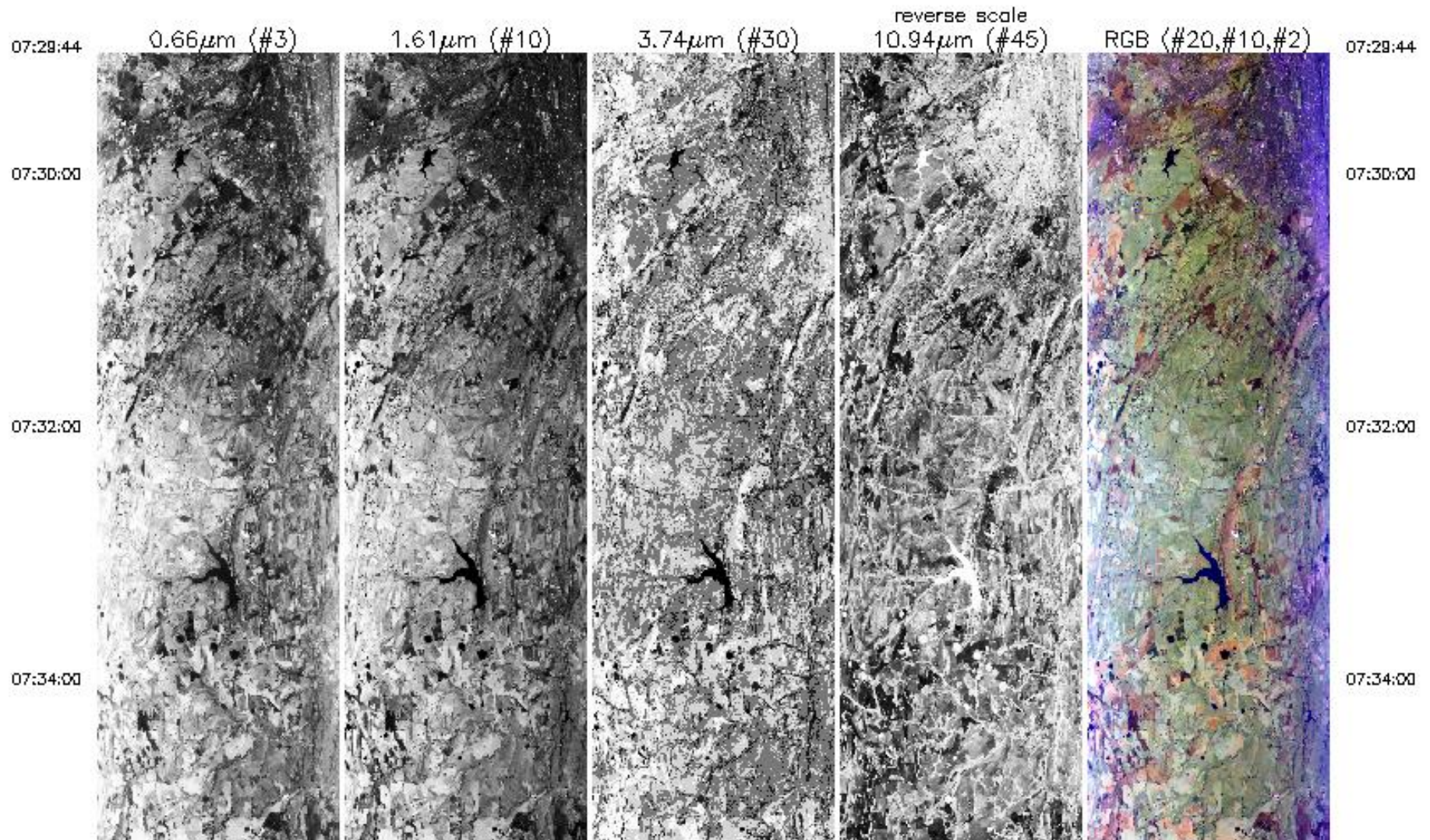
MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign – 24 August 2000
Inhaca Island
Flight #00-150 Track #10



Upper Left Lat, Lon = -13.9°, 39.5°
Lower Right Lat, Lon = -13.5°, 39.3°
Aircraft Heading = 13.1°
Solar Zenith = 29.6°
GPS Altitude = 20231. m (MSL)

Flight #00-150 Browse Imagery

MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign – 24 August 2000
Inhaca Island
Flight #00–150 Track #1



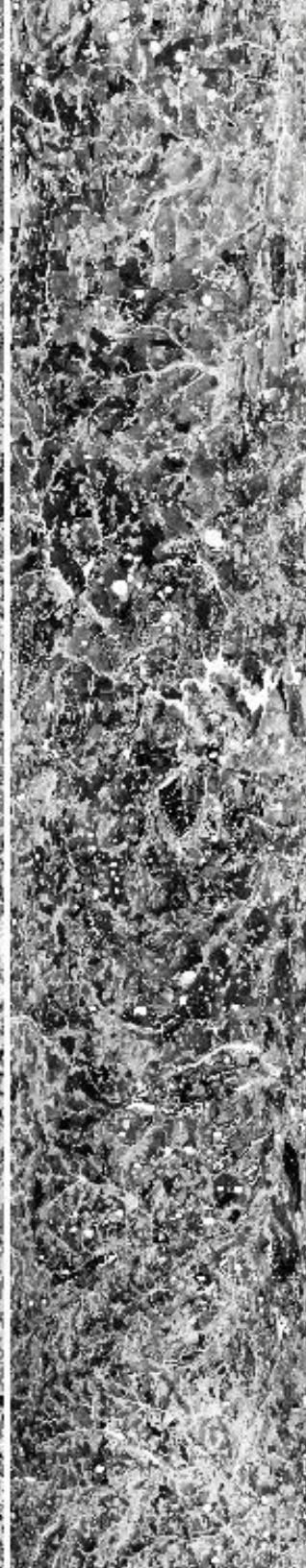
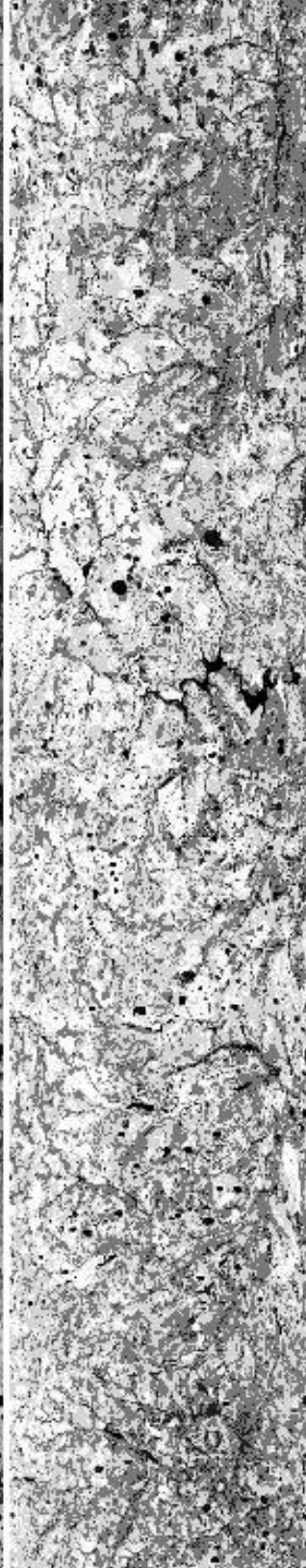
07:34:00

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

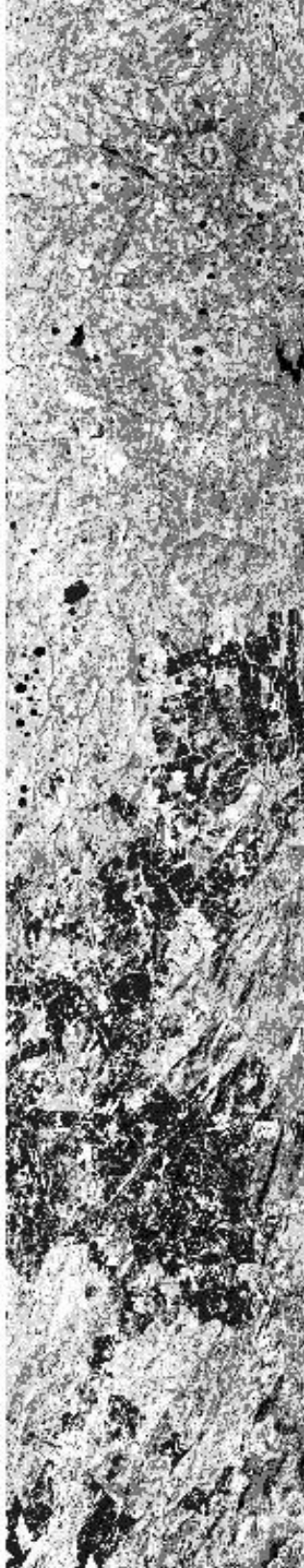
07:42:00



07:44:00



07:46:00



07:48:00



07:50:00



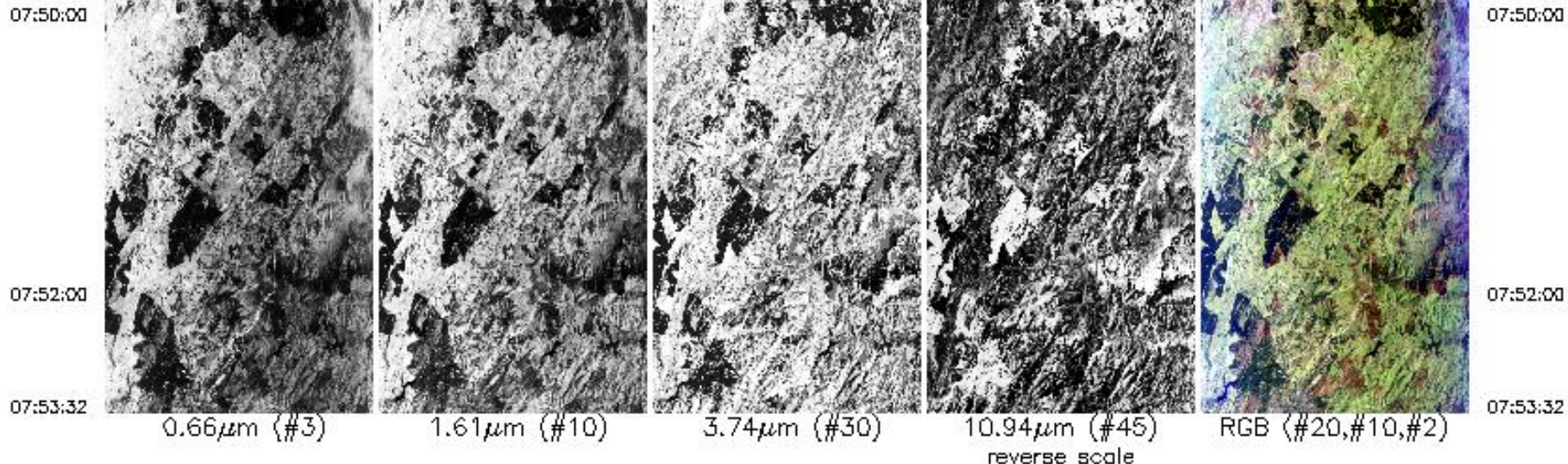
07:42:00

07:44:00

07:46:00

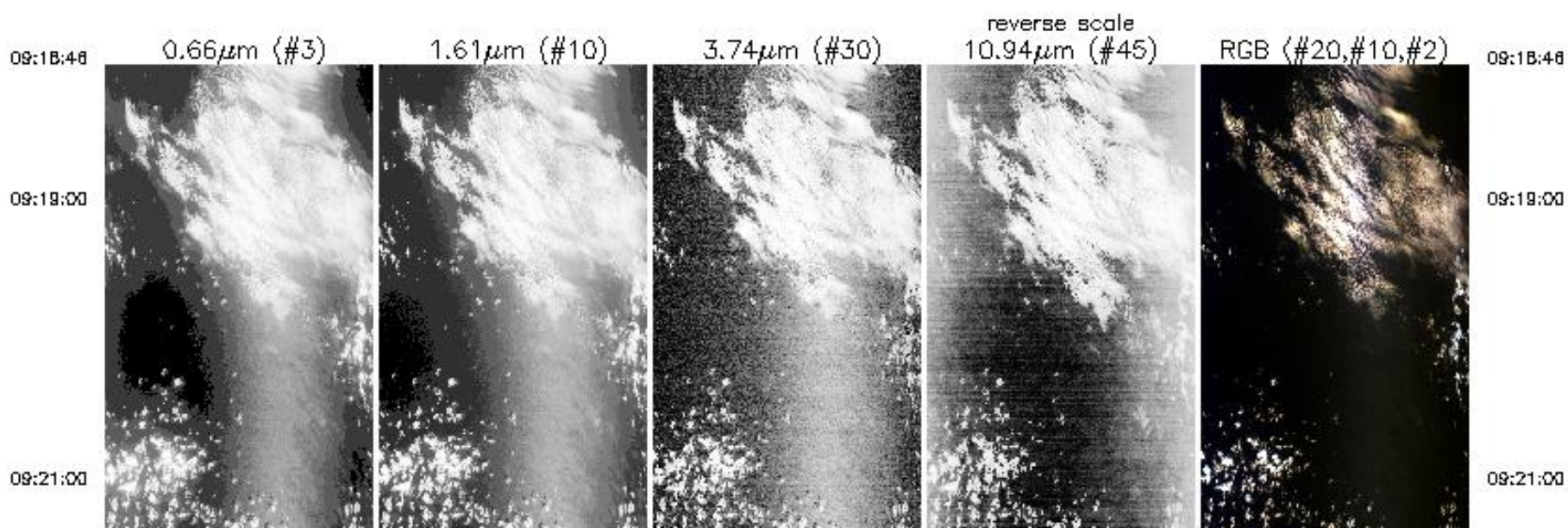
07:48:00

07:50:00



Upper Left Lat, Lon = -26.0°, 28.1°
 Lower Right Lat, Lon = -26.1°, 31.2°
 Aircraft Heading = 99.2°
 Solar Zenith = 55.3°
 GPS Altitude = 19880. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI_2000 Campaign - 24 August 2000
 Inhaca Island
 Flight #00-150 Track #2



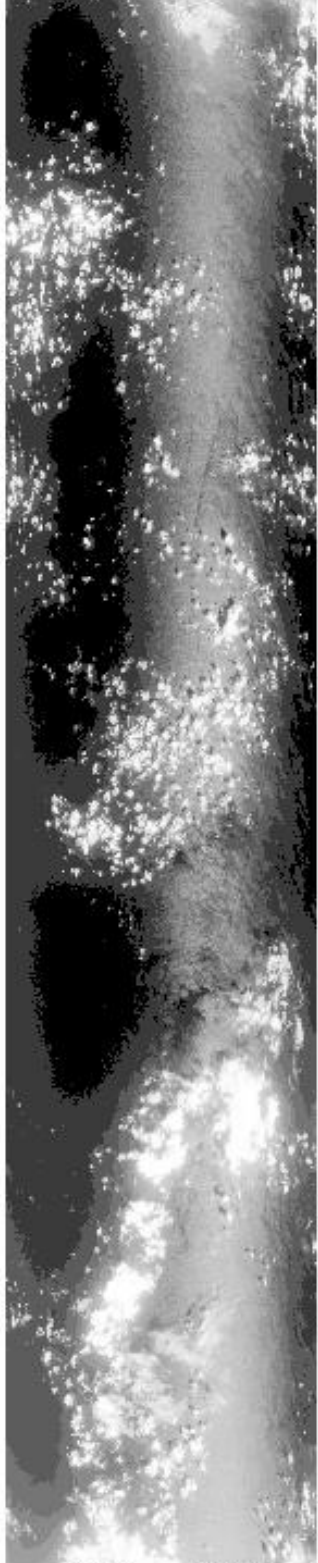
09:21:00

09:23:00

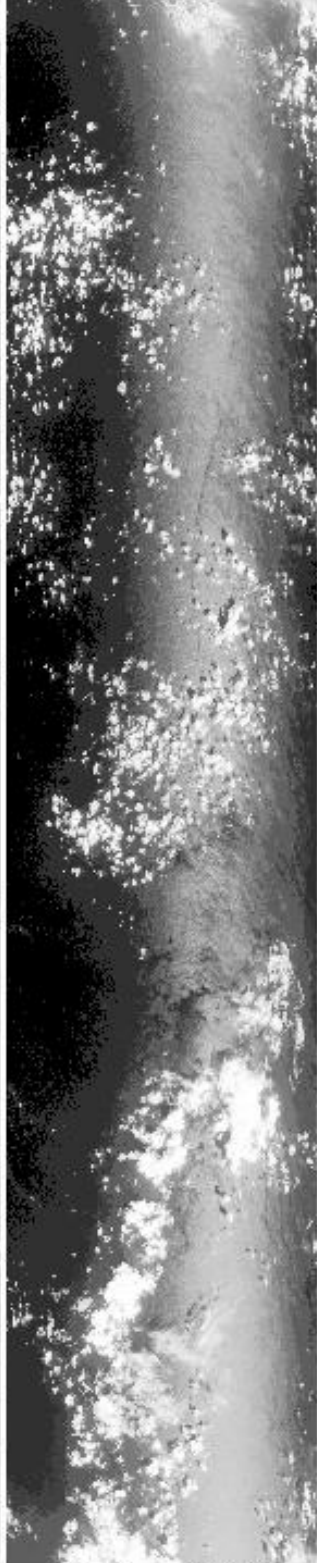
09:25:00

09:27:00

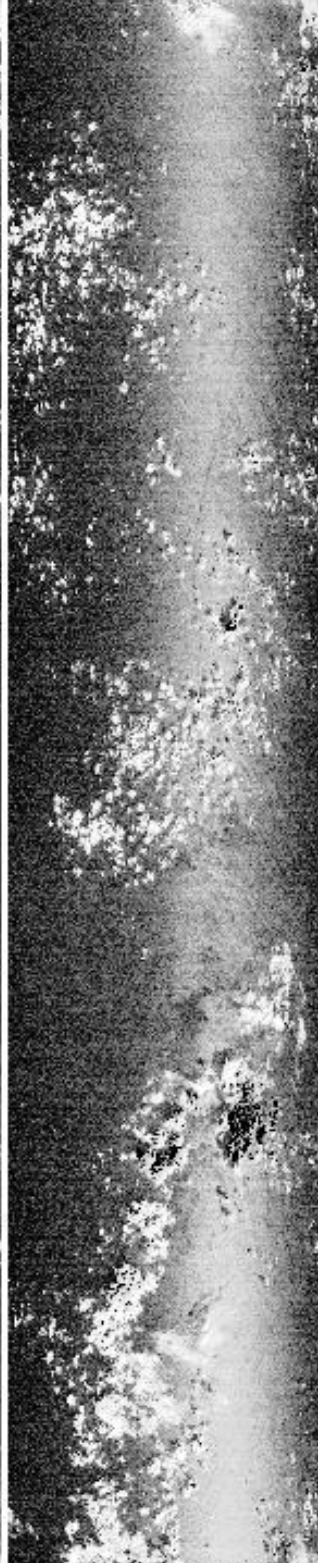
09:29:54



0.66 μm (#3)



1.61 μm (#10)



3.74 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20,#10,#2)

09:21:00

09:23:00

09:25:00

09:27:00

09:29:54

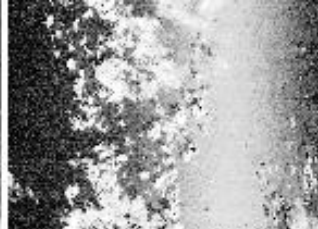
09:29:54



0.66µm (#3)



1.61µm (#10)



3.74µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

09:29:54

Upper Left Lat, Lon = -19.8°, 37.0°

Lower Right Lat, Lon = -18.6°, 37.7°

Aircraft Heading = 45.8°

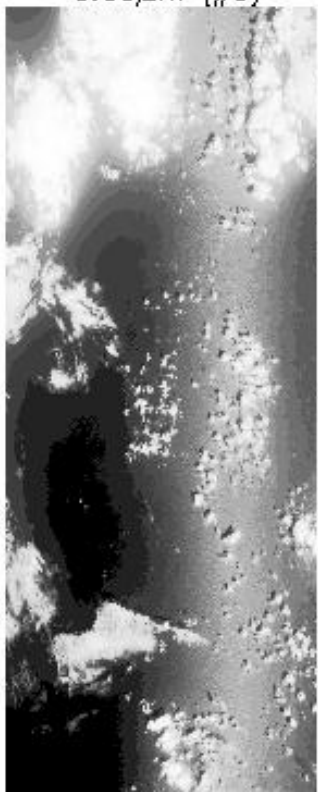
Solar Zenith = 33.0°

GPS Altitude = 20029. m (MSL)

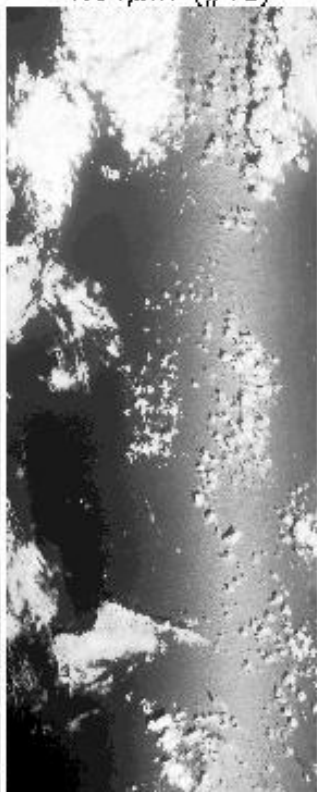
MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign - 24 August 2000
Inhaca Island
Flight #00-150 Track #3

09:29:58

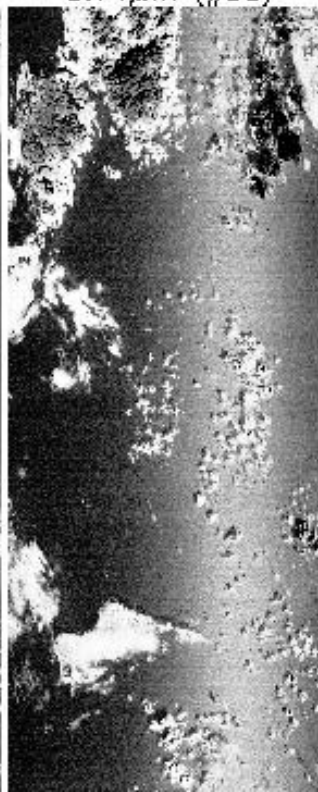
0.66µm (#3)



1.61µm (#10)



3.74µm (#30)



reverse scale
10.94µm (#45)



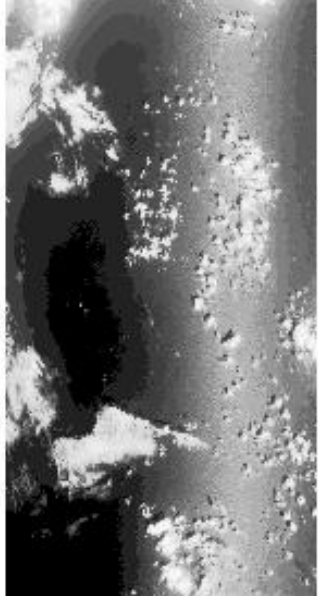
RGB (#20,#10,#2)



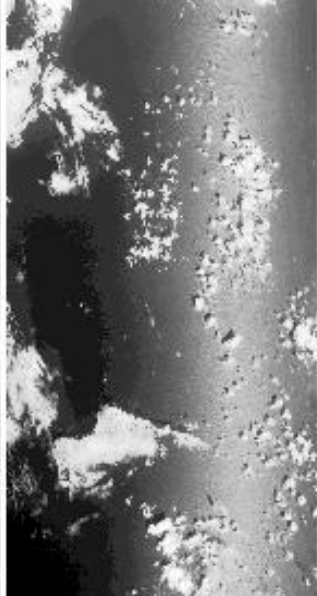
09:29:58

09:30:00

0.66µm (#3)



1.61µm (#10)



3.74µm (#30)



reverse scale
10.94µm (#45)



RGB (#20,#10,#2)



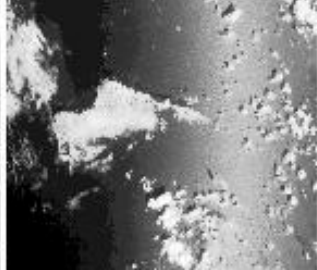
09:30:00

09:32:00

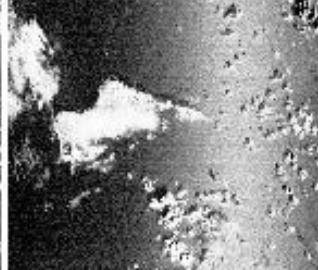
0.66µm (#3)



1.61µm (#10)



3.74µm (#30)



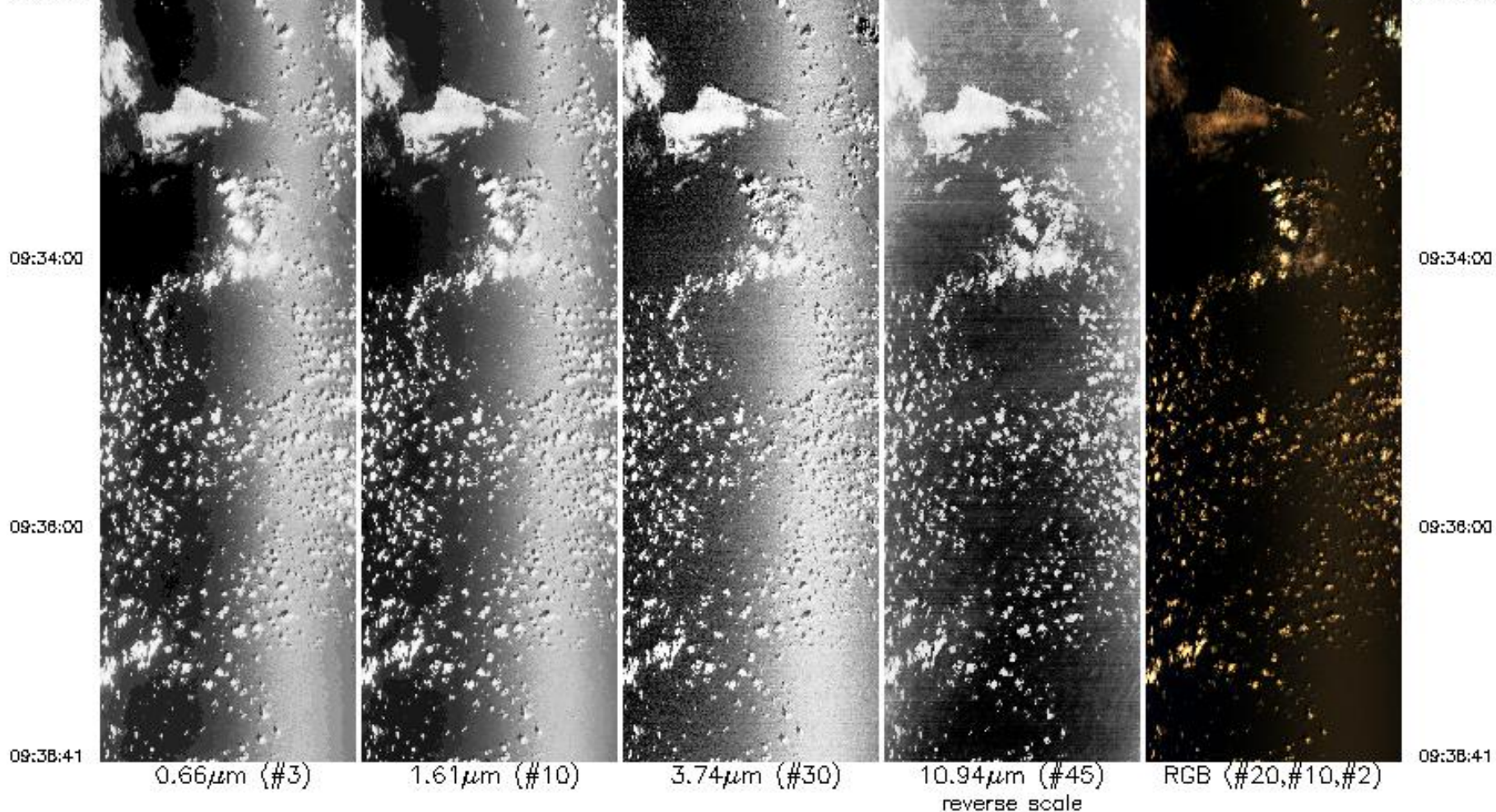
reverse scale
10.94µm (#45)



RGB (#20,#10,#2)

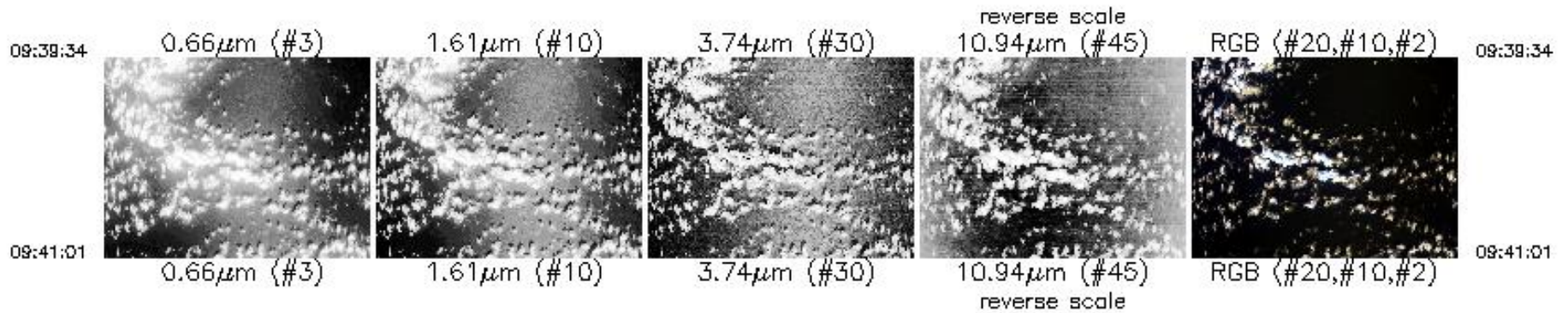


09:32:00



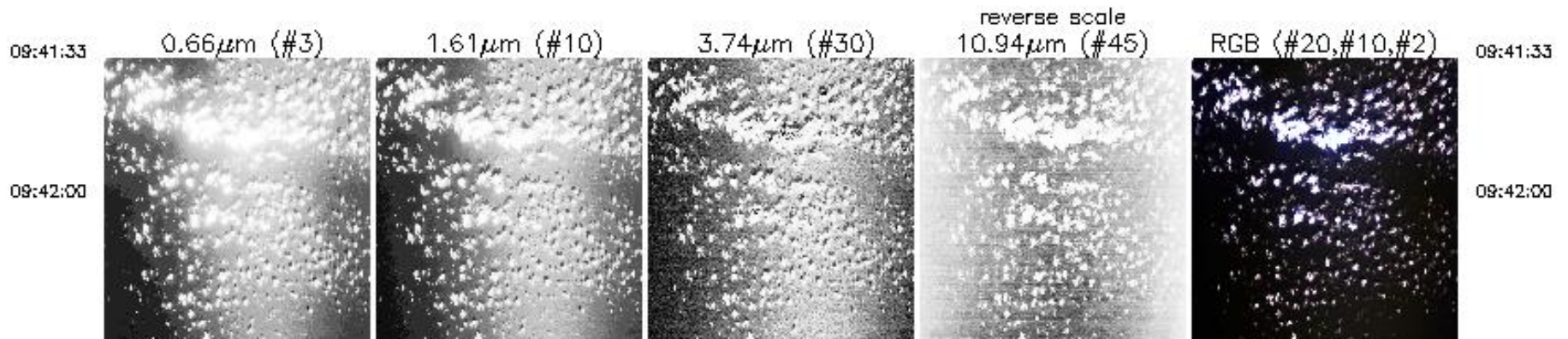
Upper Left Lat, Lon = -18.9° , 37.9°
 Lower Right Lat, Lon = -17.9° , 38.4°
 Aircraft Heading = 45.0°
 Solar Zenith = 31.8°
 GPS Altitude = 20077. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI_2000 Campaign – 24 August 2000
 Inhaca Island
 Flight #00–150 Track #4



Upper Left Lat, Lon = -18.0° , 38.7°
 Lower Right Lat, Lon = -17.7° , 38.4°
 Aircraft Heading = 15.6°
 Solar Zenith = 31.0°
 GPS Altitude = 20076. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI_2000 Campaign – 24 August 2000
 Inhaca Island
 Flight #00–150 Track #5



09:42:00

09:42:00

09:44:00

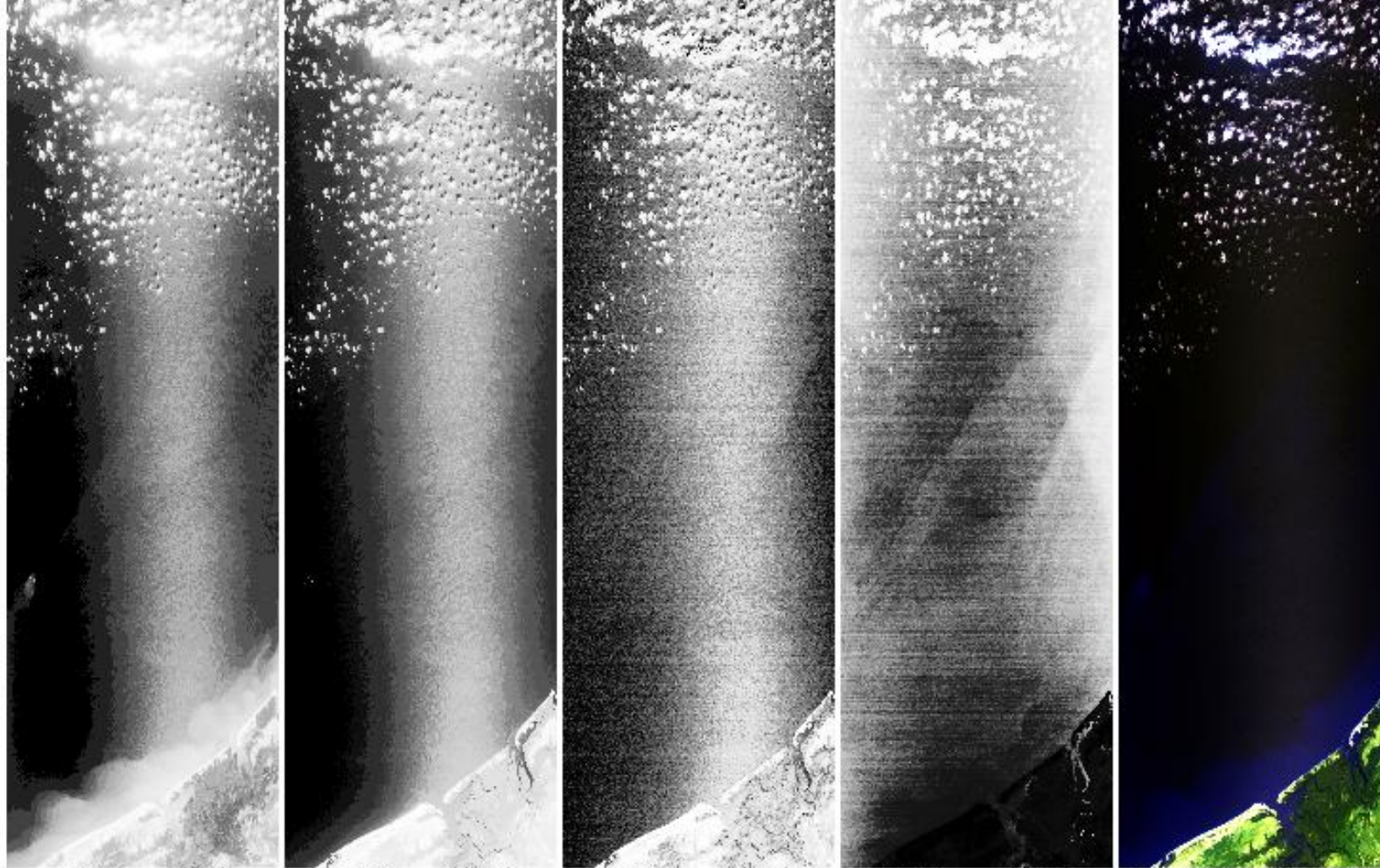
09:44:00

09:46:00

09:46:00

09:47:52

09:47:52



0.66µm (#3)

1.61µm (#10)

3.74µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

Upper Left Lat, Lon = -17.8°, 38.7°

Lower Right Lat, Lon = -17.0°, 38.6°

Aircraft Heading = 13.6°

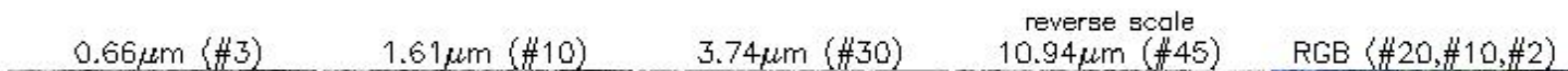
Solar Zenith = 30.8°

GPS Altitude = 20051. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign - 24 August 2000
Inhaca Island
Flight #00-150 Track #6

09:49:18

09:49:18



0.66µm (#3)

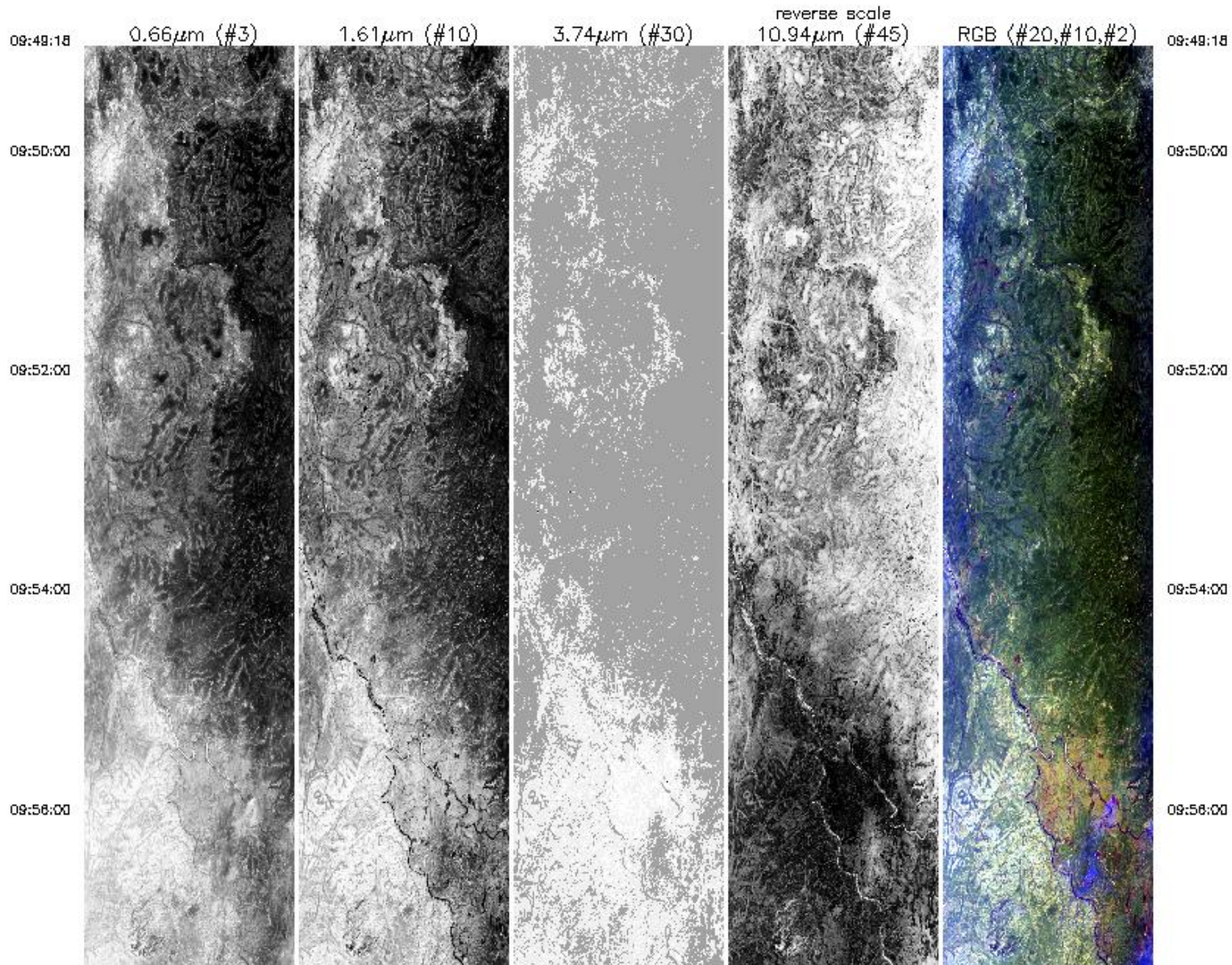
1.61µm (#10)

3.74µm (#30)

reverse scale
10.94µm (#45)

RGB (#20,#10,#2)

MOBIS Airborne Simulator Snow Imager
SAFARI_2000 Campaign - 24 August 2000
Inhaca Island
Flight #00-150 Track #6



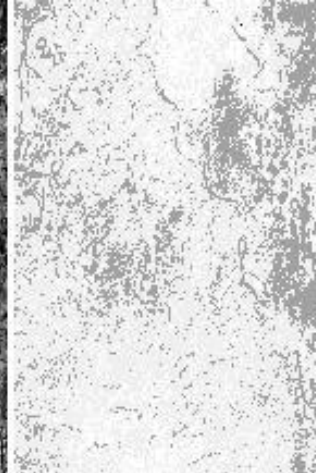
09:58:00



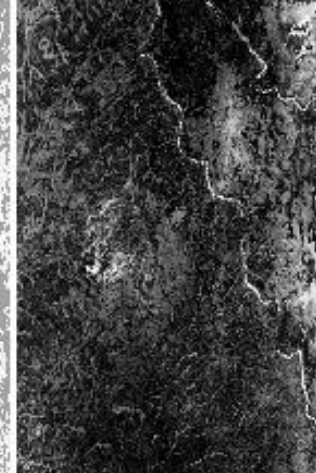
0.66 μm (#3)



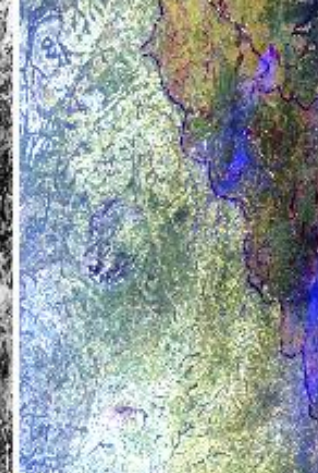
1.61 μm (#10)



3.74 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20,#10,#2)

09:58:00

09:58:00

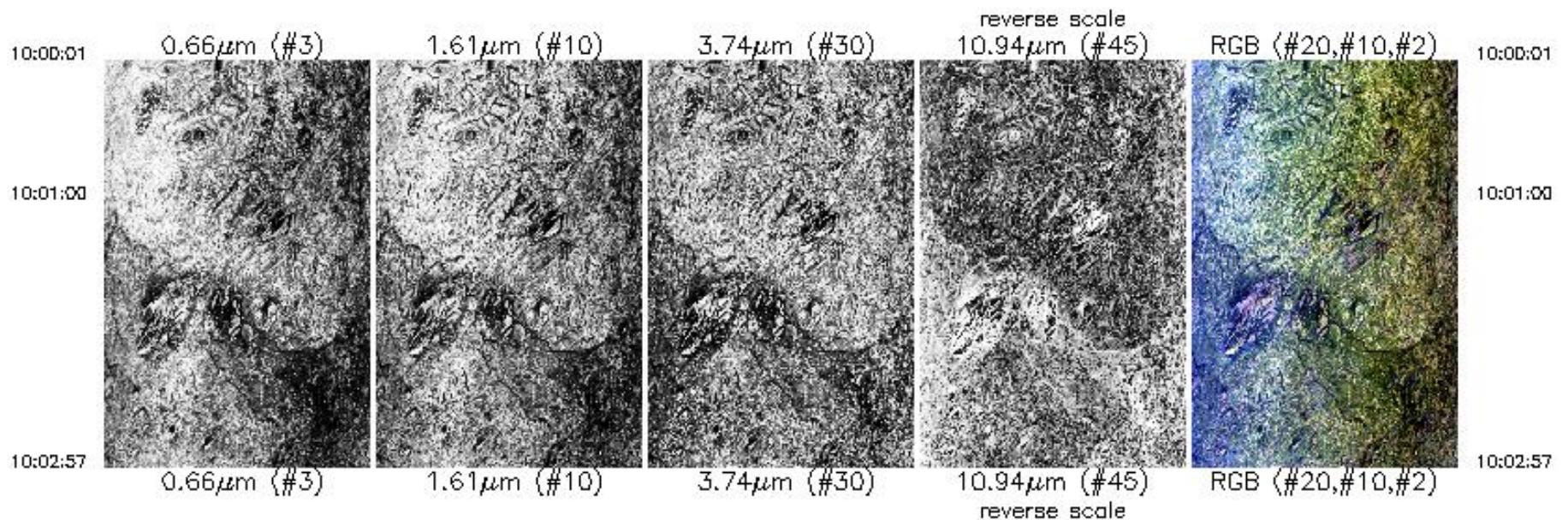
09:58:00

09:58:47

09:58:47

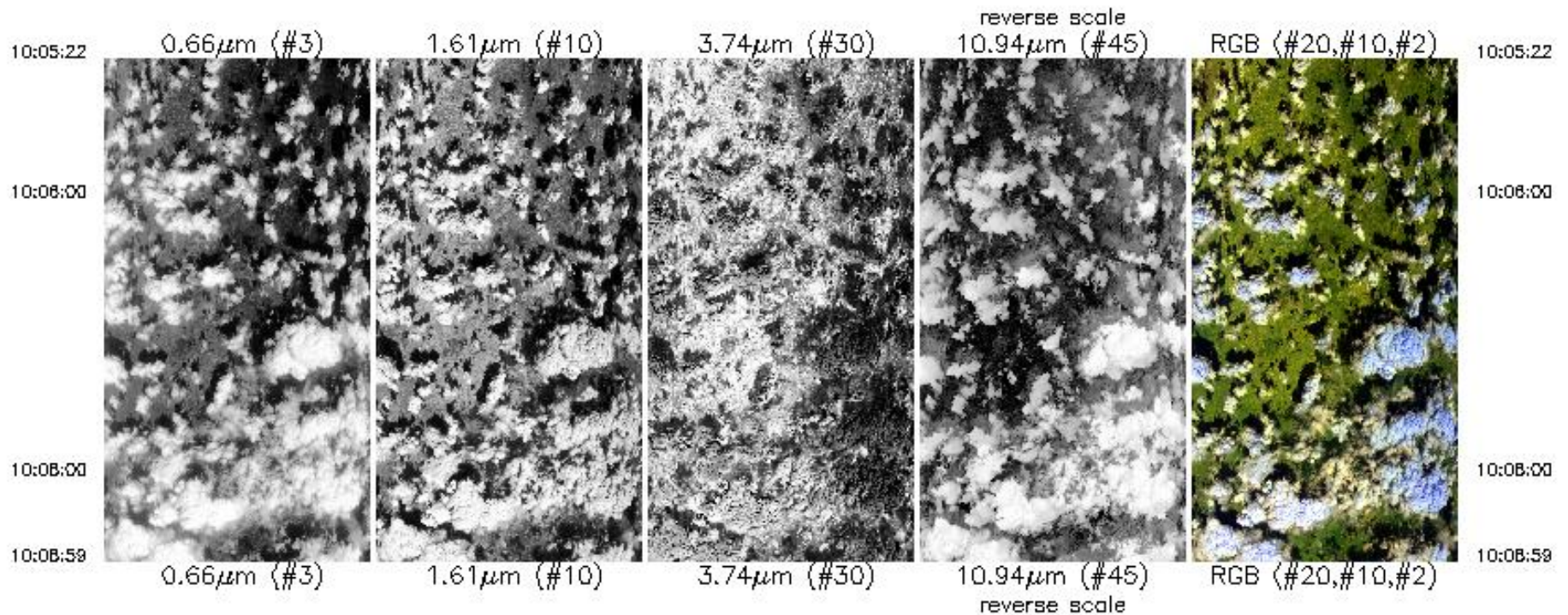
Upper Left Lat, Lon = -16.9° , 38.9°
Lower Right Lat, Lon = -15.8° , 38.8°
Aircraft Heading = 13.9°
Solar Zenith = 30.3°
GPS Altitude = 20074. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI_2000 Campaign – 24 August 2000
 Inhaca Island
 Flight #00–150 Track #7



Upper Left Lat, Lon = -15.7° , 39.2°
 Lower Right Lat, Lon = -15.3° , 38.9°
 Aircraft Heading = 13.6°
 Solar Zenith = 29.8°
 GPS Altitude = 20138. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI_2000 Campaign – 24 August 2000
 Inhaca Island
 Flight #00–150 Track #8

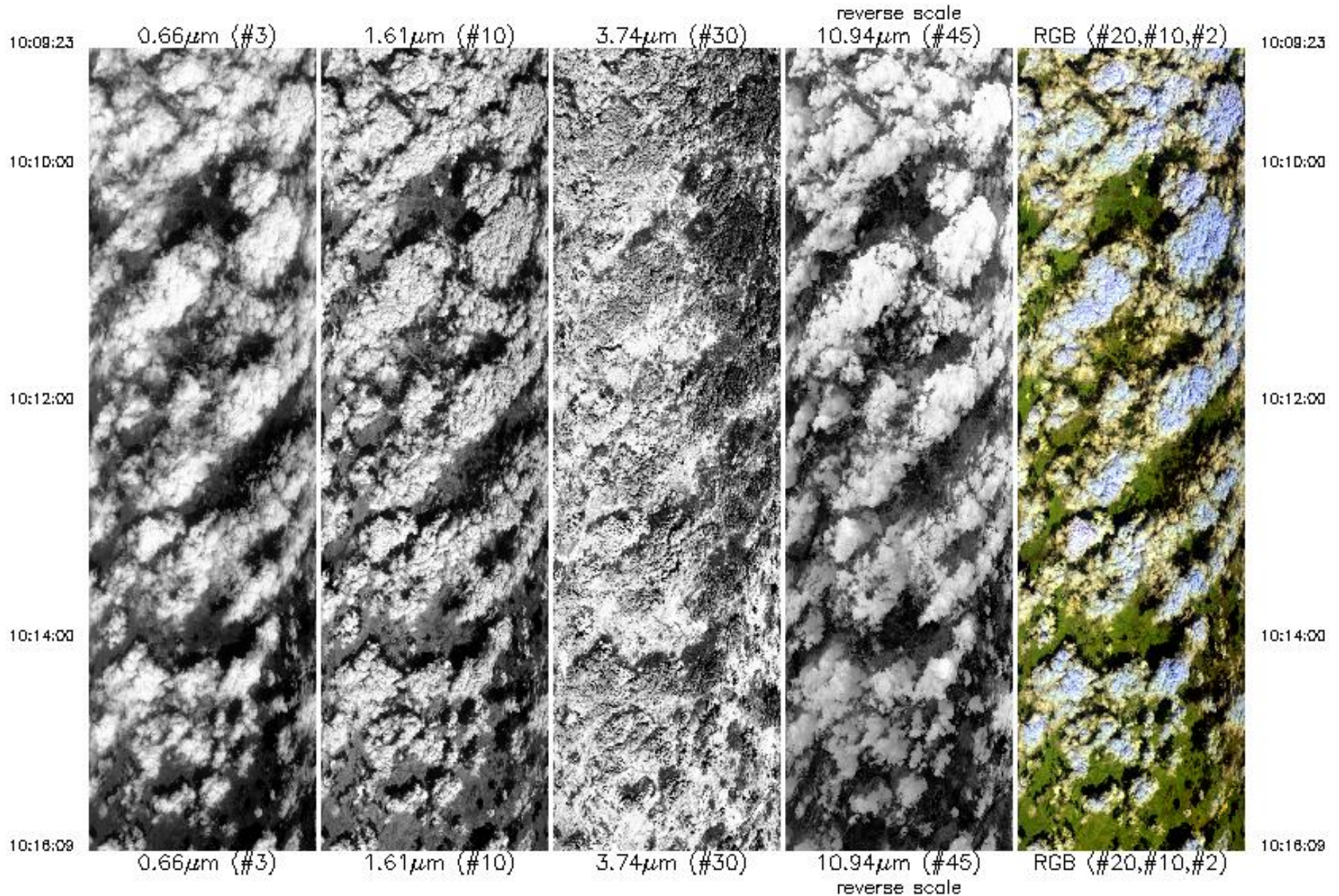


Upper Left Lat, Lon = -15.1° , 39.3°
 Lower Right Lat, Lon = -14.7° , 39.0°
 Aircraft Heading = 13.0°
 Solar Zenith = 29.6°
 GPS Altitude = 20128. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI_2000 Campaign – 24 August 2000
 Inhaca Island
 Flight #00–150 Track #9



MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign – 24 August 2000
Inhaca Island
Flight #00-150 Track #9



Upper Left Lat, Lon = -14.7° , 39.4°
Lower Right Lat, Lon = -13.9° , 39.2°
Aircraft Heading = 13.2°

10:16:08



0.66µm (#3)



1.61µm (#10)



3.74µm (#30)



10.94µm (#45)

reverse scale



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

10:16:08

Upper Left Lat, Lon = -14.7°, 39.4°

Lower Right Lat, Lon = -13.9°, 39.2°

Aircraft Heading = 13.2°

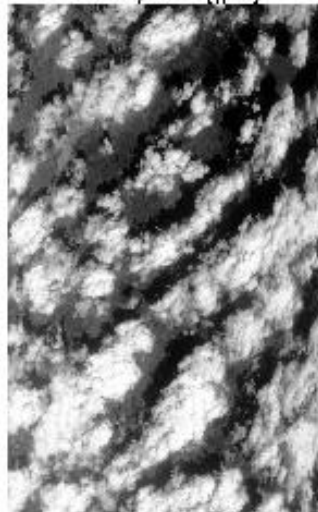
Solar Zenith = 29.6°

GPS Altitude = 20203. m (MSL)

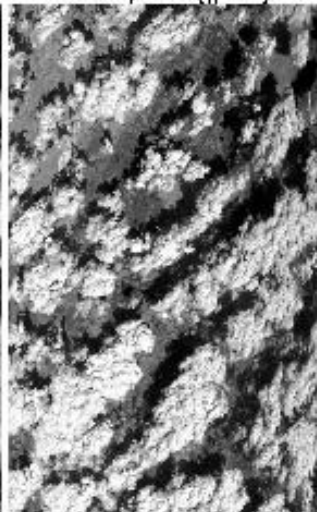
MODIS Airborne Simulator Browse Imagery
SAFARI_2000 Campaign - 24 August 2000
Inhaca Island
Flight #00-150 Track #10

10:16:37

0.66µm (#3)



1.61µm (#10)



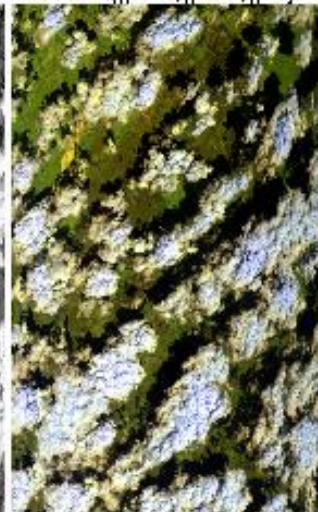
3.74µm (#30)



reverse scale
10.94µm (#45)



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



10:16:37

10:17:00

10:17:00

10:18:46

0.66µm (#3)



1.61µm (#10)



3.74µm (#30)



10.94µm (#45)



reverse scale

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



10:18:46

Upper Left Lat, Lon = -13.9°, 39.5°

Lower Right Lat, Lon = -13.5°, 39.3°

Aircraft Heading = 13.1°

Solar Zenith = 29.6°

GPS Altitude = 20231. m (MSL)

Lower Right Lat, Lon = -13.5° , 39.3°

Aircraft Heading = 13.1°

Solar Zenith = 29.6°

GPS Altitude = 20231. m (MSL)