

SAFARI 2000 MAS Flight 00160

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 #00-160

RGB Images

[Click Image](#)

Track #13



R:2.15 microns
G:1.64 microns
B:0.55 microns

Track #15

Summary Information

Date: **September 11, 2000**

ER-2 Flight Number: **00-160**

Location: **South Africa and Namibia**

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

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

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

Flight Track Map



[Click to enlarge](#)

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: **24 processed**

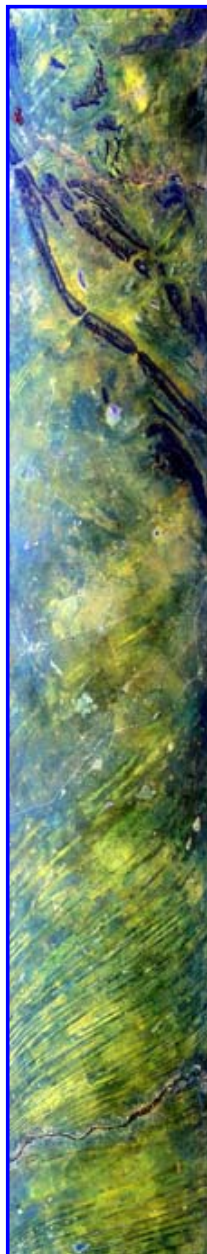
Scanlines Processed: **165301**

[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	06:52-07:19	253	24.46-25.41	27.11-24.08	10000	19010
<input type="checkbox"/>	02	07:19-07:46	253	25.41-26.32	24.08-20.96	10000	19593
<input type="checkbox"/>	03	07:46-08:12	254	26.32-27.14	20.96-17.78	10000	19695
<input type="checkbox"/>	04	08:12-08:40	257	27.14-27.91	17.78-14.47	10354	19730
<input type="checkbox"/>	05	08:41-09:08	304	27.90-26.05	14.38-11.77	10000	19765
<input type="checkbox"/>	06	09:08-09:11	310	26.05-25.83	11.77-11.48	1148	19726
<input type="checkbox"/>	07	09:12-09:38	10	25.73-22.82	11.43-12.11	10000	19708
<input type="checkbox"/>	08	09:38-10:06	15	22.82-19.84	12.11-12.79	10289	19803
<input type="checkbox"/>	09	10:07-10:28	335	19.77-17.73	12.78-11.49	7911	19727
<input type="checkbox"/>	10	10:32-10:54	149	17.89-19.97	11.21-12.48	8181	19778
<input type="checkbox"/>	11	10:54-11:03	168	20.01-20.99	12.50-12.64	3316	19852
<input type="checkbox"/>	12	11:03-11:30	139	21.04-23.25	12.66-14.75	10000	19405
<input type="checkbox"/>	13	11:30-11:38	139	23.25-23.94	14.75-15.42	3043	18934
<input type="checkbox"/>	14	11:42-11:51	36	23.93-23.14	15.27-15.92	3382	18726
<input type="checkbox"/>	15	11:52-12:19	95	23.10-23.37	16.03-19.34	10000	18839



R:2.15 microns
G:1.64 microns
B:0.55 microns

16	12:19-12:46	95	23.37-23.57	19.34-22.67	10000	18981
17	12:46-13:13	95	23.57-23.69	22.67-25.93	10000	19135
18	13:13-13:30	102	23.69-23.79	25.93-28.07	6559	19183
19	13:30-13:49	47	23.80-23.16	28.11-29.68	6742	18930
20	13:49-14:03	82	23.15-23.93	29.68-29.49	5441	18655
21	14:03-14:11	99	23.95-23.90	29.50-29.11	2956	18592
22	14:11-14:20	40	23.88-23.15	29.14-29.69	3057	18640
23	14:20-14:22	349	23.13-22.89	29.70-29.65	938	18657
24	14:22-14:28	238	22.89-23.14	29.65-29.28	1984	18602
All images in sequence						

ER-2 Flight Log

Author: [Steve Platnick](#)

Mission Scientist: [Dr. Michael King](#)

ER-2 Pilot: [Jan Nystrom](#)

Takeoff: [11Sep2000 0000 UTC](#)

Landing: [11Sep2000 0000 UTC](#)

Duration: [09:18:00](#)

Objective:

(1) Underfly Terra off the west coast of Namibia for clear sky and cloud validation. (2) Observe outflow and possibly a berg wind with accompanying dust off Luderitz, Namibia. (3) Image geological features of the Kuiseb River Canyon along with sand dunes to the south, desert "pavement" to the north. (4) Overfly the Matimba Power Station in northeast RSA and a burn scar at Madikwe Game Park, RSA.

The UK C130, based in Windhoek, Namibia, obtained in situ cloud sampling coordinated with the ER-2 towards the two northern ER-2 flight tracks paralleling the northern Namibia coast. The University of Washington CV-580, now based in Walvis Bay, Namibia flew a clear sky mission off the Namibian coast during the Terra/ER-2 overflight.

Key Flight Legs:

No comments (See flight objectives)

Highlights: ER-2 clear sky and coastal stratus run off northern Namibia coincident and directly under the Terra overpass; ER-2/C130 coordination in stratus; Kuiseb River Canyon.

AERONET sites were overflown during this mission:

- Walvis Bay, Namibia (22°55'S, 14°30'E)

Pilot Report:

The ER-2 line along Terra included clear sky to the south and stratocumulus to the north.

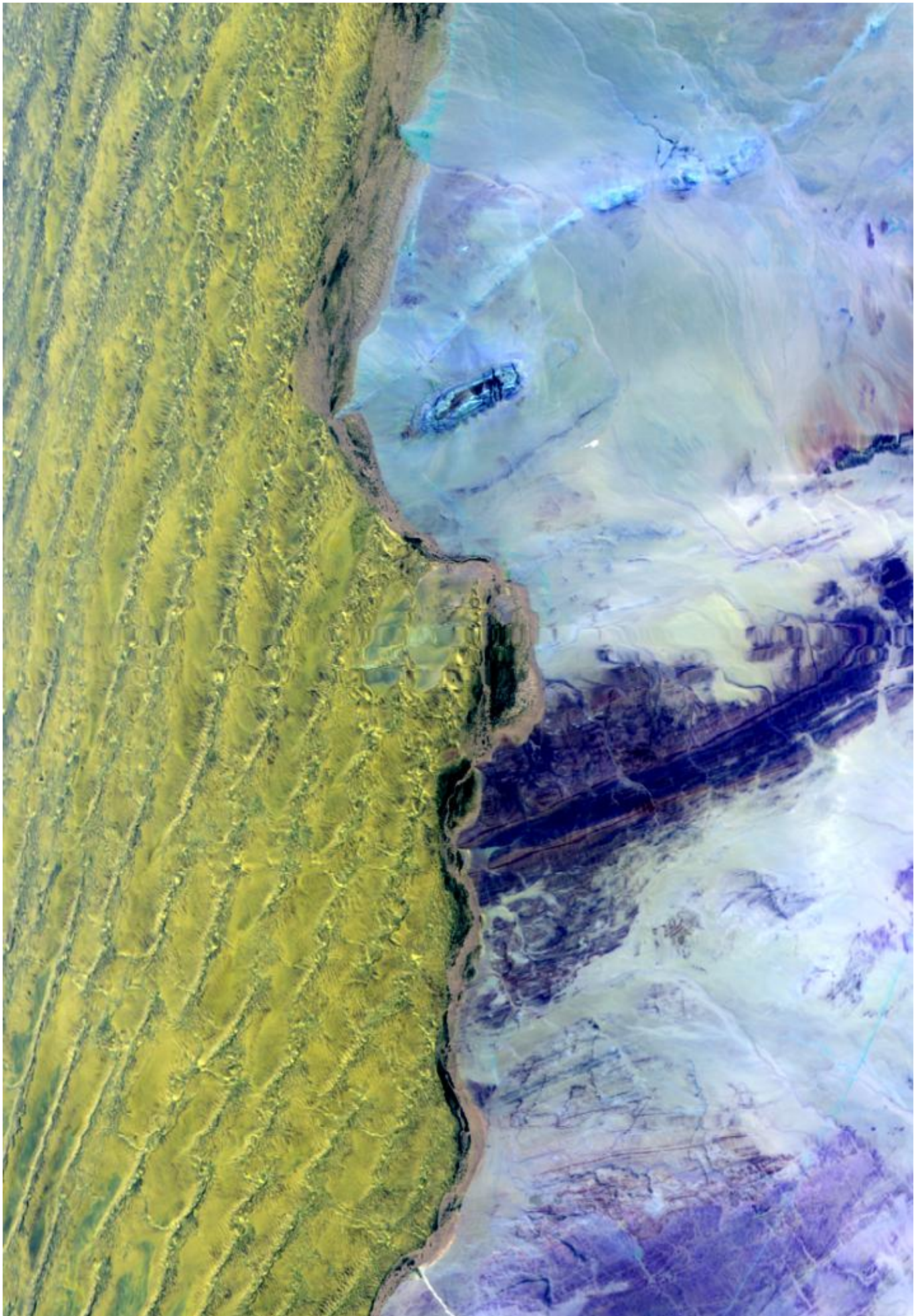
Meteorology:

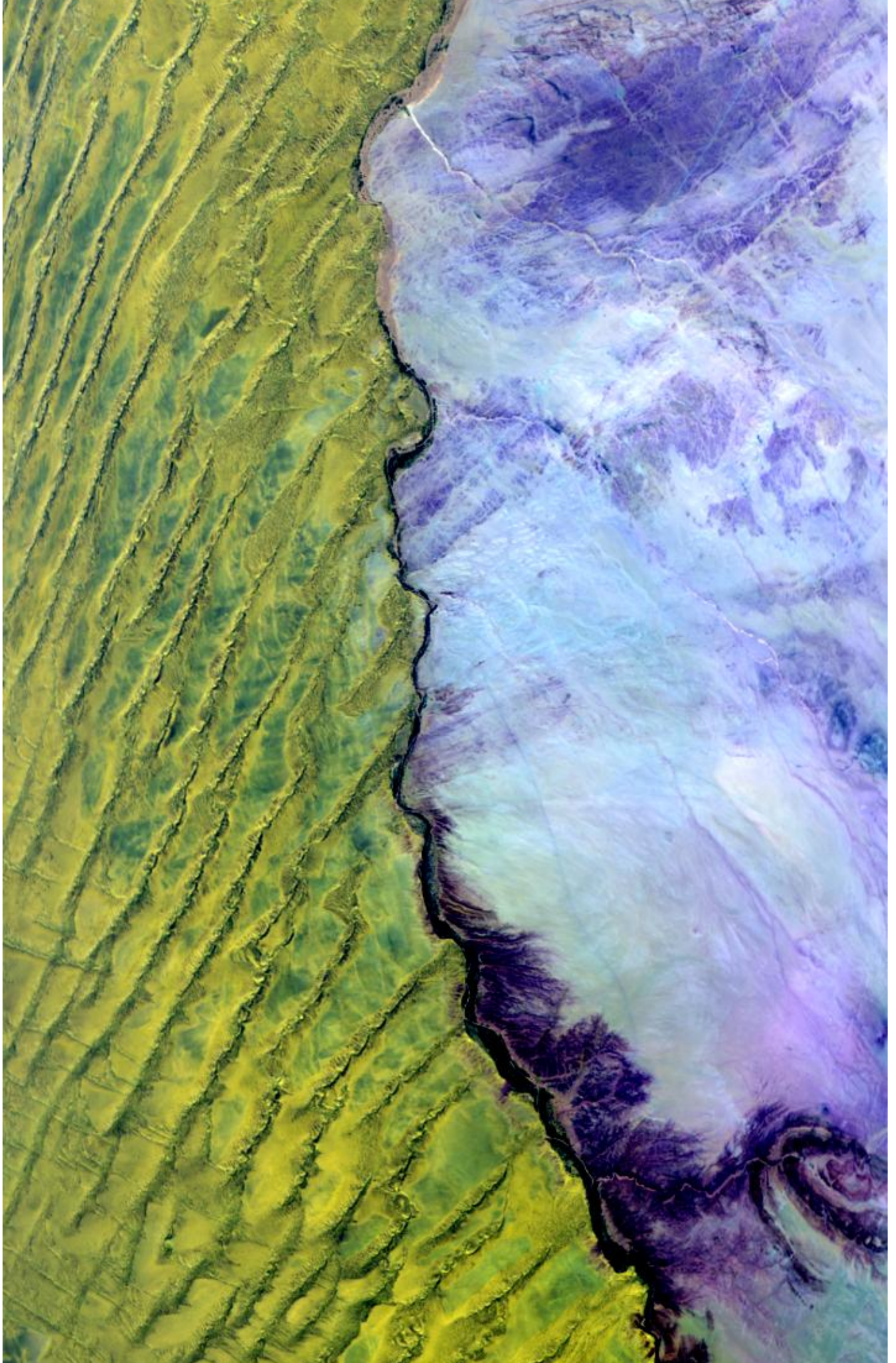
Monday's forecast (Steve Medcalf, SAWB): A high pressure cell dominates the central and eastern parts of South Africa with a trough over the western areas and a coastal low on the namibian coast. Cloudy in the northeast of South Africa and the southern parts of Zimbabwe. Fog patches over the northern Namibian coast and generally fine weather elsewhere with an offshore flow along the southern Namibian and Cape west coasts.

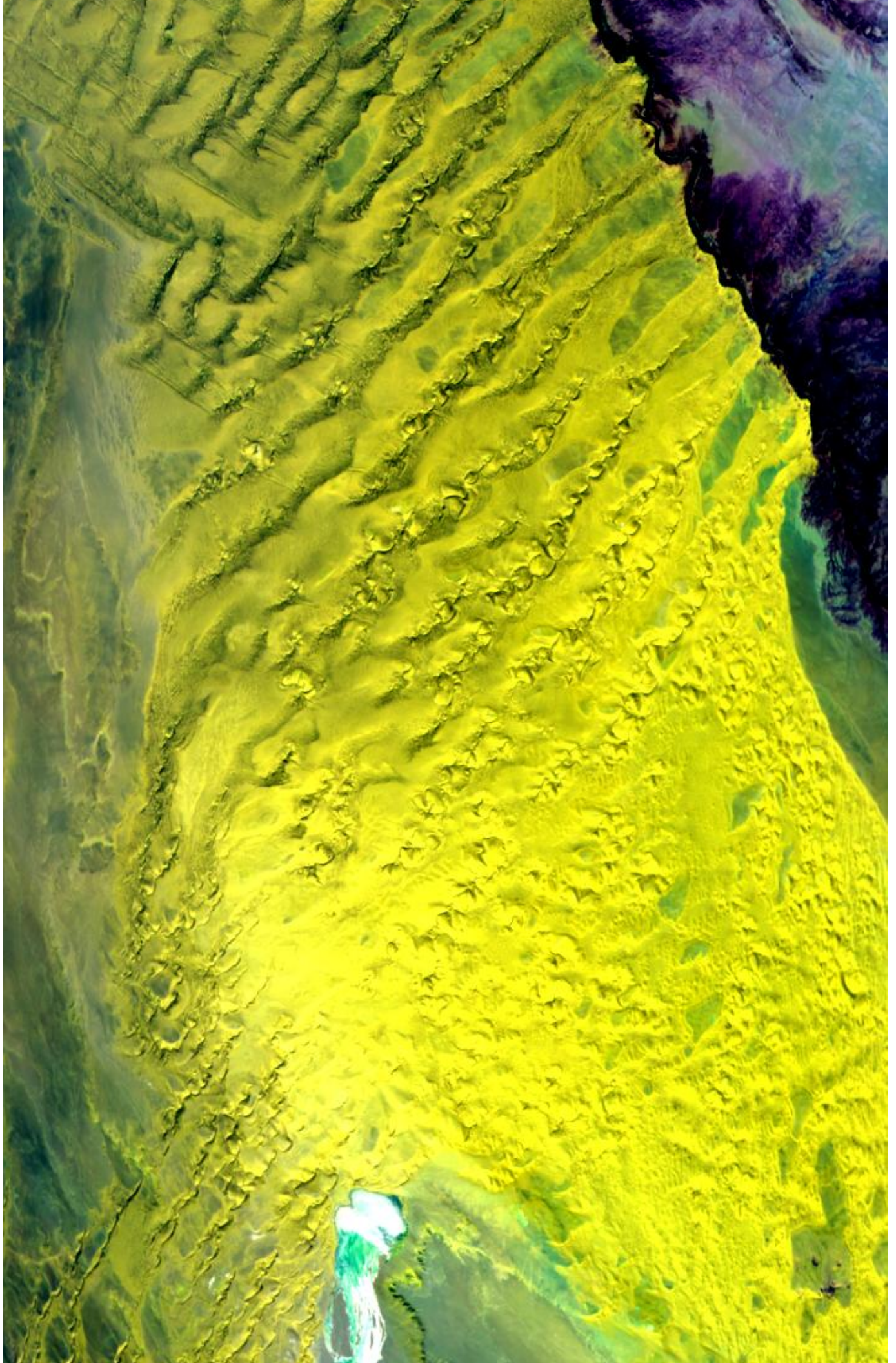
Instrument Status:

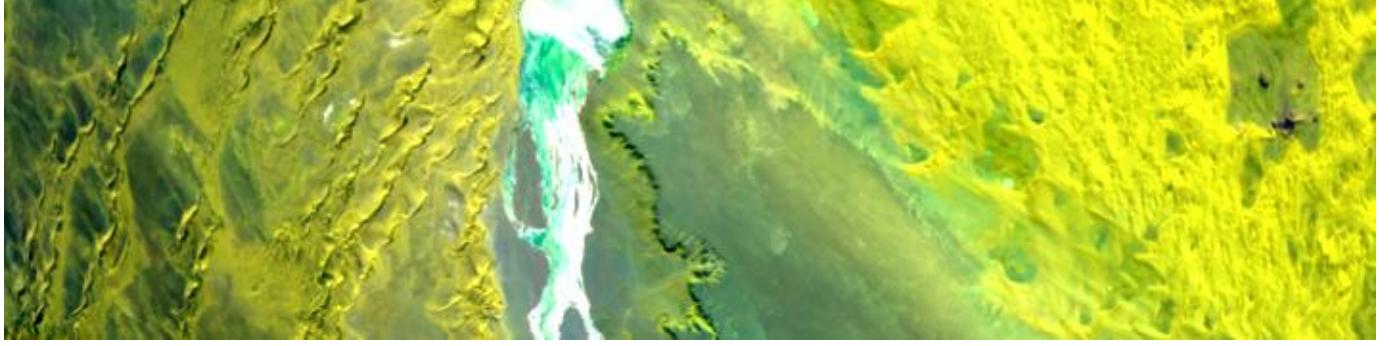
- AirMISR (Airborne Multi-angle Imaging Spectroradiometer): no data
- CLS (Cloud Lidar System): Lidar worked properly, but navigation data not recorded

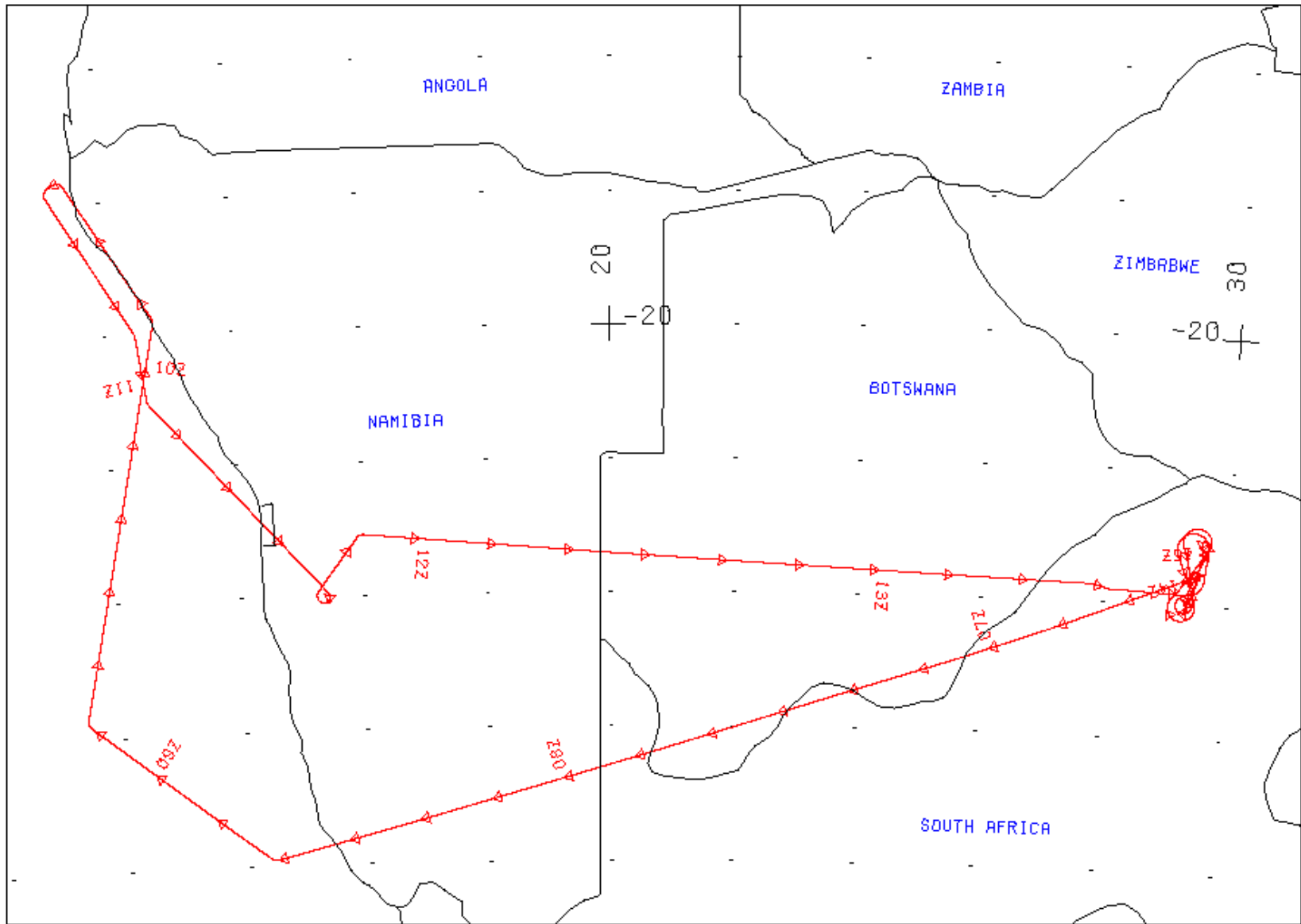
- LAS (Leonardo Airborne Simulator): operational
- MAS (MODIS Airborne Simulator): worked well
- MOPITT-A (MOPITT Airborne Simulator): Worked well
- S-HIS (High-resolution Interferometer Sounder): operated in nadir mode
- SSFR (Solar Spectral Flux Radiometer): Worked well
- RC-10 (Tracking Camera): Worked well











FLIGHT 00-160

11 SEPTEMBER 2000

A/C 809

SAFARI

FLIGHT 00-160

11 SEPTEMBER 2000

A/C 809

SAFARI

50 MAS Configuration for 00-160 11 Sep 2000 S. Africa, Namibia, Botswana

01	01	16	0	0.039288	0.0000	0.452	0.472	0.493	0.100	1981.92
02	02	16	0	0.041974	0.0000	0.534	0.554	0.577	0.100	1857.88
03	03	16	0	0.028292	0.0000	0.635	0.658	0.689	0.100	1549.55
04	04	16	0	0.033058	0.0000	0.687	0.708	0.731	0.100	1386.41
05	05	16	0	0.025127	0.0000	0.729	0.750	0.773	0.100	1260.07
06	06	16	0	0.025843	0.0000	0.810	0.830	0.855	0.100	1053.65
07	07	16	0	0.025727	0.0000	0.853	0.874	0.895	0.100	962.82
08	08	16	0	0.020684	0.0000	0.893	0.912	0.934	0.100	869.28
09	09	16	0	0.022387	0.0000	0.933	0.954	0.974	0.100	784.92
10	10	16	0	0.003553	0.0000	1.586	1.612	1.640	0.100	244.16
11	11	16	0	0.006602	0.0000	1.642	1.668	1.695	0.010	227.32
12	12	16	0	0.003106	0.0000	1.698	1.722	1.749	0.010	201.29
13	13	16	0	0.003071	0.0000	1.751	1.776	1.801	0.010	176.56
14	14	16	0	0.003158	0.0000	1.805	1.830	1.855	0.010	156.28
15	15	16	0	0.003018	0.0000	1.855	1.880	1.906	0.010	139.66
16	16	16	0	0.002863	0.0000	1.906	1.932	1.956	0.100	131.21
17	17	16	0	0.002596	0.0000	1.956	1.982	2.006	0.010	122.76
18	18	16	0	0.002535	0.0000	2.006	2.032	2.057	0.010	109.78
19	19	16	0	0.002446	0.0000	2.058	2.082	2.107	0.010	98.67
20	20	16	0	0.002483	0.0000	2.107	2.132	2.157	0.010	86.28
21	21	16	0	0.005218	0.0000	2.156	2.180	2.205	0.010	76.85
22	22	16	0	0.002833	0.0000	2.205	2.230	2.255	0.010	73.57
23	23	16	0	0.002902	0.0000	2.255	2.280	2.305	0.010	68.38
24	24	16	0	0.002714	0.0000	2.306	2.330	2.354	0.010	58.53
25	25	16	0	0.002646	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/er2/00-160
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 11 Sep 2000
 NASA FLIGHT NUMBER 00-160

START OF FLIGHT LINE					END OF FLIGHT				
LINE	FLIGHT DATA								
LINE	TIME	LAT	LON	SOLAR	TIME	LAT	LON	SOLAR	TIME
	HH:MM:SS	DEG	DEG	ZEN	HH:MM:SS	DEG	DEG	ZEN	HH:MM:SS
	SCAN	HEAD	ALT	AZIM	SCAN	HEAD	ALT	AZIM	SCAN
	LINES	DEG	M (GPS)	DEG	LINES	DEG	M (GPS)	DEG	LINES
1	06:52:28	-24.457	27.106	55.6	65.6	07:19:14	-25.413	24.077	53.0
62.4	9999	253.0	19011						
2	07:19:15	-25.413	24.077	53.0	62.4	07:46:01	-26.315	20.963	50.6
59.0	9999	253.1	19593						
3	07:46:01	-26.315	20.963	50.6	59.0	08:12:47	-27.142	17.785	48.4
55.3	9999	254.1	19695						
4	08:12:48	-27.142	17.785	48.4	55.3	08:39:34	-27.882	14.586	46.4
51.5	9999	256.4	19737						
5	08:41:24	-27.890	14.371	46.2	51.2	09:08:10	-26.039	11.762	42.2
48.4	9999	305.4	19765						
6	09:08:10	-26.038	11.761	42.2	48.4	09:11:06	-25.831	11.480	41.8
48.1	1097	309.6	19725						
7	09:12:14	-25.716	11.434	41.6	47.9	09:39:01	-22.807	12.118	34.7
41.4	9999	11.0	19717						
8	09:39:01	-22.807	12.118	34.7	41.4	10:05:47	-19.911	12.774	28.3
32.6	9999	14.7	19810						
9	10:07:13	-19.758	12.774	28.0	32.1	10:28:16	-17.730	11.491	24.4
26.2	7862	333.9	19730						
10	10:32:10	-17.887	11.206	24.2	24.5	10:54:02	-19.972	12.481	24.5
7.4	8171	148.6	19778						
11	10:54:29	-20.018	12.500	24.5	7.1	11:03:14	-20.989	12.638	25.3
1.5	3272	169.3	19866						
12	11:03:45	-21.040	12.661	25.4	1.1	11:30:30	-23.248	14.747	28.7

342.6	9999	138.4	19405						
13	11:30:31	-23.248	14.747	28.7	342.6	11:38:38	-23.940	15.421	30.2
337.8	3036	139.0	18935						
14	11:42:46	-23.932	15.269	30.5	336.1	11:51:47	-23.141	15.922	31.0
330.4	3375	36.3	18727						
15	11:52:47	-23.098	16.027	31.1	329.7	12:19:32	-23.371	19.340	37.0
315.2	9999	95.3	18839						
16	12:19:32	-23.371	19.340	37.0	315.2	12:46:17	-23.569	22.675	44.2
304.5	9999	95.1	18981						
17	12:46:17	-23.569	22.676	44.2	304.5	13:13:03	-23.692	25.935	52.1
296.4	9999	94.5	19135						
18	13:13:03	-23.692	25.935	52.1	296.4	13:30:35	-23.794	28.069	57.6
292.1	6557	102.4	19183						
19	13:31:32	-23.797	28.184	57.9	291.9	13:41:17	-23.842	29.362	61.0
289.8	3642	90.4	18866						
20	13:44:39	-23.617	29.638	61.9	289.0	13:48:57	-23.163	29.685	62.7
288.2	1608	4.7	18603						
21	13:56:54	-23.242	29.199	64.0	287.4	14:03:31	-23.926	29.491	65.9
286.7	2475	160.2	18602						
22	14:11:58	-23.876	29.136	67.5	285.8	14:20:05	-23.155	29.689	69.6
284.2	3037	41.1	18641						

NUMBER OF FILES FOR THIS FLIGHT = 22
 TOTAL NUMBER OF SCAN LINES = 154121
 DATE THESE FILES WERE PROCESSED = 07-Nov-2002
 DATE THIS LIST WAS CREATED = Sun Nov 10

14:51:00 PST 2002

GRANULE VERSION = 2

 GLOBAL ATTRIBUTES

Attribute Name	Description
-----	-----
CreationDate	07-Nov-2002 17:12:31

AircraftPlatform	NASA ER-2 (809)
NavFormatCode	Format (A-1)
LocationCode	Inertial (INU)
AltitudeCode	Inertial (INU)
NavDataSource	ER2 navigation recorder
NavDataPath	/nav/2000/er2/00-160
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	00-160
FlightDate	11 Sep 2000
SiteLineRun	void
GeographicArea	S.A., Botswana
SRF_FTP	ftp://asapdata/mas/srf/Oct_00/
SRF_dataset	/rarray/calibrat/mas/srf/Oct_00/
FlightLineNumber	1
TotalFlightLines	22
DataUsersGuideSource	http://ltpwww.gsfc.nasa.gov/MAS/
SoftwareVersion	Level-1b Version 10.1.3 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, S-HIS, RC-10
Principal_Investigator	King
lat_UL	-24.31115
lon_UL	27.05414
lat_UR	-24.60167
lon_UR	27.15526
lat_LL	-25.25894
lon_LL	24.02505
lat_LR	-25.56694
lon_LR	24.12529
begin_date	20000911 065229
end_date	20000911 071915
RunTime	719,170 ms, or 71 ms/scanline

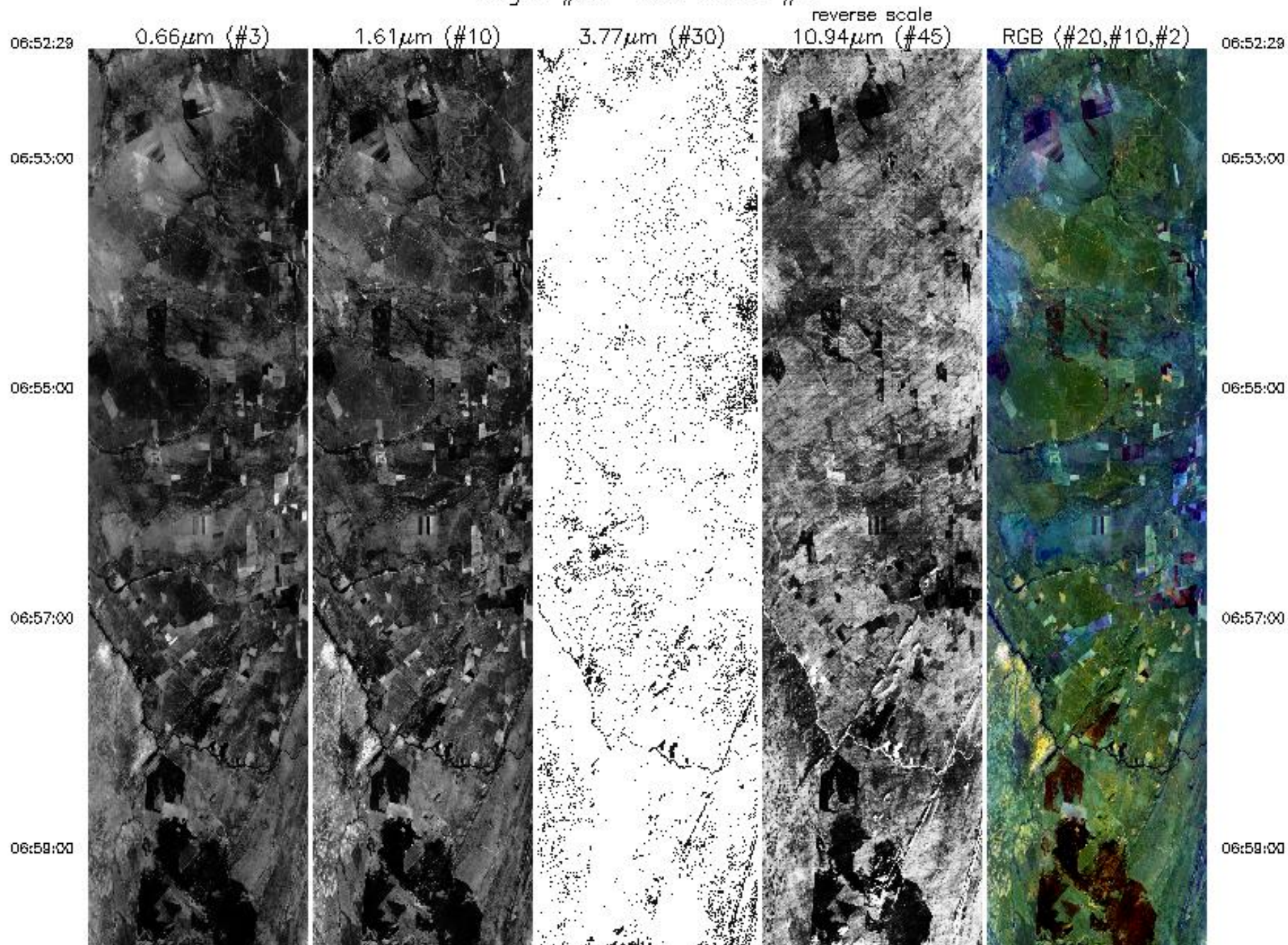
CompletionDate

07-Nov-2002 17:33:05

producer_granule_id

MASL1B_00160_01_20000911_0652_0719_V02.hdf

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
S.A., Botswana
Flight #00-160 Track #1



06:58:00



07:01:00



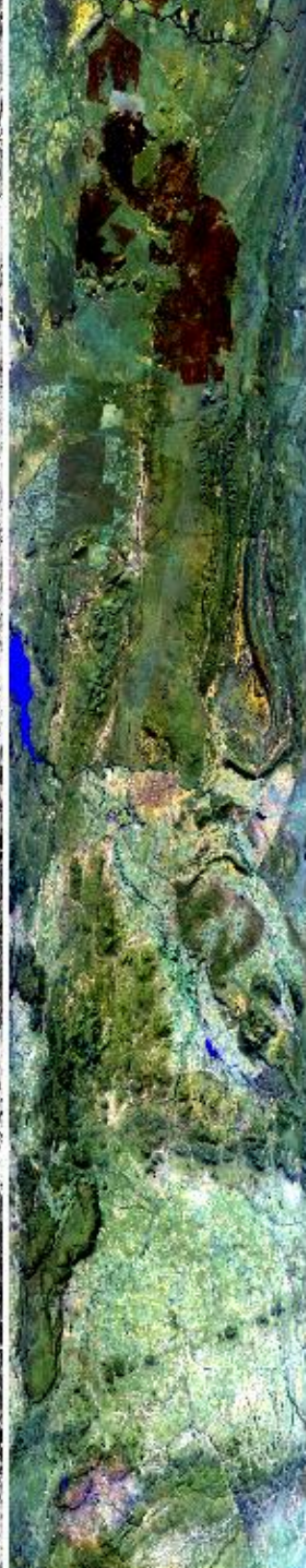
07:03:00



07:05:00



07:07:00



06:58:00

07:01:00

07:03:00

07:05:00

07:07:00

07:07:00



07:08:00



07:11:00



07:13:00



07:15:00



07:07:00

07:08:00

07:11:00

07:13:00

07:15:00

07:15:00

07:17:00

07:18:15



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)

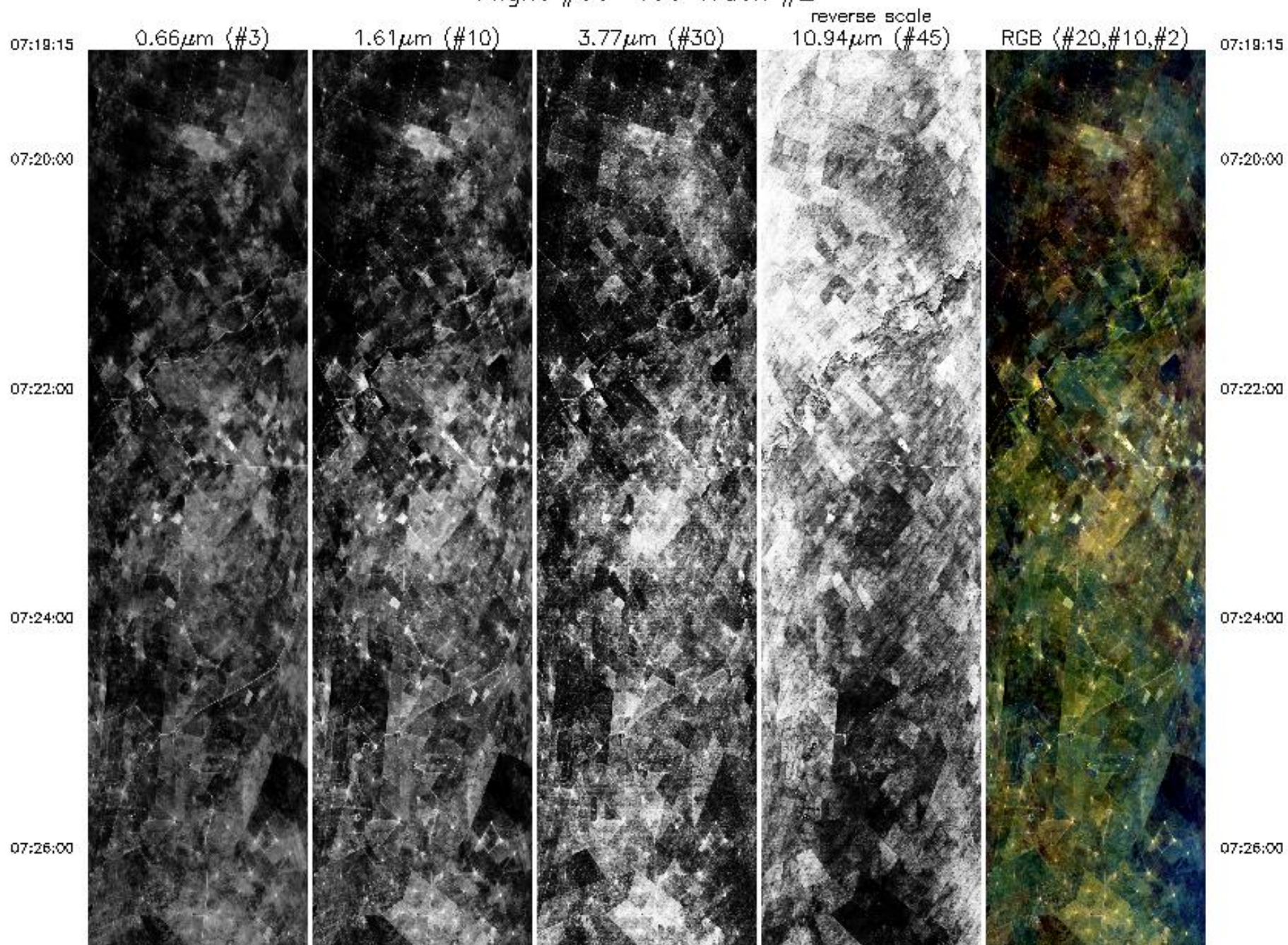
07:15:00

07:17:00

07:18:15

Aircraft Heading = 252.4°
Solar Zenith = 79.9°
GPS Altitude = 19233. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
S.A., Botswana
Flight #00-160 Track #2



07:26:00



07:28:00



07:30:00



07:32:00



07:34:00



07:26:00

07:28:00

07:30:00

07:32:00

07:34:00

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



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)

07:42:00

07:44:00

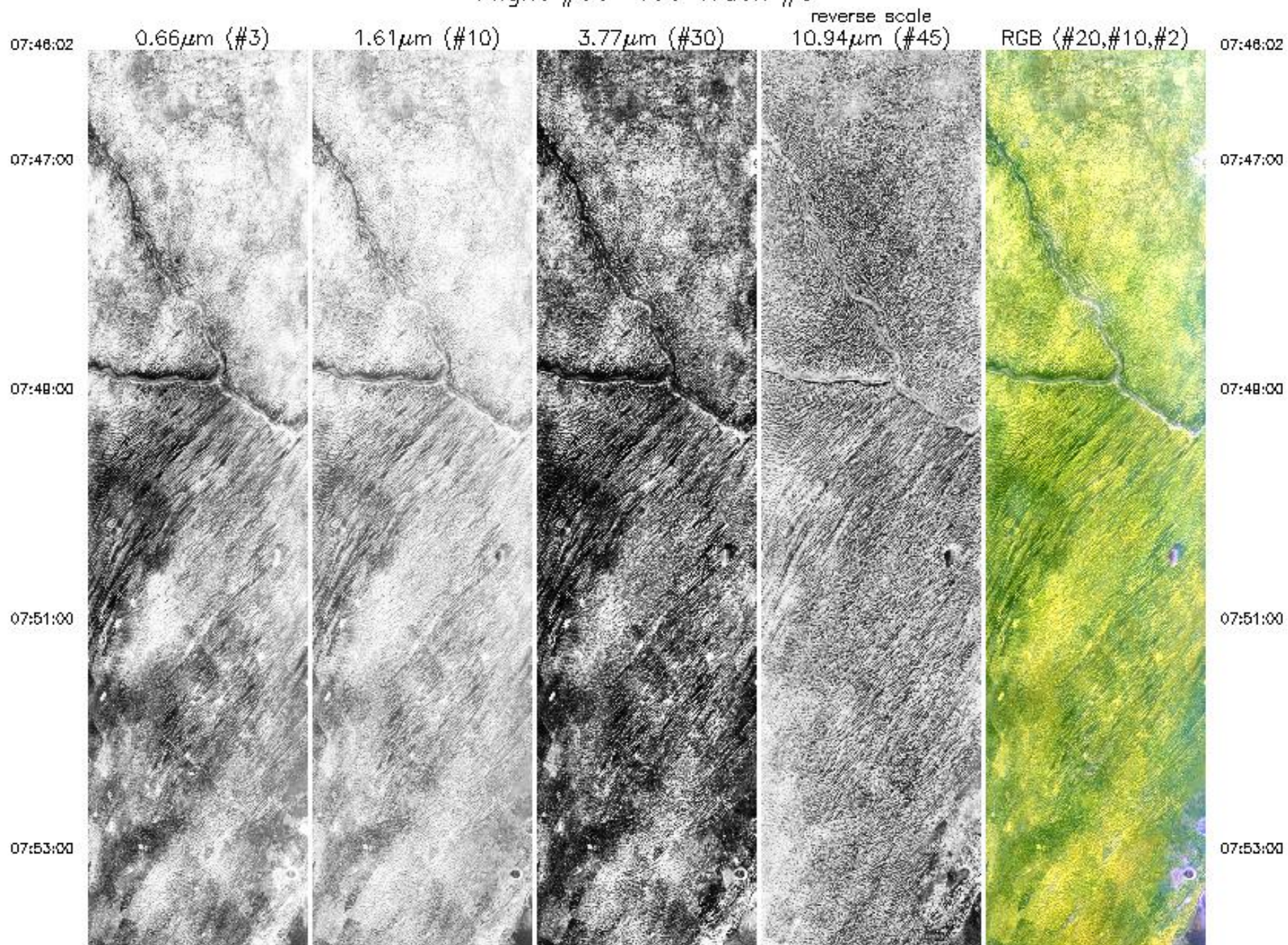
07:44:00

07:48:02

07:48:02

Aircraft Heading = 253.6°
Solar Zenith = 74.1°
GPS Altitude = 19631. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia
Flight #00-160 Track #3



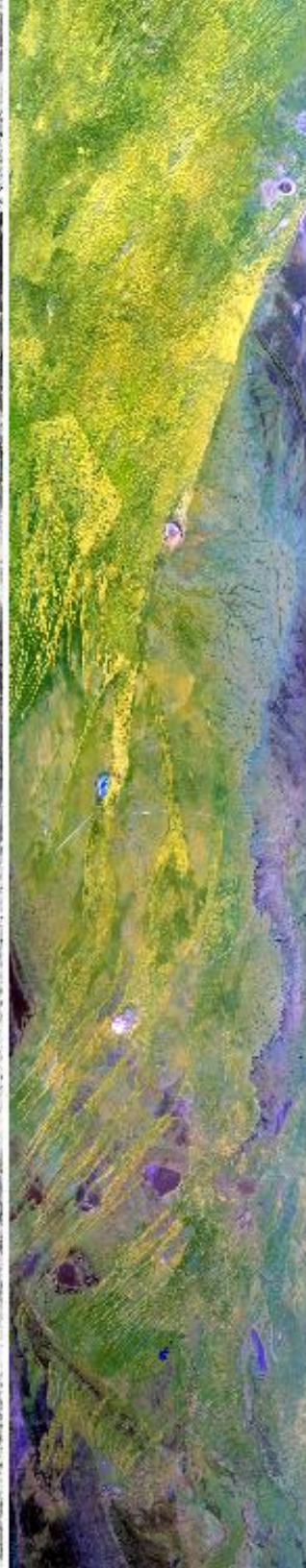
07:53:00

07:55:00

07:57:00

07:58:00

08:01:00



07:53:00

07:55:00

07:57:00

07:58:00

08:01:00

06:01:00



08:03:00



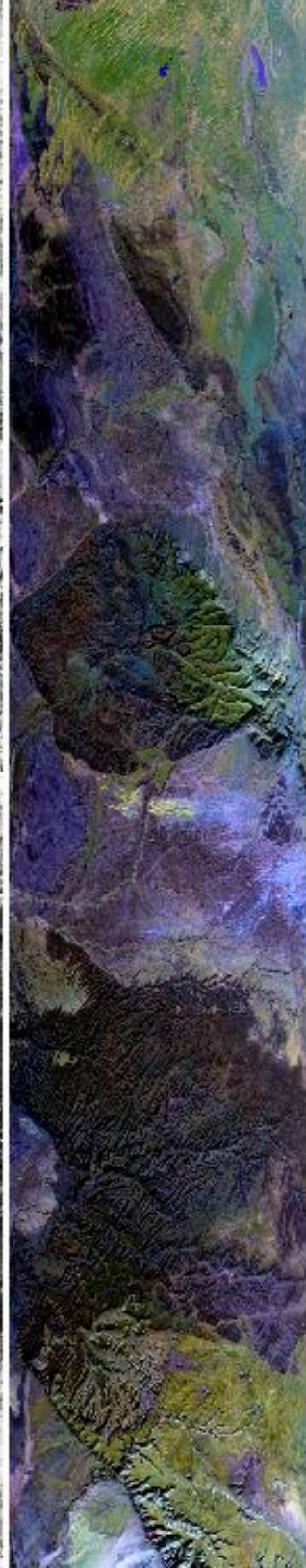
08:05:00



08:07:00



08:09:00



06:01:00

08:03:00

08:05:00

08:07:00

08:09:00

08:09:00

08:11:00

08:12:48



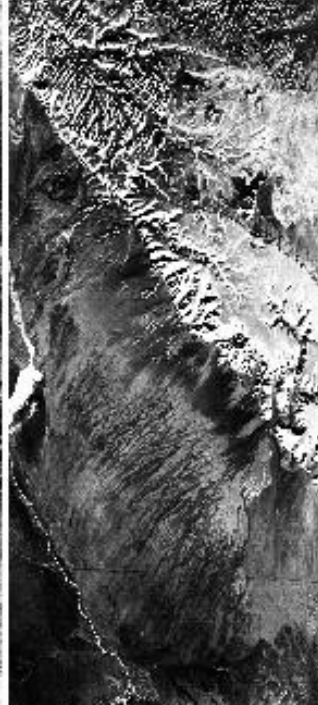
0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



RGB (#20,#10,#2)

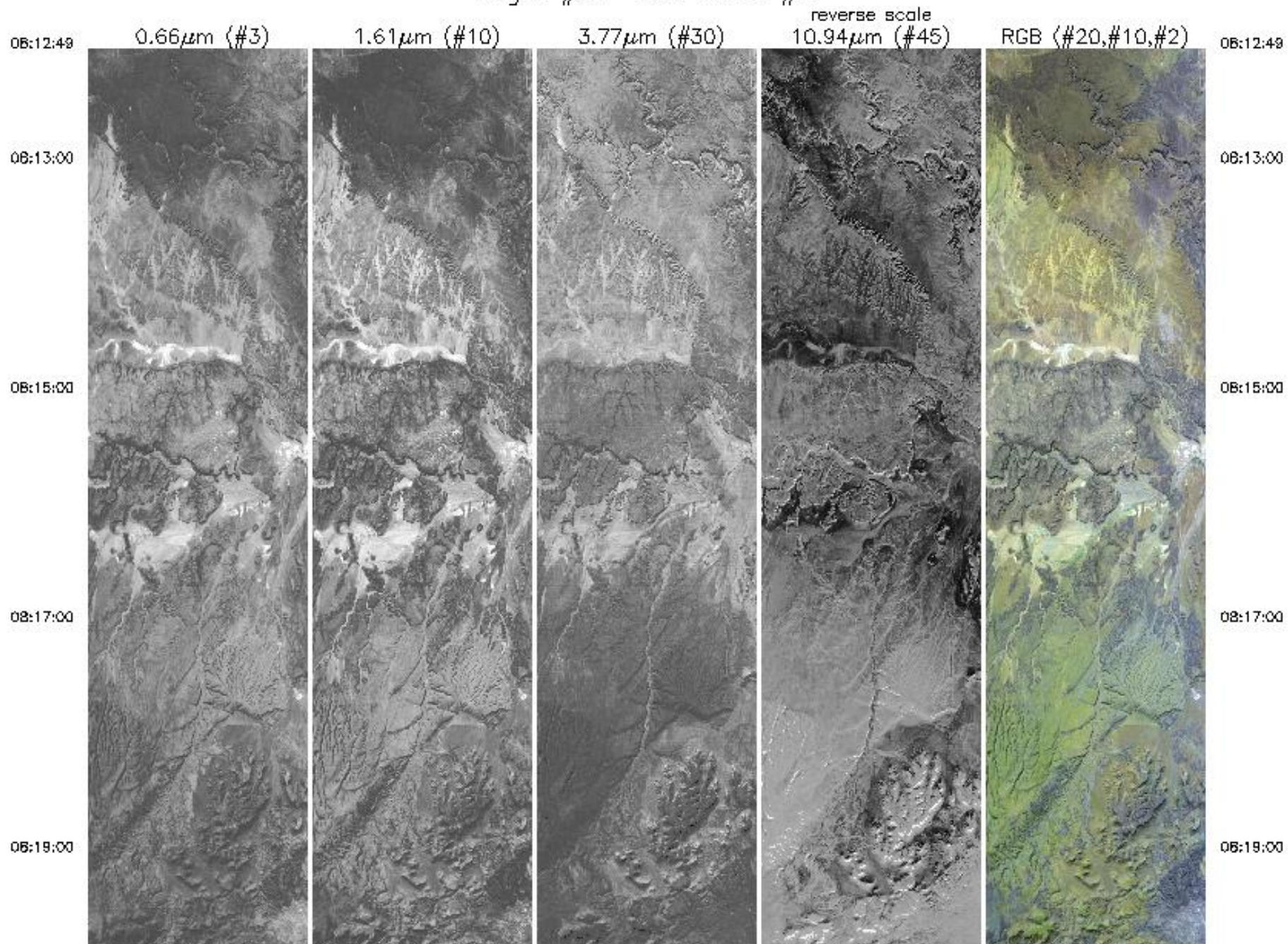
08:09:00

08:11:00

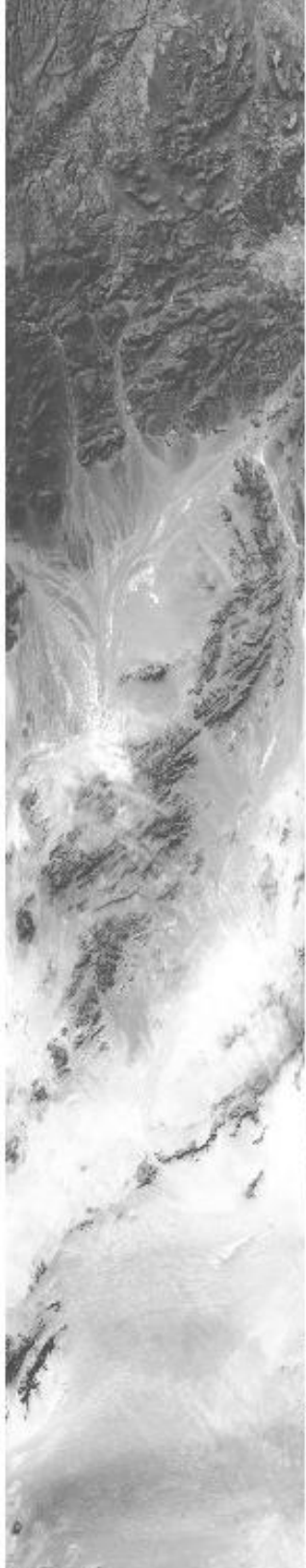
08:12:48

Aircraft Heading = 252.7°
Solar Zenith = 68.5°
GPS Altitude = 19709. m (MSL)

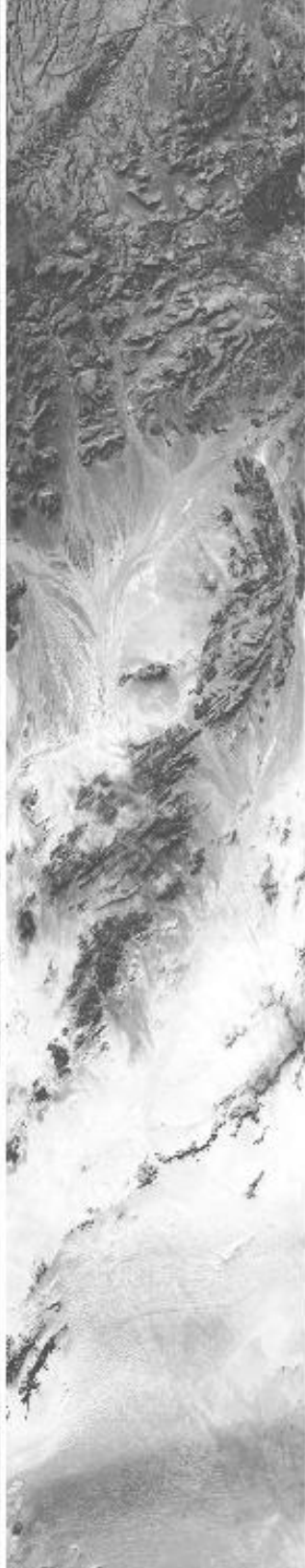
MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia
Flight #00–160 Track #4



06:19:00



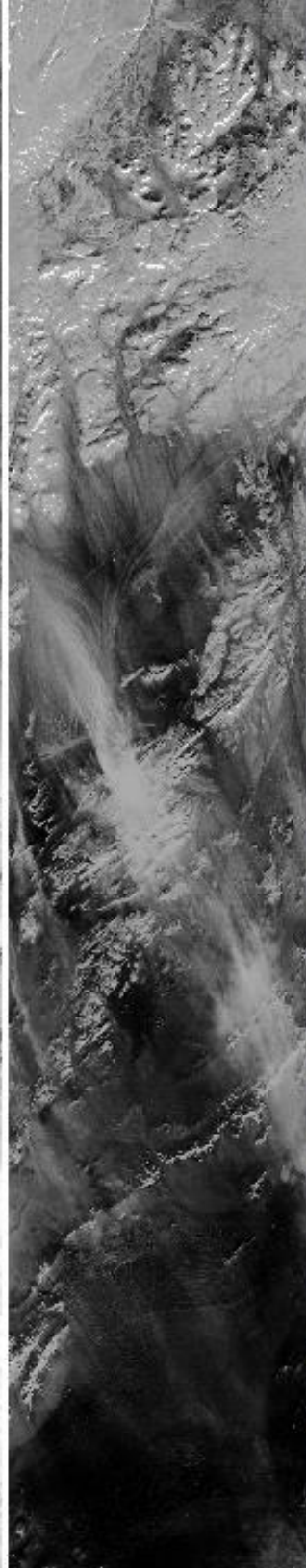
08:21:00



08:23:00



06:25:00



08:27:00



06:19:00

08:21:00

08:23:00

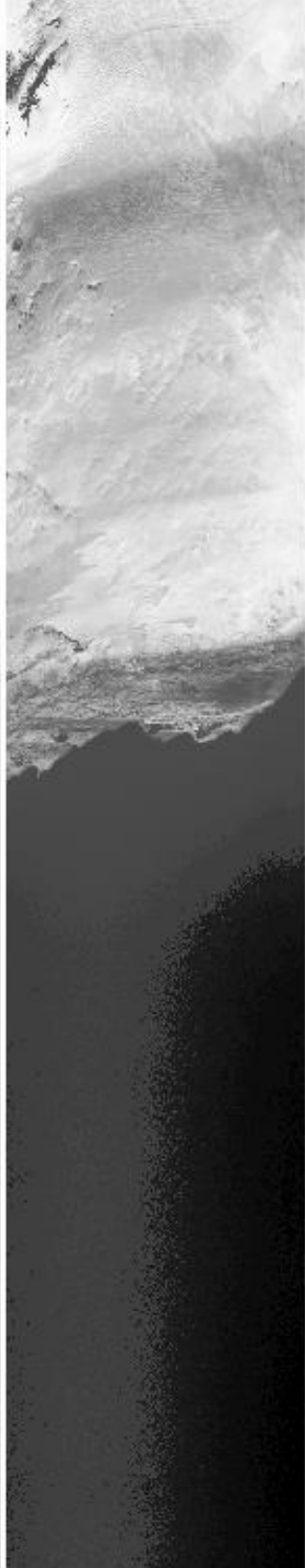
06:25:00

08:27:00

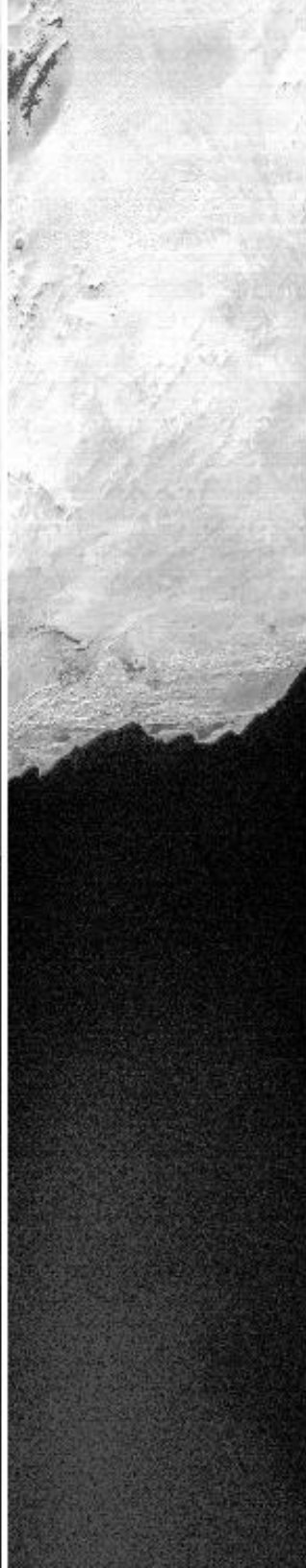
08:27:00



08:29:00



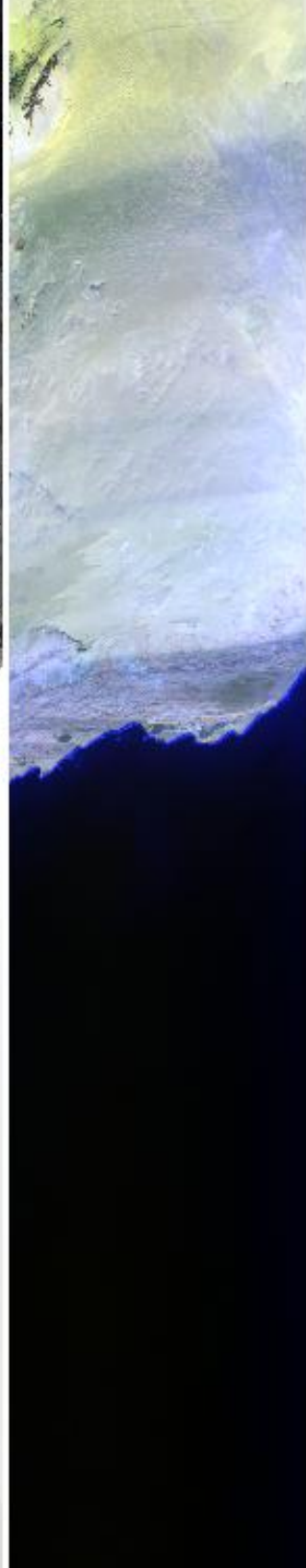
08:31:00



08:33:00



08:35:00



08:27:00

08:29:00

08:31:00

08:33:00

08:35:00

08:35:00

08:35:00

08:37:00

08:37:00

08:39:00

08:39:00

08:40:32

08:40:32



0.66 μm (#3)

1.61 μm (#10)

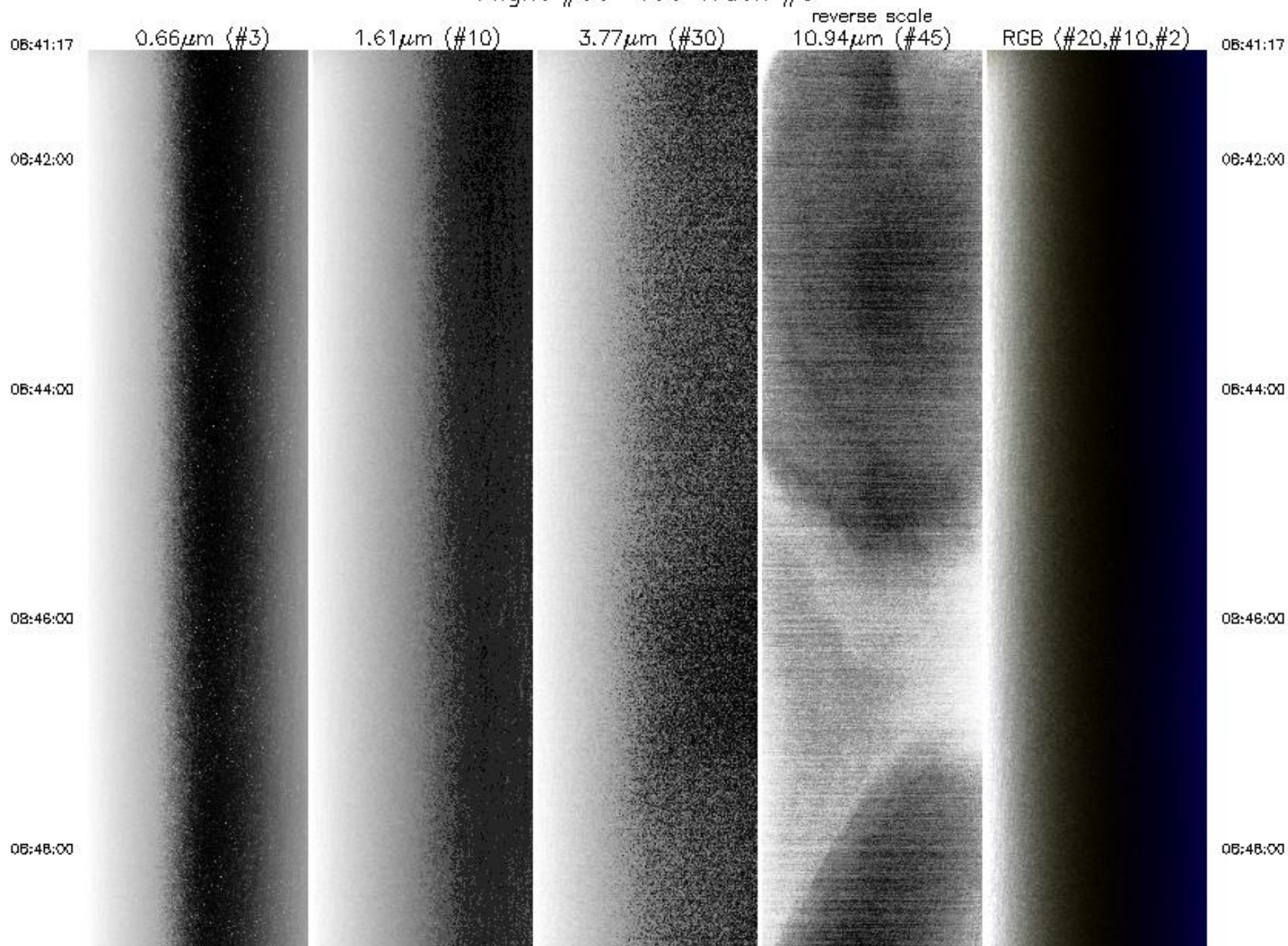
3.77 μm (#30)

10.94 μm (#45)
reverse scale

RGB (#20,#10,#2)

Aircraft Heading = 255.5°
Solar Zenith = 63.1°
GPS Altitude = 19768. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #5



06:48:00

06:48:00

06:50:00

06:50:00

06:52:00

06:52:00

06:54:00

06:54:00

06:56:00

06:56:00

08:56:00

08:58:00

09:00:00

09:02:00

09:04:00

08:56:00

08:58:00

09:00:00

09:02:00

09:04:00

09:04:00

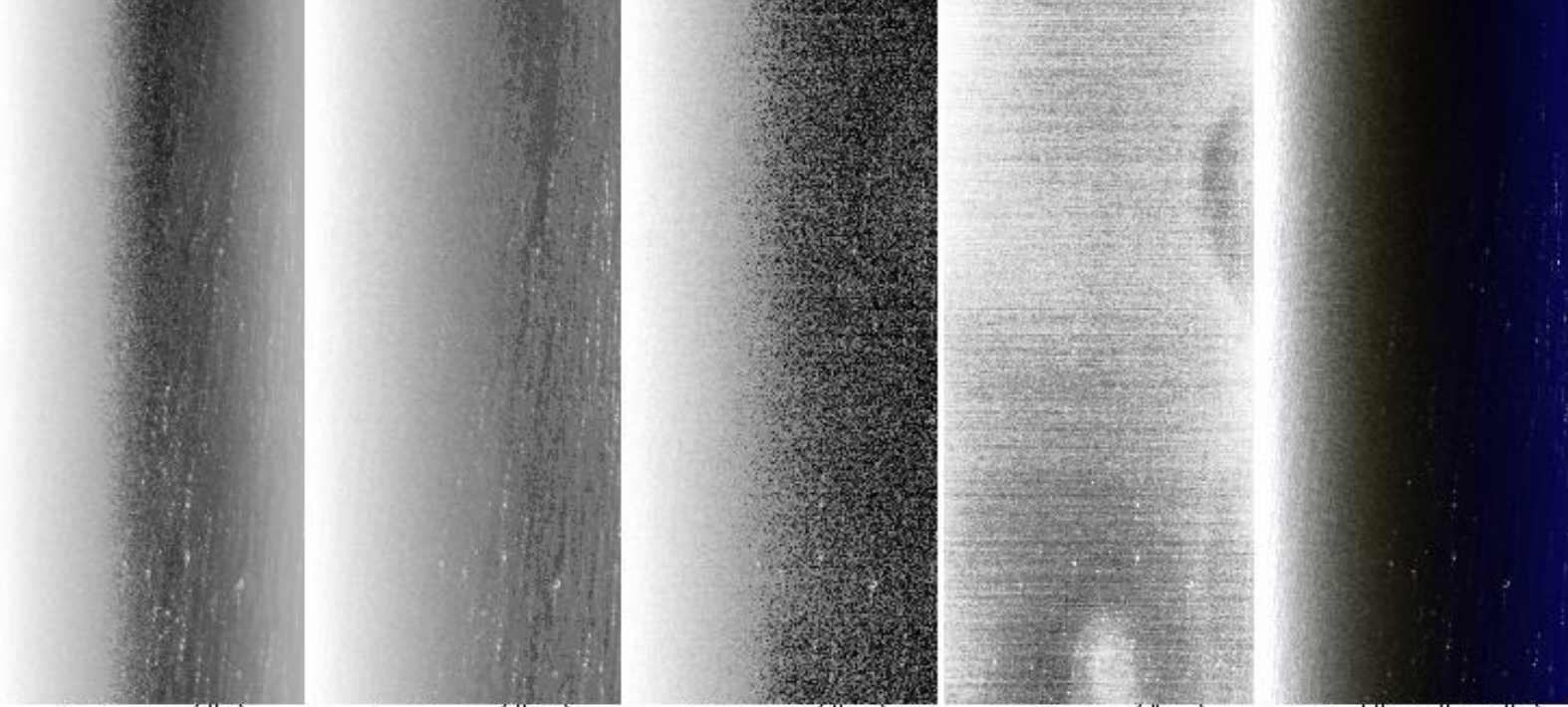
09:04:00

09:08:00

09:08:00

09:08:04

09:08:04



0.66 μm (#3)

1.61 μm (#10)

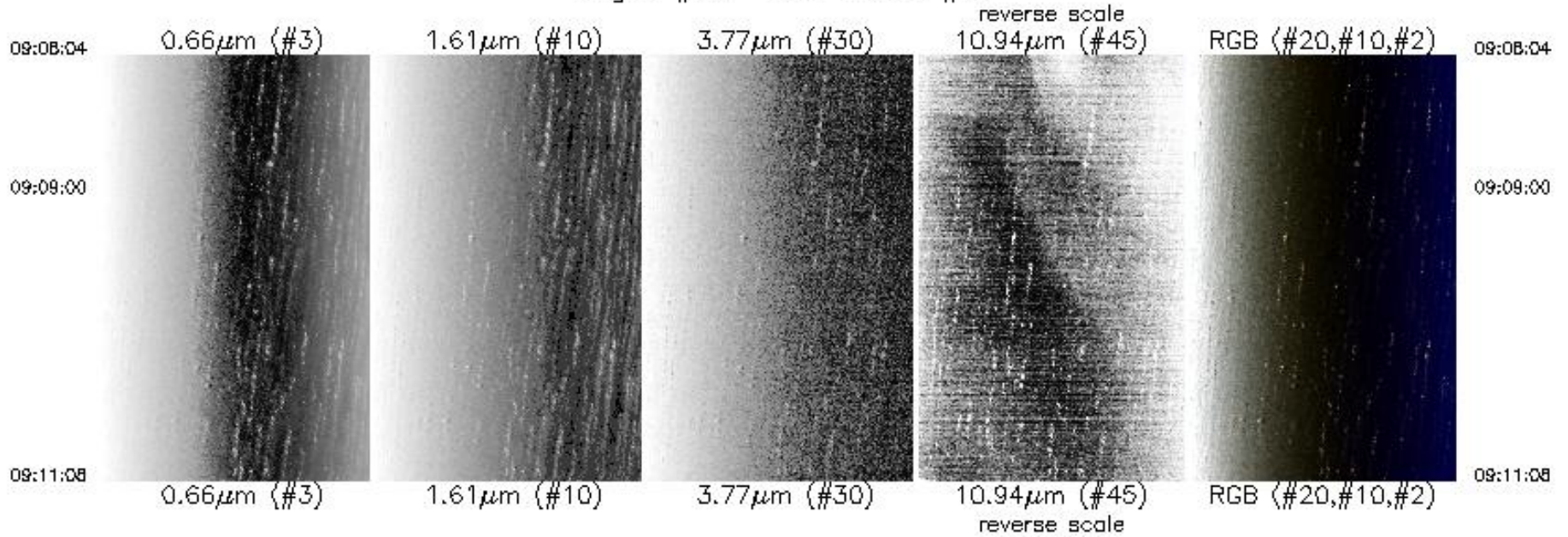
3.77 μm (#30)

10.94 μm (#45)
reverse scale

RGB (#20,#10,#2)

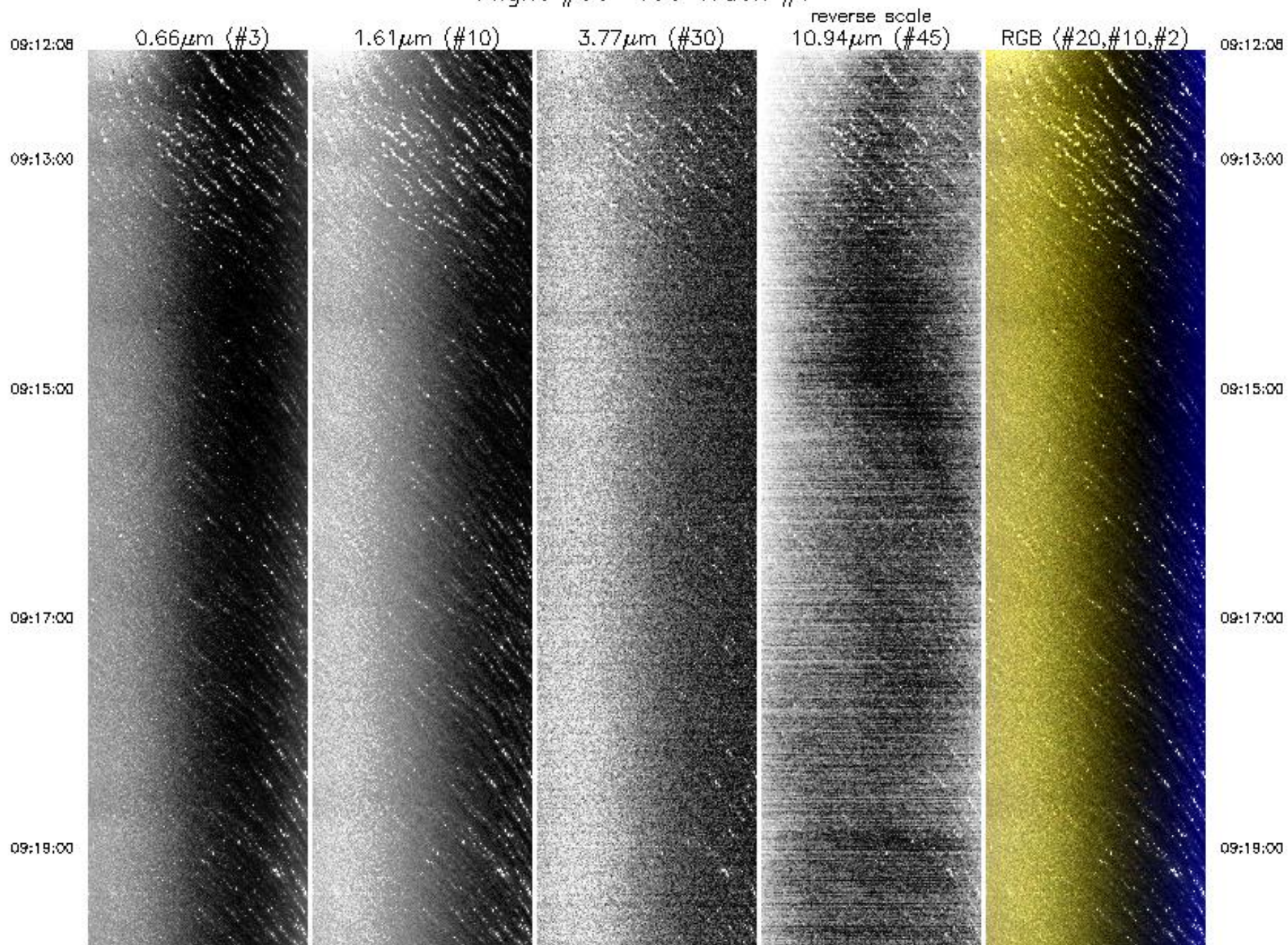
Aircraft Heading = 298.5°
Solar Zenith = 57.6°
GPS Altitude = 19690. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #6



Aircraft Heading = 309.6°
Solar Zenith = 51.5°
GPS Altitude = 19725. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00–160 Track #7



09:19:00

09:21:00

09:23:00

09:25:00

09:27:00

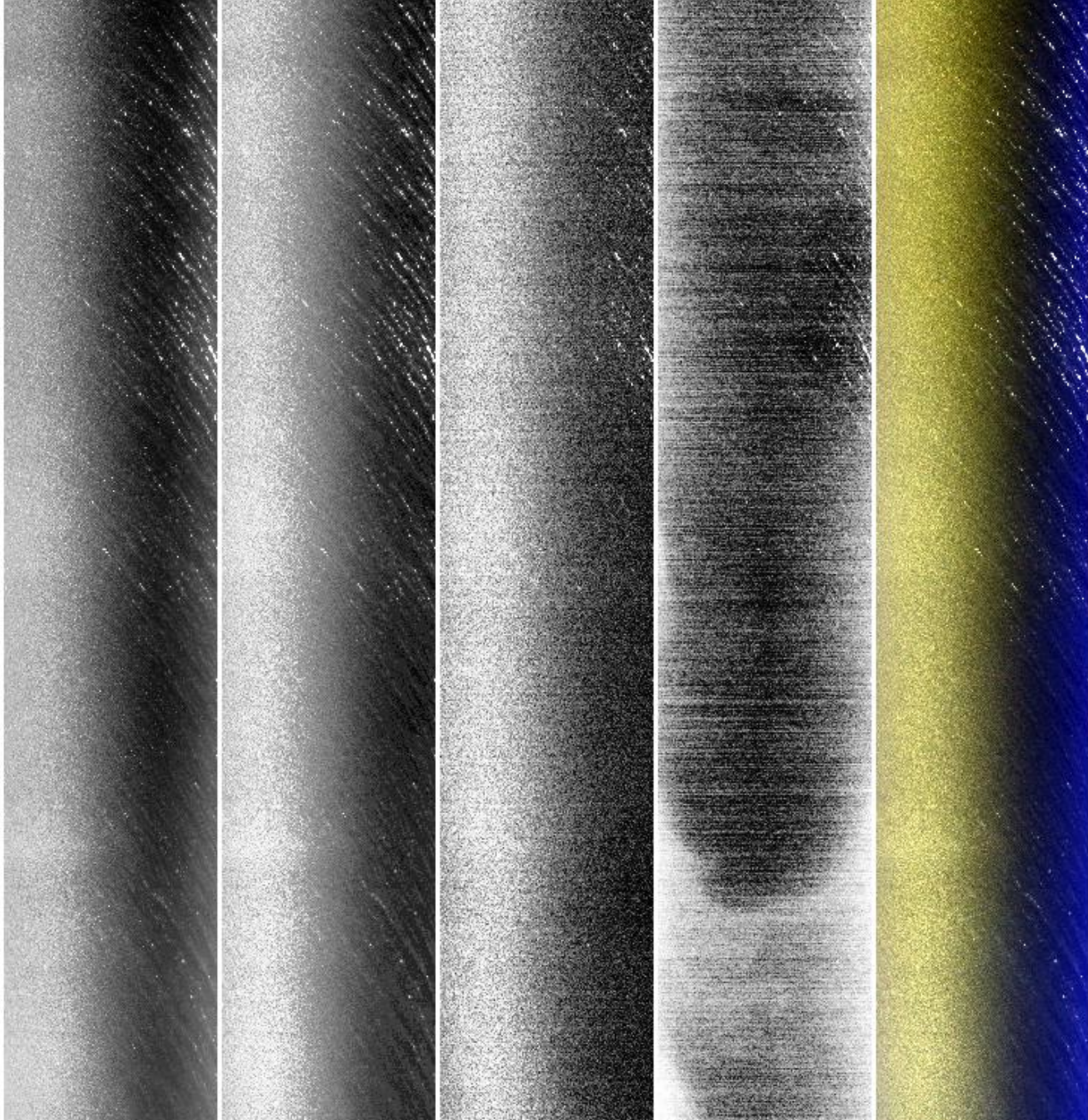
09:19:00

09:21:00

09:23:00

09:25:00

09:27:00



09:27:00

09:29:00

09:31:00

09:33:00

09:35:00

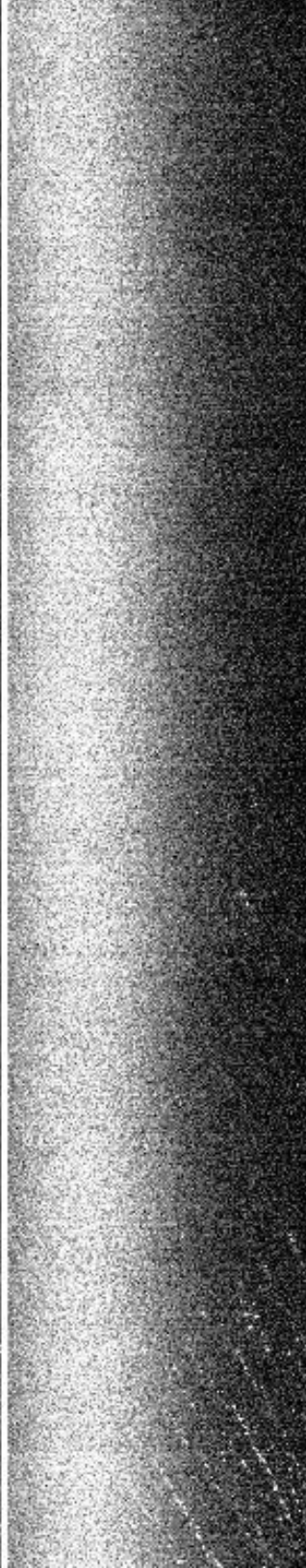
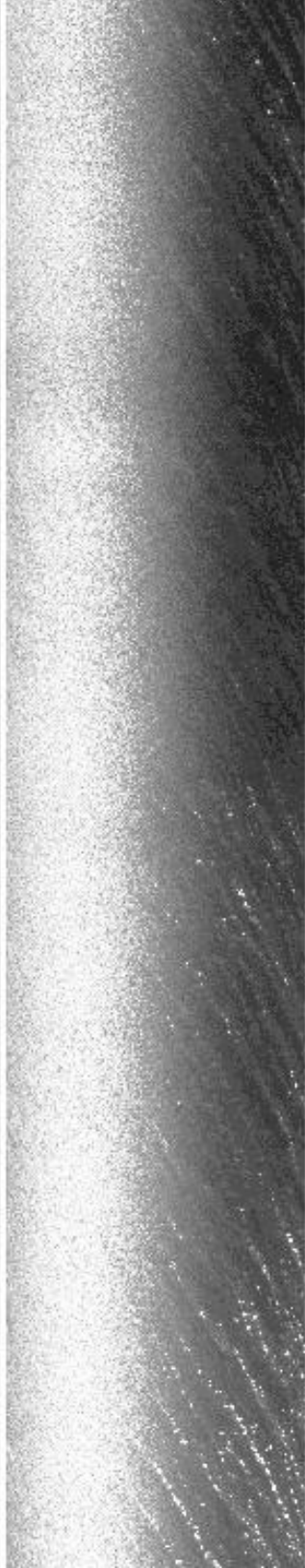
09:27:00

09:29:00

09:31:00

09:33:00

09:35:00



09:35:00

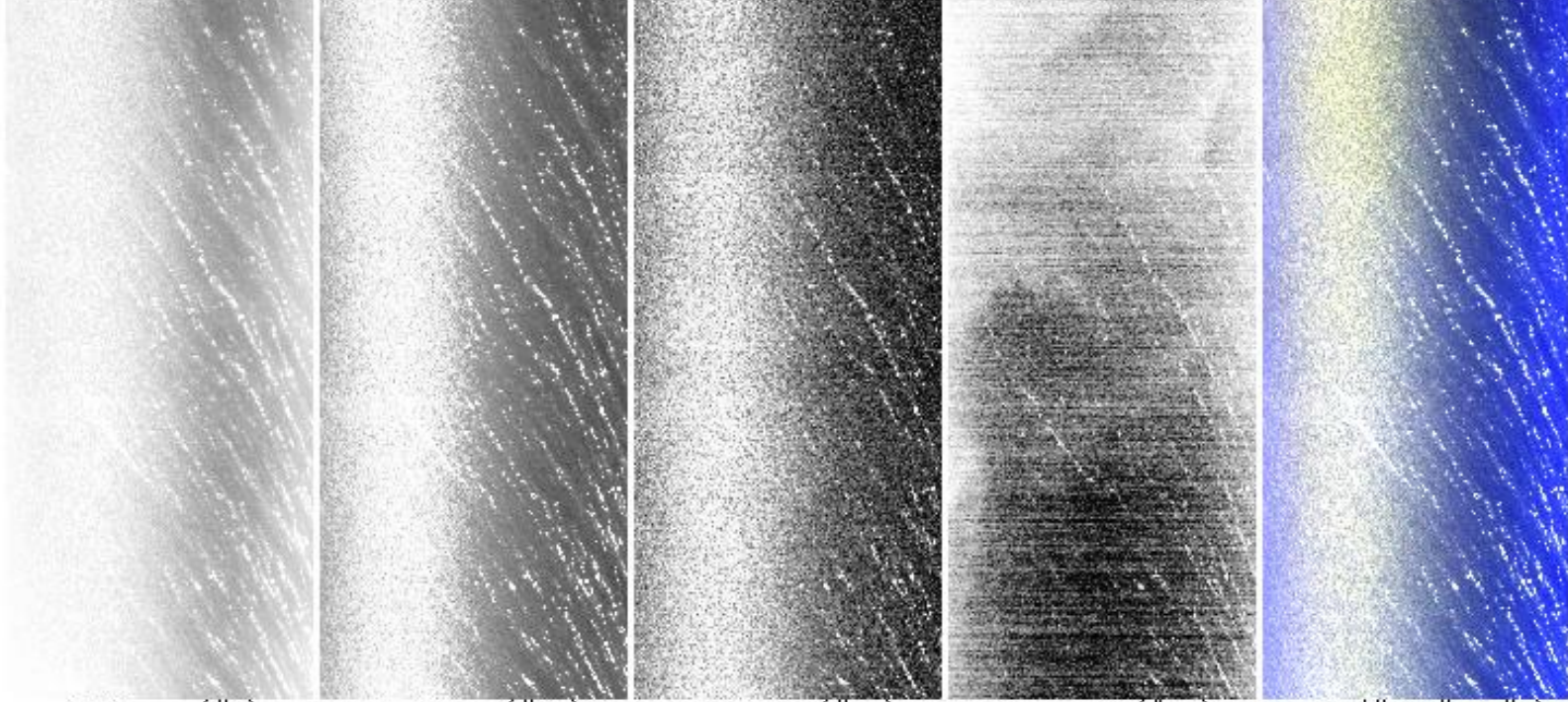
09:35:00

09:37:00

09:37:00

09:38:55

09:38:55



0.66µm (#3)

1.61µm (#10)

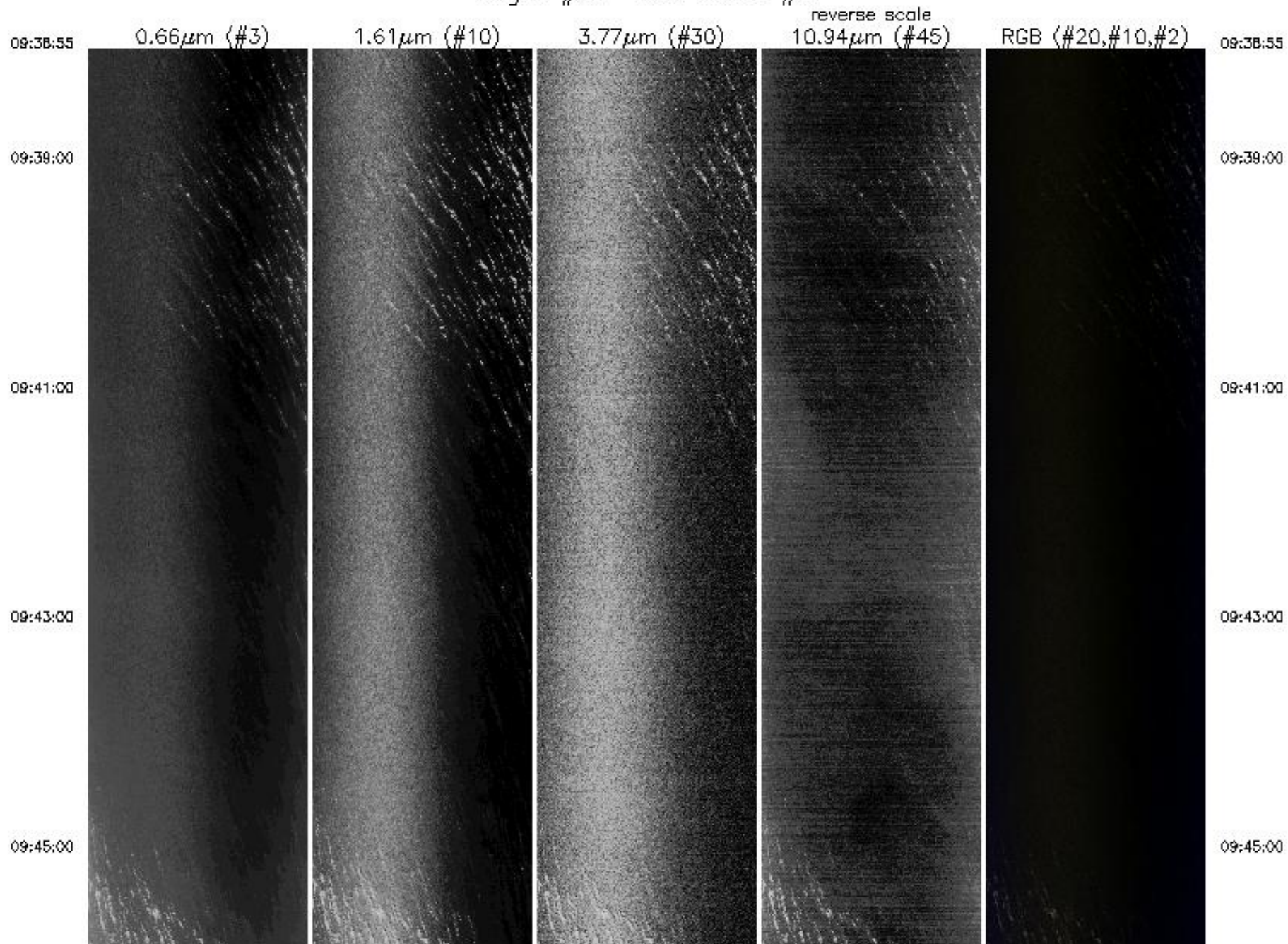
3.77µm (#30)

10.94µm (#45)
reverse scale

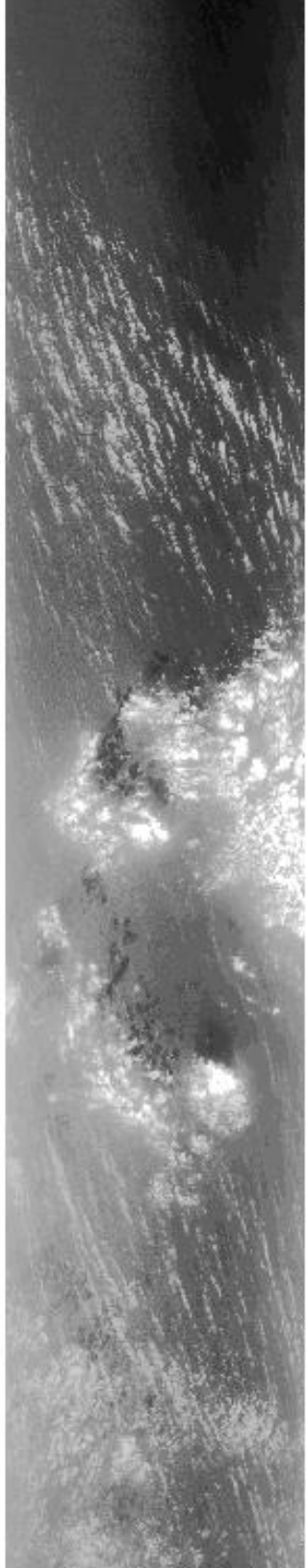
RGB (#20,#10,#2)

Aircraft Heading = 5.3°
 Solar Zenith = 50.6°
 GPS Altitude = 19833. m (MSL)

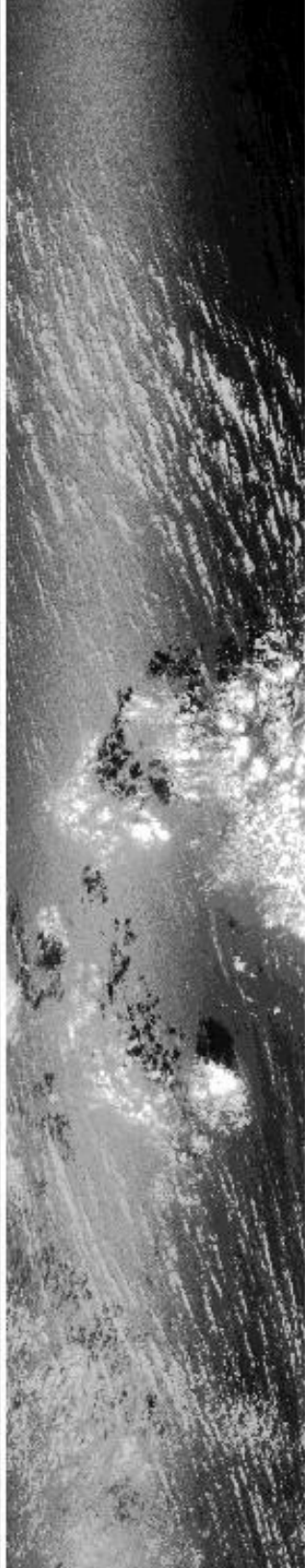
MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #8



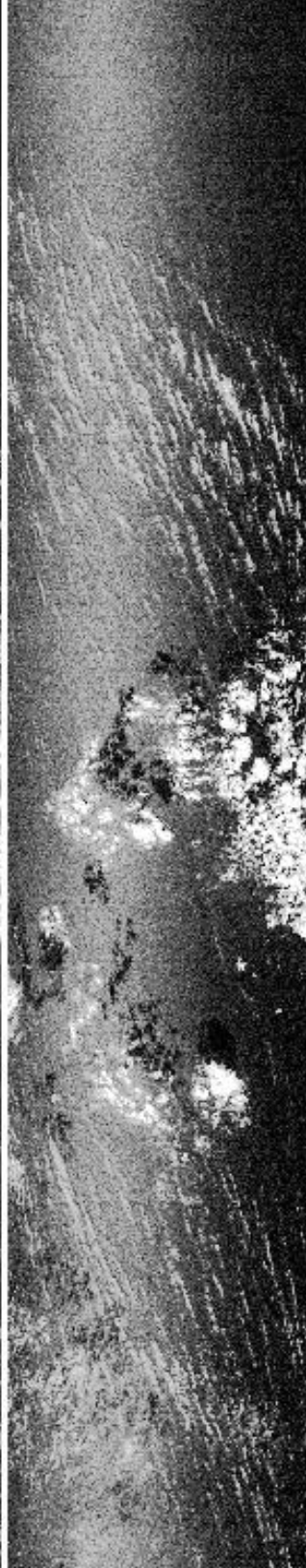
09:45:00



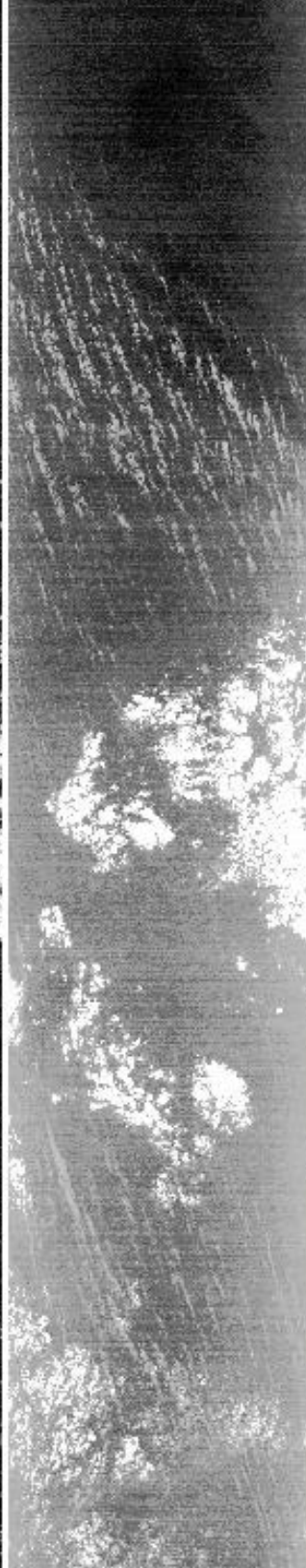
09:47:00



09:48:00



09:51:00



09:53:00



09:45:00

09:47:00

09:48:00

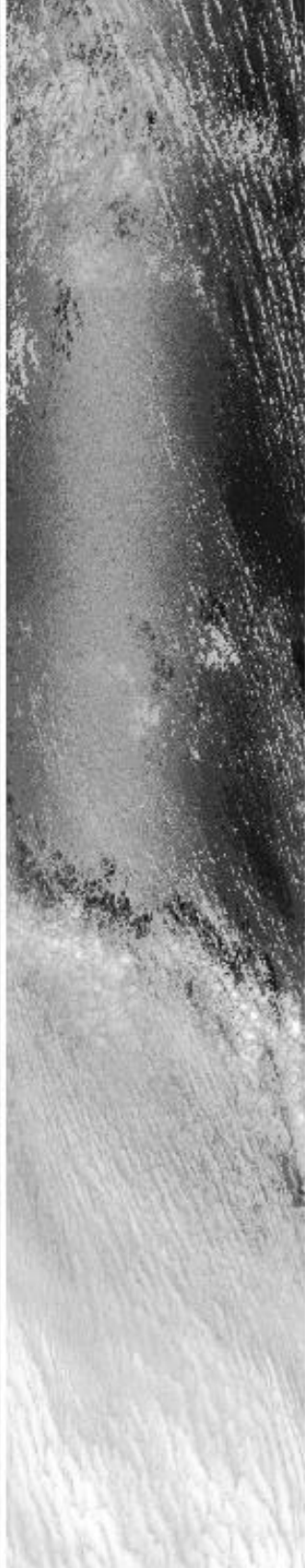
09:51:00

09:53:00

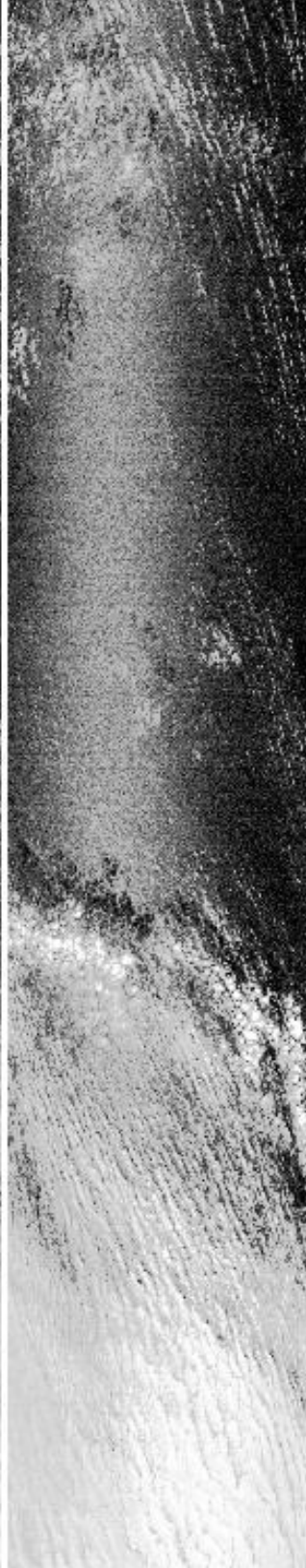
09:53:00



09:55:00



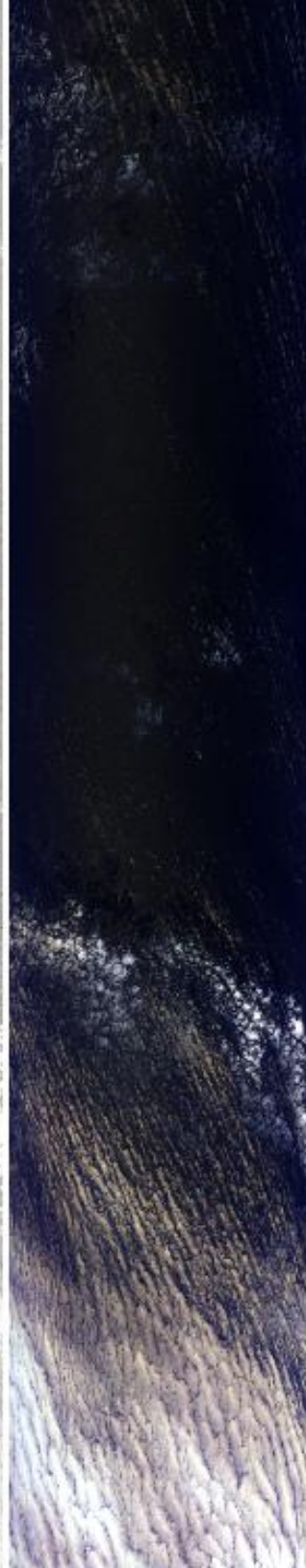
09:57:00



09:58:00



10:01:00



09:53:00

09:55:00

09:57:00

09:58:00

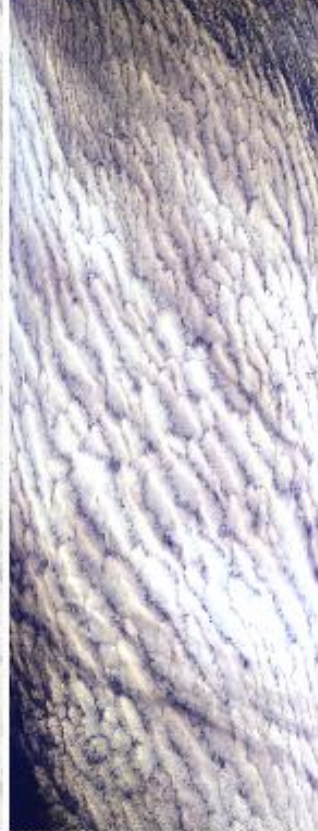
10:01:00

10:01:00

10:03:00

10:05:00

10:06:28



10:01:00

10:03:00

10:05:00

10:06:28

0.66 μ m (#3)

1.61 μ m (#10)

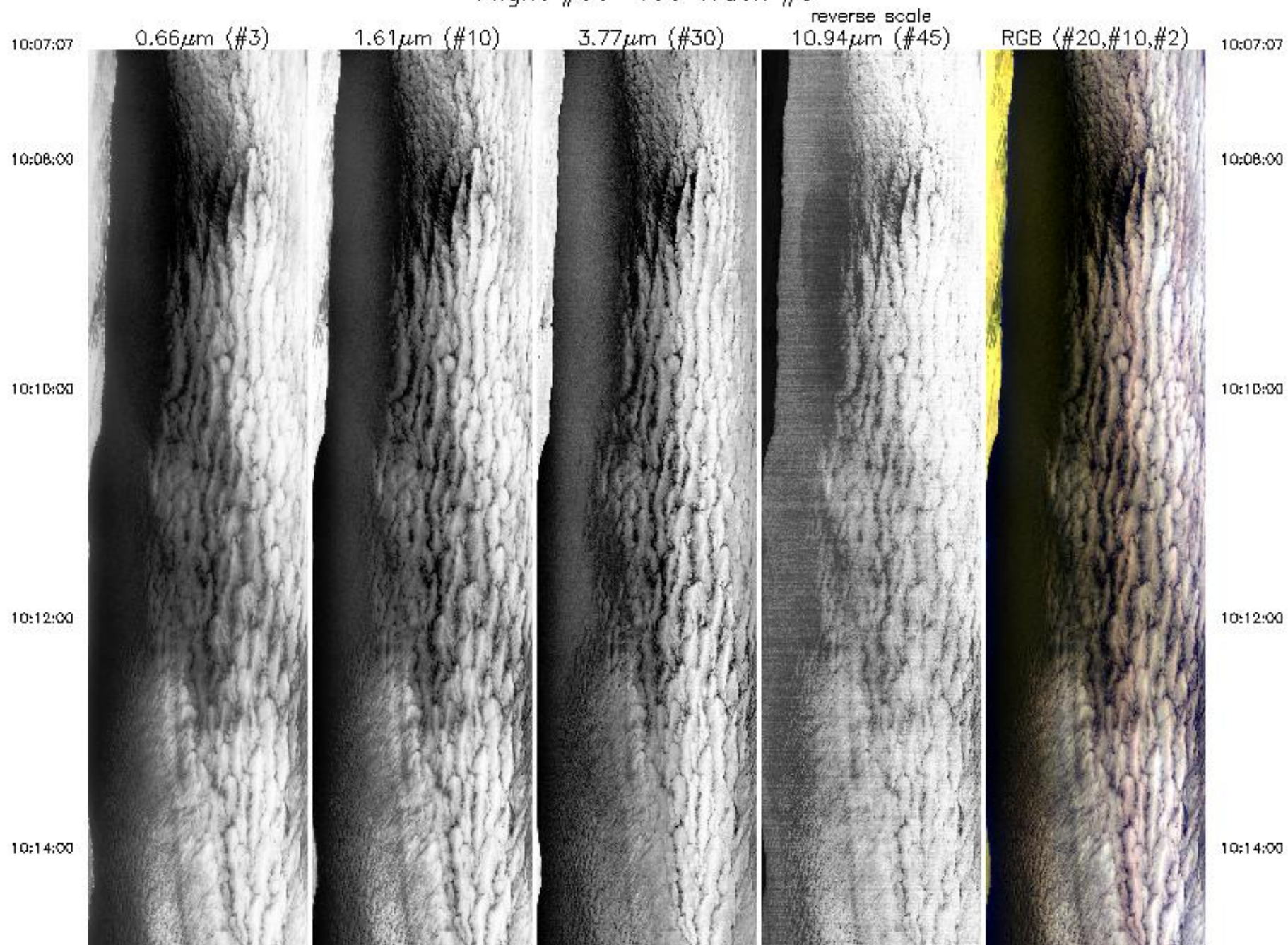
3.77 μ m (#30)

10.94 μ m (#45)
reverse scale

RGB (#20, #10, #2)

Aircraft Heading = 14.2°
Solar Zenith = 43.9°
GPS Altitude = 19808. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #9



10:14:00

10:16:00

10:18:00

10:20:00

10:22:00



10:14:00

10:16:00

10:18:00

10:20:00

10:22:00

10:22:00

10:24:00

10:26:00

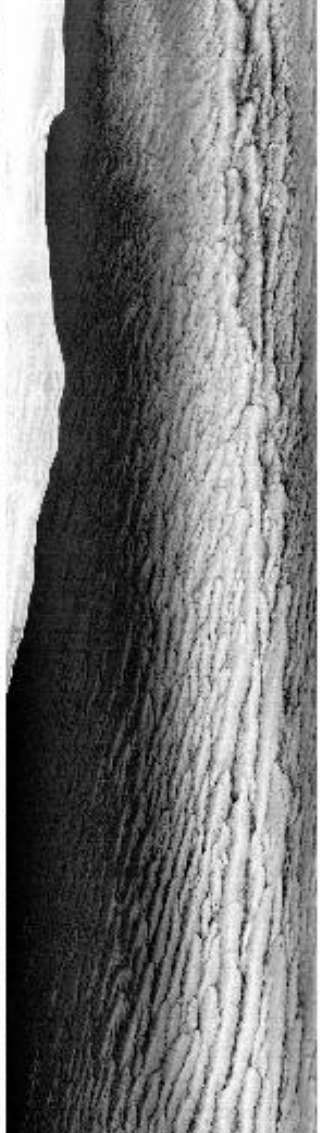
10:28:18



0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20,#10,#2)

10:22:00

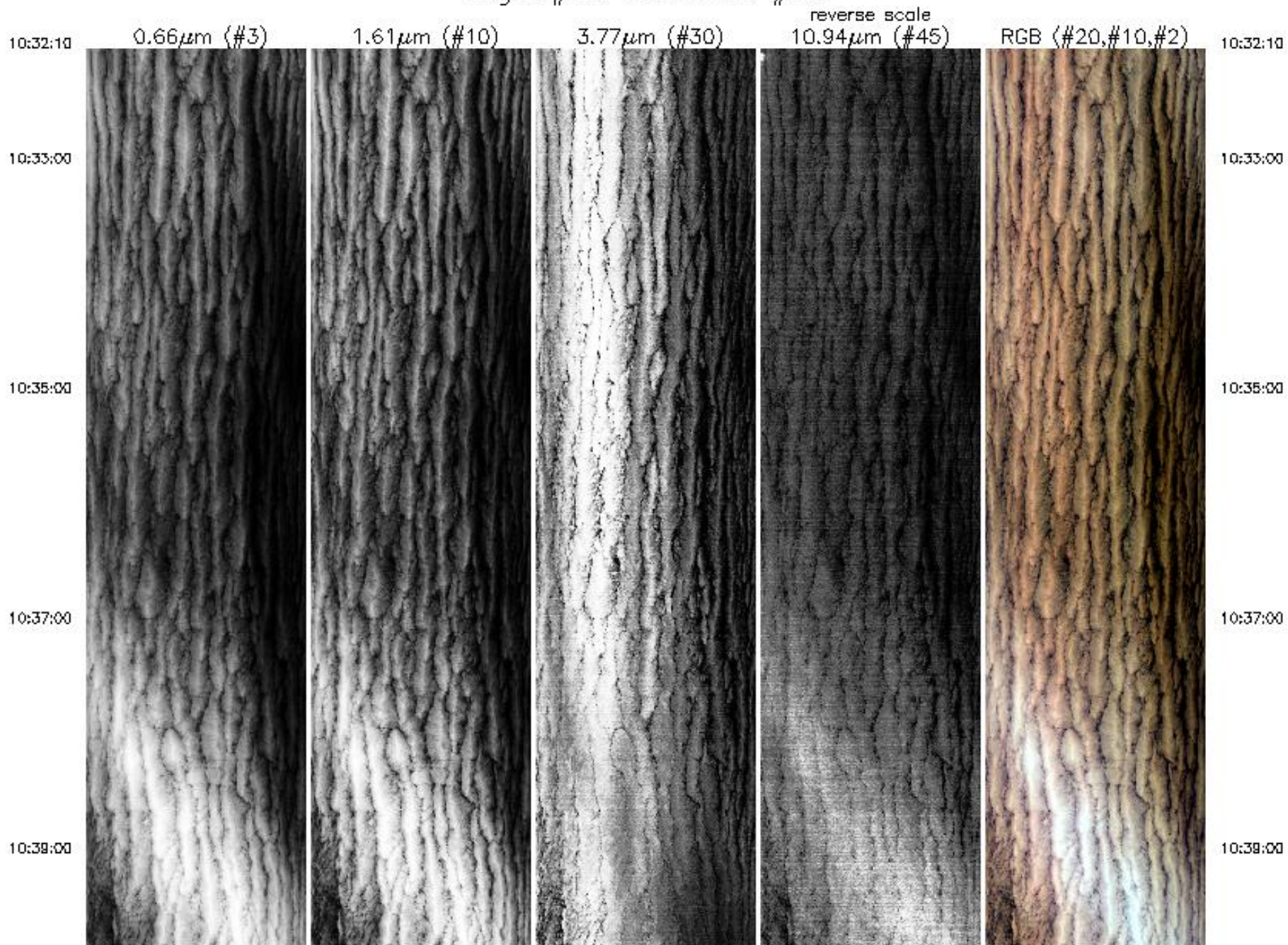
10:24:00

10:26:00

10:28:18

Aircraft Heading = 339.2°
Solar Zenith = 36.7°
GPS Altitude = 19815. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #10



10:38:00



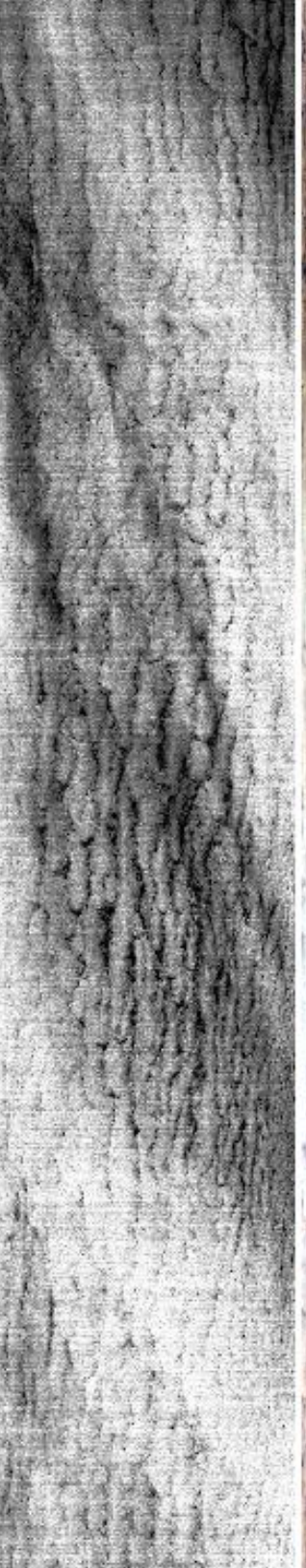
10:41:00



10:43:00



10:45:00



10:47:00



10:38:00

10:41:00

10:43:00

10:45:00

10:47:00

10:47:00

10:48:00

10:51:00

10:53:00

10:54:04

10:47:00

10:48:00

10:51:00

10:53:00

10:54:04



0.66 μ m (#3)

1.61 μ m (#10)

3.77 μ m (#30)

10.94 μ m (#45)
reverse scale

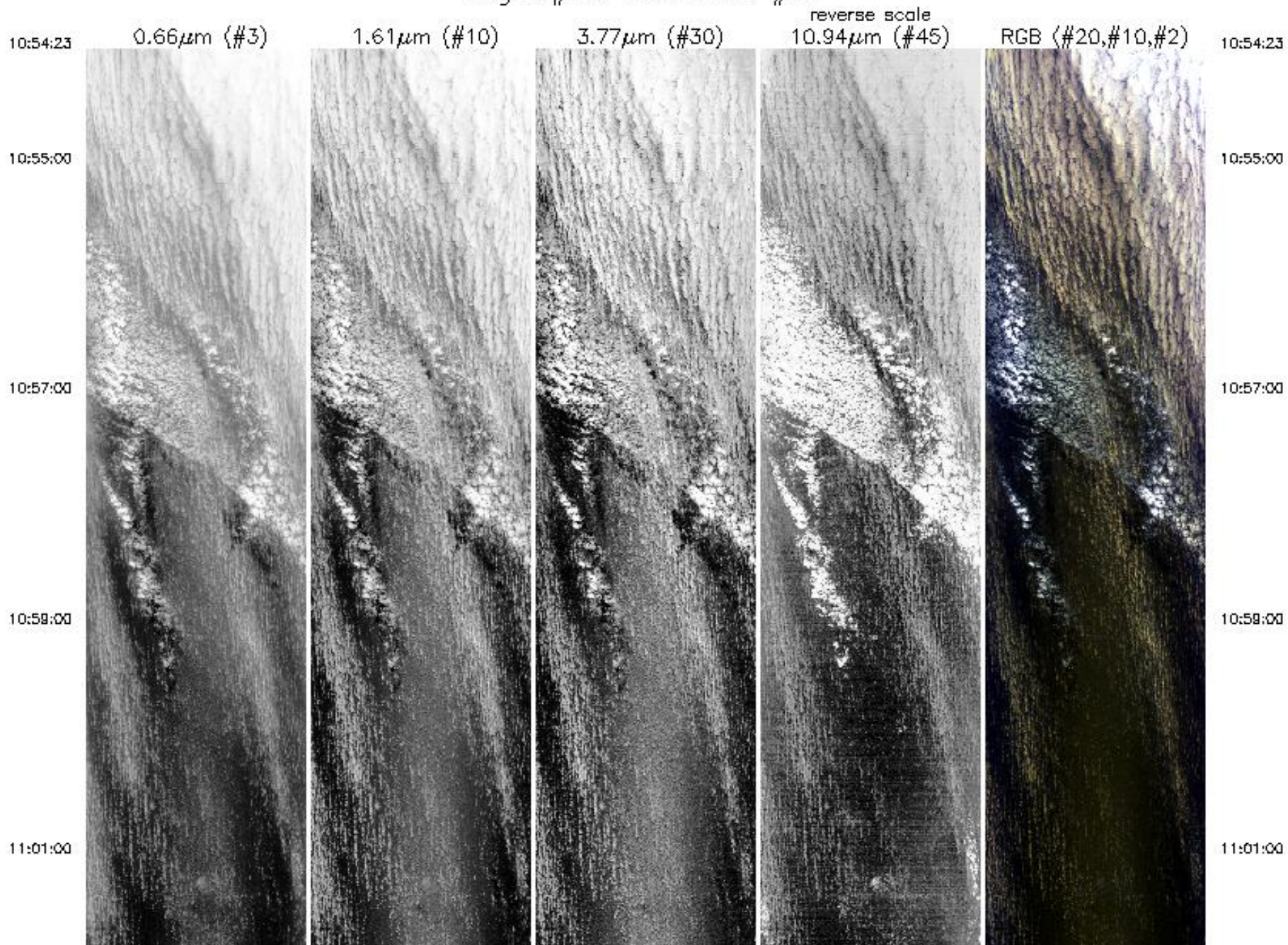
RGB (#20,#10,#2)

Aircraft Heading = 149.7°

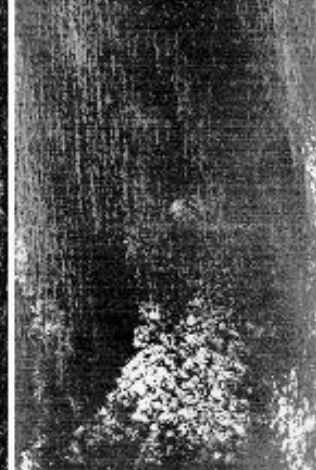
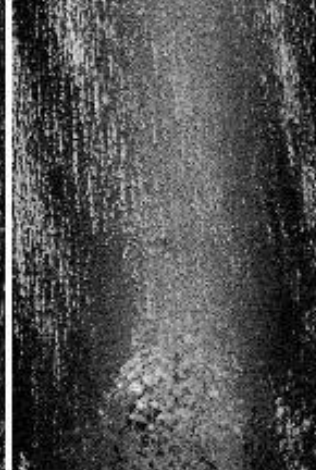
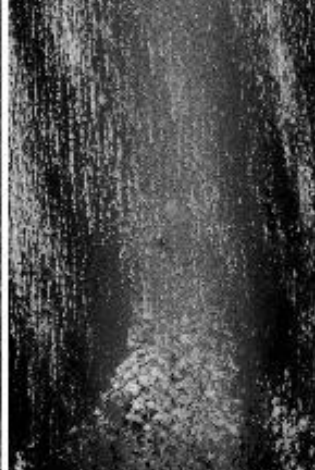
Solar Zenith = 31.1°

GPS Altitude = 19789. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #11



11:01:00



11:01:00

11:03:15

0.66 μm (#3)

1.61 μm (#10)

3.77 μm (#30)

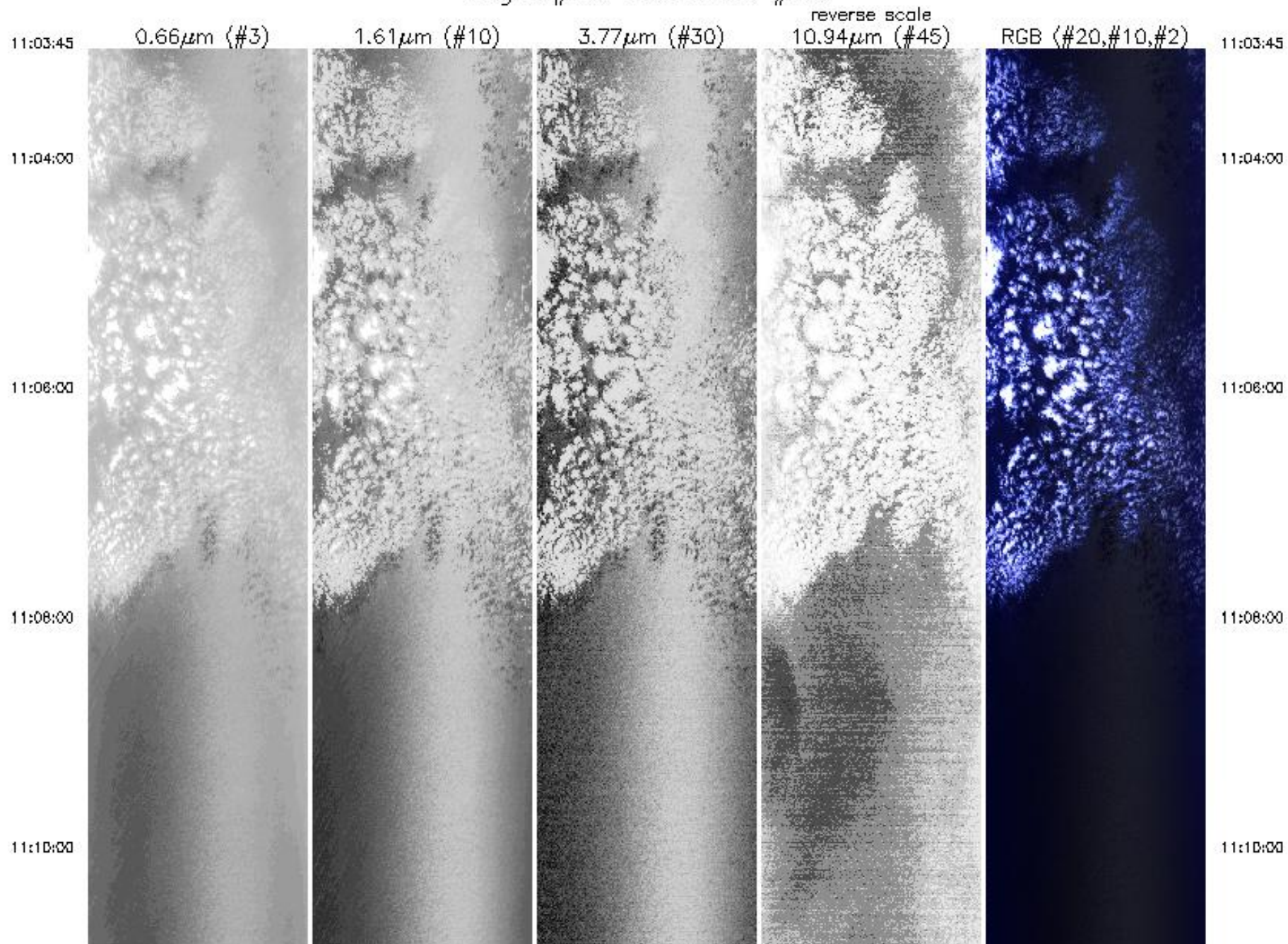
10.94 μm (#45)
reverse scale

RGB (#20,#10,#2)

11:03:15

Aircraft Heading = 164.8°
Solar Zenith = 29.2°
GPS Altitude = 19864. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #12



11:10:00

11:12:00

11:14:00

11:16:00

11:18:00

11:10:00

11:12:00

11:14:00

11:16:00

11:18:00

11:18:00



11:20:00



11:22:00



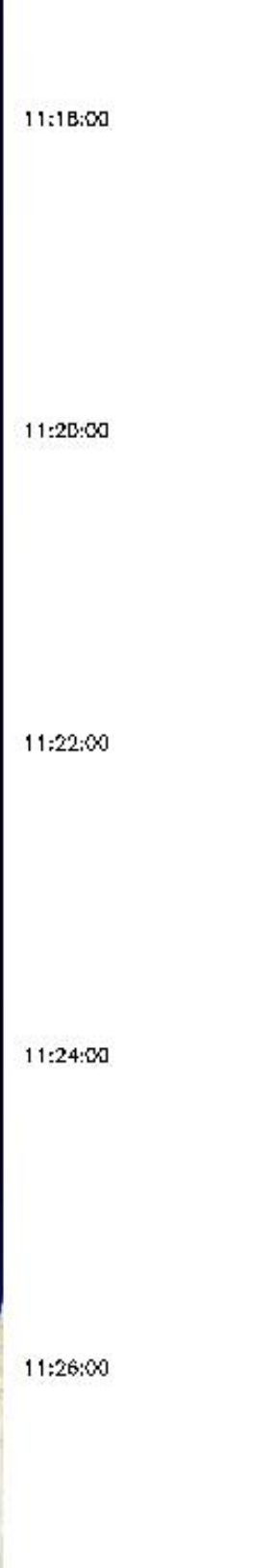
11:24:00



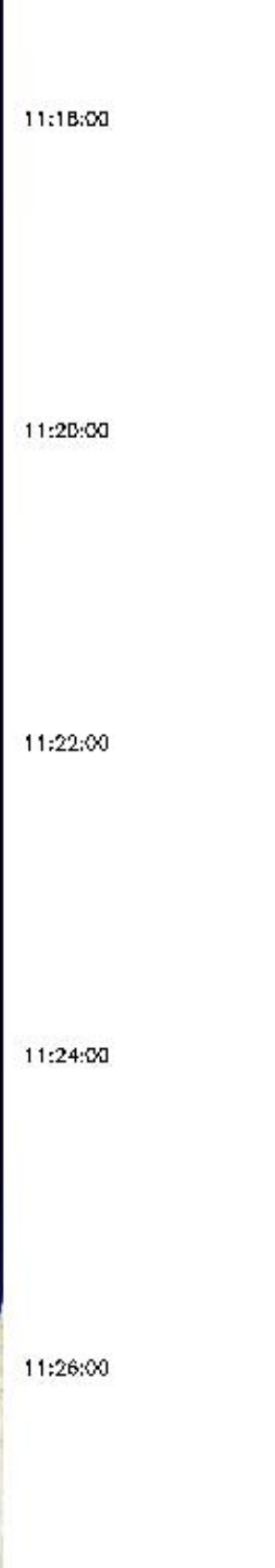
11:26:00



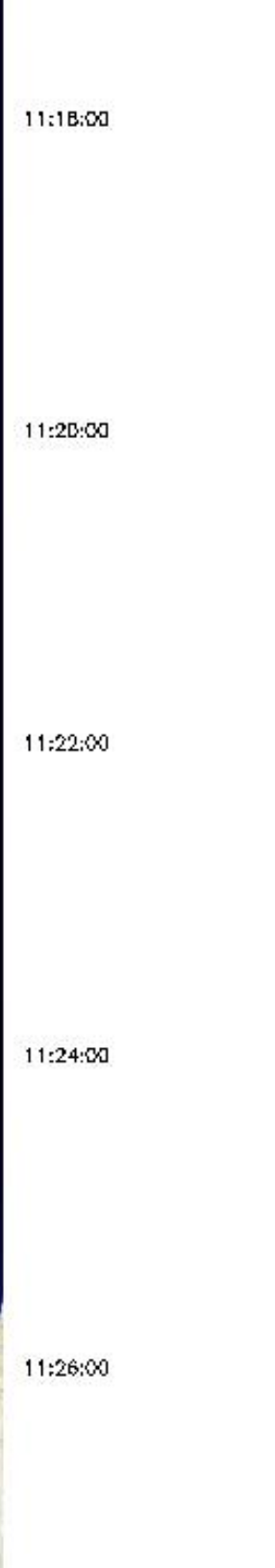
11:18:00



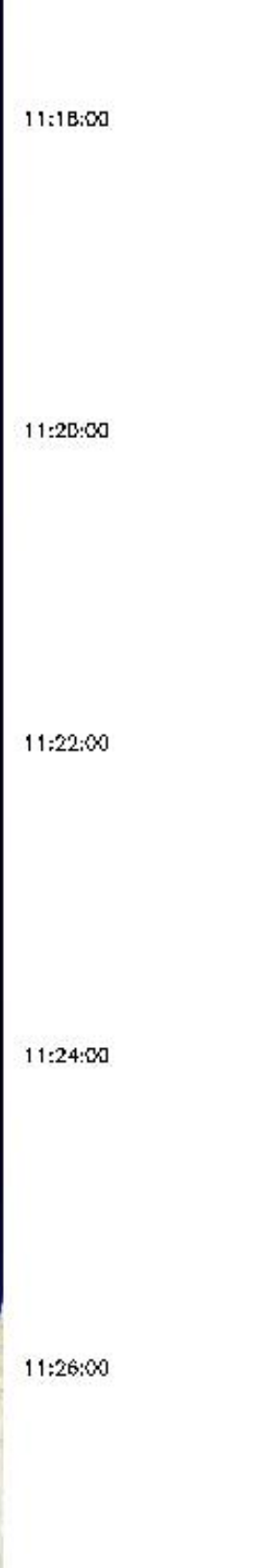
11:20:00



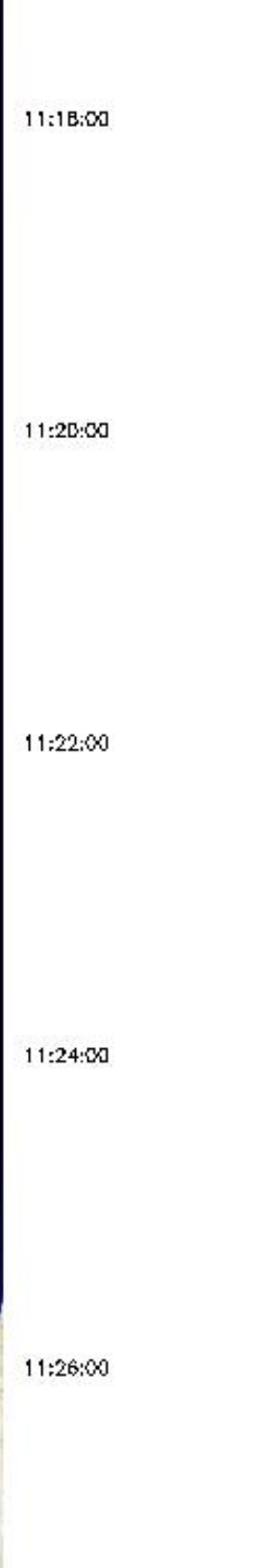
11:22:00



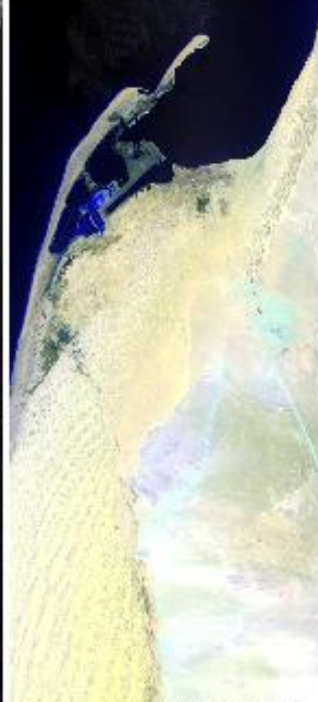
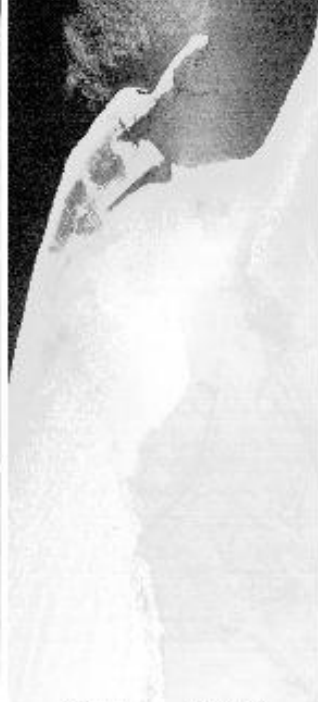
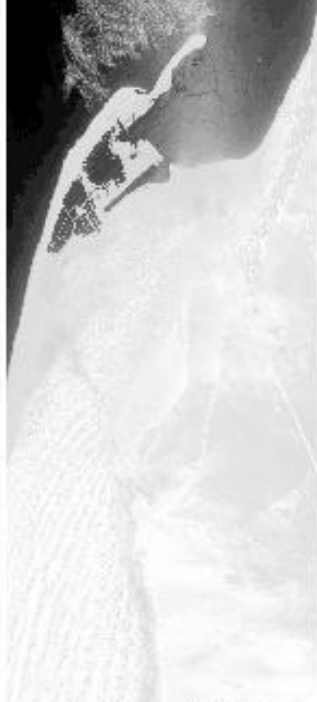
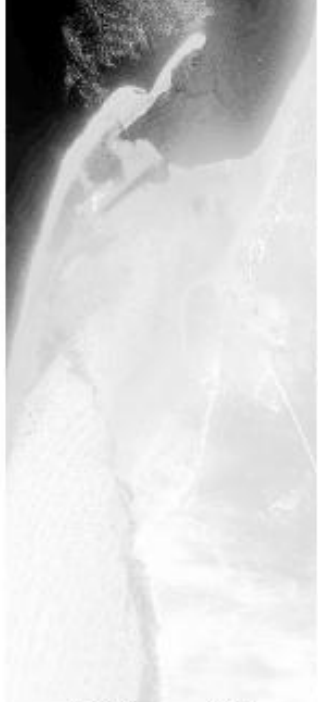
11:24:00



11:26:00



11:26:00



11:26:00

11:28:00

11:30:31

0.66 μ m (#3)

1.61 μ m (#10)

3.77 μ m (#30)

10.94 μ m (#45)
reverse scale

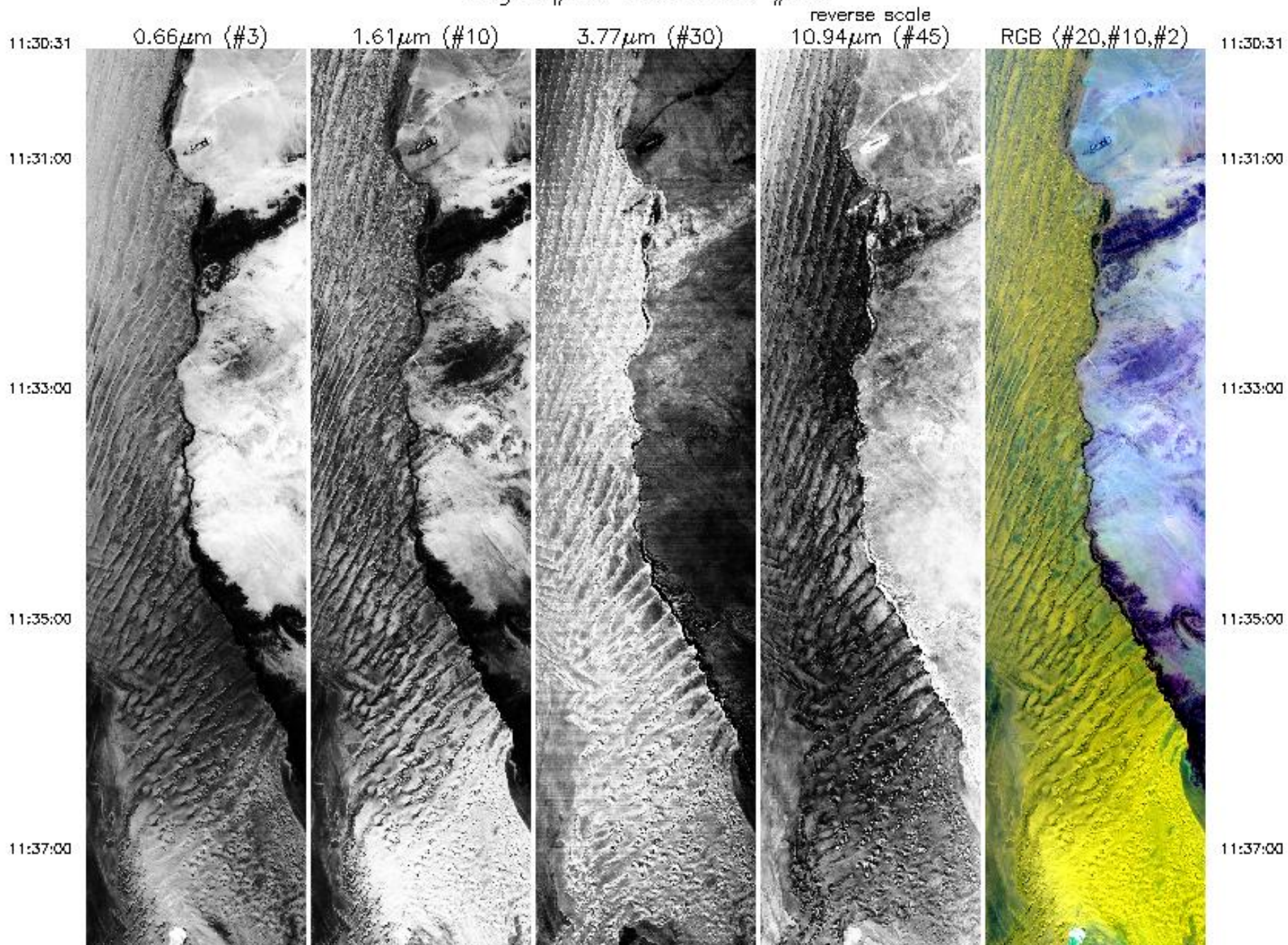
RGB (#20,#10,#2)

11:28:00

11:30:31

Aircraft Heading = 137.6°
Solar Zenith = 29.0°
GPS Altitude = 19517. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia
Flight #00-160 Track #13



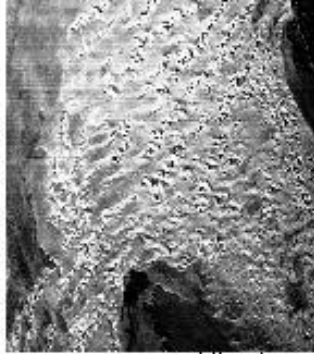
11:37:00



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)

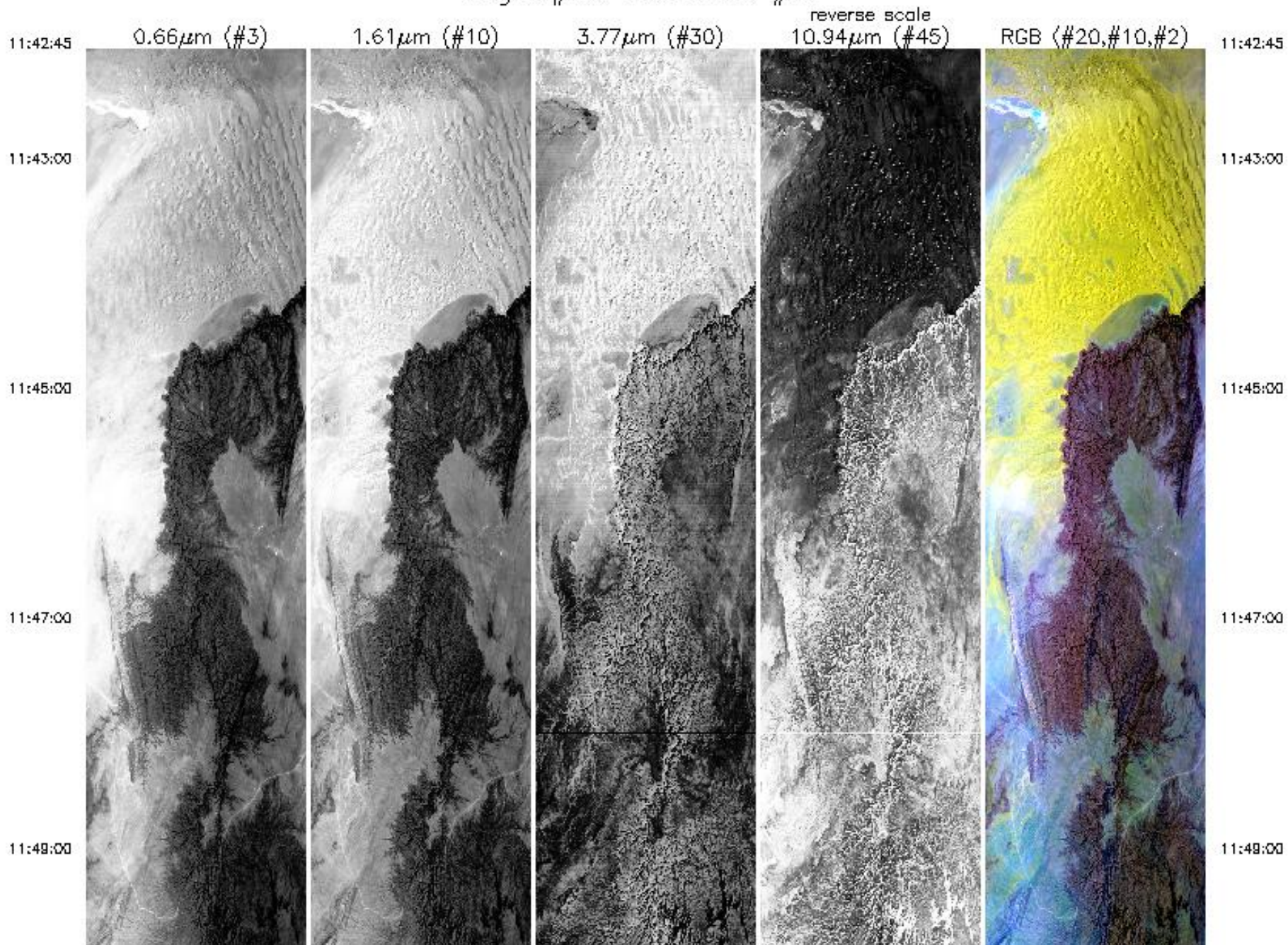
11:37:00

11:38:38

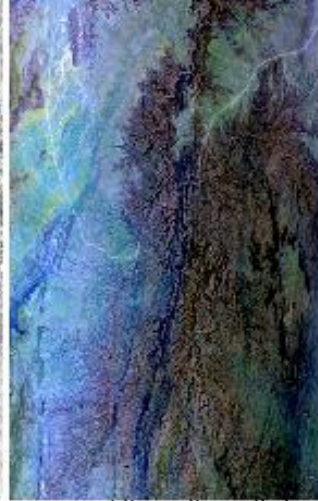
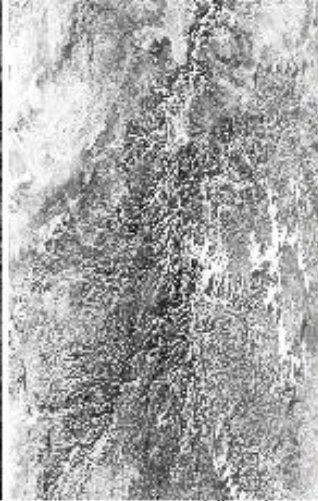
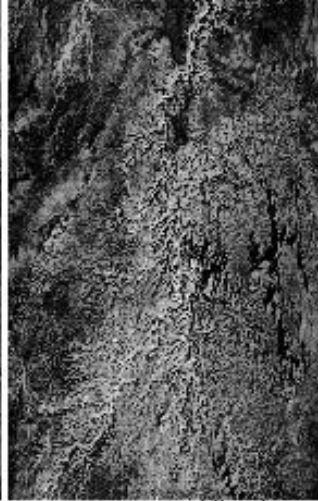
11:38:38

Aircraft Heading = 139.6°
Solar Zenith = 28.6°
GPS Altitude = 18933. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia
Flight #00-160 Track #14



11:49:00



11:49:00

11:51:48

0.66 μm (#3)

1.61 μm (#10)

3.77 μm (#30)

10.94 μm (#45)
reverse scale

RGB (#20,#10,#2)

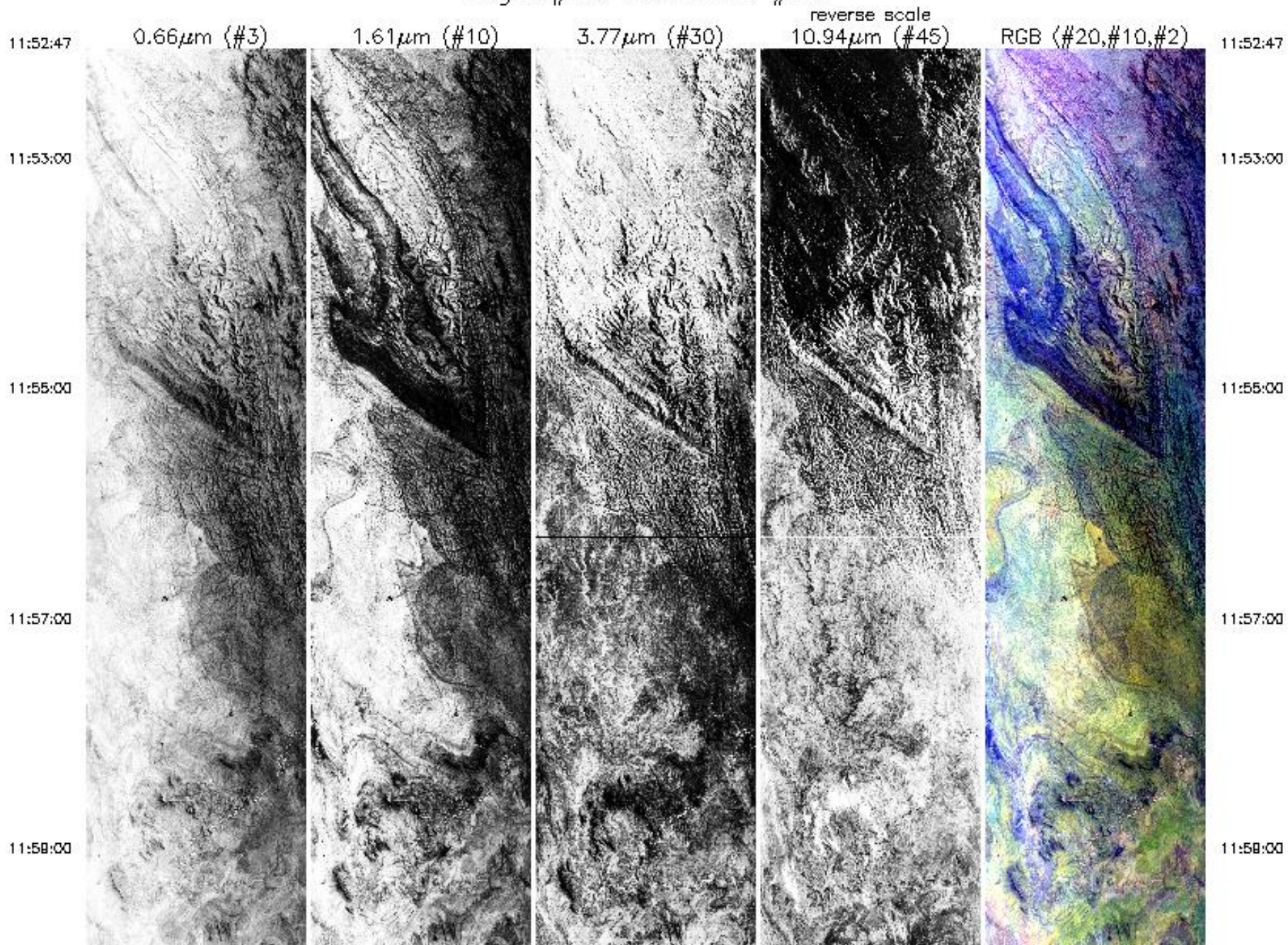
11:51:48

Aircraft Heading = 36.0°

Solar Zenith = 28.6°

GPS Altitude = 18721. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia
Flight #00-160 Track #15



11:58:00



12:01:00



12:03:00



12:05:00



12:07:00



11:58:00

12:01:00

12:03:00

12:05:00

12:07:00

12:07:00



12:08:00



12:11:00



12:13:00



12:15:00



12:07:00

12:08:00

12:11:00

12:13:00

12:15:00

12:15:00

12:17:00

12:18:32



0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



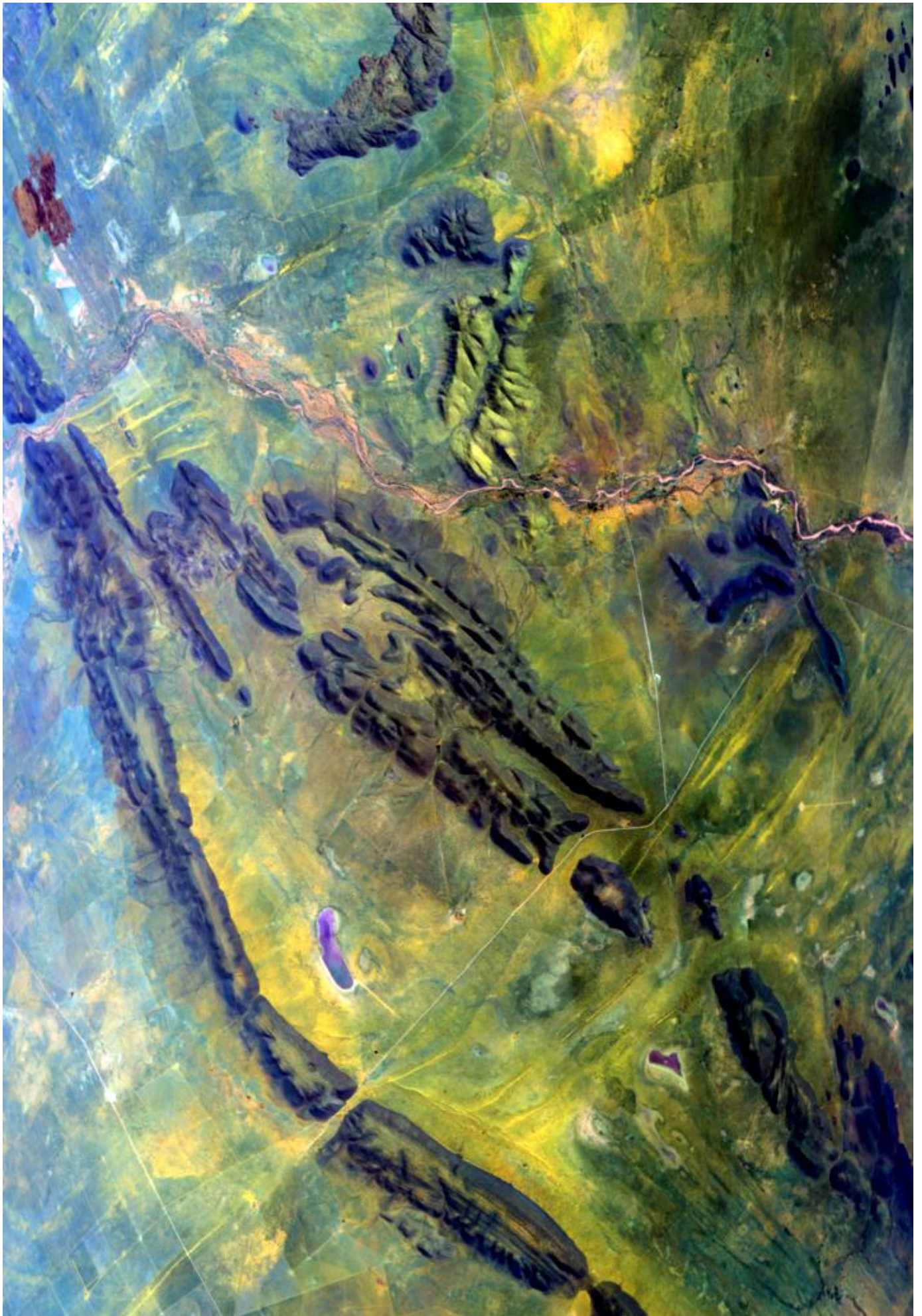
RGB (#20,#10,#2)

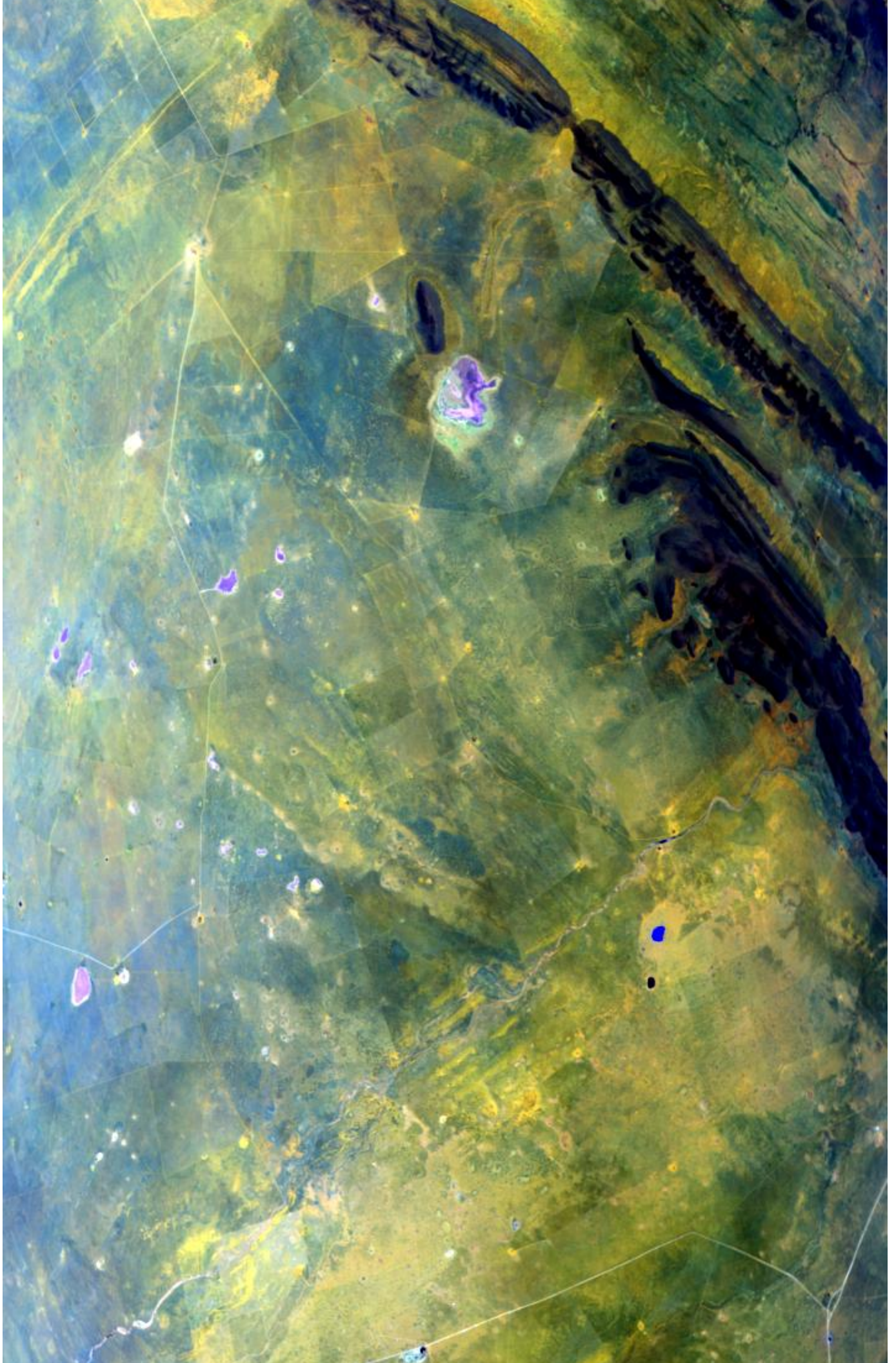
12:15:00

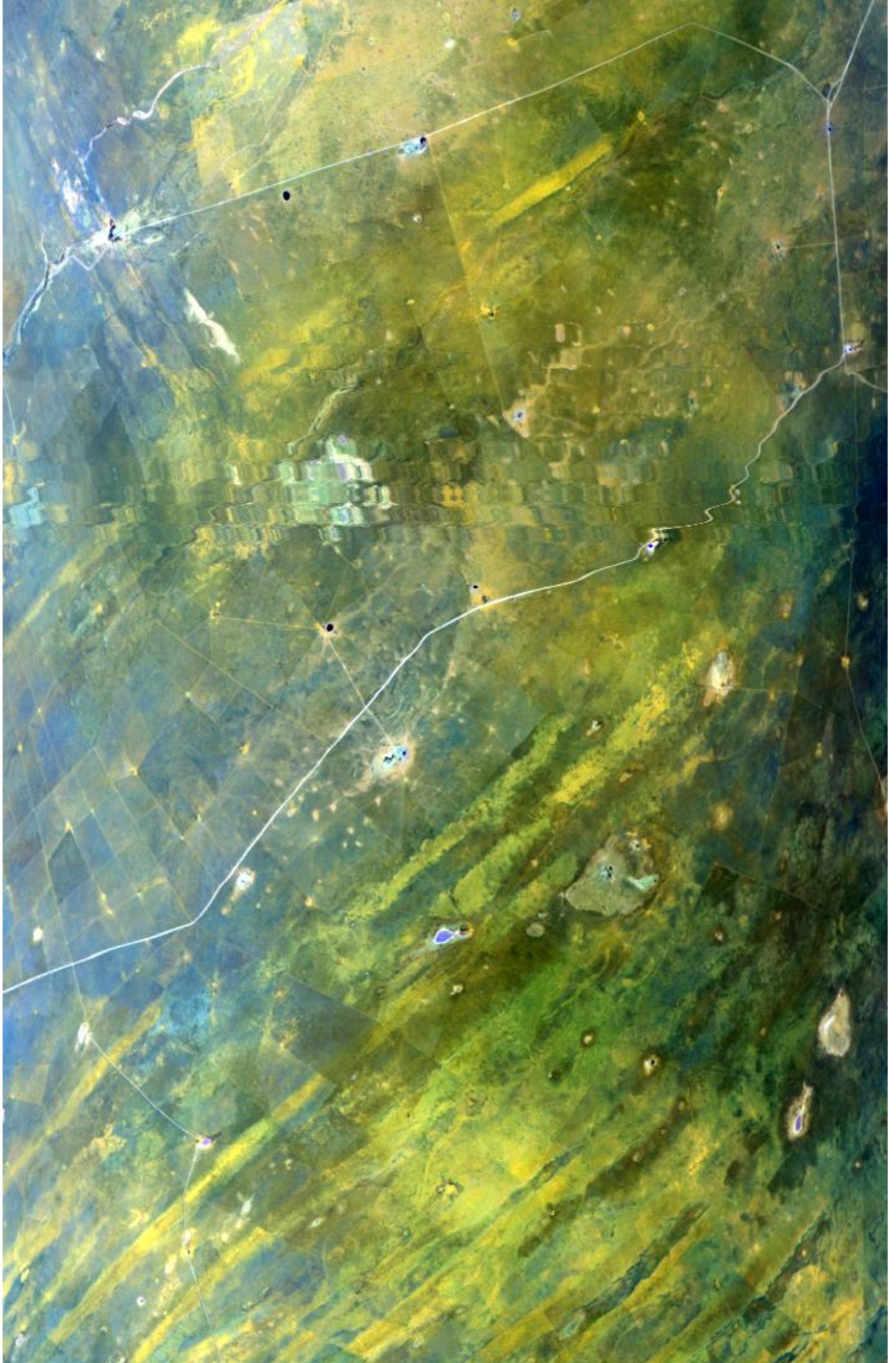
12:17:00

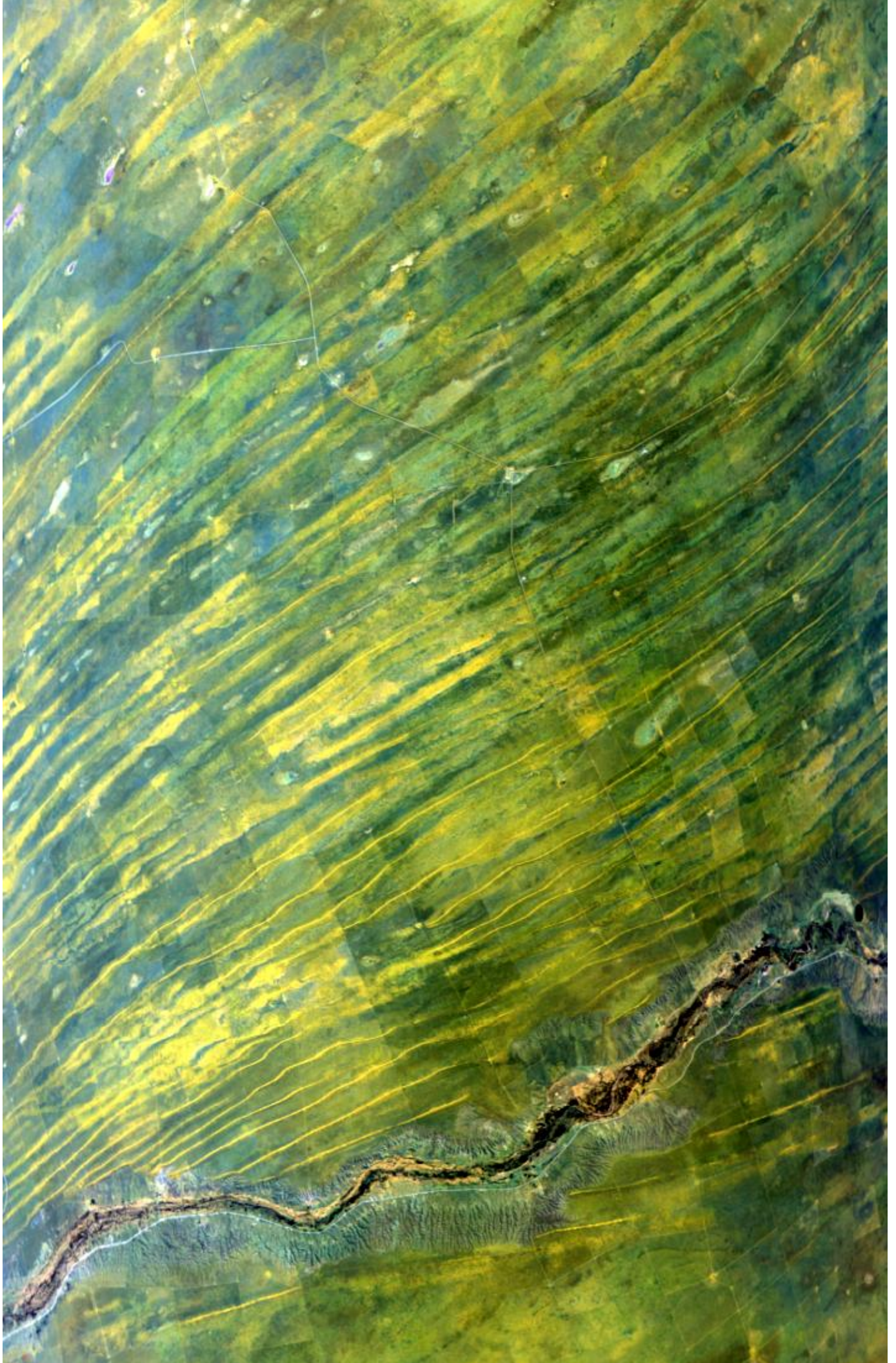
12:18:32

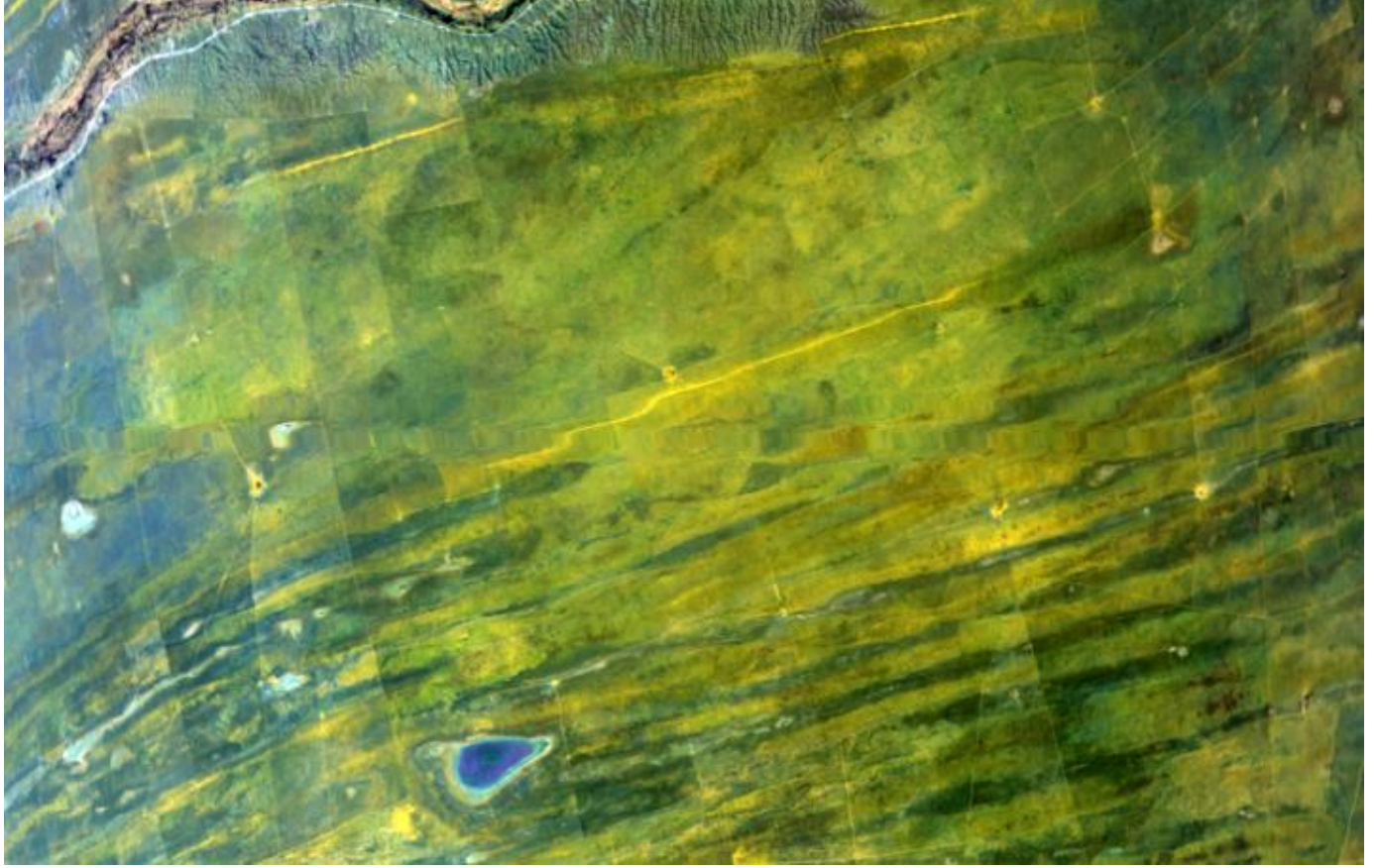
Aircraft Heading = 94.9°
Solar Zenith = 27.6°
GPS Altitude = 18827. m (MSL)



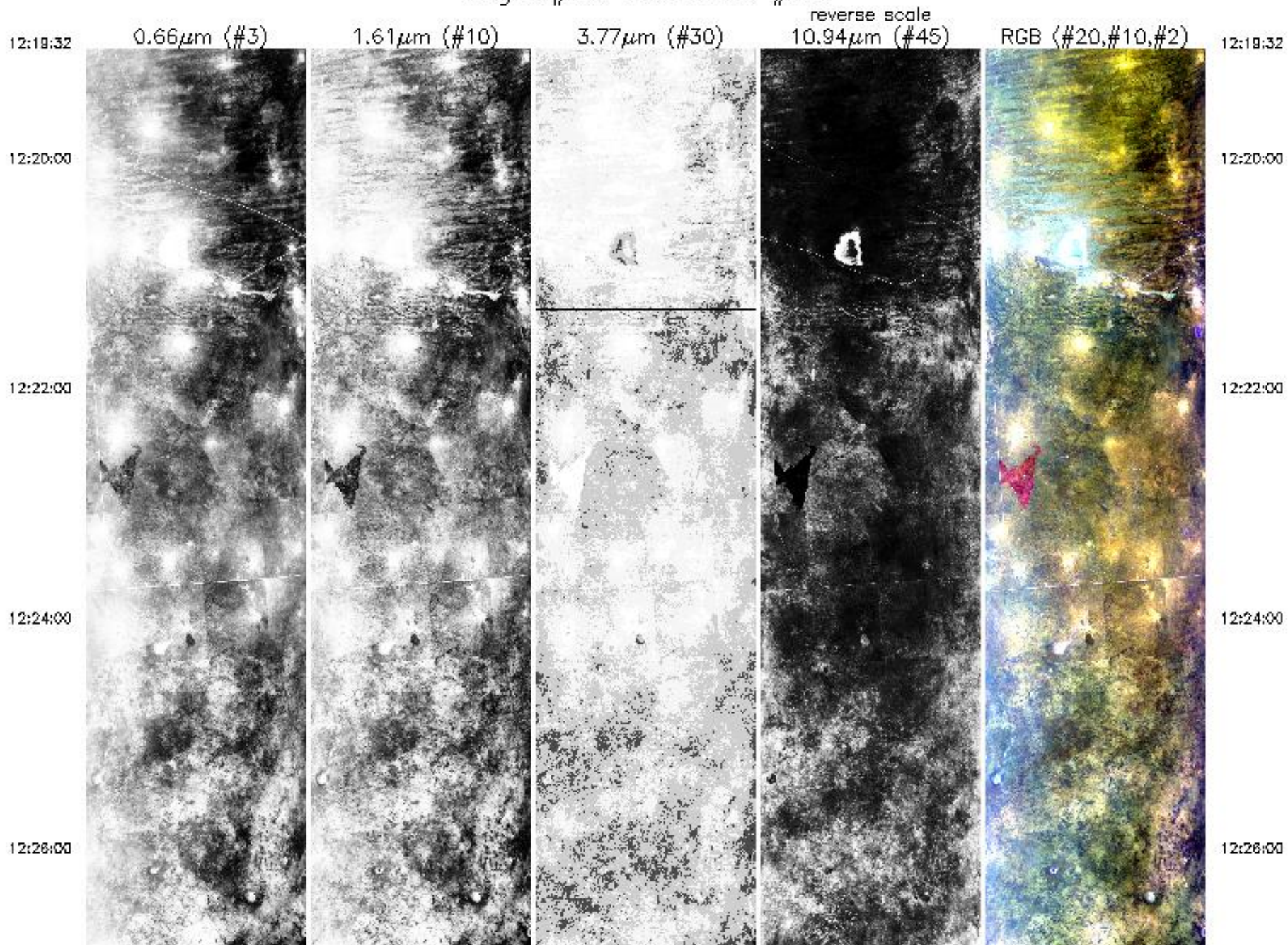








MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia, Botswana
Flight #00-160 Track #16



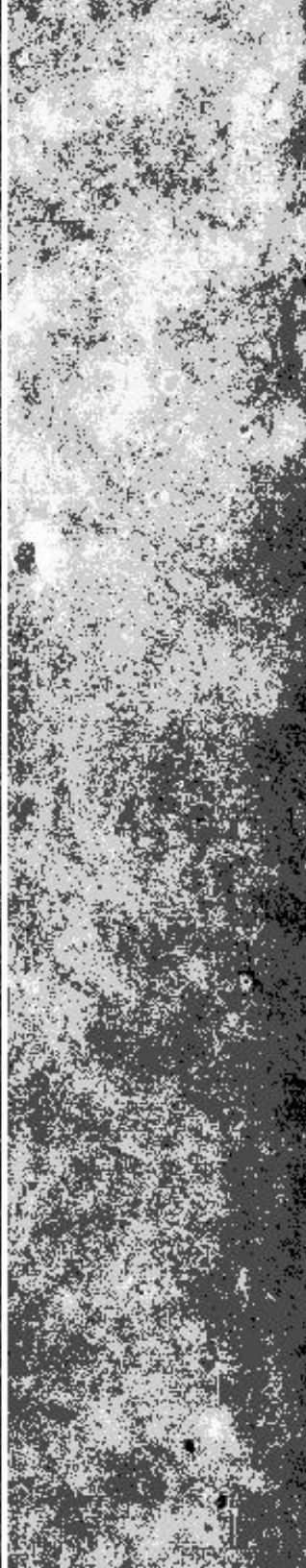
12:26:00



12:28:00



12:30:00



12:32:00



12:34:00



12:26:00

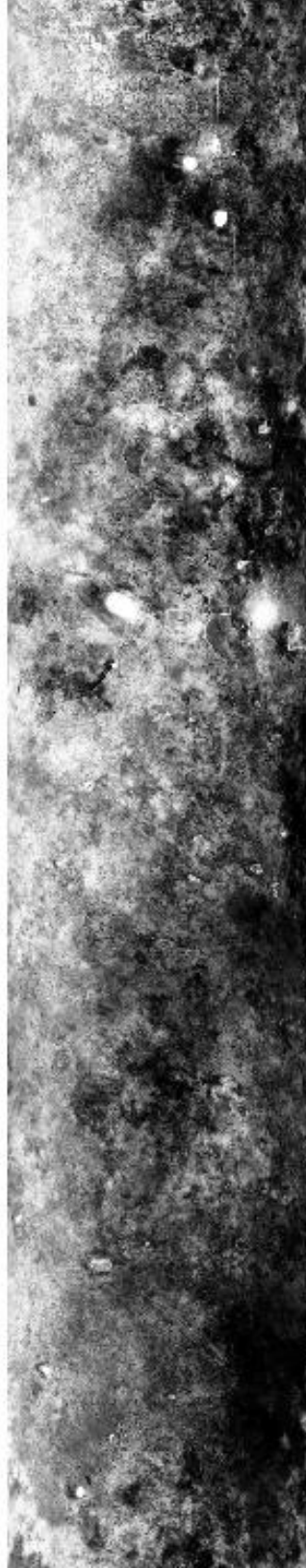
12:28:00

12:30:00

12:32:00

12:34:00

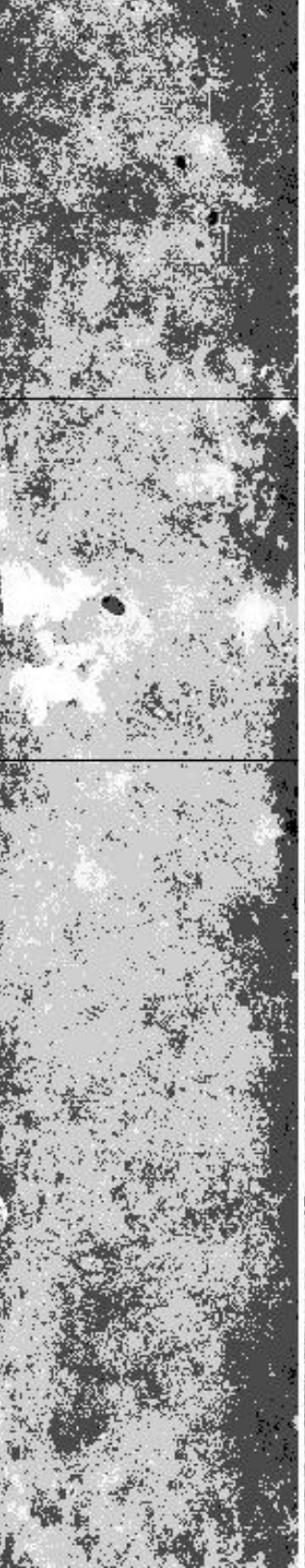
12:34:00



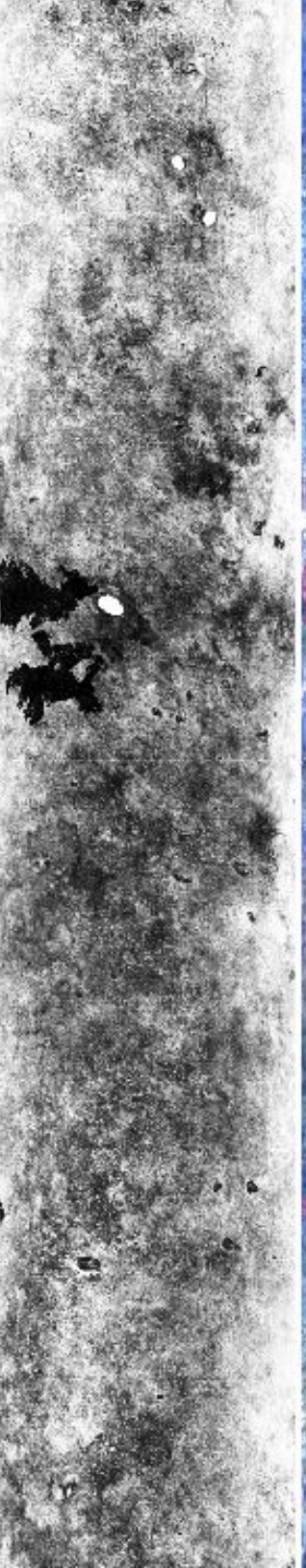
12:36:00



12:38:00



12:40:00



12:42:00



12:34:00

12:36:00

12:38:00

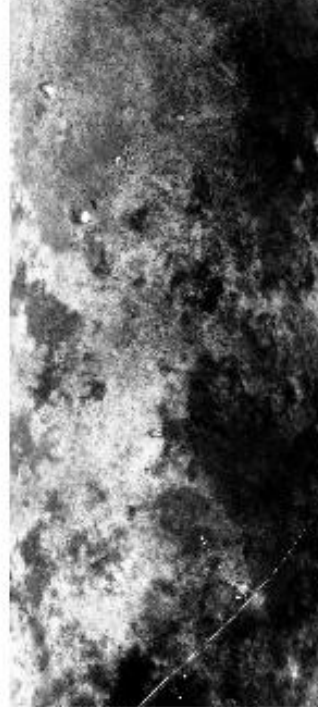
12:40:00

12:42:00

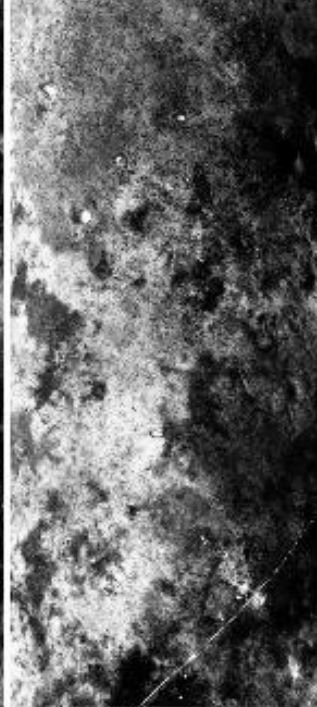
12:42:00

12:44:00

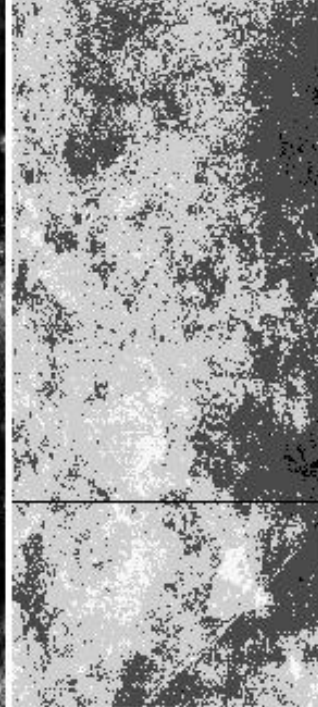
12:48:18



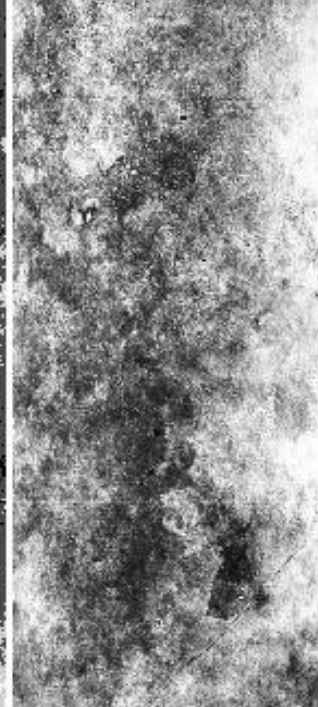
0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



RGB (#20, #10, #2)

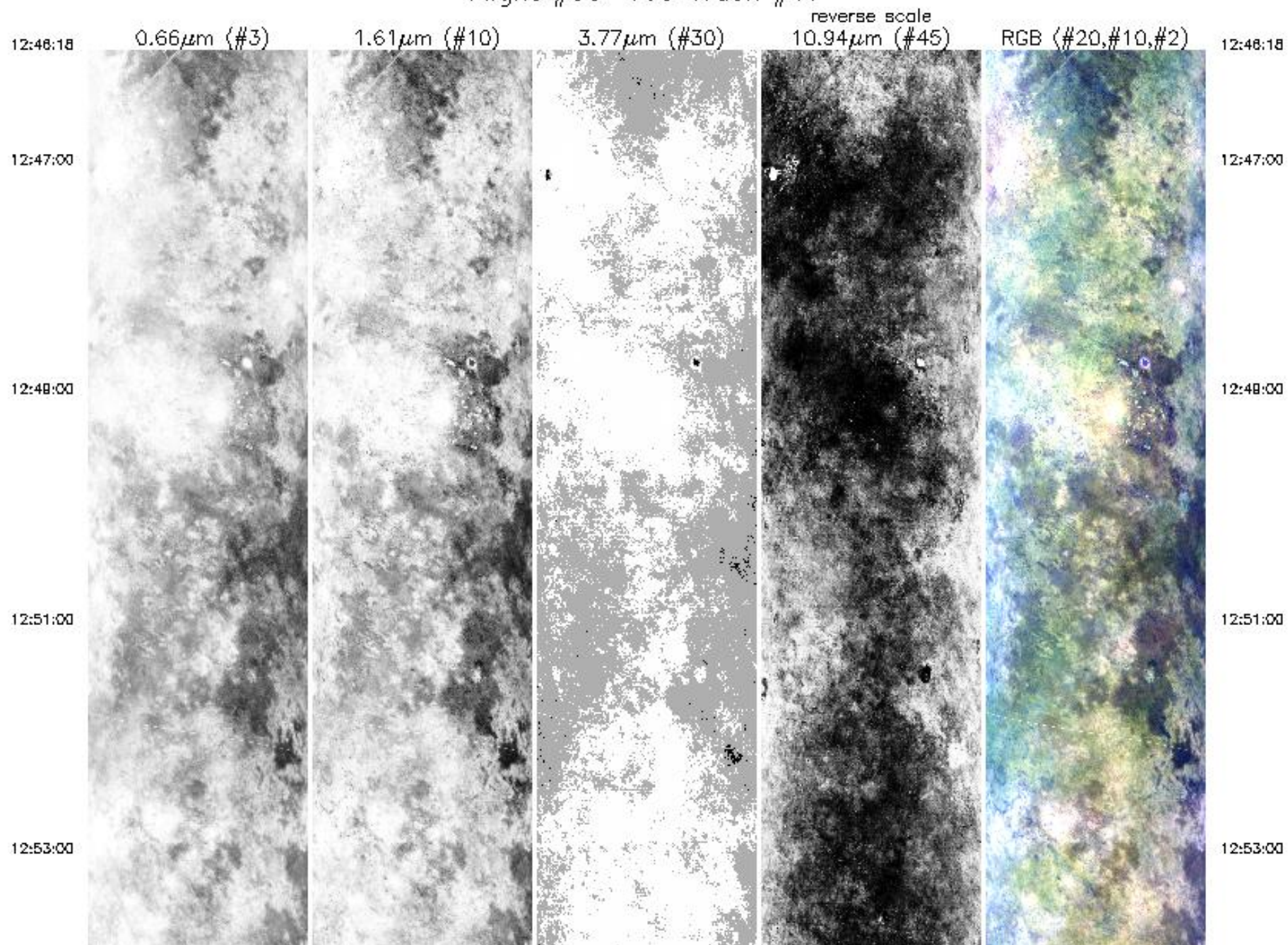
12:42:00

12:44:00

12:48:18

Aircraft Heading = 95.2°
Solar Zenith = 28.2°
GPS Altitude = 18986. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Botswana
Flight #00-160 Track #17



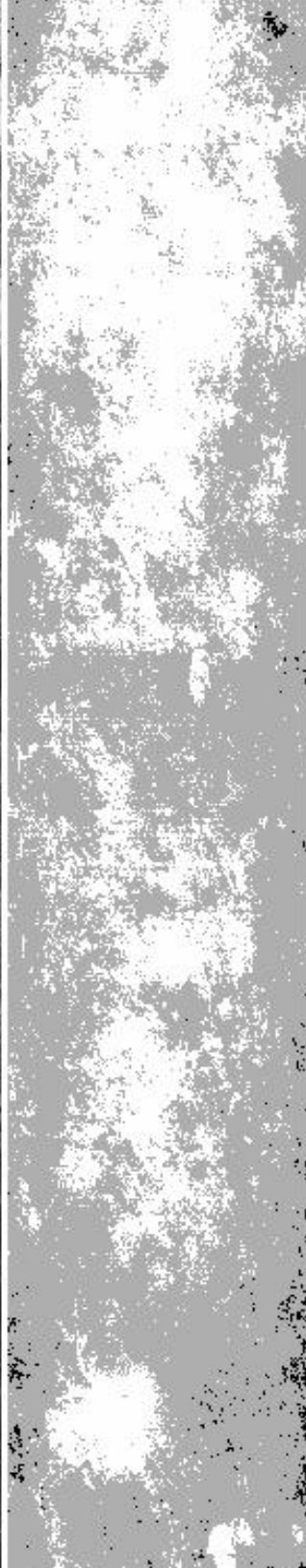
12:53:00



12:55:00



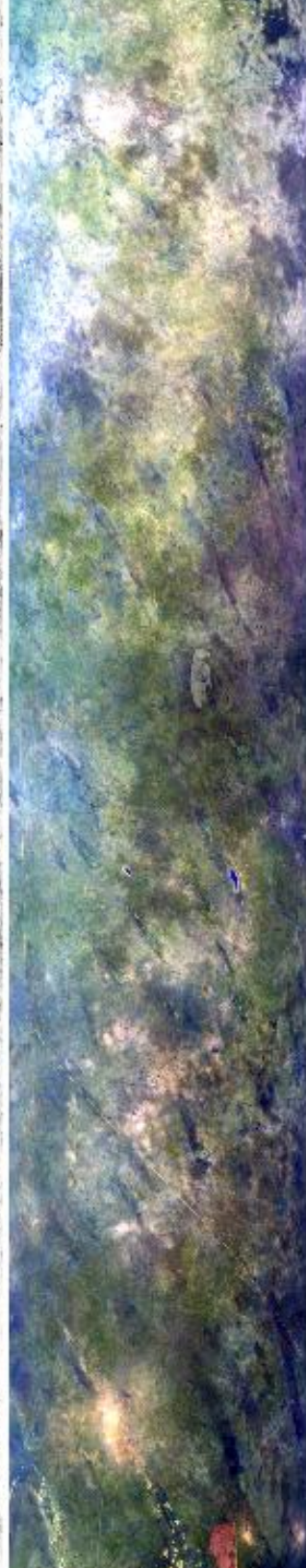
12:57:00



12:59:00



13:01:00



12:53:00

12:55:00

12:57:00

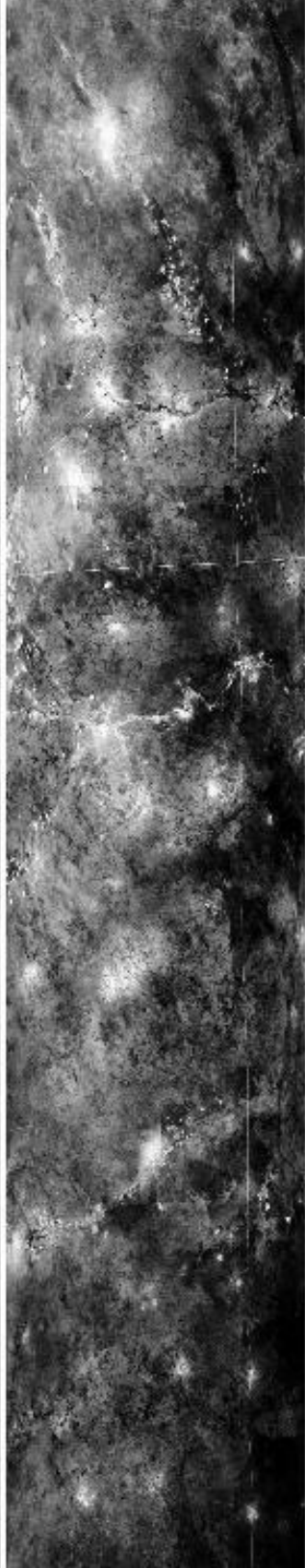
12:59:00

13:01:00

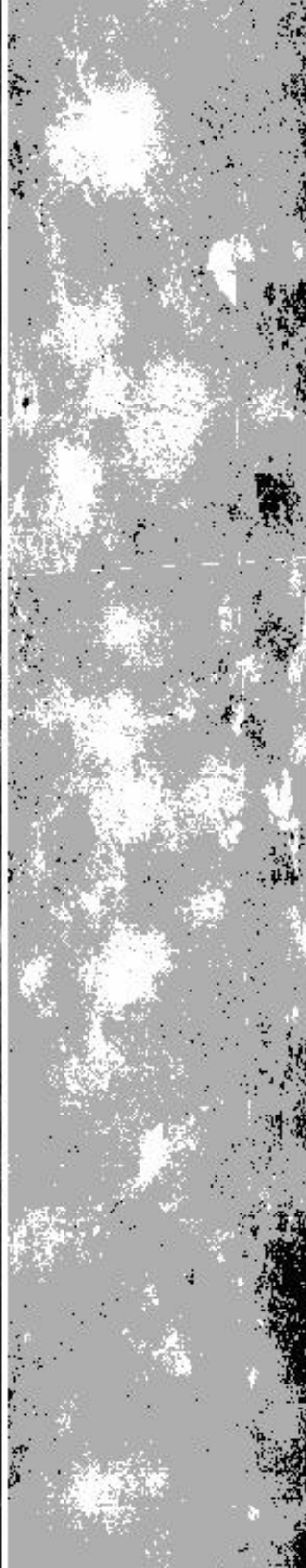
13:01:00



13:03:00



13:05:00



13:07:00



13:09:00



13:01:00

13:03:00

13:05:00

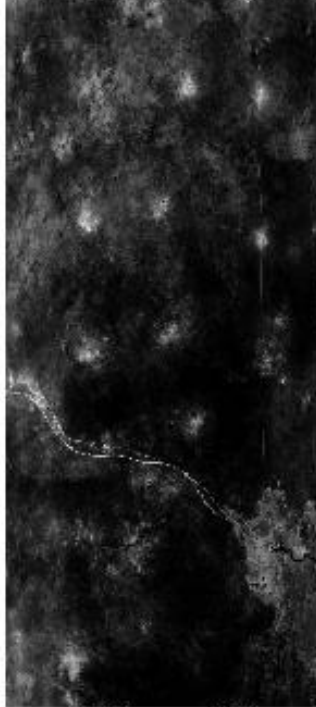
13:07:00

13:09:00

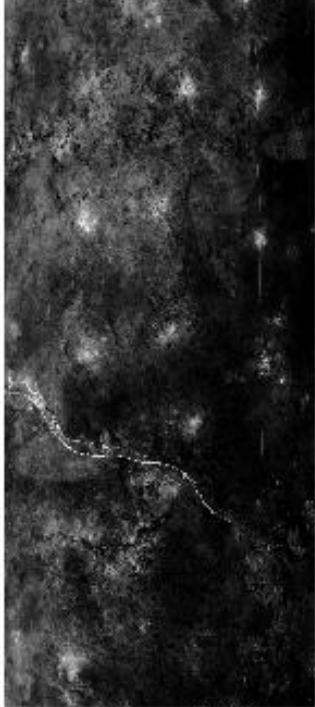
13:09:00

13:11:00

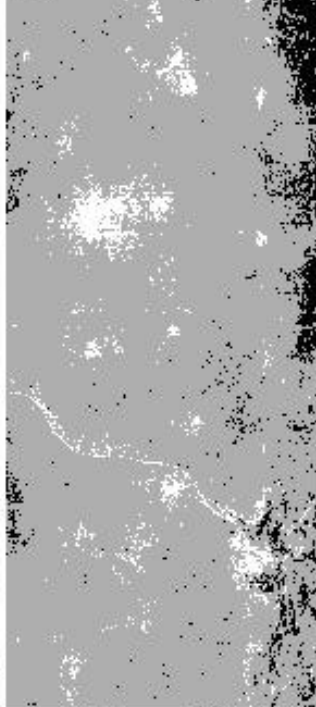
13:13:03



0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



RGB (#20,#10,#2)

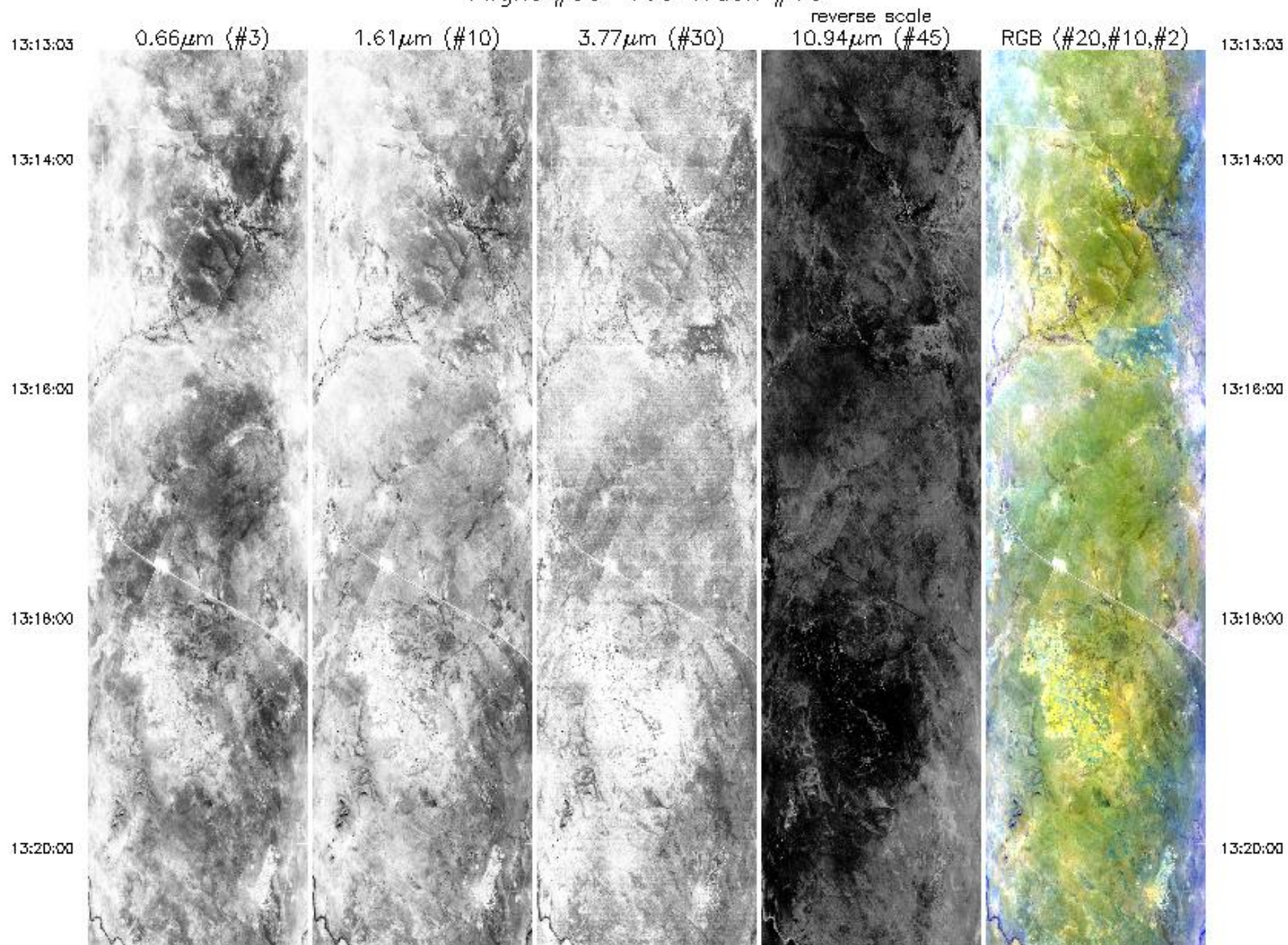
13:09:00

13:11:00

13:13:03

Aircraft Heading = 95.0°
Solar Zenith = 30.2°
GPS Altitude = 19179. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
S.A., Botswana
Flight #00-160 Track #18



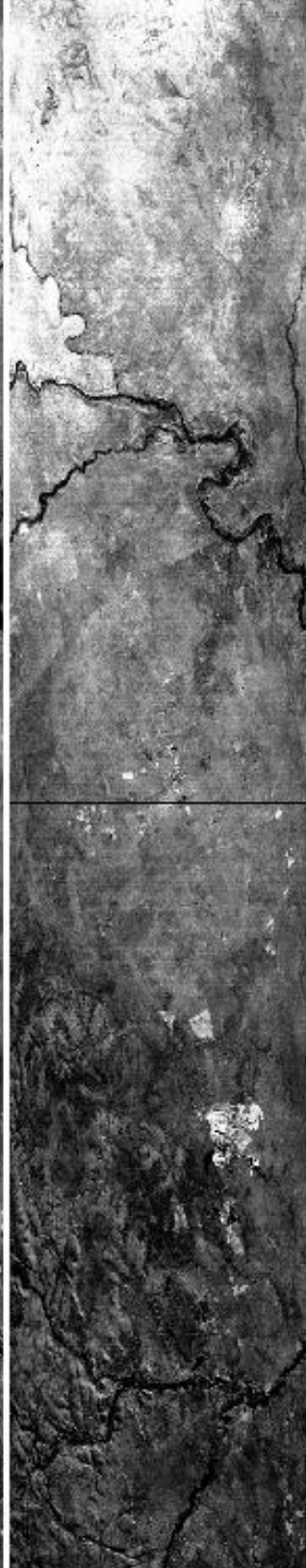
13:20:00



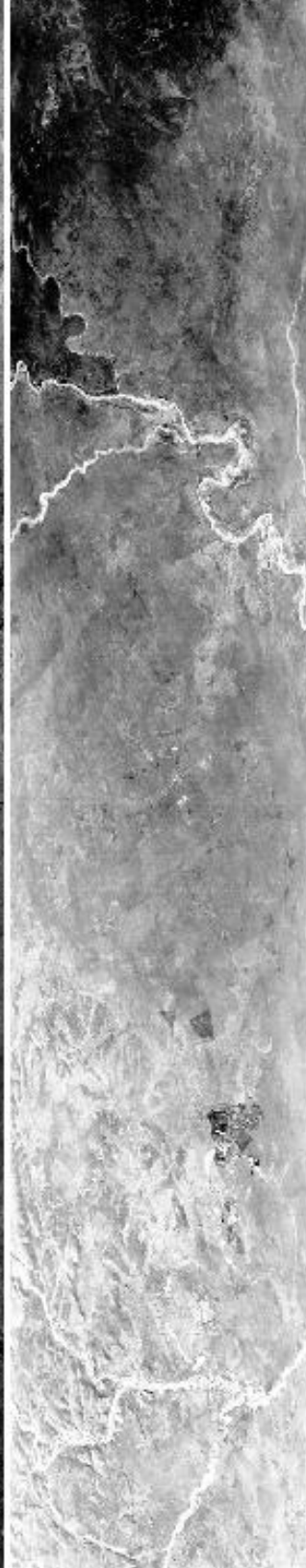
13:22:00



13:24:00



13:26:00



13:28:00



13:20:00

13:22:00

13:24:00

13:26:00

13:28:00

13:28:00

13:30:00

13:30:38



0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20, #10, #2)

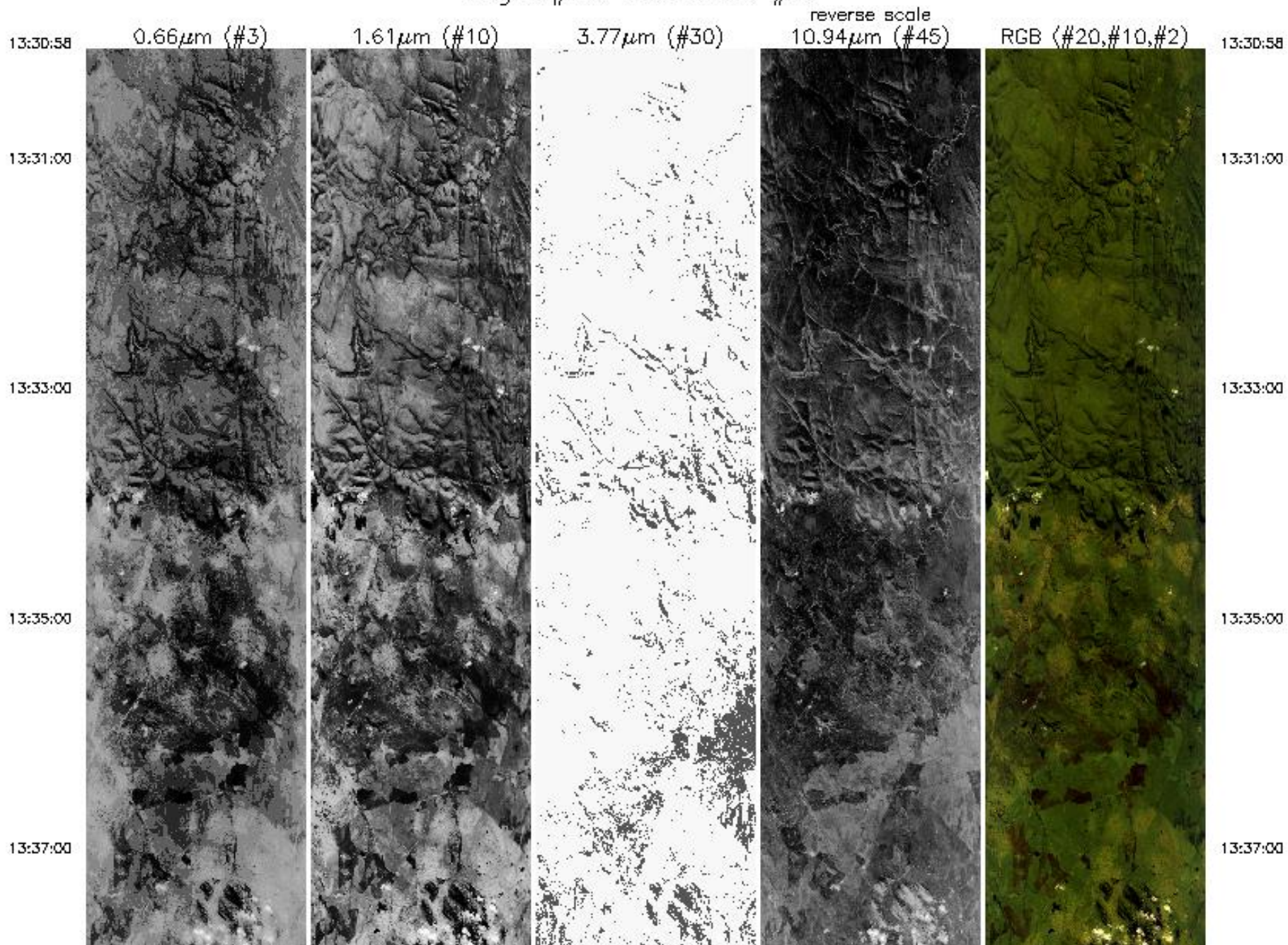
13:28:00

13:30:00

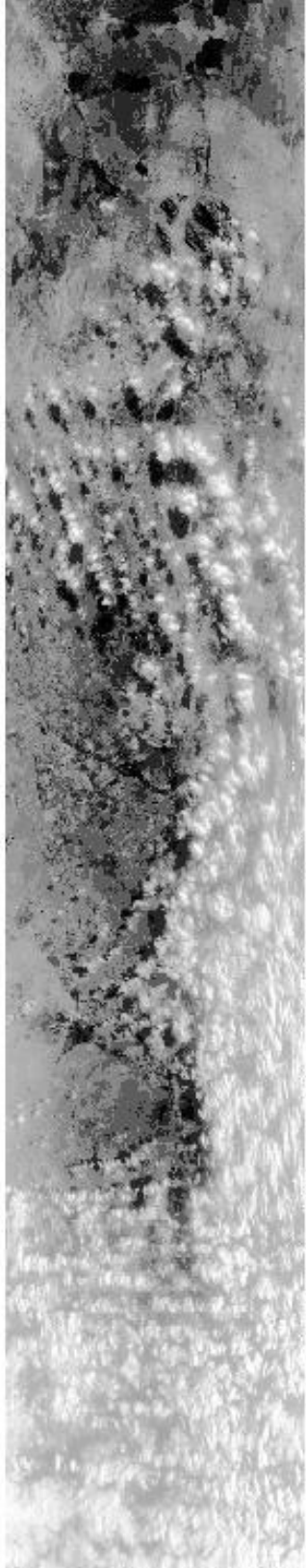
13:30:38

Aircraft Heading = 94.0°
Solar Zenith = 33.3°
GPS Altitude = 19218. m (MSL)

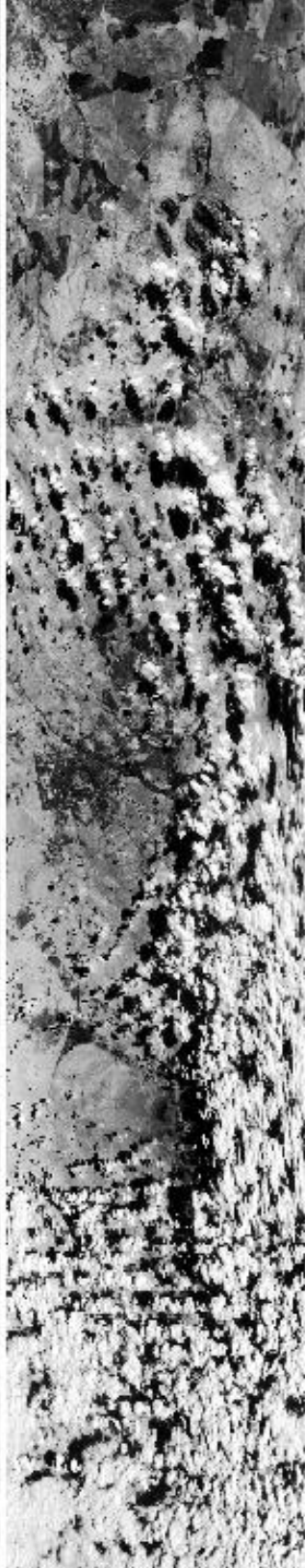
MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
South Africa
Flight #00-160 Track #19



13:37:00



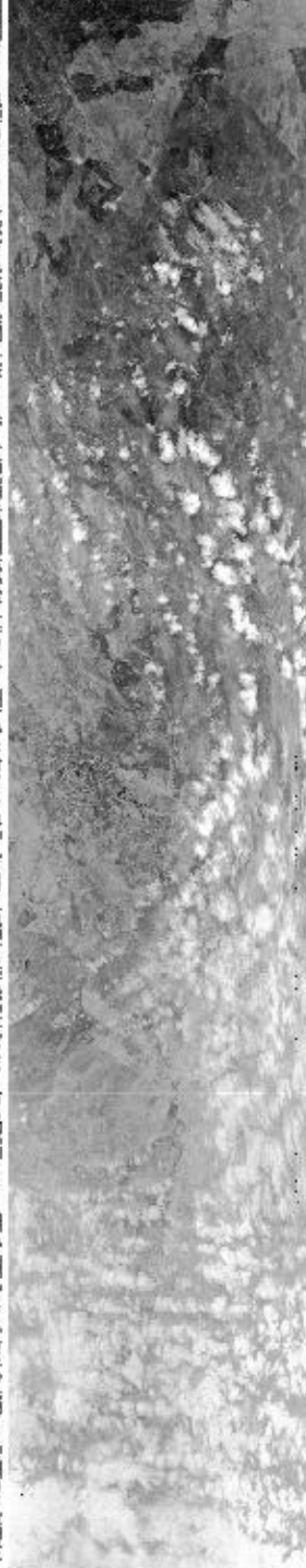
13:38:00



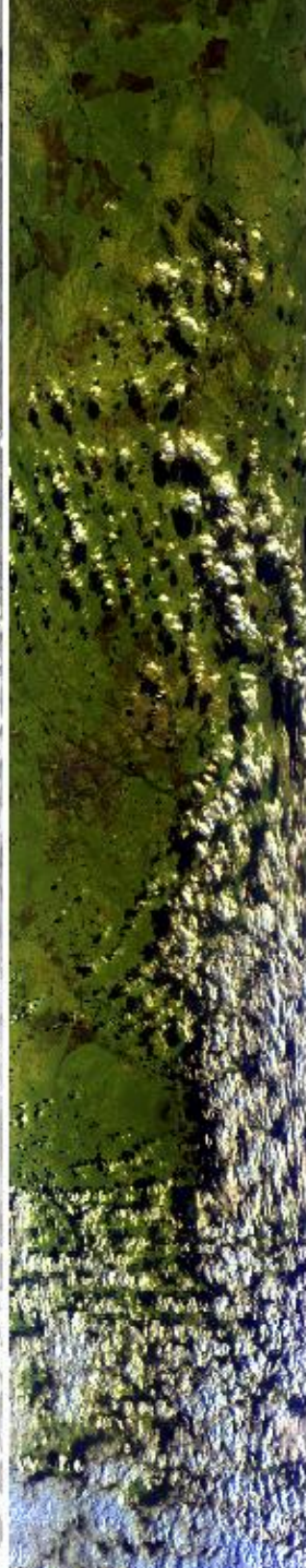
13:41:00



13:43:00



13:45:00



13:37:00

13:38:00

13:41:00

13:43:00

13:45:00

13:45:00



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)

13:45:00

13:47:00

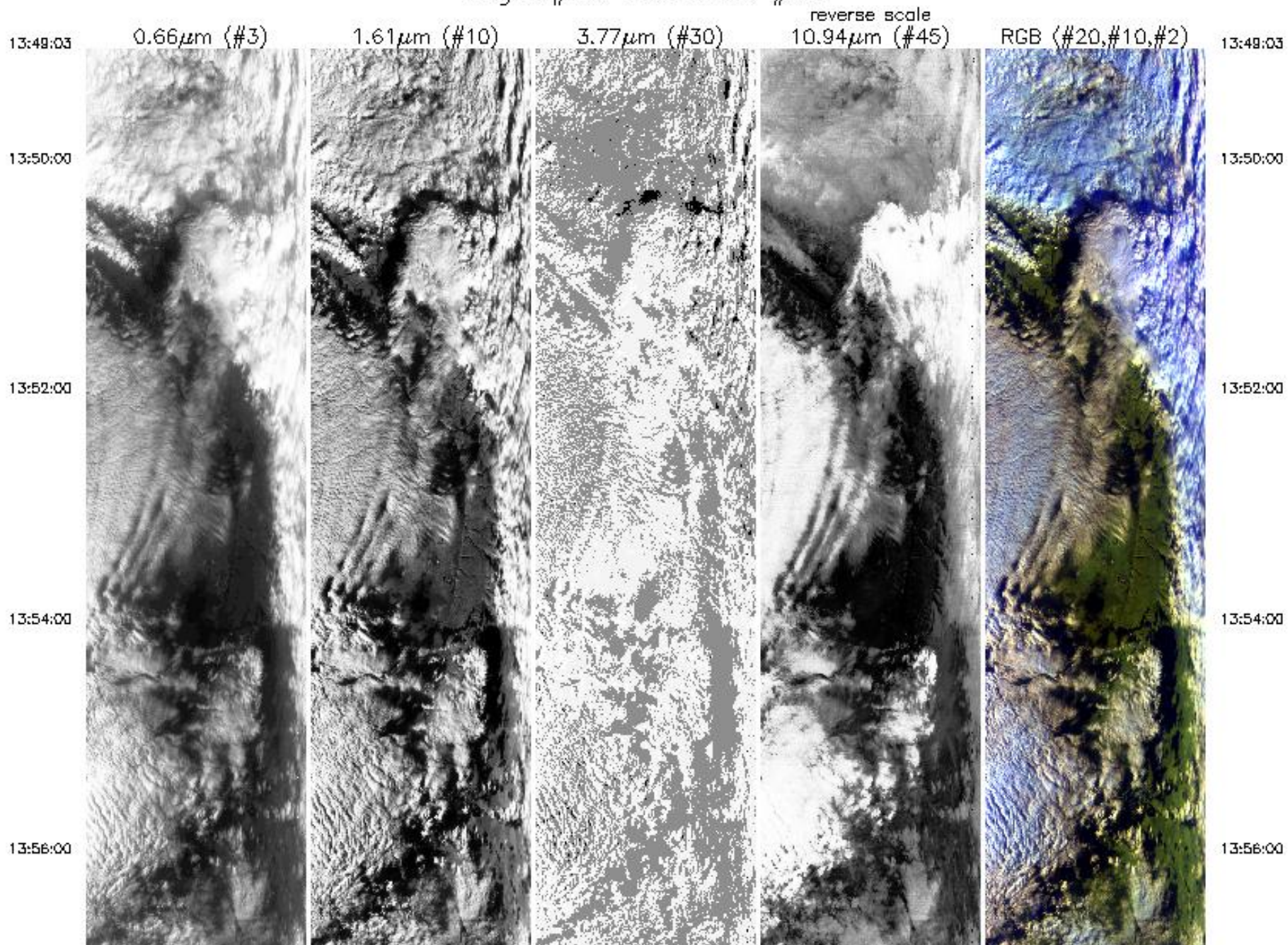
13:47:00

13:48:00

13:48:00

Aircraft Heading = 88.3°
Solar Zenith = 35.9°
GPS Altitude = 18774. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
South Africa
Flight #00-160 Track #20



13:56:00

13:58:00

14:00:00

14:02:00

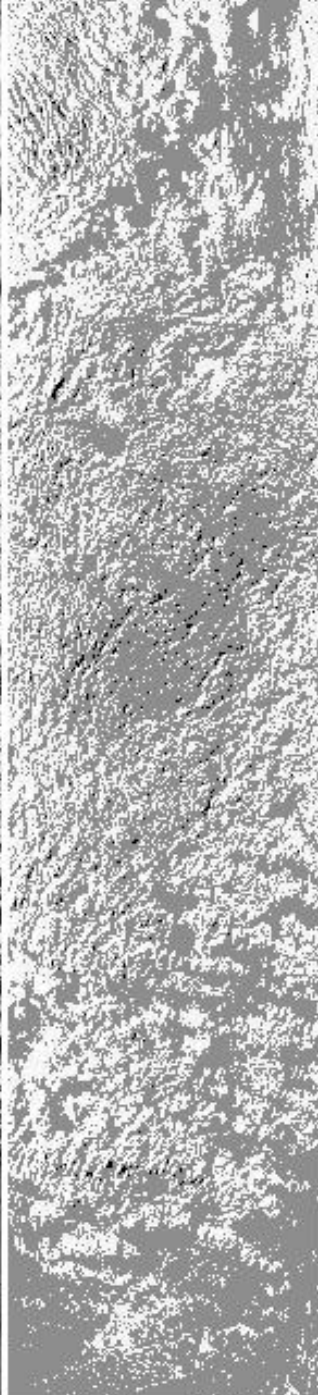
14:03:38



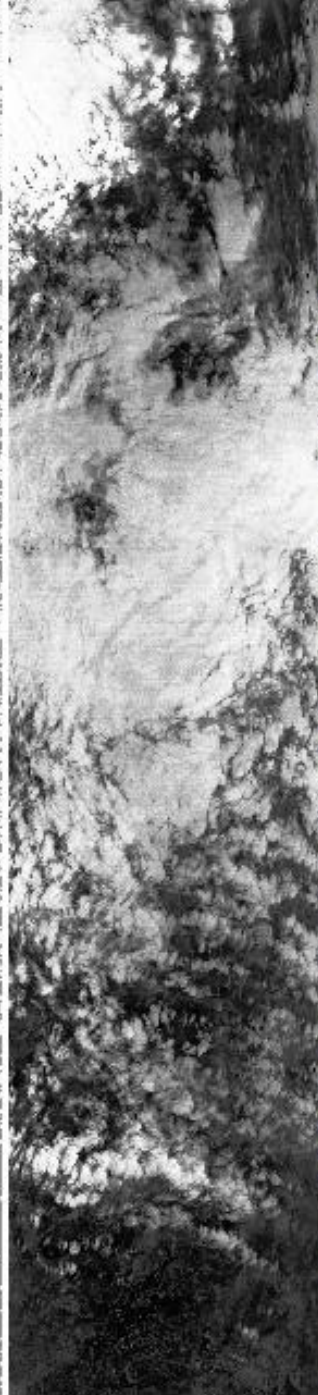
0.66 μm (#3)



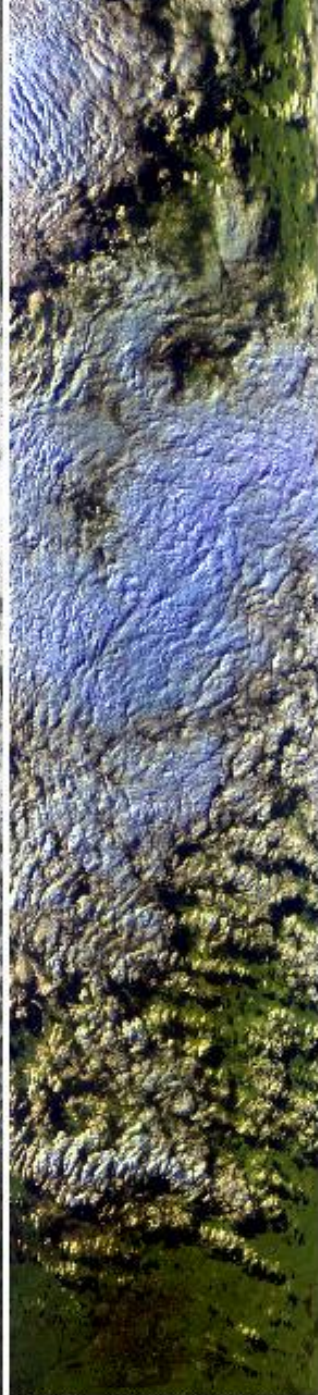
1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20,#10,#2)

13:56:00

13:58:00

14:00:00

14:02:00

14:03:38

Aircraft Heading = 3.3°
 Solar Zenith = 38.2°
 GPS Altitude = 18648. m (MSL)

14:03:36



0.66 μ m (#3)



1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale

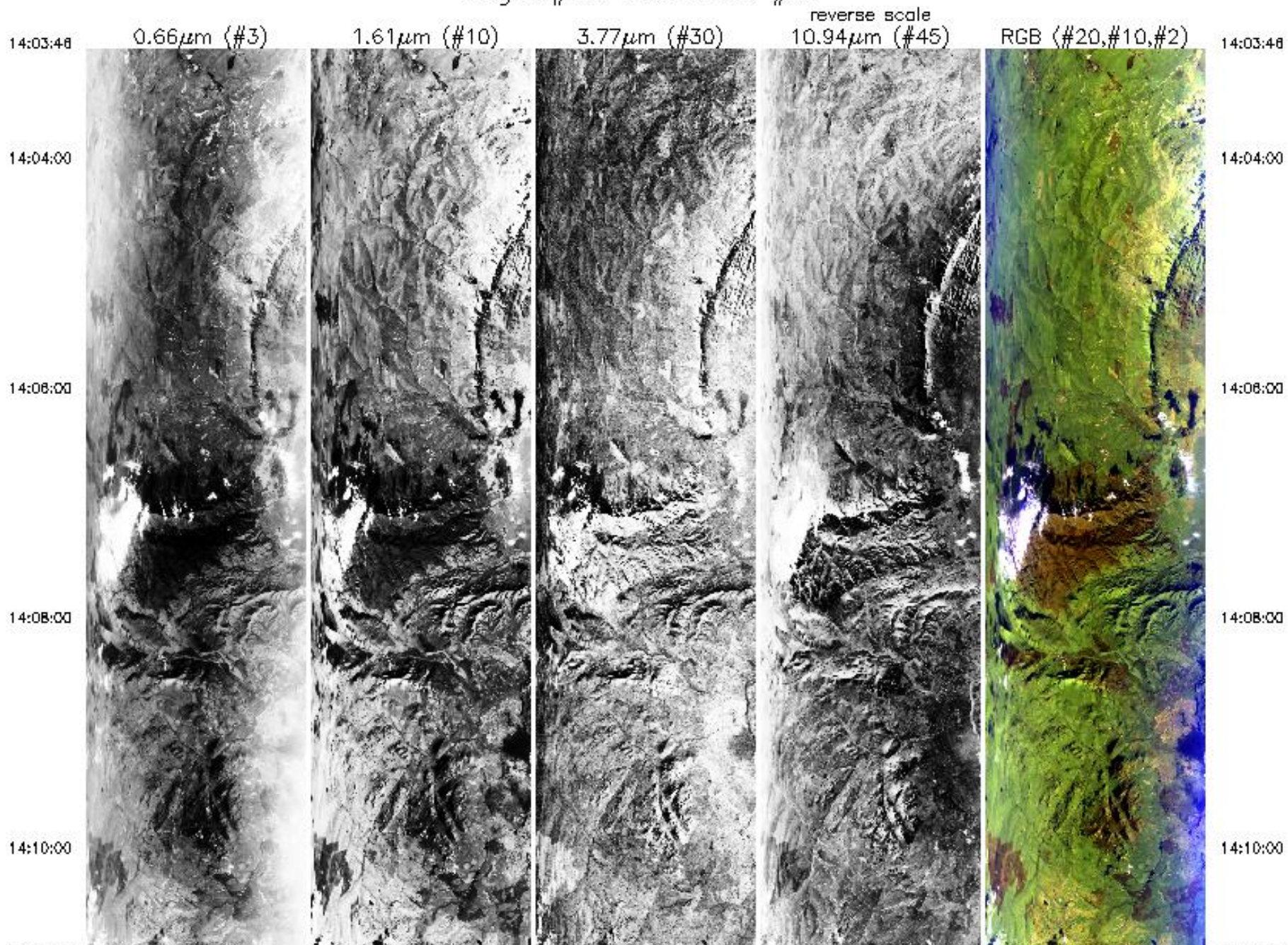


RGB (#20,#10,#2)

14:03:36

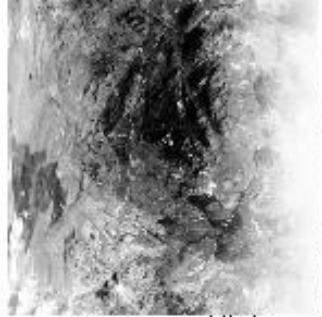
Aircraft Heading = 3.3°
Solar Zenith = 38.2°
GPS Altitude = 18648. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
South Africa
Flight #00-160 Track #21

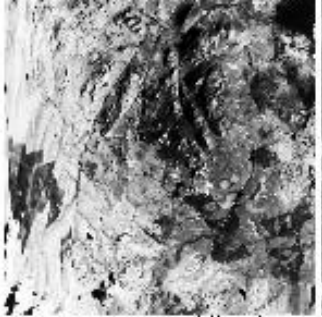


14:10:00

14:11:41



0.66 μm (#3)



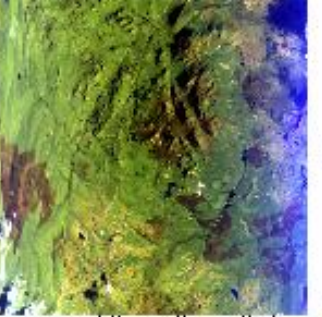
1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20, #10, #2)

14:10:00

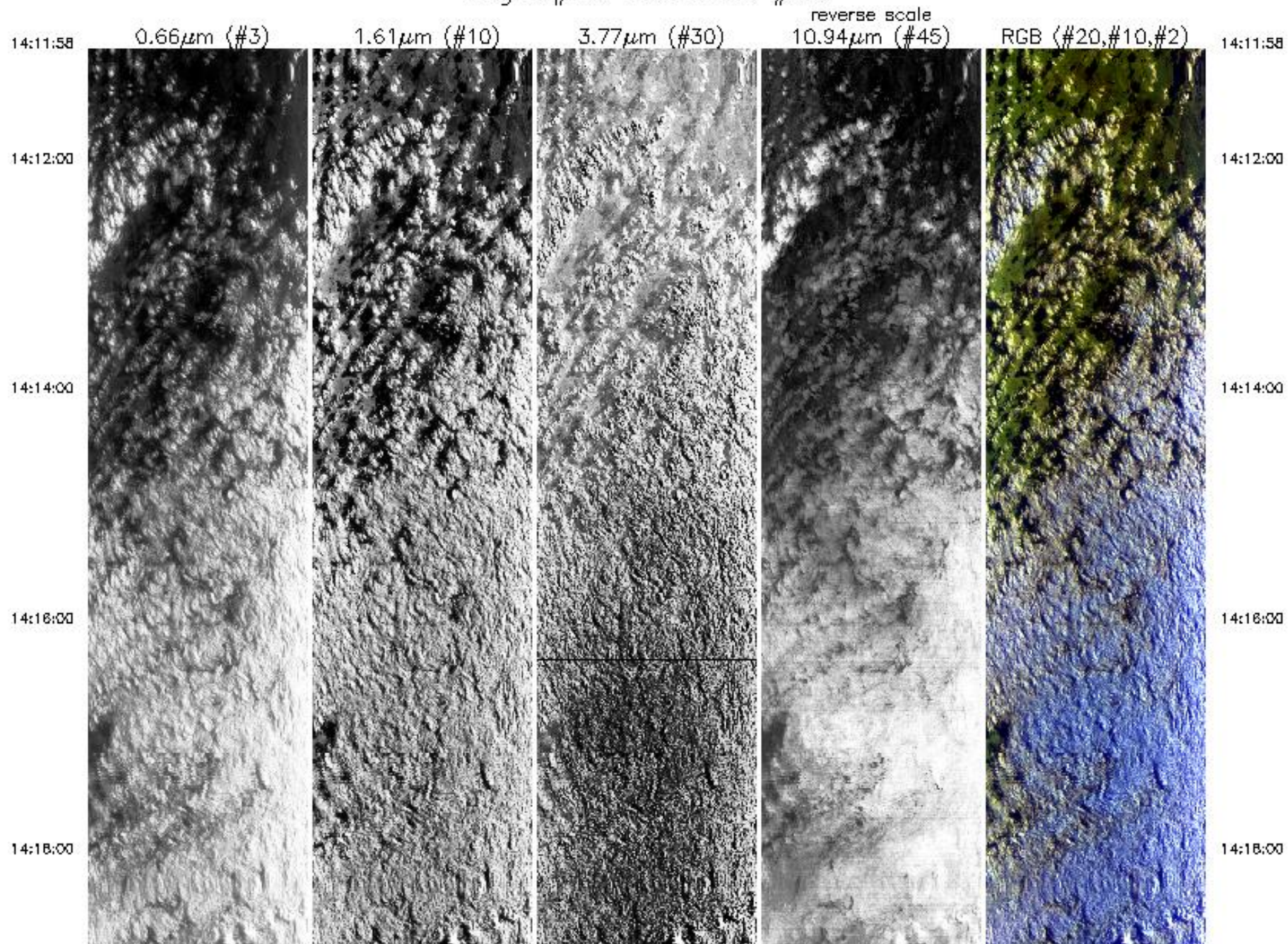
14:11:41

Aircraft Heading = 167.0°

Solar Zenith = 41.3°

GPS Altitude = 18590. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
South Africa
Flight #00-160 Track #22



14:18:00

14:20:08



0.66 μ m (#3)



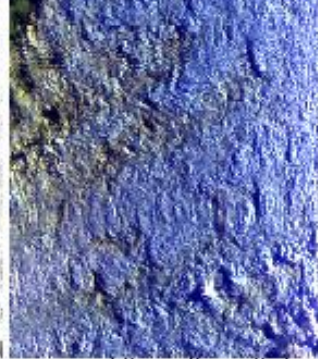
1.61 μ m (#10)



3.77 μ m (#30)



10.94 μ m (#45)
reverse scale



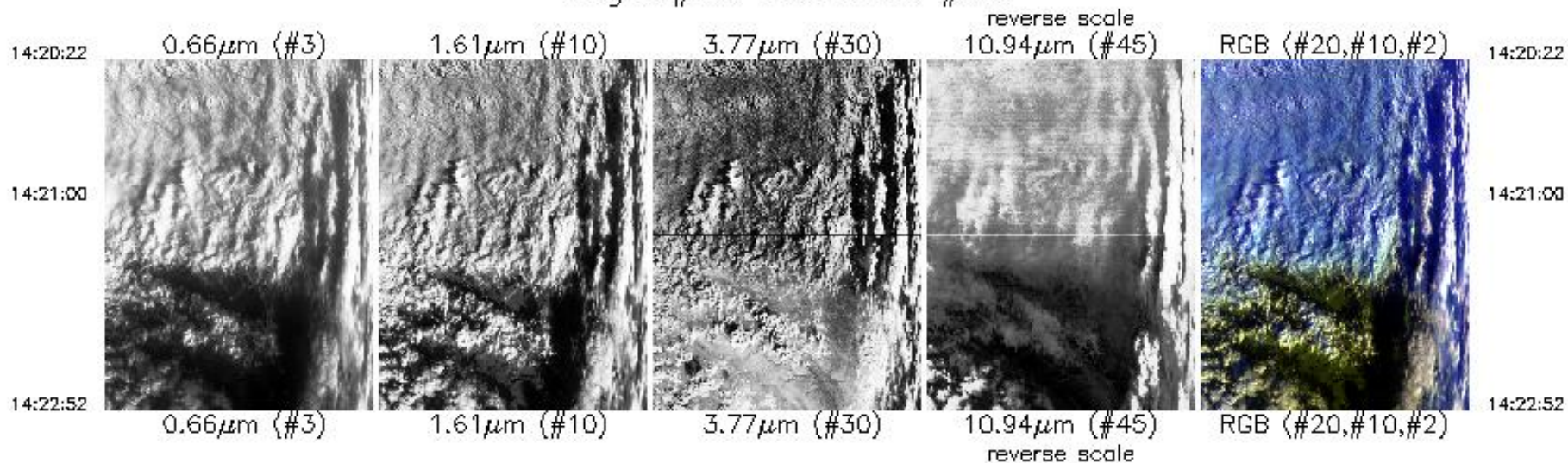
RGB (#20,#10,#2)

14:18:00

14:20:08

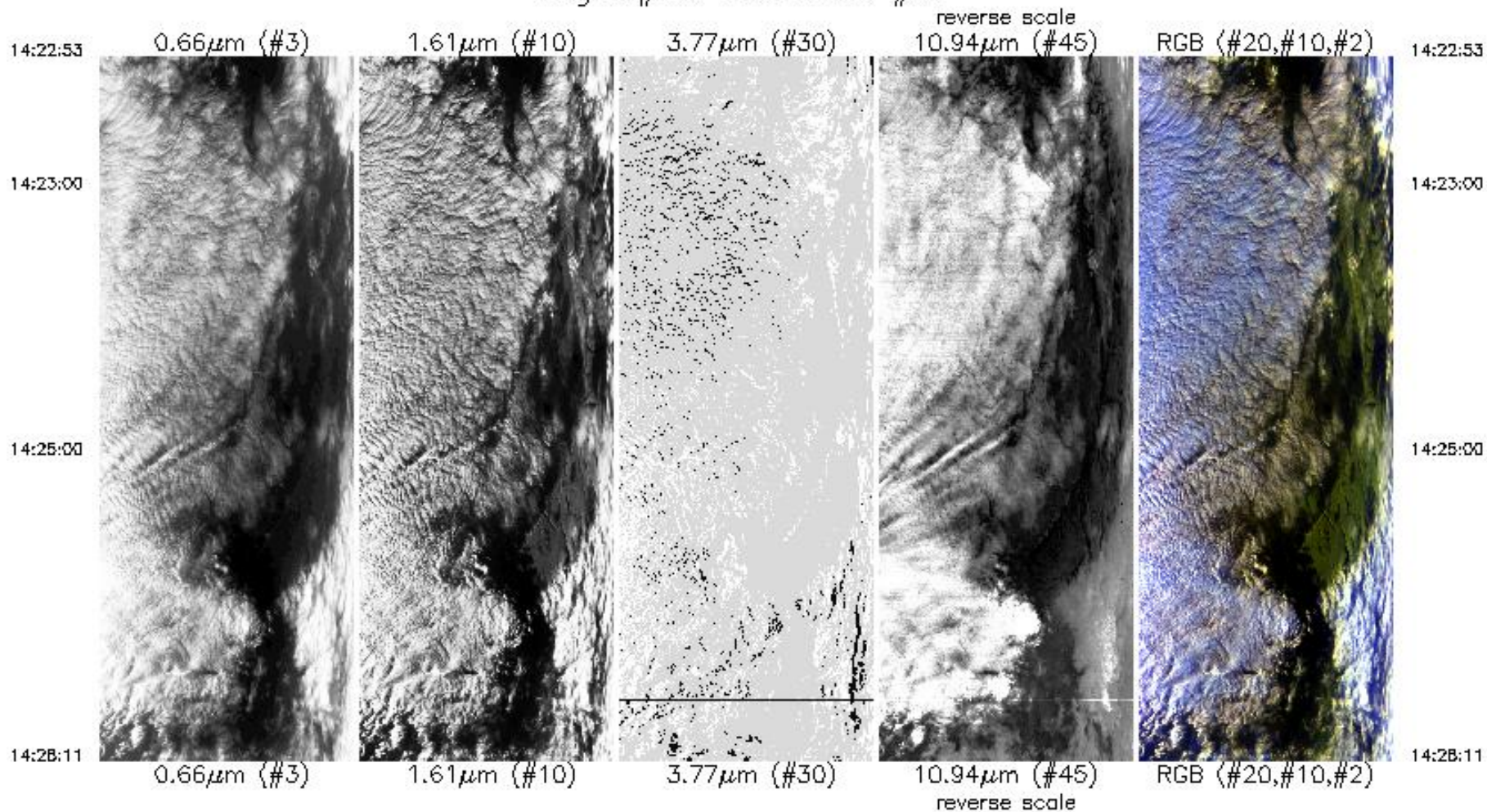
Aircraft Heading = 48.0°
Solar Zenith = 42.8°
GPS Altitude = 18573. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
South Africa
Flight #00-160 Track #23



Aircraft Heading = 25.5°
Solar Zenith = 43.9°
GPS Altitude = 18661. m (MSL)

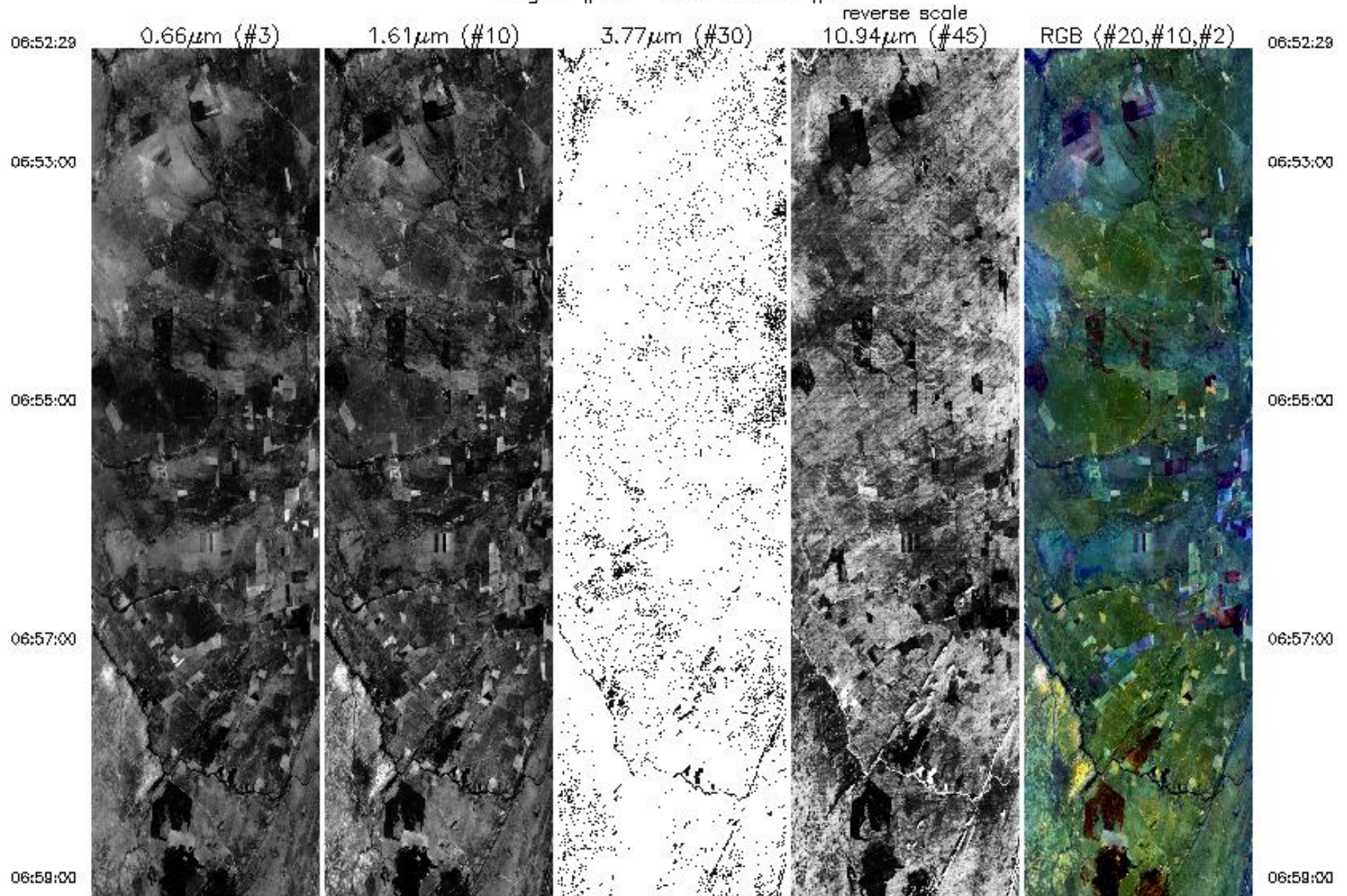
MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
South Africa
Flight #00-160 Track #24



Aircraft Heading = 313.5°
Solar Zenith = 44.1°
GPS Altitude = 18577. m (MSL)

Flight #00-160 Browse Imagery

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
S.A., Botswana
Flight #00-160 Track #1



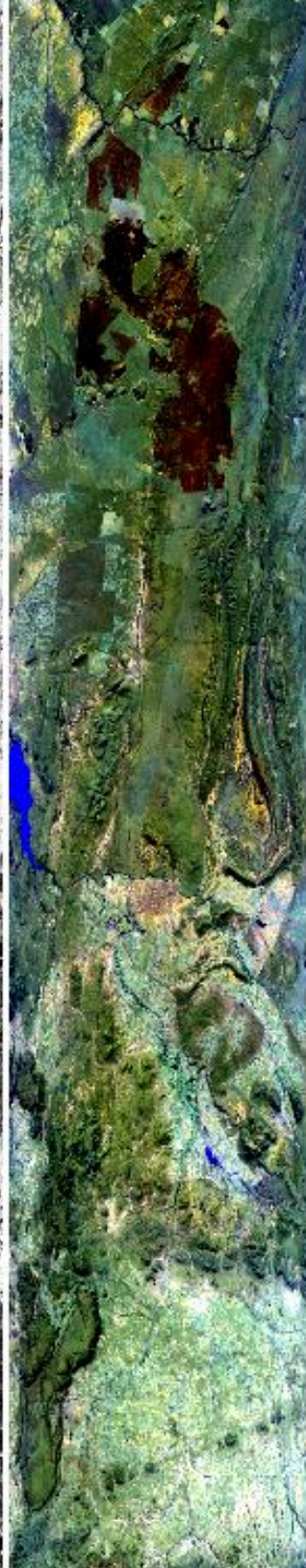
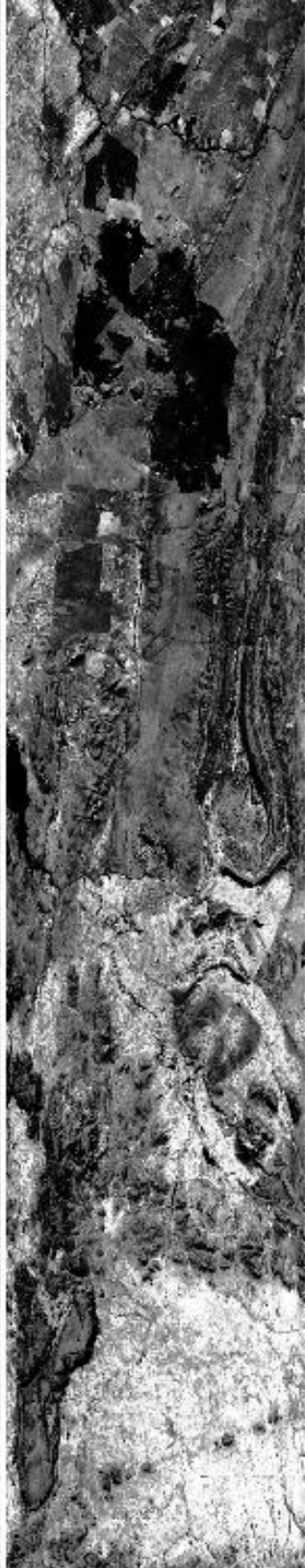
06:58:00

07:01:00

07:03:00

07:05:00

07:07:00



06:58:00

07:01:00

07:03:00

07:05:00

07:07:00

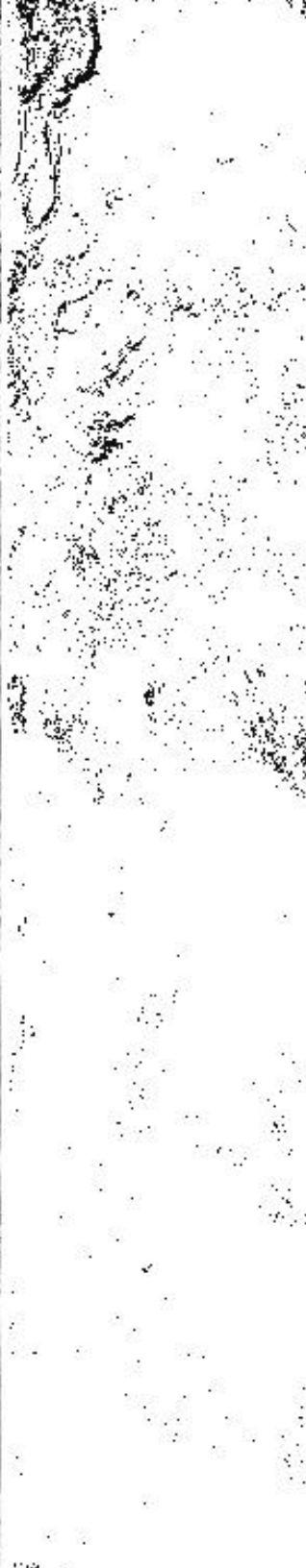
07:07:00

07:08:00

07:11:00

07:13:00

07:15:00



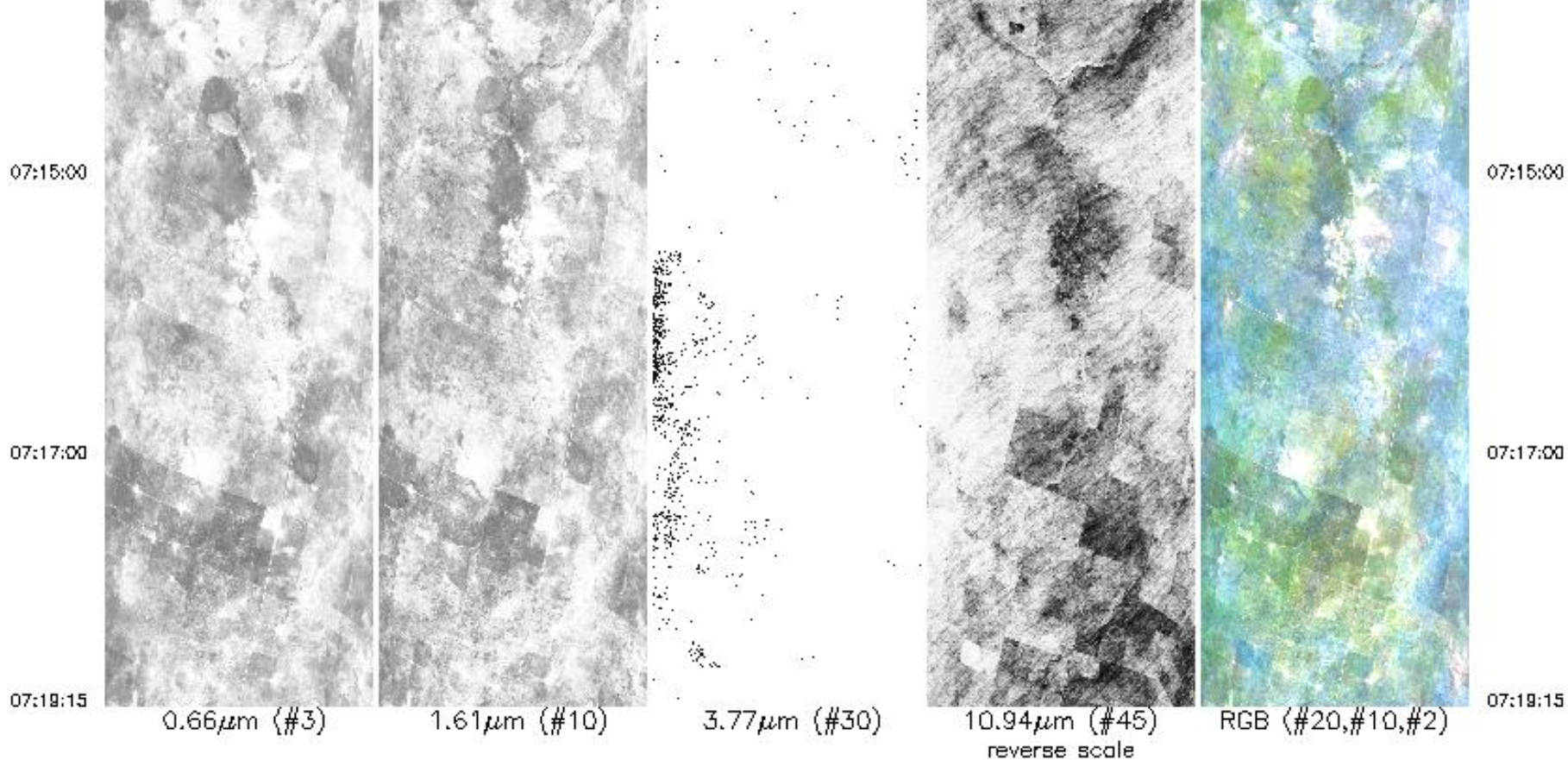
07:07:00

07:08:00

07:11:00

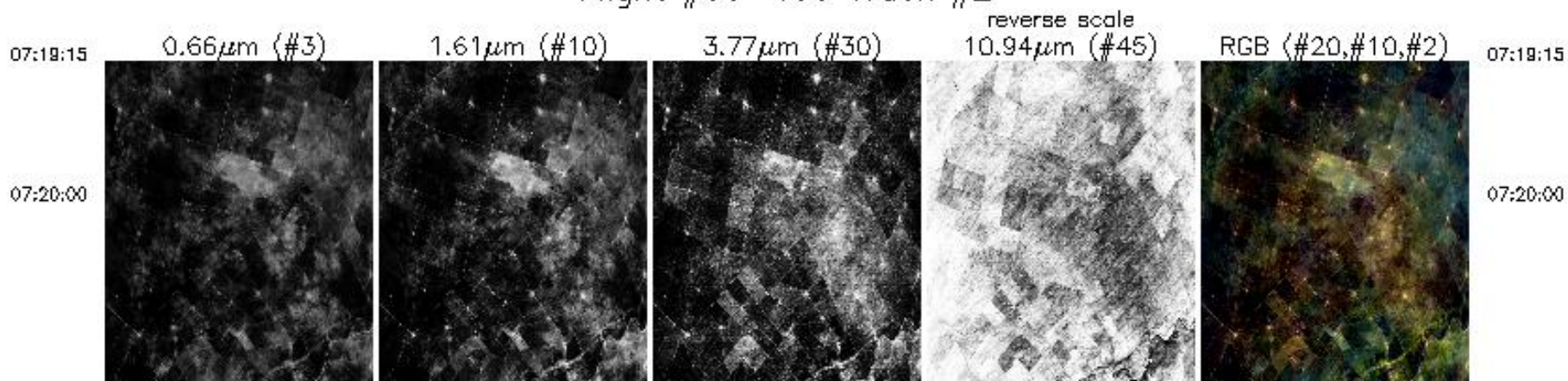
07:13:00

07:15:00

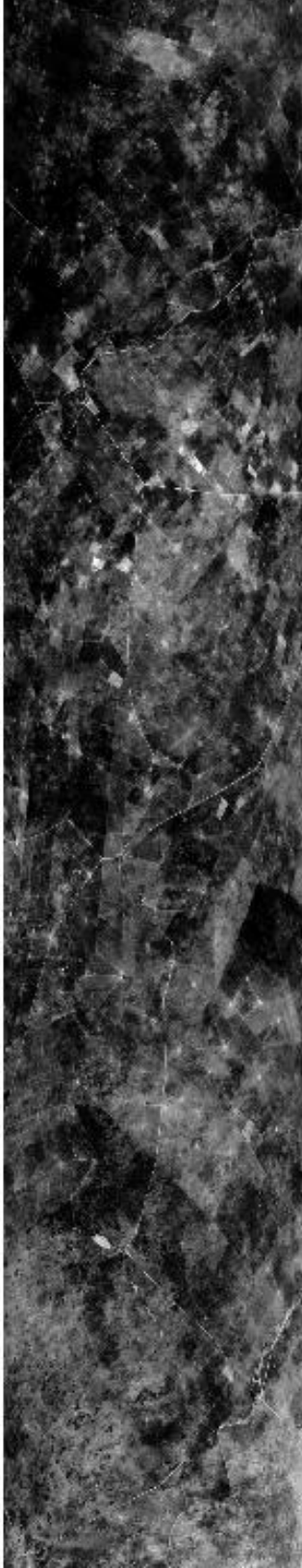


Aircraft Heading = 252.4°
 Solar Zenith = 79.9°
 GPS Altitude = 19233. m (MSL)

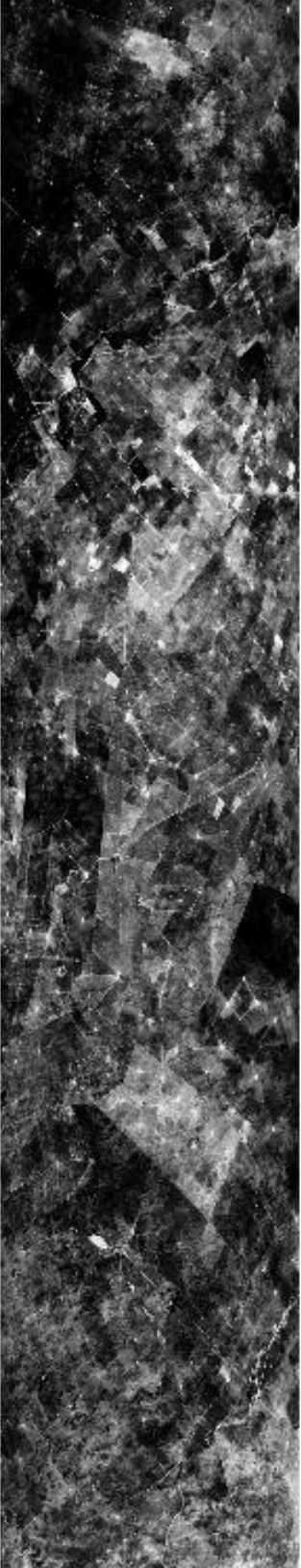
MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 11 Sep 2000
 S.A., Botswana
 Flight #00-160 Track #2



07:20:00



07:22:00



07:24:00



07:26:00



07:28:00



07:20:00

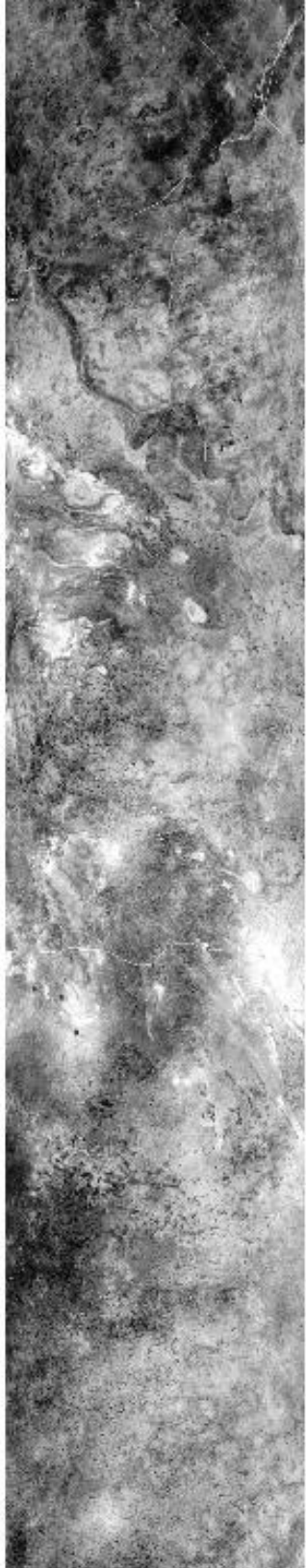
07:22:00

07:24:00

07:26:00

07:28:00

07:28:00



07:30:00



07:32:00



07:34:00



07:36:00



07:28:00

07:30:00

07:32:00

07:34:00

07:36:00

07:36:00

07:38:00

07:40:00

07:42:00

07:44:00

07:46:02



07:36:00

07:38:00

07:40:00

07:42:00

07:44:00

07:46:02

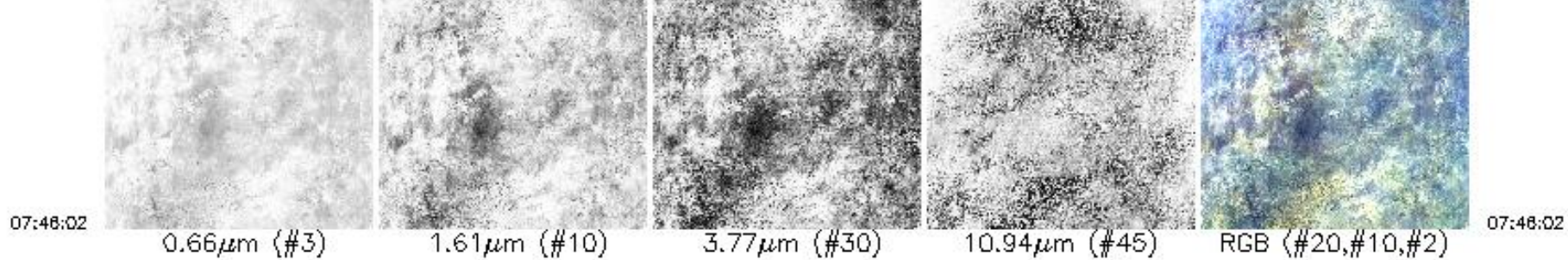
0.66 μm (#3)

1.61 μm (#10)

3.77 μm (#30)

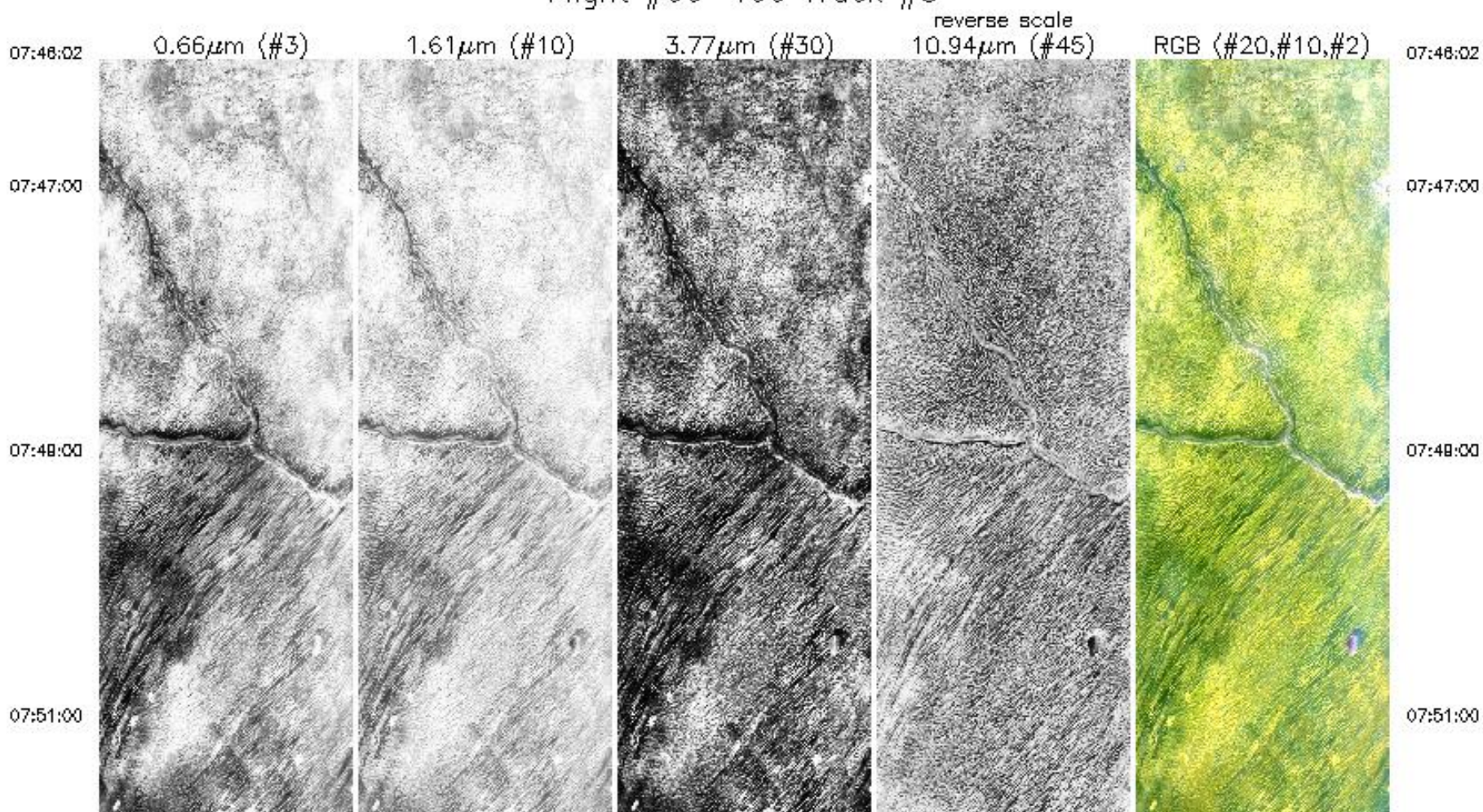
10.94 μm (#45)

RGB (#20,#10,#2)



Aircraft Heading = 253.6°
 Solar Zenith = 74.1°
 GPS Altitude = 19631. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 11 Sep 2000
 Namibia
 Flight #00–160 Track #3



07:51:00



07:53:00



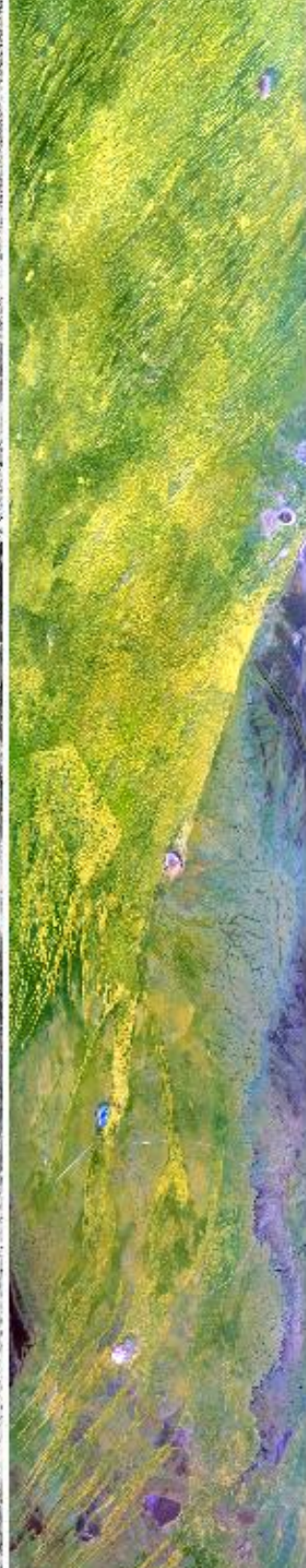
07:55:00



07:57:00



07:58:00



07:51:00

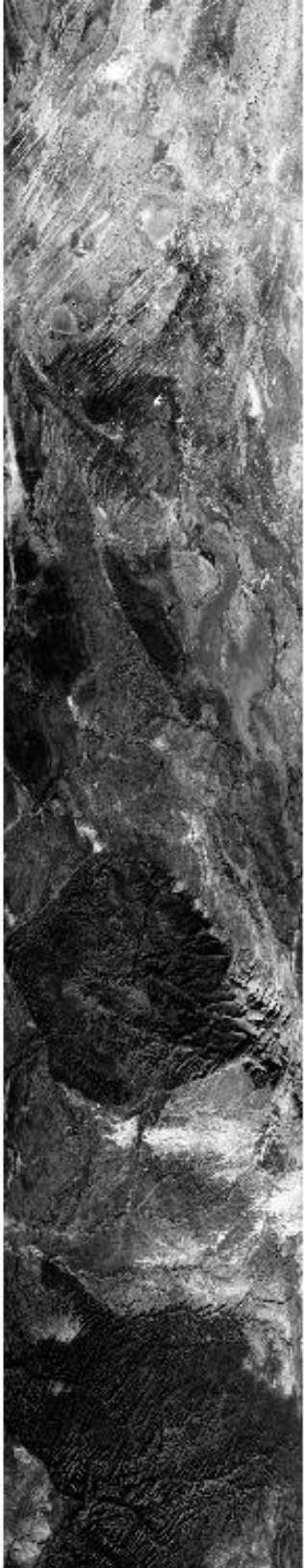
07:53:00

07:55:00

07:57:00

07:58:00

07:58:00



08:01:00



08:03:00



08:05:00



08:07:00



07:58:00

08:01:00

08:03:00

08:05:00

08:07:00

08:07:00

08:07:00

08:09:00

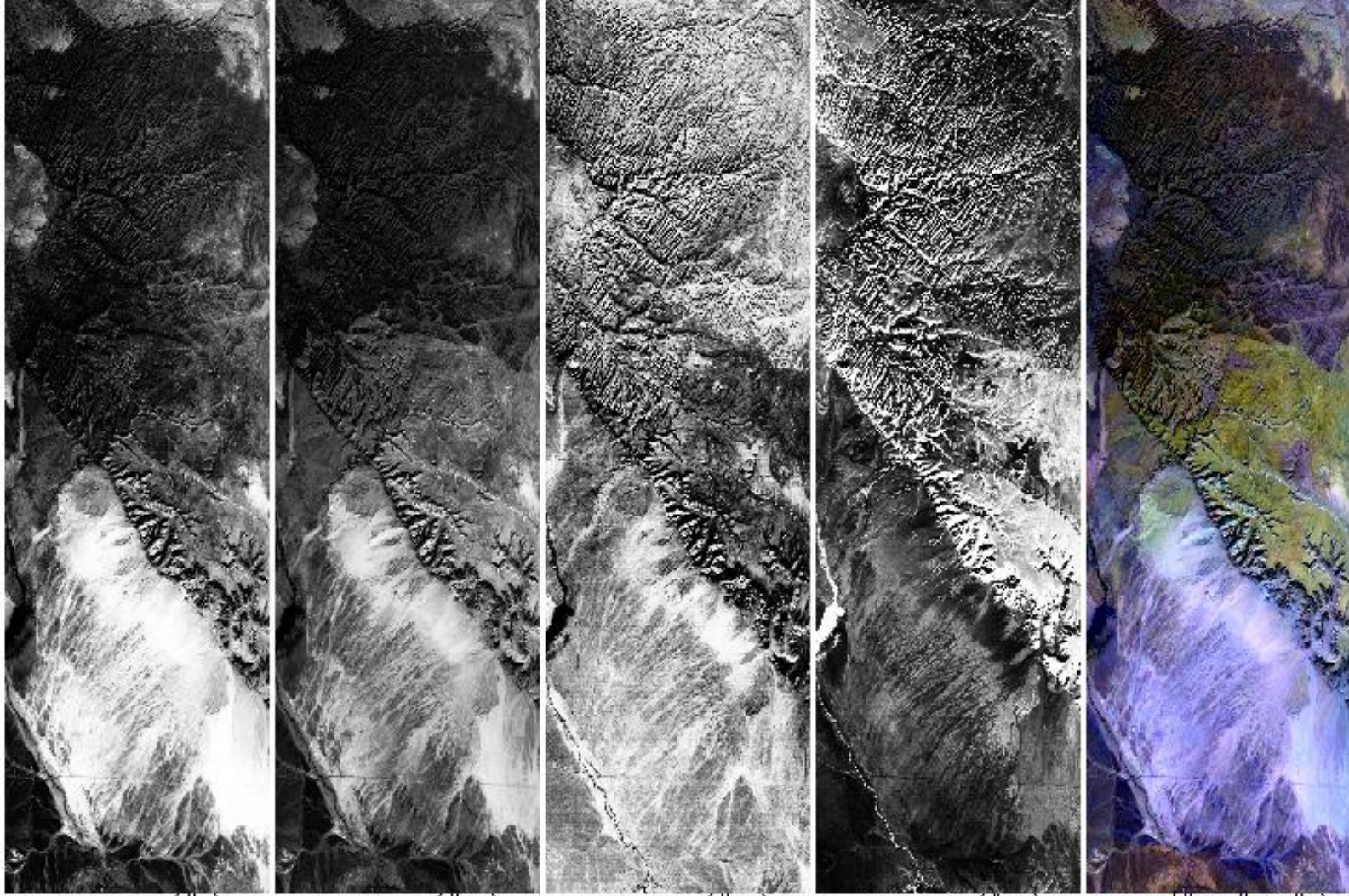
08:09:00

08:11:00

08:11:00

08:12:48

08:12:48



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)

Aircraft Heading = 252.7°

Solar Zenith = 68.5°

GPS Altitude = 19709. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign – 11 Sep 2000

Namibia

Flight #00-160 Track #4

08:12:48

08:12:48

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)



08:12:48

0.66 μ m (#3)

1.61 μ m (#10)

3.77 μ m (#30)

10.94 μ m (#45)

RGB (#20,#10,#2)

08:12:48

08:13:00

08:13:00

08:15:00

08:15:00

08:17:00

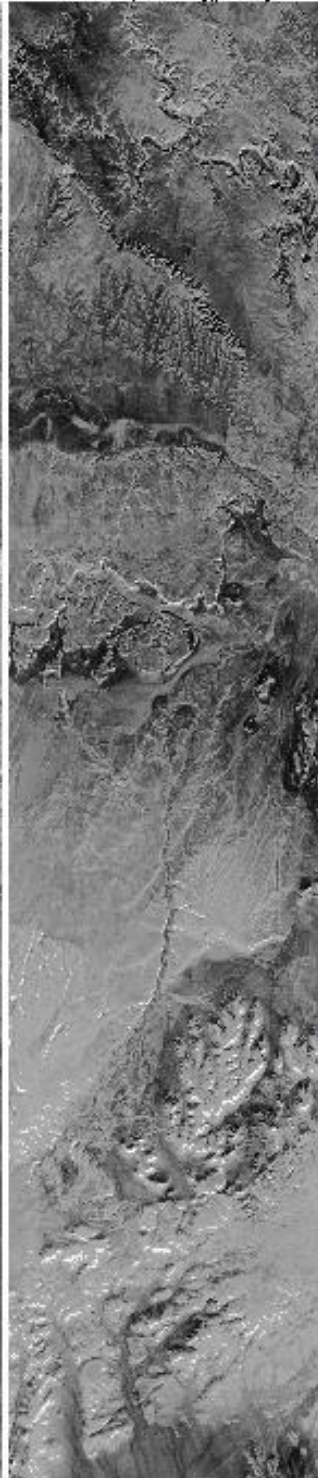
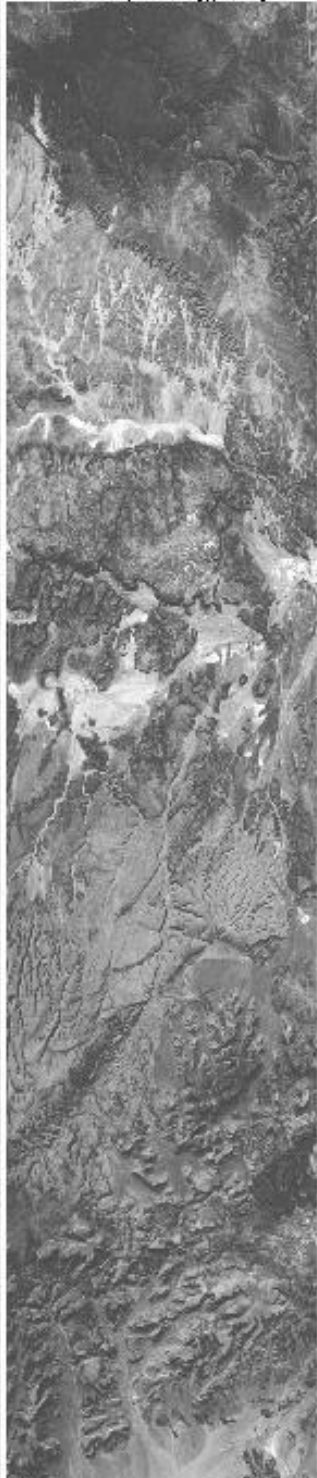
08:17:00

08:19:00

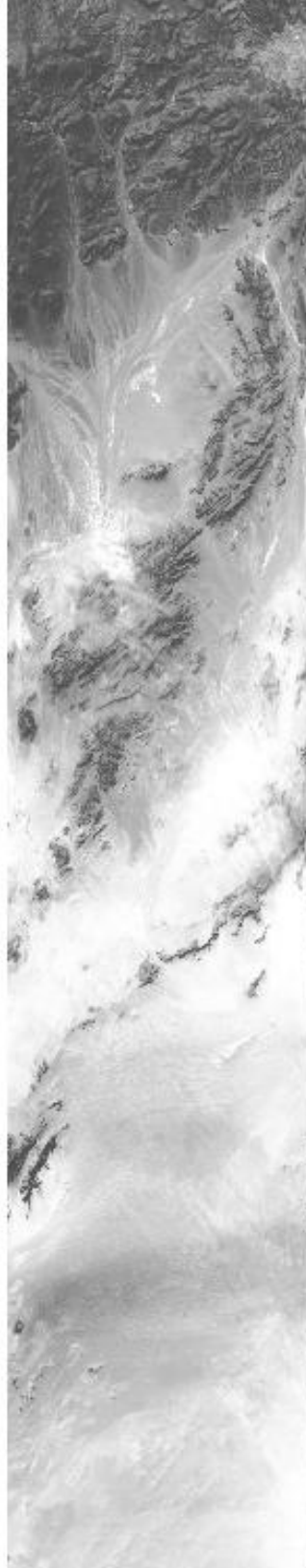
08:19:00

08:21:00

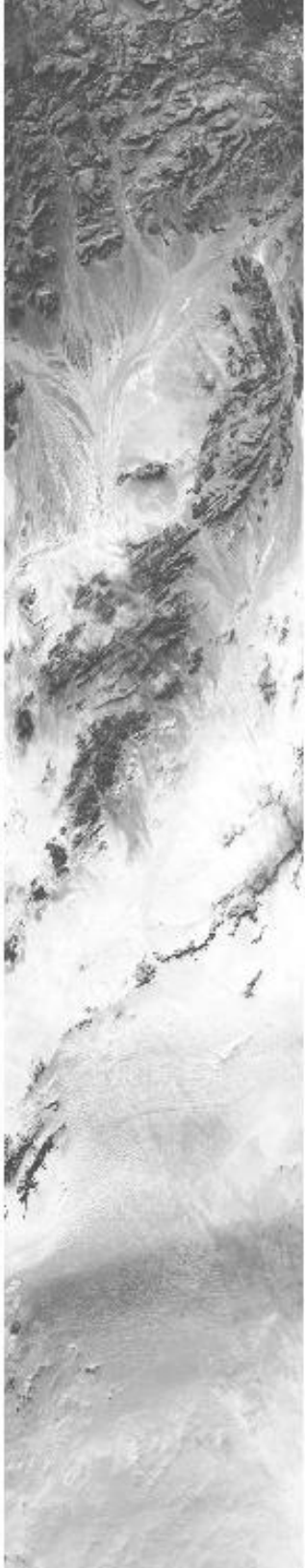
08:21:00



08:21:00



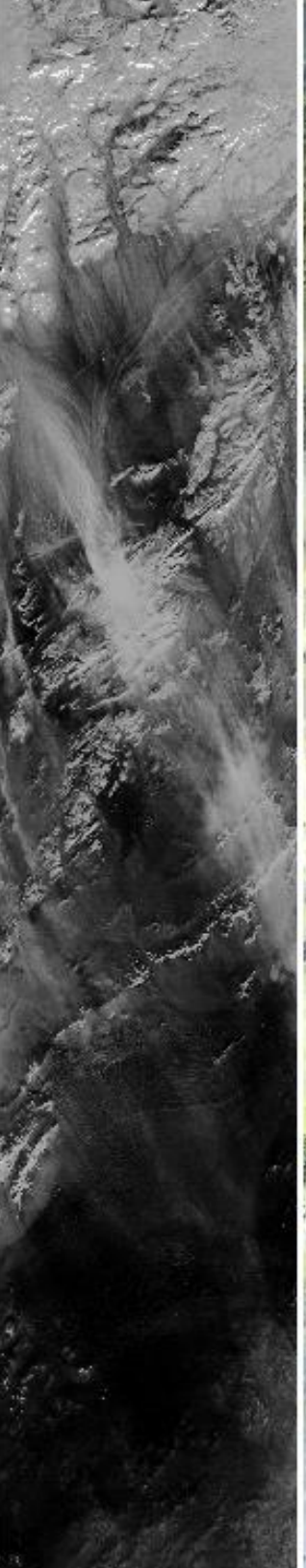
08:23:00



08:25:00



08:27:00



08:29:00



08:21:00

08:23:00

08:25:00

08:27:00

08:29:00

08:29:00



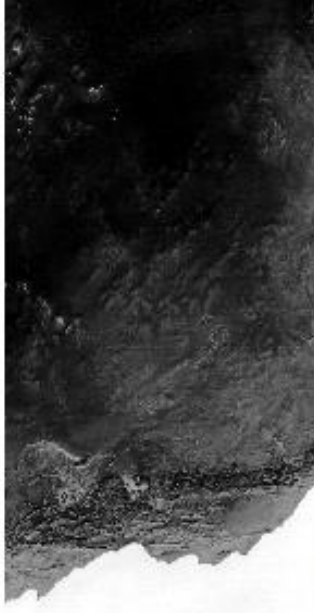
08:31:00



08:33:00



08:35:00



08:37:00



08:29:00



08:31:00



08:33:00



08:35:00



08:37:00



08:37:00

08:37:00

08:39:00

08:39:00

08:40:32

08:40:32



0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

Aircraft Heading = 255.5°

Solar Zenith = 63.1°

GPS Altitude = 19768. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign - 11 Sep 2000

Namibia Coast

Flight #00-160 Track #5

08:41:17

08:41:17

08:42:00

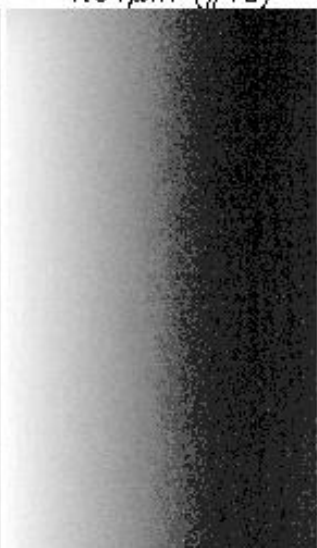
08:42:00

08:44:00

08:44:00



0.66µm (#3)



1.61µm (#10)



3.77µm (#30)



reverse scale
10.94µm (#45)



RGB (#20,#10,#2)

06:44:00

08:46:00

06:48:00

08:50:00

08:52:00

06:44:00

08:46:00

06:48:00

08:50:00

08:52:00

08:52:00

08:54:00

08:56:00

08:58:00

09:00:00

08:52:00

08:54:00

08:56:00

08:58:00

09:00:00

09:00:00

09:00:00

09:02:00

09:02:00

09:04:00

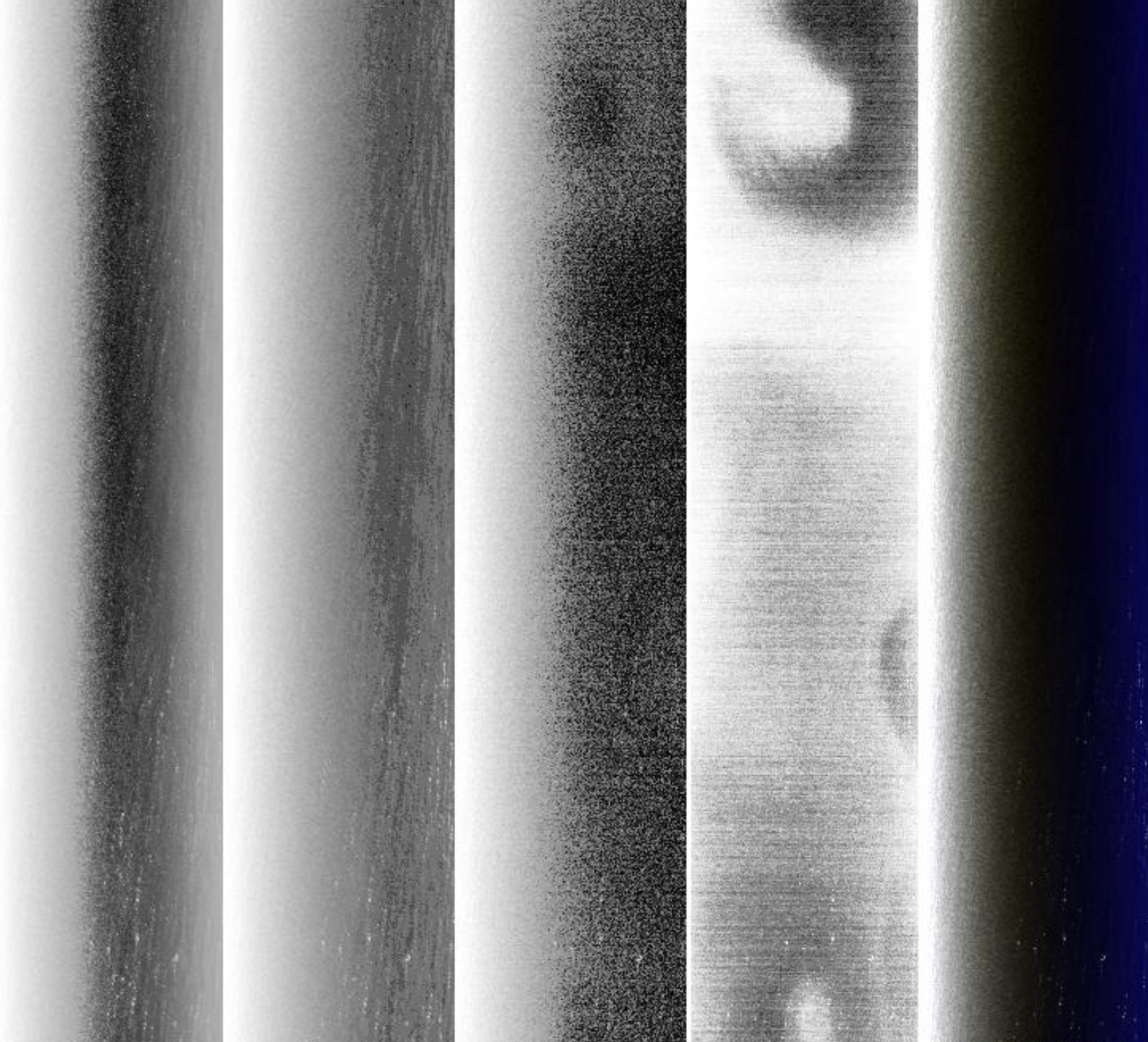
09:04:00

09:06:00

09:06:00

09:08:04

09:08:04



0.66 μm (#3)

1.61 μm (#10)

3.77 μm (#30)

10.94 μm (#45)
reverse scale

RGB (#20, #10, #2)

Aircraft Heading = 298.5°

Solar Zenith = 57.6°

GPS Altitude = 19690. m (MSL)

09:08:04

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)

09:08:04

Aircraft Heading = 298.5°

Solar Zenith = 57.6°

GPS Altitude = 19690. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #6

09:08:04

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)

09:08:04

09:09:00

09:11:08

0.66 μ m (#3)

1.61 μ m (#10)

3.77 μ m (#30)

10.94 μ m (#45)
reverse scale

RGB (#20,#10,#2)

09:11:08

Aircraft Heading = 309.6°

Solar Zenith = 51.5°

GPS Altitude = 19725. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #7

09:12:08

0.66 μ m (#3)

1.61 μ m (#10)

3.77 μ m (#30)

reverse scale
10.94 μ m (#45)

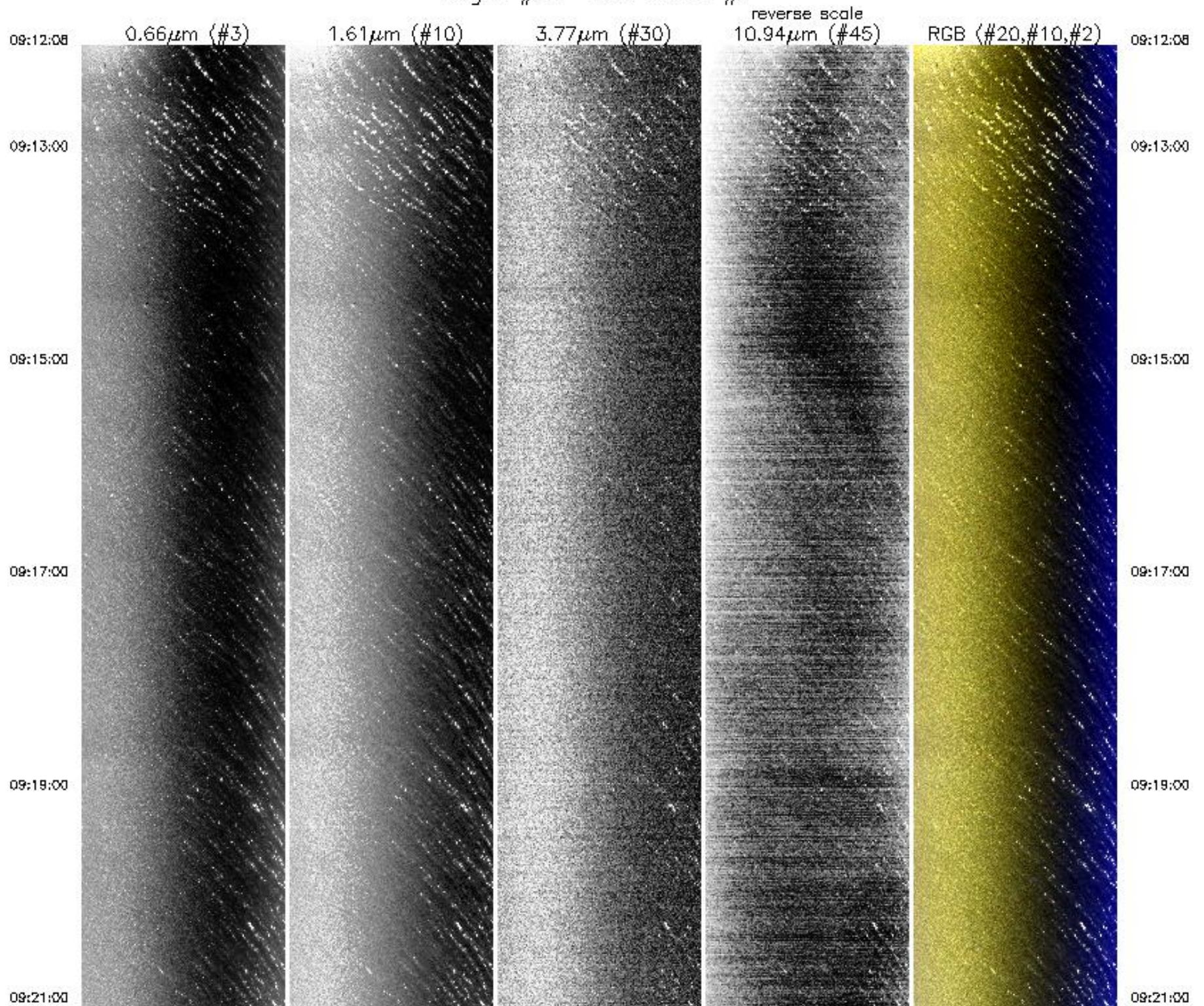
RGB (#20,#10,#2)

09:12:08

09:13:00

09:13:00

Namibia Coast
Flight #00-160 Track #7



09:21:00

09:23:00

09:25:00

09:27:00

09:29:00

09:21:00

09:23:00

09:25:00

09:27:00

09:29:00

09:29:00

09:31:00

09:33:00

09:35:00

09:37:00

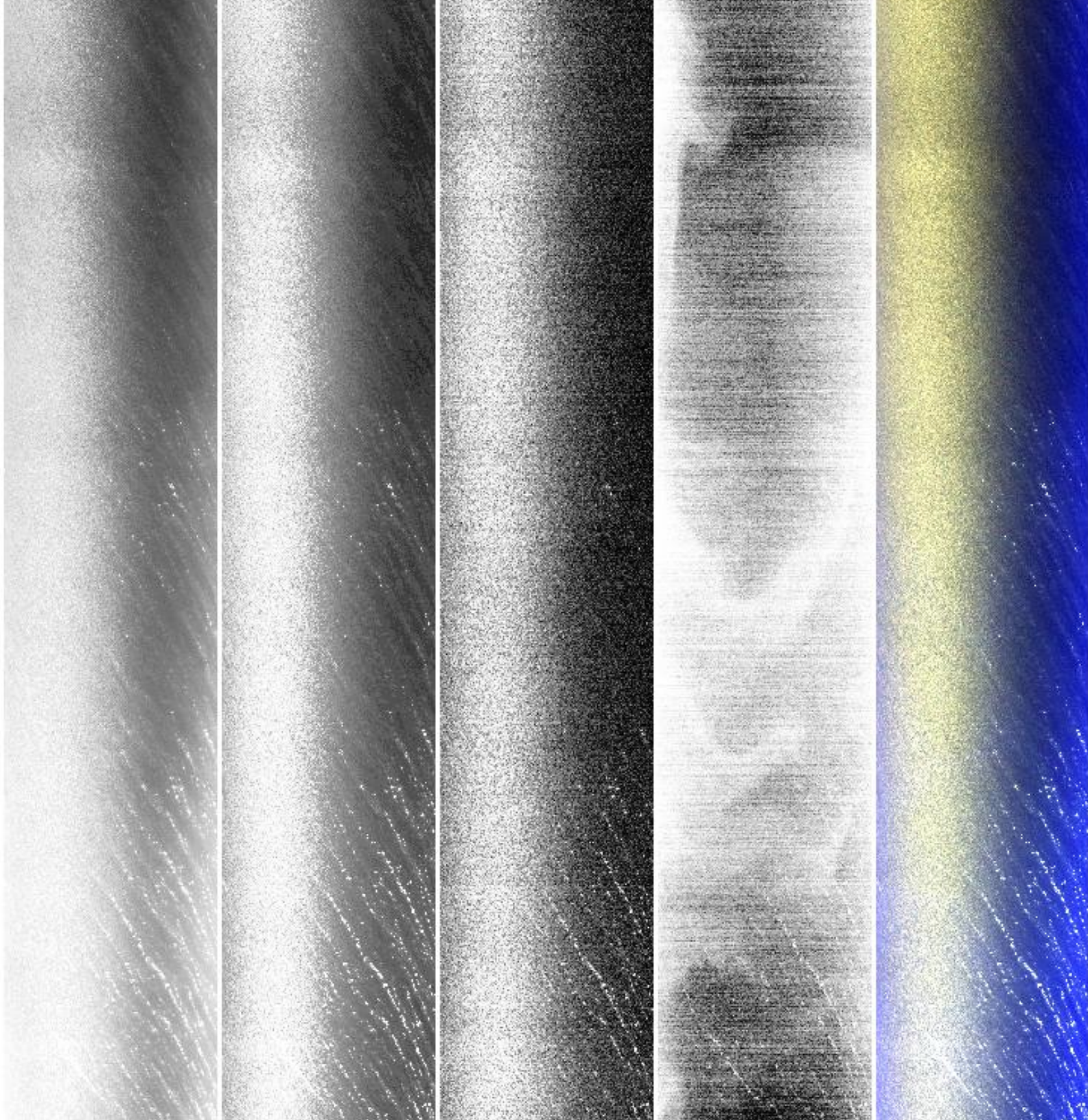
09:29:00

09:31:00

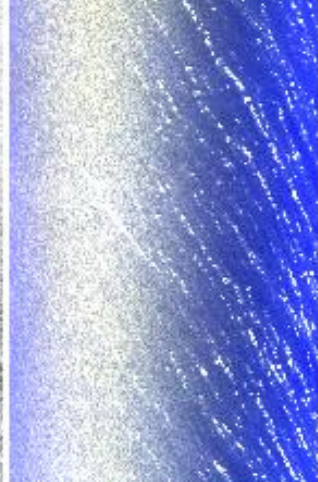
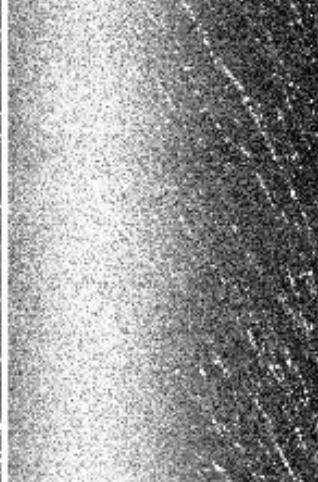
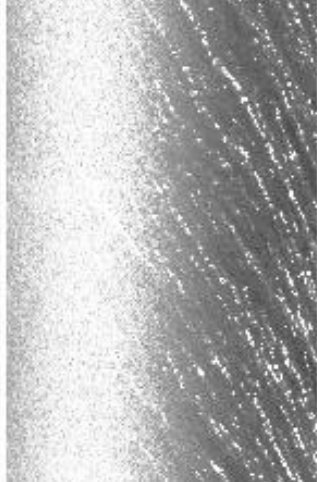
09:33:00

09:35:00

09:37:00



09:37:00



09:37:00

09:38:55

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)
reverse scale

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

09:38:55

Aircraft Heading = 5.3°

Solar Zenith = 50.6°

GPS Altitude = 19833. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign - 11 Sep 2000

Namibia Coast

Flight #00-160 Track #8

09:38:55

0.66µm (#3)

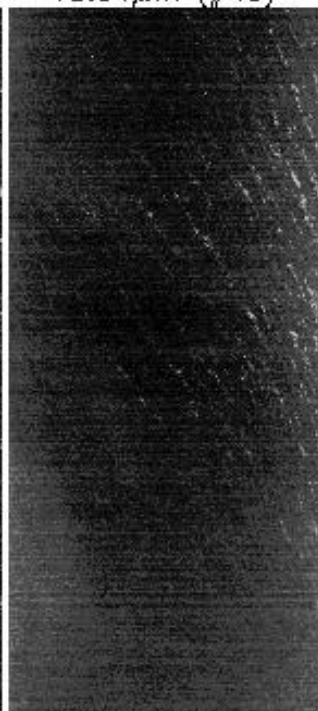
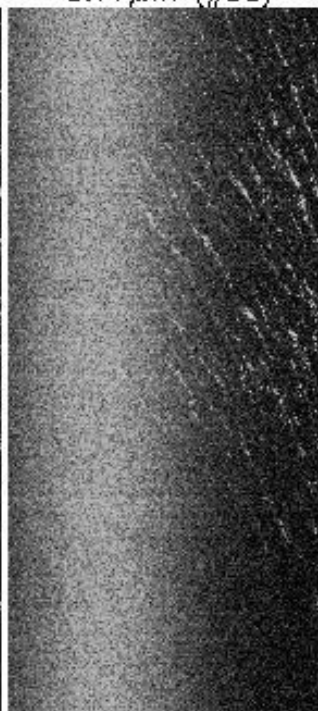
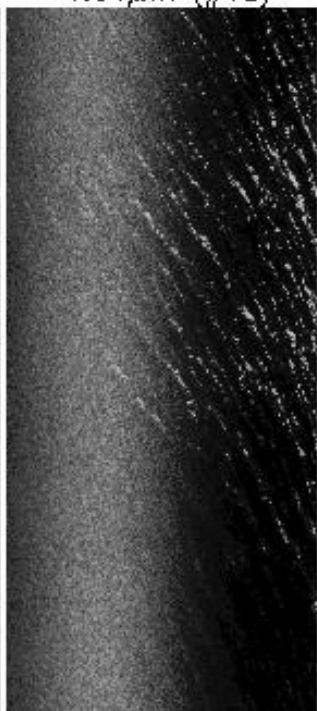
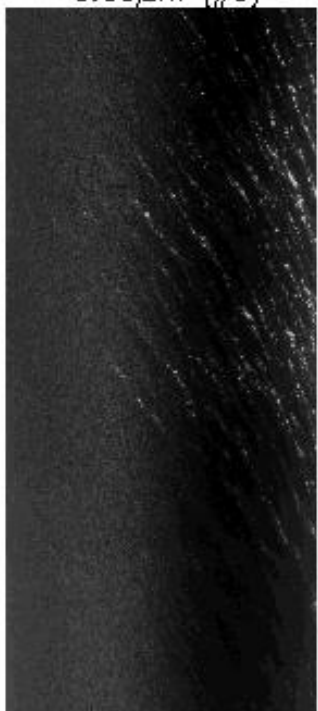
1.61µm (#10)

3.77µm (#30)

reverse scale
10.94µm (#45)

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

09:38:55



09:39:00

09:39:00

09:41:00

09:41:00

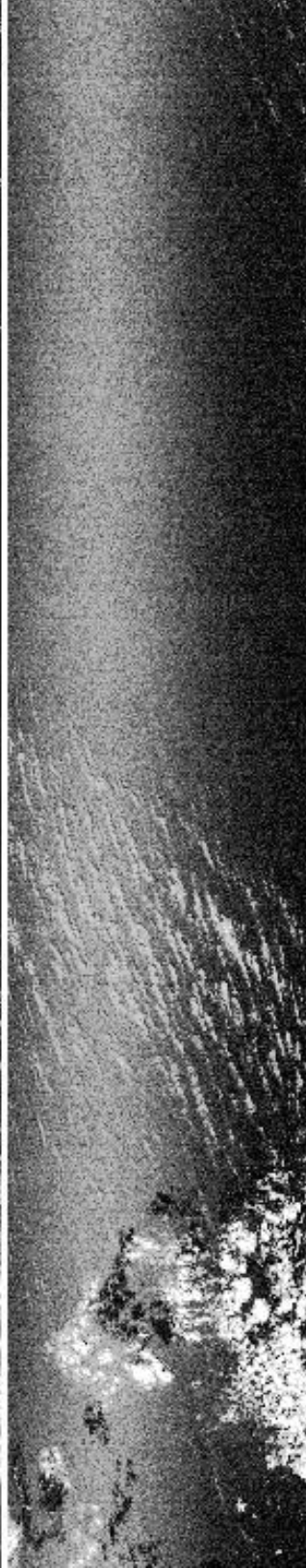
09:41:00



09:43:00



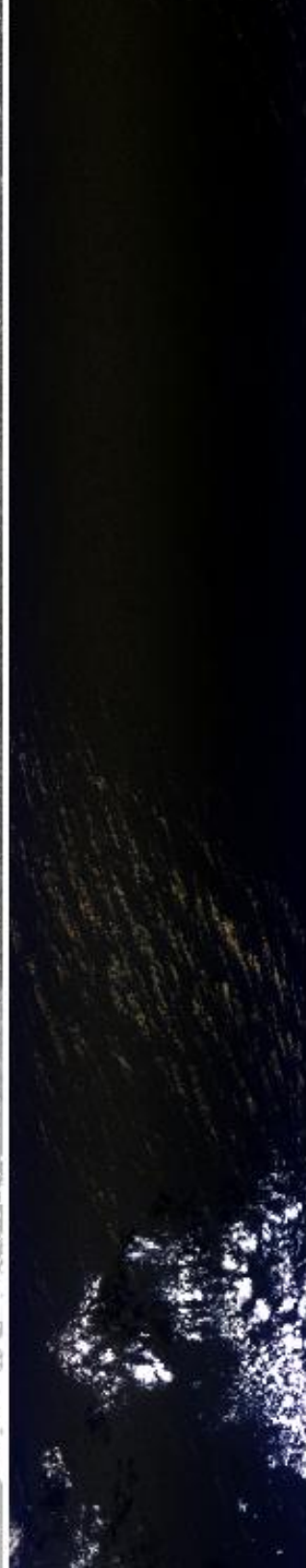
09:45:00



09:47:00



09:48:00



09:41:00

09:43:00

09:45:00

09:47:00

09:48:00

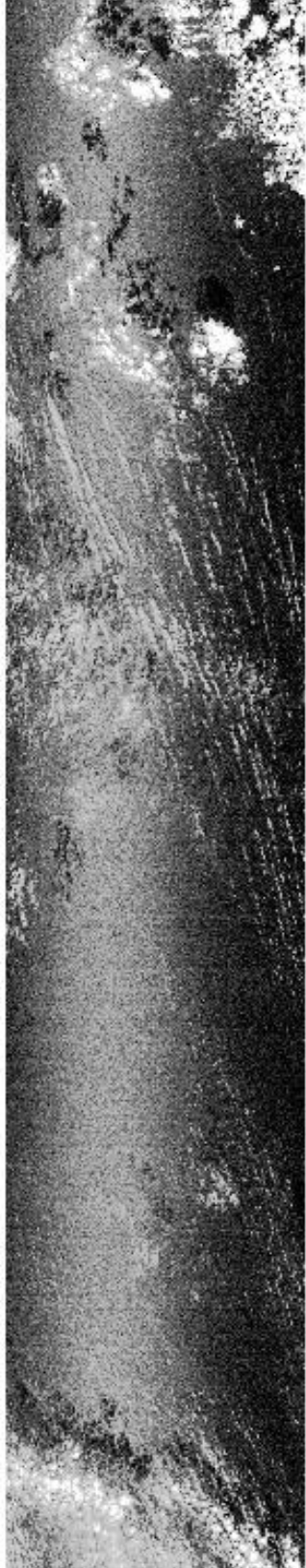
09:48:00



09:51:00



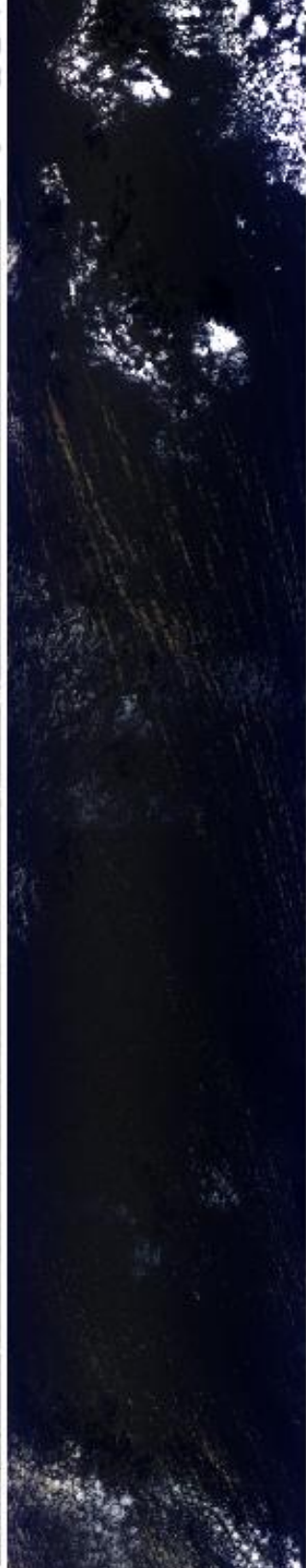
09:53:00



09:55:00



09:57:00



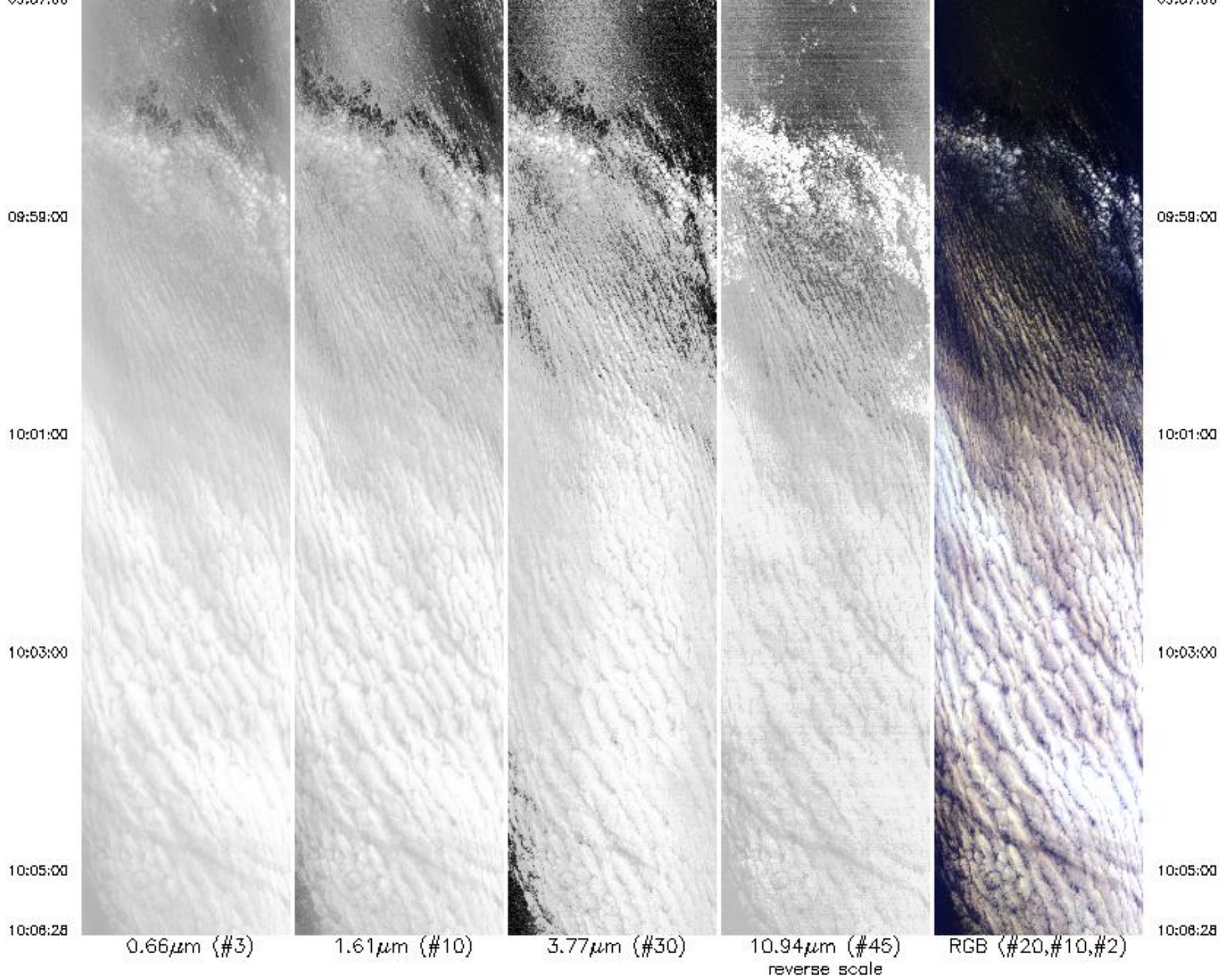
09:48:00

09:51:00

09:53:00

09:55:00

09:57:00



Aircraft Heading = 14.2°
Solar Zenith = 43.9°
GPS Altitude = 19808. m (MSL)

10:08:28

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)

10:08:28

Aircraft Heading = 14.2°

Solar Zenith = 43.9°

GPS Altitude = 19808. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #9

10:07:07

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)

10:07:07

10:08:00

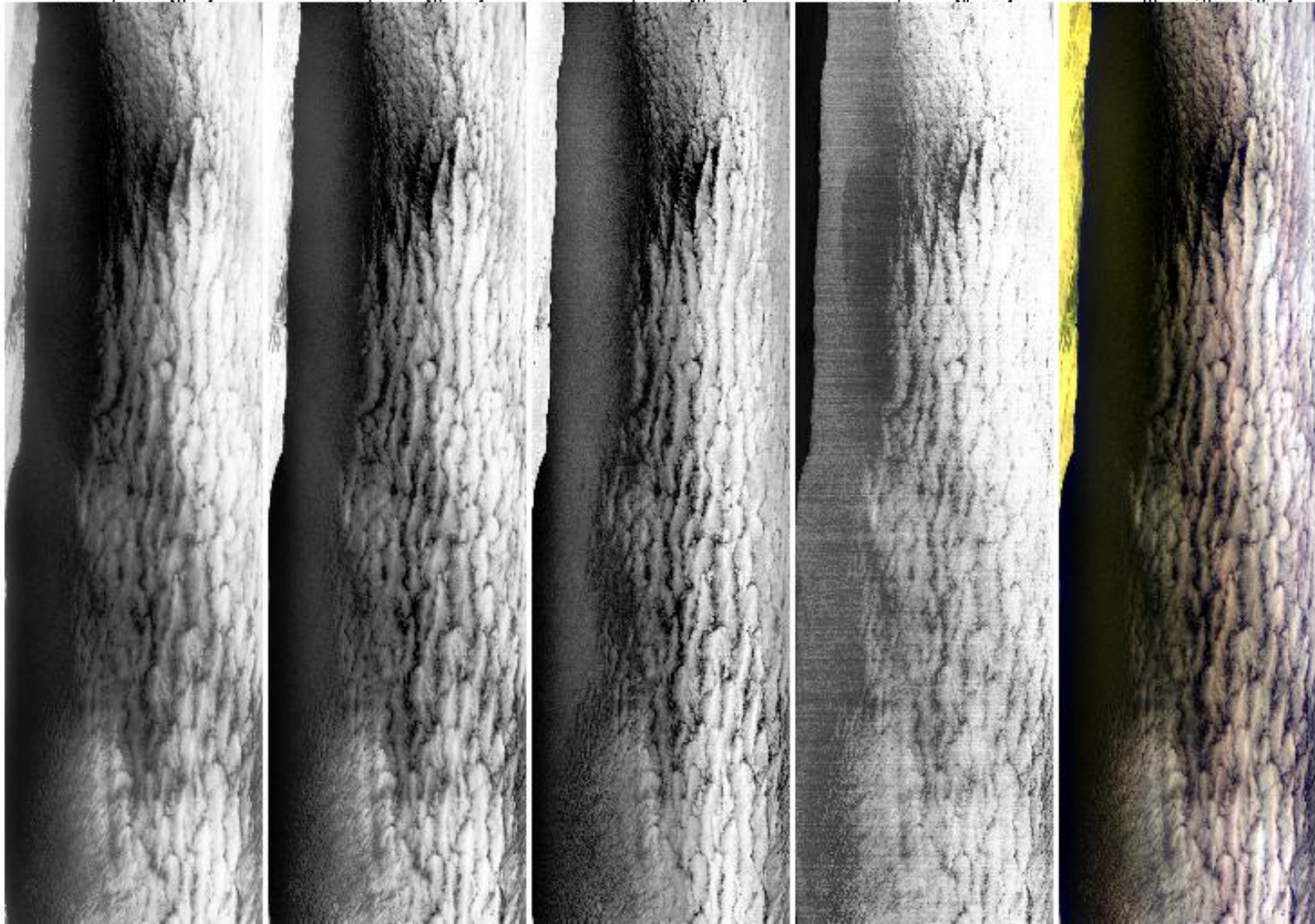
10:08:00

10:10:00

10:10:00

10:12:00

10:12:00



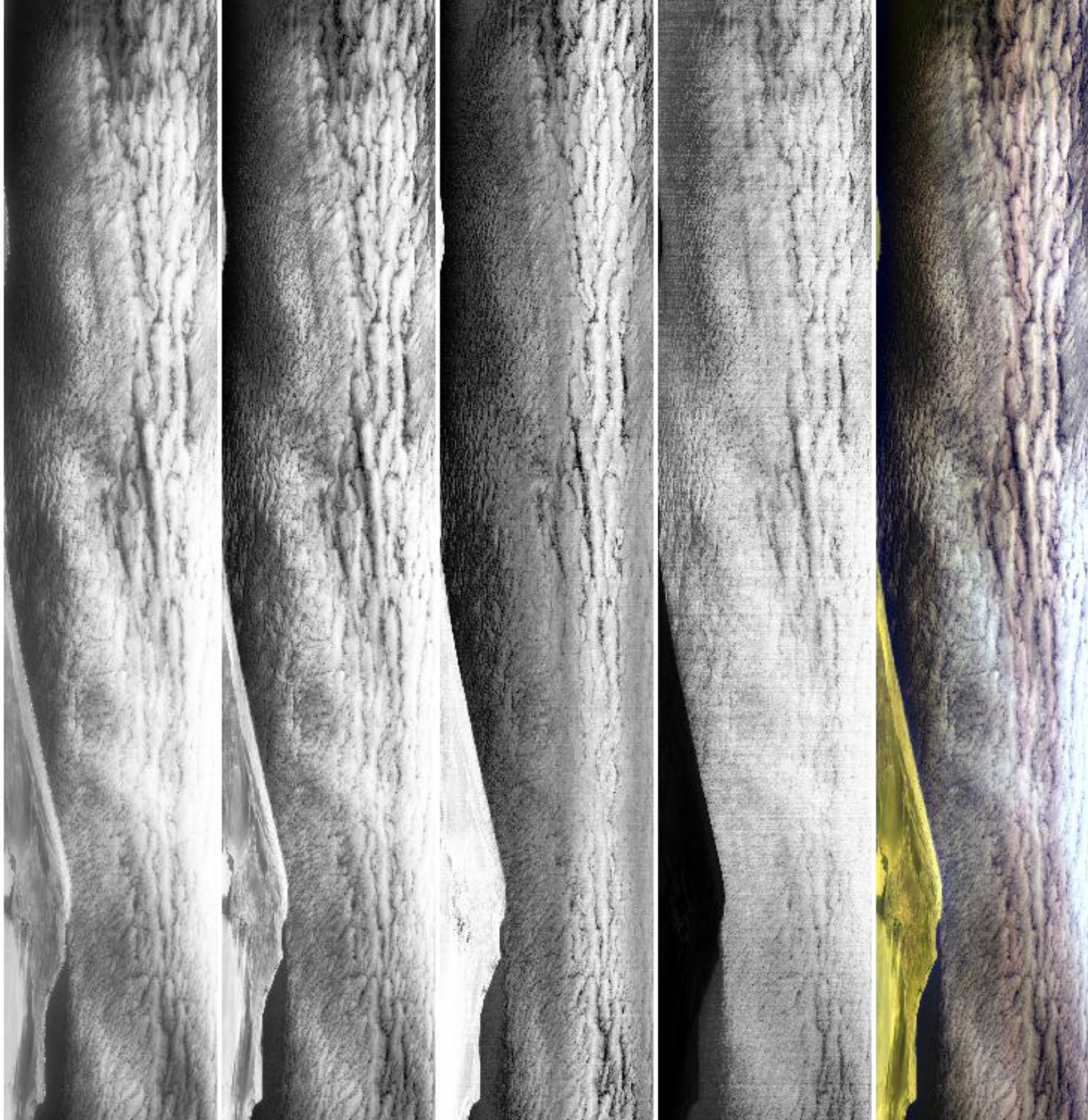
10:14:00

10:16:00

10:18:00

10:20:00

10:22:00



10:14:00

10:16:00

10:18:00

10:20:00

10:22:00

10:22:00

10:24:00

10:26:00

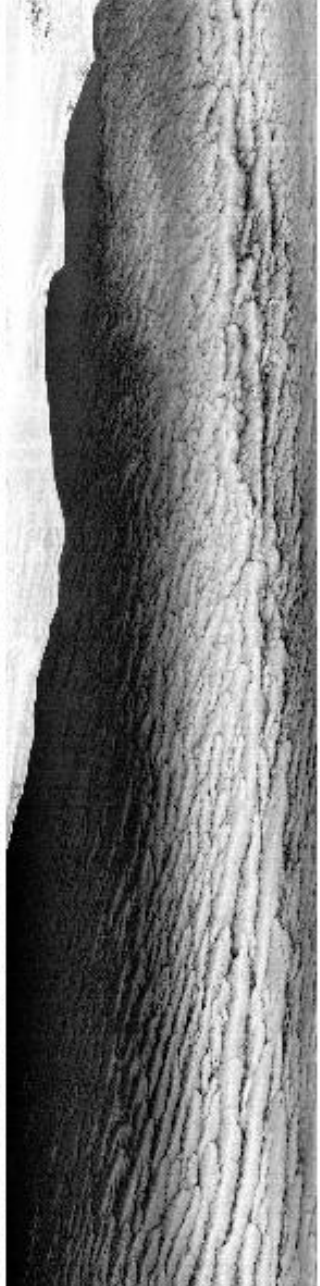
10:28:18



0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20,#10,#2)

10:22:00

10:24:00

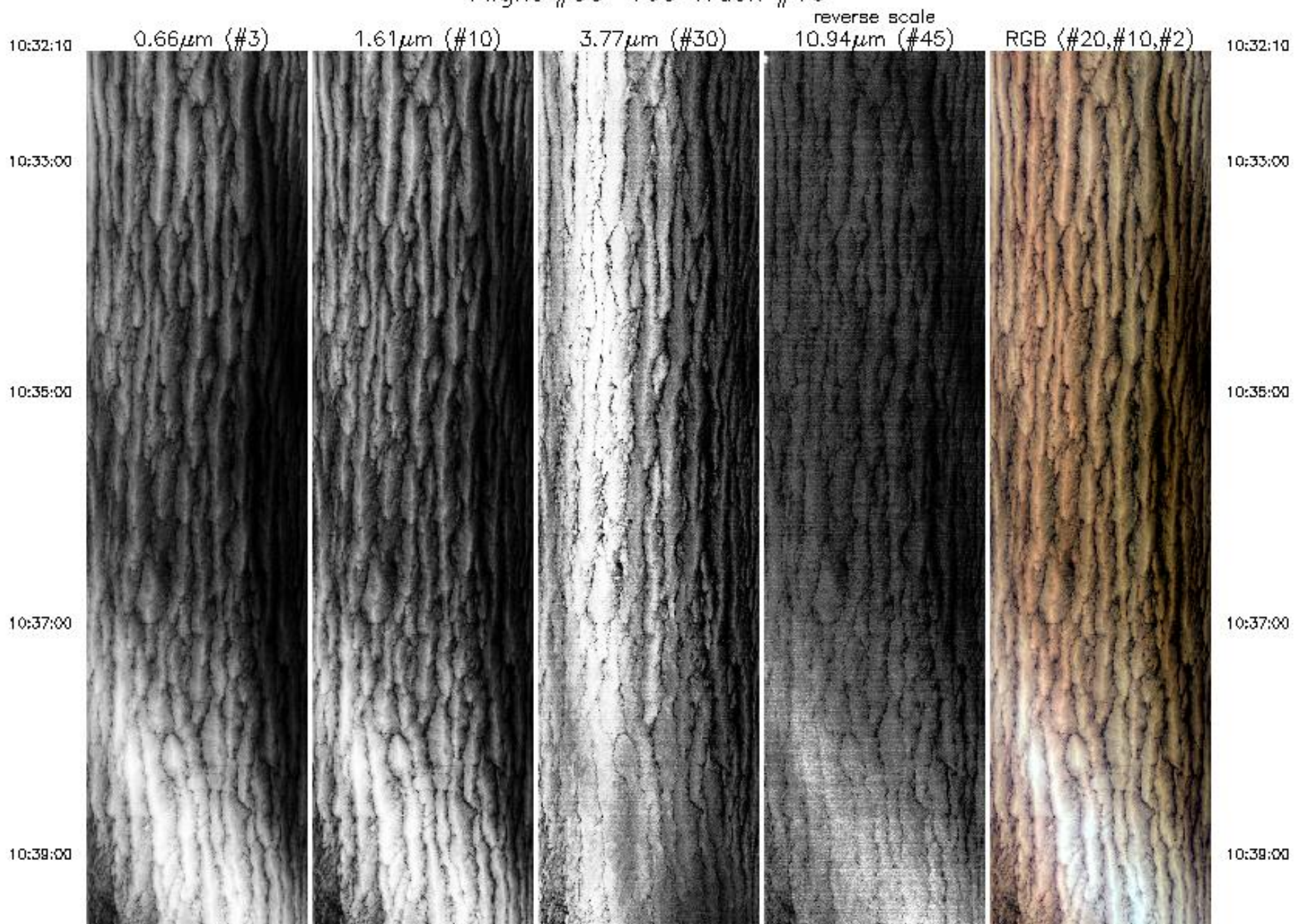
10:26:00

10:28:18

Aircraft Heading = 339.2°
Solar Zenith = 36.7°
GPS Altitude = 19815. m (MSL)

Aircraft Heading = 339.2°
Solar Zenith = 36.7°
GPS Altitude = 19815. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #10



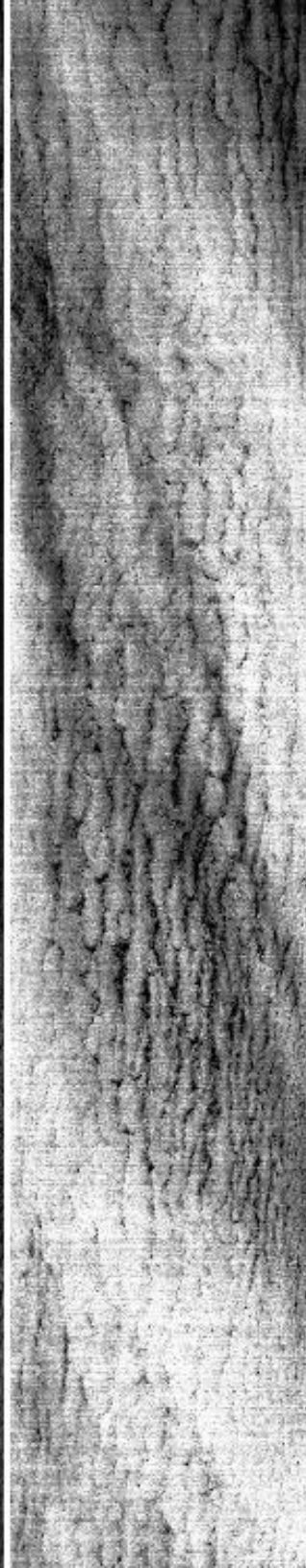
10:38:00

10:41:00

10:43:00

10:45:00

10:47:00



10:38:00

10:41:00

10:43:00

10:45:00

10:47:00

10:47:00

10:48:00

10:51:00

10:53:00

10:54:04



10:47:00

10:48:00

10:51:00

10:53:00

10:54:04

0.66 μm (#3)

1.61 μm (#10)

3.77 μm (#30)

10.94 μm (#45)
reverse scale

RGB (#20,#10,#2)

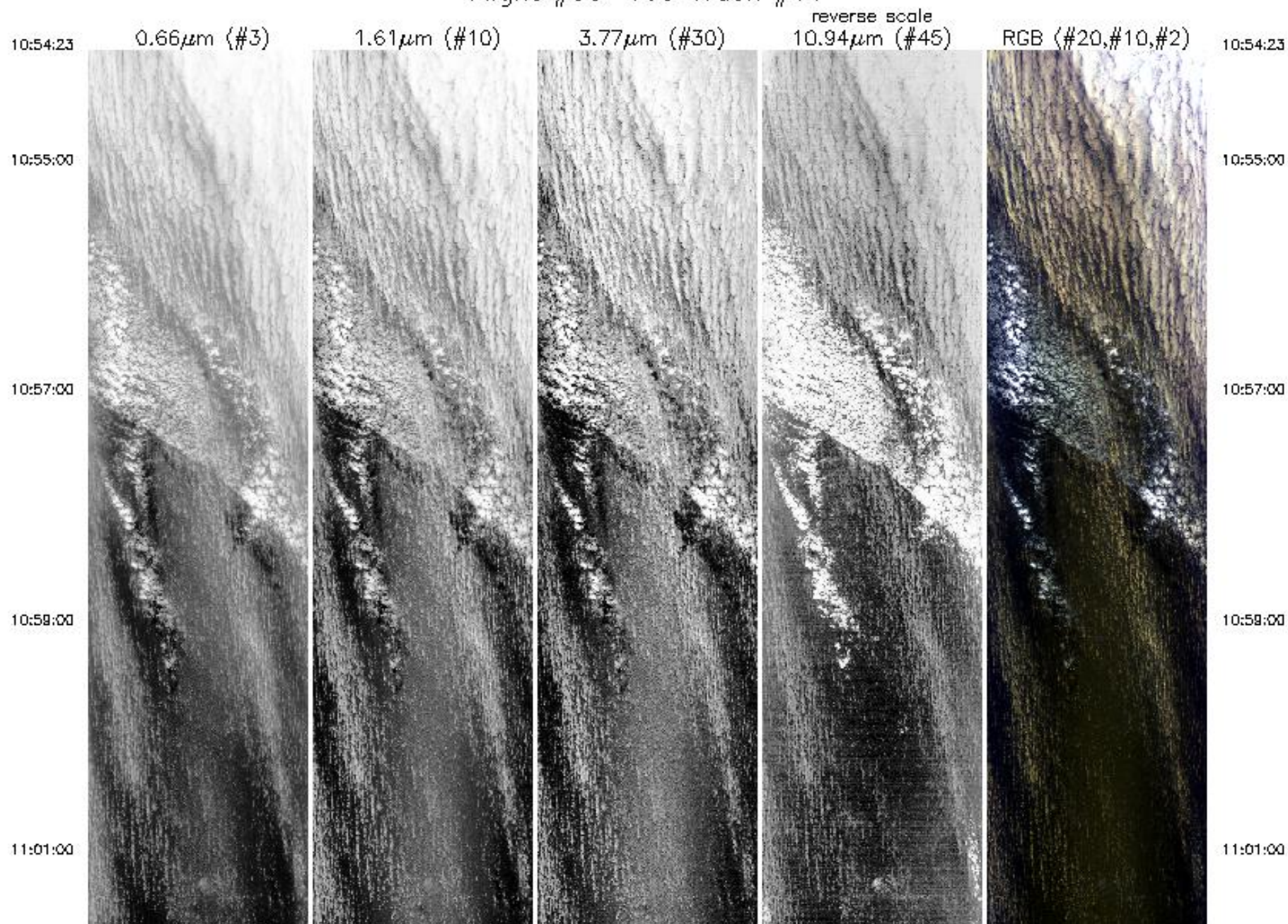
Aircraft Heading = 149.7°

Solar Zenith = 31.1°

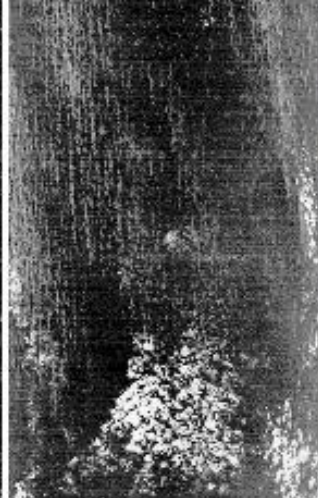
GPS Altitude = 19789. m (MSL)

Aircraft Heading = 149.7°
Solar Zenith = 31.1°
GPS Altitude = 19789. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia Coast
Flight #00-160 Track #11



11:01:00



11:01:00

11:03:15

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

11:03:15

Aircraft Heading = 164.8°

Solar Zenith = 29.2°

GPS Altitude = 19864. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign - 11 Sep 2000

Namibia Coast

Flight #00-160 Track #12

11:03:45

0.66µm (#3)

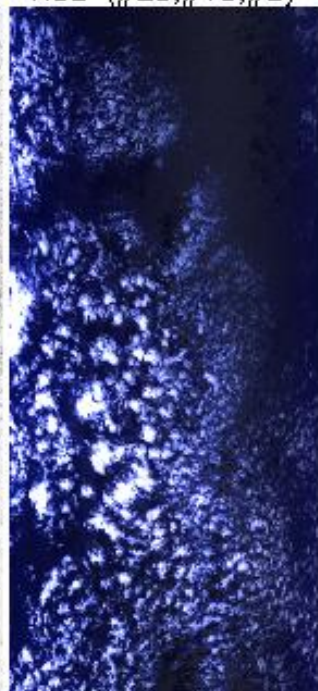
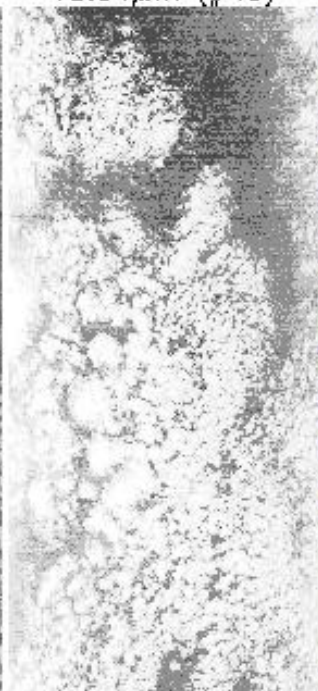
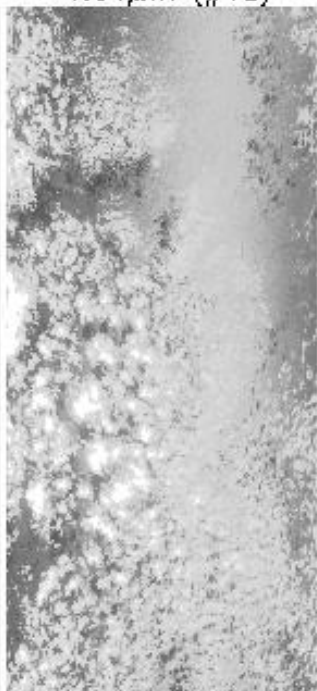
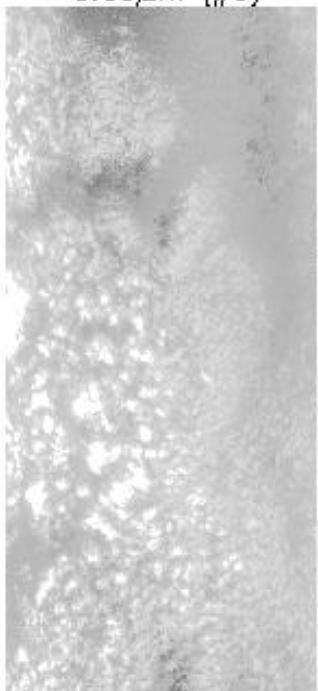
1.61µm (#10)

3.77µm (#30)

reverse scale
10.94µm (#45)

RGB (#20,#10,#2)

11:03:45



11:04:00

11:04:00

11:06:00

11:06:00

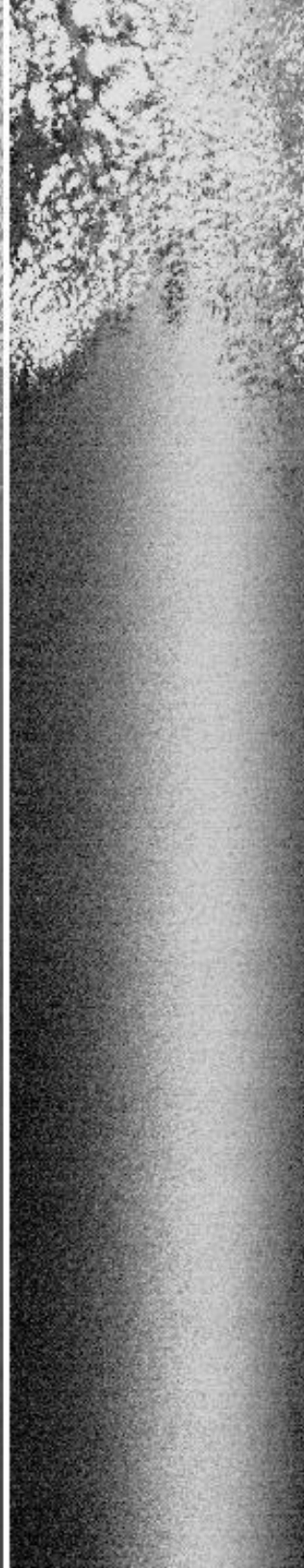
11:08:00

11:08:00

11:10:00

11:12:00

11:14:00



11:08:00

11:08:00

11:10:00

11:12:00

11:14:00

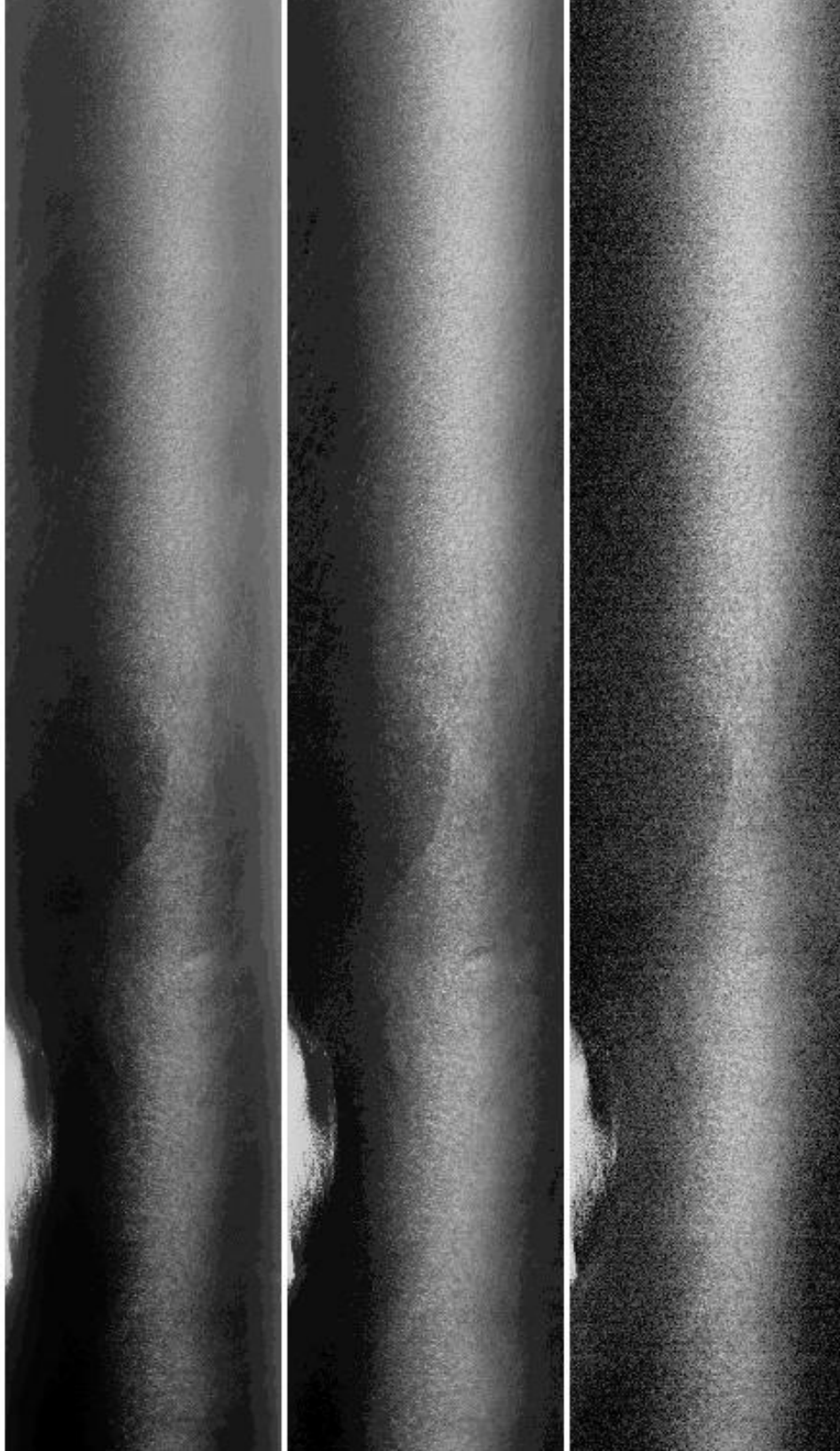
11:14:00

11:16:00

11:18:00

11:20:00

11:22:00



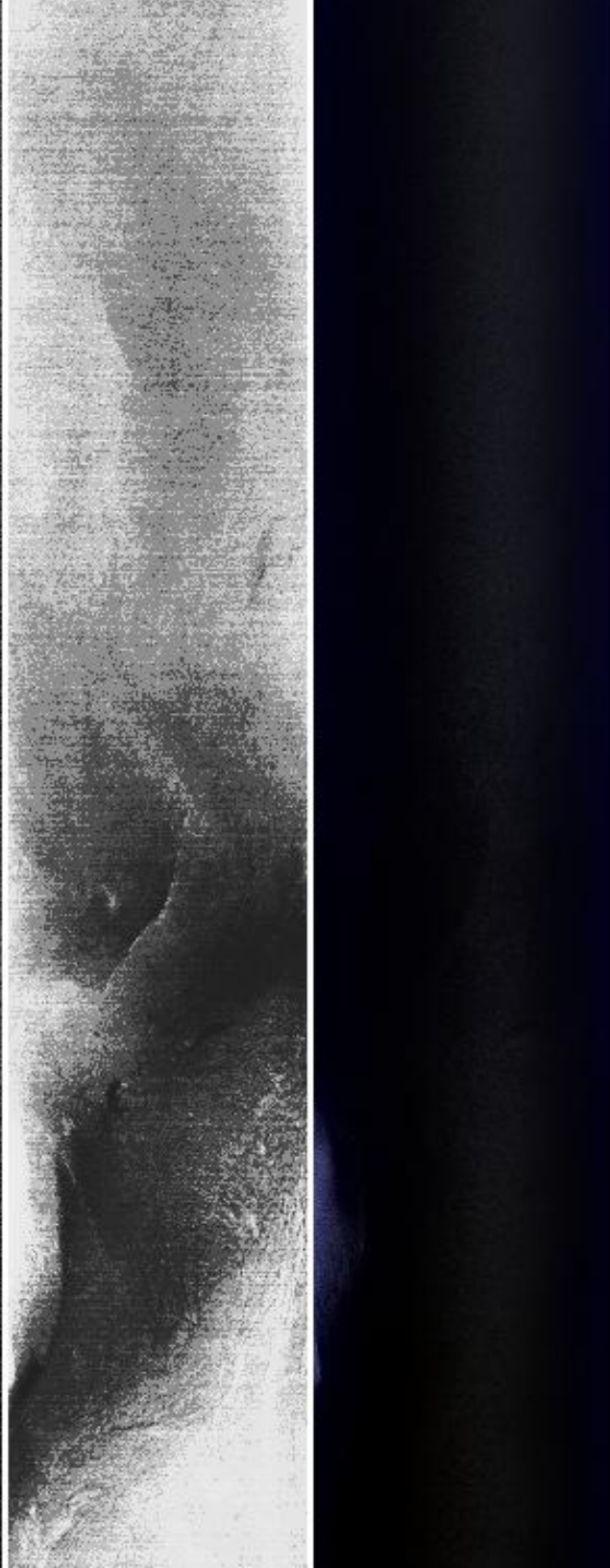
11:14:00

11:16:00

11:18:00

11:20:00

11:22:00



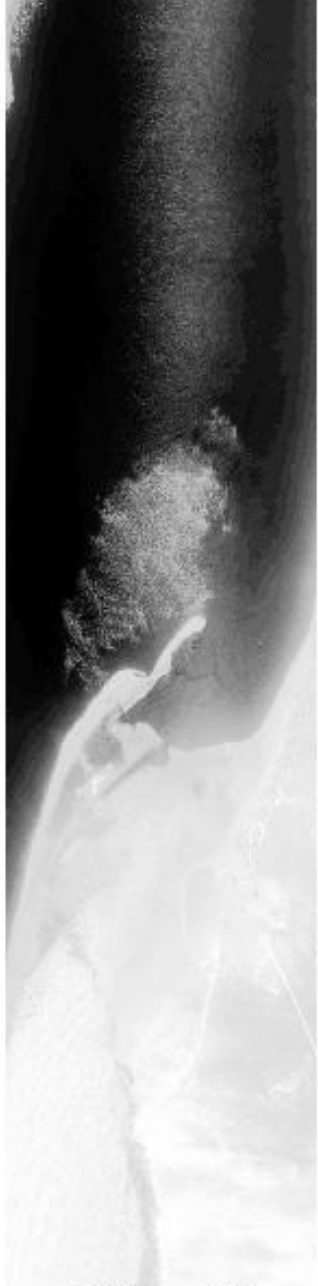
11:22:00

11:24:00

11:26:00

11:28:00

11:30:31



0.66 μm (#3)



1.61 μm (#10)



3.77 μm (#30)



10.94 μm (#45)
reverse scale



RGB (#20,#10,#2)

11:22:00

11:24:00

11:26:00

11:28:00

11:30:31

Aircraft Heading = 137.6°
 Solar Zenith = 29.0°
 GPS Altitude = 19517. m (MSL)

reverse scale

Aircraft Heading = 137.6°

Solar Zenith = 29.0°

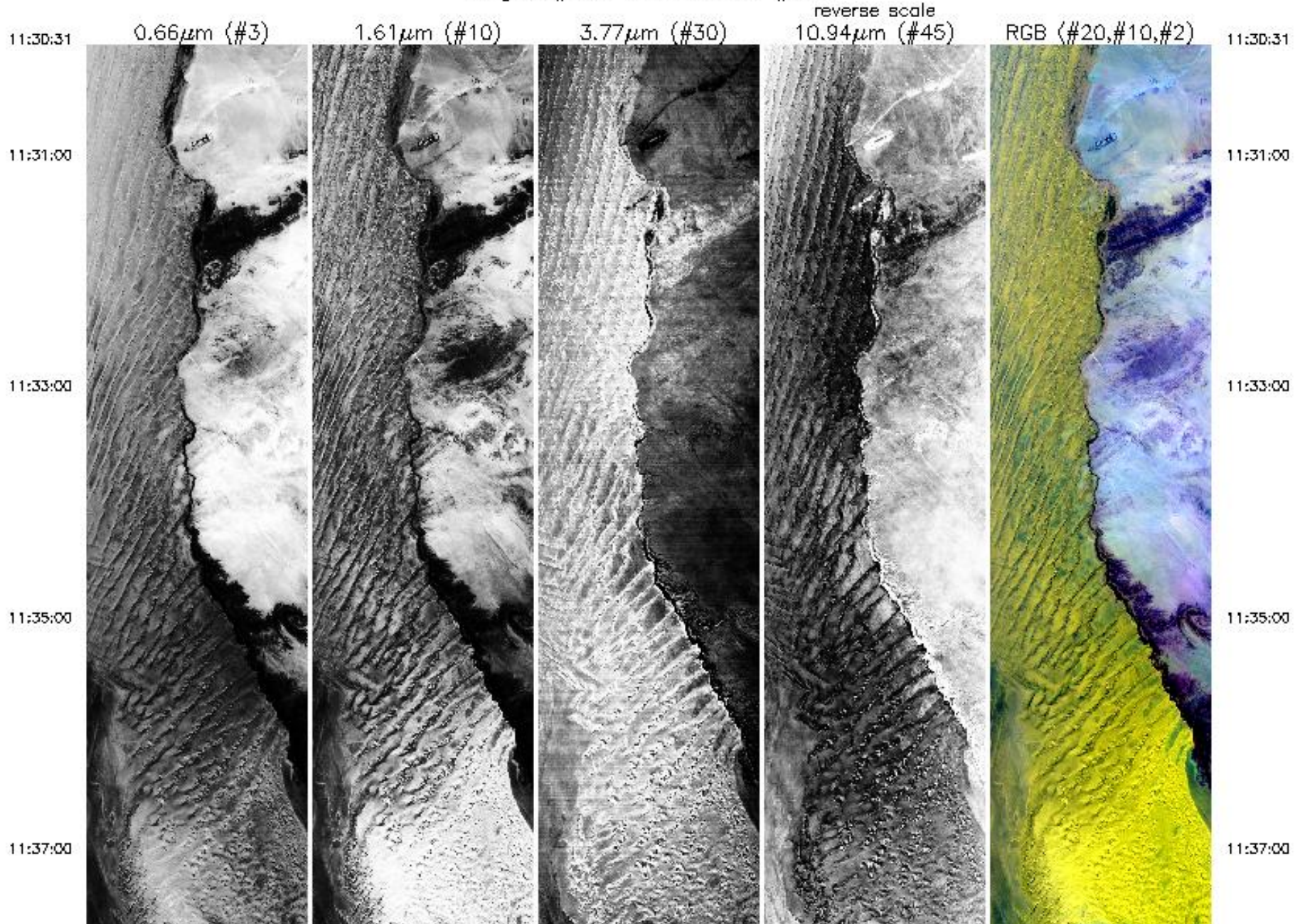
GPS Altitude = 19517. m (MSL)

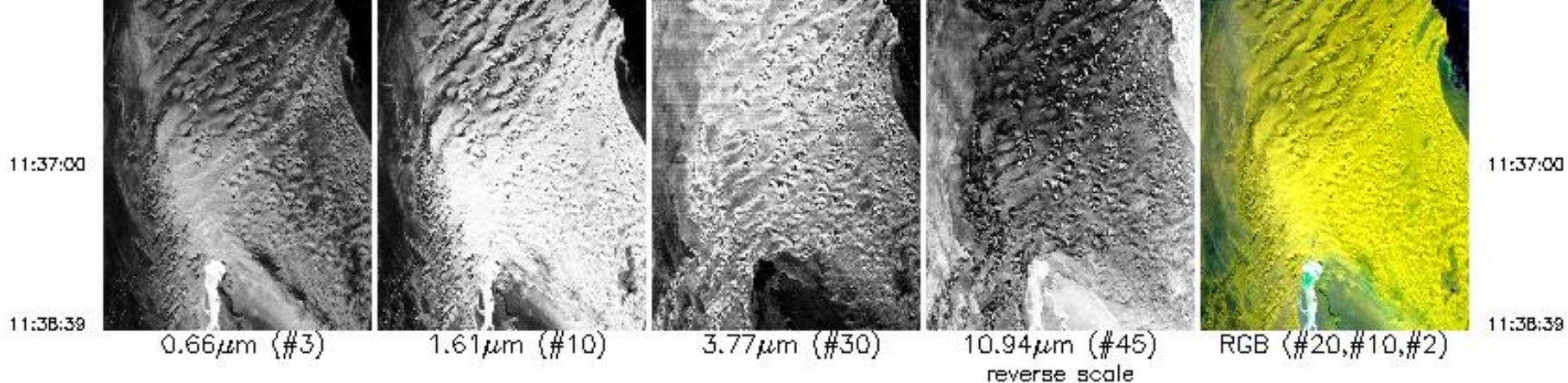
MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign – 11 Sep 2000

Namibia

Flight #00-160 Track #13



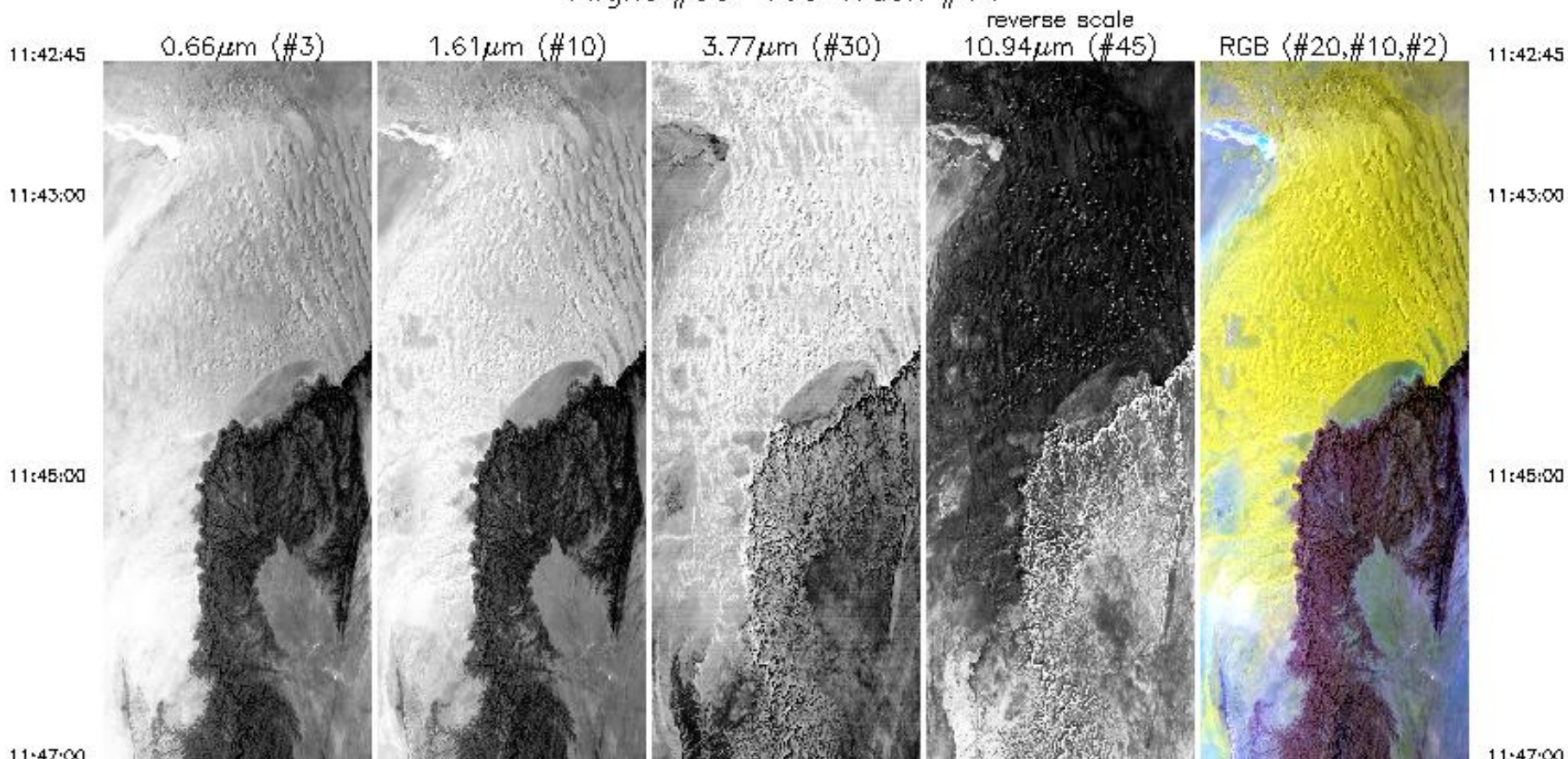


Aircraft Heading = 139.6°

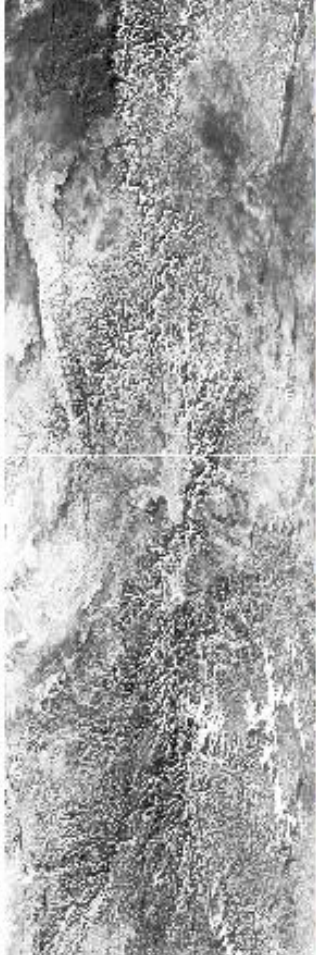
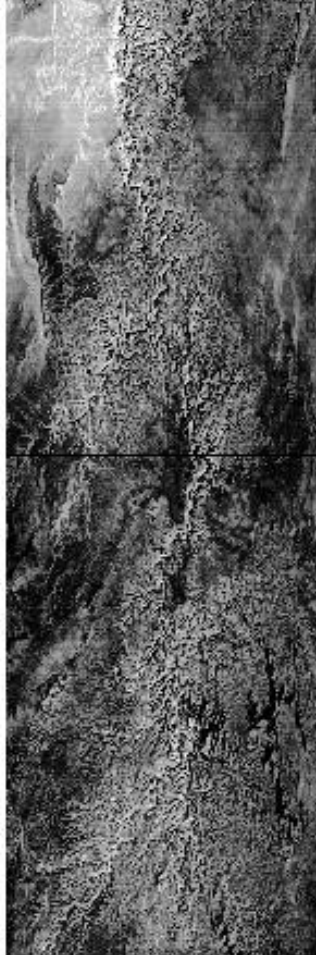
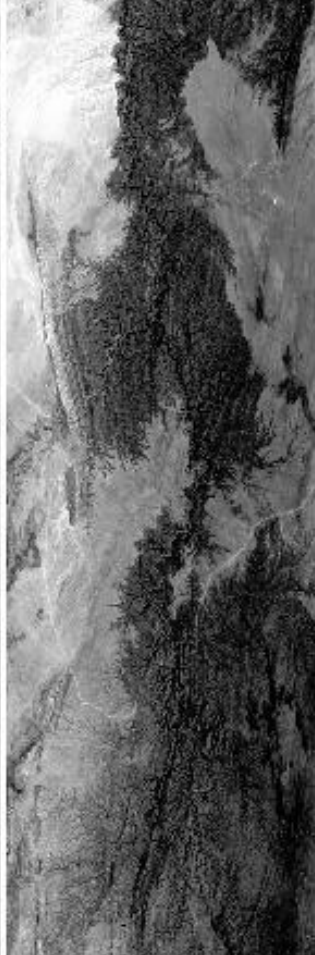
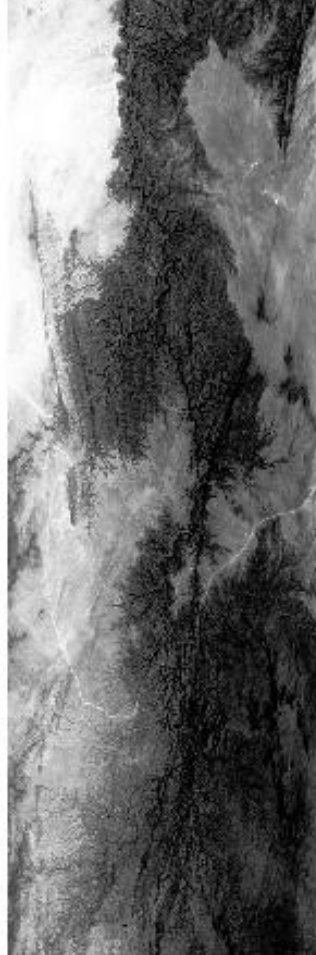
Solar Zenith = 28.6°

GPS Altitude = 18933. m (MSL)

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Namibia
Flight #00–160 Track #14



11:47:00



11:47:00

11:48:00

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

11:48:00

11:51:48

11:51:48

Aircraft Heading = 36.0°

Solar Zenith = 28.6°

GPS Altitude = 18721. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign – 11 Sep 2000

Namibia

Flight #00–160 Track #15

11:52:47

0.66µm (#3)

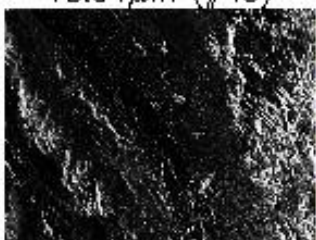
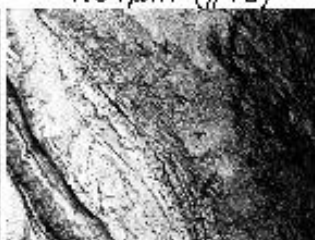
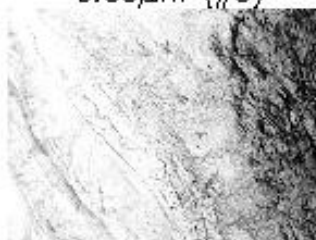
1.61µm (#10)

3.77µm (#30)

reverse scale
10.94µm (#45)

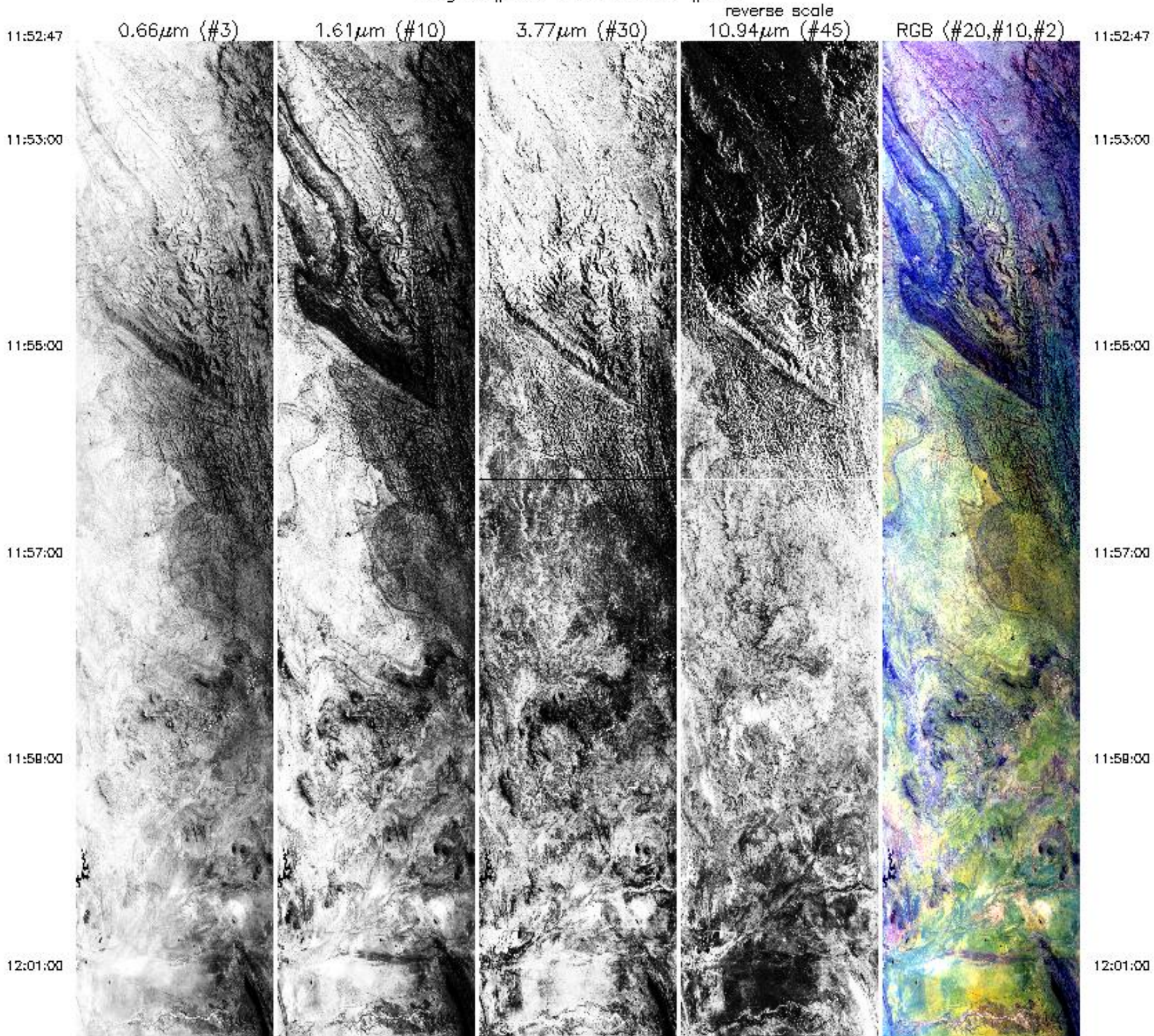
RGB (#20,#10,#2)

11:52:47



11:53:00

11:53:00



12:01:00



12:03:00



12:05:00



12:07:00



12:09:00



12:01:00

12:03:00

12:05:00

12:07:00

12:09:00

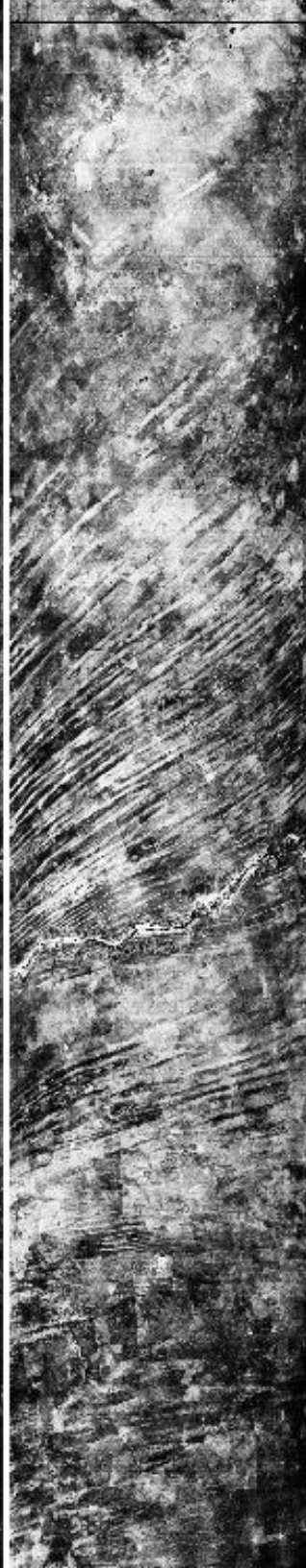
12:08:00



12:11:00



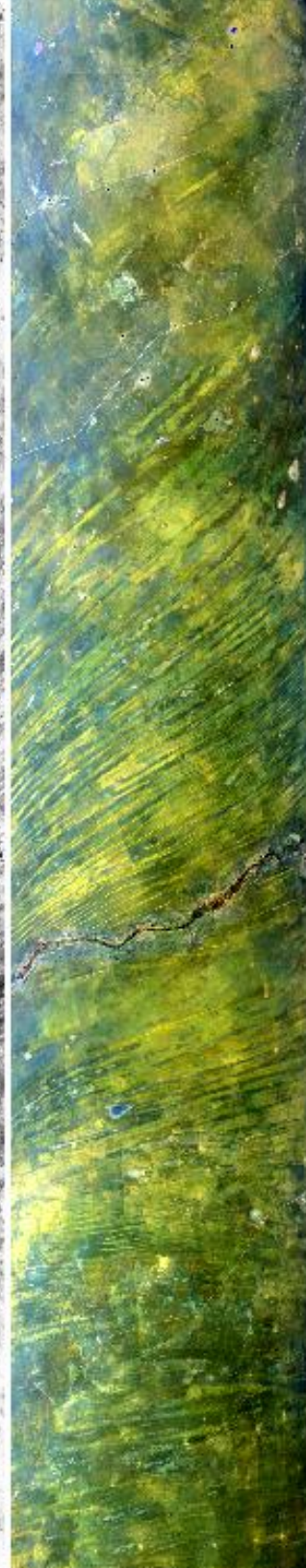
12:13:00



12:15:00



12:17:00



12:08:00

12:11:00

12:13:00

12:15:00

12:17:00

12:17:00



12:17:00

12:18:32

0.66µm (<#3)

1.61µm (<#10)

3.77µm (<#30)

10.94µm (<#45)

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

12:18:32

reverse scale

Aircraft Heading = 94.9°

Solar Zenith = 27.6°

GPS Altitude = 18827. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign - 11 Sep 2000

Namibia, Botswana

Flight #00-160 Track #16

12:19:32

0.66µm (<#3)

1.61µm (<#10)

3.77µm (<#30)

10.94µm (<#45)

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

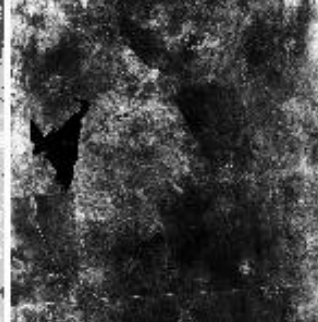
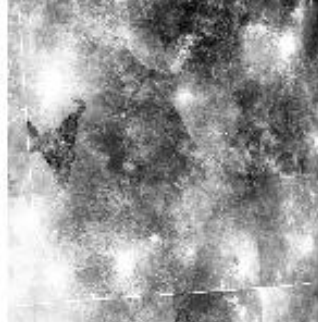
12:19:32

12:20:00



12:20:00

12:22:00



12:22:00

reverse scale

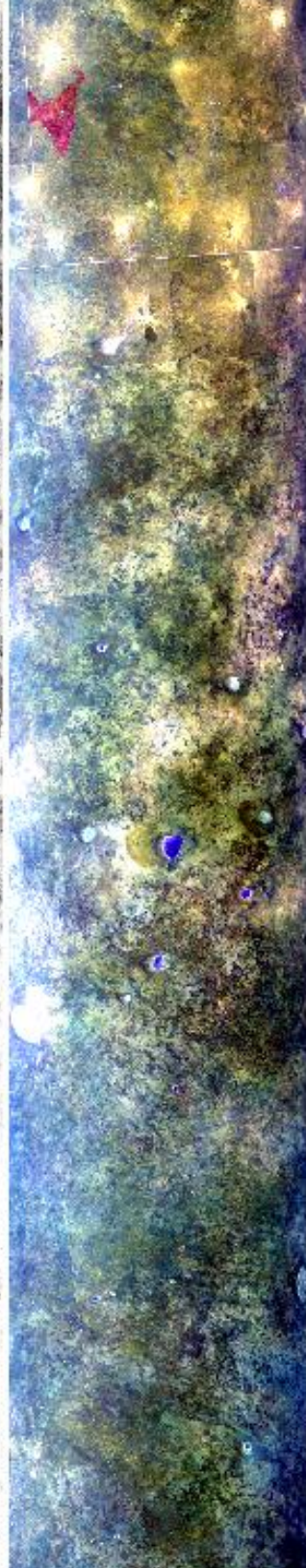
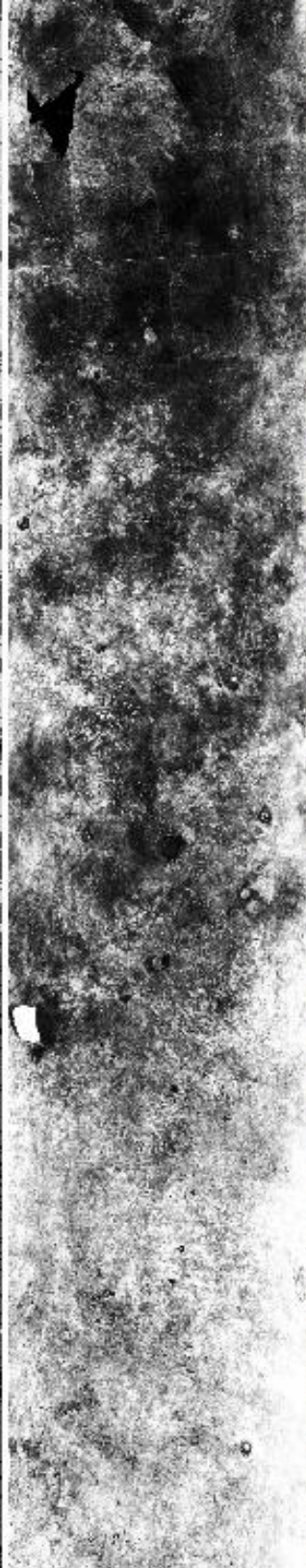
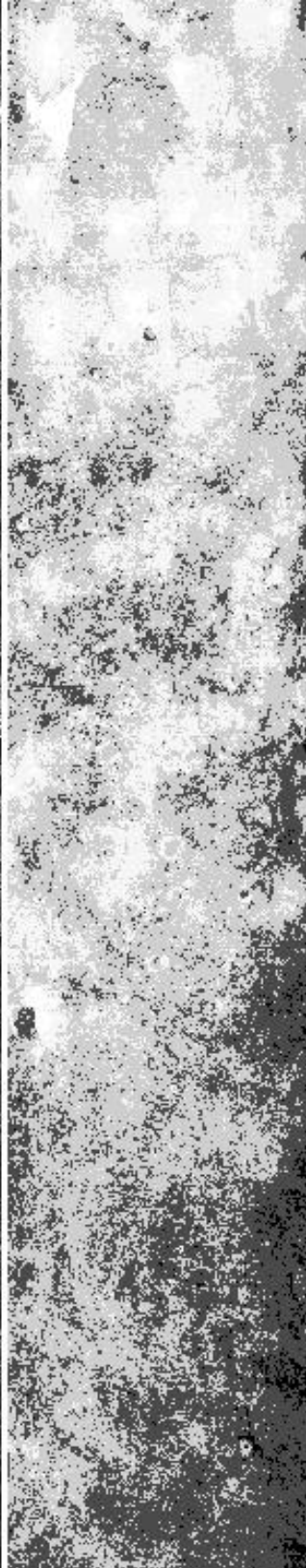
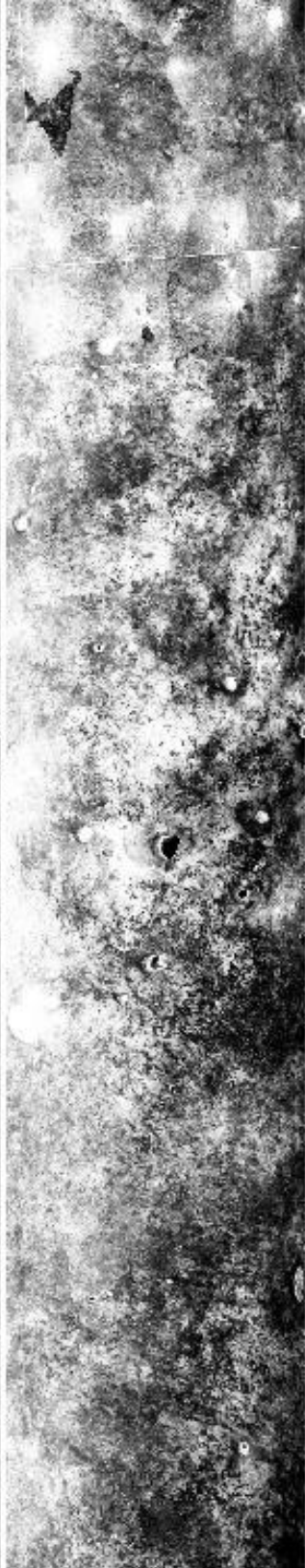
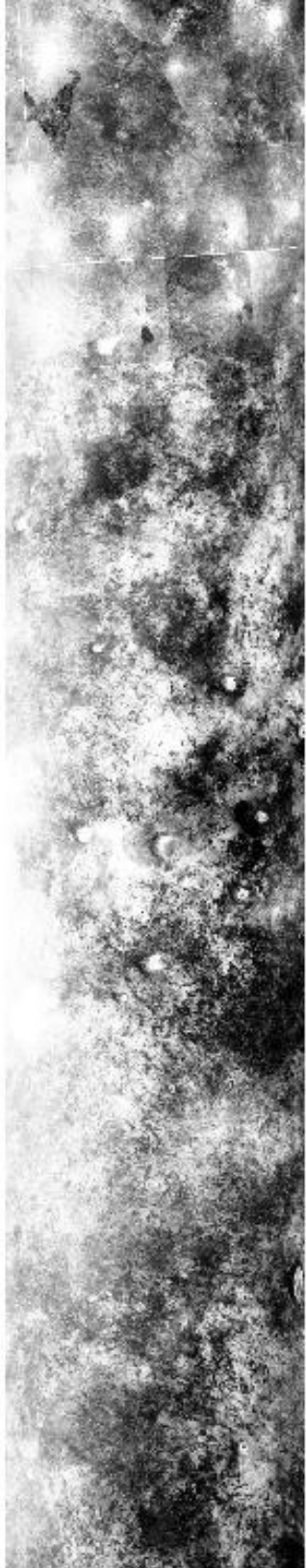
12:24:00

12:26:00

12:28:00

12:30:00

12:32:00



12:24:00

12:26:00

12:28:00

12:30:00

12:32:00

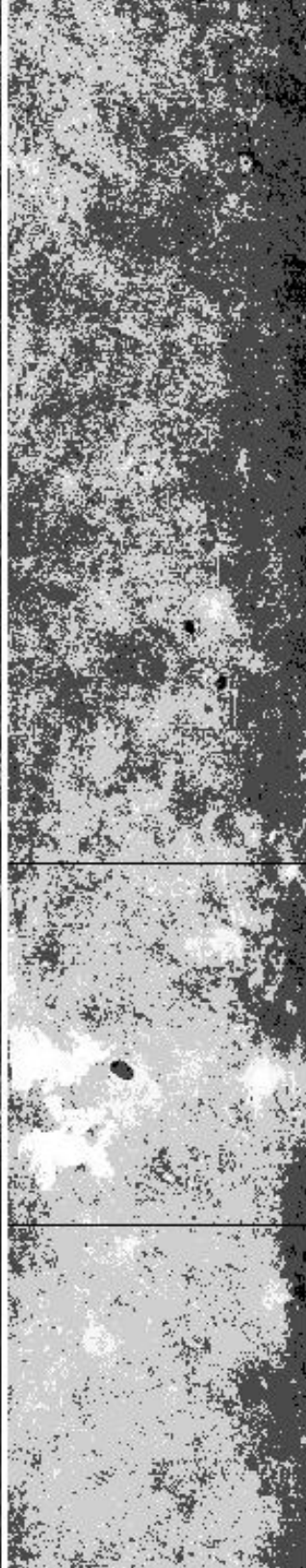
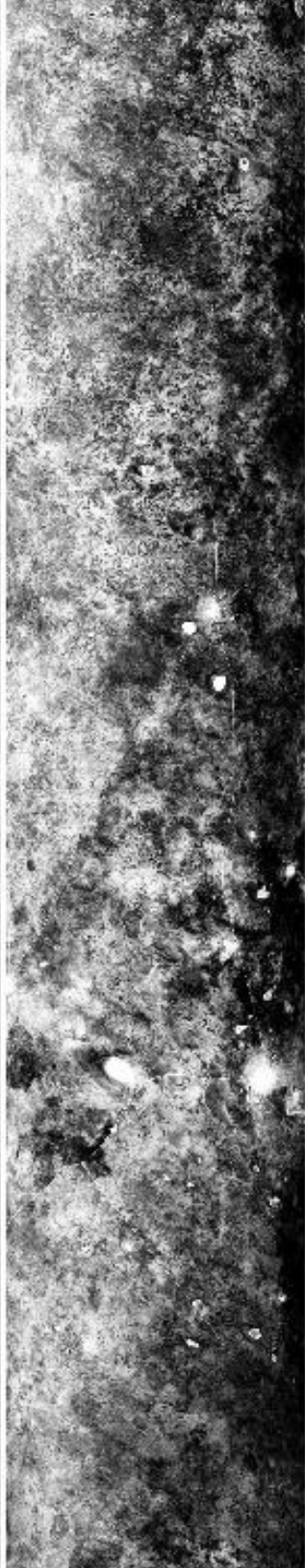
12:32:00

12:34:00

12:36:00

12:38:00

12:40:00



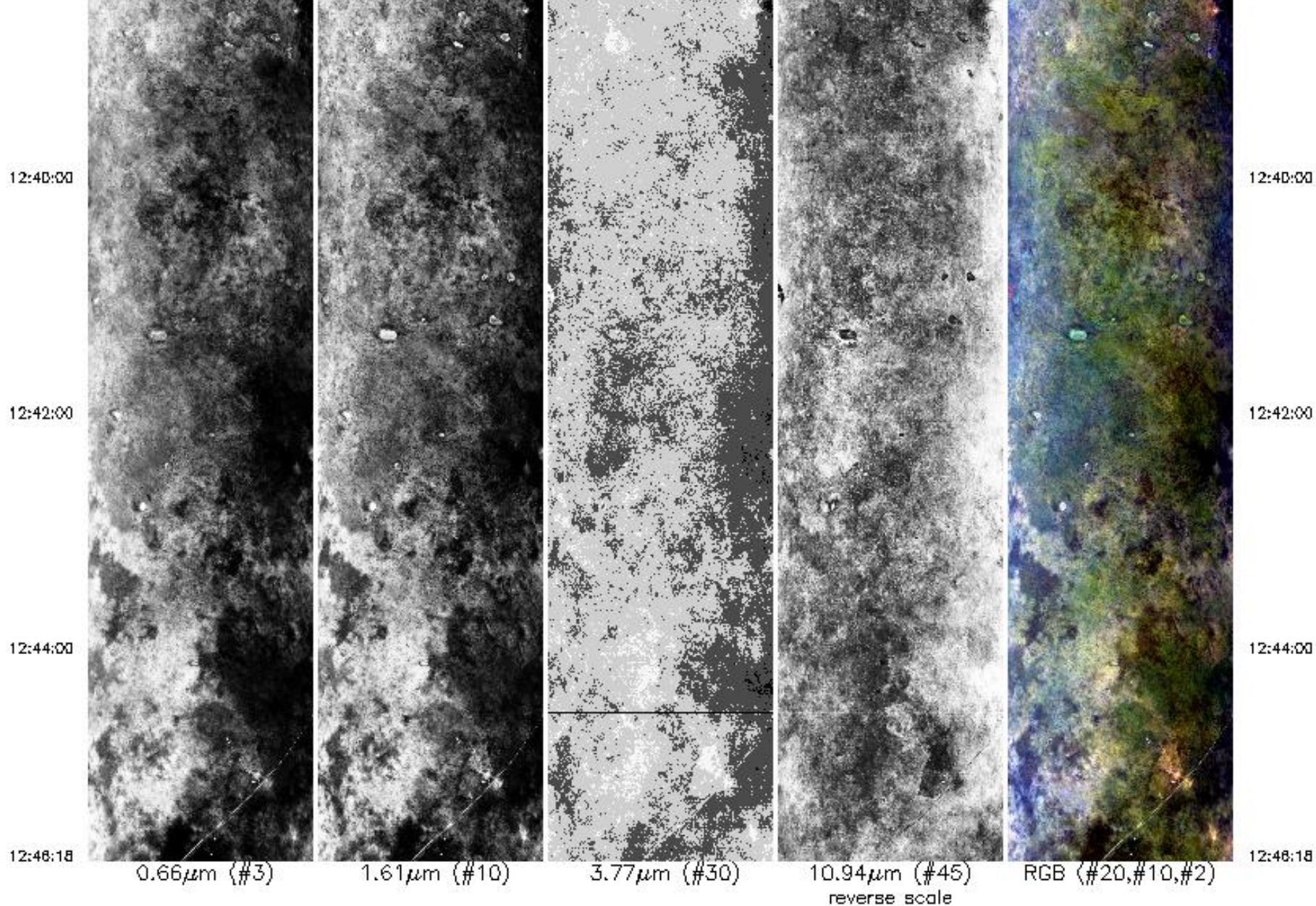
12:32:00

12:34:00

12:36:00

12:38:00

12:40:00

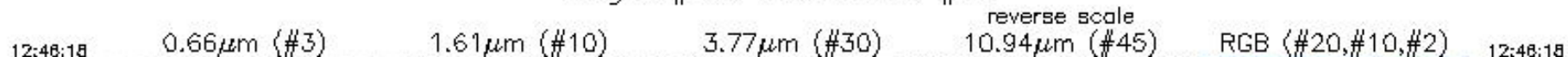


Aircraft Heading = 95.2°

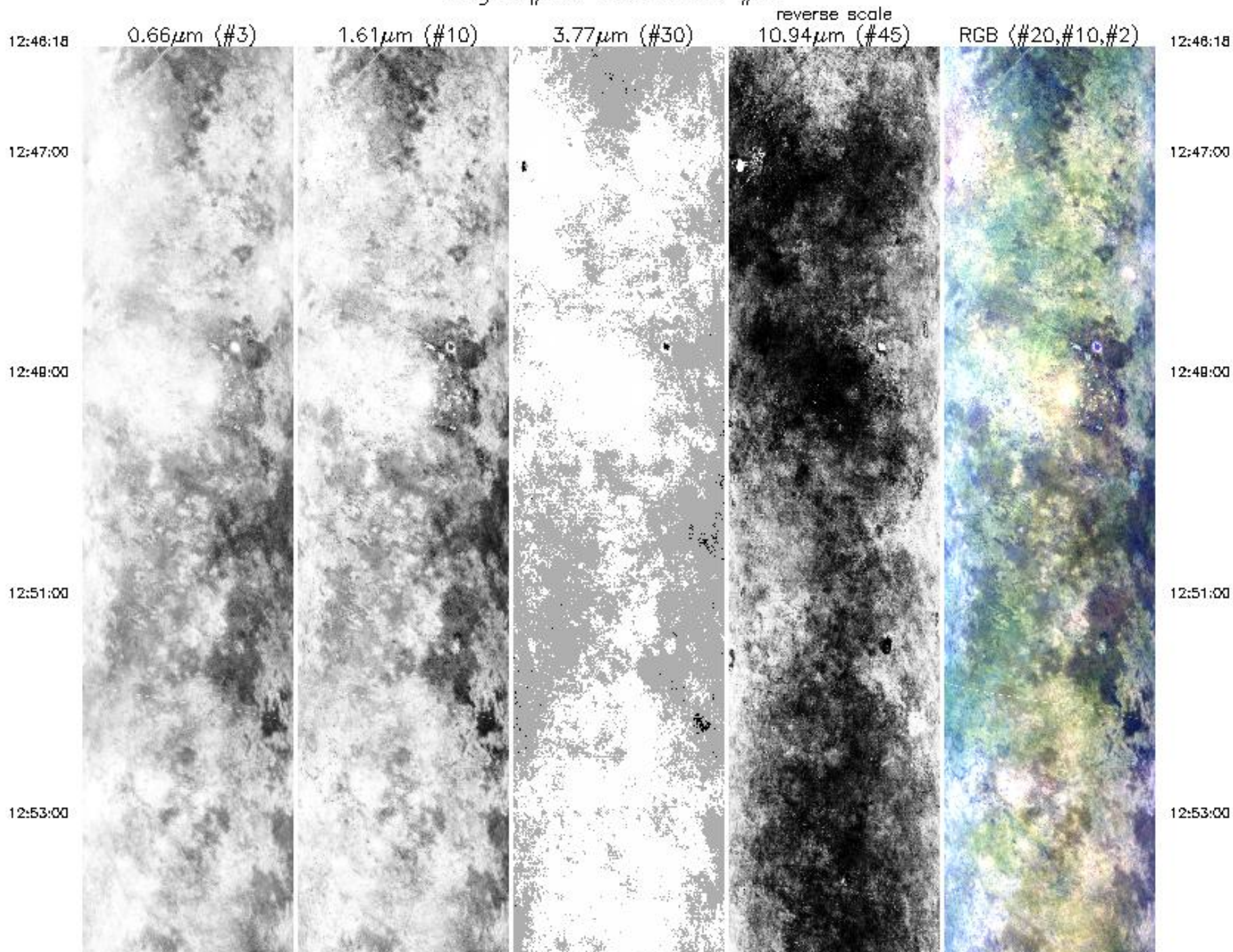
Solar Zenith = 28.2°

GPS Altitude = 18986. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 11 Sep 2000
 Botswana
 Flight #00-160 Track #17



MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
Botswana
Flight #00-160 Track #17



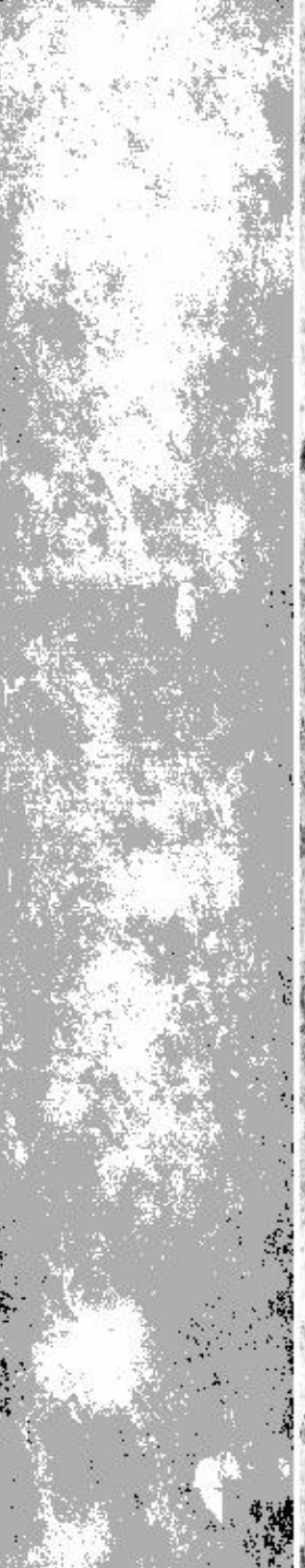
12:53:00



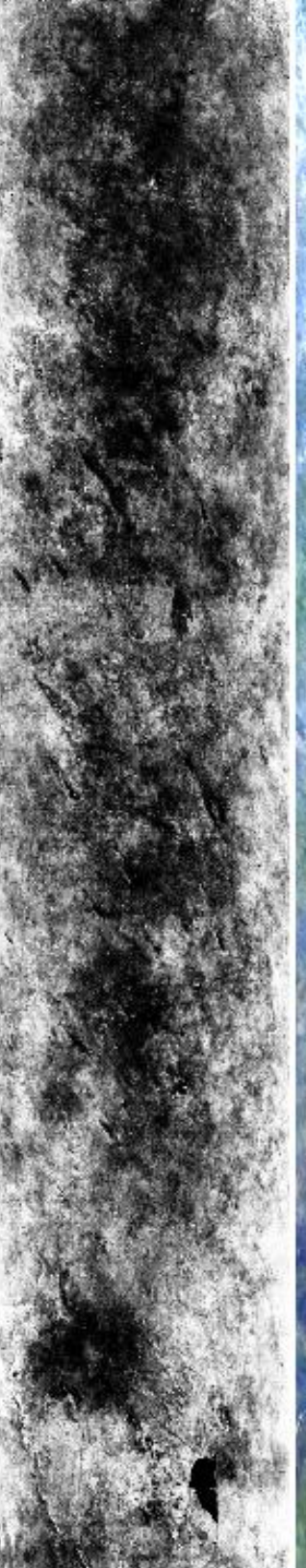
12:55:00



12:57:00



12:58:00



13:01:00



12:53:00

12:55:00

12:57:00

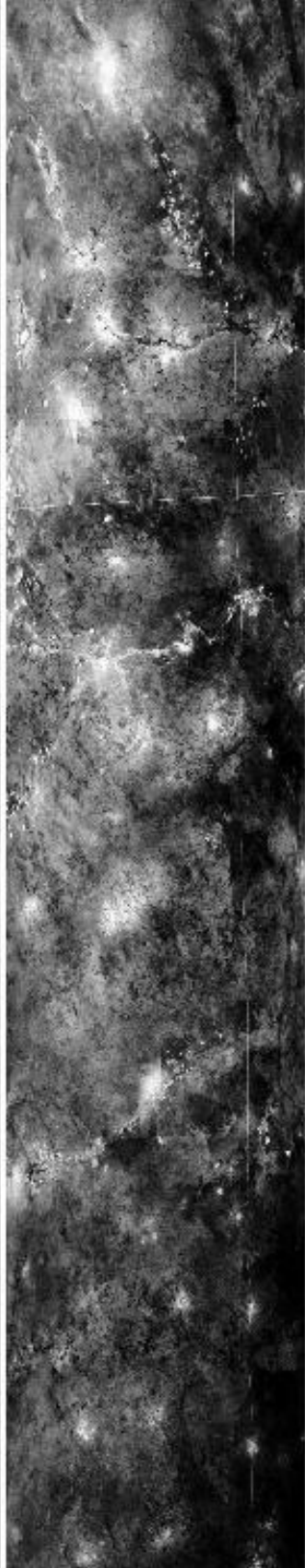
12:58:00

13:01:00

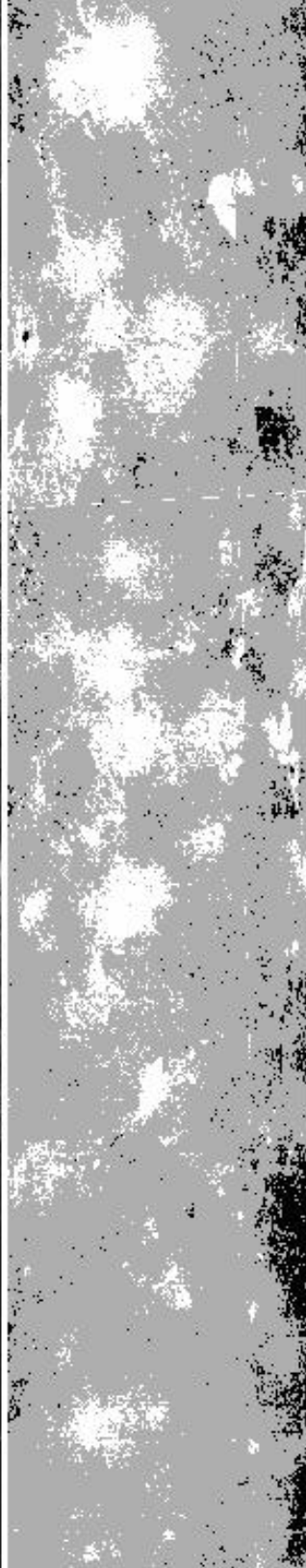
13:01:00



13:03:00



13:05:00



13:07:00



13:09:00



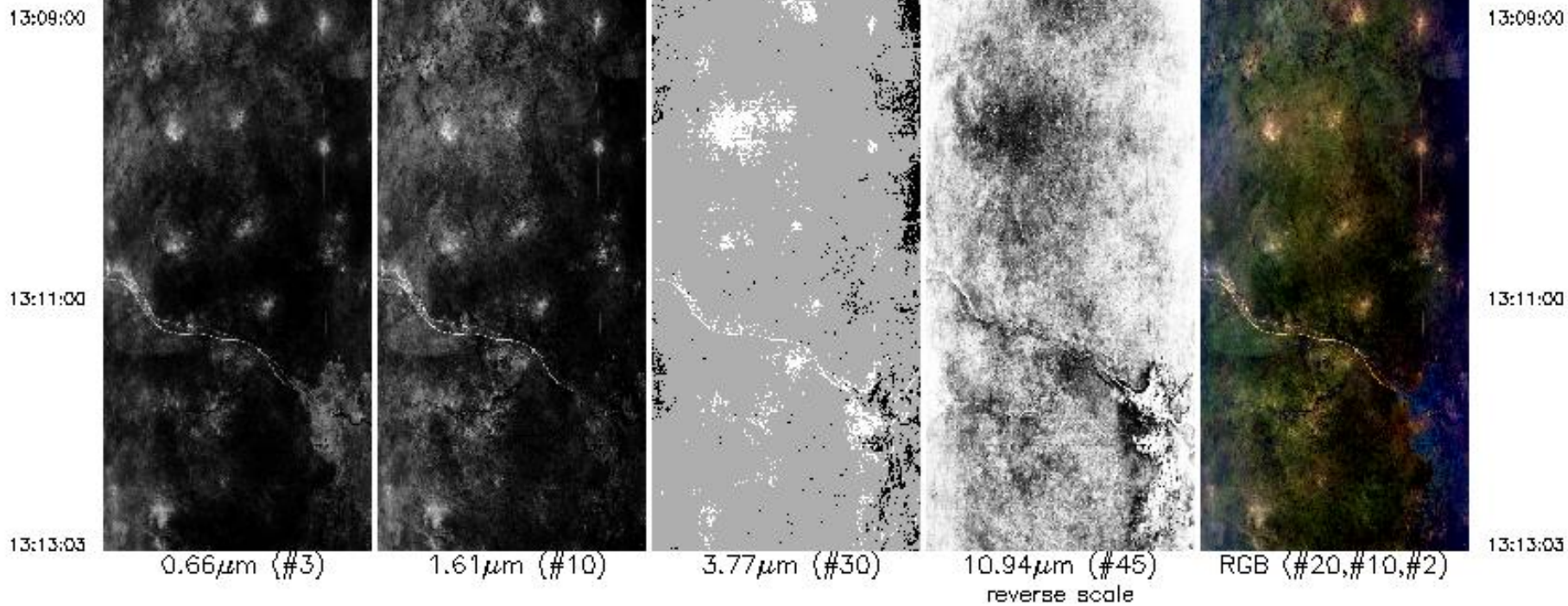
13:01:00

13:03:00

13:05:00

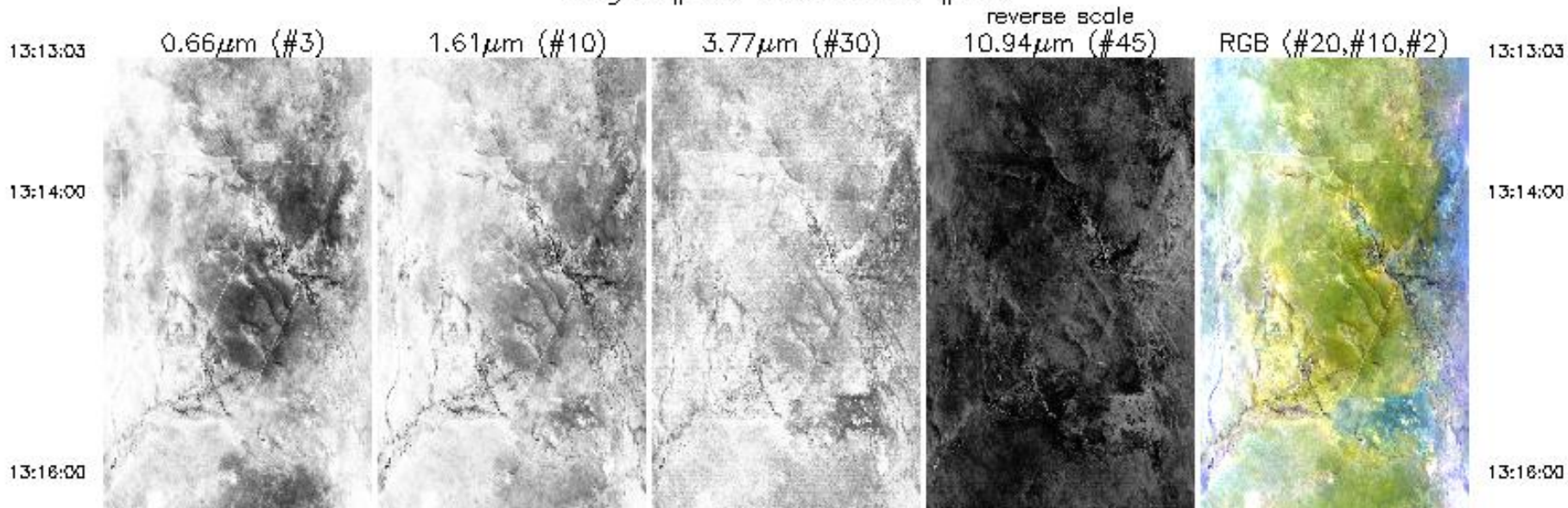
13:07:00

13:09:00



Aircraft Heading = 95.0°
 Solar Zenith = 30.2°
 GPS Altitude = 19179. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 11 Sep 2000
 S.A., Botswana
 Flight #00-160 Track #18



13:16:00

13:16:00

13:20:00

13:22:00

13:24:00



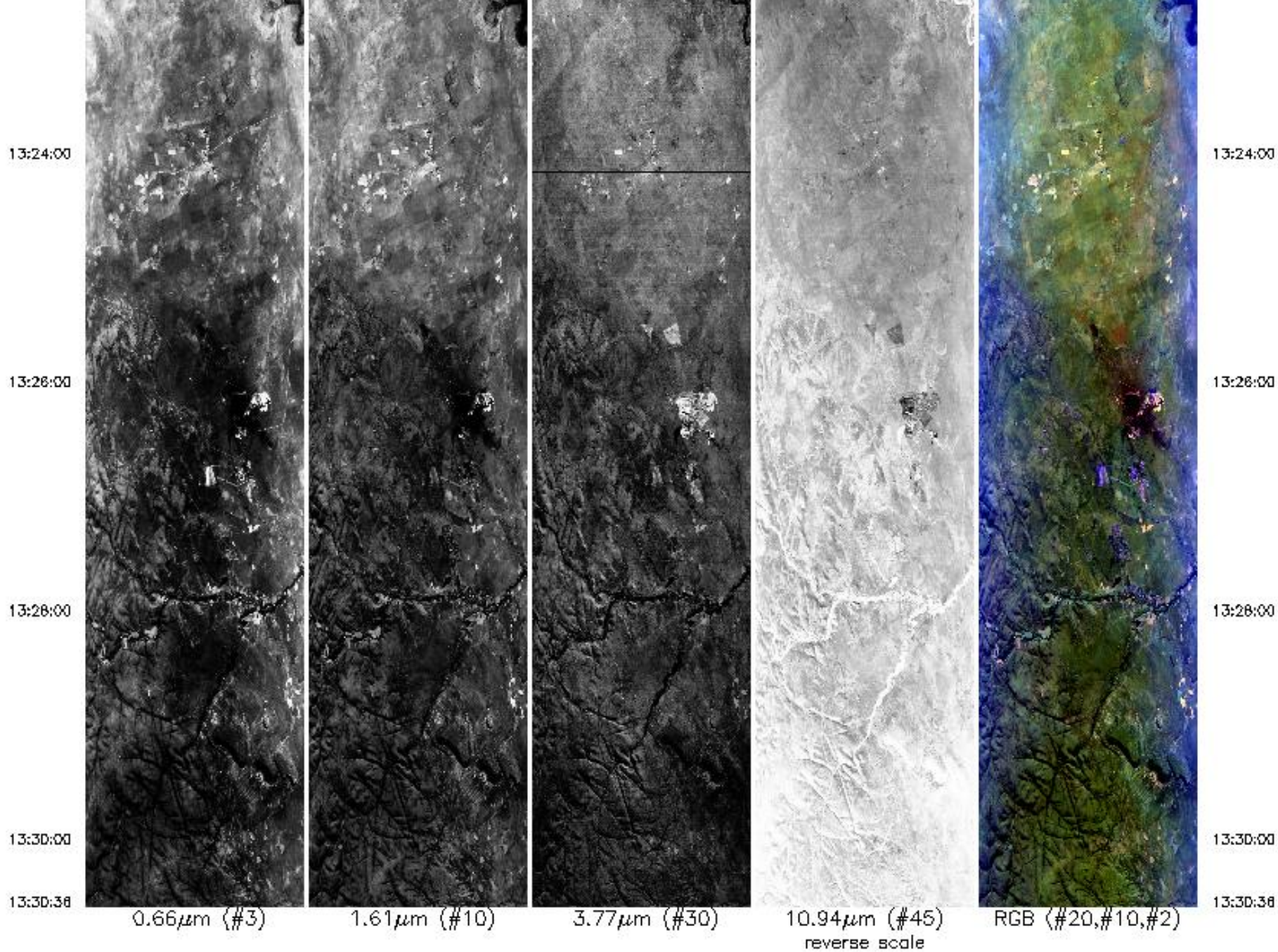
13:16:00

13:16:00

13:20:00

13:22:00

13:24:00



0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

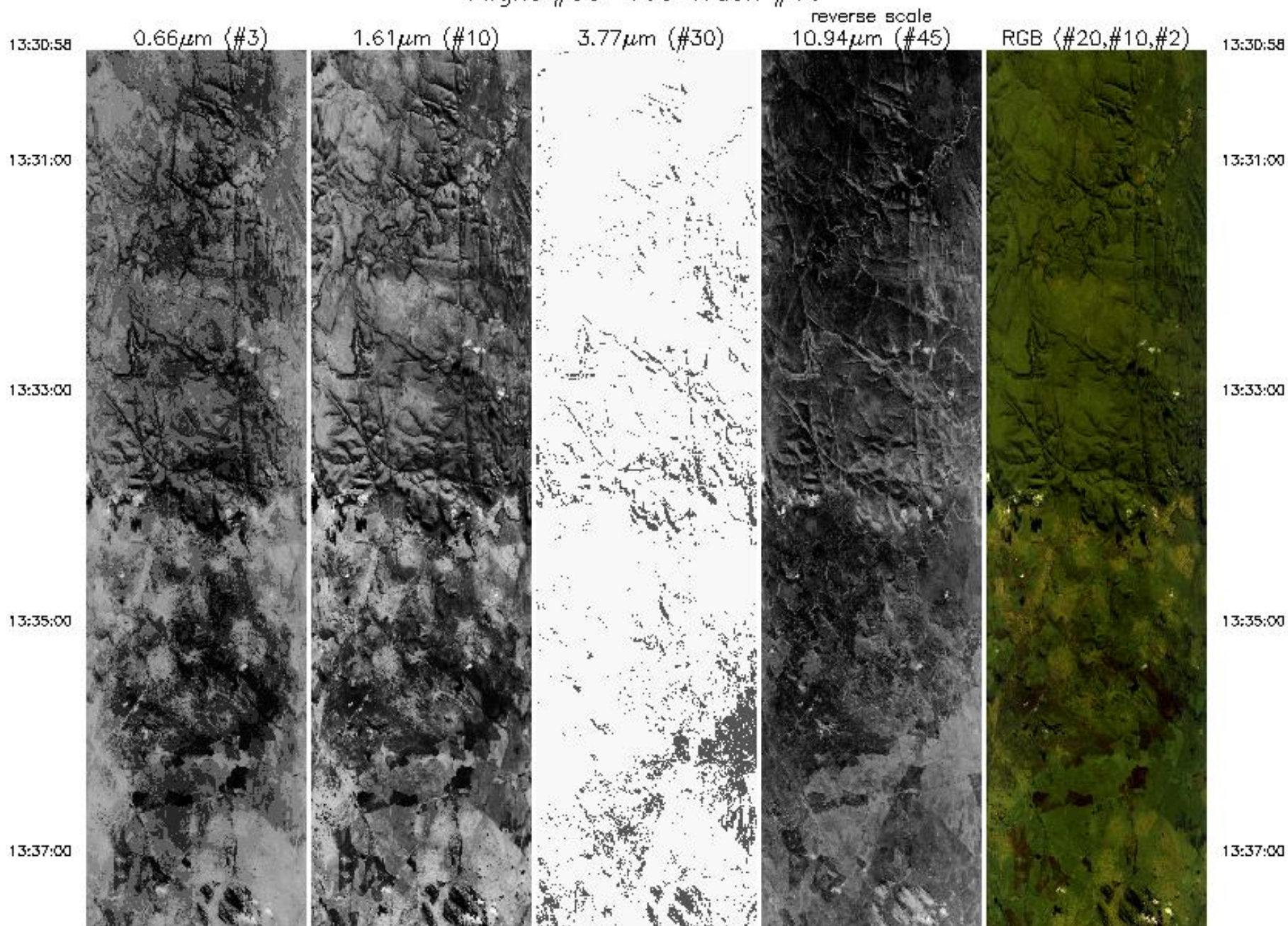
10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

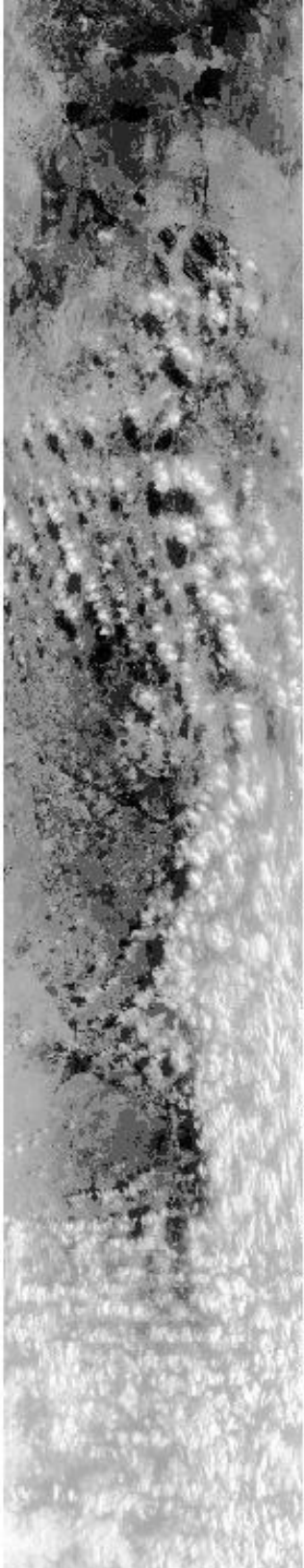
Aircraft Heading = 94.0°
 Solar Zenith = 33.3°
 GPS Altitude = 19218. m (MSL)

Aircraft Heading = 94.0°
Solar Zenith = 33.3°
GPS Altitude = 19218. m (MSL)

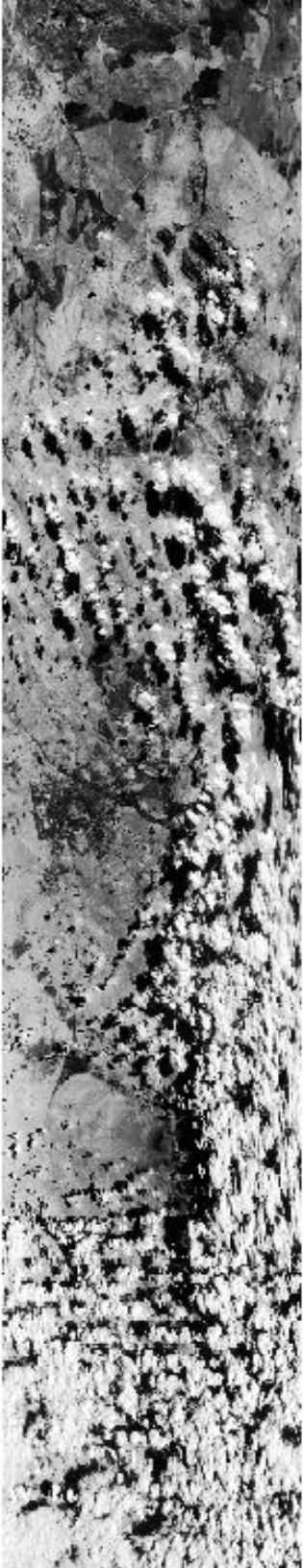
MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
South Africa
Flight #00-160 Track #19



13:37:00



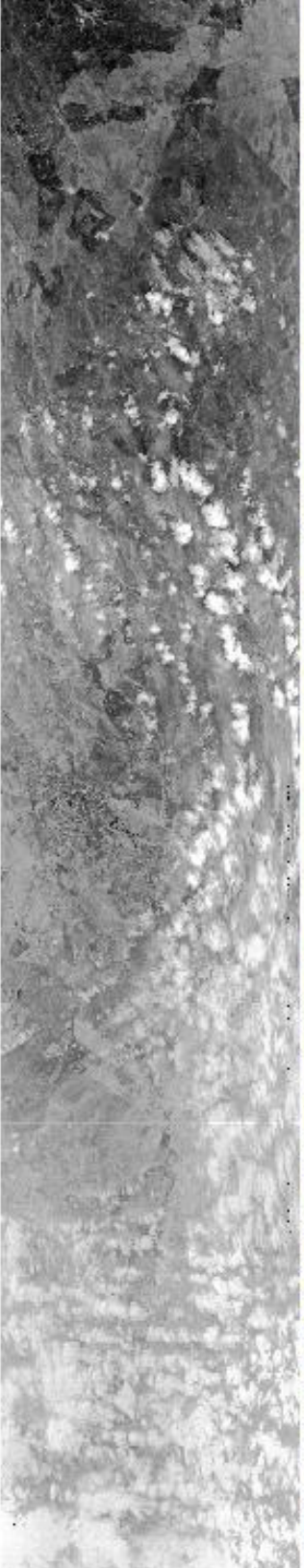
13:38:00



13:41:00



13:43:00



13:45:00



13:37:00

13:38:00

13:41:00

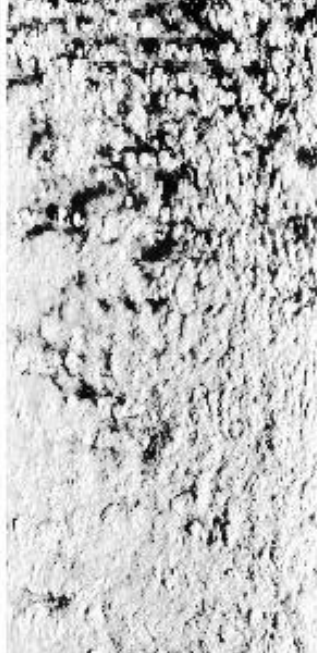
13:43:00

13:45:00

13:45:00



0.66µm (#3)



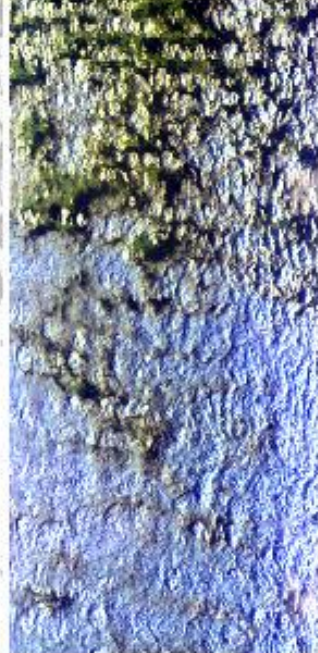
1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

13:45:00

13:47:00

13:47:00

13:48:00

13:48:00

Aircraft Heading = 88.3°

Solar Zenith = 35.9°

GPS Altitude = 18774. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign – 11 Sep 2000

South Africa

Flight #00-160 Track #20

13:49:03

0.66µm (#3)

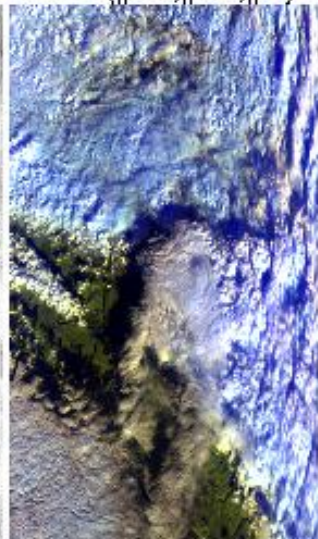
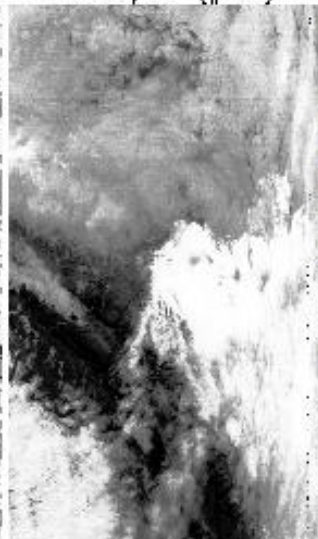
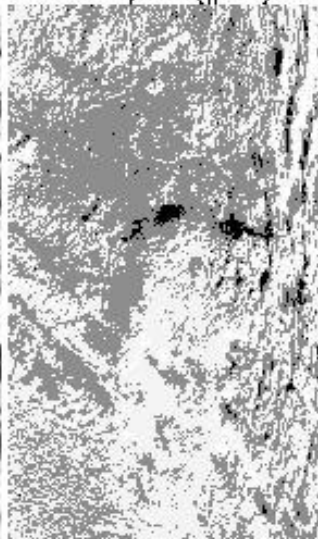
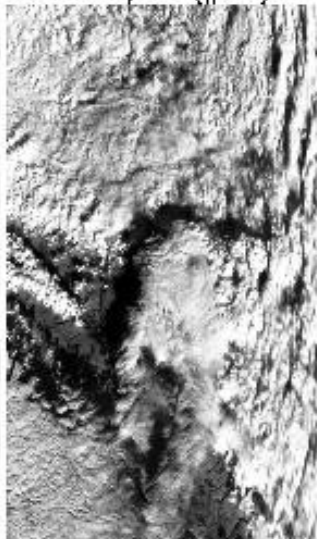
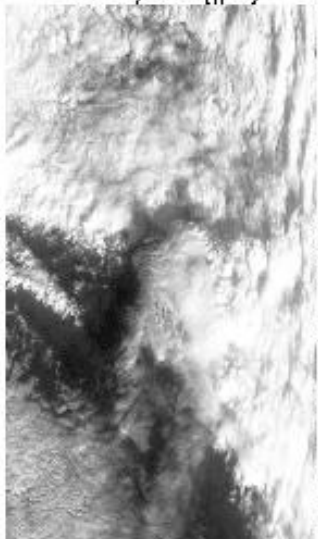
1.61µm (#10)

3.77µm (#30)

10.94µm (#45)
reverse scale

RGB (#20,#10,#2)

13:49:03



13:50:00

13:50:00

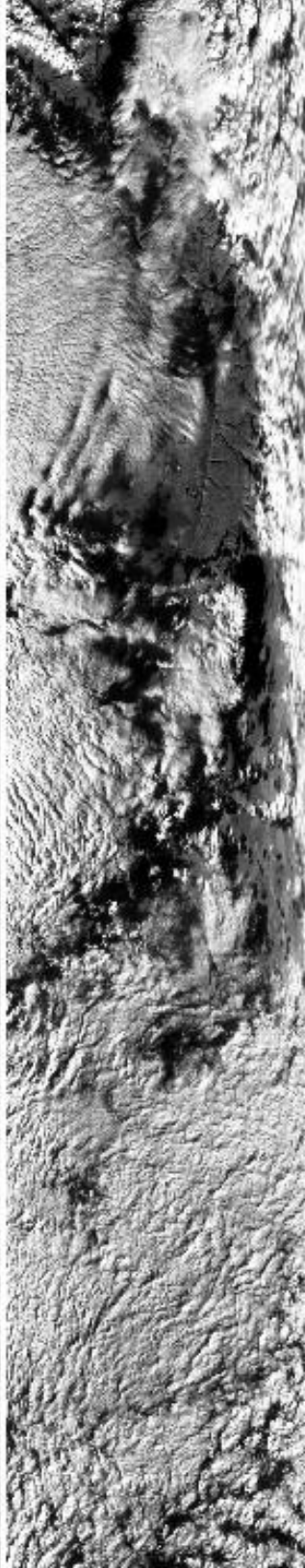
13:52:00

13:52:00

13:52:00



13:54:00



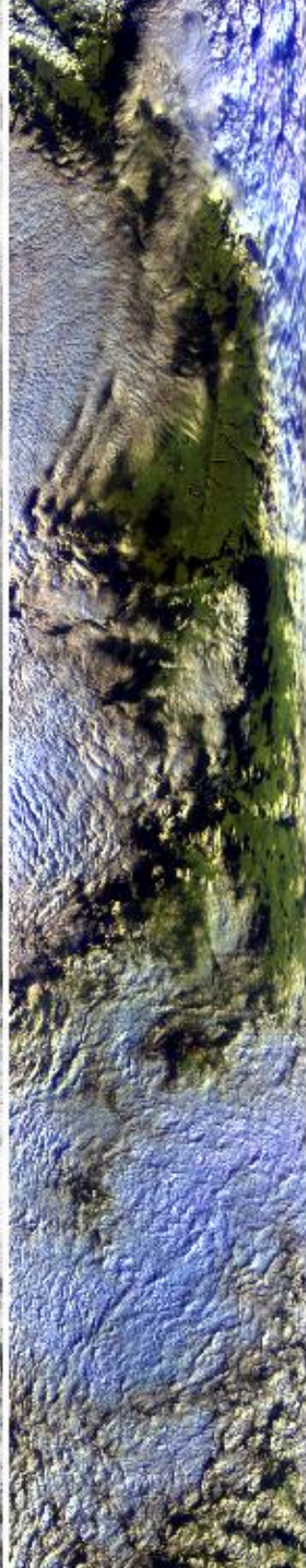
13:56:00



13:58:00



14:00:00



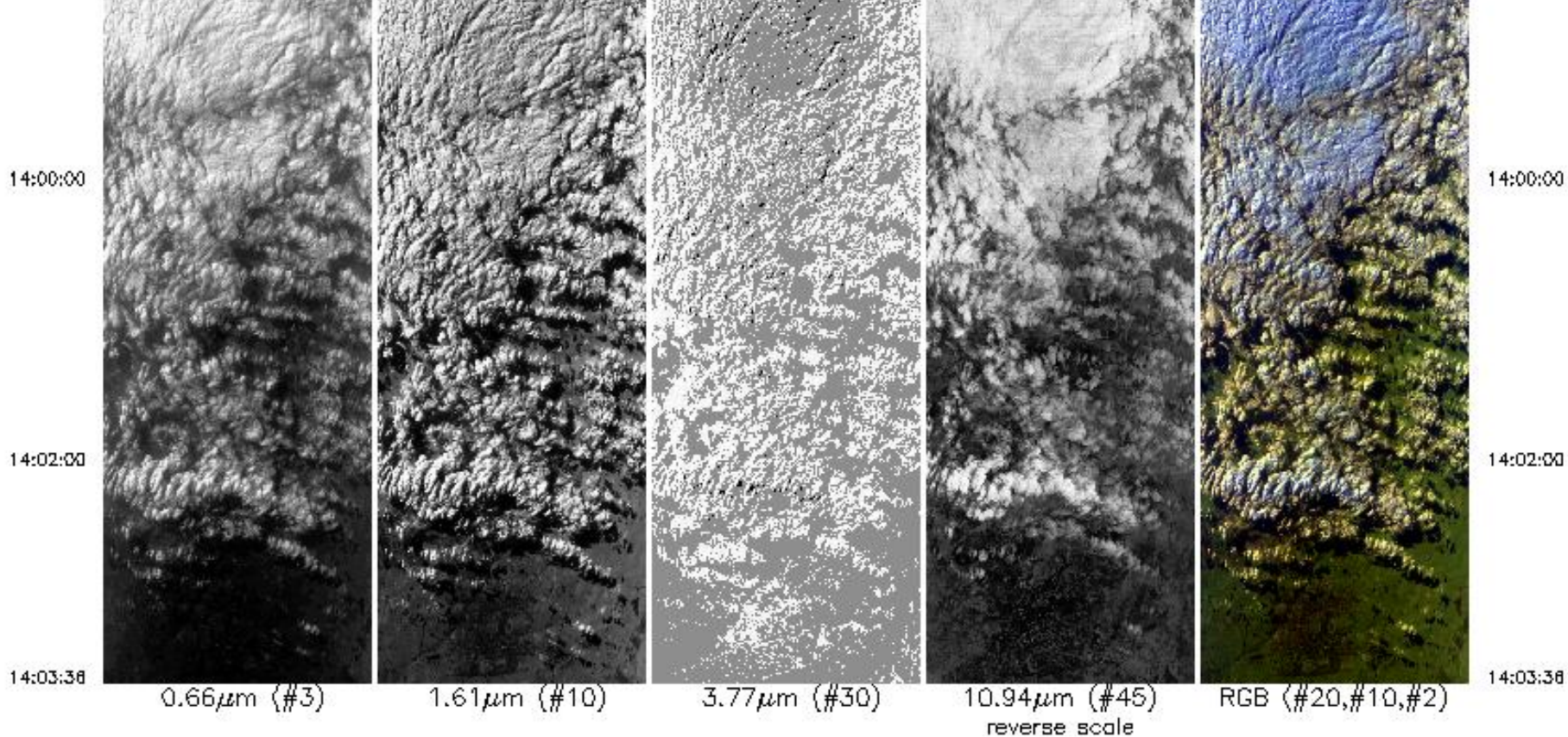
13:52:00

13:54:00

13:56:00

13:58:00

14:00:00



Aircraft Heading = 3.3°

Solar Zenith = 38.2°

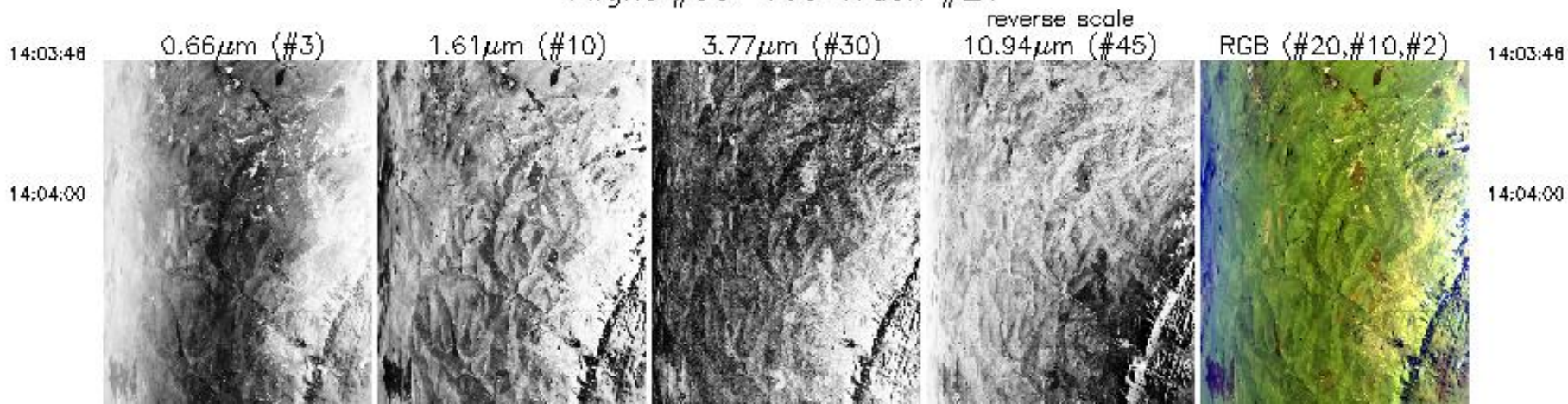
GPS Altitude = 18648. m (MSL)

MODIS Airborne Simulator Browse Imagery

SAFARI 2000 Campaign – 11 Sep 2000

South Africa

Flight #00-160 Track #21



14:04:00

14:08:00

14:08:00

14:10:00

14:11:41

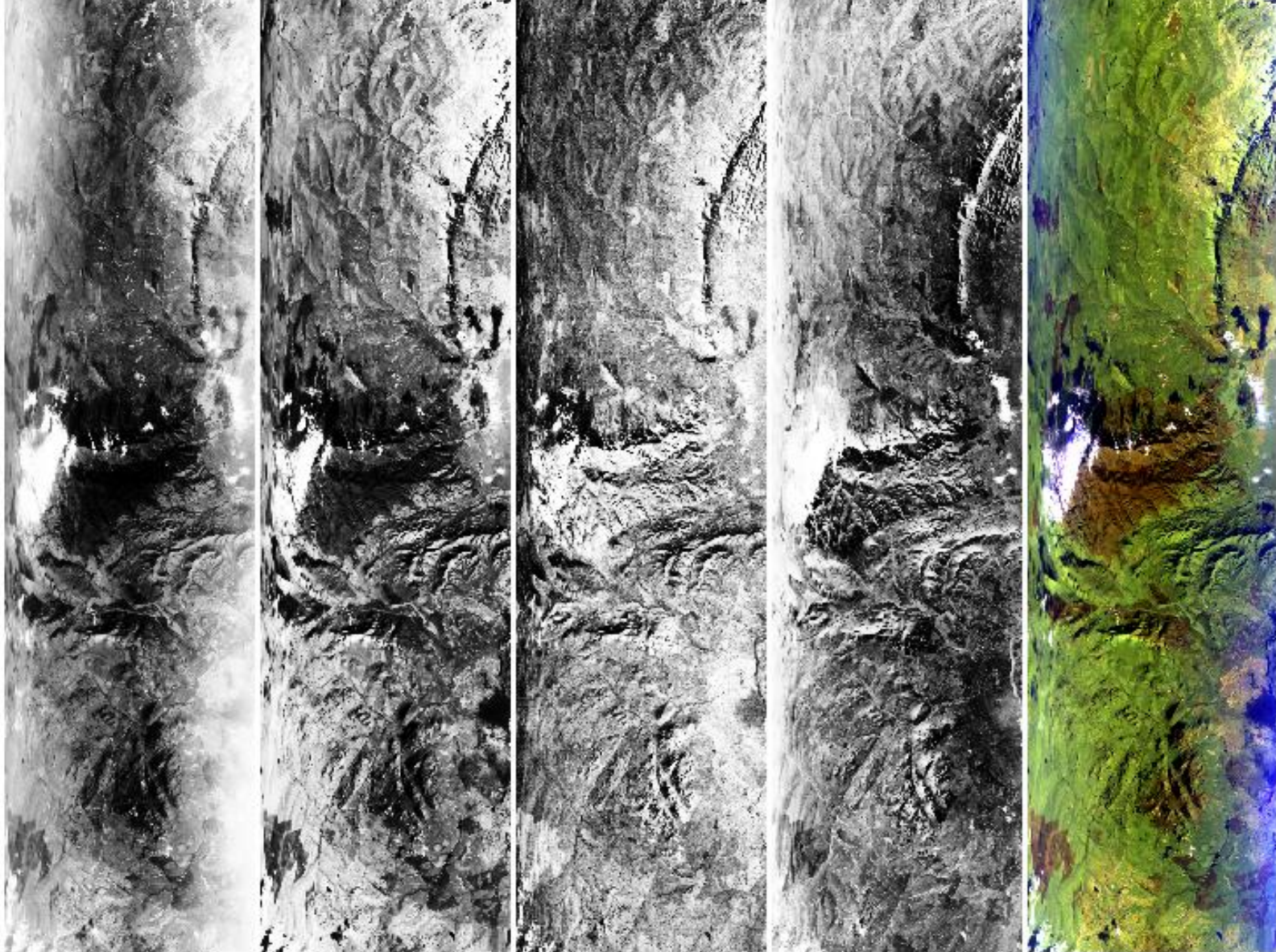
14:04:00

14:08:00

14:08:00

14:10:00

14:11:41



0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

10.94µm (#45)

RGB (#20,#10,#2)

reverse scale

Aircraft Heading = 167.0°

Solar Zenith = 41.3°

GPS Altitude = 18590. m (MSL)

MODIS Airborne Simulator Browse Imagery
 SAFARI 2000 Campaign – 11 Sep 2000
 South Africa
 Flight #00–160 Track #22

14:11:58

0.66µm (#3)

1.61µm (#10)

3.77µm (#30)

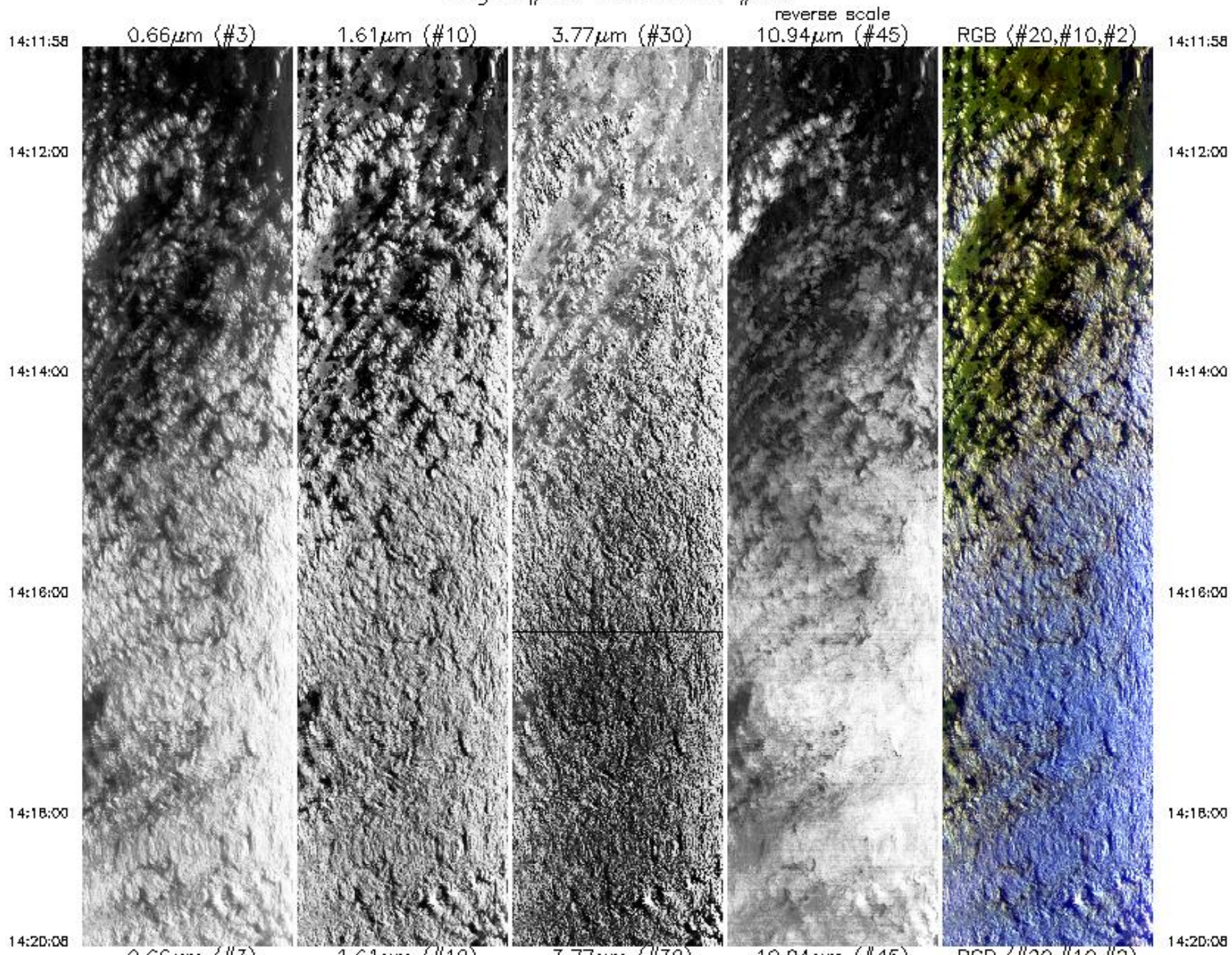
10.94µm (#45)

RGB (#20,#10,#2)

reverse scale

14:11:58

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
South Africa
Flight #00-160 Track #22



14:18:00



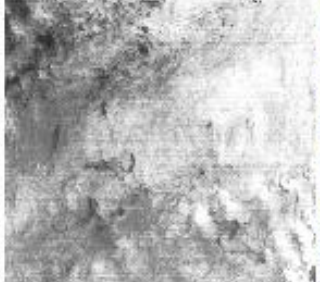
0.66µm (#3)



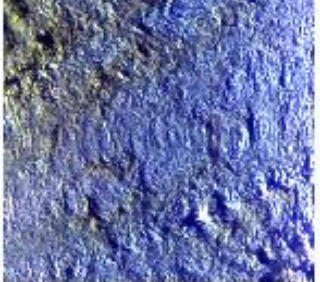
1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale



RGB (#20,#10,#2)

14:18:00

14:20:08

Aircraft Heading = 48.0°

Solar Zenith = 42.8°

GPS Altitude = 18573. m (MSL)

MODIS Airborne Simulator Browse Imagery

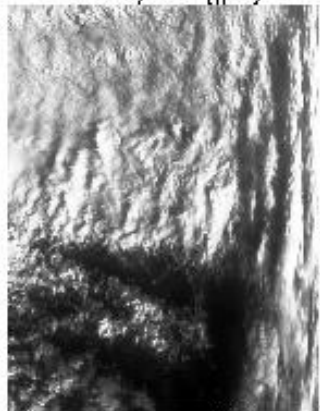
SAFARI 2000 Campaign – 11 Sep 2000

South Africa

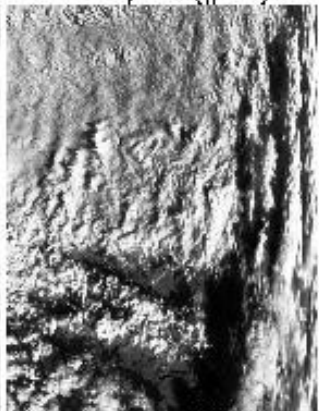
Flight #00–160 Track #23

14:20:22

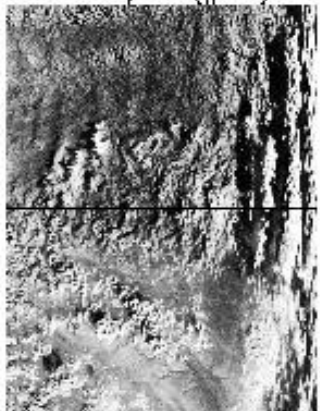
0.66µm (#3)



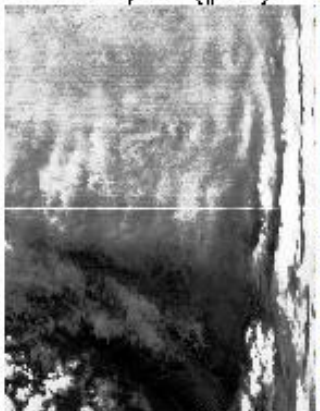
1.61µm (#10)



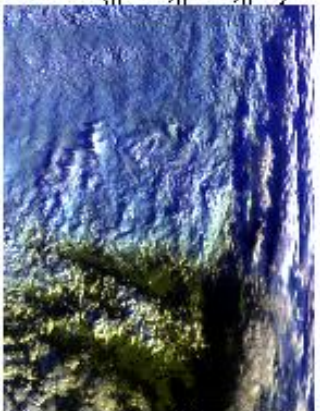
3.77µm (#30)



reverse scale
10.94µm (#45)



RGB (#20,#10,#2)



14:20:22

14:21:00

Aircraft Heading = 25.5°

Solar Zenith = 43.9°

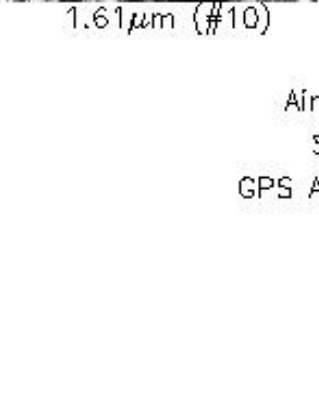
GPS Altitude = 18661. m (MSL)

14:22:52

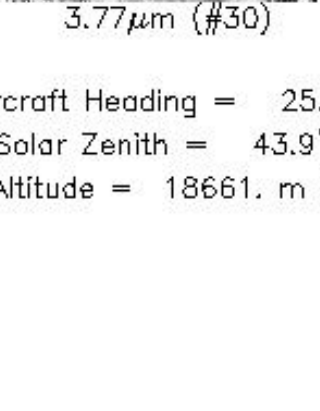
0.66µm (#3)



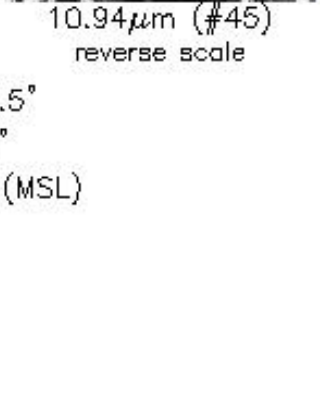
1.61µm (#10)



3.77µm (#30)



10.94µm (#45)
reverse scale

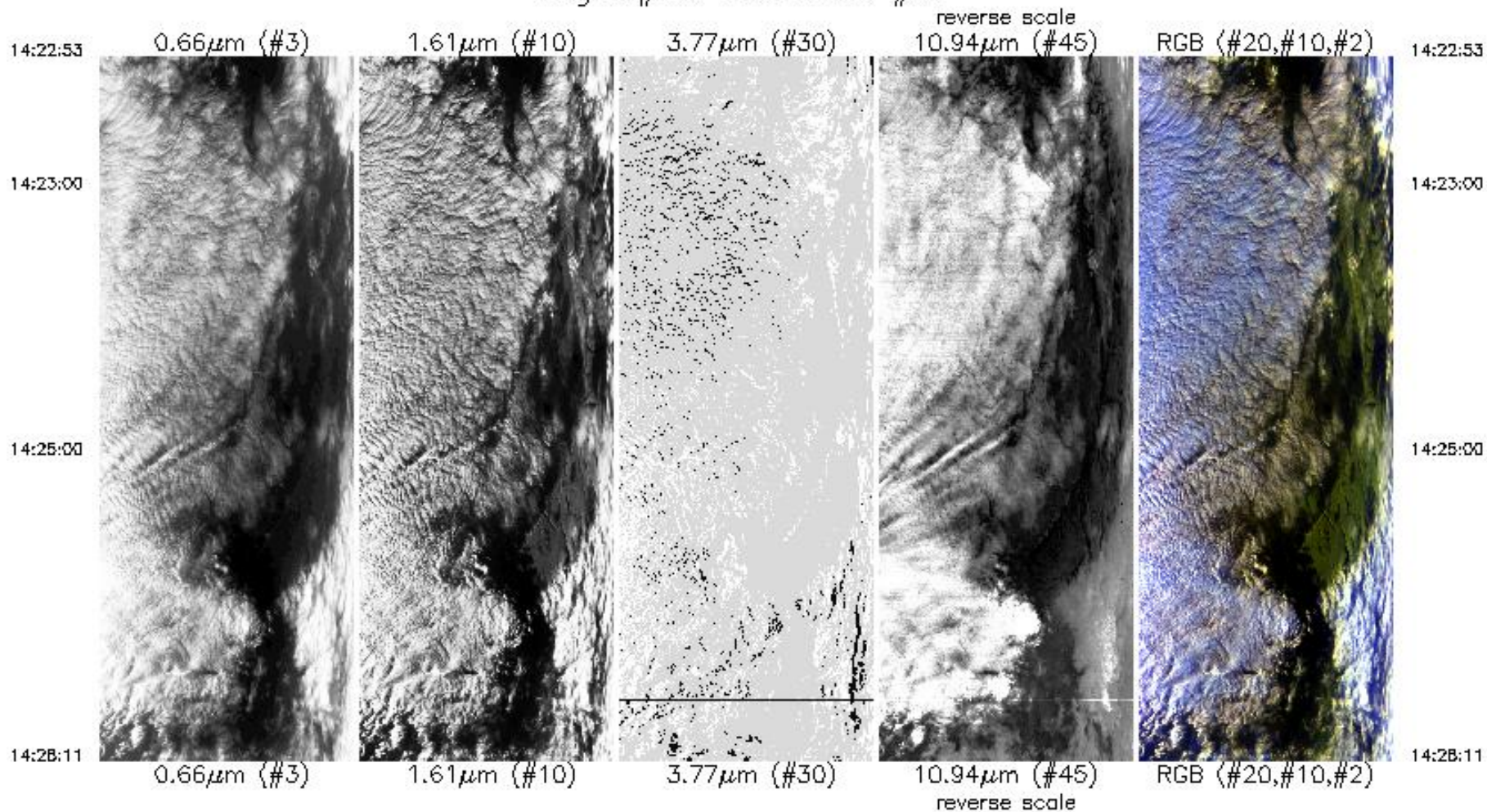


RGB (#20,#10,#2)



14:22:52

MODIS Airborne Simulator Browse Imagery
SAFARI 2000 Campaign – 11 Sep 2000
South Africa
Flight #00-160 Track #24



Aircraft Heading = 313.5°
Solar Zenith = 44.1°
GPS Altitude = 18577. m (MSL)