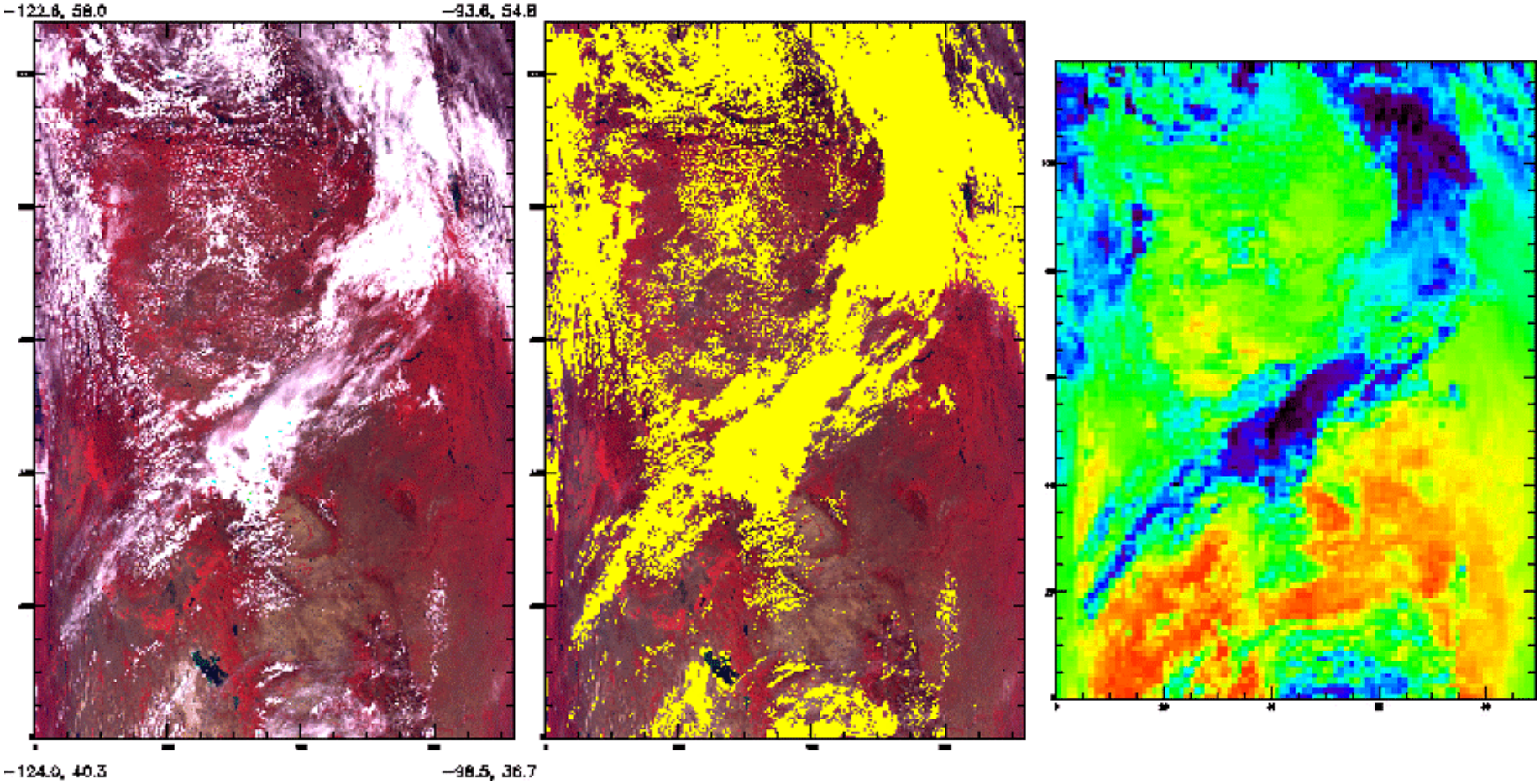
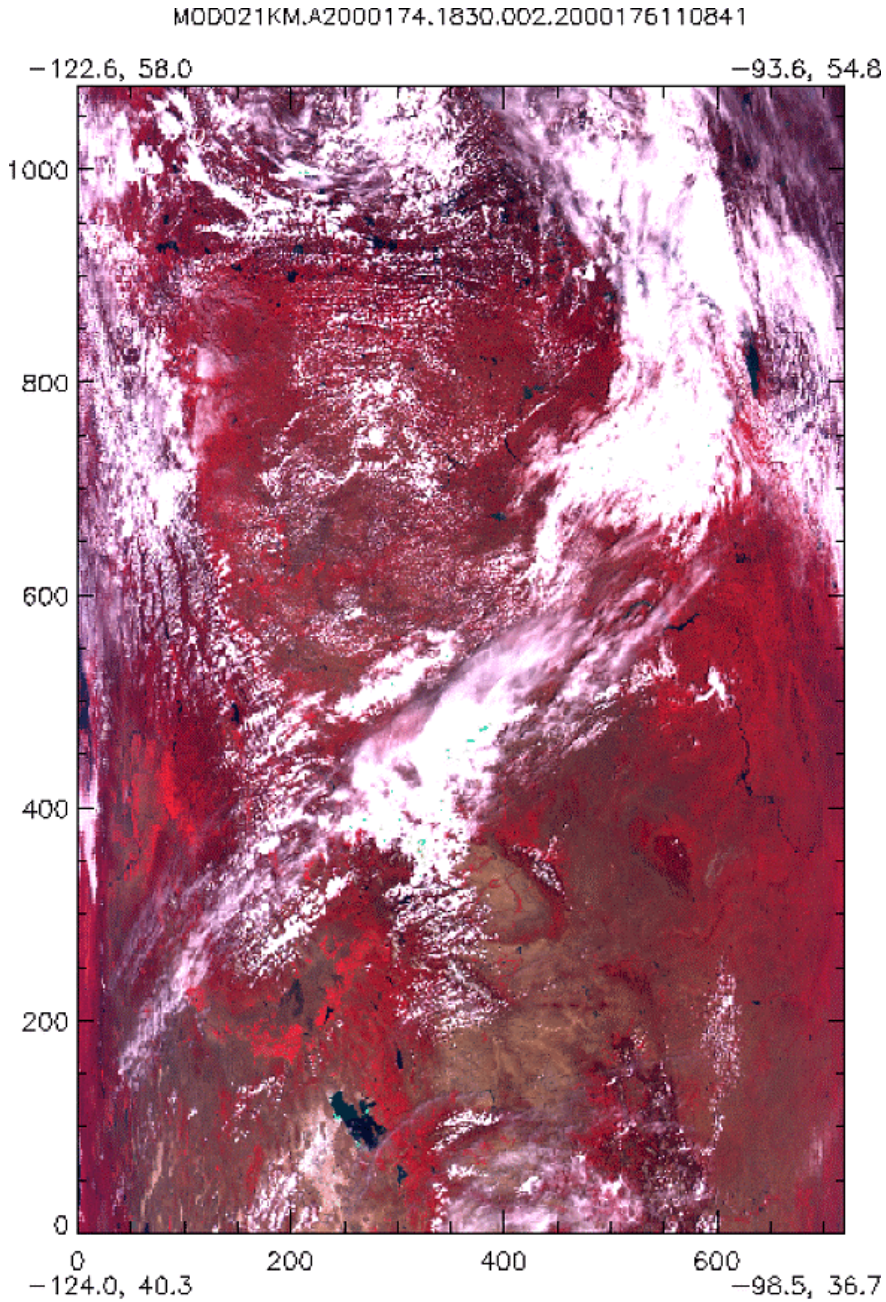
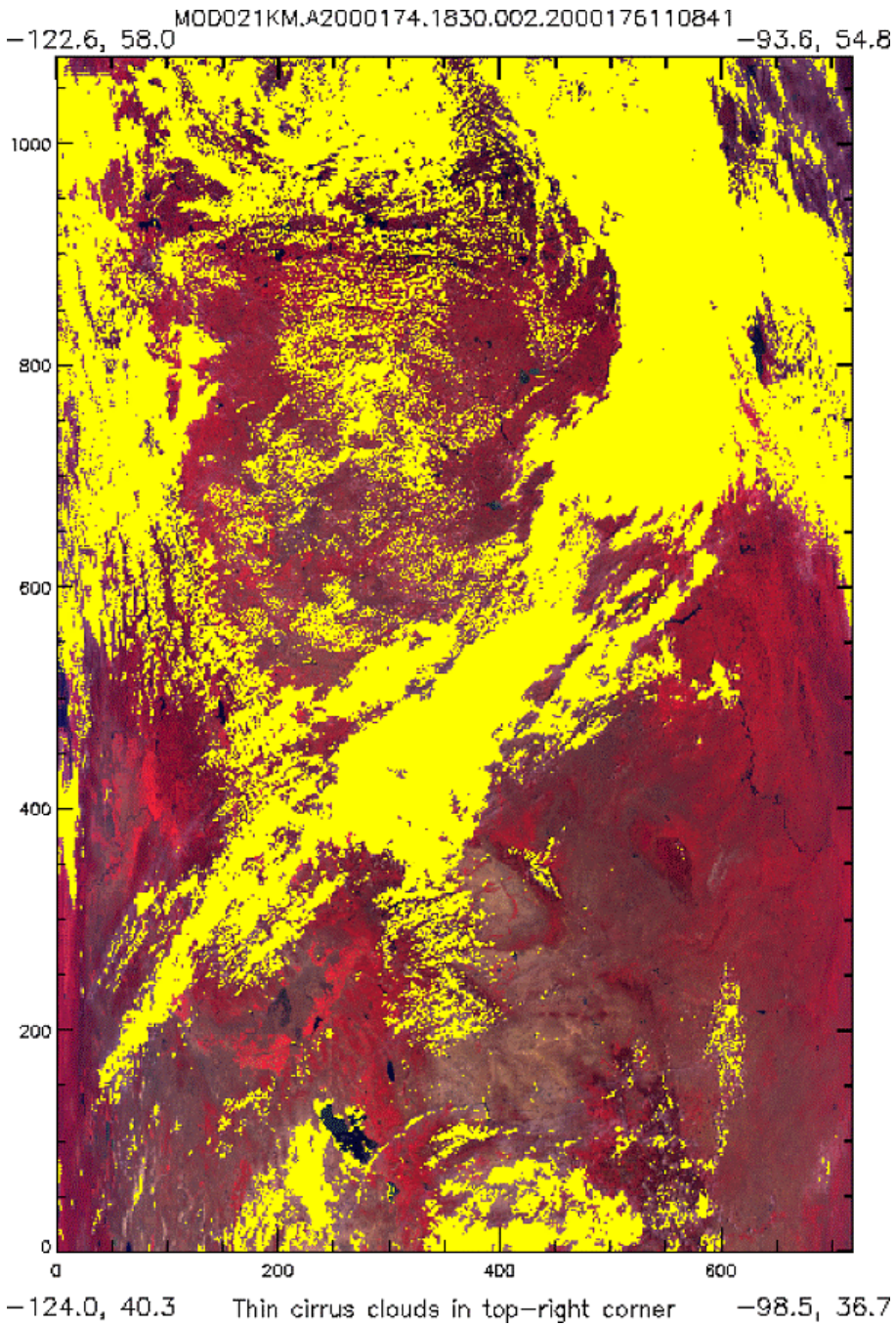
Land Surfaces

MOD021KM.A2000174.1830.002.2000176110841

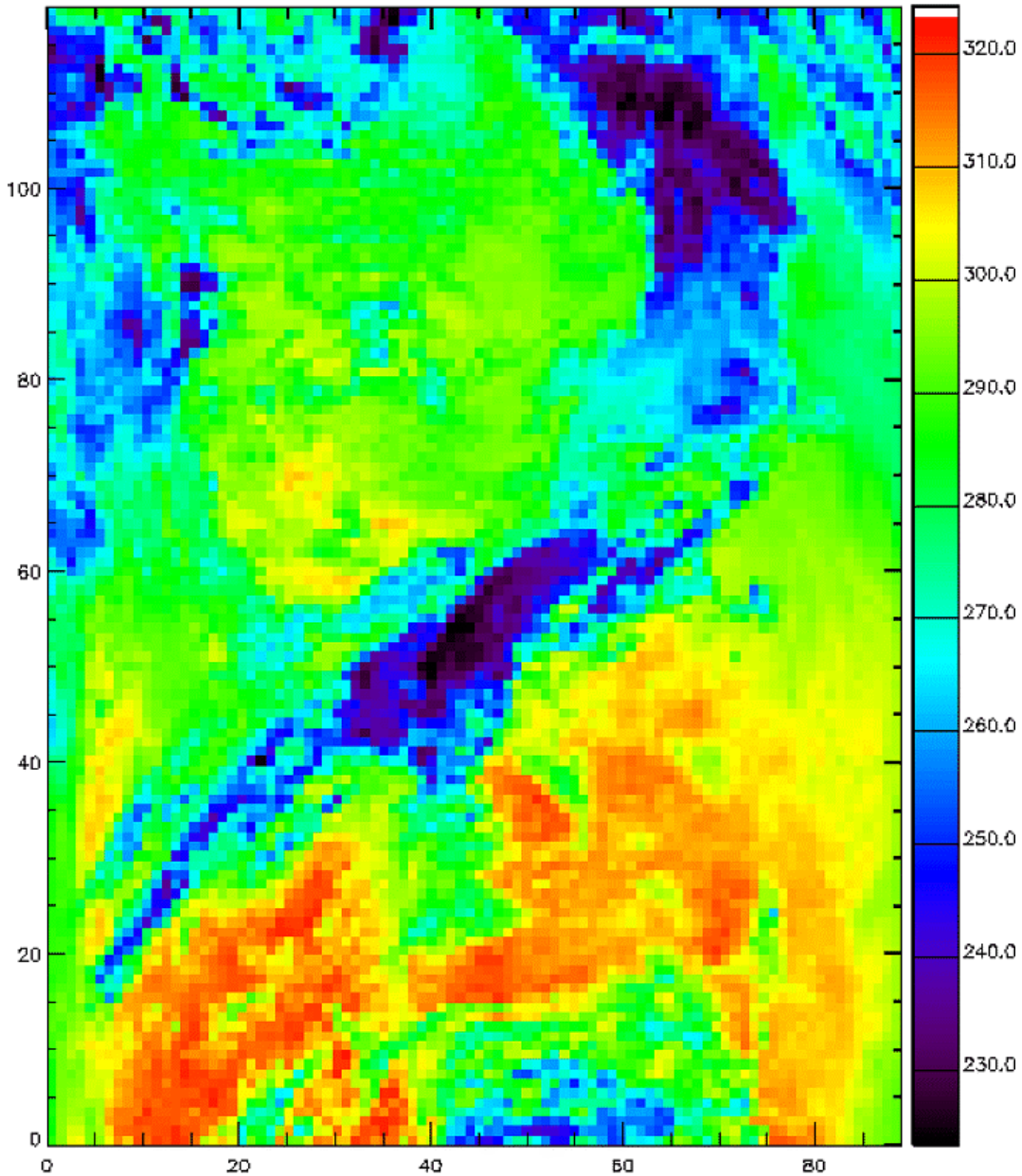


RGB Cloud Mask AIRS 768


MOD021KM.A2000174.1830.002.2000176110841
−122.6, 58.0
−93.6, 54.8
1000
800
600
400
200
0
0
200
400
600
−124.0, 40.3
−98.5, 36.7
Low enhanced color composite


MOD021KM.A2000174.1830.002.2000176110841
−122.6, 58.0
−93.6, 54.8
1000
800
600
400
200
0
0
200
400
600
−124.0, 40.3
Thin cirrus clouds in top−right corner
−98.5, 36.7

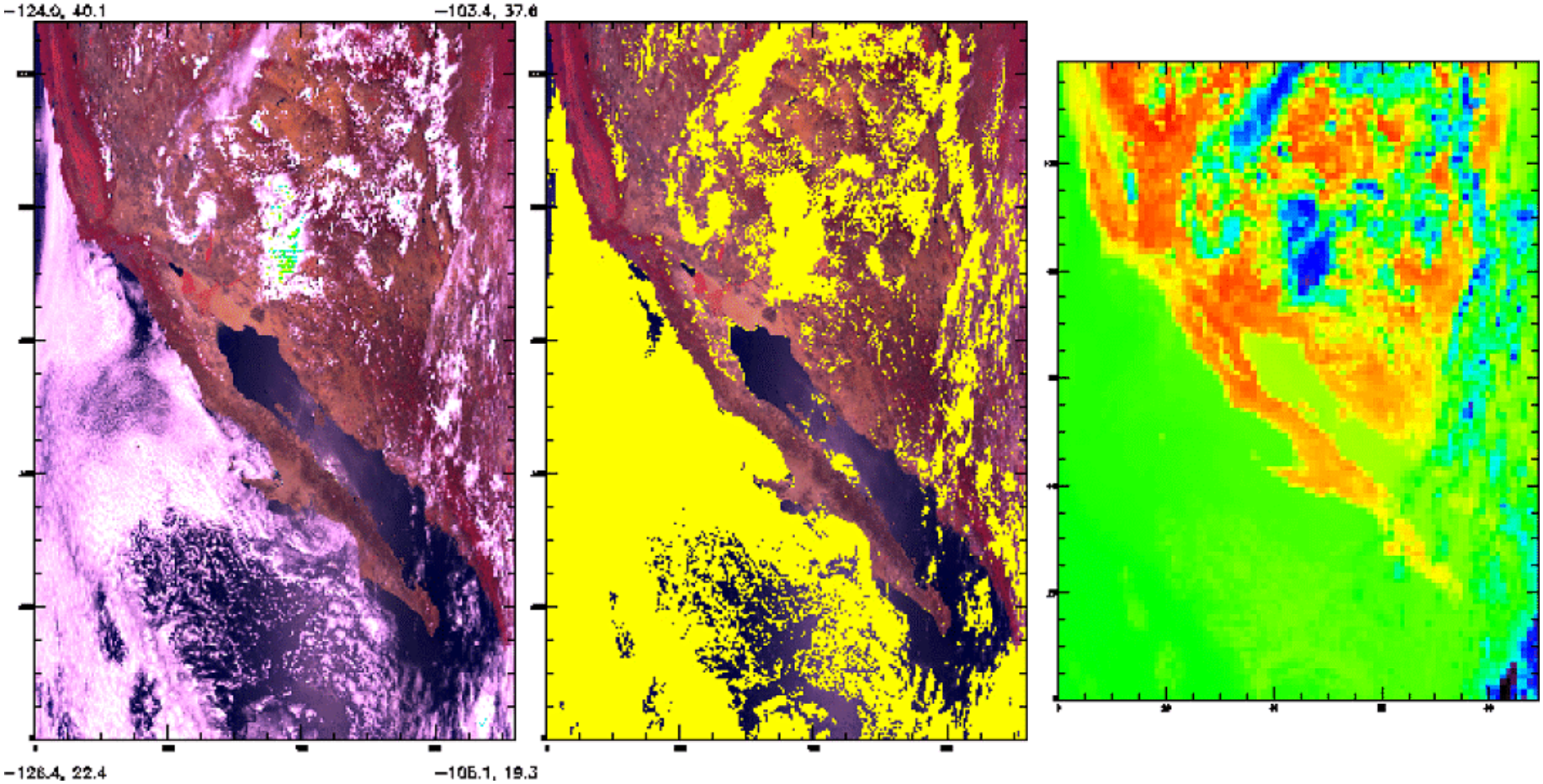
MOD021KM.A2000174.1830.002.2000176110841



Modis channel 31, 11.03 μm

SUNGLINT

MOD021KM.A2000174.1835.002.2000176114615

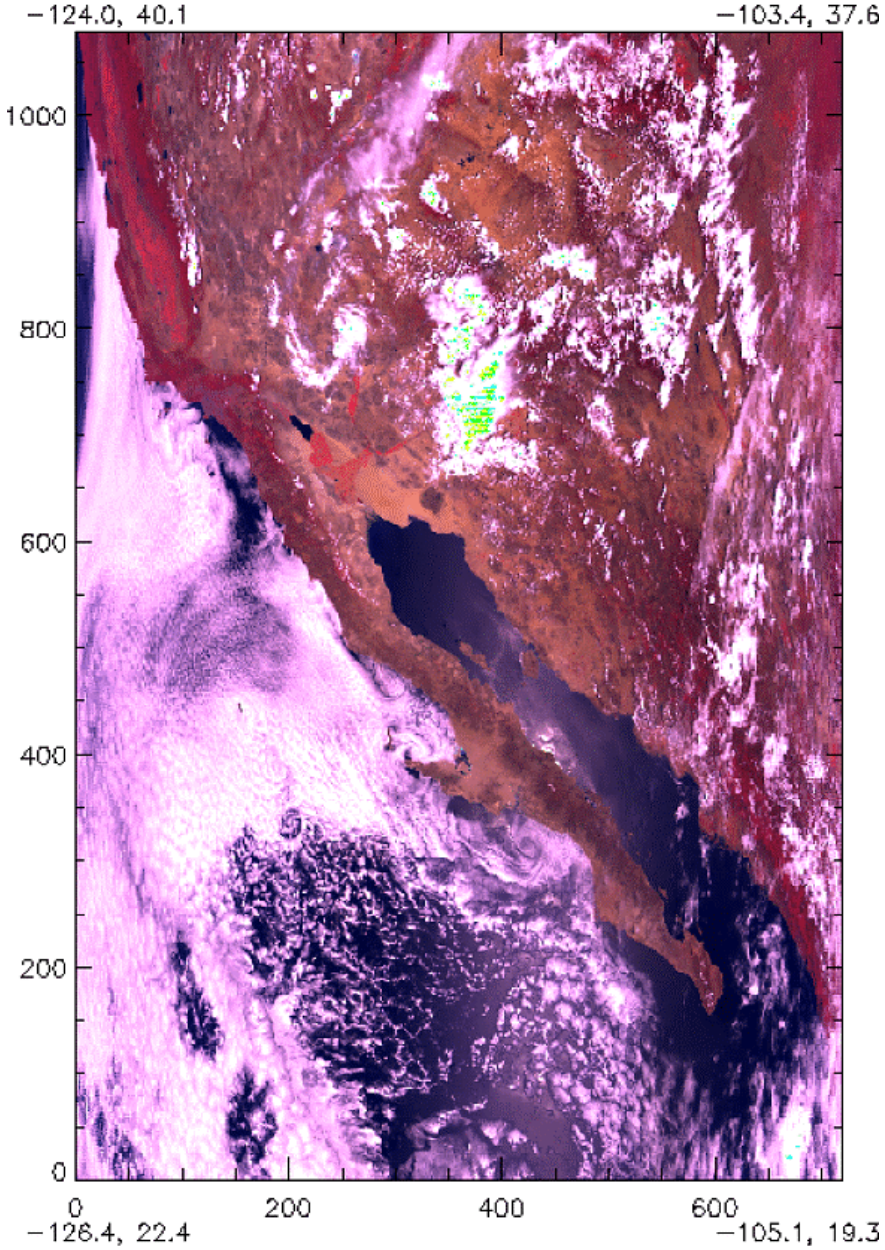


RGB

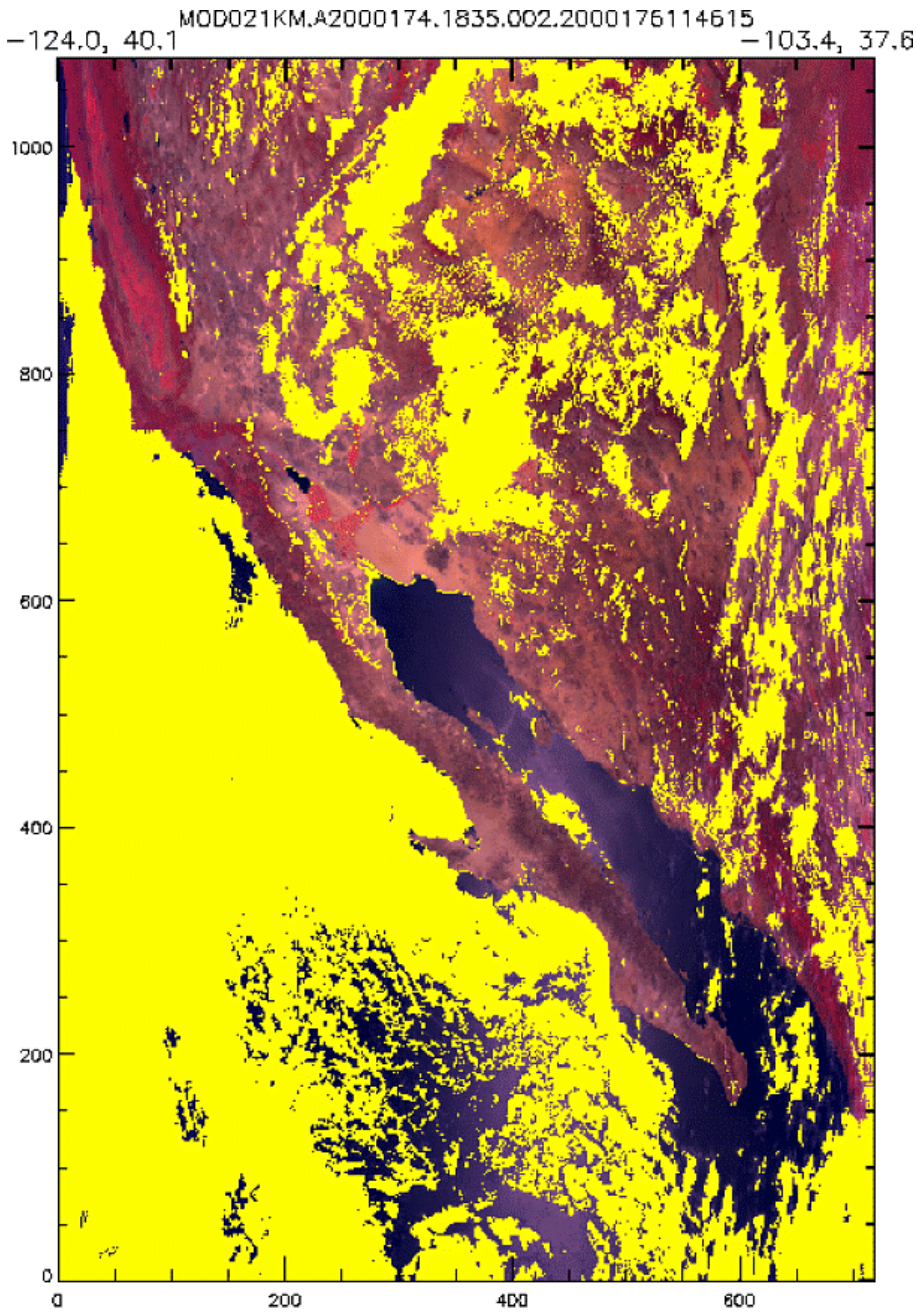
Cloud Mask

AIRS 768

MOD021KM.A2000174.1835.002.2000176114615

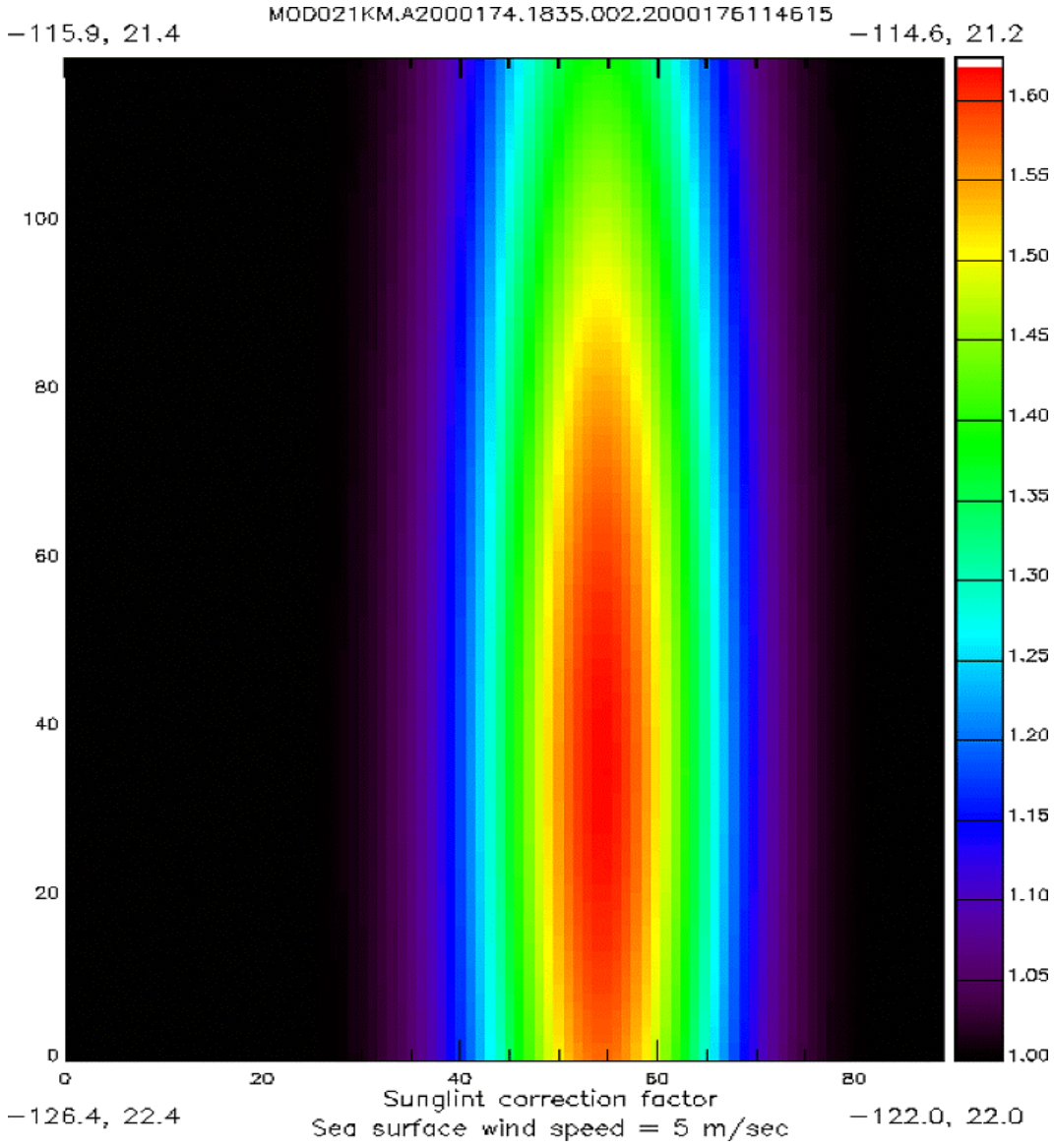


Low enhanced color composite



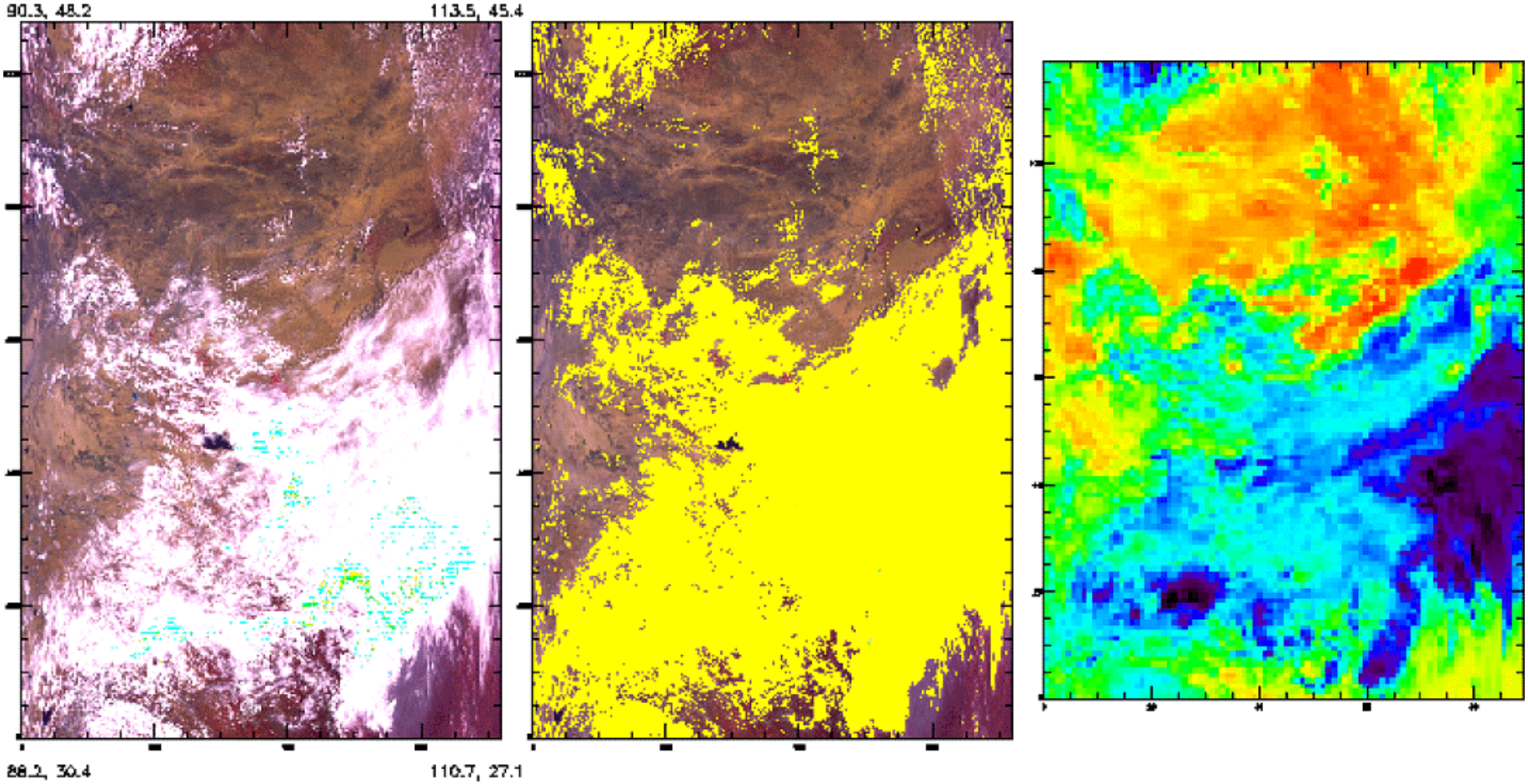
A lenticular strip of sunglint in mid-right

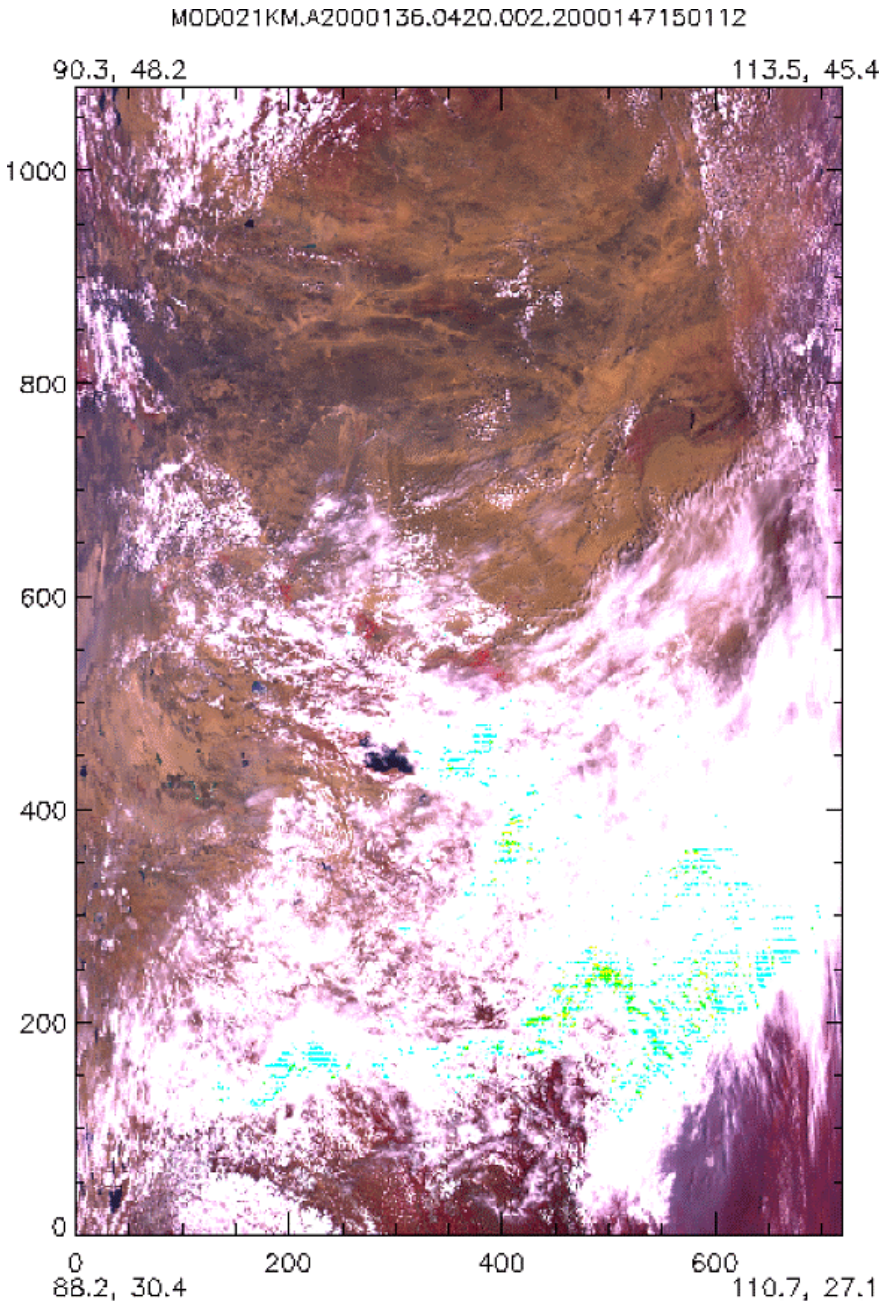
SUNGLINT CORRECTION for w_s = 5 m/s

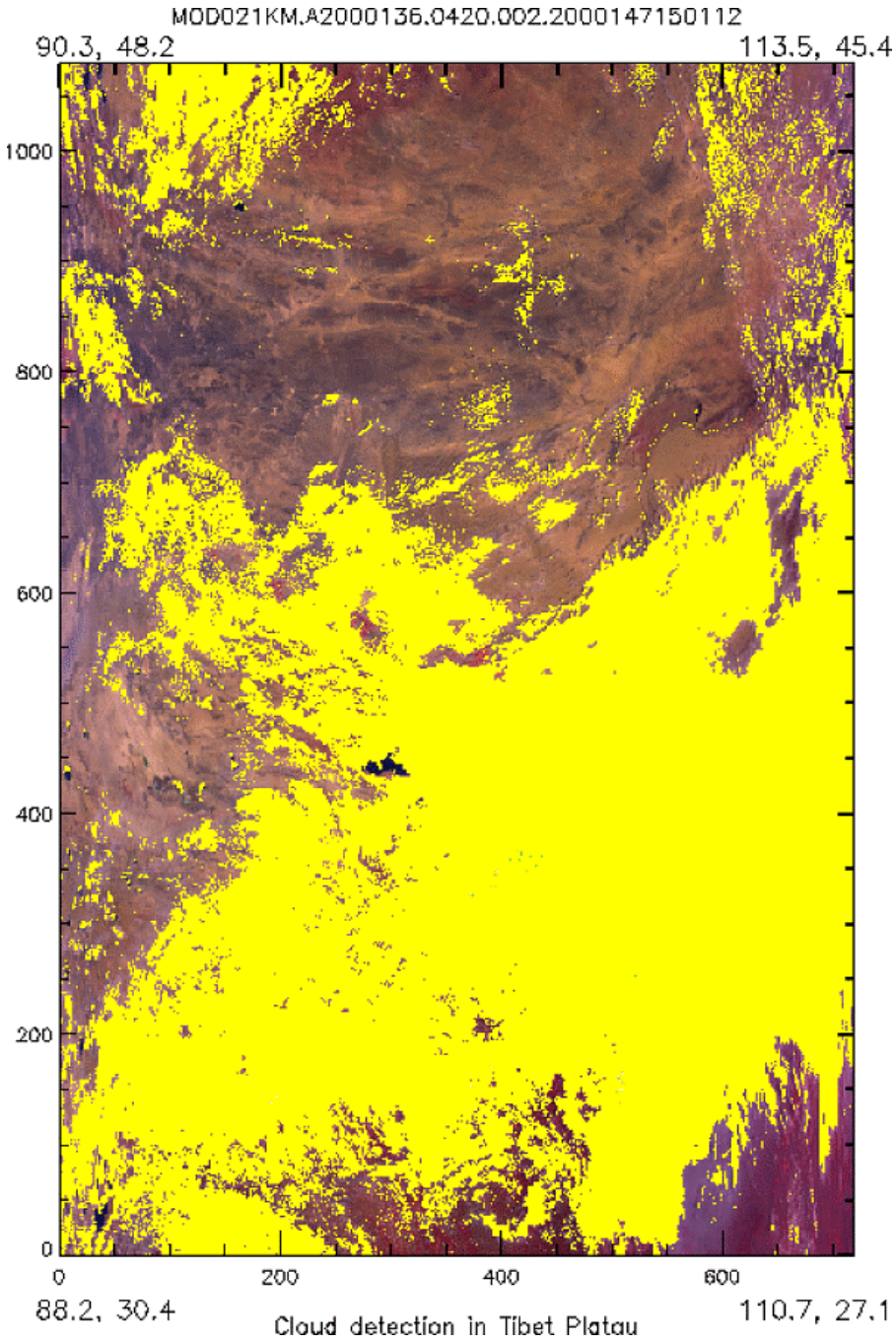


THIN CIRRUS CLOU DS

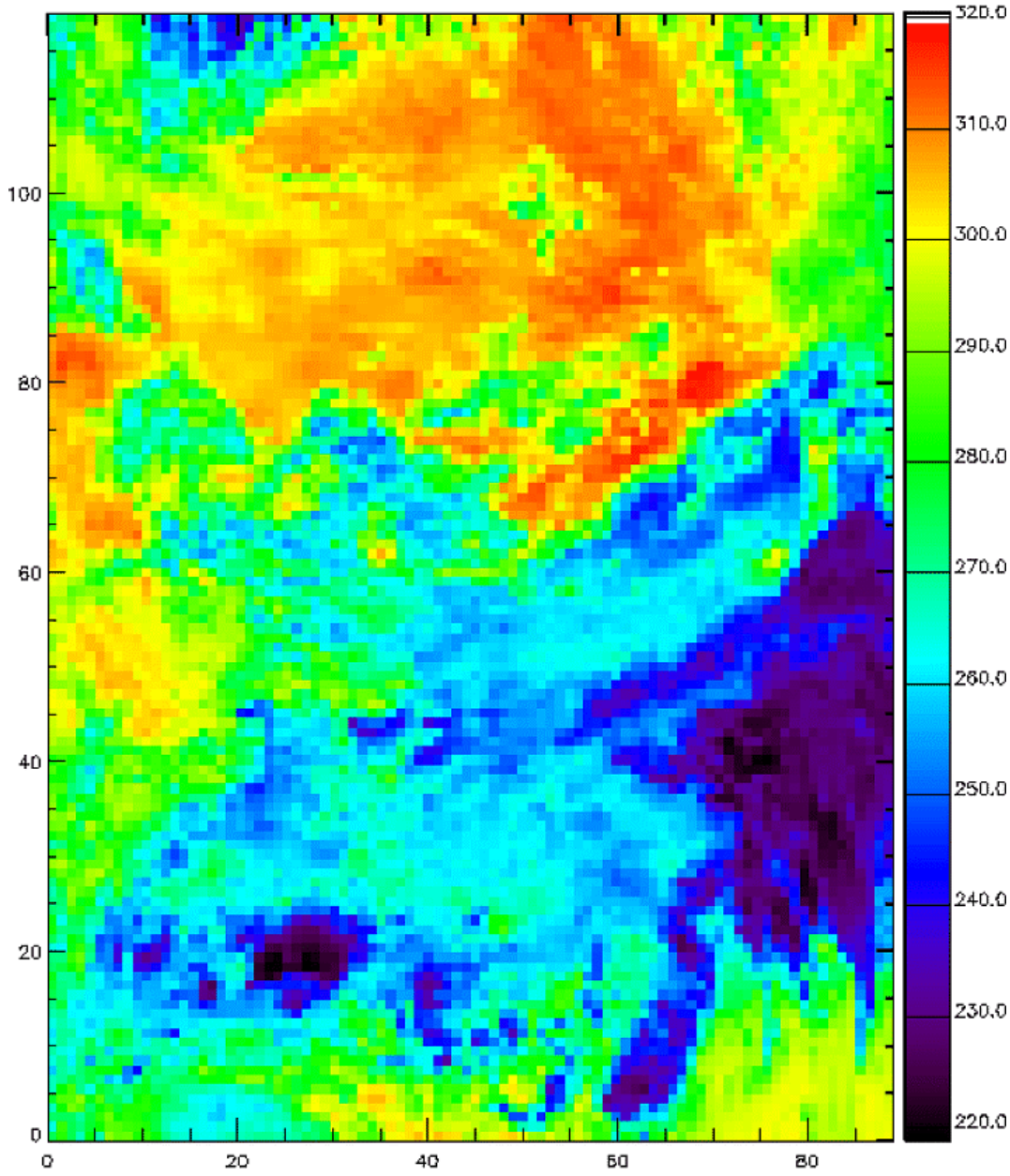
MOD021KM.A2000136.0420.002.2000147150112




MOD021KM.A2000136.0420.002.2000147150112
90.3, 48.2
113.5, 45.4
1000
800
600
400
200
0
0
200
400
600
88.2, 30.4
110.7, 27.1
Low enhanced color composite


MOD021KM.A2000136.0420.002.2000147150112
90.3, 48.2
113.5, 45.4
1000
800
600
400
200
0
0
200
400
600
88.2, 30.4
110.7, 27.1
Cloud detection in Tibet Plateau

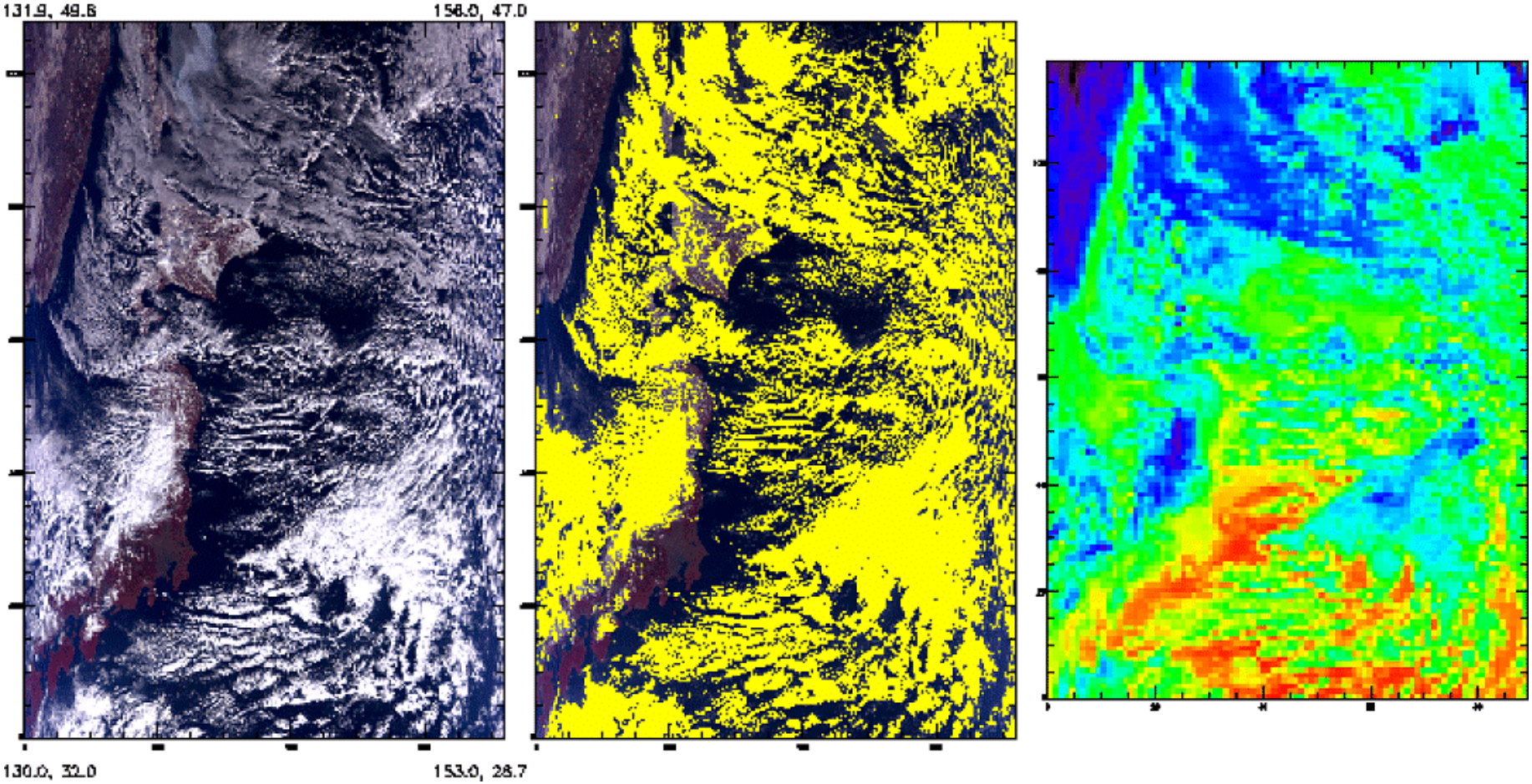
MOD021KM.A2000136.0420.002.2000147150112

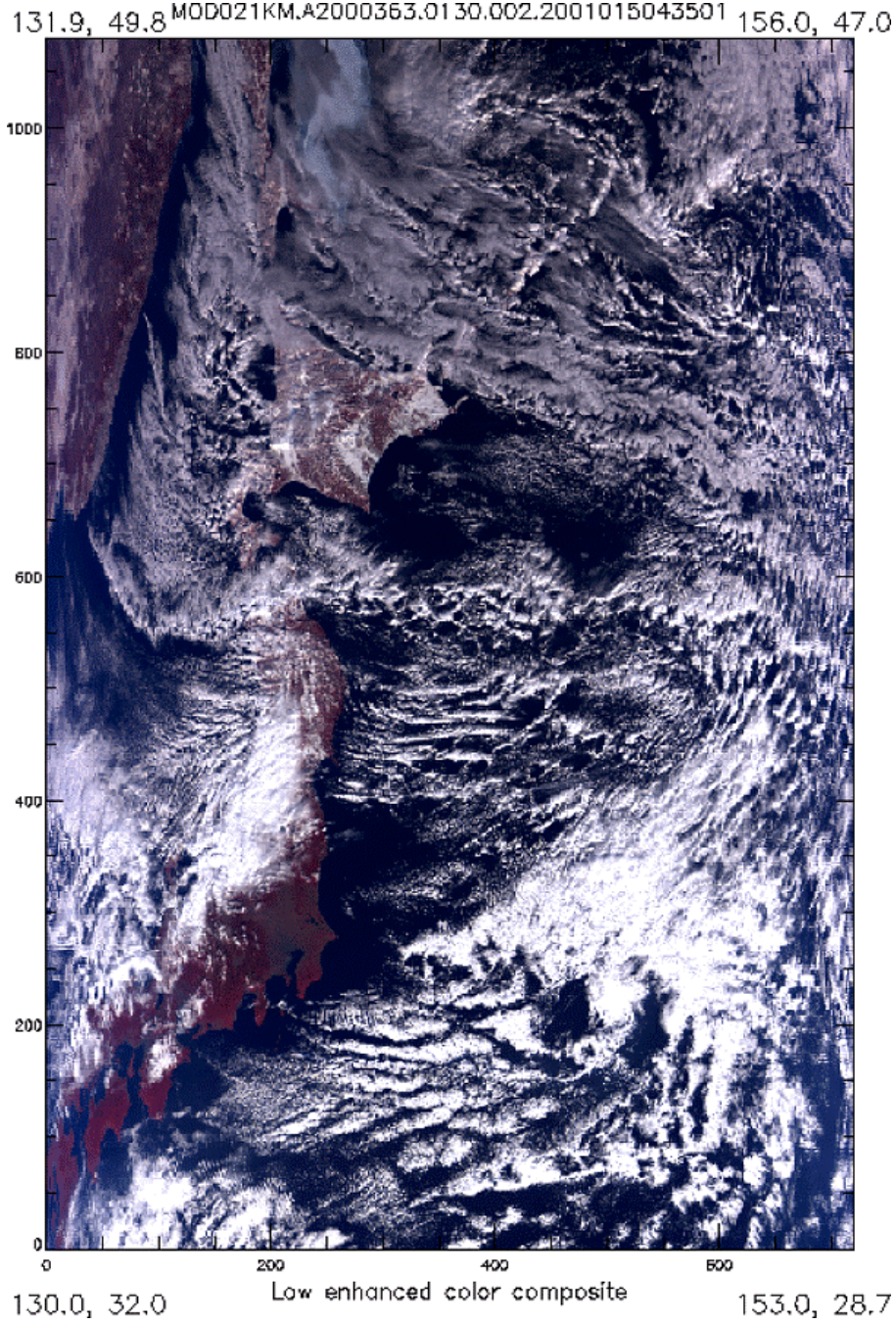


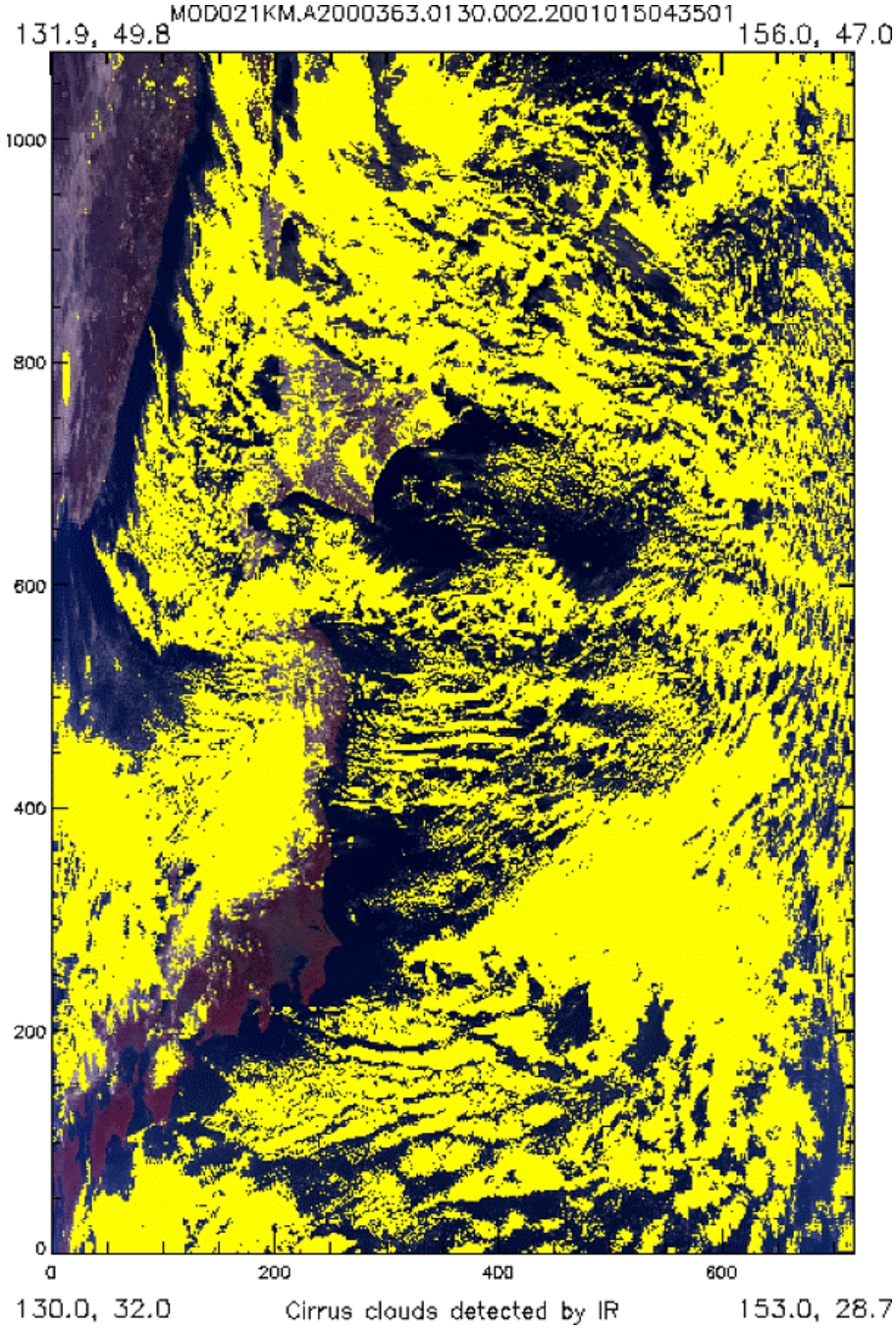
Modis channel 31, 11.03 μm

HIGH LA TITUDE WINTER

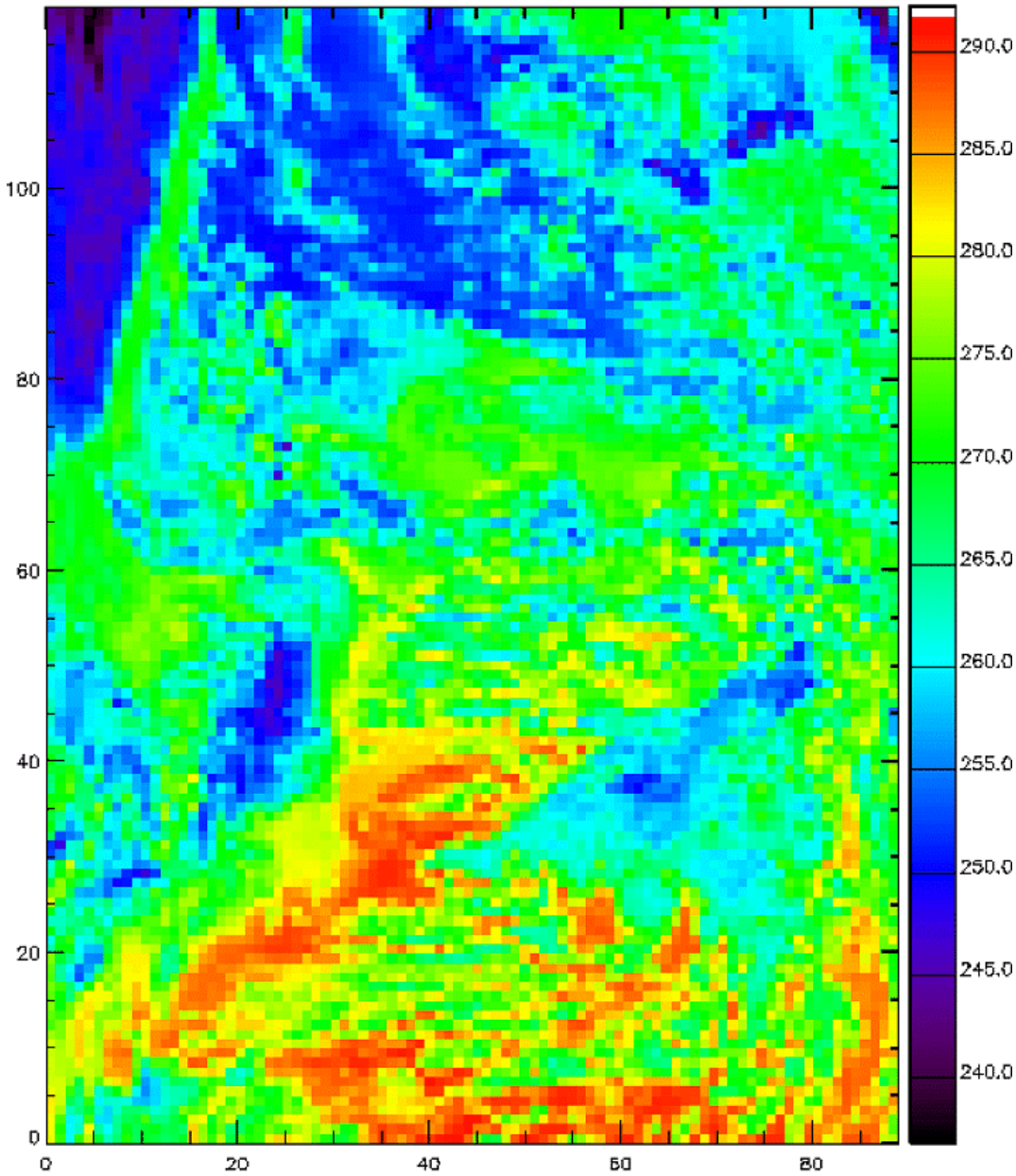
MOD021KM.A2000363.0130.002.2001015043501




131.9, 49.8
MOD021KM.A2000363.0130.002.2001015043501
156.0, 47.0
1000
800
600
400
200
0
0
200
400
600
Low enhanced color composite
130.0, 32.0
153.0, 28.7

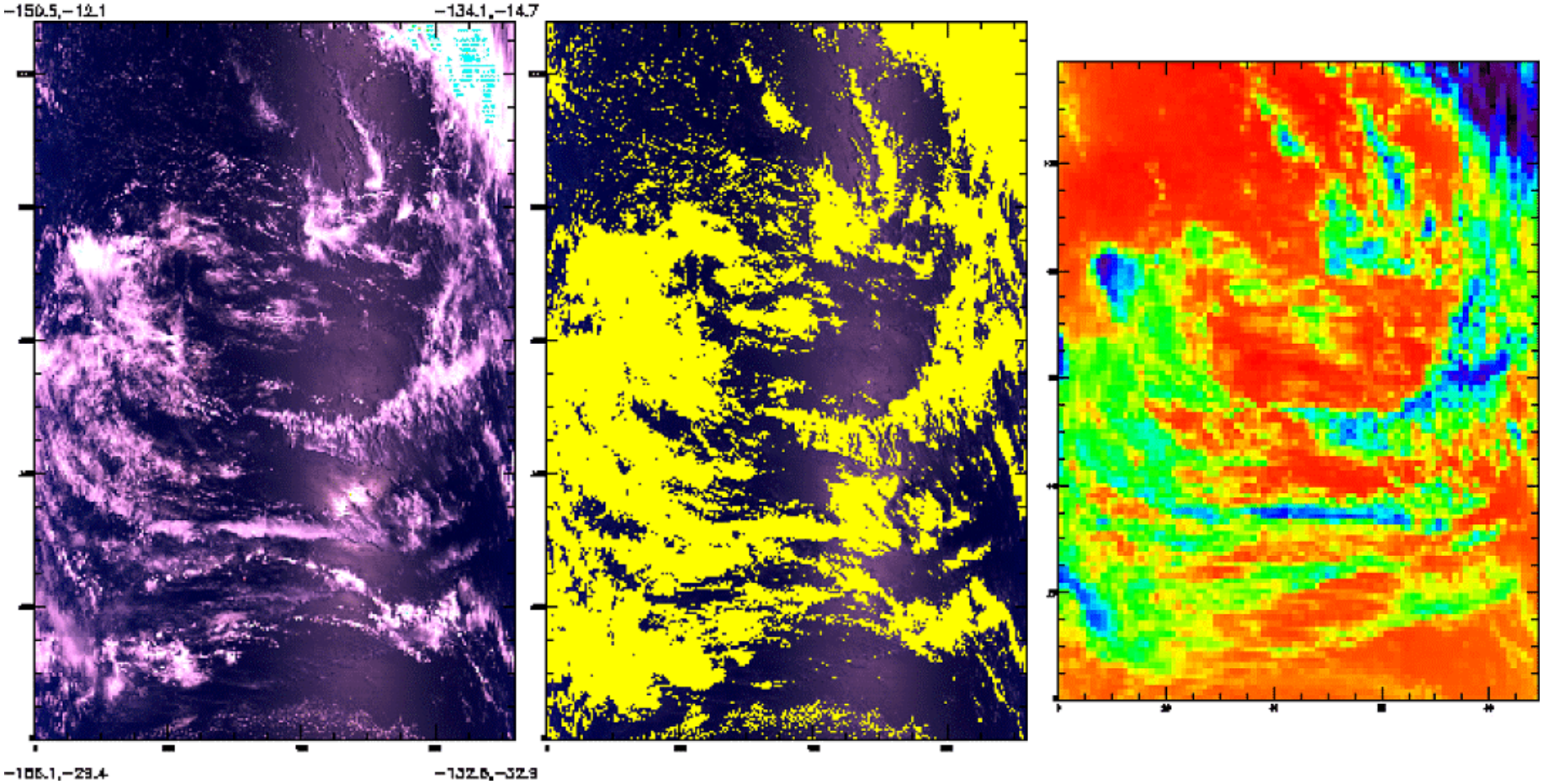

MOD021KM.A2000363.0130.002.2001015043501
131.9, 49.8
156.0, 47.0
1000
800
600
400
200
0
0
200
400
600
130.0, 32.0
Cirrus clouds detected by IR
153.0, 28.7

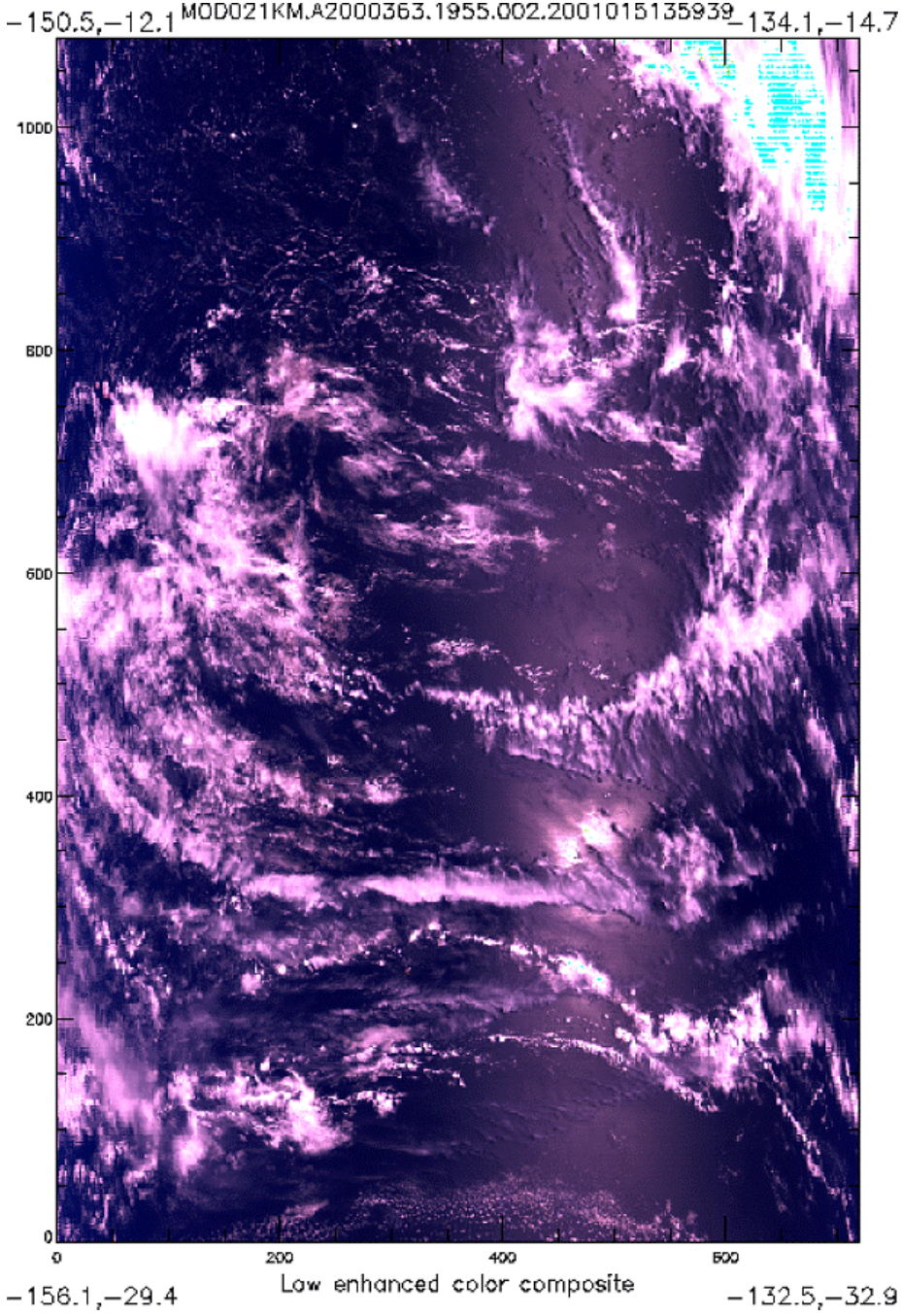
MOD021KM.A2000363.0130.002.2001015043501

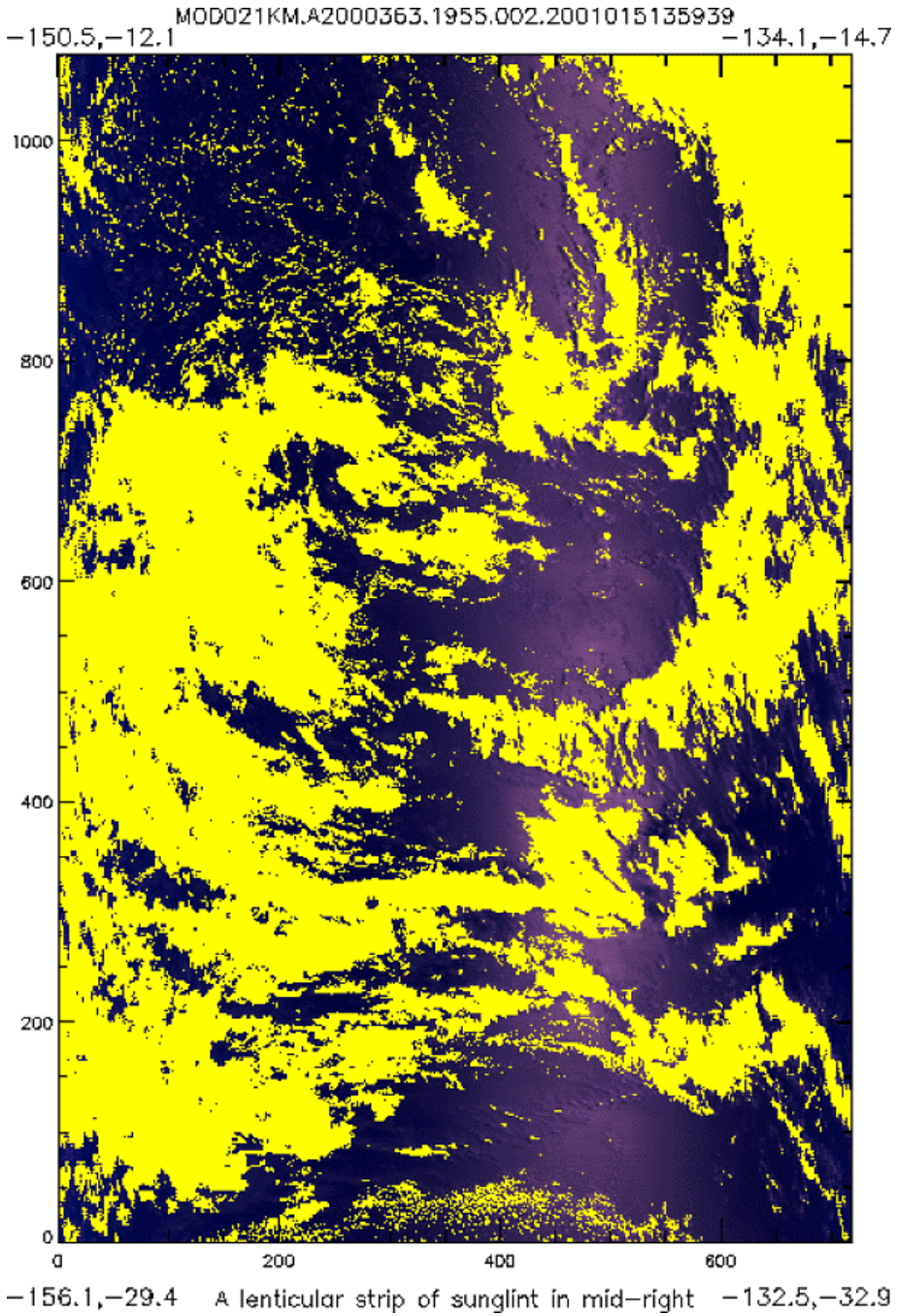


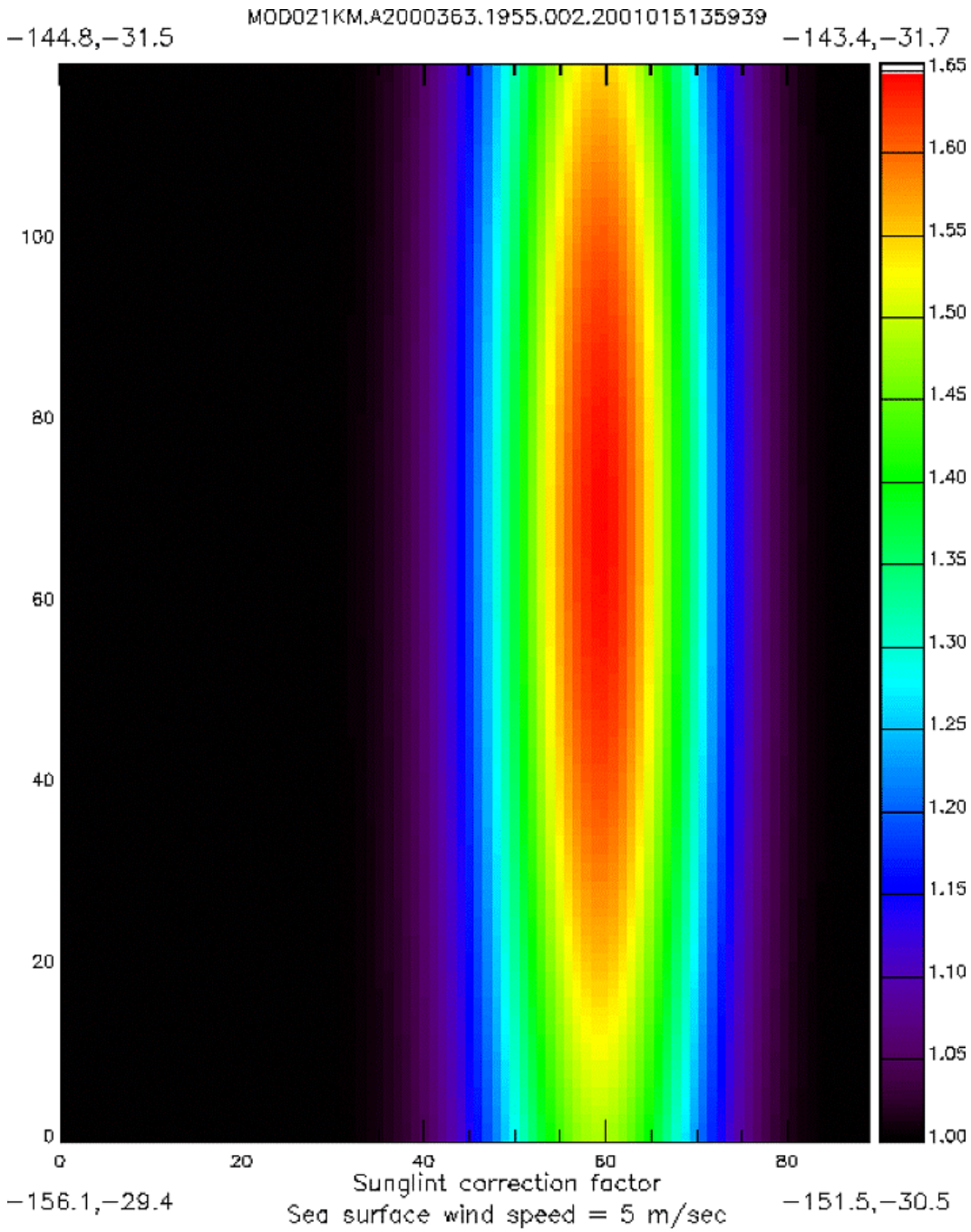
SUNGLINT

MOD021KM.A2000363.1955.002.2001015135939



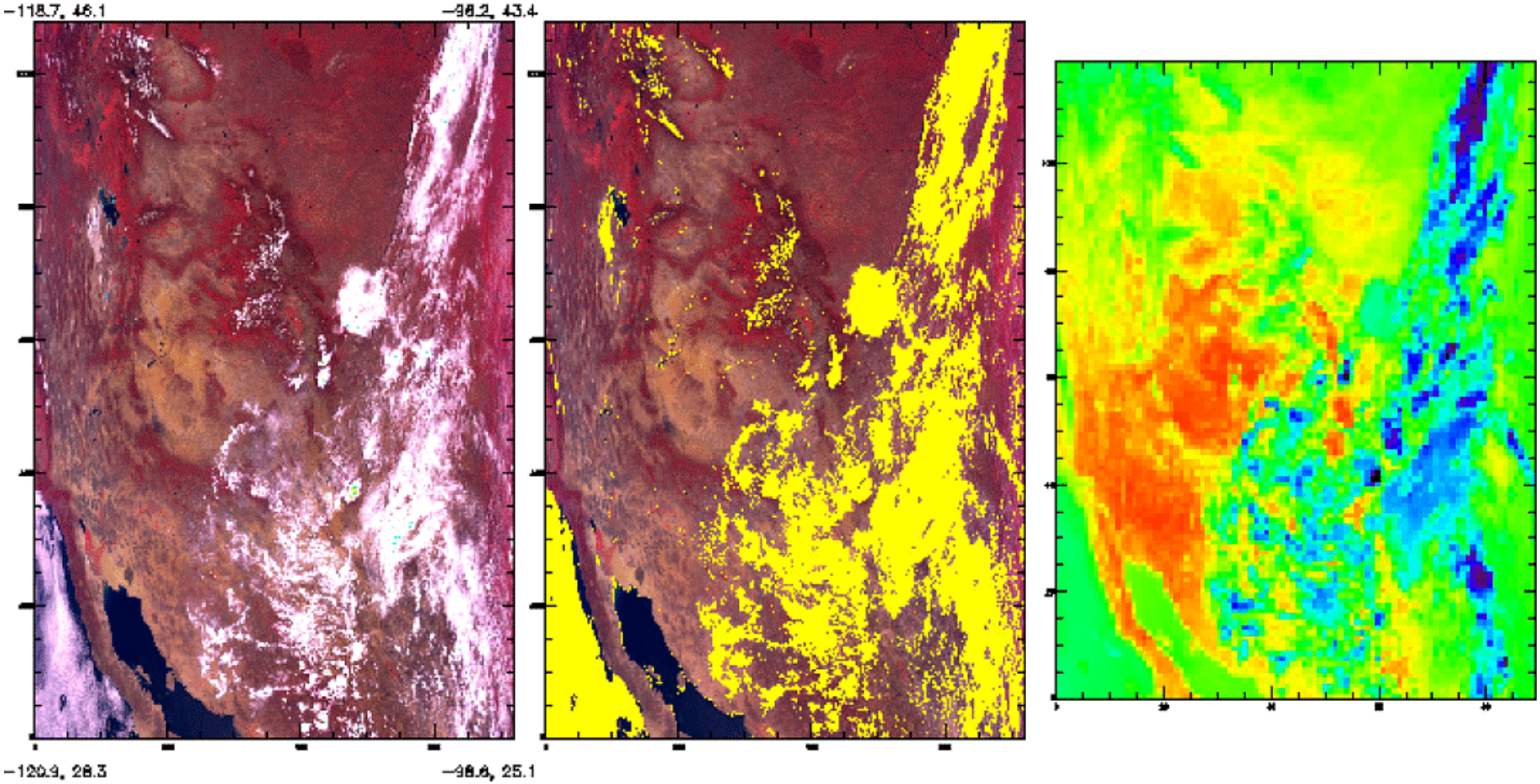

−150.5,−12.1
MOD021KM.A2000363.1955.002.2001015135939
−134.1,−14.7
1000
800
600
400
200
0
0
200
400
600
Low enhanced color composite
−156.1,−29.4
−132.5,−32.9

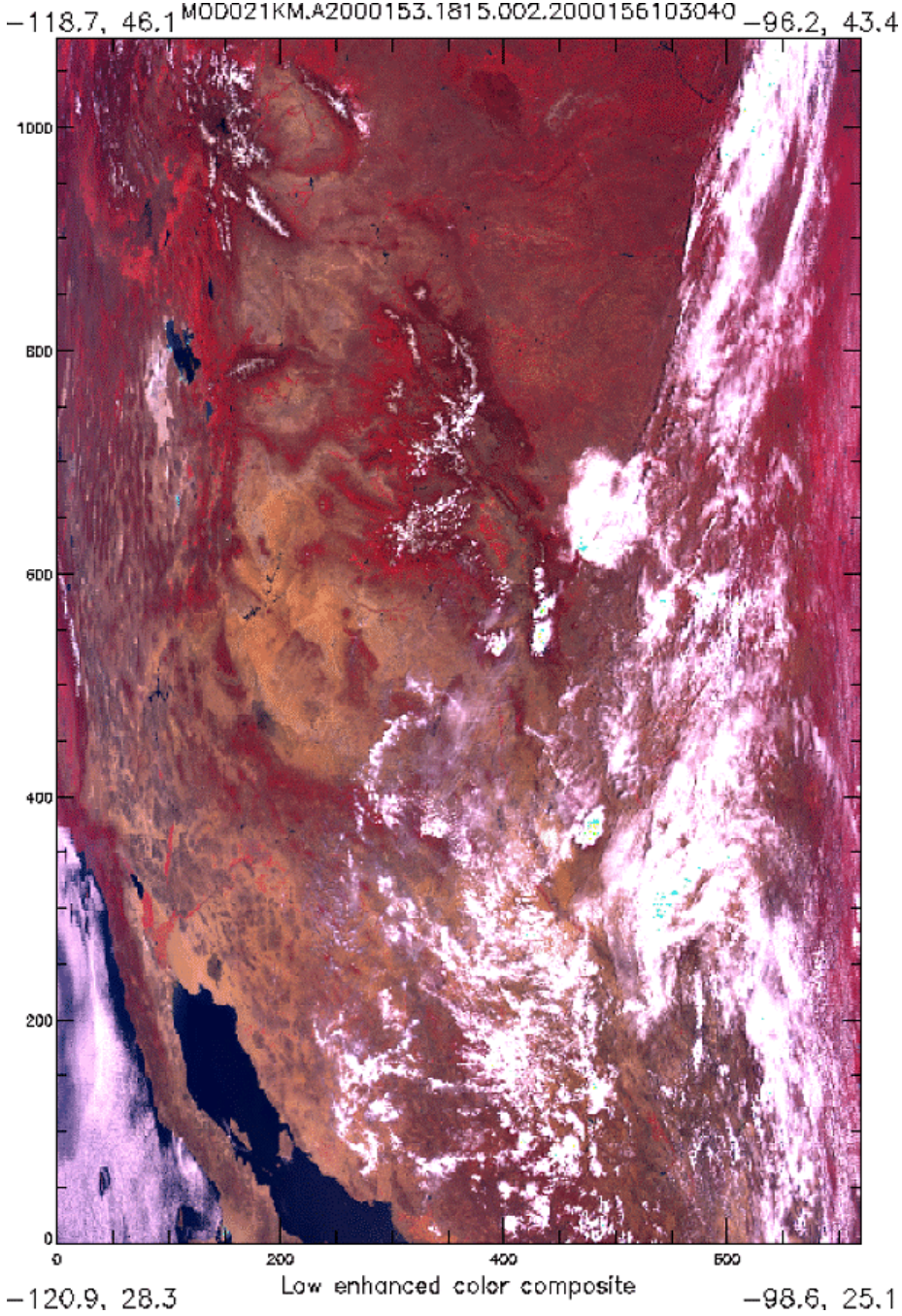

MOD021KM.A2000363.1955.002.2001015135939
−150.5,−12.1
−134.1,−14.7
1000
800
600
400
200
0
0
200
400
600
−156.1,−29.4
A lenticular strip of sunglint in mid−right
−132.5,−32.9

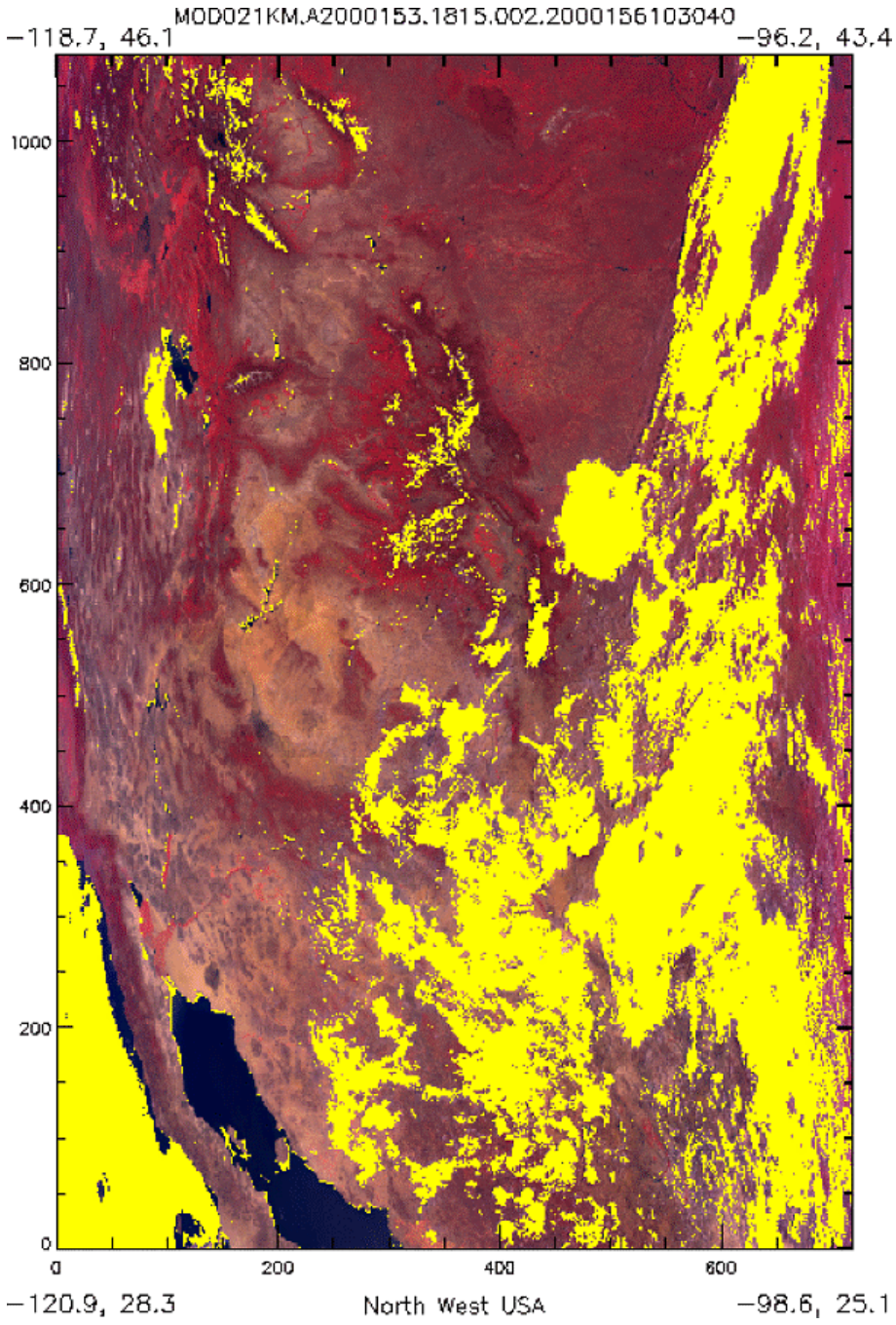

MOD021KM.A2000363.1955.002.2001015135939
−144.8,−31.5
−143.4,−31.7
100
80
60
40
20
0
0
20
40
60
80
1.65
1.60
1.55
1.50
1.45
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
Sunglint correction factor
Sea surface wind speed = 5 m/sec
−156.1,−29.4
−151.5,−30.5

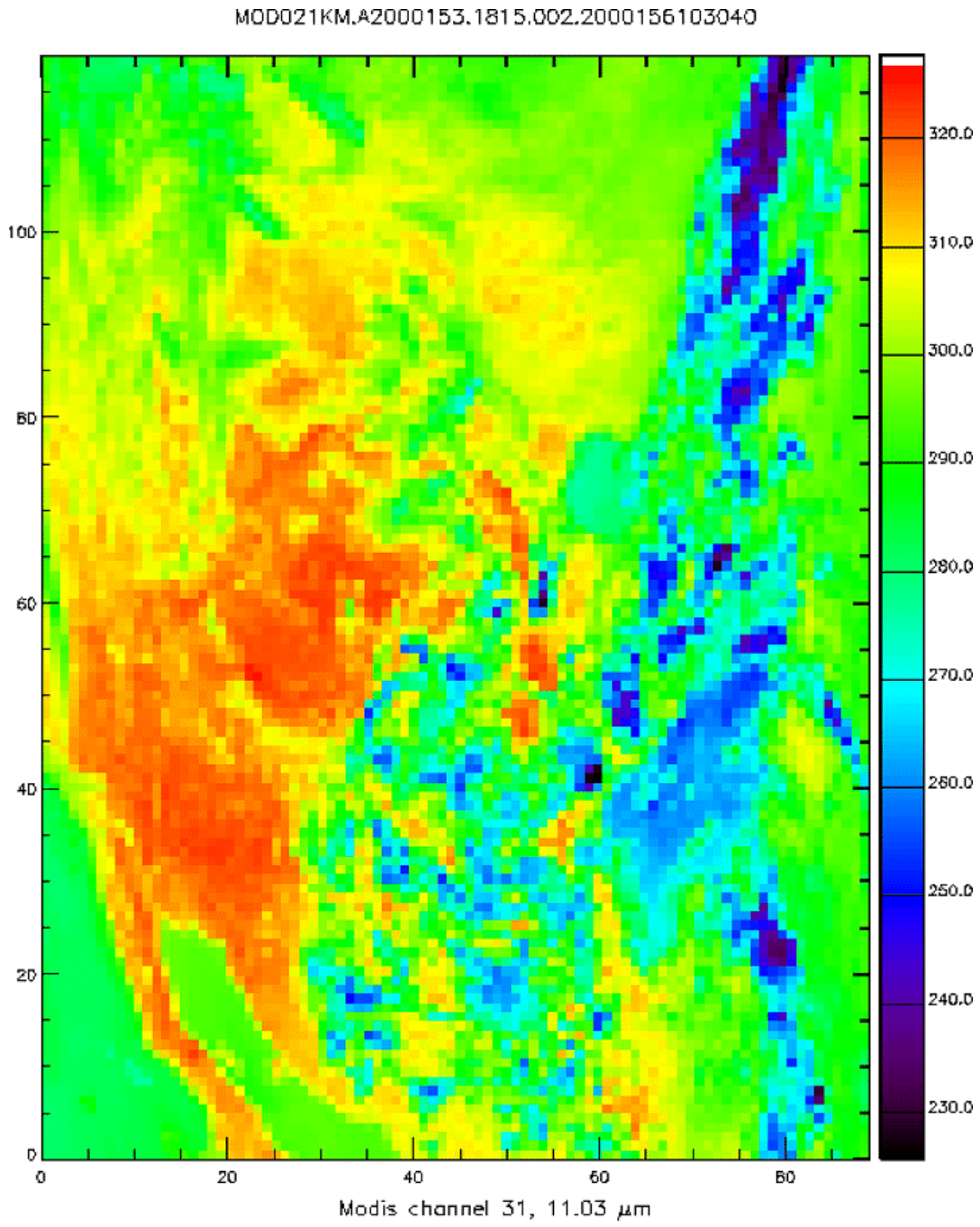
BRIGHT SAND SURFACE

MOD021KM.A2000153.1815.002.2000156103040

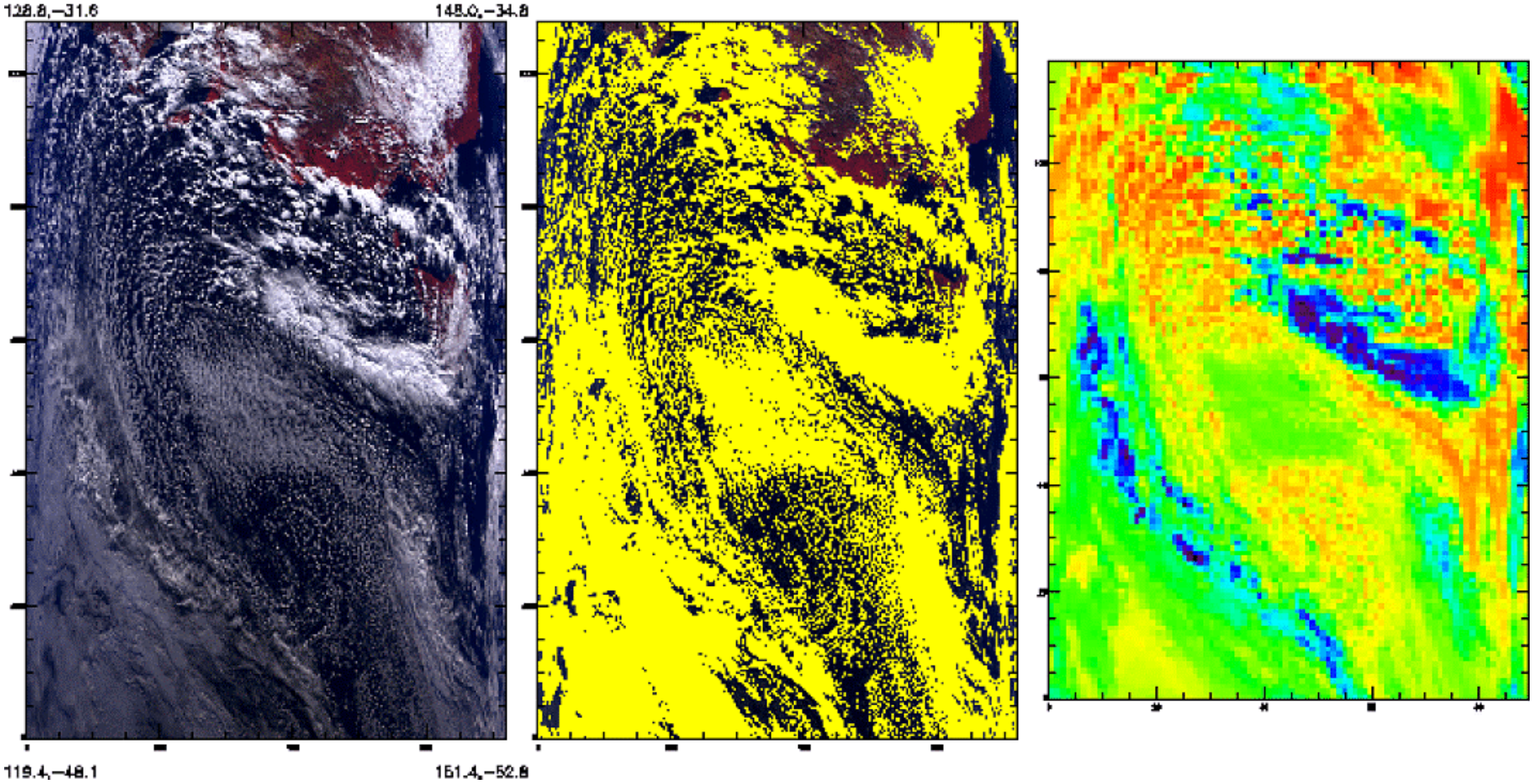


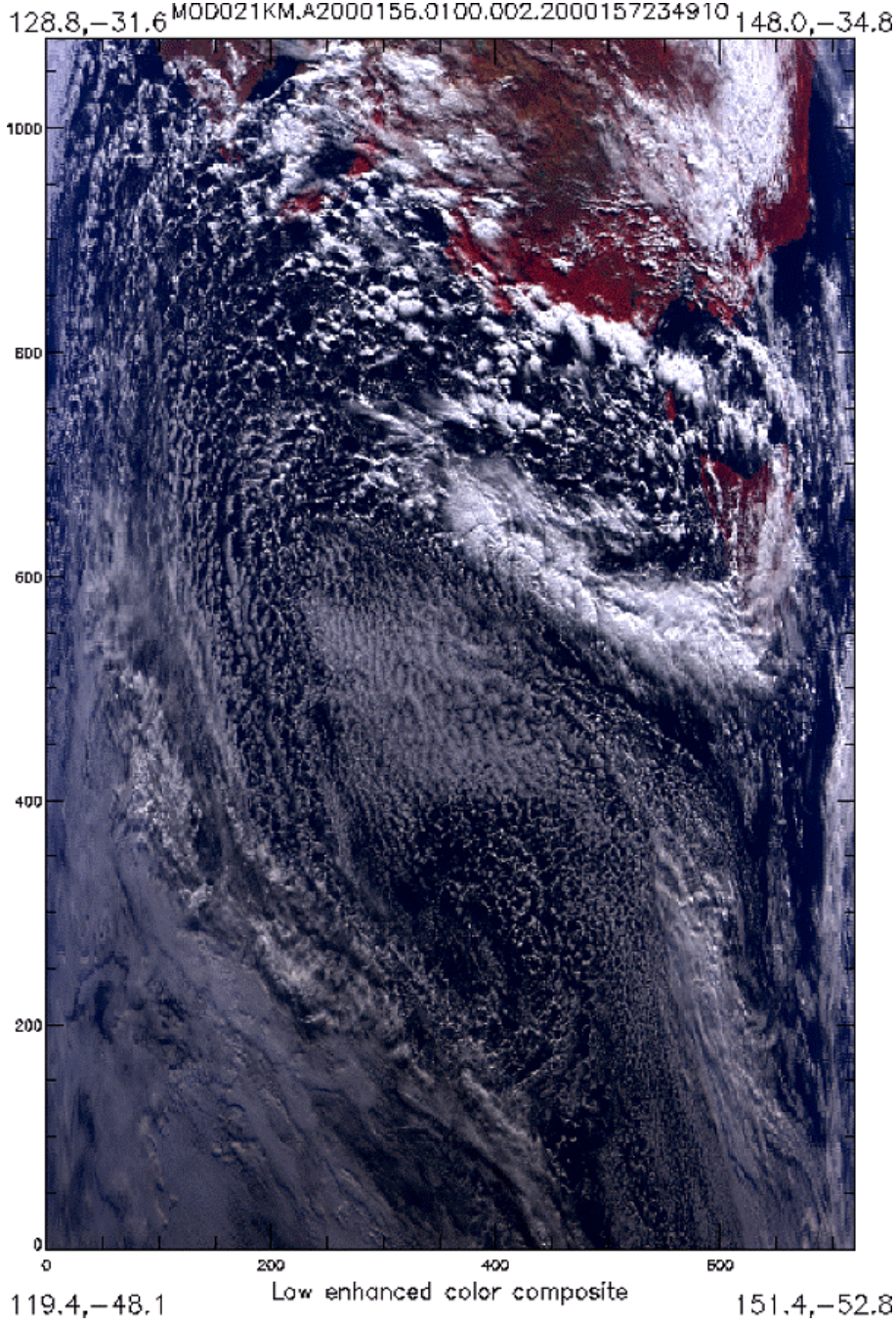

−118.7, 46.1
MOD021KM.A2000153.1815.002.2000156103040
−96.2, 43.4
1000
800
600
400
200
0
0
200
400
600
Low enhanced color composite
−120.9, 28.3
−98.6, 25.1

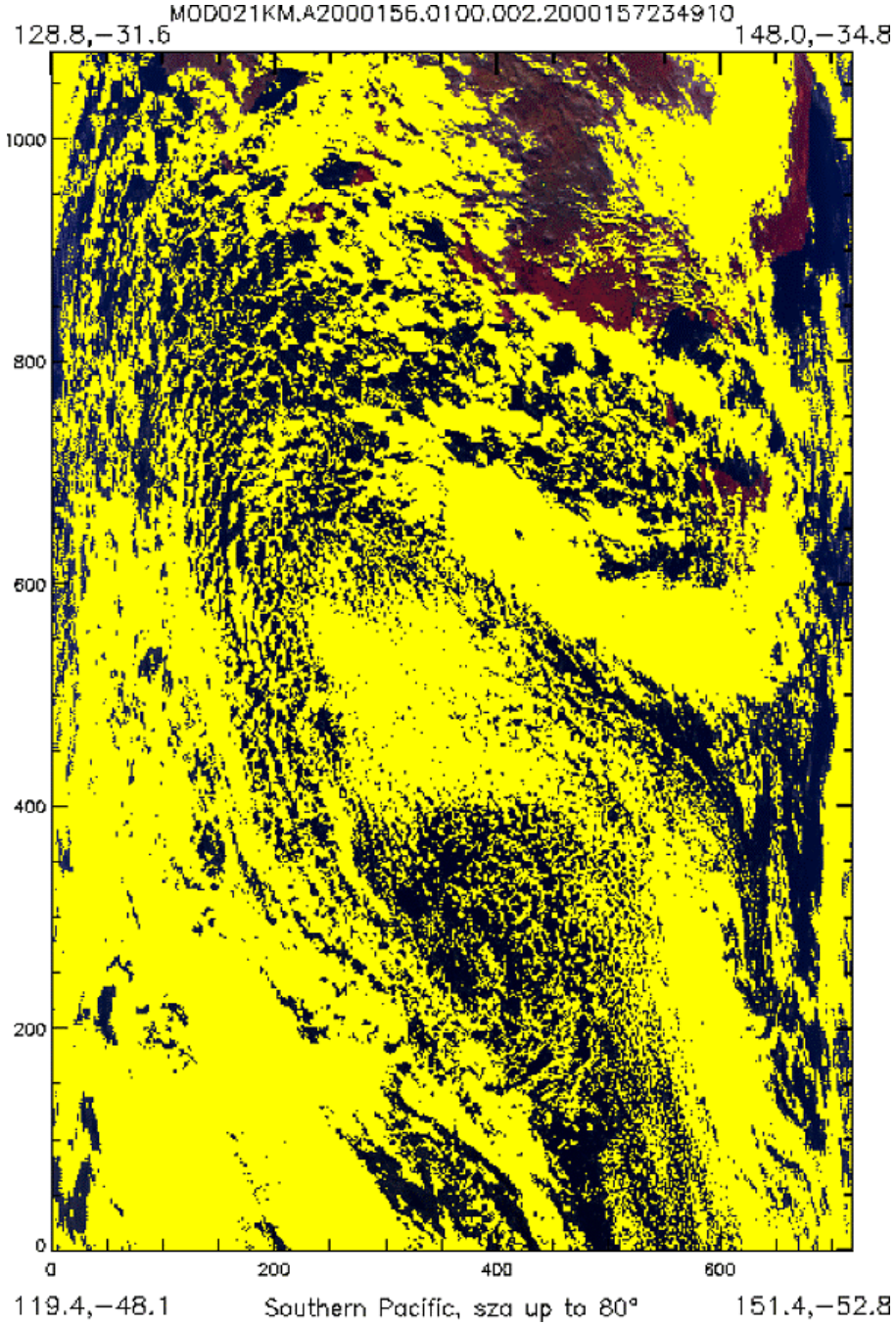

MOD021KM.A2000153.1815.002.2000156103040
−118.7, 46.1
−96.2, 43.4
1000
800
600
400
200
0
0
200
400
600
−120.9, 28.3
North West USA
−98.6, 25.1

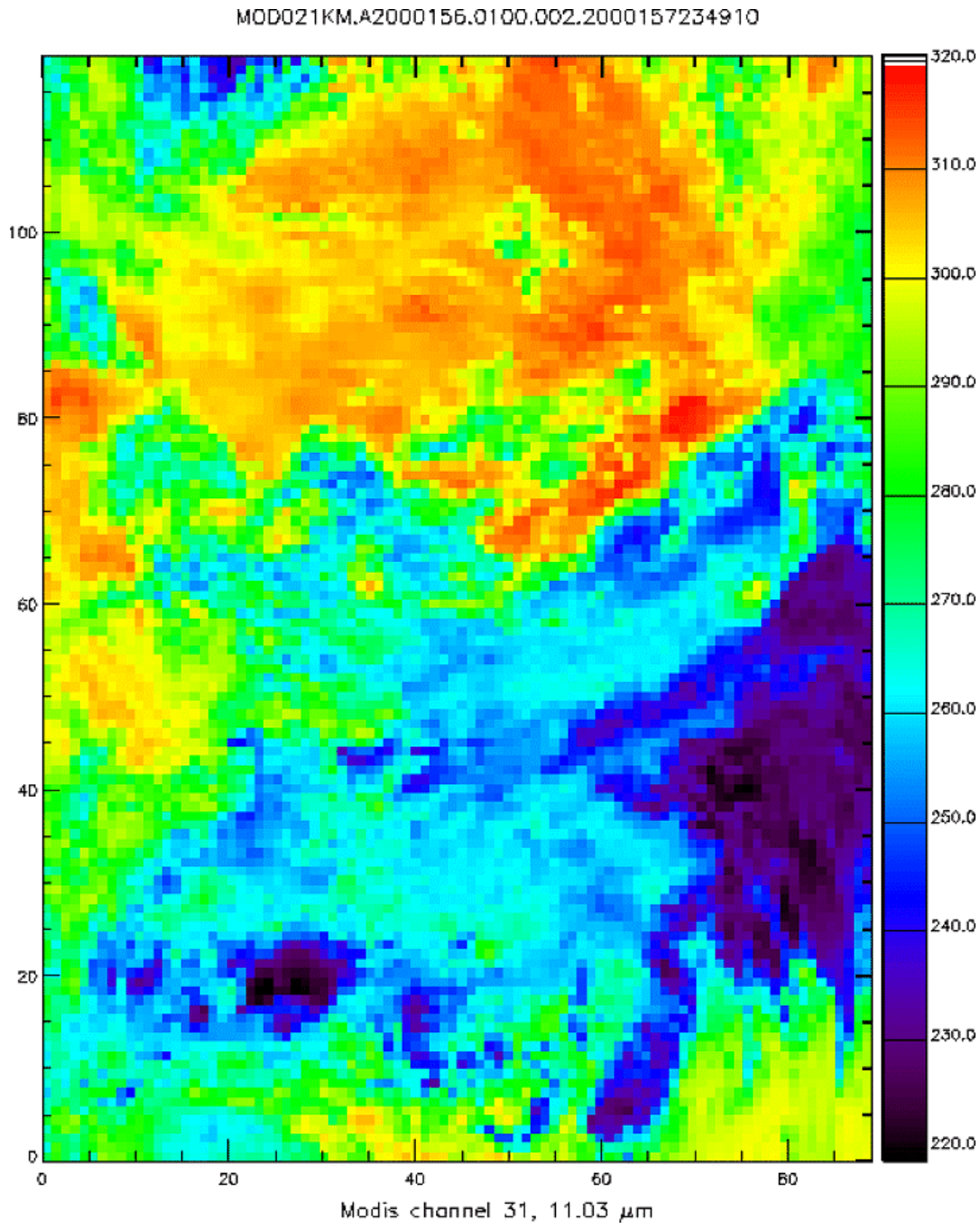

MOD021KM.A2000153.1815.002.2000156103040
320.0
310.0
300.0
290.0
280.0
270.0
260.0
250.0
240.0
230.0
0
20
40
60
80
100
0
20
40
60
80
Modis channel 31, 11.03 μm

MOD021KM.A2000156.0100.002.2000157234910



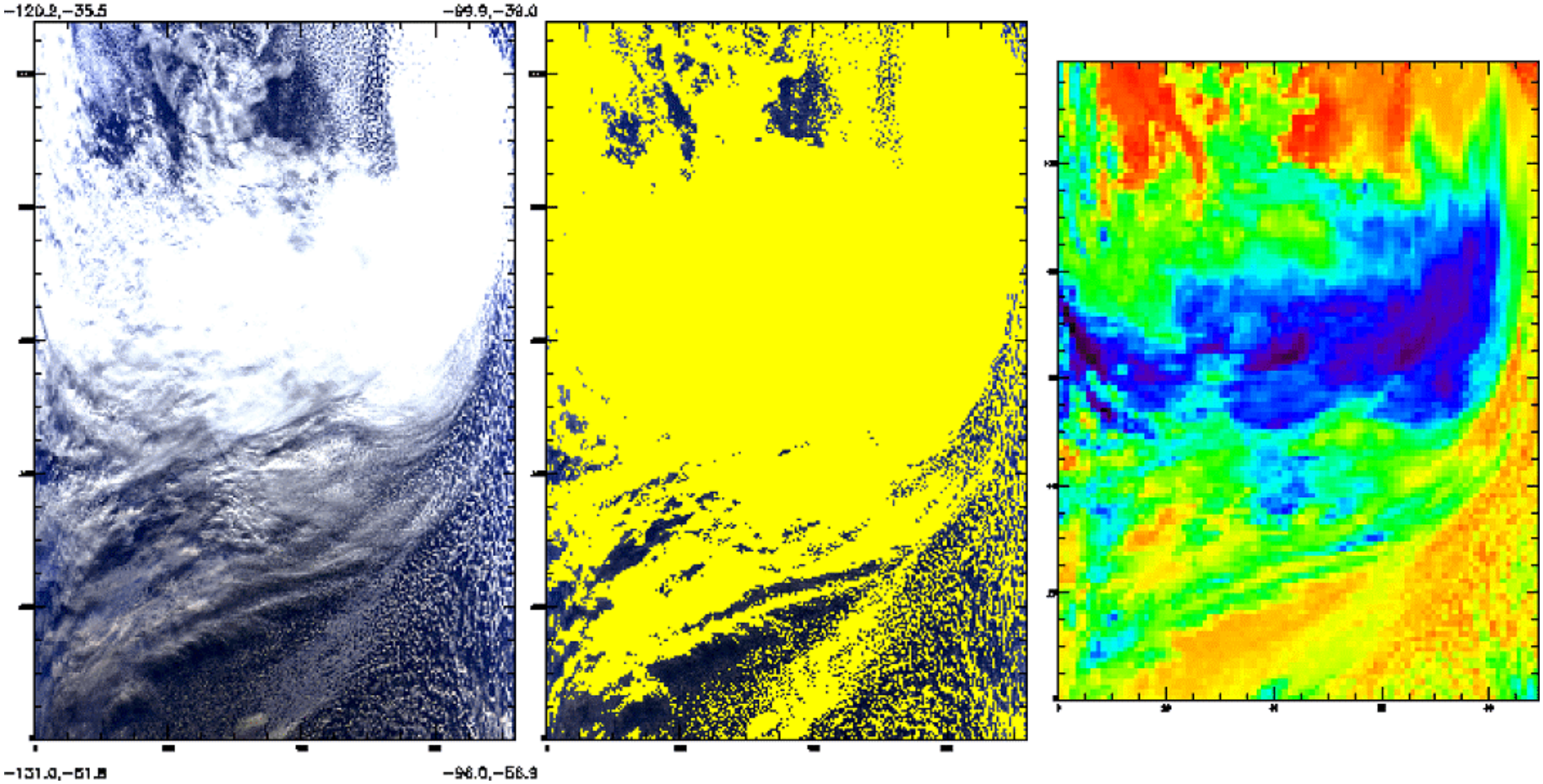

128.8,−31.6
MOD021KM.A2000156.0100.002.2000157234910
148.0,−34.8
1000
800
600
400
200
0
0
200
400
500
119.4,−48.1
Low enhanced color composite
151.4,−52.8

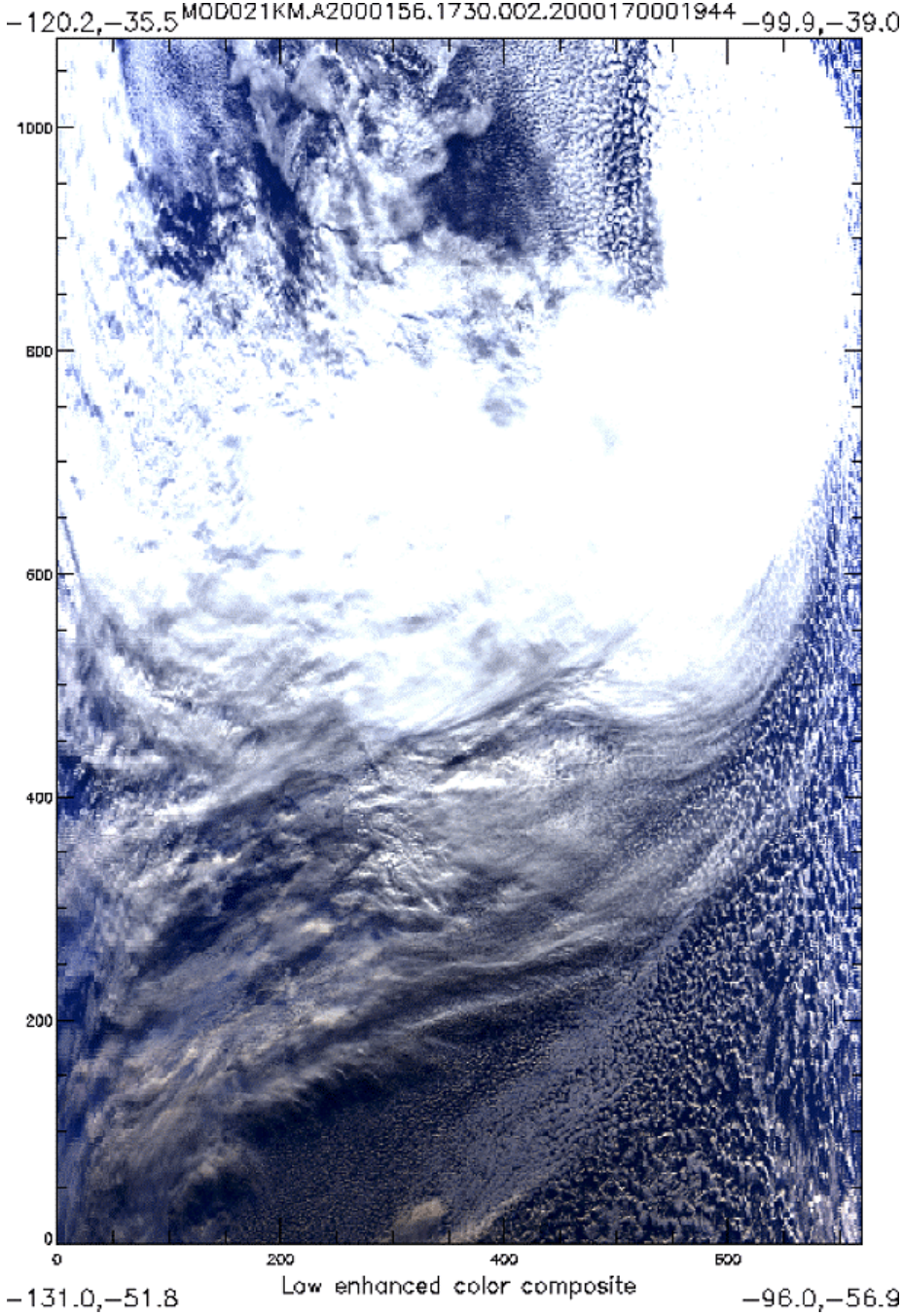

MOD021KM.A2000156.0100.002.2000157234910
128.8,−31.6
148.0,−34.8
1000
800
600
400
200
0
0
200
400
600
119.4,−48.1
Southern Pacific, sza up to 80°
151.4,−52.8

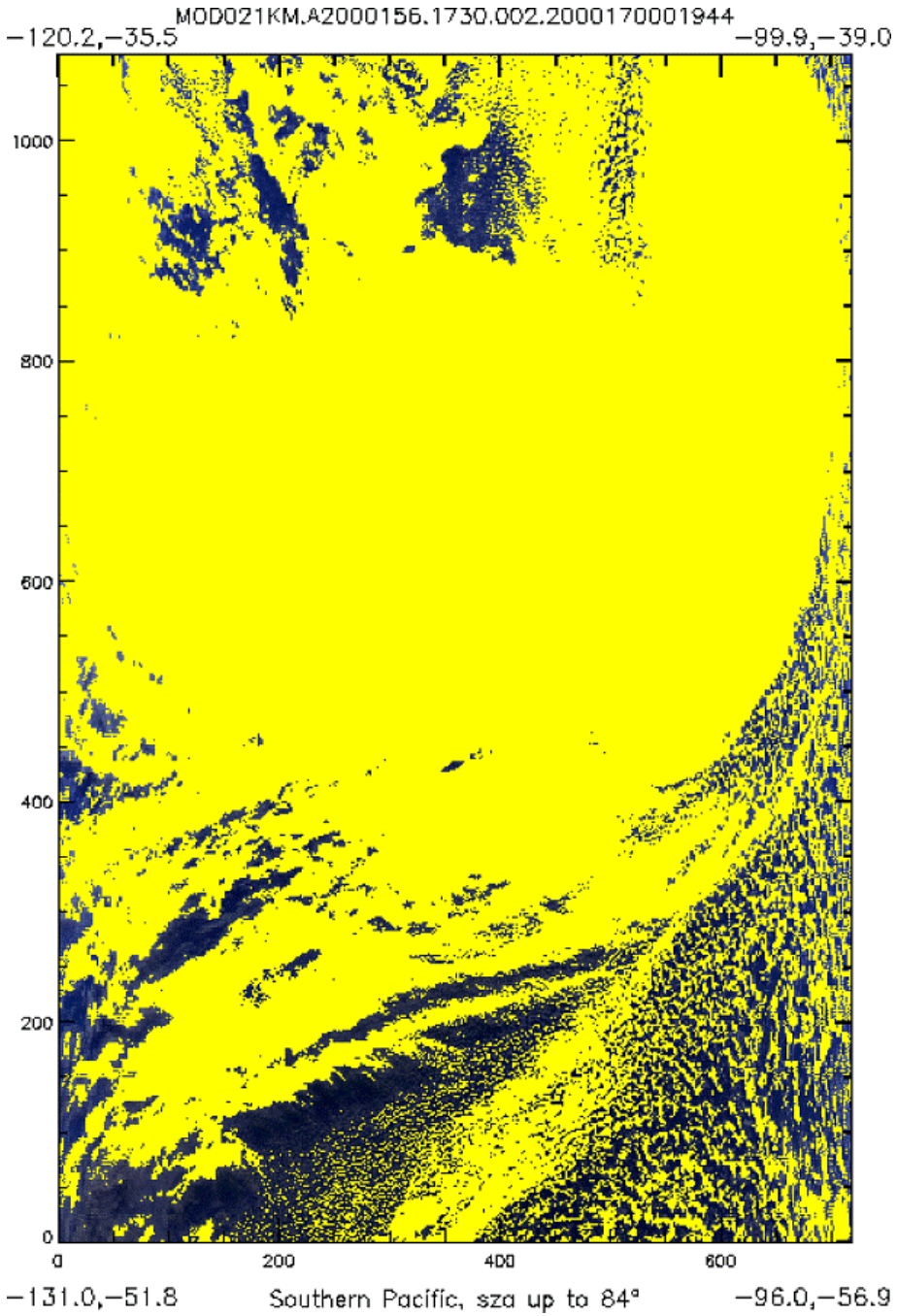

MOD021KM.A2000156.0100.002.2000157234910
320.0
310.0
300.0
290.0
280.0
270.0
260.0
250.0
240.0
230.0
220.0
100
80
60
40
20
0
0
20
40
60
80
Modis channel 31, 11.03 μm

LOW SOLAR ZENITH ANGLE

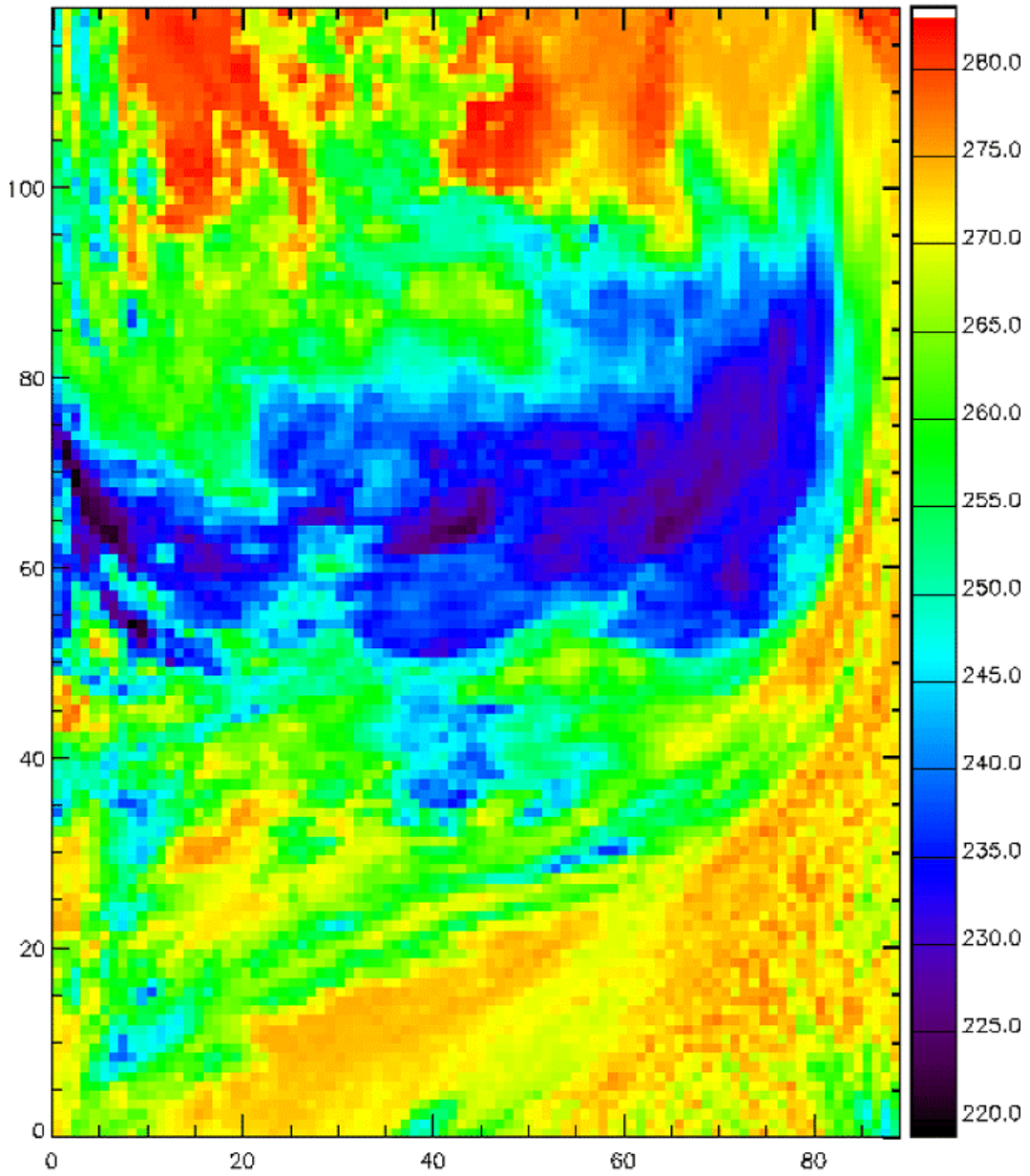
MOD021KM.A2000156.1730.002.2000170001944



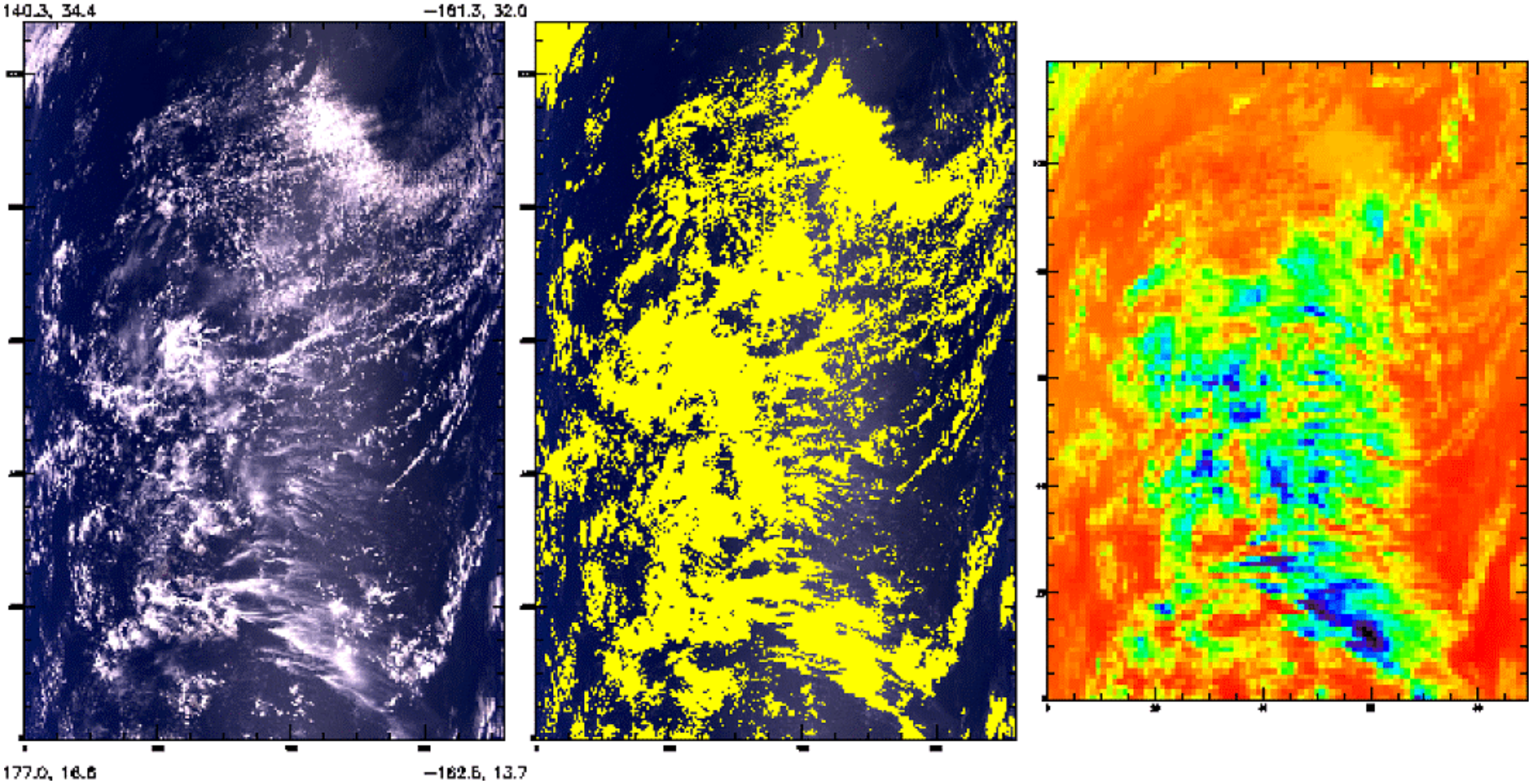

-120.2,-35.5
MOD021KM.A2000156.1730.002.2000170001944
-99.9,-39.0
1000
800
600
400
200
0
0
200
400
600
-131.0,-51.8
Low enhanced color composite
-96.0,-56.9

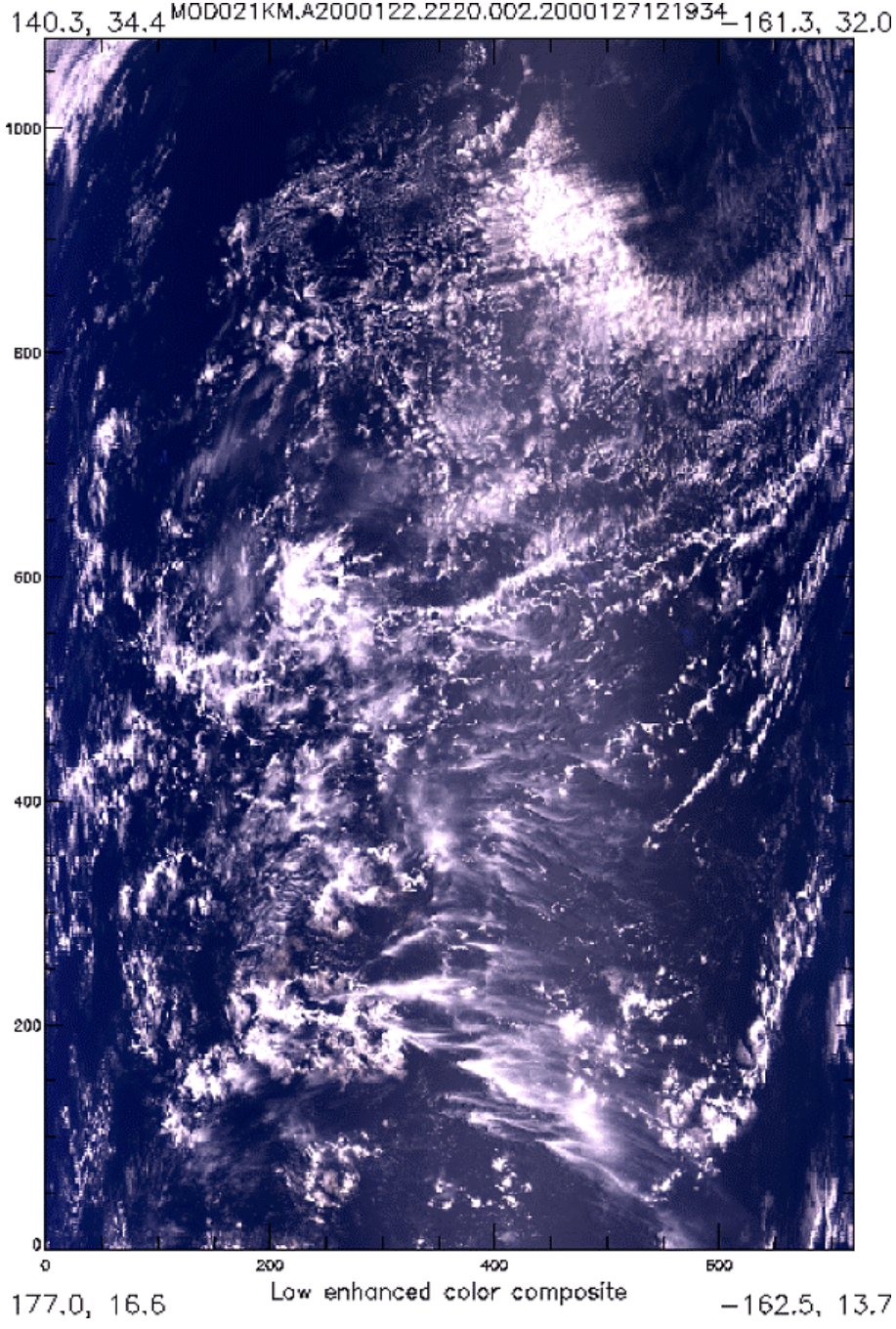

MOD021KM.A2000156.1730.002.2000170001944
−120.2,−35.5
−99.9,−39.0
1000
800
600
400
200
0
0
200
400
600
−131.0,−51.8
Southern Pacific, sza up to 84°
−96.0,−56.9

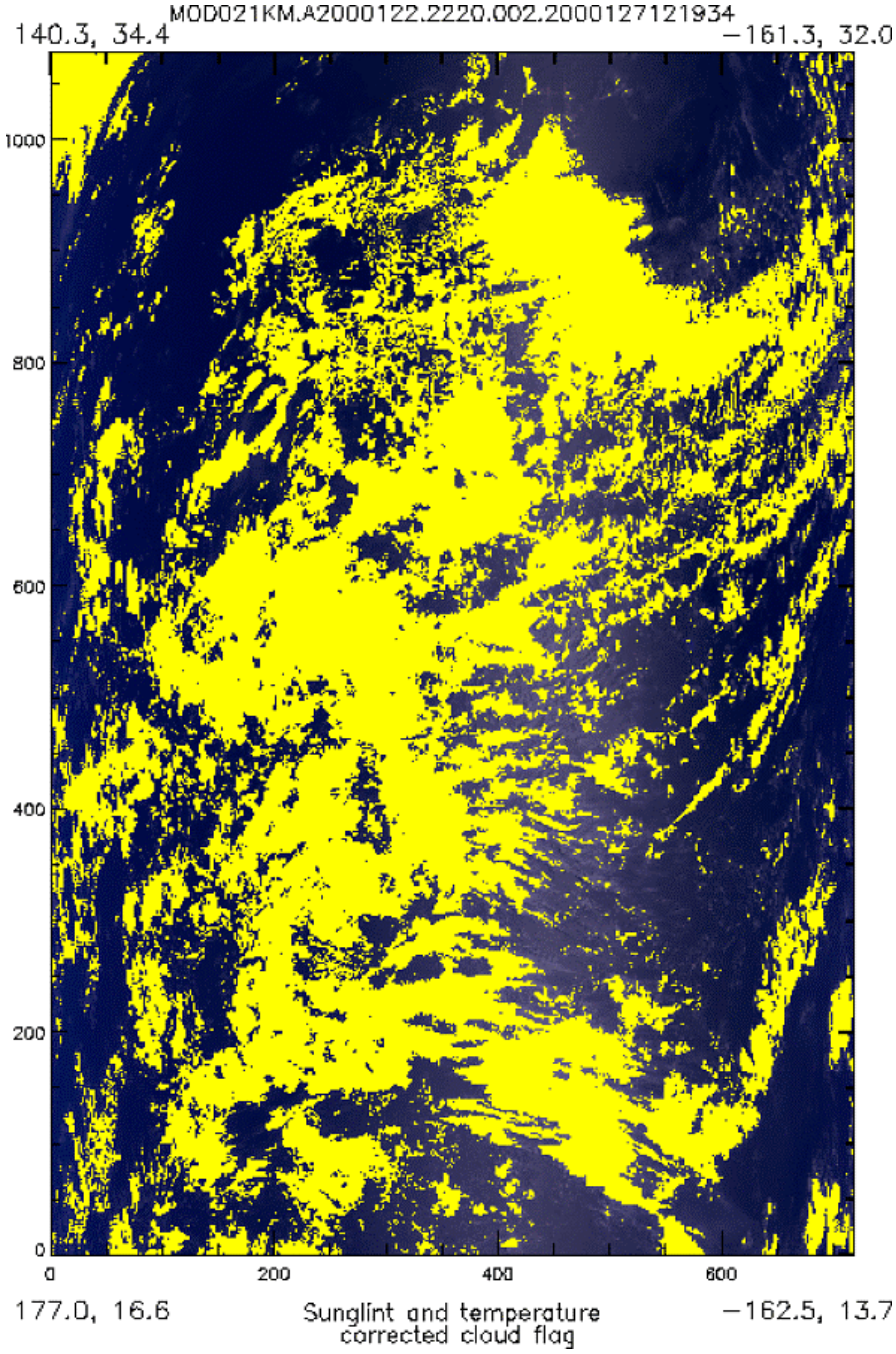
MOD021KM.A2000156.1730.002.2000170001944

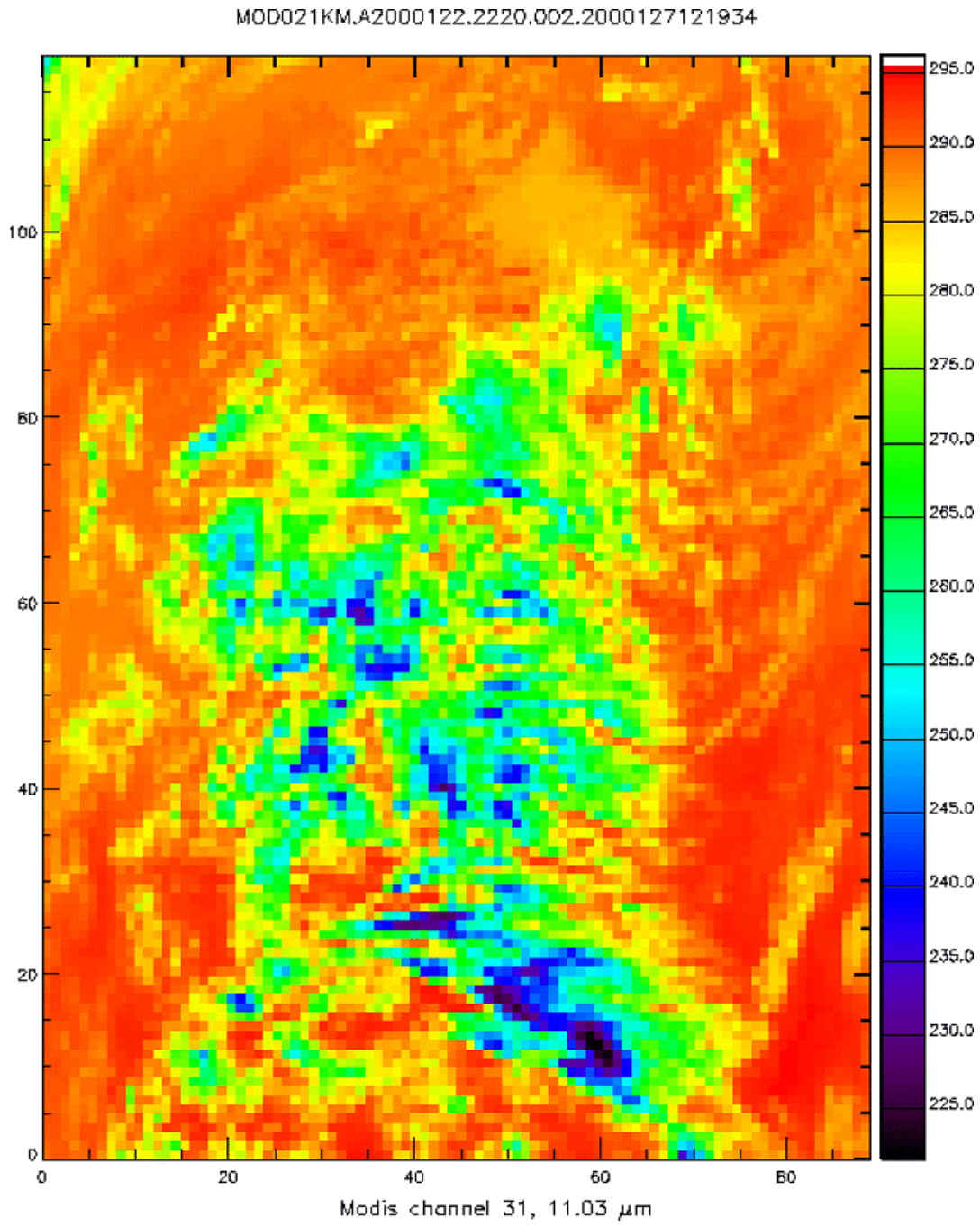


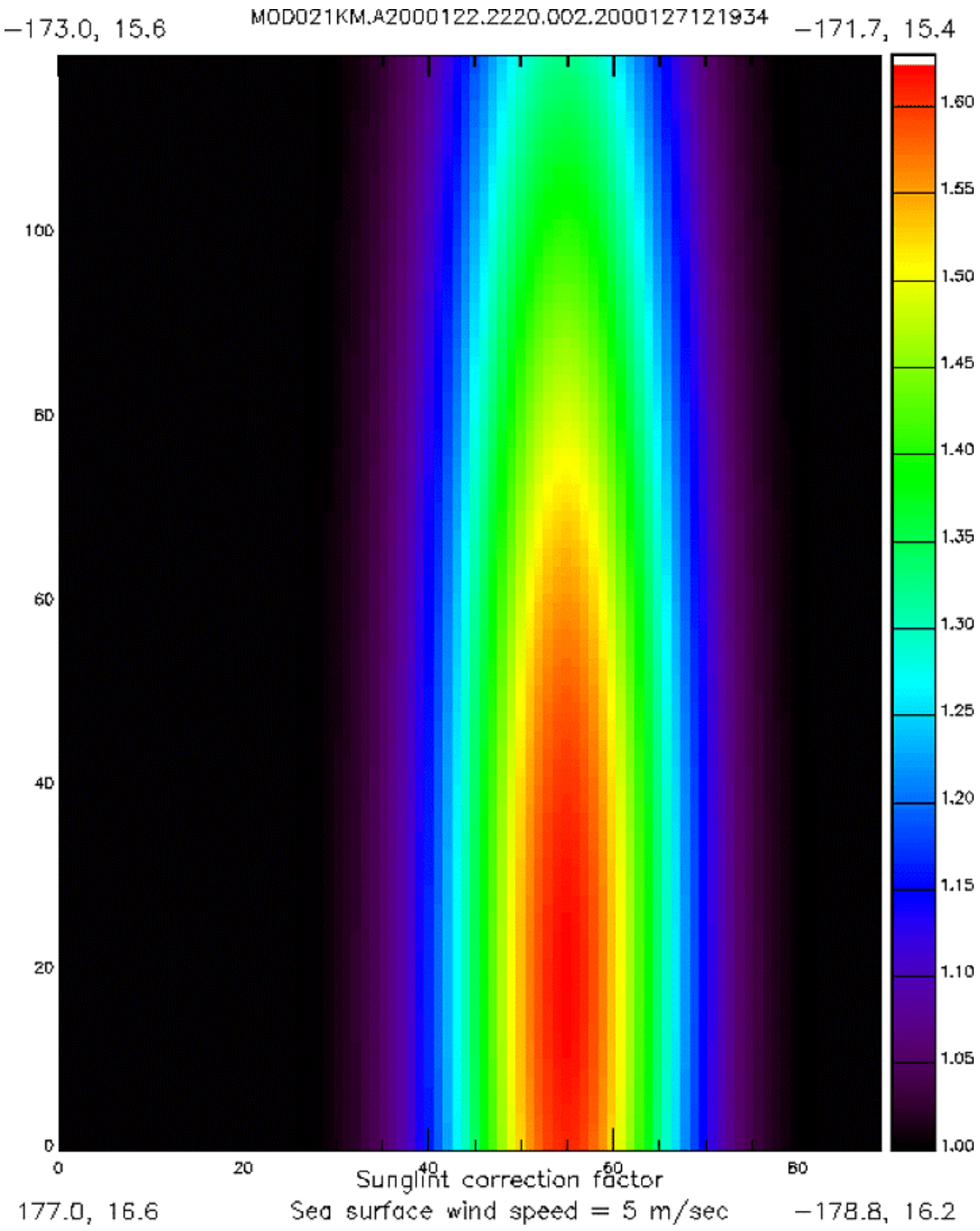
MOD021KM.A2000122.2220.002.2000127121934




140.3, 34.4
MOD021KM.A2000122.2220.002.2000127121934
-161.3, 32.0
1000
800
600
400
200
0
0
200
400
600
177.0, 16.6
Low enhanced color composite
-162.5, 13.7

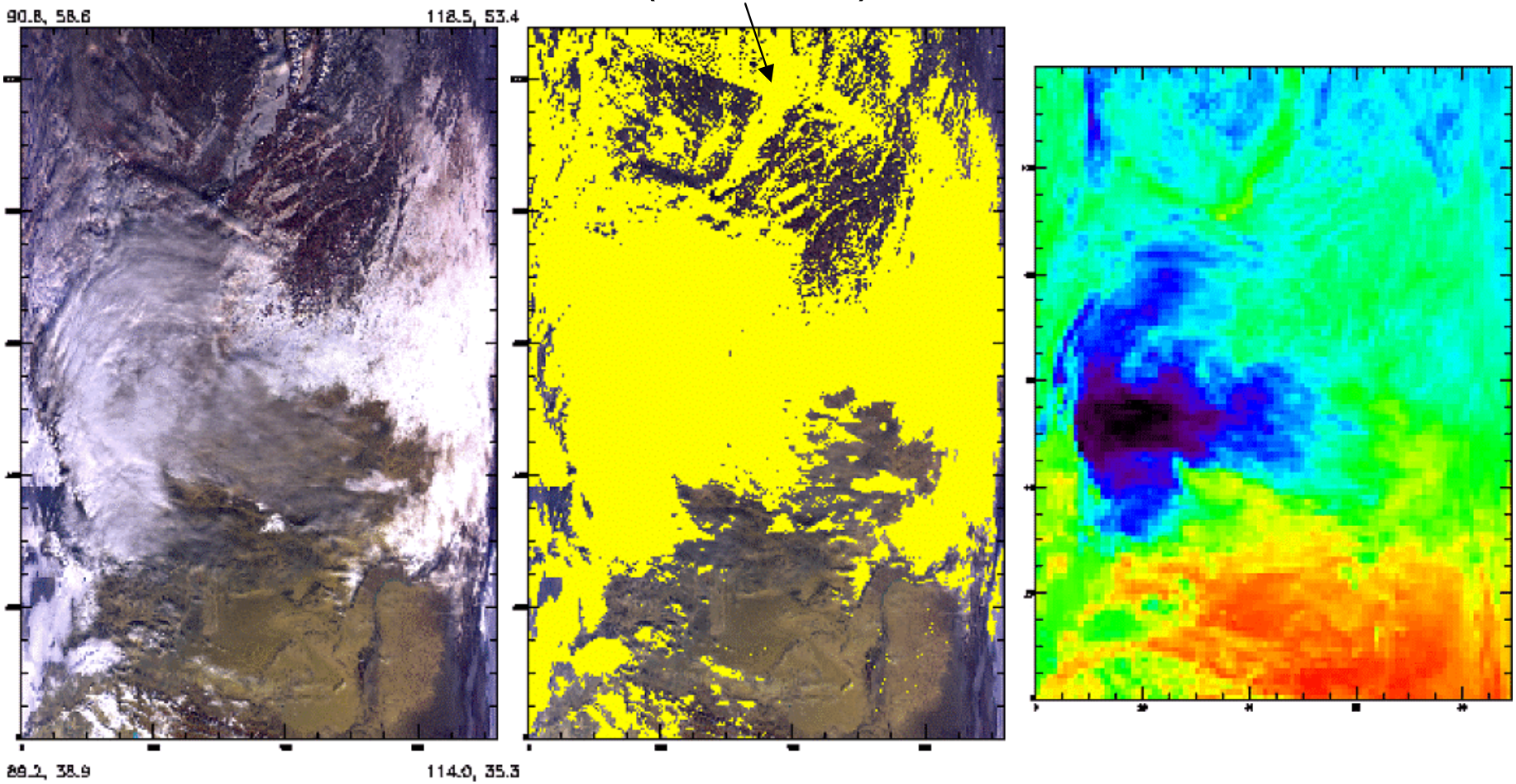

MOD021KM.A2000122.2220.002.2000127121934
140.3, 34.4
−161.3, 32.0
1000
800
600
400
200
0
0
200
400
600
177.0, 16.6
Sunglint and temperature
corrected cloud flag
−162.5, 13.7

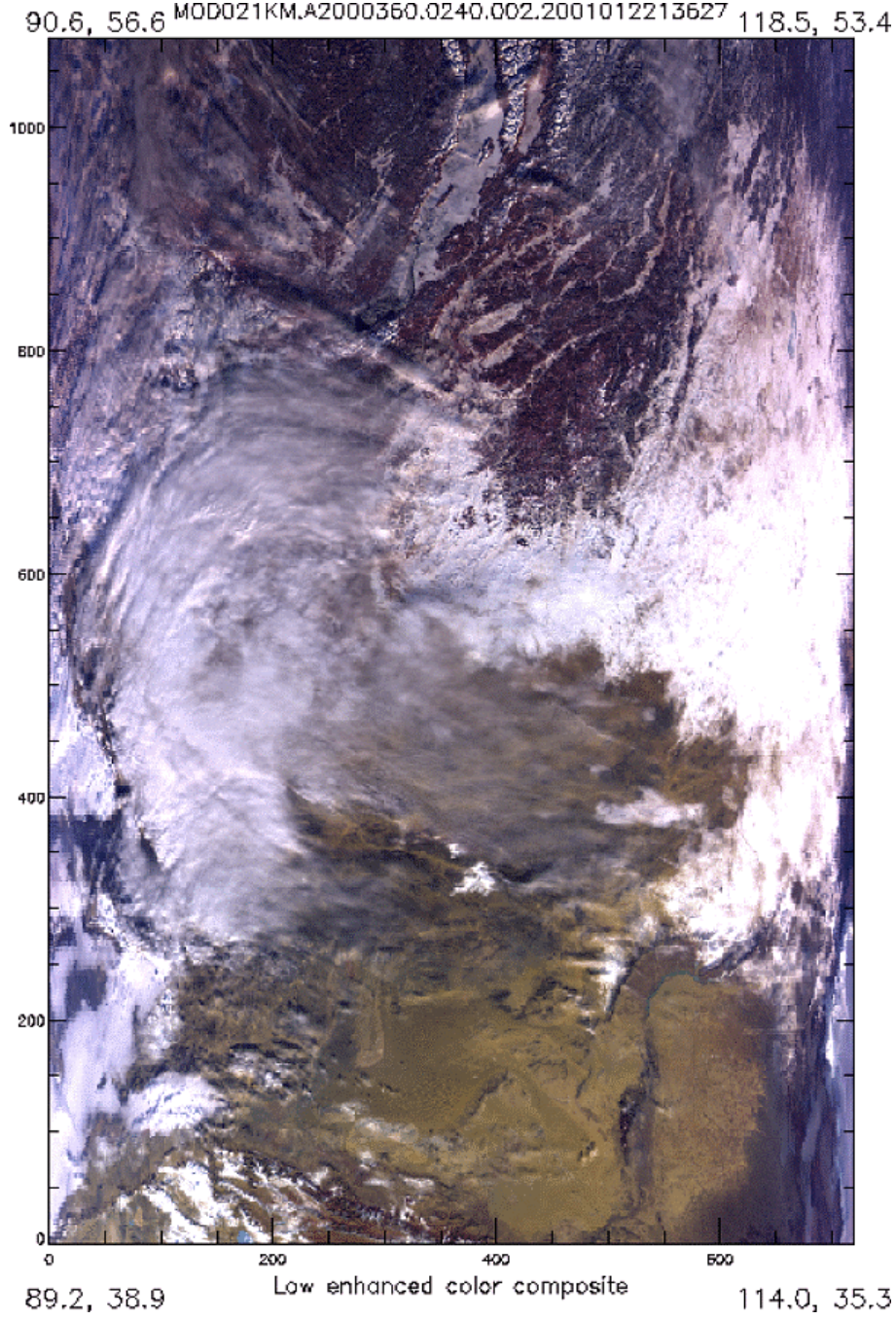

MOD021KM.A2000122.2220.002.2000127121934
295.0
290.0
285.0
280.0
275.0
270.0
265.0
260.0
255.0
250.0
245.0
240.0
235.0
230.0
225.0
0
20
40
60
80
100
0
20
40
60
80
Modis channel 31, 11.03 μm

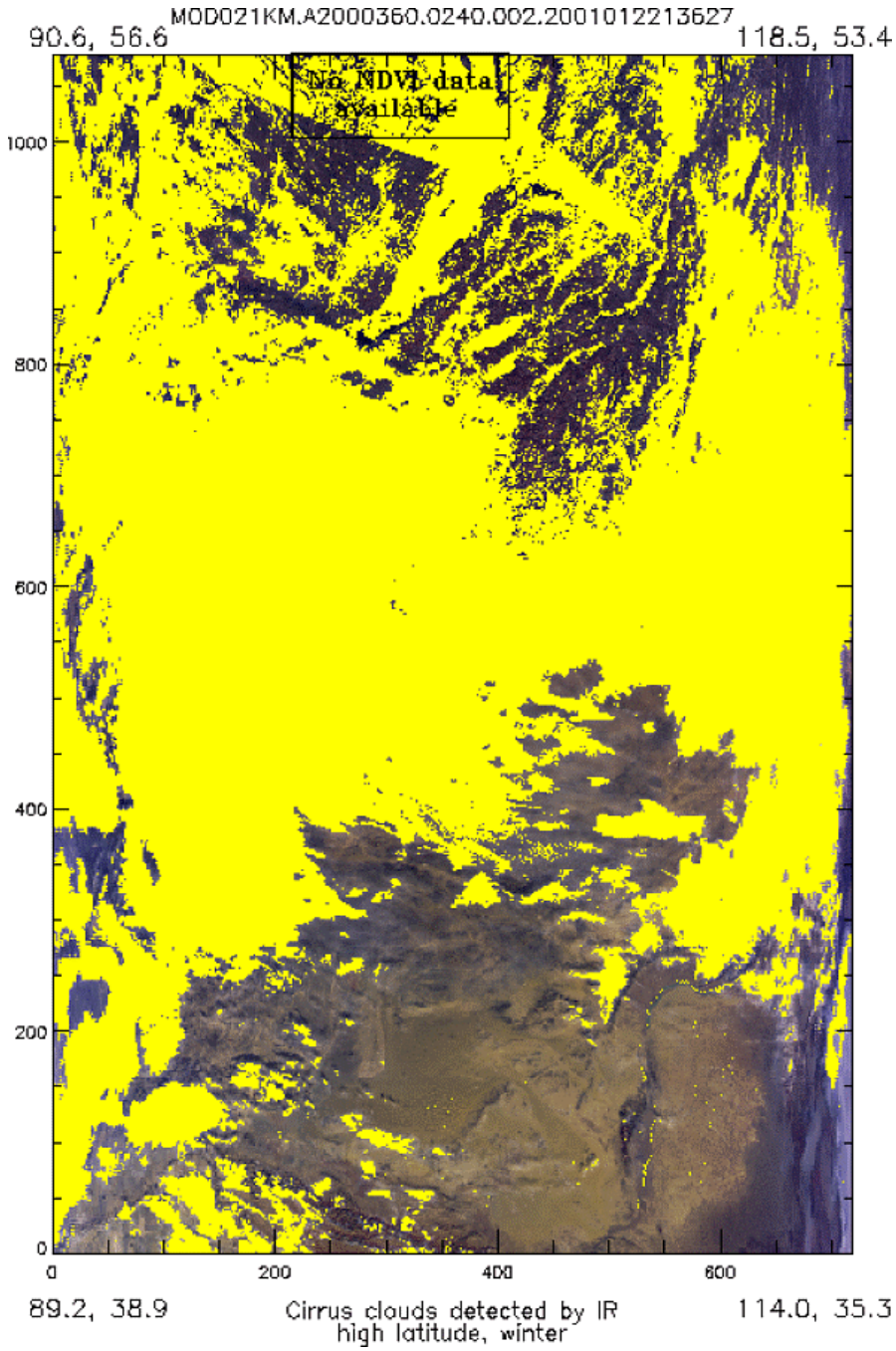

MOD021KM.A2000122.2220.002.2000127121934
−173.0, 15.6
−171.7, 15.4
177.0, 16.6
−178.8, 16.2
0
20
40
60
80
100
0
20
40
60
80
1.60
1.55
1.50
1.45
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
Sunglint correction factor
Sea surface wind speed = 5 m/sec

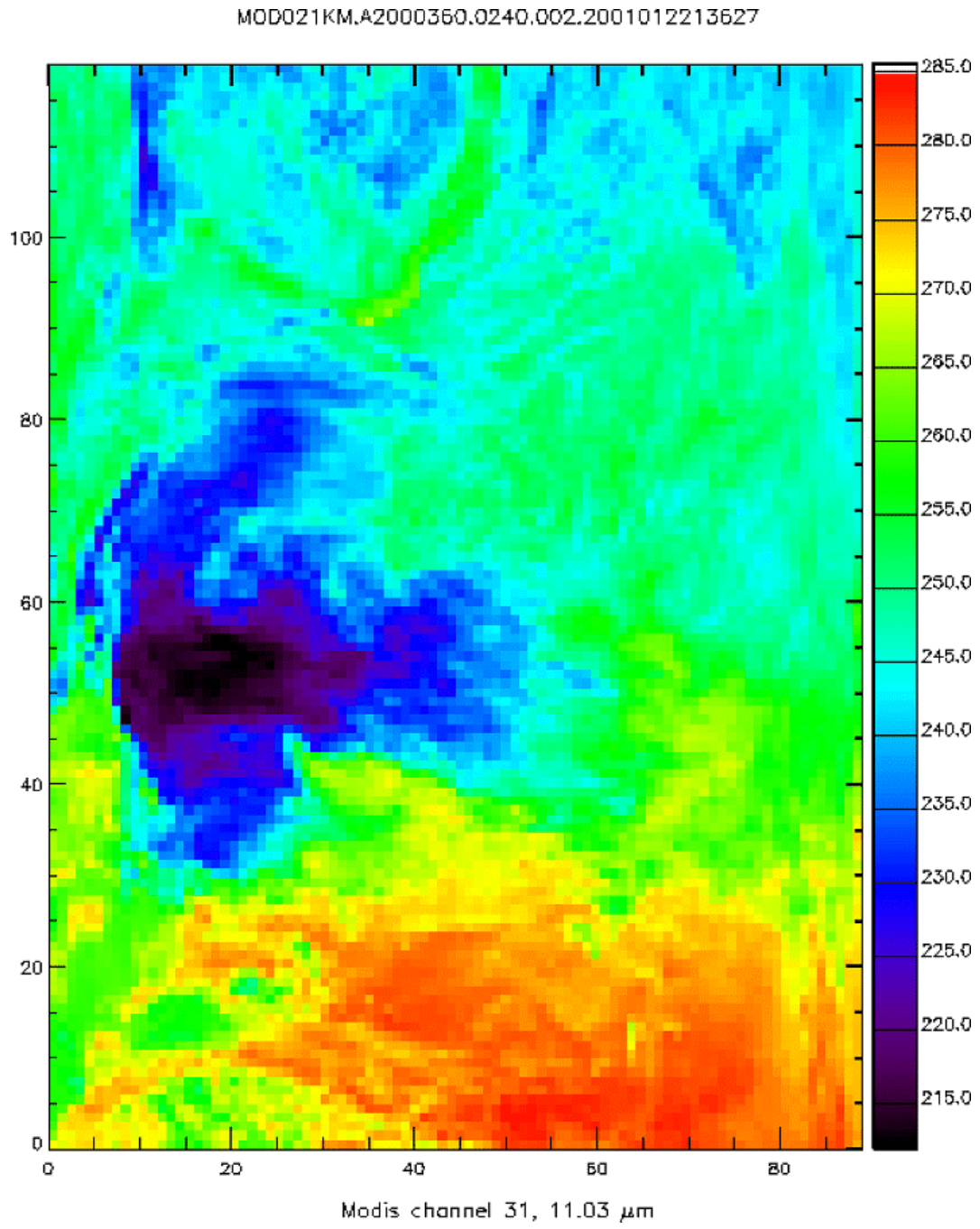
MOD021KM.A2000360.0240.002.2001012213627

(no NDVI)

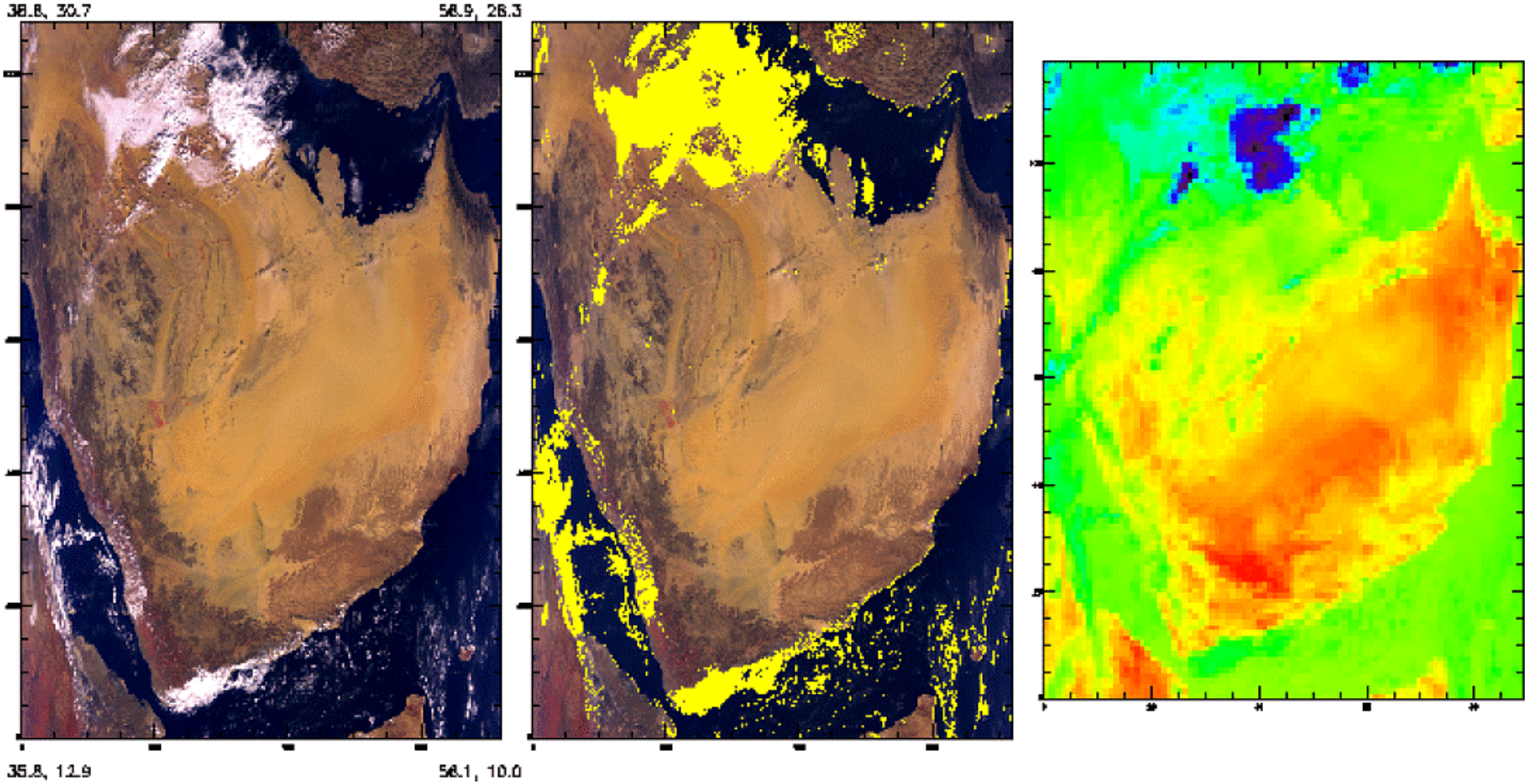


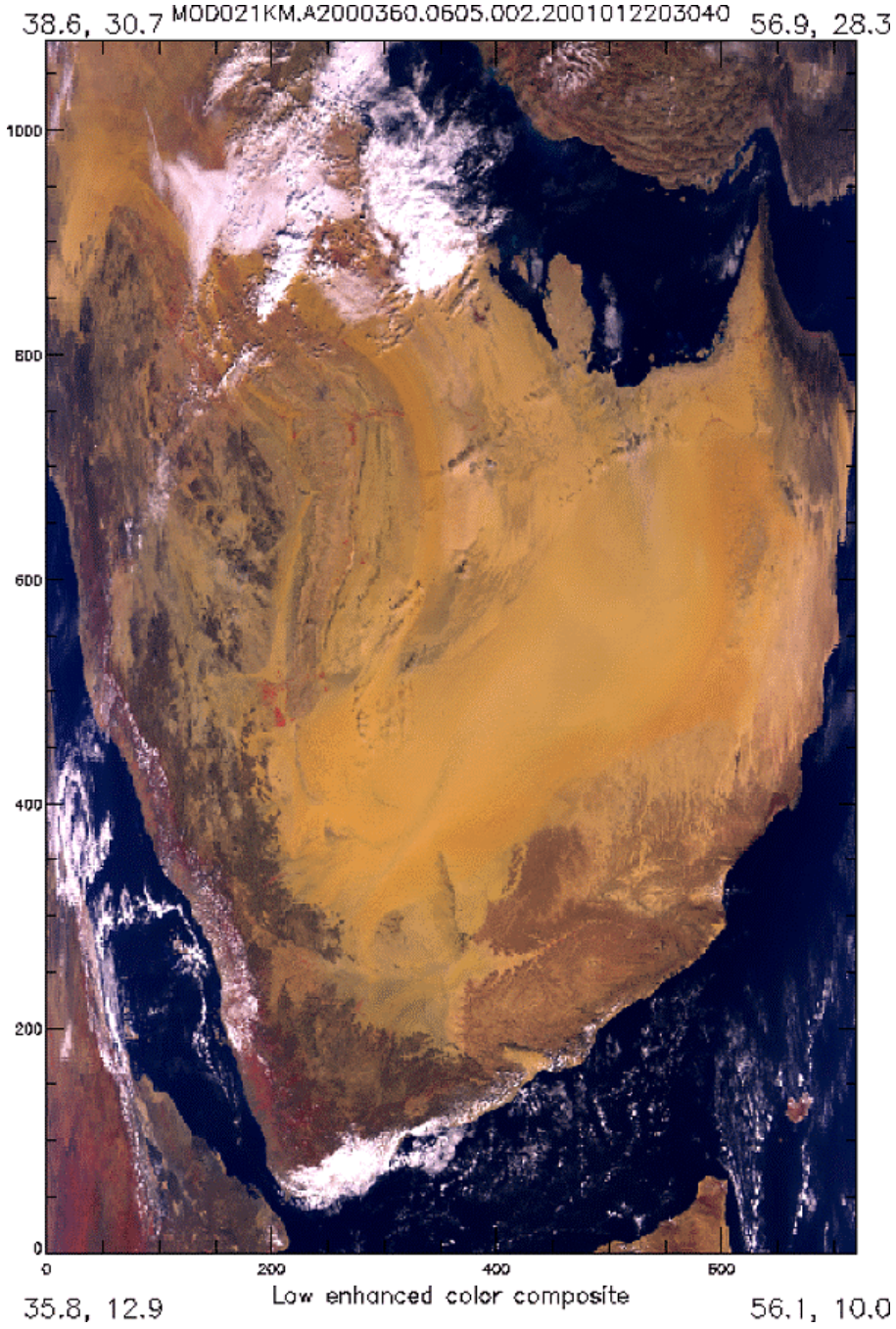

90.6, 56.6
MOD021KM.A2000360.0240.002.2001012213627
118.5, 53.4
1000
800
600
400
200
0
0
200
400
600
89.2, 38.9
Low enhanced color composite
114.0, 35.3

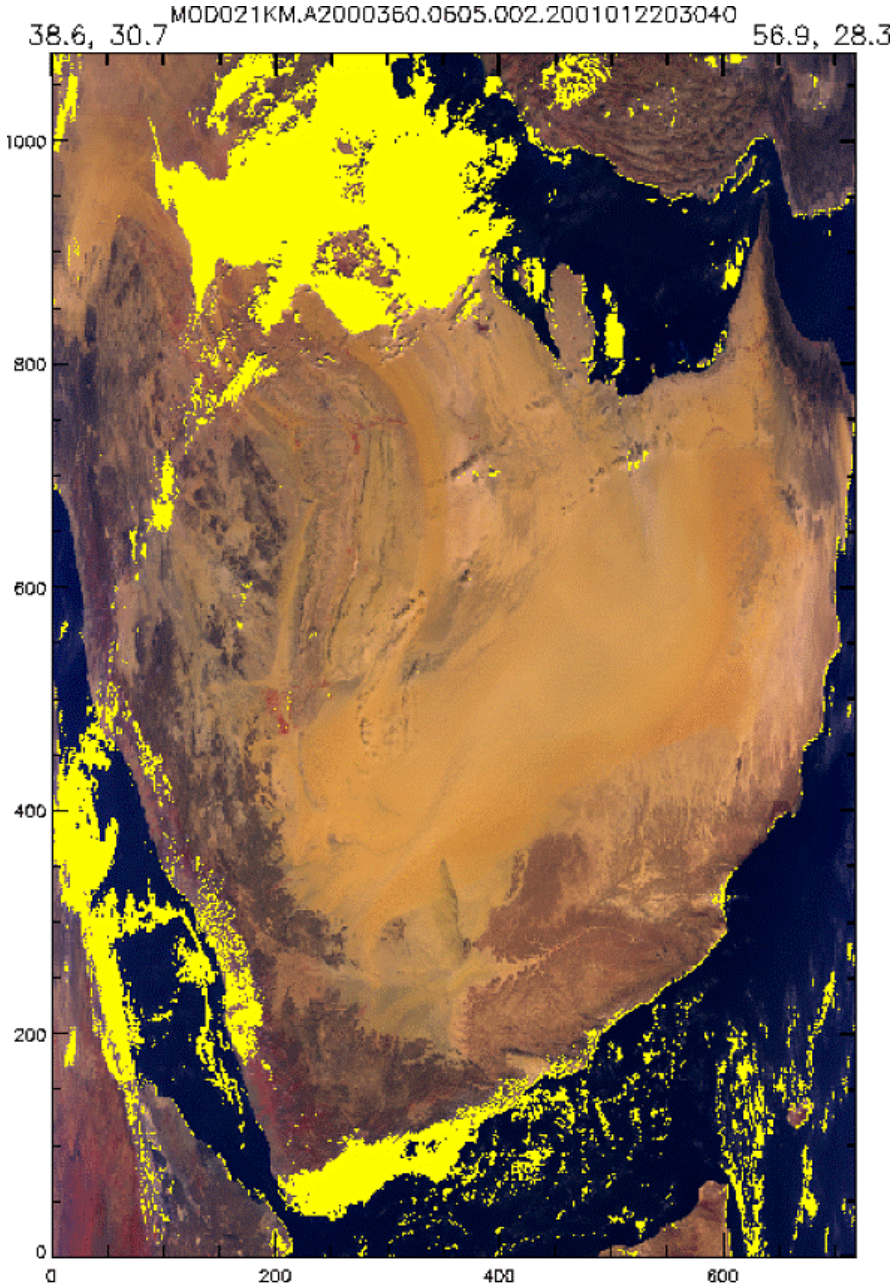

MOD021KM.A2000360.0240.002.2001012213627
90.6, 56.6
118.5, 53.4
No NDVI data available
1000
800
600
400
200
0
0
200
400
600
89.2, 38.9
Cirrus clouds detected by IR
high latitude, winter
114.0, 35.3

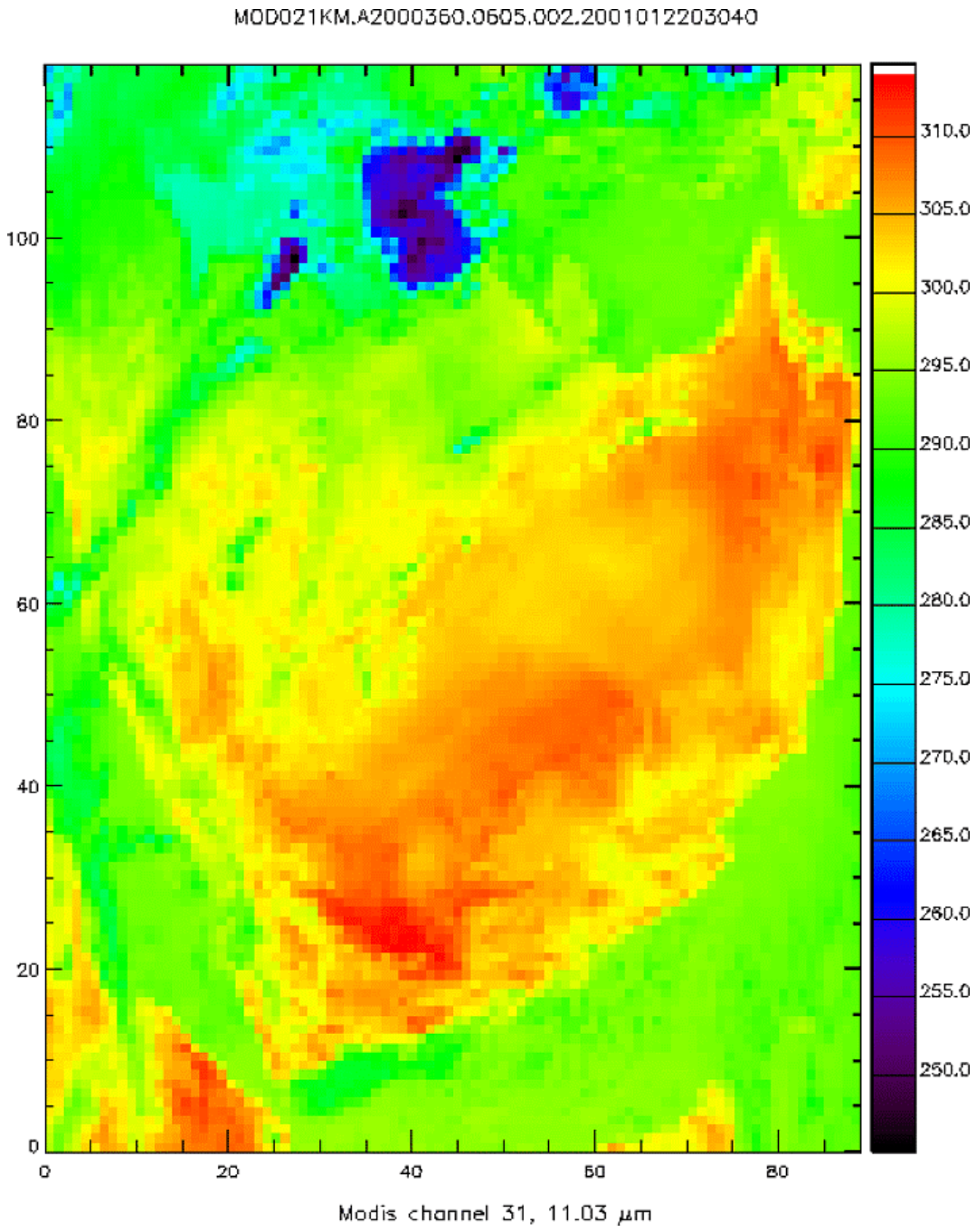

MOD021KM.A2000360.0240.002.2001012213627
285.0
280.0
275.0
270.0
265.0
260.0
255.0
250.0
245.0
240.0
235.0
230.0
225.0
220.0
215.0
0
20
40
60
80
100
0
20
40
60
80
Modis channel 31, 11.03 μm

MOD021KM.A2000360.0605.002.2001012203040



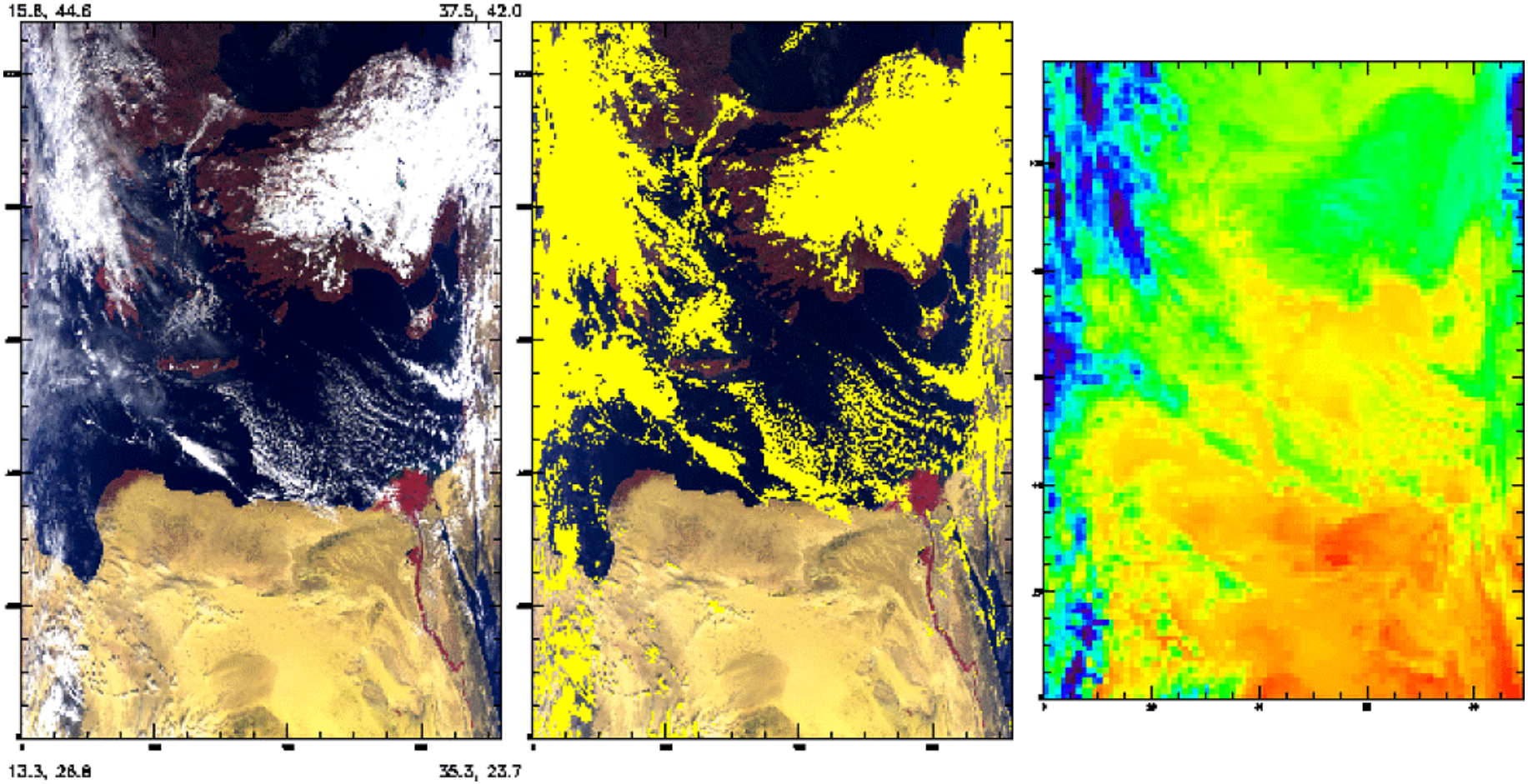

38.6, 30.7
MOD021KM.A2000360.0605.002.2001012203040
56.9, 28.3
1000
800
600
400
200
0
0
200
400
600
35.8, 12.9
Low enhanced color composite
56.1, 10.0

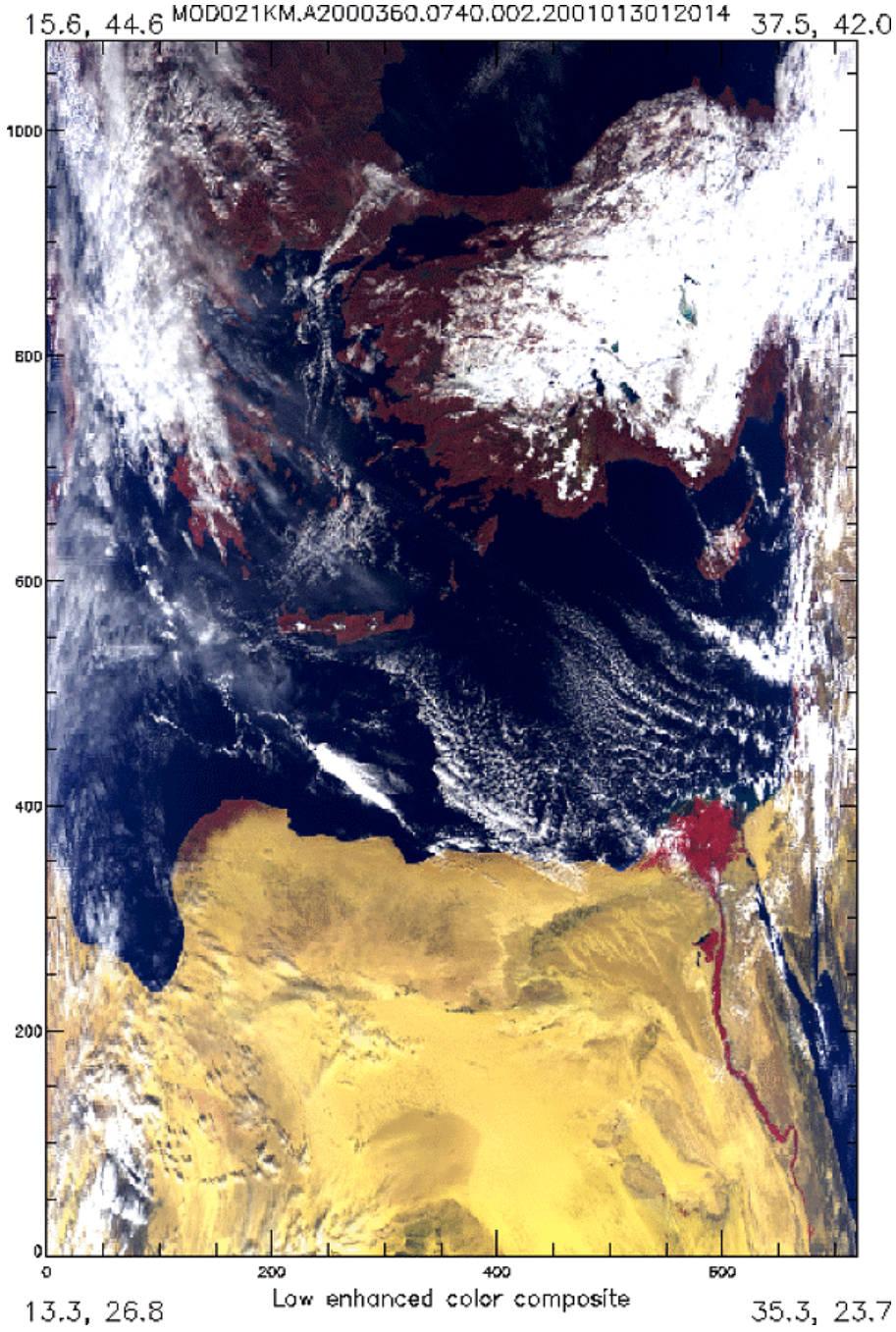

MOD021KM.A2000360.0605.002.2001012203040
38.6, 30.7
56.9, 28.3
1000
800
600
400
200
0
0
200
400
600
35.8, 12.9
Temperature correction removes
mis-interpreted clouds
56.1, 10.0

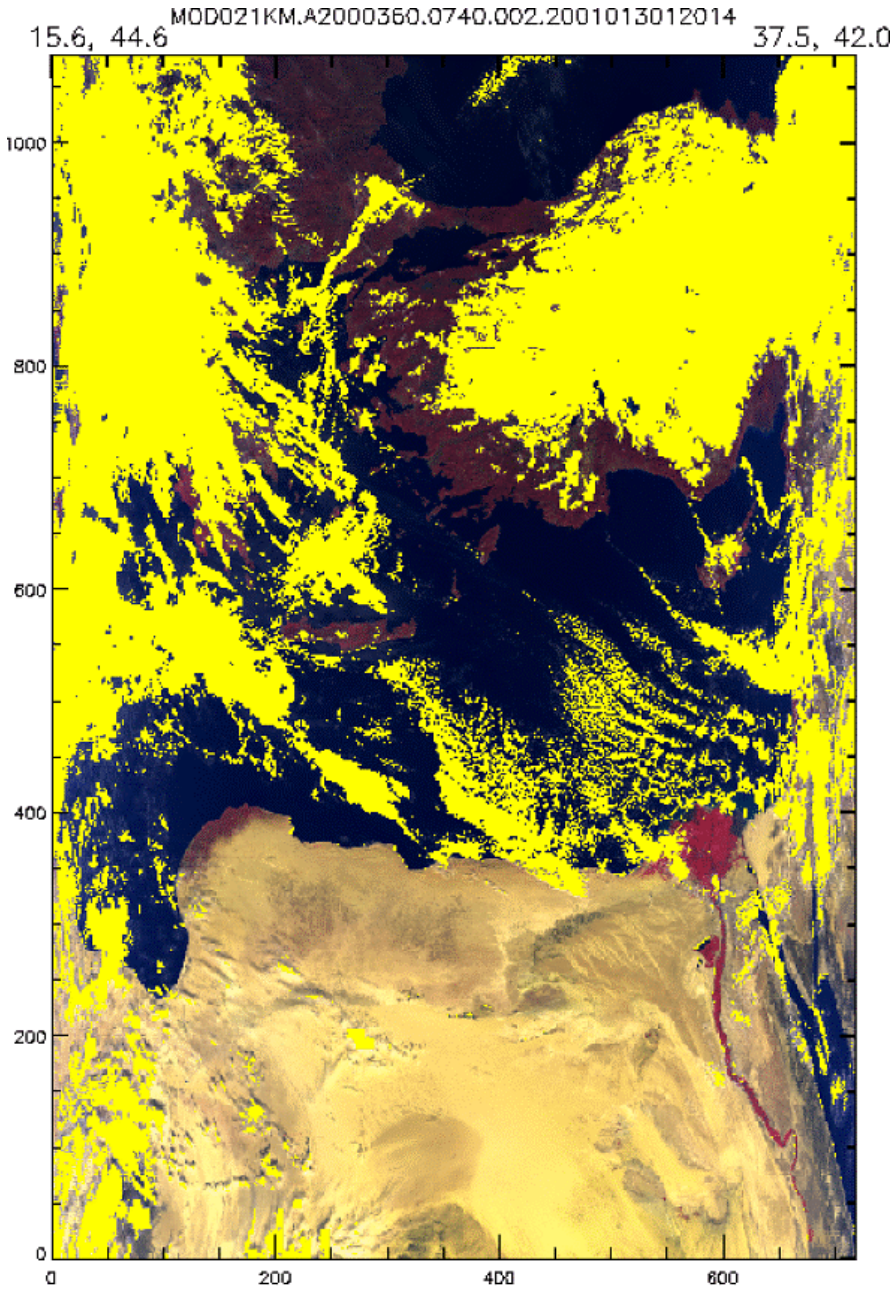

MOD021KM.A2000360.0605.002.2001012203040
310.0
305.0
300.0
295.0
290.0
285.0
280.0
275.0
270.0
265.0
260.0
255.0
250.0
0
20
40
60
80
100
0
20
40
60
80
Modis channel 31, 11.03 μm

BRIGHT LAND SURFACE

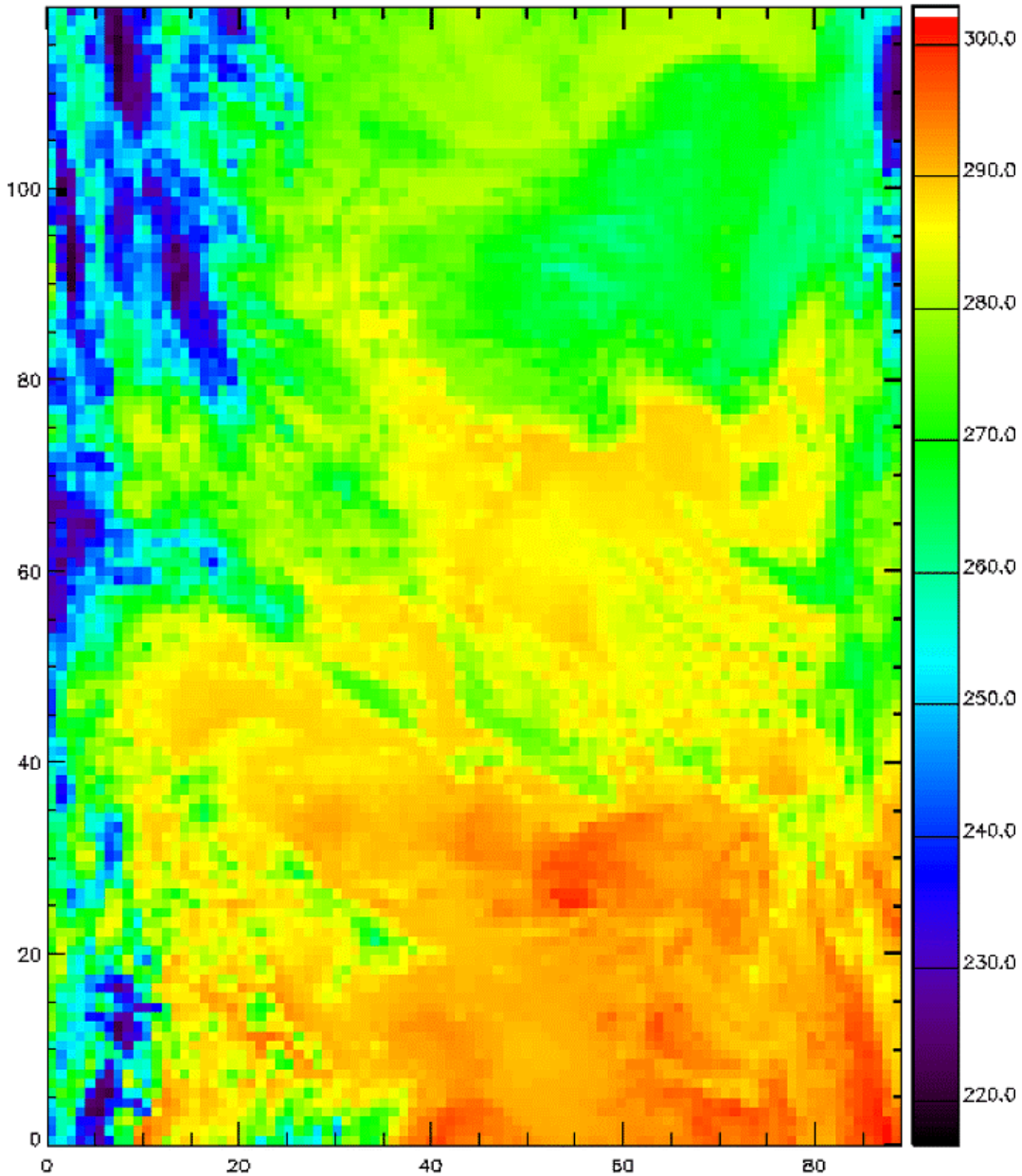
MOD021KM.A2000360.0740.002.2001013012014




15.6, 44.6
MOD021KM.A2000360.0740.002.2001013012014
37.5, 42.0
1000
800
600
400
200
0
0
200
400
500
Low enhanced color composite
13.3, 26.8
35.3, 23.7


MOD021KM.A2000360.0740.002.2001013012014
15.6, 44.6
37.5, 42.0
1000
800
600
400
200
0
0
200
400
600
13.3, 26.8
Temperature correction removes
mis-interpreted clouds
35.3, 23.7

MOD021KM.A2000360.0740.002.2001013012014



Modis channel 31, 11.03 μm