

METRIC ET data for ESPAM

Progress Report

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ESHMC Meeting, Boise, ID, September 24, 2012

Completed

1996

2000

2002

2006

2008

2009

Working

1986

1992

2010

2011

Next?

2012 or 2013

To download

www.idwr.idaho.gov - [/ftp/gisdata/Spatial/Projects/METRIC/](ftp://gisdata/Spatial/Projects/METRIC/)

[\[To Parent Directory\]](#)

3/30/2011	2:59	PM	<dir>	<u>1996</u>
3/30/2011	3:03	PM	<dir>	<u>2000</u>
3/30/2011	3:03	PM	<dir>	<u>2002</u>
3/30/2011	3:04	PM	<dir>	<u>2006</u>
2/26/2013	10:02	AM	<dir>	<u>2008</u>
9/19/2013	8:37	AM	<dir>	<u>2009</u>
1/20/2009	3:17	PM	8067	<u>METRIClegend2008monthly.png</u>
1/20/2009	3:29	PM	7919	<u>METRIClegend2008seasonal.png</u>
1/7/2011	11:29	AM	8034	<u>METRICmetadata.xml</u>

Potential METRIC Processing ESPA

1984 - too sparse

1985 - too sparse

1986 - yes (METRIC in Progress, very cloudy)

1987 - not as populated as 1986, but possible for METRIC

1988 - no April-May for METRIC on path 40

1989 - no Sept-Oct for METRIC on path 40, poor on path 39

1990 - possible METRIC on 40, not on 39

1991 - no

1992 - yes (METRIC in Progress, very cloudy)

1993 - possible for METRIC, no April-May on 39

1994 - no May-June for METRIC path 40

1995 - no

1996 - yes (METRIC DONE)

1997 - yes, iffy METRIC for June-July on 39

1998 - no May for METRIC on 40 and 39

1999 - no for METRIC in spring

2000 - yes (METRIC DONE)

2001 - yes for METRIC on both paths

2002 - yes (METRIC DONE)

2003 - iffy for METRIC for both paths (path 40 DONE through August (no images after that))

2004 - yes for METRIC on both paths

2005 - iffy for METRIC

2006 - yes (METRIC DONE)

2007 - possible, but challenging for METRIC on path 40

2008 - yes (METRIC DONE)

2009 - yes (METRIC DONE)

2010 - yes (METRIC in Progress)

2011 - yes (METRIC in Progress)

2012 - possible, but challenging, supplement with MODIS

2013 - possible, but challenging, supplement with MODIS

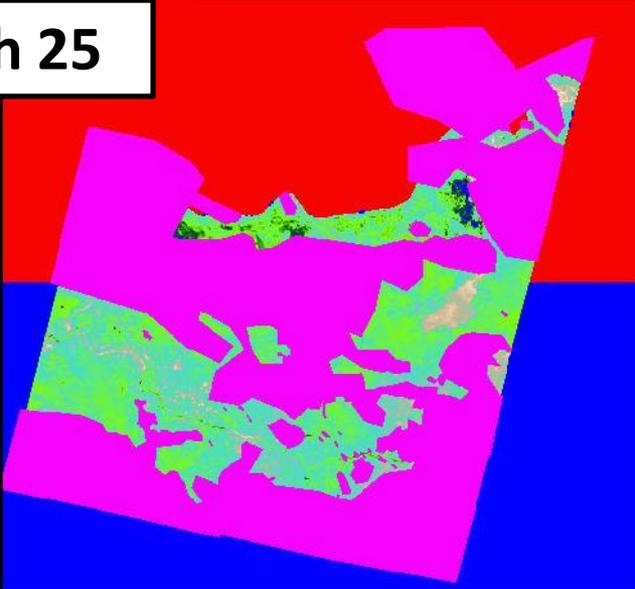
Cloud Cover Review of Landsat Images for 1986

Landsat 1986 path 40

with cloud mask

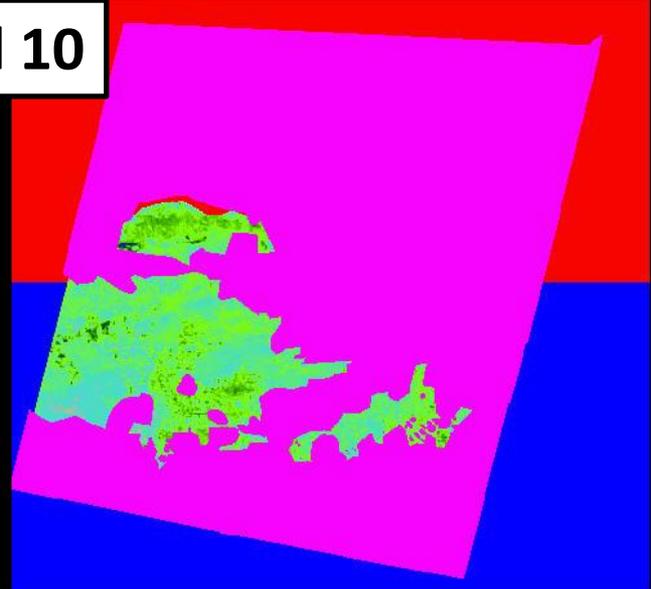
2D View #1: cloudmask_p40s_19860325v2.img (Layer_1)

March 25



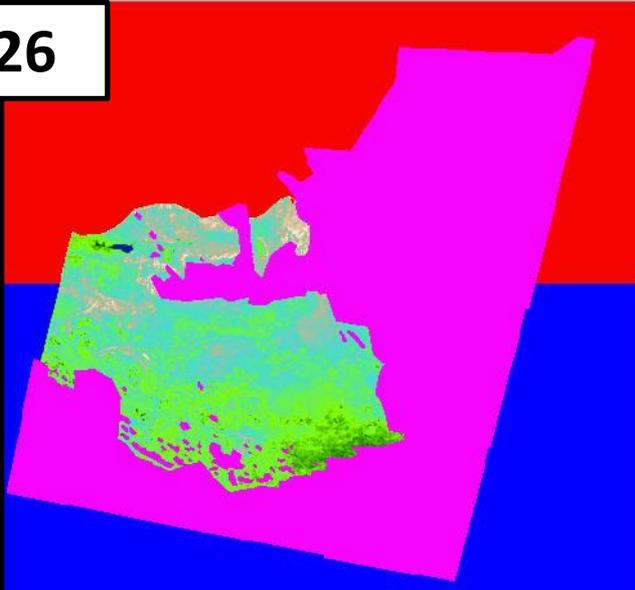
2D View #2: cloudmask_p40s_19860410v2.img (Layer_1)

April 10



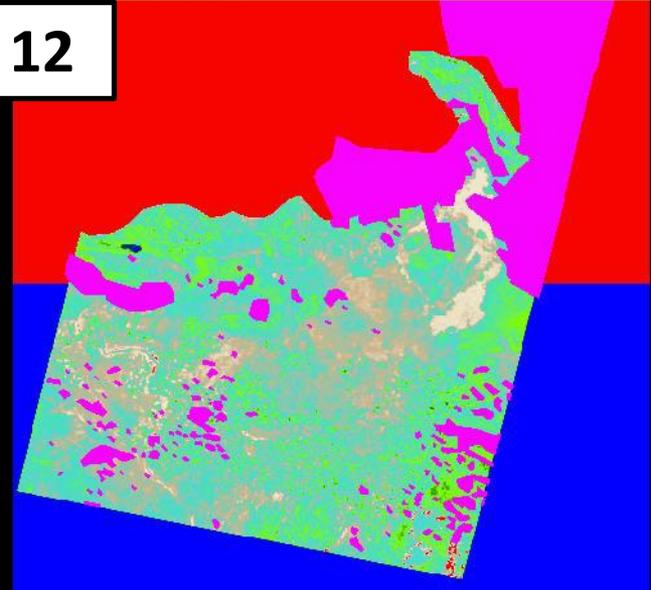
2D View #3: cloudmask_p40s_19860426v2.img (Layer_1)

April 26



2D View #4: cloudmask_p40s_19860512v2.img (Layer_1)

May 12



Landsat 1986 path 40

with cloud mask

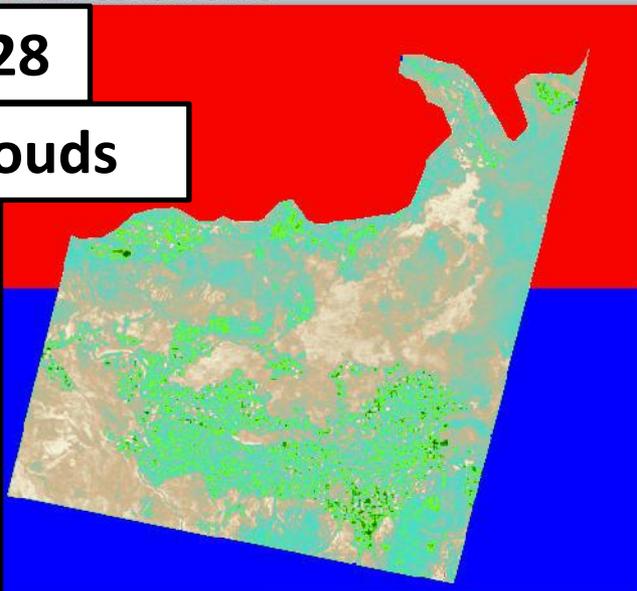
2D View #1: etrf24_ef_05281986_p40r30_i5_espa_color.img (:Layer_1)

2D View #2: cloudmask_p40s_19860613v2.img (:Layer_1)

2D View #3: cloudmask_p40s_19860629v2.img (:Layer_1)

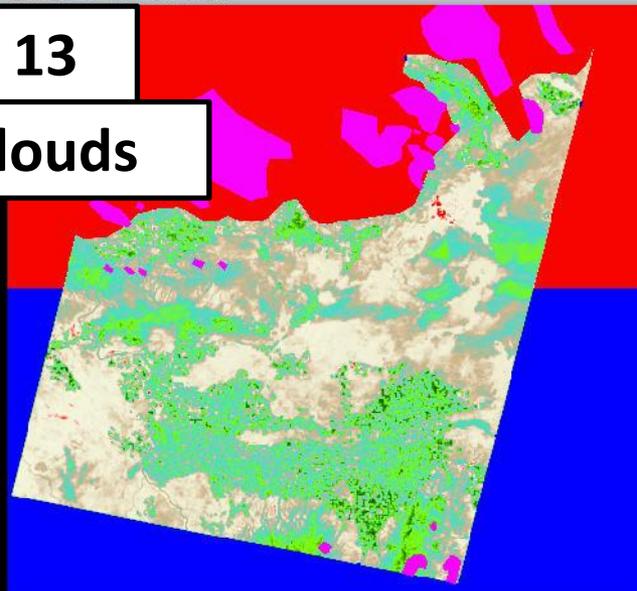
May 28

No clouds



June 13

No clouds

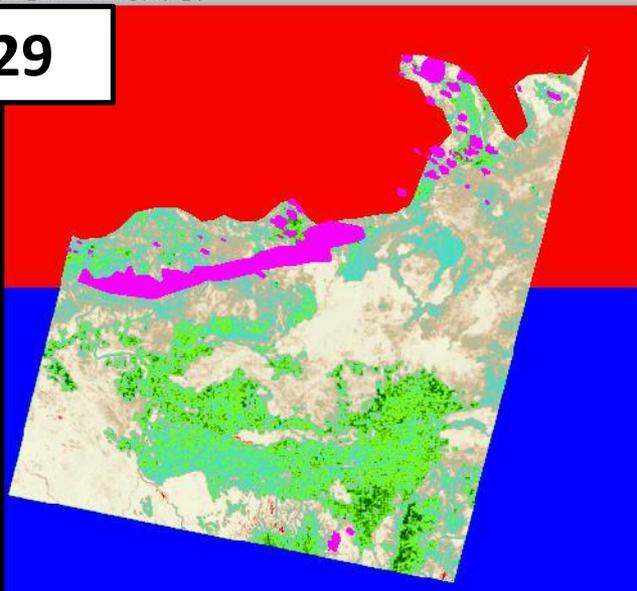


2D View #3: cloudmask_p40s_19860629v2.img (:Layer_1)

2D View #4: etrf24_ef_07311986_p40r30_i5_espa_color.img (:Layer_1)

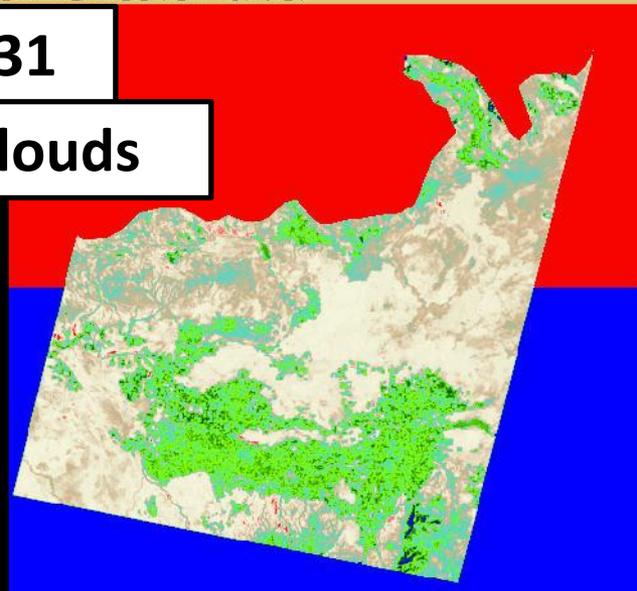
2D View #4: etrf24_ef_07311986_p40r30_i5_espa_color.img (:Layer_1)

June 29



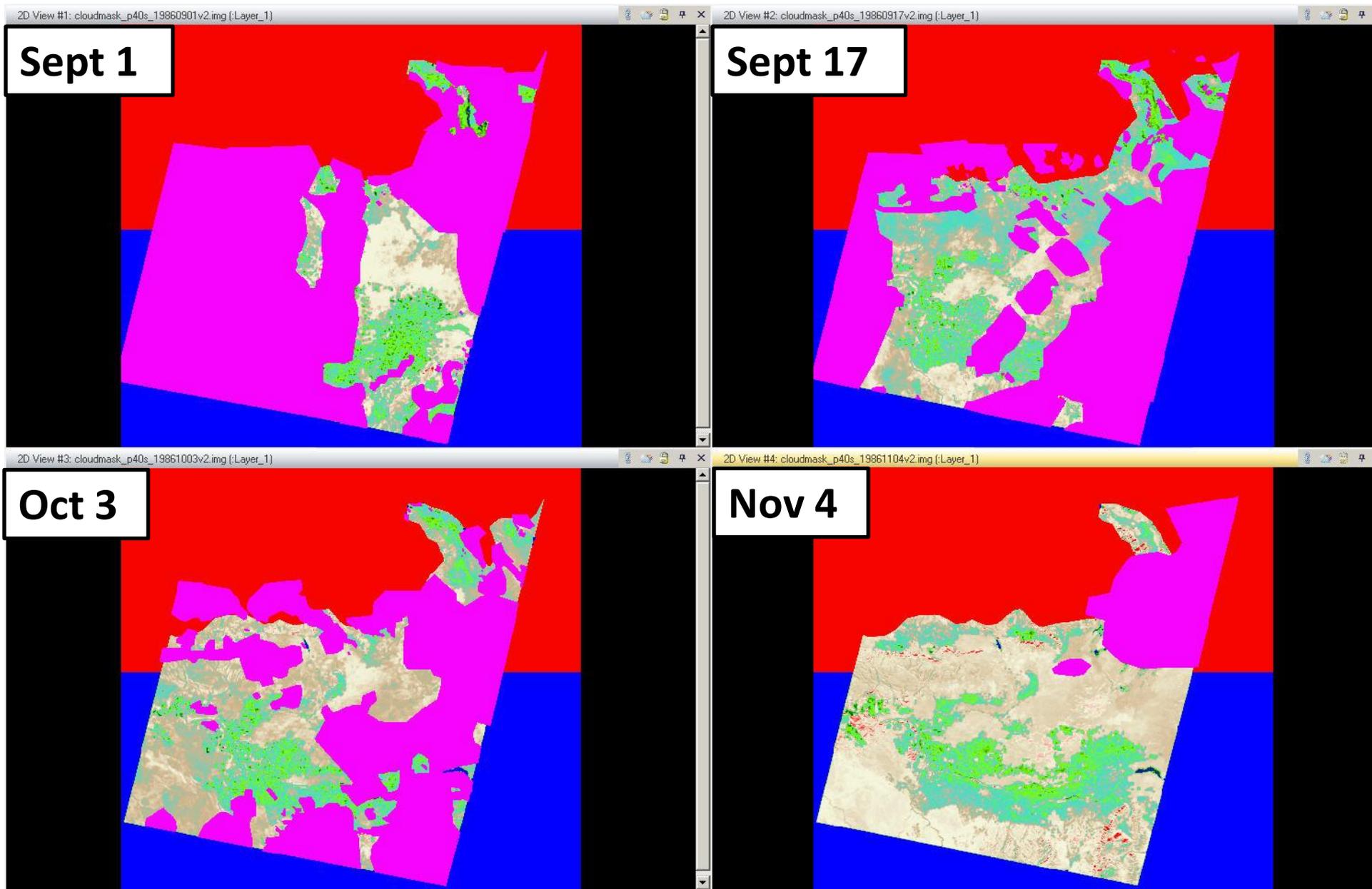
July 31

No clouds



Landsat 1986 path 40

with cloud mask

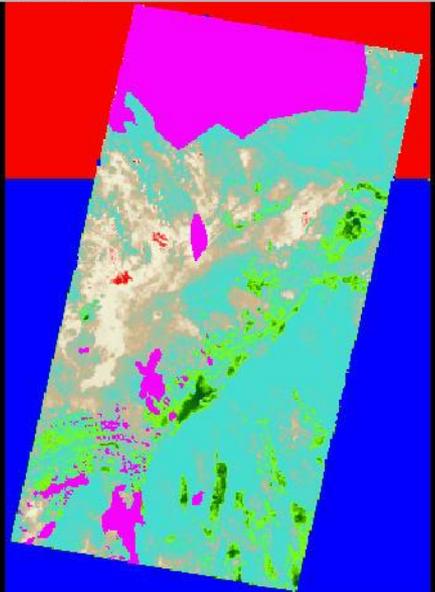


Landsat 1986 path 39

with cloud mask

2D View #1: cloudmask_p39_19860403v2.img (Layer_1)

April 3



2D View #2: cloudmask_p39_19860419v2.img (Layer_1)

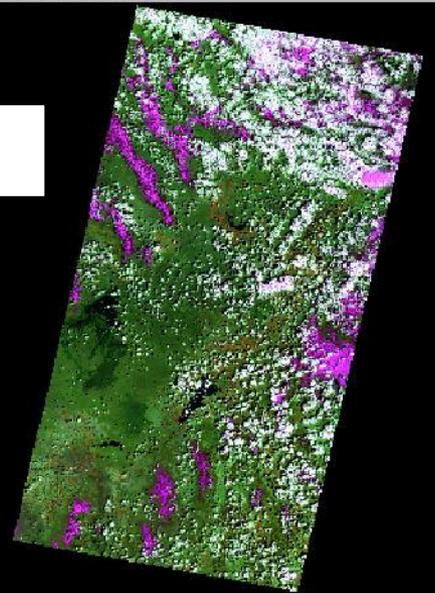
April 19



2D View #3: p39r293031_19860505ts.img (Layer_4)(Layer_5)(Layer_3)

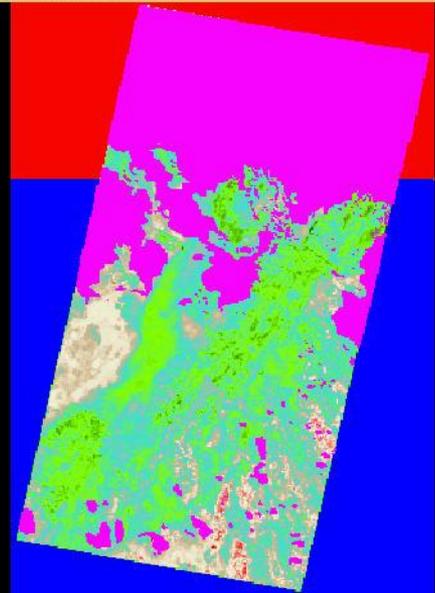
May 5

Not used



2D View #4: cloudmask_p39_19860606v2.img (Layer_1)

June 6



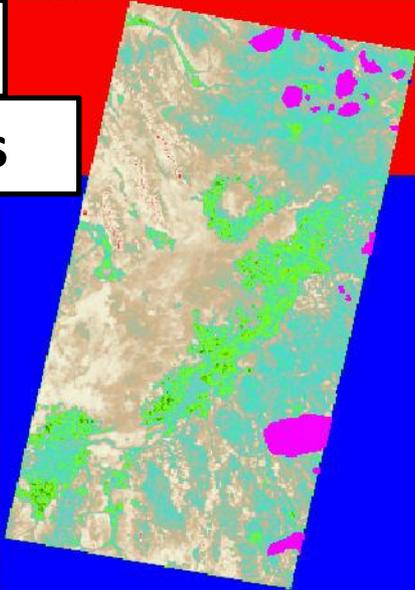
Landsat 1986 path 39

with cloud mask

2D View #1: cloudmask_p39_19860622v2.img (Layer_1)

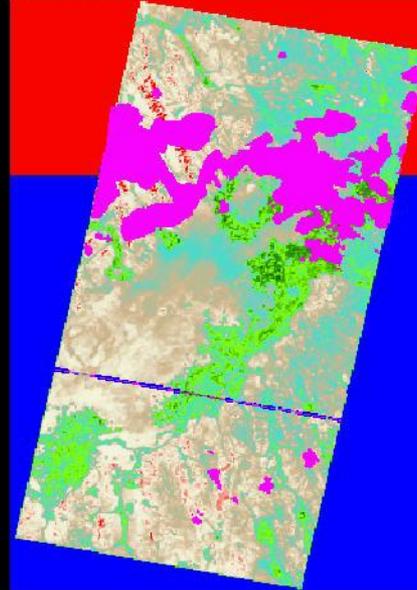
June 22

No clouds



2D View #2: cloudmask_p39_19860809v2.img (Layer_1)

Aug 9



2D View #3: cloudmask_p39_19860910v2.img (Layer_1)

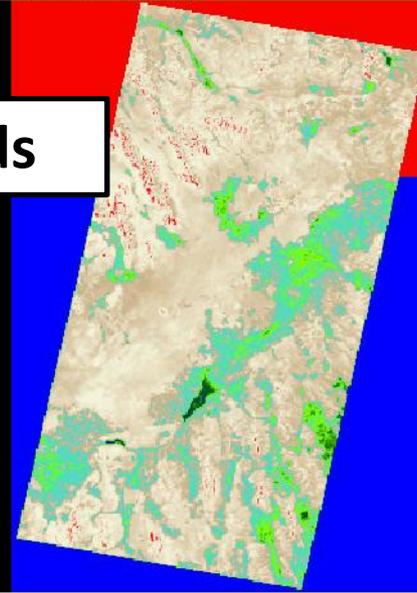
Sept 10



2D View #4: etrf24_ef_10121986_p39r30_j5_espa_color.img (Layer_1)

Oct 12

No clouds



AVHRR 1986

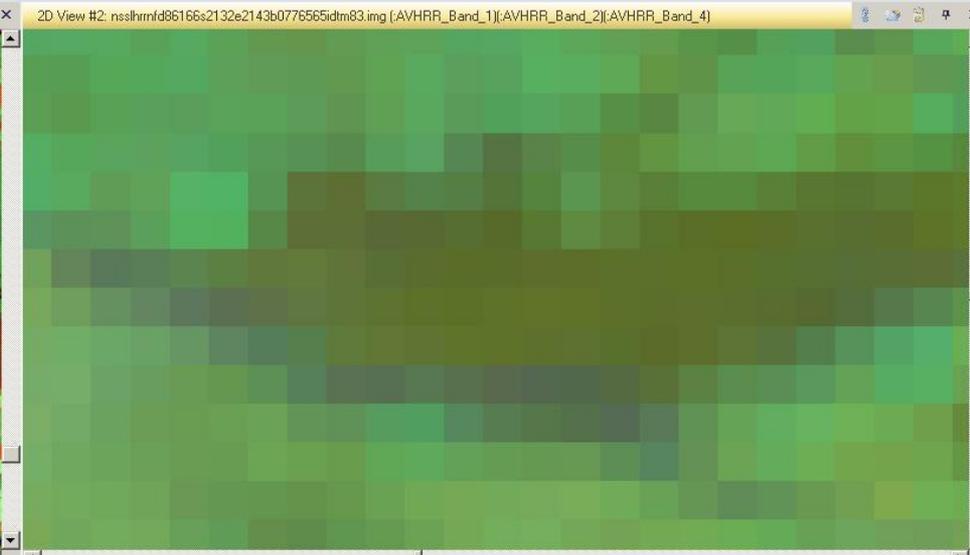
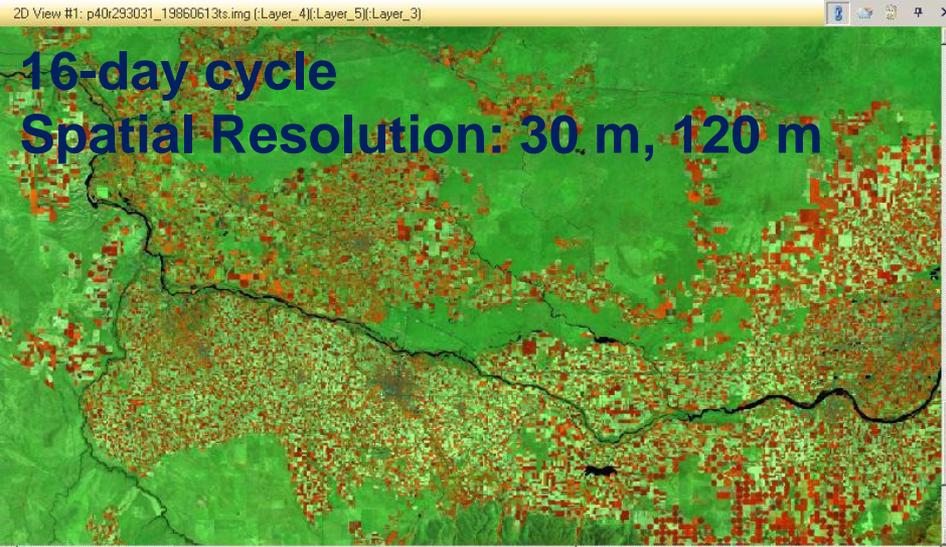
**Potential images for NDVI ET to
fill in gaps in time due to cloudy
Landsat images**

Landsat

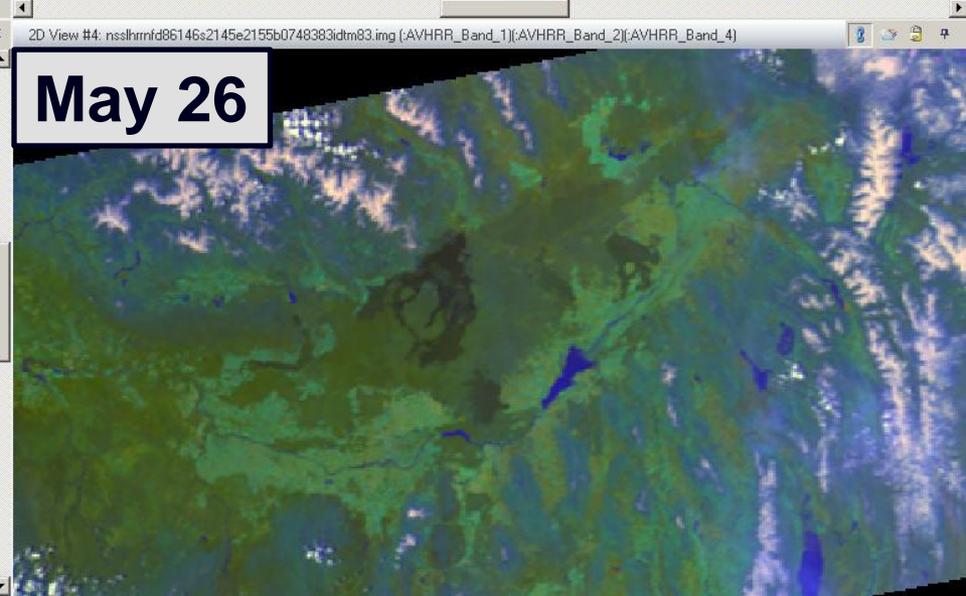
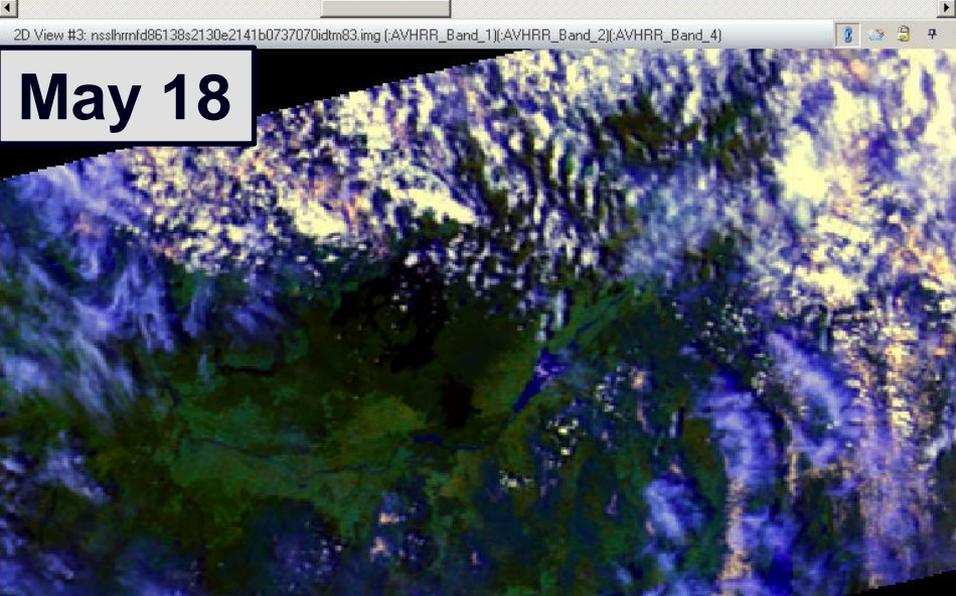
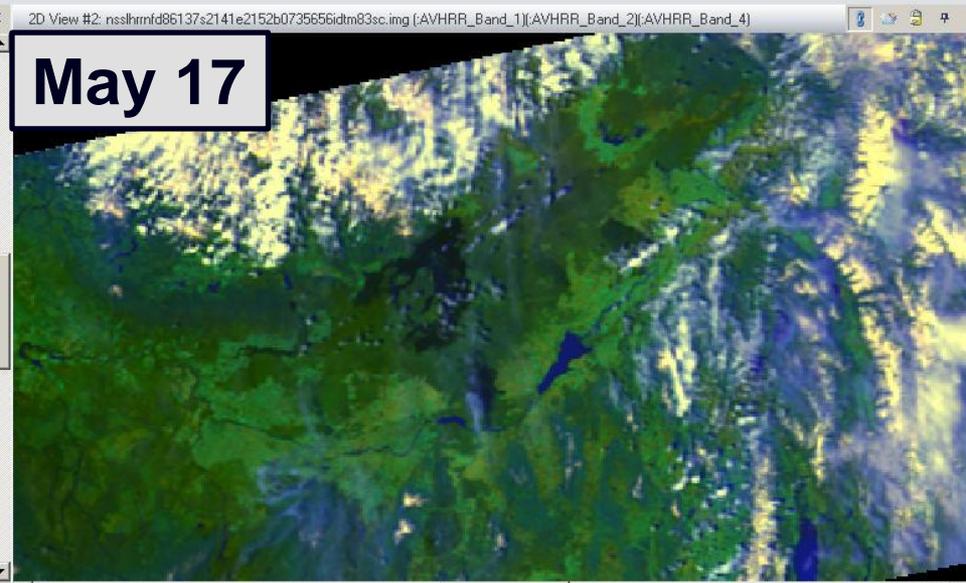
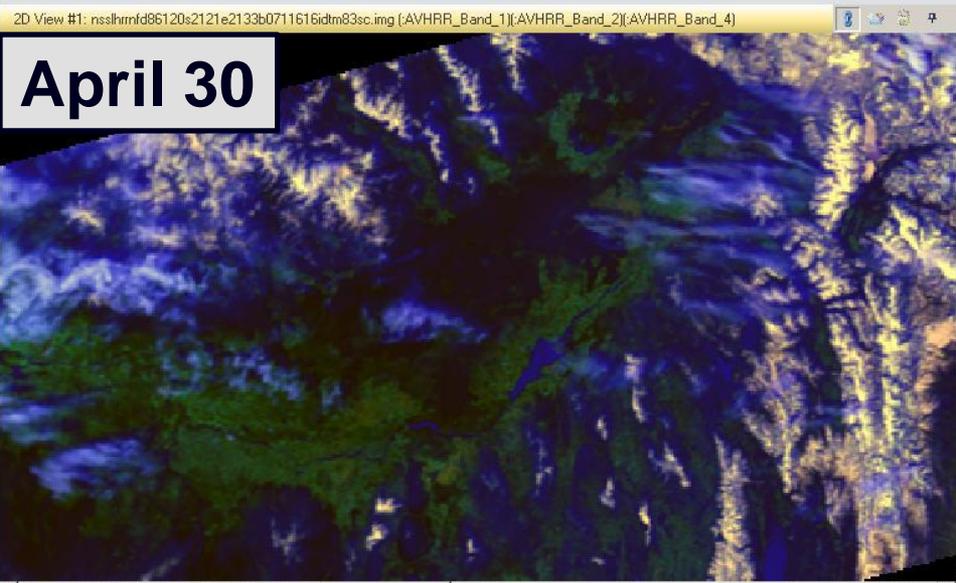
June 13, 1986

AVHRR

June 15, 1986



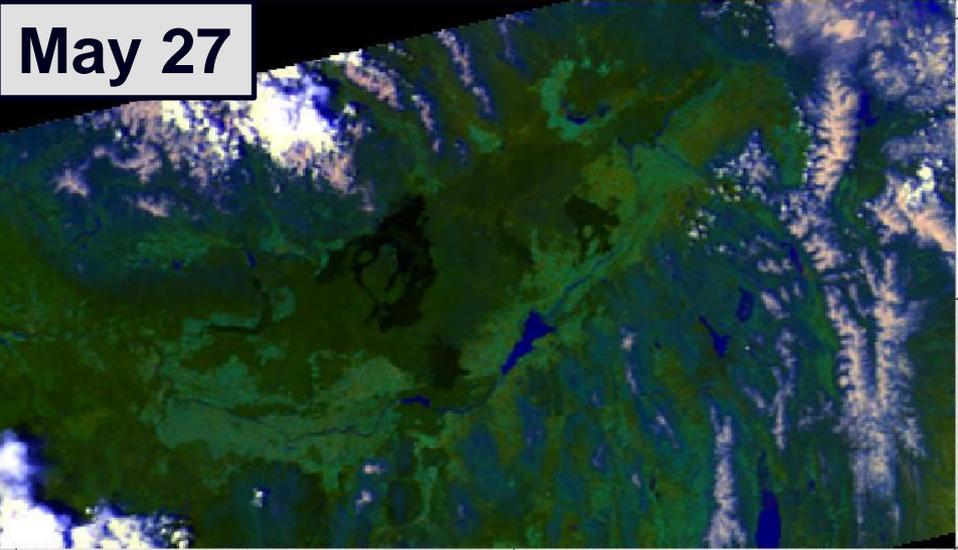
AVHRR



AVHRR

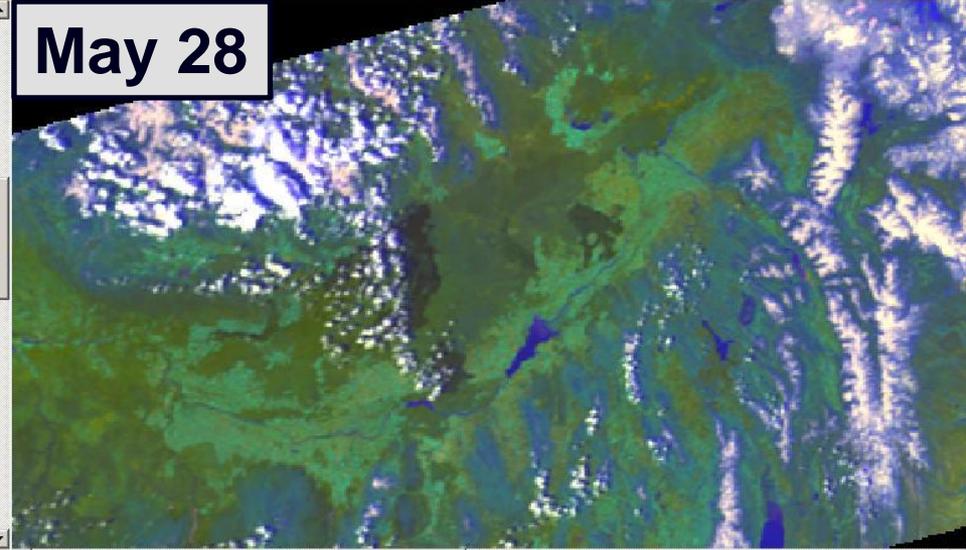
2D View #1: espamboundary.shp

May 27



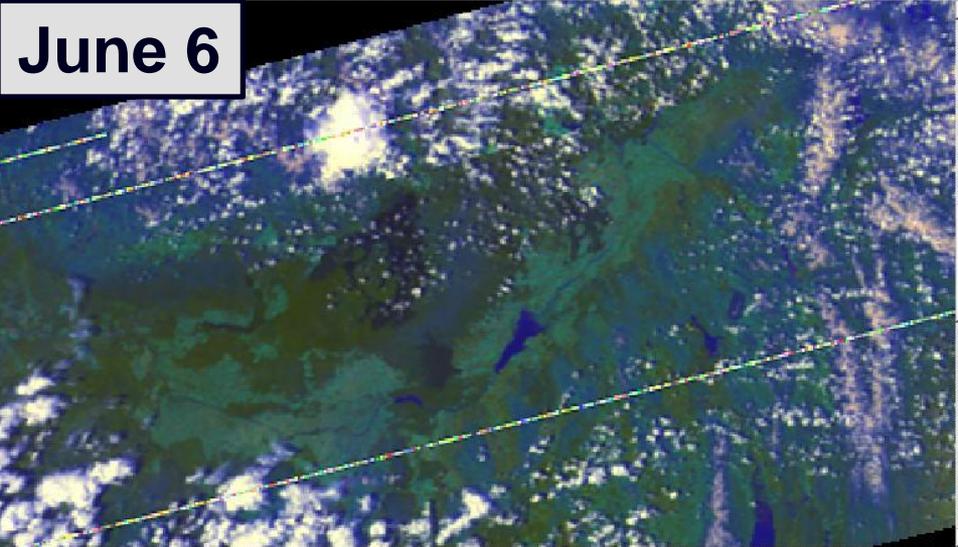
2D View #2: nsslhrmfd86148s2123e2134b0751111idm83.img (AVHRR_Band_1)(AVHRR_Band_2)(AVHRR_Band_4)

May 28



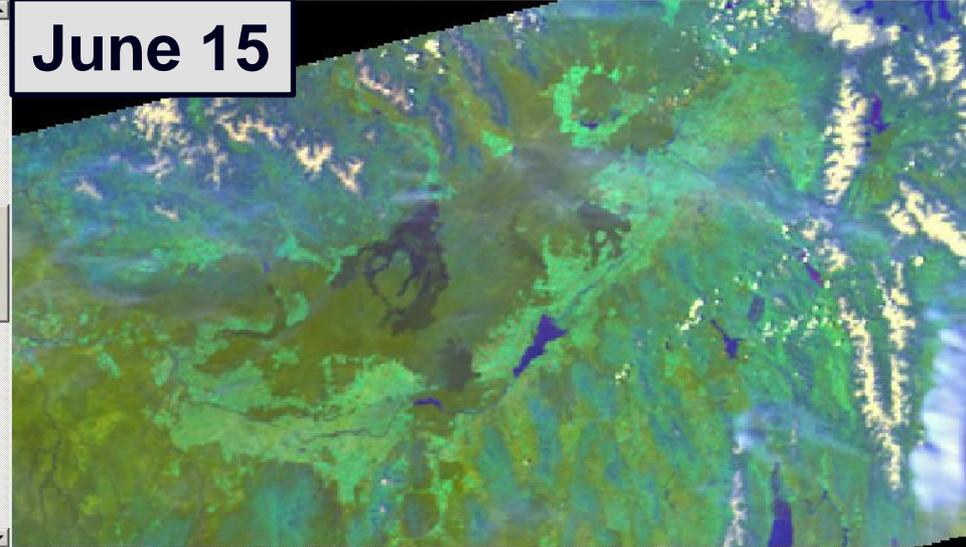
2D View #3: nsslhrmfd86157s2128e2139b0763838idm83.img (AVHRR_Band_1)(AVHRR_Band_2)(AVHRR_Band_4)

June 6



2D View #4: nsslhrmfd86166s2132e2143b0776565idm83.img (AVHRR_Band_1)(AVHRR_Band_2)(AVHRR_Band_4)

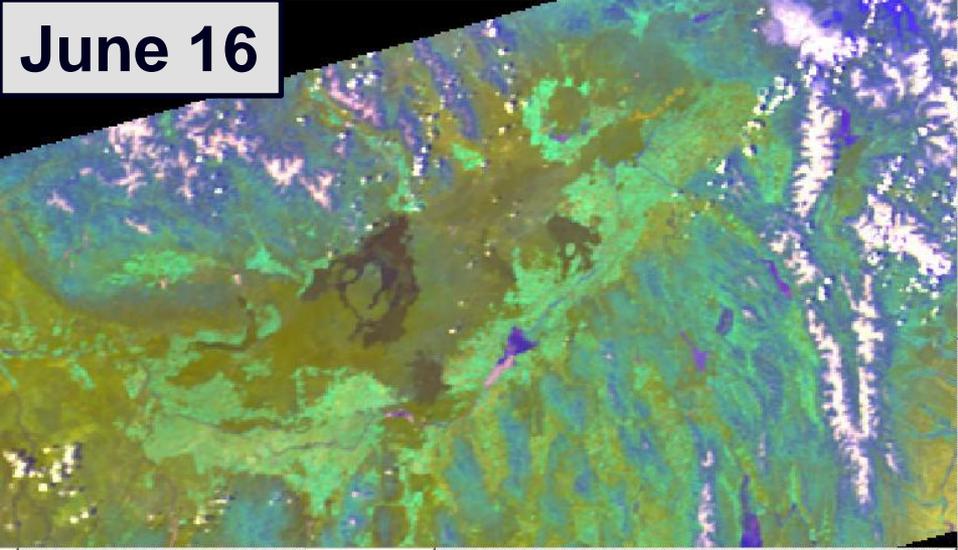
June 15



AVHRR

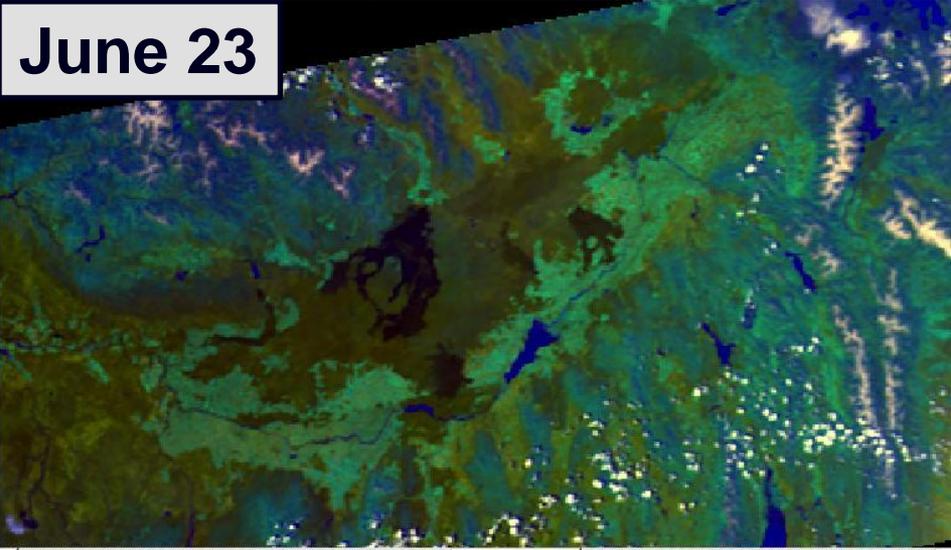
2D View #1: espamboundary.shp

June 16



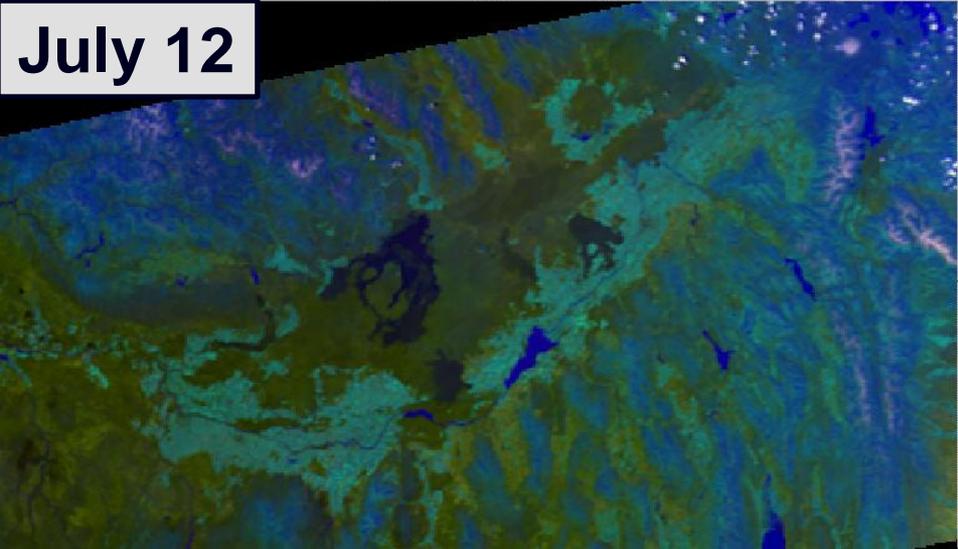
2D View #2: nsslhrmf086174s2147e2157b0787878idtm83.img (AVHRR_Band_1):(AVHRR_Band_2):(AVHRR_Band_4)

June 23



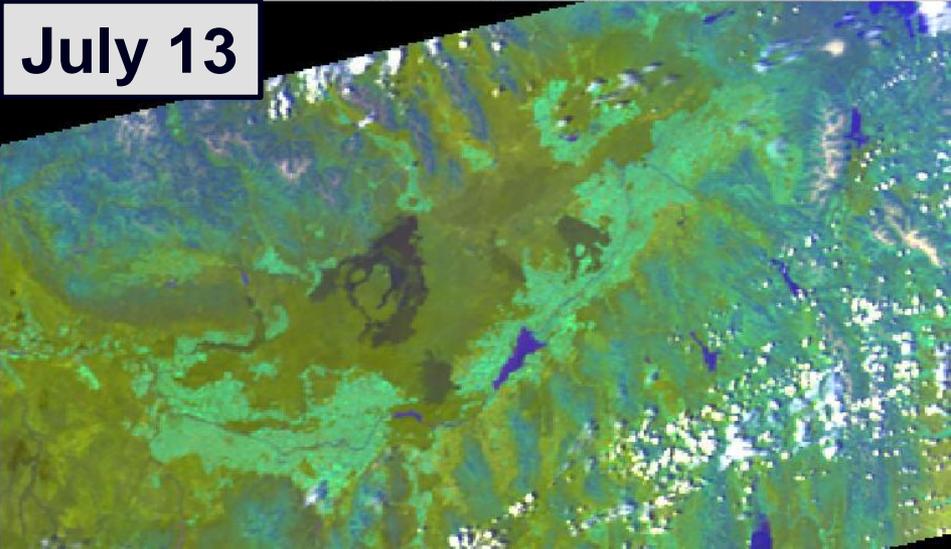
2D View #3: nsslhrmf086193s2145e2155b0814646idtm83.img (AVHRR_Band_1):(AVHRR_Band_2):(AVHRR_Band_4)

July 12

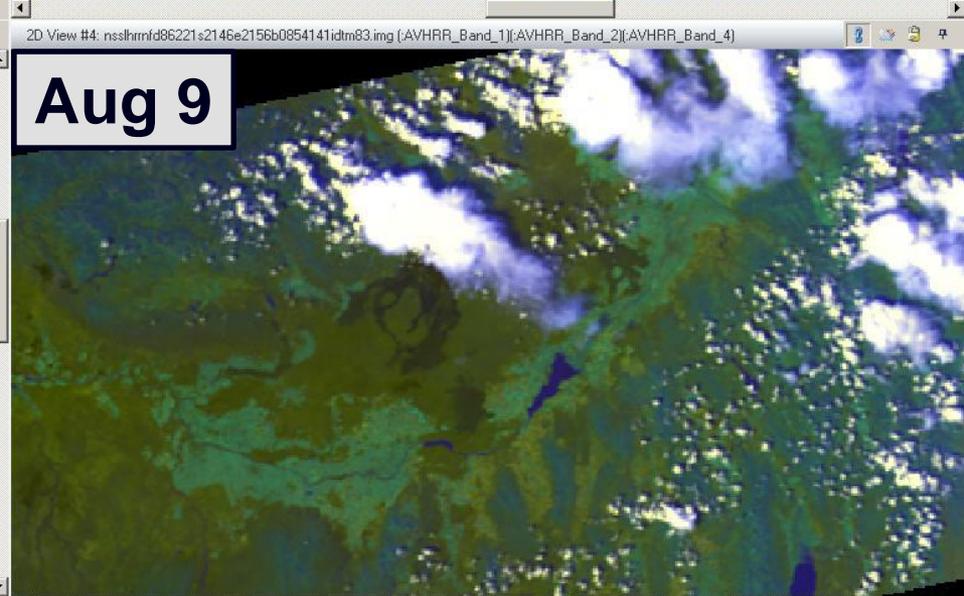
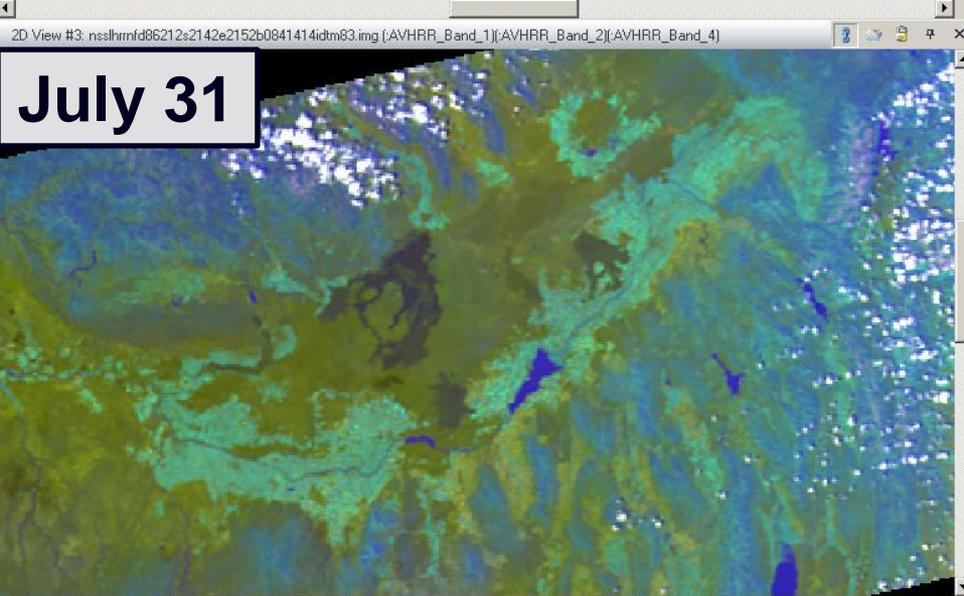
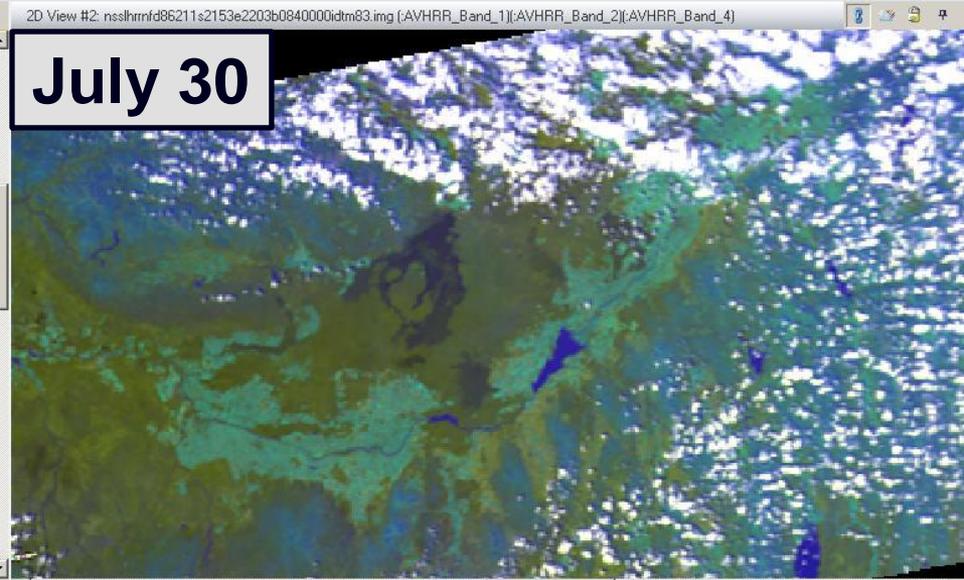
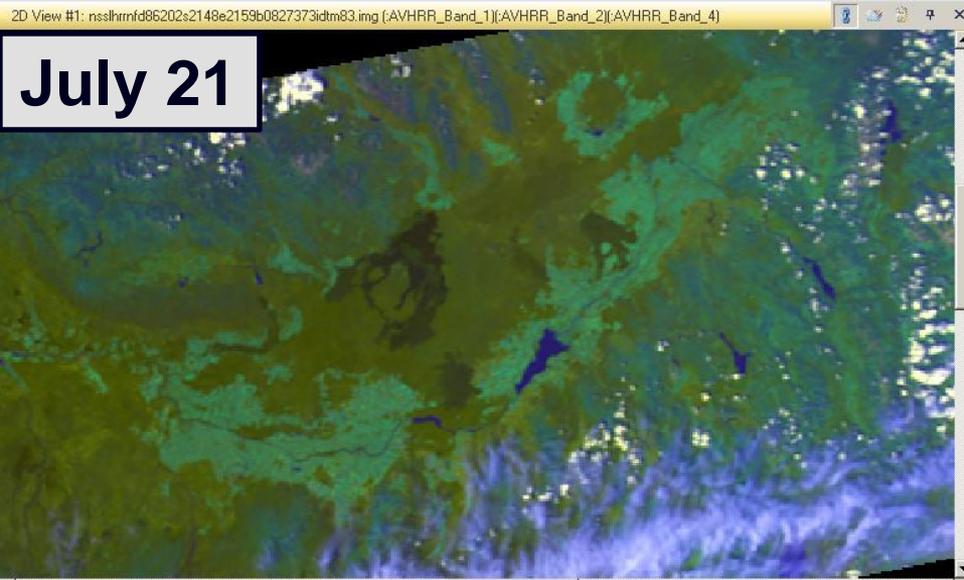


2D View #4: nsslhrmf086194s2134e2144b0816060idtm83.img (AVHRR_Band_1):(AVHRR_Band_2):(AVHRR_Band_4)

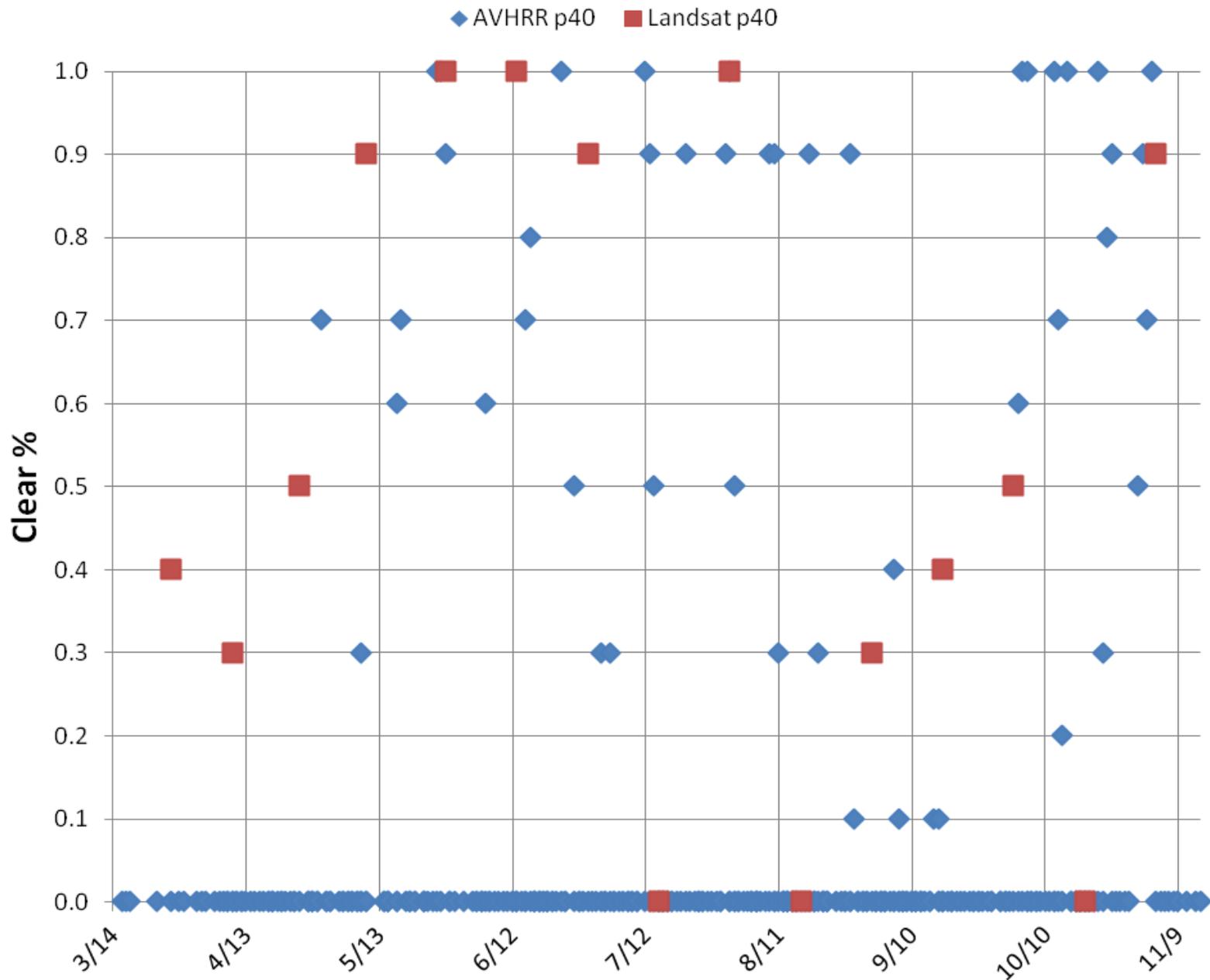
July 13



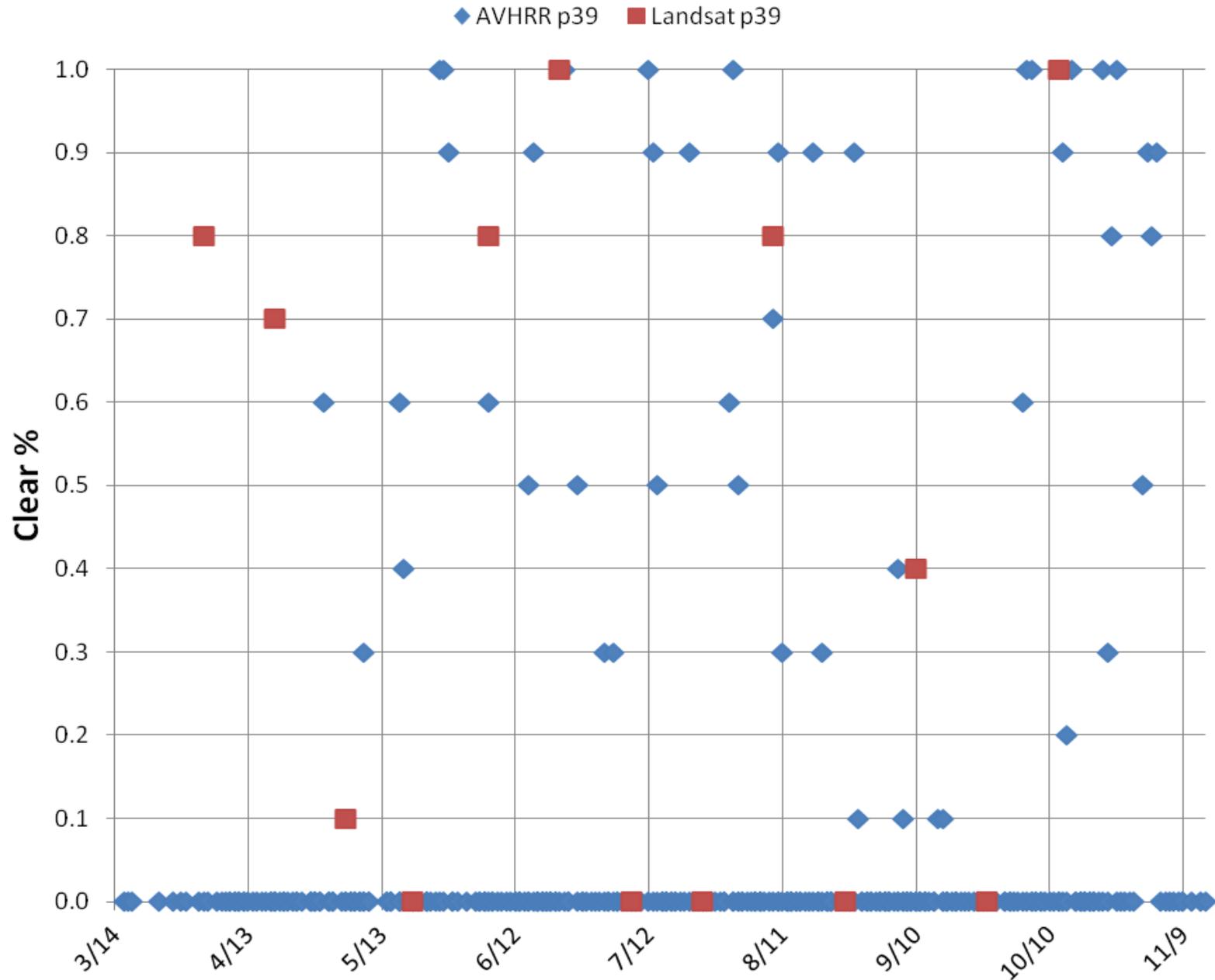
AVHRR



1986 AVHRR-Landsat p40 Clear %

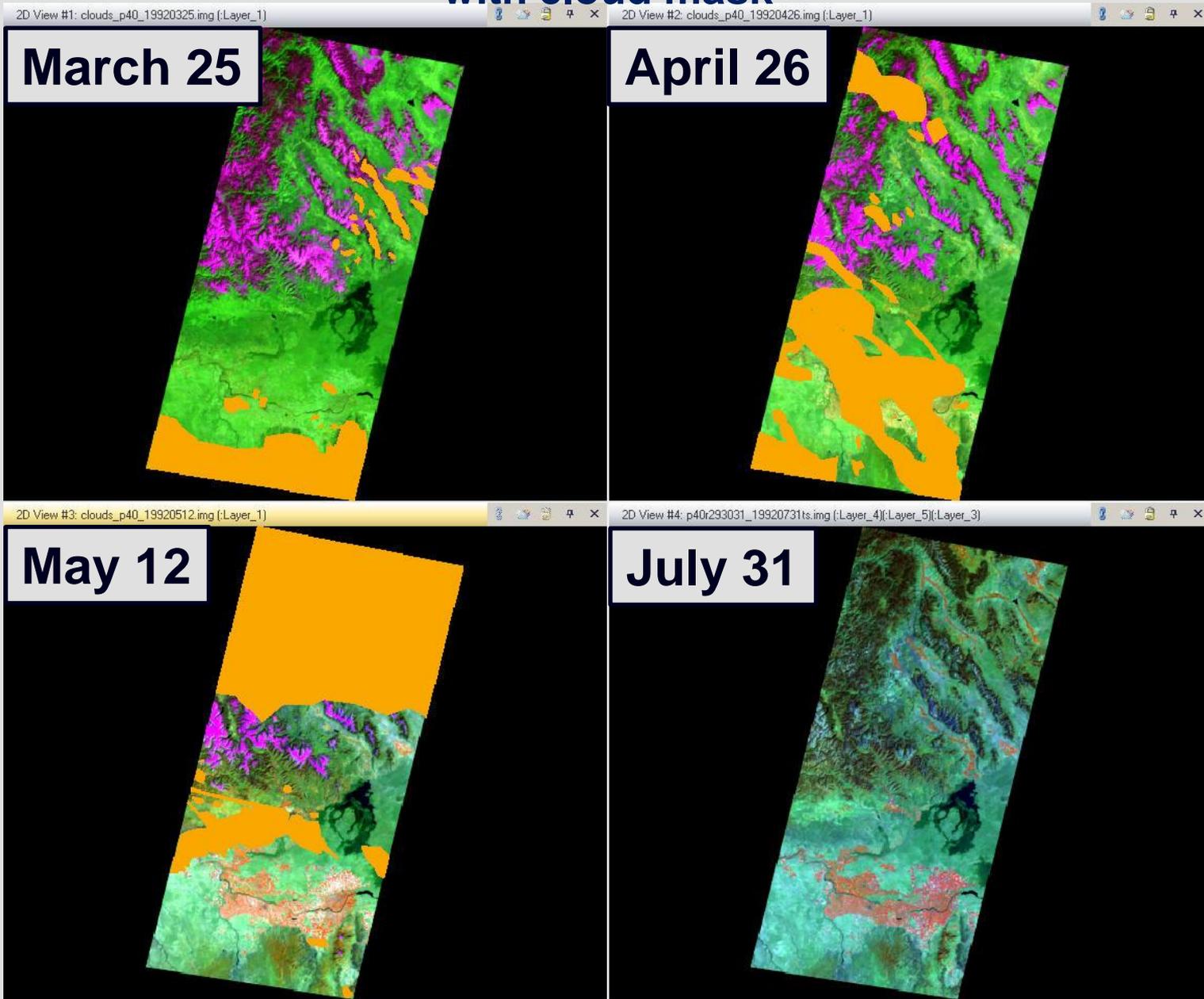


1986 AVHRR-Landsat p39 Clear %

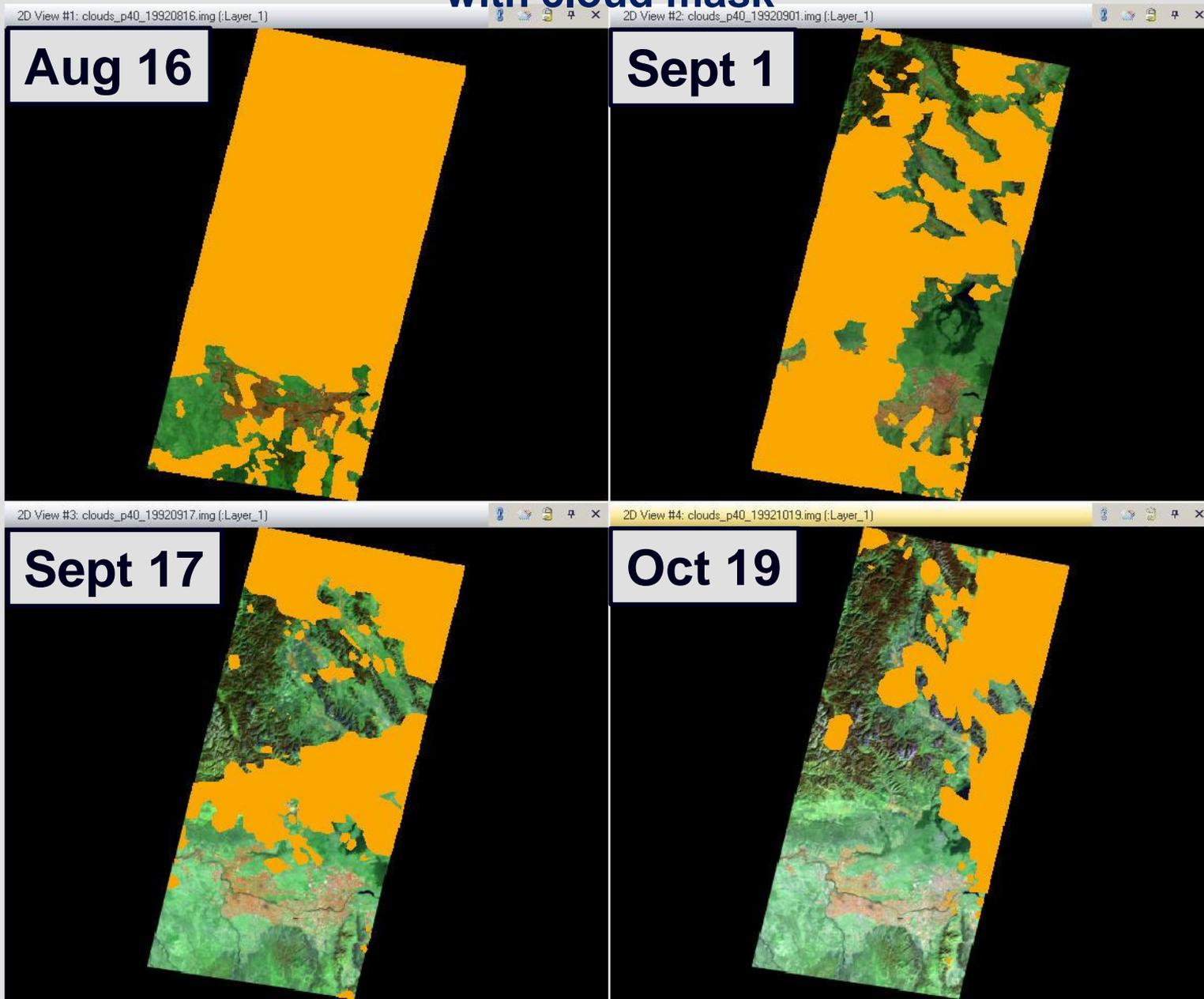


Cloud Cover Review of Landsat Images for 1992

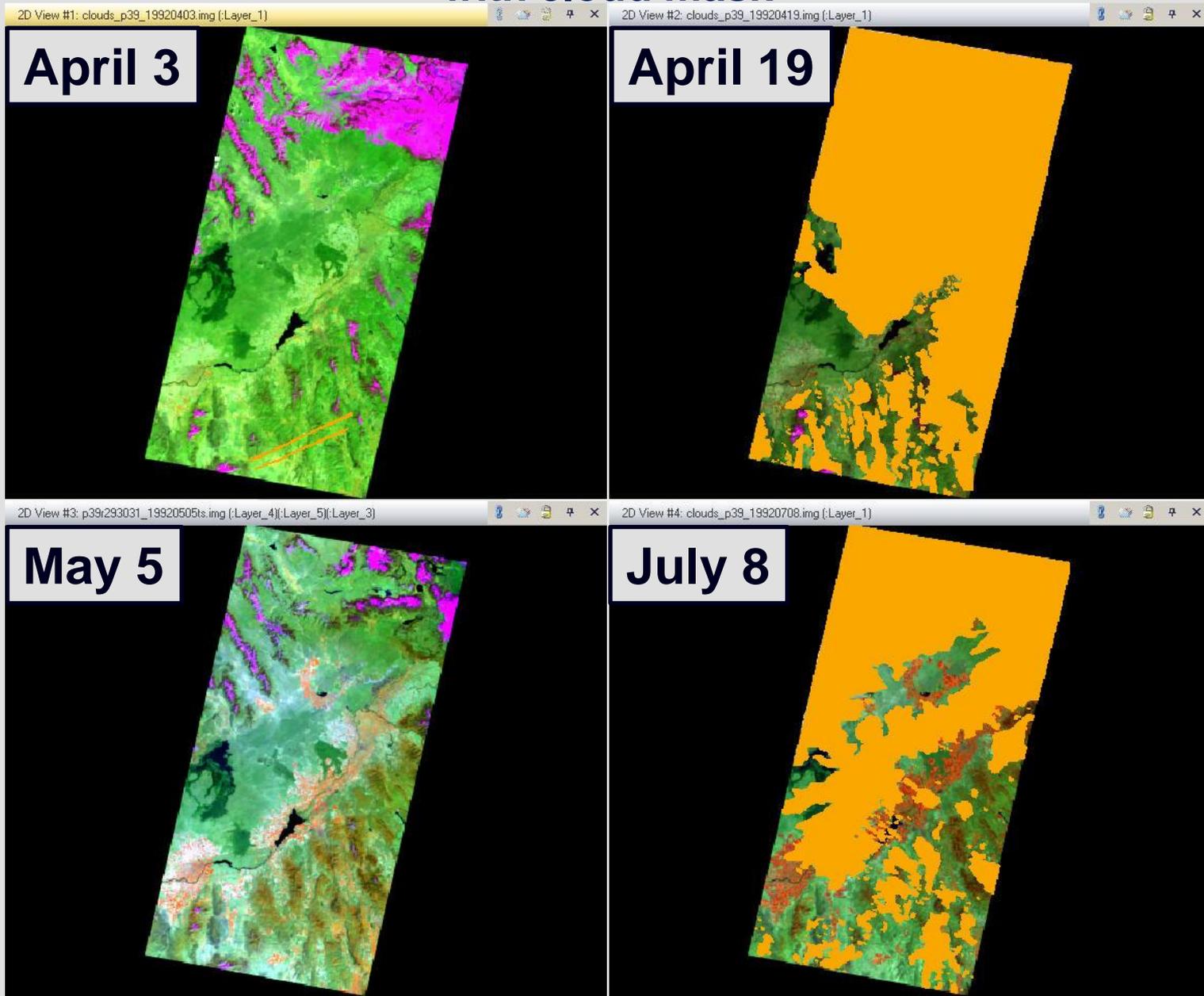
Landsat 1992 path 40 with cloud mask



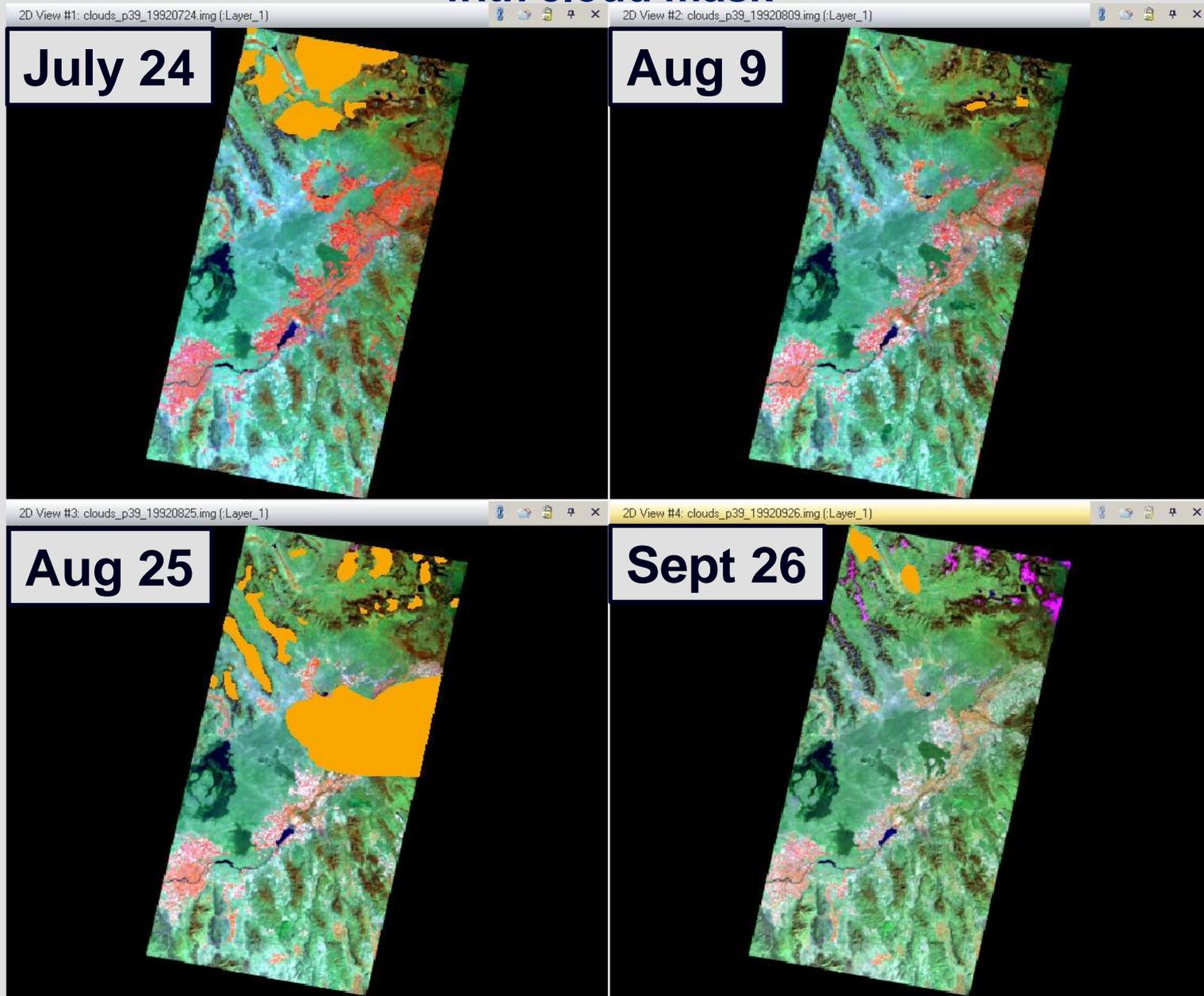
Landsat 1992 path 40 with cloud mask



Landsat 1992 path 39 with cloud mask



Landsat 1992 path 39 with cloud mask



Landsat 1992 path 39 with cloud mask



**Weekly and biweekly AVHRR NDVI composites
are available from 1989 to present.**

2012 or 2013?

2012

Landsat 7

Landsat 5 MSS (NDVI ET)?

MODIS?

2013

Landsat 7

Landsat 8

MODIS?

Per Rick Allen, “In summary, neither year is 'great', but Path 40 can probably be processed via METRIC with some supplement for both years. Path 39 will have challenges for both years, but we may be able to develop a robust means to use METRIC-MODIS and METRIC-VIIRS to complete missing periods while keeping the 30 m sharpness of Landsat.”