MIPS Image quality report

MIPS version 1.1

Willem Marais - 09/27/2011

Synopsis

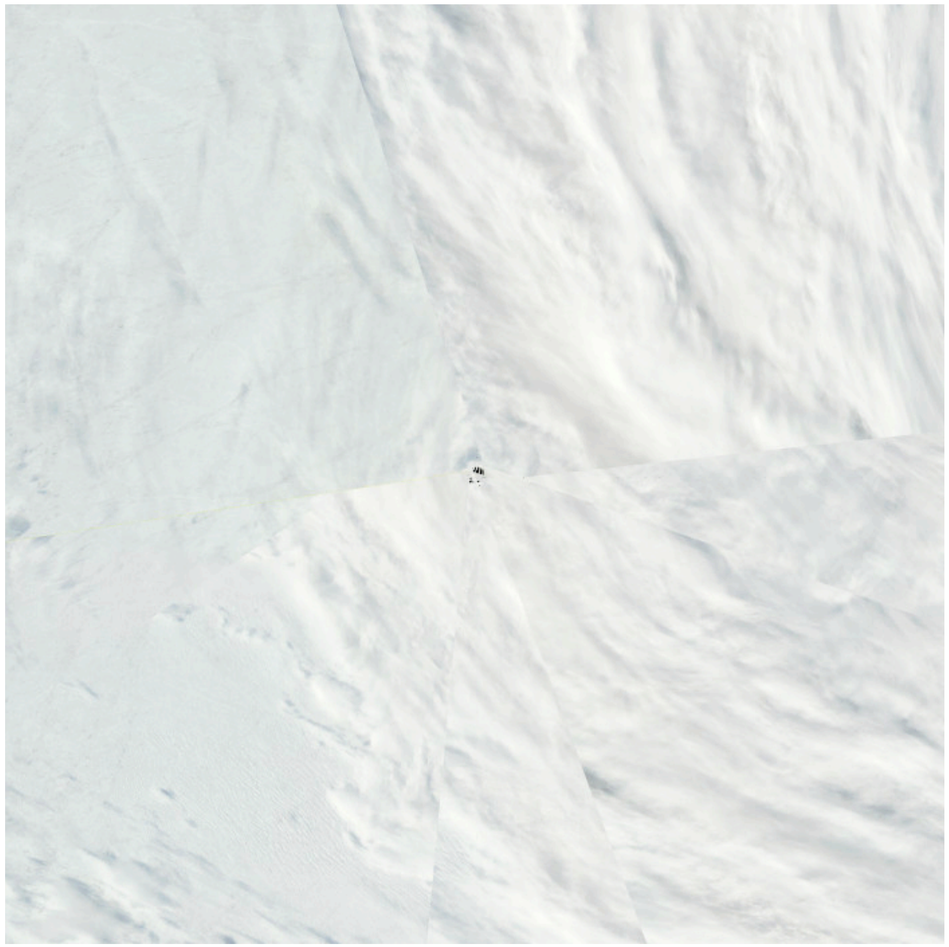
- During the testing of MIPS at NSMC, MIPS image quality problems were identified
- The cause and effect and of the MIPS image quality problems are described in this presentation
- The format of the presentation; 1) Display the image quality problem, 2) Present analysis of problem
- All the images that are displayed in this document, were generated from the FY3B 2011-07-18 data set

Case one - Example image

- The image to the right is an Arctic polar mosaic of the FY3A 2011-07-18 data set

- Near the 90 latitude, black dots appear on the mosaic

- The cause of the problem, is the tool ms2gt. The author has been emailed, and help is requested.

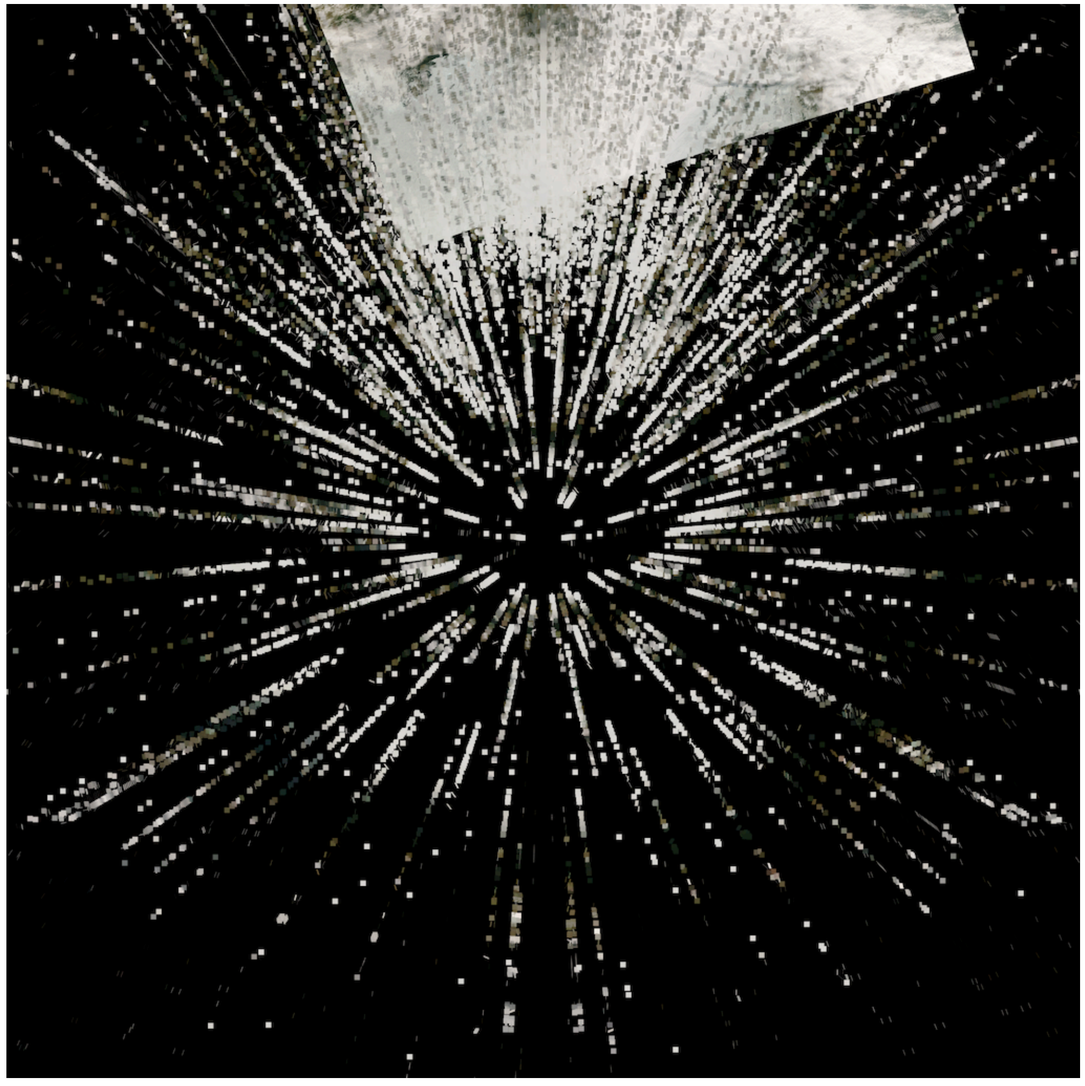


Case two - Example image

- The image to the right is a northern polar image

- The image has inconsistent pixel values which are spread out from the center and propagate radially outwards.

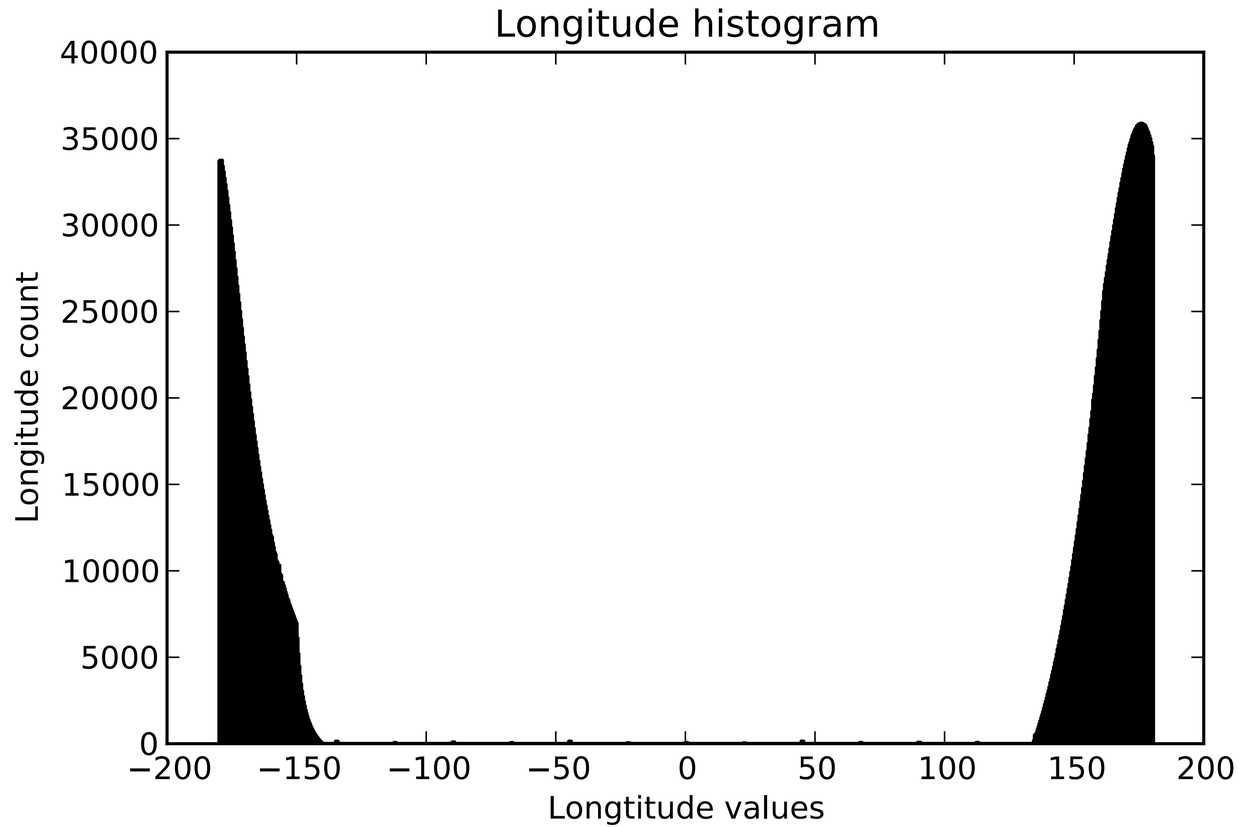
- This image was created from the FY3B 2011-07-18 0025 granule



Case two - Cause of problem, p1

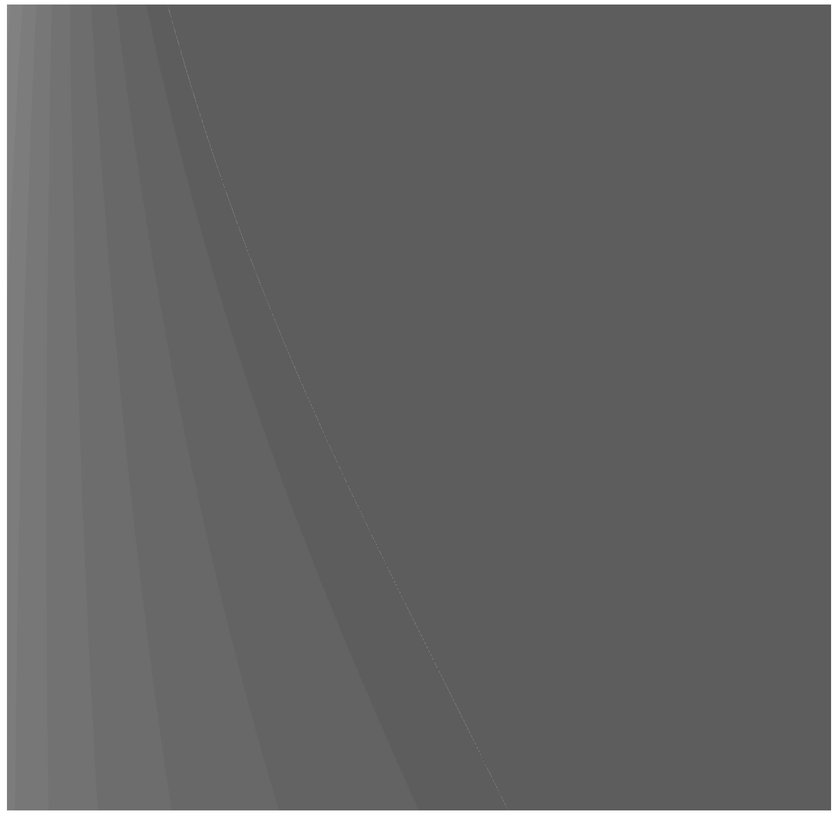
- The image to the right is a histogram of the longitude data

- The granule do not cross the 0 degree longitude line: the latitude maximum value is 79.1113 and latitude minimum value is 54.2603



Case two - Cause of problem, p2

- The image to the right is a visual representation of the negative longitude values



- There is a line of white and black pixels which indicates that there are discontinuities in the data

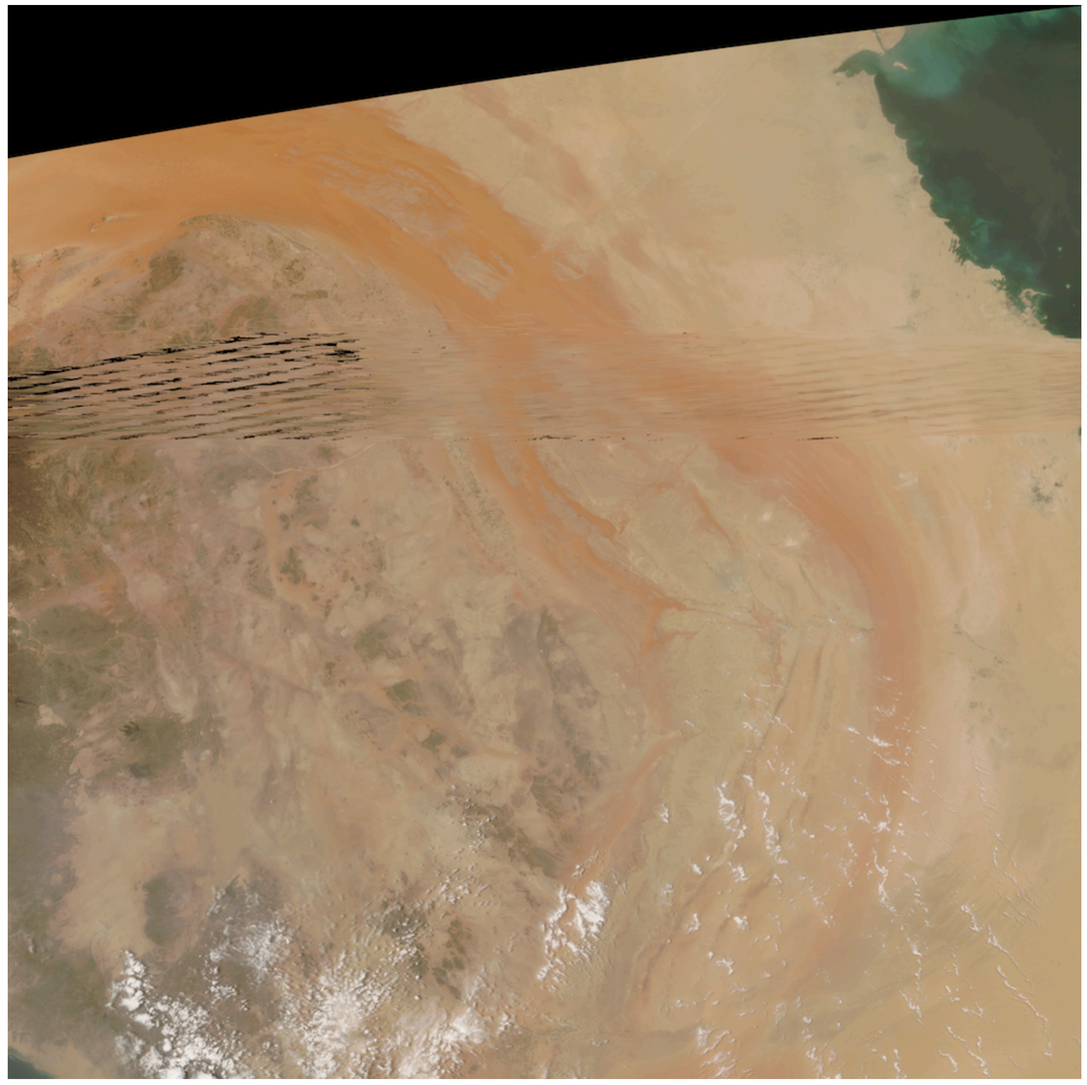
- The maximum of the negative longitude values is -6.83019e-06

Case three, Example image

- The image to the right is over Saudi Arabia

- The image quality is not good in this image, as it can be seen near the middle of the image

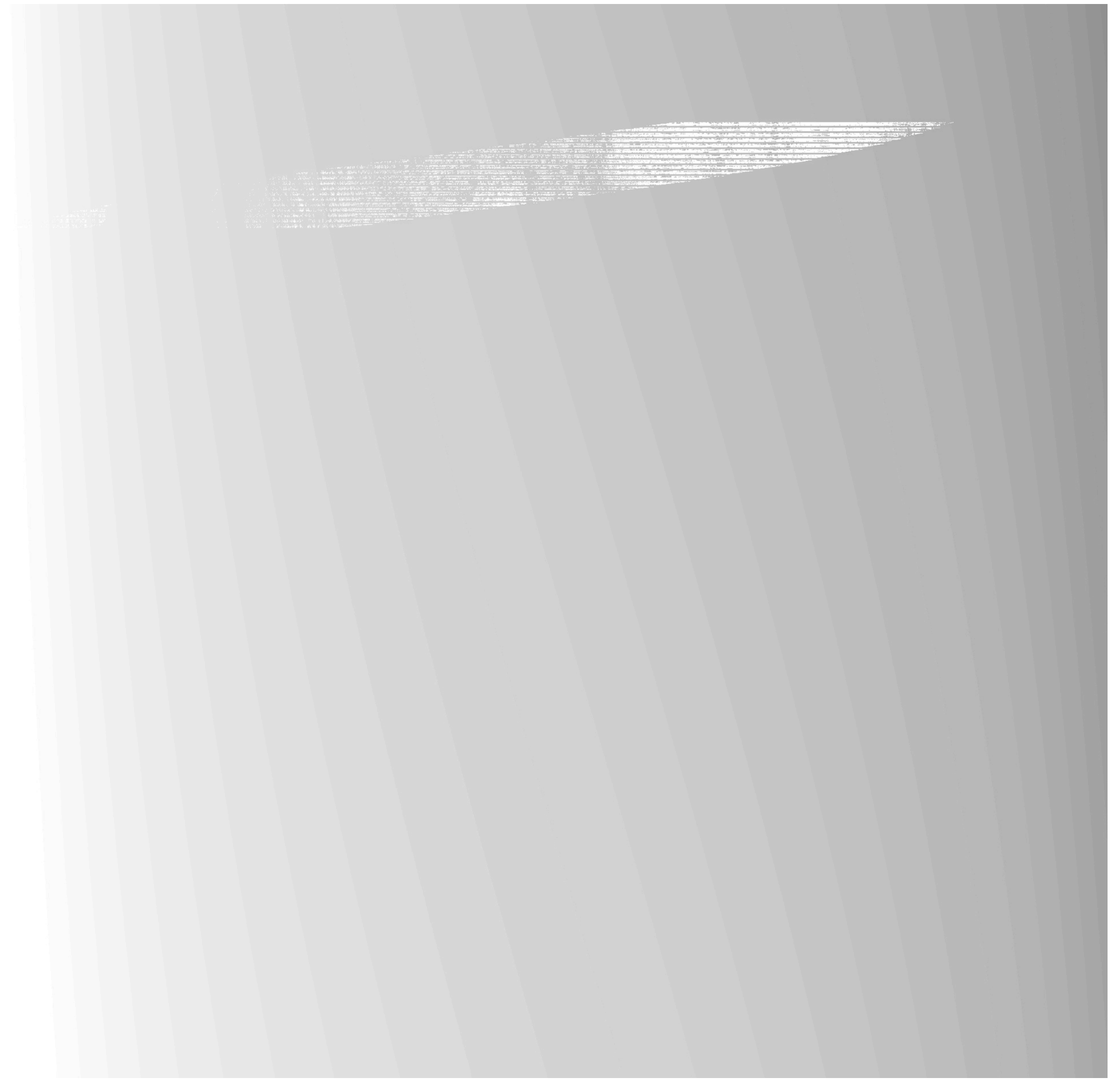
- This image was created from the FY3B 2011-07-18 1020 granule



Case three - Cause of problem, p1

- The image to the right is the scaled longitude values of the granule

- In the top half of the image, it can be seen there are inconsistent longitude values

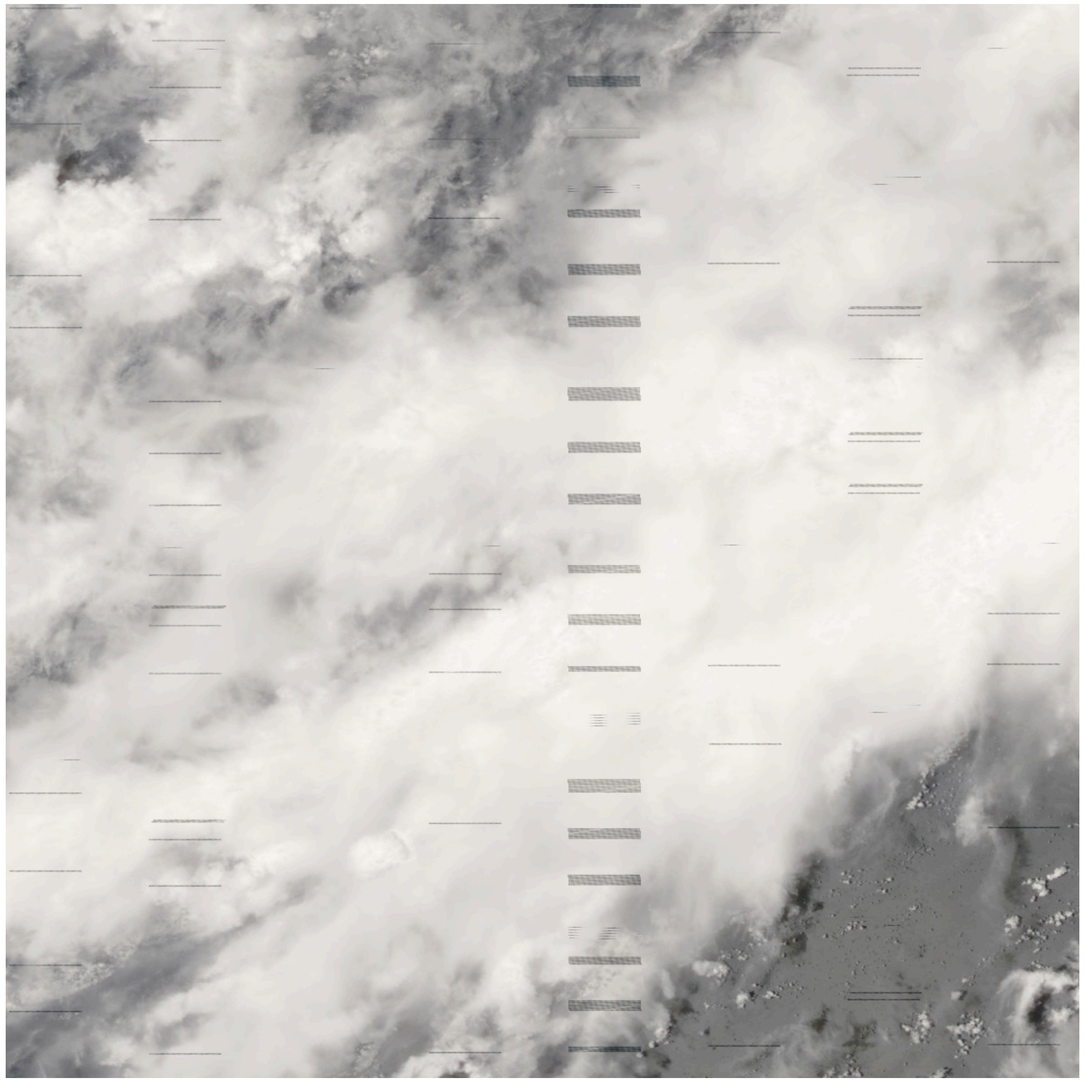


Case four - Example image

- The image to the right have random lines spread over the image

- These random lines appear all over the global image (refer to global mosaic image)

- The image was created from the granule FY3B 2011-07-18 0155 granule



Case four - cause of problem, p1

- The image on the next page shows a global mosaic image of the FY3B 2011-07-18 0155 granule

- From this granule, white strips/dots are created over the whole globe

Case four - cause of problem, p2

- The image to the right shows the negative longitude values of the FY3B 2011-07-18 0155 granule

- The granule overlaps the 180˚and -180˚ longitude transition

- The maximum value of the negative longitude values is -1.02453e-05