

**Re: GOES-13 X-ray quality issues**

SWPC has long since known of a problem in the GOES-13 XRS instrument -- it periodically and without warning inverts its counts. In this anomalous mode, the higher the signal on the long channel, the lower the counts, up until it bottoms out at zero.

We have developed an algorithm to not only detect when this anomalous mode is active, but to correct the counts so that they are much more realistic. When the signal is large enough, the corrected counts saturate (when it had bottomed out at zero), and so we warn the forecasters that the product is saturated.

When anomalous mode is active, the products are marked with a new quality flag to indicate that fact. When it saturates in anomalous mode, we mark those products with another new quality flag. Lastly, these two new quality flags replace an older, previously unused quality flag. These updates are available in the new quality flag table..

Again this code change only affects GOES-13 XRS. It is scheduled for release to operations towards the end of the UT day on 3/9/2011.

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