

**USA CONSIDERATION FOR MEETING THE WMO REQUIREMENTS  
FOR SATELLITE IMAGES IN THE SOUTHERN HEMISPHERE**

**ACTION 28.03:** USA to consider options to meet the WMO requirements for satellite images in the Southern Hemisphere (½ hourly, full disk, multi-spectral) and inform Members at CGMS XXIX.

**SUMMARY:** NOAA/NESDIS recognizes the importance of ½ hourly satellite imagery in the Southern Hemisphere, which is provided for in routine operational mode. However, during Rapid Scan Operations (RSO), Southern Hemisphere coverage is limited to 3-hourly full disk scans. Options to minimize these data outages as well as future plans to alleviate them altogether are presented in this paper.

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**1 INTRODUCTION**

The following action item is addressed in this paper.

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NOAA/NESDIS recognizes the importance of ½ hourly satellite imagery in the Southern Hemisphere, which is provided for in routine operational mode (Figures 1 and 2). However, during Rapid Scan Operations (RSO), Southern Hemisphere coverage is limited to 3-hourly full disk scans (Figures 3 and 4). Options to minimize these data outages as well as future plans to alleviate them altogether are presented in this paper.

## 2. GOES Routine Operations

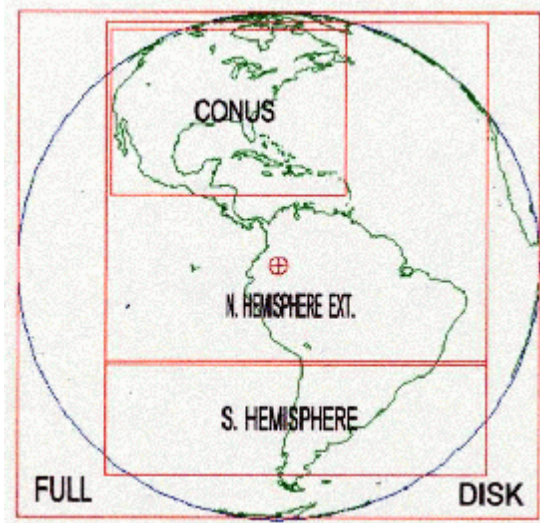


Figure 1. GOES-East Imer Scan Coverage During Routine Operations (75 W Longitude)

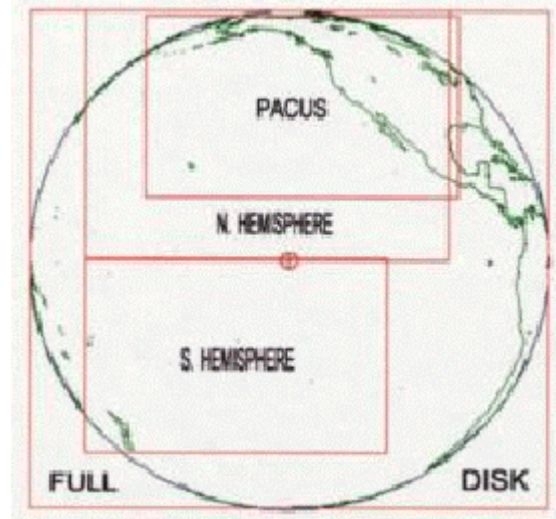


Figure 2. GOES-West Imer Scan Coverage During Routine Operations (135 W Longitude)

During GOES-East and West routine operations Southern Hemisphere coverage is provided every 30 minutes (Denoted as N. HEMISPHERE EXT. and S. HEMISPHERE Above). A Full Disk scan is performed every 3 hours. The WMO requirement for ½ hourly Southern Hemisphere coverage is met during routine operations by the combined coverage provided by GOES-East and GOES-West .

3. GOES Rapid Scan Operations (RSO)

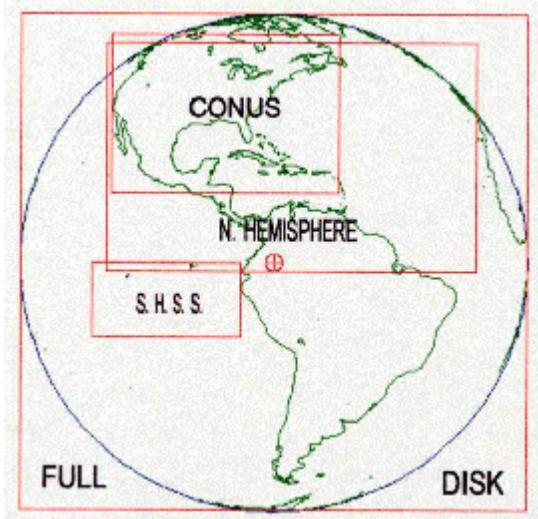


Figure 3. GOES-East Imager Scan Coverage During Rapid Scan Operations (75 W Longitude)

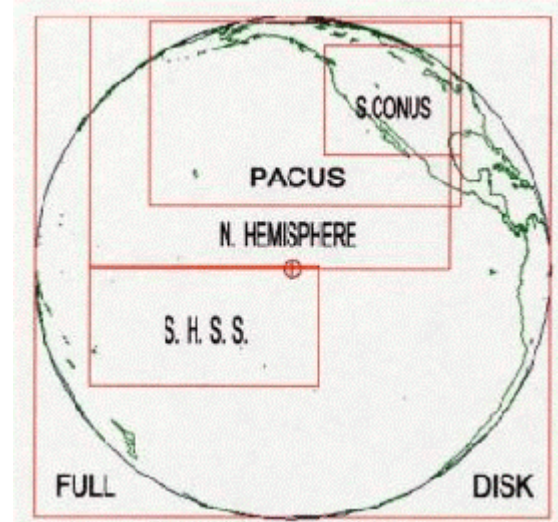


Figure 4. GOES-West Imager Scan Coverage During Rapid Scan Operations (135 W Longitude)

During GOES-East and West Rapid Scan Operations (RSO), Southern Hemisphere coverage is limited to the region denoted by S.H.S.S. in the Figures above. National Weather Service image requirements during severe weather outbreaks are for 7 ½ minute imaging over the United States. This limits the coverage available in the Southern Hemisphere. However, even during RSO, a Full Disk scan is performed every 3 hours. At this time, the WMO requirement for ½ hourly Southern Hemisphere coverage cannot be completely met during RSO.

#### 4. CONCLUSION

WMO requirements for ½ hourly

Several options to increase the Southern Hemisphere coverage during RSO are under consideration.

- 1) NESDIS to consider NWS RSO requests with an increased awareness of Southern Hemisphere imaging requirements.
- 2) NWS and NESDIS to discuss RSO and various options for satisfying the broad NWS community as well as GEWEX and WMO, to identify potential adjustments to imager scan strategy which would increase Southern Hemisphere coverage in the time frame before GOES-R.
- 3) The NWS will be asked to provide prompt termination notice for Rapid Scan Operations when the severe weather threat has abated.
- 4) NESDIS will consider the use of a 3<sup>rd</sup> operational satellite to provide additional coverage in the Southern Hemisphere.
- 5) The Advanced Baseline Imager is being designed with WMO requirements in mind, Scheduled for operations beginning in the 2011 - 2012 time frame, the ABI will provide ½ hourly full disk imaging, meeting the WMO Southern Hemisphere requirements.