

Geostationary Coverage over the Indian Ocean Beyond 2005

This paper provides a summary of operational support over the Indian Ocean using a GOES spacecraft.

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The United States discussed Indian Ocean support from a U.S. geostationary satellite. GOES-8, the first in current series of GOES satellites (GOES-8 through –12) began operation in 1994. The last in the series, GOES-12, was launched in 2001. Currently all five of the spacecraft are functional, though GOES-9 has limited capacity. GOES-10 and –12 are the operational satellites, located nominally at 135°W and 75°W, respectively. GOES-9 was moved earlier this year to near 155°E to assist the Japanese whose GMS spacecraft is nearing its end of life. The presence of a GOES satellite will avoid a possible gap in Japanese geostationary meteorological satellite coverage should this spacecraft fail before the launch of the next satellite, MTSAT. Knowing the limited function of GOES-9 and its possible failure in the near future, NOAA recently positioned GOES-8, a much healthier satellite, at 165°E as a backup to GOES-9. GOES-8, however, has no fuel remaining for orbital maneuvers. With two GOES being used as the U.S. operational spacecraft and with the two oldest providing support to Japan, the only remaining satellite, GOES-11, must remain in storage at 105°W to be readily available as a backup to the two operational satellites should one fail. Thus there are currently no GOES spacecraft available for Indian Ocean support.