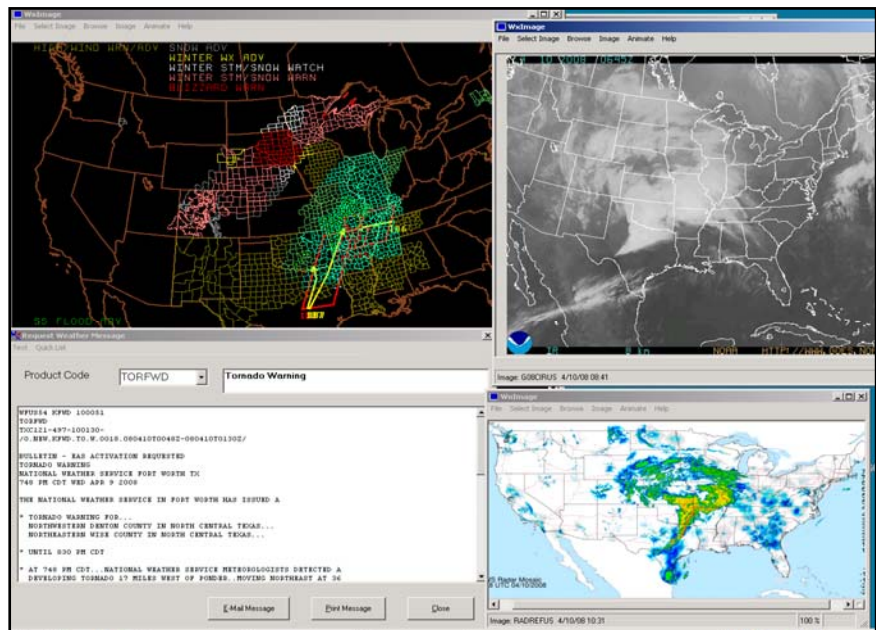




National Weather Service EMWIN GOES East Transition on or about April 26, 2010

Weather.gov

The Emergency Managers Weather Information Network (EMWIN) is a low cost satellite weather data broadcast service that provides one of the most robust National Weather Service (NWS) systems for public weather dissemination. The service includes warnings, forecasts, graphics, and imagery. The goal of EMWIN is to provide emergency managers the capability to respond faster to severe weather, tsunamis and other hazards. Due to changes in the satellite configuration that provide this broadcast, EMWIN users must take action to ensure continued reception of this data service.



Due to changes in the satellite configuration, EMWIN users must take action to ensure continued EMWIN service

The primary dissemination method is an L-band broadcast via the Geostationary Operational Environmental Satellites (GOES). This allows the reception of the EMWIN signal over a large portion of the earth's surface and makes EMWIN products available to both national and international customers. In addition, the use of both GOES satellites allows signal redundancy for most of the continental U.S. The primary audience of EMWIN is the emergency management community, however its low cost, no recurring fees and ease of use has made it popular with others. EMWIN is also used by many governments internationally, especially in the Caribbean, South America and the Pacific Rim.

EMWIN Equipment must be upgraded.

Changes in the next series of GOES satellites, the GOES-N thru P constellation, have necessitated development of EMWIN-N. Sometime before the end of 2011, the current I-M Series of GOES satellites will be removed from operation and will be replaced by the new series. This will allow for the use of improved technologies, but **all current EMWIN users will need to upgrade some, or possibly all, of their reception equipment.** Users should occasionally check the NWS' EMWIN web site www.nws.noaa.gov/emwin/index.htm for the latest details of the GOES East transition.

Although subject to change, the current plans are for:

- GOES 13 to replace GOES 12 (East) on or about **April 26, 2010**
- GOES 14 to replace GOES 11 (West) in December 2011

The transition could occur earlier due to premature failure of one or both of the current GOES satellites. All users should migrate to EMWIN-N capable systems. Please visit this site www.weather.gov/emwin/winven.htm to see which vendors currently provide these systems. Anyone with an EMWIN-N system can try out the broadcast by using GOES 14 satellite, which is providing a test broadcast.

What GOES East users need to do:

On or before April 26, 2010 users with legacy EMWIN systems will need to re-point to GOES West. We recommend that these legacy users should try re-pointing to GOES West as soon as possible to determine if they will be able to acquire the signal from their location.

In addition, GOES 12 (East) will be moved to 60 degrees west starting on or about April 26, 2010, to support the Caribbean. We are working to have the current EMWIN-I broadcast reactivated on GOES 12 once it arrives at its new location. This will allow users a longer transition period. However, even if we are allowed to broadcast EMWIN-I on GOES 12 it will likely not be available until it reaches 60 degrees west. It will be moving at approximately 1/2 degree per day, which would take GOES 12 about 30 days to arrive at its new location.



For GOES East users with EMWIN-N capable systems the transition will be very simple, wait for the change to occur and then configure the software demodulator. Then toggle the switch on the intermediate frequency adapter to the "QPSK" setting. Processing of the EMWIN-N broadcast can then begin.

What improvements in service does the transition provide?

- More data! Data rate is doubled to 19.2 Kbps and there is an increased use of compression.
- Greater reliability! Forward error correction, a dedicated transponder and no eclipse seasons.
- Enhanced data! Including regional Doppler radar images.

What are the costs to transition?

- The cost of an entire EMWIN-N capable system is as low as \$2000 plus the cost of a computer.
- To upgrade an existing EMWIN system costs start at \$1000.

The EMWIN service will continue at least through the GOES N and GOES R series of satellites. In other words, the service should be around for a long time. Users should begin migrating to transition-ready systems as soon as possible to insure an easier migration to EMWIN-N. Users should occasionally check the NWS' EMWIN web site www.nws.noaa.gov/emwin/index.htm for the latest information.

EMWIN web site addresses:

EMWIN website: www.nws.noaa.gov/emwin/index.htm
Final EMWIN-N Test Report: www.nws.noaa.gov/emwin/transition/EMWINtstReptGOES-N.doc
EMWIN-N SDR receiver software: www.nws.noaa.gov/emwin/EMWIN-N%20QPSK%20software.htm
EMWIN vendor page: www.weather.gov/emwin/winven.htm