

NOUS41 KWBC 221200 AAA  
PNSWSH

TECHNICAL IMPLEMENTATION NOTICE 09-30 AMENDED  
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC  
800 AM EDT THU OCT 22 2009

TO: SUBSCRIBERS:  
-FAMILY OF SERVICES  
-NOAA WEATHER WIRE SERVICE  
-EMERGENCY MANAGERS WEATHER INFORMATION NETWORK  
-NOAAPORT  
OTHER NWS PARTNERS...USERS AND EMPLOYEES

FROM: TIM MCCLUNG  
CHIEF...SCIENCE PLANS BRANCH  
OFFICE OF SCIENCE AND TECHNOLOGY

SUBJECT: AMENDED: UPGRADE TO REAL TIME OCEAN FORECAST SYSTEM: EFFECTIVE  
NOVEMBER 4 2009

AMENDED TO POSTPONE THE IMPLEMENTATION DATE UNTIL WEDNESDAY NOVEMBER 4  
2009.

ON NOVEMBER 4 2009...BEGINNING WITH THE 0000 UTC COORDINATED UNIVERSAL  
TIME /UTC/ RUN...THE NATIONAL CENTERS FOR ENVIRONMENTAL PREDICTION /NCEP/  
WILL MAKE SEVERAL CHANGES TO THE REAL TIME OCEAN FORECAST SYSTEM /RTOFS/.  
THESE CHANGES ARE EXPECTED TO IMPROVE PERFORMANCE OF THE ATLANTIC FORECAST  
AND ASSIMILATION SYSTEM.

THE MODEL CHANGES INCLUDE:

1. CHANGE SEA SURFACE HEIGHT /SSH/ ASSIMILATION QUALITY CONTROL CRITERIA  
AND MASK TO EXPOSE MORE OF THE REGION TO SSH DATA.
2. RESET BASIN AVERAGE SSH AND UPDATE MEAN DYNAMIC TOPOGRAPHY TO BETTER  
MATCH OPEN BOUNDARY CONDITIONS.
3. ADD BOGUS SSH ANOMALY DATA OFFSHORE OF THE MID ATLANTIC BIGHT TO  
CONTROL GULF STREAM PATH.
4. UPDATE TIDAL ELEVATIONS AND TRANSPORT BOUNDARY CONDITIONS FROM THE  
GLOBAL INVERSE TIDE MODEL TPX07.

THE COMBINED EFFECT OF THESE CHANGES HAS RESULTED IN THE FOLLOWING  
IMPROVEMENTS TO MODEL PERFORMANCE:

1. SIGNIFICANT REDUCTION IN SPURIOUS CURRENTS AND EDDIES IN THE TROPICAL  
ATLANTIC AND EQUATORIAL ZONES.
2. MORE REALISTIC GULF STREAM AND LOOP CURRENT IN THE GULF OF MEXICO  
WHICH COMPARES WELL WITH OBSERVED PATHS.
3. BETTER AGREEMENT WITH MEASURED TRANSPORTS FROM AOML CABLE DATA NEAR 27

N FROM FLORIDA TO THE BAHAMAS.

4. SIGNIFICANTLY BETTER REPRESENTATION OF WATER TEMPERATURE AND SALINITY AT THE WORLD OCEAN CIRCULATION EXPERIMENT /WOCE/ SECTIONS.
5. REDUCTION IN SST ERRORS WHEN COMPARED TO INSITU DATA.
6. SIGNIFICANT IMPROVEMENT IN REPRODUCTION OF MESOSCALE FEATURES NEAR U.S. EAST COAST AS SHOWN IN INDEPENDENT SSH ANALYSIS BASED ON JASON-1 AND JASON-2 ALTIMETER DATA.

DATA FORMAT VOLUME AND DELIVERY WILL NOT BE IMPACTED BY THIS IMPLEMENTATION.

A CONSISTENT PARALLEL FEED OF DATA WILL BECOME AVAILABLE ON THE NCEP FILE TRANSFER PROTOCOL /FTP/ SERVER ONCE THE MODEL IS RUNNING IN PARALLEL ON THE NCEP CENTRAL COMPUTING SYSTEM ON SEPTEMBER 15 2009. AT THIS TIME...THE PARALLEL DATA WILL BECOME AVAILABLE VIA THE FOLLOWING URL /USE LOWER CASE/:

[FTP://FTP.NCEP.NOAA.GOV/PUB/DATA/NCCF/COM/OFS/PARA](ftp://ftp.ncep.noaa.gov/pub/data/nccf/com/ofc/para)

THE ENVIRONMENTAL MODELING CENTER /EMC/ HAS A PUBLICLY AVAILABLE WEBSITE WHICH CAN PROVIDE USERS MORE INFORMATION CONCERNING THE RTOFS /USE LOWER CASE/:

[HTTP://POLAR.NCEP.NOAA.GOV/OFS/INDEX.SHTML](http://polar.ncep.noaa.gov/ofc/index.shtml)

NCEP ENCOURAGES ALL USERS TO ENSURE THEIR DECODERS ARE FLEXIBLE AND ARE ABLE TO ADEQUATELY HANDLE CHANGES IN CONTENT...PARAMETER FIELDS CHANGING ORDER...CHANGES IN THE SCALING FACTOR COMPONENT WITHIN THE PRODUCT DESCRIPTION SECTION /PDS/ OF THE GRIDDED BINARY /GRIB/ FILES AND ANY VOLUME CHANGES WHICH MAY OCCUR. THESE ELEMENTS MAY CHANGE WITH FUTURE NCEP MODEL IMPLEMENTATIONS. NCEP WILL MAKE EVERY ATTEMPT TO ALERT USERS TO THESE CHANGES PRIOR TO ANY IMPLEMENTATIONS.

FOR QUESTIONS REGARDING THE SCIENTIFIC CONTENT OF THE RTOFS...PLEASE CONTACT:

AVICHAL MEHRA  
NCEP/EMC  
CAMP SPRINGS MARYLAND  
301-763-8000 X 7208  
[AVICHAL.MEHRA@NOAA.GOV](mailto:AVICHAL.MEHRA@NOAA.GOV)

FOR QUESTIONS REGARDING THE DATAFLOW ASPECTS OF THESE DATA SETS...PLEASE CONTACT:

REBECCA COSGROVE  
NCEP/NCO DATAFLOW TEAM  
CAMP SPRINGS MARYLAND  
301-763-8000 X 7198  
[NCEP.LIST.PMB-DATAFLOW@NOAA.GOV](mailto:NCEP.LIST.PMB-DATAFLOW@NOAA.GOV)

NATIONAL TECHNICAL IMPLEMENTATION NOTICES ARE ONLINE AT /USE LOWER CASE/:

[HTTPS://WWW.WEATHER.GOV/NOTIFICATION/ARCHIVE](https://www.weather.gov/notification/archive)

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