NOUS41 KWBC 141300
PNSWSH

TECHNICAL IMPLEMENTATION NOTICE 09-30
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
900 AM EDT MON SEP 14 2009

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

FROM: JASON TUELL
SCIENCE PLANS BRANCH CHIEF
OFFICE OF SCIENCE AND TECHNOLOGY

SUBJECT: UPGRADE TO REAL TIME OCEAN FORECAST SYSTEM:
EFFECTIVE OCTOBER 28 2009

ON OCTOBER 28, 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. SIGNIFCANTLY 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 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 LOWERCASE/:

FTP://FTP.NCEP.NOAA.GOV/PUB/DATA/NCCF/COM/OFS/PARA

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

HTTP://POLAR.NCEP.NOAA.GOV/OFS/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 PDS OF THE 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 20746
301-763-8000 X7208
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 20746
301-763-8000 X 7198

NCEP.LIST.PMB-DATAFLOW@NOAA.GOV

NWS NATIONAL TECHNICAL IMPLEMENTATION NOTICES ARE ONLINE AT
/USE LOWERCASE/:

HTTP://WWW.WEATHER.GOV/OS/NOTIF.HTM

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