

## Christina Holt - NOAA Affiliate <christina.holt@noaa.gov>

# **HWRF** runs for comparison with obs (Edouard)

Joe Cione - NOAA Federal <joe.cione@noaa.gov>

Tue, Mar 1, 2016 at 10:01 AM

To: Christina Holt - NOAA Affiliate <christina.holt@noaa.gov>

Cc: "Henry R. Winterbottom - NOAA Affiliate" <henry.winterbottom@noaa.gov>, Evan Kalina - NOAA Affiliate <evan.kalina@noaa.gov>, Ben Green - NOAA Affiliate <ben.green@noaa.gov>

You got it! :)

On Tue, Mar 1, 2016 at 9:47 AM, Christina Holt - NOAA Affiliate <christina.holt@noaa.gov> wrote: Joe.

I'm glad I could help. I will likely send some information your way about the MMET case I mentioned to you the other day. It could help people get interested in this case when you give a talk if they know that they also have easy access to the same HWRF runs. We don't have it up and going just yet, but hope to in the next month or so.

#### Christina

On Tue, Mar 1, 2016 at 9:44 AM, Joe Cione - NOAA Federal <ioe.cione@noaa.gov> wrote:

Thank you Christina, we -really- appreciate your help! If you need us to stand up in someway in support of DTC resources sent our way please let me know. Happy to help. :)

Thanks again!

Joe

On Tue, Mar 1, 2016 at 7:32 AM, Christina Holt - NOAA Affiliate <christina.holt@noaa.gov> wrote: Hi all,

I assume that you all have what you need from the first two runs I did a week ago after my discussion with Ben yesterday? I have run out of disk space completely and am trying to make room so your third run may complete. Am I good to delete the two from last week?

# Christina

On Mon, Feb 22, 2016 at 10:36 AM, Henry R. Winterbottom - NOAA Affiliate <henry.winterbottom@noaa.gov> wrote: I moved the HWRF runs from Christina to /mnt/pan2/projects/gfsenkf/hwinterbottom/hwrf on Jet.

I would suggest checking that we have everything you guys need before having DTC delete their copy.

-H

On 2/19/16 4:04 PM, Joe Cione - NOAA Federal wrote:

Thanks a bunch Christina!

I have asked the guys to pull down all the files from your site so that we have everything we need in one place. Can the files stay where they are into next week? Given that its Friday we may not be able to get everything swapped over ASAP.

Thanks again!

Joe

On Fri, Feb 19, 2016 at 3:33 PM, Christina Holt - NOAA Affiliate <christina.holt@noaa.gov> wrote: Joe, Henry,

I apologize that it took a bit to get these to you, but I have provided the two runs you were requesting on Jet. I have left them in their original run locations because we are a little short on disk space right now while we run some larger scale tests.

The cold start run (relocated vortex from global initial conditions and updated with HWRF DA) is here: /pan2/projects/dtc-hurr/Christina.Holt/hwrf\_physbaseline/pytmp/cold\_physbaseline/2014091518/06L/runwrf

The cycled run (relocated previous HWRF forecast vortex) is here: /pan2/projects/dtc-hurr/Christina.Holt/hwrf\_physbaseline/pytmp/hwrf\_physbaseline/2014091218/06L/runwrf

Please let me know if you have any questions/concerns about these or if I can help in any other way.

Happy Friday! Christina

On Mon, Feb 8, 2016 at 6:02 PM, Joe Cione - NOAA Federal <joe.cione@noaa.gov> wrote: No worries at all Christina! We are all thankful for your help. :)

On Mon, Feb 8, 2016 at 3:03 PM, Christina Holt - NOAA Affiliate <christina.holt@noaa.gov> wrote: Hi Joe,

I apologize that I haven't gotten to them just yet. I will put them on the list for this week.

Christina

On Mon, Feb 8, 2016 at 11:38 AM, Joe Cione - NOAA Federal <joe.cione@noaa.gov> wrote: Hi Cristina.

Any luck on the two runs?

Thanks again for your help!

Joe

On Thu, Jan 21, 2016 at 7:44 AM, Joe Cione - NOAA Federal <joe.cione@noaa.gov> wrote: Thanks for the back and forth on this guys...

So if we are now on the same page then we would like the 2 following hwrf runs:

- 1. One that has a tc native to the analysis (initialized 18z 9/15/14) out to 120h (every 12h)
- 2. A 'normal' operational (H215 version) HWRF run (valid 18z 9/12/14) out to 120h (every 12h)

For both runs we do not need the post processed files. We do request the 5 day 12h wrfout files for each run.

As to timing, we are thankful for your help so yes early feb is fine! :-)

Thanks again!

Joe

On Wed, Jan 20, 2016 at 5:45 PM, Christina Holt - NOAA Affiliate <christina.holt@noaa.gov> wrote: Henry,

As long as you're okay with the relocation/update of the GDAS-based vortex, that is super easy. It depends primarily on the availability of the previous forecast output. Don't stage the data, can't use the data kind of thing.

Christina

On Wed, Jan 20, 2016 at 5:41 PM, Henry Winterbottom - NOAA Affiliate <henry.winterbottom@noaa.gov> wrote:

If I understand you correctly, the gfs vortex will be updated by the GSI, correct? If so, yes. We want to see specifically what happens when the HWRF is initialized with a tc native to the analysis (I.e., gfs) versus one that is inserted/adjusted from a previous DA cycle (I.e., how HWRF is currently run in operations).

Is that more clear?

Thanks for your patience!

-H

On Jan 20, 2016, at 17:36, Christina Holt - NOAA Affiliate <christina.holt@noaa.gov> wrote:

Do you want the relocation and update of the GFS vortex to happen? Just not use the previous HWRF vortex?

Christina

On Wed, Jan 20, 2016 at 5:34 PM, Henry R. Winterbottom <a href="mailto:shenry.winterbottom@noaa.gov">henry.winterbottom@noaa.gov</a> wrote:

Hi, Christina.

Thanks for following up. I apologize for my confusion. Would it be possible to not remove the GFS vortex and replace it with the previous HWRF forecast vortex? If I recall, it is a matter of commenting out some lines in the python workflow.

Does that make sense?

-H

On 1/20/16 5:31 PM, Christina Holt - NOAA Affiliate wrote:

Joe

I'm curious on your timeline for this request. I may not be able to devote time/resources to this request until early February. If it's more urgent than that, I can see what I can do.

I must also admit that your request was not exactly clear. The relocation stage (removal of GFS vortex with previous HWRF forecast vortex) happens before the GSI stage. I can get you the input (from relocation) and output of GSI, if that's what you're looking for.

I may have made the waters more muddy there. Let me know.

### Christina

On Wed, Jan 20, 2016 at 5:15 PM, Joe Cione - NOAA Federal <joe.cione@noaa.gov> wrote:

Hi Christina,

I was hoping you could run another simulation for us from Edouard (2014).

This time our group would like another H215 configuration run that was initialized on 9/12 18 UTC. Like before we would like 5 day 12 hour wrfout files.

In addition to providing output for that run, after the GSI finishes, and prior to the removal of the GFS TC vortex and the initialization using the previous HWRF cycle TC vortex, a file wrfinout is produced. We will need the wrf inout file as well as the namelist.input and geo\_nmm.d01.nc (e.g., forecast domain) for the deterministic HWRF forecast.

This last part was from Henry Winterbottom (cc'ed here). If that wasn't clear please let us know! :-)

Thanks again!

Joe

On Wed, Oct 21, 2015 at 2:35 PM, HWRF Help via RT <hwrf-help@ucar.edu> wrote:

Joe.

I will work on this and get it to you shortly. Stay tuned!

Christina

On Wed Oct 21 14:20:18 2015, joe.cione@noaa.gov wrote:

Very true!

That said....Would it still be possible to run \*1\* of the 3 simulations noted below?

Currently we do not have the 9/15 18 UTC simulation . (I was under the impression that we already had that in house.)

As such would it be possible to run the 9/15 18 UTC - 12 hour wrfout files case?

It would be very helpful for the work we plan to present at the HFIP meeting in Miami next month.

Ligia

Apologies.

3/9/2016

On Wed, Oct 21, 2015 at 11:03 AM, HWRF Help via RT < hwrfhelp@ucar.edu> wrote:

Joe told me yesterday he would not need the runs anymore. I updated the ticket but somehow that info did not get to you.

Ticket URL: https://hwrf-rt.gsd.esrl.noaa. gov/Ticket/Display.html?id=156

Hi Joe,

I wanted to give you a quick inventory on what I have available and let you know that I can re-run longer forecasts for these, if needed.

9/15 18 UTC - 12 hour postprocessed grib2 and wrfout files 9/16 12 UTC - 12 hour postprocessed grib2 and wrfout files 9/17 18 UTC - 5 day postprocessed grib2 and 12 hour wrfout files

Let me know what you were looking for and I'd be happy to work on getting that together for you. I will be traveling next week to a workshop in CA, so will have limited availability, but should still be able to get you something soon.

Christina

On Tue Oct 20 14:23:23 2015, ligia wrote:

Hi Joe,

It seems that at this point it is best to use runs of the H215 configuration, right? This is the 2015 operational HWRF with 18/6/2 km. I think that using "corrected" runs of the H214 model would not be very relevant.

Christina Holt of DTC just did several runs of Hurricane Edouard but she did not run every cycle to 126h (she cycled every 6-h with but only ran a full-length 126-h forecast every 18 h in order to save computational resources while getting statistical independence for a large test).

I talked to her and she will check if she has the cases Evan mentioned - the ones with Coyote data. If not, we can run them to full length for you. Do you need the runs out to 5 days? Or shorter?

A couple of other questions... will you be working from the native WRF model output (NetCDF files in the native irregular WRF-NMM grid) or from the postprocessed files in GRIB format?

And do you have access to jet to grab the files

3/9/2016

(corrected) archived runs are now available for comparison. Could you point Evan

were hoping that the

and me in the right direction to access the runs identified below?

Hope all is well!

Joe ----- Forwarded message -----From: Evan Kalina -**NOAA Affiliate** 

<evan.kalina@noaa.gov> Date: Tue, Oct 20, 2015

at 8:55 AM

Subject: Model runs for Coyote/ob comparisons To: Joe Cione - NOAA

Federal <

joe.cione@noaa.gov>

Hi Joe,

Here are the three model runs that we previously compared with observations. The first run listed isn't a Coyote comparison, but we compared dT, dq, fluxes, etc. between it and some analyses that Eric produced.

9/15 18 UTC 9/16 12 UTC 9/17 18 UTC

Evan Kalina **NRC** Research Associate NOAA/OAR/AOML/HRD

Office:

David Skaggs Research Center 325 Broadway Street, Boulder, CO 80305-3337 NOAA/OAR/ESRL/PSD Room 3B408 303-497-5399

Henry R. Winterbottom Phone : (303) 497-4630

Henry R. Winterbottom
NOAA/OAR/PSD R/PSD1 Email : Henry.Winterbottom@noaa.gov Office : Skaggs Research Center 1D-602 325 Broadway

Boulder, CO, USA 80303-3328