NCAR
UCAR

Ben Foster <foster@ucar.edu>

Fwd: Some question about TIE-GCM model

3 messages

Art Richmond <richmond@ucar.edu> Thu, Aug 27, 2015 at 8:38 AM
To: Ben Foster <foster@ucar.edu>

Ben,

I assume this problem frequently arises for first-time TIEGCM users.
Do you have a ready answer?

Art

---------- Forwarded message ----------
From: 刘学旺 <liuxwrm@163.com>
Date: Thu, Aug 27, 2015 at 8:33 AM
Subject: Some question about TIE-GCM model
To: "richmond@ucar.edu" <richmond@ucar.edu>

Dear Professor：

Sorry to trouble you again.

Now I want use the TIE-GCM model to calculate some parameter in the ionosphere. I have read the userguide.pdf of the model. But I was confused with something when run this model. Such as the picture showed in the attachment. It was said that if I want to run the model. I need a source file that contain TN,UN,VN and so on. But here the problem, if I want to calculate the TN,UN,VN and so on by IRI model or NRLMSISE-00 model at first, I need (latitude,longitude,altitude) as a input. But the TIE-GCM is in use pressure in the vertical coordinate. So how should I do to calculate the altitude though the (latitude,longitude,pressure).

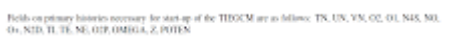
Wish your reply

Thank you very much

Best Regards.
Liu xuewang

--

Arthur D. Richmond
richmond@ucar.edu
NCAR-HAO
P.O. Box 3000
Boulder, CO 80307-3000, USA
phone: +1 303 497 1570
Express Shipping: 3090 Center Green Drive, Boulder, CO 80301
Office location: 3080 Center Green Drive, Boulder, CO 80301



userguide.PNG
17K

Ben Foster <foster@ucar.edu> Thu, Aug 27, 2015 at 10:39 AM
To: Art Richmond <richmond@ucar.edu>, liuxwrm@163.com, Joe McInerney <joemci@ucar.edu>

Liu Xuewang,

We do not support "cold start" capability in TIEGCM, e.g., starting from a source history containing fields from empirical models. To start the model, you must use a primary history from a previous run, or a benchmark run. Several startup histories are available in the data section of the download site:

http://www.hao.ucar.edu/modeling/tgcm/download.php
Download file tiegcm1.95_data.tar.gz.

Additional primary startup histories are available from the hao ftp site:
http://download.hao.ucar.edu/pub/tgcm/tiegcm1.95/

If you want to call msis and iri on the tiegcm grid, you can obtain the lat and lon coordinates from one of the startup files. For the vertical coordinate, you can read geopotential height "Z" from a source history, and call the empirical models at those heights.

--Ben
[Quoted text hidden]
--
Ben Foster
National Center for Atmospheric Research (NCAR)
High Altitude Observatory (HAO)
303-497-1595

刘学旺 <liuxwrm@163.com> Fri, Aug 28, 2015 at 3:19 AM
To: Ben Foster <foster@ucar.edu>

Dear Professor：

Thanks for your reply.

If I want use TIE-GCM to simulate a specified day such as 2009-07-01, your primary startup histories files don’t contain this day. Can I use empirical model’s data to replace the sourcefile’s data? Or

I only need to modify SOURCE_START and START_DAY etc. in primary startup histories files and job file?

Best Regards.
Liu xuewang

[Quoted text hidden]

> [Quoted text hidden]
>
> --Ben
>
> > [Quoted text hidden]
> >
> > --
> > Arthur D. Richmond
> > richmond@ucar.edu
> > NCAR-HAO
> > P.O. Box 3000
> > Boulder, CO 80307-3000, USA
> > phone: +1 303 497 1570
> > Express Shipping: 3090 Center Green Drive, Boulder, CO 80301
> > Office location: 3080 Center Green Drive, Boulder, CO 80301
>
> --
> Ben Foster
> National Center for Atmospheric Research (NCAR)
> High Altitude Observatory (HAO)
> 303-497-1595