
Subject: Re: weird contour lines

Posted by [Libo Wang](#) on Sat, 31 Oct 2009 17:00:47 GMT

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On Oct 31, 12:09 pm, David Fanning <n...@dfanning.com> wrote:

> Libo Wang writes:

>> Hi, I used the following code to set up a stereographic projection map

>> and overplot NCEP pressure field on it:

>

>> MAP_SET,/stereographic, 60, -105,color=grey,limit=[30,-180,80.0,-10],/

>> continents,/isotropic

>> levels = 16

>> step=4

>> userLevels = IndGen(levels) * step + 120

>> Contour, data,lon,lat,C_Colors=black,Levels=userLevels, /overplot

>> Contour, data,lon,lat,/Overplot,

>> Levels=userLevels,c_colors=black,c_charthick=2,\$

>> max_value=200,min_value=120,/Follow

>

>> However, I got weird contour lines, which you could take a look at the

>> following link:

>> <http://picasaweb.google.com/libowa/DropBox?feat=directlink>

>

>> Could you point out what was wrong in my codes? How could I get smooth

>> contour lines?

>

> Is this an aesthetic problem or a science problem?

>

> If it is an aesthetic problem, that NCEP data is fairly low-resolution.

> You could try CONGRIDing it to a larger size, using interpolation,

> before contouring it. Or, you could just try smoothing your data

> before you contour it.

>

> Cheers,

>

> David

>

> --

> David Fanning, Ph.D.

> Fanning Software Consulting, Inc.

> Coyote's Guide to IDL Programming:<http://www.dfanning.com/>

> Sepore ma de ni thui. ("Perhaps thou speakest truth.")- Hide quoted text -

>

> - Show quoted text -

Thanks, David. I've read helpful tips in your website. It is actually a bit of both aesthetic problem and a science problem! A meteorologist would probably tell me that my map is not what a standard pressure

field plot should look like!

I tried to expand my data from 144*37 to 1440*370 using cubic=-0.5 in Congrid, the contour map did improved in some parts, but some parts got worse:

<http://picasaweb.google.com/lh/photo/pbT1Ftfbx0nqS9O3uw0tGg?feat=directlink>

The NCEP data is low in resolution: 2.5 degree spacing. What else could I try?
