
Subject: Re: Map parameters for Eta/NAM model
Posted by [James Kuyper](#) on Thu, 12 Oct 2006 21:29:08 GMT
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Kenneth Bowman wrote:

> This is an obscure question that I am sure will be of interest only to the
> weather weenies out there.
>
> I am trying to plot some gridded data from the NCEP Eta/NAM high-resolution
> model. This model uses WMO grid 218, which is defined on a Lambert conformal
> map projection by the following:
>
> -----
> VALUE - 218 (B)[B]
>
> GRID DESCRIPTIONS - Grid over the Contiguous United States (used by the 12-km
> Eta Model) (Lambert Conformal)
>
> Nx 614
> Ny 428
> La1 12.190N
> Lo1 226.514E = 133.459W
> Res. & Comp. Flag 0 0 0 0 1 0 0 0
> Lov 265.000E = 95.000W
> Dx 12.19058 km
> Dy 12.19058 km
> Projection Flag (bit 1) 0 (not bipolar)
> Scanning Mode (bits 1 2 3) 0 1 0
>
> Lat/lon values of the corners of the grid
> (1,1) 12.190N, 133.459W
> (1,428) 54.564N, 152.878W
> (614,428) 57.328N, 49.420W
> (614,1) 14.342N, 65.127W
>
> Pole point
> (I,J) (347.668, 1190.097)
>
> The Dx, Dy grid increment (at 25 deg north) was selected so that the grid

The fact that the Dx, Dy increment listed above applies at 25 deg north implies that 25N was used as one of the standard parallels.

> spacing would be exactly 12.000 km at 35 deg north; the intersection of 35N &

The fact that those Dx, Dy increments are not the same as the scale at 35N implies that 35N is not one of the standard parallels,

> 95W falls on point (347.668, 160.999)
> -----
>
> If the map projection is set correctly, the four corners in the table above
> should define a rectangle on the map. Using my best guess, I get something that
> is close, but not quite right.
>
>
> PRO NAM_CONIC
>
> MAP_SET, /CONIC, 35.0, -95.0, STANDARD = [35.0], /GRID, /USA, /CONT, SCALE =
> 5.0E7
>
> x = [-133.459, -152.878, -49.420, -65.127]
> y = [12.190, 54.464, 57.328, 14.342]
>
> PLOTS, [x, x[0]], [y, y[0]]

Assuming that there is only one standard parallel, I tried
STANDARD=[25]. It came out as a rectangle.

Subject: Re: Map parameters for Eta/NAM model
Posted by [K. Bowman](#) on Thu, 12 Oct 2006 21:53:00 GMT
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In article <1160688548.292645.13390@c28g2000cwb.googlegroups.com>, kuyper@wizard.net wrote:

>> The Dx, Dy grid increment (at 25 deg north) was selected so that the grid
>
> The fact that the Dx, Dy increment listed above applies at 25 deg north
> implies that 25N was used as one of the standard parallels.
>
>> spacing would be exactly 12.000 km at 35 deg north; the intersection of 35N
>> &
>
> The fact that those Dx, Dy increments are not the same as the scale at
> 35N implies that 35N is not one of the standard parallels,

> Assuming that there is only one standard parallel, I tried
> STANDARD=[25]. It came out as a rectangle.

Dang, that was easy. Thanks.

I would swear that I had tried 25, but obviously I hadn't. Once I fixed a typo
in one of the coordinates, it worked even better. ;-)

Thanks again, Ken

IDL> NAM_CONIC

-133.459	12.1900	0.123940	0.251988
-152.878	54.5640	0.123937	0.893352
-49.4200	57.3280	0.788918	0.893355
-65.1270	14.3420	0.788928	0.251983
