Subject: Re: Overlaying gridded winds on satellite data Posted by David Fanning on Thu, 21 Jul 2005 15:03:33 GMT

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Christopher Lee writes:

- > Wind barbs point in the direction the wind is coming FROM. Hence the
- > terms westward (winds coming from the west) and eastward (winds coming
- > from the east) etc.

>

- http://ww2010.atmos.uiuc.edu/(Gh)/guides/maps/sfcobs/wnd.rxml
- > http://www.rap.ucar.edu/weather/info/about windbarb.html
- > http://sanangelo.tamu.edu/bookmark/wind_dir.htm
- > http://www.al.noaa.gov/WWWHD/pubdocs/windbarb.html
- > (this one sounds `wrong' at first, but it really is correct, the feathers
- > are on the back of the `arrow', also tells you which way the feathers
- > point)

- > Of course, if the users wind vectors are wrong, there's no convincing
- > them otherwise. Wind vectors are usually northerly(to the north) and
- > easterly(to the east), but I've seen westerly data (you could
- > obviously use keywords like /WESTERLY and /EASTERLY).

In light of this information I have reverted to my original notion of how to draw the wind arrow. I have also improved the documentation so that it is clear what direction I assume the positive wind vectors are pointing in. In the northern hemisphere, the "feathers" on the arrow shaft are drawn in the clockwise direction (which is what I was doing previously), but I have added a SOUTHERN_HEMISPHERE keyword to draw the feathers in a counterclockwise direction, which is apparently the norm for our friends down under.

And while I was hacking around, I also fixed a small problem with the CLIP keyword.

So, I expect this to be the definitive word on the subject. :-)

You can find the updated program here:

http://www.dfanning.com/programs/windbarb.pro

- > I've never used the stationplot/windbarb programs. Can the STATIONPLOT
- > function show the cloud coverage (in the circle)? Or is the 3/4 filled
- > circle the symbol for a weatherstation?

It could be made to show the cloud coverage, I'm sure, but currently is is the 3/4 filled circle symbol for a weather

station.	
Cheers,	
David	
-	
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Coyote's Guide to IDL Programming: http://www.dfanning.com/	