Subject: Re: Map Projection Knowledge Growing Exponentially
Posted by George N. White III on Fri, 28 Apr 2006 21:03:07 GMT
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On Fri, 28 Apr 2006, David Fanning wrote:

> Wow. I've, uh, learned some things in the past couple of days
> that I have been concentrating on map projections. (I'll be
> sharing some of it in new articles that will be on my web
> page soon.)
>
> But I wonder if anyone has an image data set to share that
> has associated lat/lon values for each pixel? Or, at least,
> a pointer to a location where I might download such a data
> set.
>
> I'm beginning to understand just how powerful those MAP_PROJ_*
> routines are! :-)

Take a look at the NASA Ocean Color site: http://oceancolor.gsfc.nasa.gov/
You can download all sorts of data in .hdf format as well as the SeaDAS
software, which is an IDL GUI which runs Fortran and C code to do the
heavy lifting. SeaDAS hdf files are sort an prototype for HDF-EOS, but
they reference IDL projections while HDF-EOS uses the GTCP library of
projections. Processing ocean remote sensing data is very different from
most applications of remote sensing because water is "darker" than land,
so what the satellite senses is mostly from the atmosphere. This makes it
hard for a commercial developer to justify the cost of developing software
for ocean data, so we end up with a free open source application developed
by NASA.

Also on the Ocean Color site you will find links to data from commercial
(Orbimage SeaWiFS) and non-commercial sensors (NASA MODIS), both on polor
orbiting platforms so you get global coverage every few days. Chlorophyll
is interesting because there are all sorts of spatial patterns in a scalar
that varies from 10-2 to 10^2 (mg/m^3)!

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