Subject: Re: How to read ASTER in ENVI?
Posted by James Kuyper on Mon, 27 Aug 2007 14:51:51 GMT

Jeff N. wrote:
> On Aug 27, 3:21 am, highstone <gaolei...@gmail.com> wrote:
>> hello, I have a secen ASTER data named as "pg-

>> other files that have the same filename with suffix such as ".met",
>> and so on. When I read it by ENVI from "file----open image file" or
>> "file ----open external file---eos---aster", all the bands can be
>> showed in "available bands", and the DN of VIR band is float type and
>> more than 1, which shows it is not reflectance. I want to know how to
>> get the reflectance for visible or infrared bands and the radiance for
>> Tir of such ASTER data in ENVI or ERDAS? please help me, thank you.
>
> Just as an FYI: just b/c your data have values greater than 1 does
> not necessarily mean you don't have reflectance data. FLAASH, for
> example, commonly outputs "scaled reflectance" data, which is
> reflectance x some scale factor (you choose it, but 10,000 is
> common). But I think Mort's right about your data being radiance data
> in this case.

MODIS L1B reflectances are also scaled. However, even after the
appropriate scale and offset are applied, the reflectances can still
be both greater than 1.0 or less than 0.0. They can be greater than
1.0 due to specular reflection like sunglint on the oceans being
analyzed as if it were diffuse reflection. They can be less than 0.0
due to background subtraction and statistical fluctuations in the
detected photon counts in very dim scenes - in such scenes, you should
include the negative values in averages over larger regions; otherwise
the average will be biased to the high side.