

Re: Google Earth: Elevation of water?

Source: <http://sci.tech-archive.net/Archive/sci.geo.satellite-nav/2005-09/msg00013.html>

- *From:* Stan Gosnell <me@xxxxxxxx>
 - *Date:* 01 Sep 2005 01:09:15 GMT
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Terry Pinnell <terrypindel@xxxxxxxxxxxxxxxxxxxx> wrote in news:rdv6h112o223i7167lggrc290deb4u7pog@xxxxxxxx:

> Maybe you misread my post. I was asking why GE reported a small lake's
> surface at 'elevations' varying widely (50 ft or so) across a few
> hundred feet horizontally. I was guessing it must be reporting
> *ground* elevations.

>
GPS reports the elevation it *thinks* it is above MSL, whether it's on water, land, or anything else. The receiver doesn't know the elevation of any point, but gets the elevation from the satellites. This is very imprecise, and varies with the satellite geometry. This is the reason for WAAS, to provide altitude with greater precision for aircraft, not for greater horizontal precision. That is just a side effect. You will see different altitude reported at the same place, depending on the time and the satellites received, and their relative locations. Altitude is far less accurate than horizontal location.

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Regards,

Stan

"They that can give up essential liberty to obtain a little temporary safety deserve neither liberty nor safety." B. Franklin

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- *Follow-Ups:*
 - ◆ **[Re: Google Earth: Elevation of water?](#)**
◇ *From:* Keith Sheppard
 - ◆ **[Re: Google Earth: Elevation of water?](#)**
◇ *From:* Terry Pinnell

- Prev by Date: **[Re: Google Earth: Elevation of water?](#)**
- Next by Date: **[Re: Sat Nav – PDA volume](#)**
- Previous by thread: **[Re: Google Earth: Elevation of water?](#)**
- Next by thread: **[Re: Google Earth: Elevation of water?](#)**

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- Index(es):

- ◆ *Date*

- ◆ *Thread*