

Re: could have used the stars all along?

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"Mike Coon" <mjcoon@@connectfee.co.uk> wrote in message
[news:dj0n86\\$m8h\\$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:dj0n86$m8h$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)

> Dan Jacobson wrote:

>> Say, for GPS navigation, how about using the signals sent from the
>> fixed stars instead of government satellites? Certainly each star has
>> its own signature, however weak.

>>

>> OK, well at least they can be identified by their relative positions,
>> as easy as one look up in the sky by ancient navigators or school
>> kids.

>>

>> So an optical based GPS could use them, at least at night,
>> triangulating by differences in light waves instead of radio waves,
>> after locking on to stars via their relative positions. Found orion,
>> found polaris... beep ...

>

>

> Good joke! Triangulating from stars might be a good way to navigate around
> the galaxy to the nearest million miles or so... (Look up the definition
of
> "parsec".)

>

> Celestial navigation is about finding out where the vertical at your
> location is pointing relative to the star field and, accurately knowing
the
> time, working out where on earth gives that vertical direction. Usually
the

> vertical is identified by measuring from the horizon (on boats, anyway),
up

> to the identified star. So recognising multiple stars could be useful for
> making sure that the identification is correct, but not for triangulation.

Not really, astro navigation requires measuring the elevation of a star,
planet, the moon or the sun so that a line representing the distance from an
assumed position can be calculated. The technique in skilled hands can result
in quite accurate position finding although for most accuracy is probably in
miles. The Polynesians did use the zenith position of stars for parts of
their navigational techniques.

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> And there's still the problem of identifying the vertical or horizon.

Sextants were and presumably still are with a spirit level to find the horizontal position and even without such devices there are techniques for determining the true elevation when normal horizontal reference are not available.

Astro navigation is still alive and well even if it is not used as much as it used to be.

Peter

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