

Global_Trackers_Is_A_GPS_Really_Needed_2004.txt
WARNING! WARNING! WARNING!

THE FOLLOWING FILE IS NOT TERMINATED BUT SOON WILL BE DONE
ASAP IN HYPERTEXT AND WITH PIX WHEN NEED BE SO PLEASE BARE
WITH ME TILL THEN, MUCH INFORMATION CAN BE USED
MEANWHILE FOR YOUR ENJOYEMENT OR PLEASURE. MEANWHILE IF
YOU HAVE ANY TIPS FOR ME SEND THEM UP BY E-MAIL TO:
richard@io.org

GLOBAL TRACKERS (TRACK-HERS?)

WHERE THE HECK AM I?: (ASK-SPOCK?)

BETTER THAN CRUMBS TRAILS: (24 SATELLITES TRIANGULATION) AND

WHY YOU REALLY SHOULD BUY OR RENT ONE OF THEM!:

A new development on this important survival aspect. An
ever increasing raft of products is trying to answer this
fundamental question.

If your question is more geographical than metaphysical, then
you are a prime candidate for the new Panasonic KX-G5700.
That mumbo jumbo name refers to the SMALLEST HAND HELD
GLOBAL POSITIONING SYSTEM YET.

And the first with a built-in display. By tapping into
the Defense Department's system of 24 satellites. The KX-G5700
can determine YOUR EXACT LATITUDE, LONGITUDE & ALTITUDE. (Not attitude!)

The price was announced but by the time this article gets to
you there is no doubt in my mind that newer versions will have
come about at good price, to rent or buy them.

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If when one values his or her life, and that of his or her family and friends safety & peace of mind should accident or mishap occur in the wild...

If one can afford car or yacht; or to go hunting etc. Then one should real seriously consider the security and other advantages for him or his family in case of emergency and to buy or rent such a tracking unit for safety & peace of mind

If you don't go in the water without a life jacket! Then don't go into the wild without a tracking system which will work better than any older methods, especially when calling in for help. (SOS - SPOCK!!!) So be prudent and wise and get on track; use new tracking system. Let science help you!

After all a compass was a good progress, why not use a better way, even bringing your old compass would not hurt anyway. Safety should prevail.

SEA CALCULATION OF POSITION:

Lost in the middle of Atlantic but you have a map of this ocean. You want to know where you are so now you have to determine your Latitude which is the distance in degree separating you from the Equator.

And your Longitude is the distance in degrees separating you from the #meridian# based on Greenwich England.

Suppose that you are 45 degree NORTH Latitude and 12 degree Longitude WEST. To locate yourself on the map trace a horizontal line on the map at 45 degree NORTH and a Vertical line at 12 degree of WEST Longitude, you are at the cross of those 2 lines.

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SEXTANT:

If you are that lucky to have one then you MUST take your bearing at Noon exactly when the sun is at its peak.

Hold the sextant in left hand, put the viewer against the right eye and set the sextant with your right hand.

But you MUST try to stay stable while doing so. Place the mirror just in front of the horizon now bring the sun reflection exactly in the mirror using the 2nd mirror which inclination is variable and carry along the needle.

When the sun reflects correctly in this mirror, block the sextant and read the Number indicated by the needle.

This Number indicates the angle that the sun makes with the Zenith the point above your head. This Number will help you to calculate your latitude.

#DECLINAISON & DECLIVITY?# TABLE:

Suppose that you have such a table at hand you could read for

ex: Date #DECLIVITY#:

21 June	23 degree 27'
22 June	23 11'
23 June	22 55'
24 June	22 39' etc.

Suppose that we are the 29 June and in reading this date you see (+ 21) this (+) before 21 means that you MUST add 21

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degree to the 20 degree you have found on the sextant if this is what it said. So $21 + 20 = 41$.

These 41 degrees represent your latitude. So after having made your bearing at Noon the Number found is the one to add to the one given by the date of the day you have made your bearings. (Sextant + Table) of the day. If you don't know the day you are nor the times then forget it.

CAUTION:

In the above ex. We had to add the declivity to the Number found by the sextant, but sometimes we MUST subtract it. When? Well, the table will tell you this.

In reading the table you see that the 21 June declivity was +23 degree 27'; then it diminishes afterward and down to zero on the 23 Sept. (First day of fall.)

Then it becomes negative increasingly till the 22 December. Where it reaches - 23 degree 27'.

During winter it will go from -23 degree 27' to 0 degree on the 21 March up to + 23 degree 27' on the 21 June. For the Southern Hemisphere you just work in reverse pattern. EX:

NORTH HEMISPHERE:

21 March = 0 degree.

SOUTH = 0 degree.

NORTH HEMISPHERE:

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21 June = + 23 degree 27'

SOUTH = - 23 degree 27'

NORTH HEMISPHERE:

23 Sept. = 0 degree

SOUTH = 0 degree

NORTH HEMISPHERE:

22 Dec.= - 23 degree 27'

SOUTH = + 23 27'

SOME EXAMPLE:

On the 21 Dec. you find on the sextant 60 degrees. On this date the table gives -23 degree 27' thus you will calculate:
(-23:27' + 60 or 60- 23:27' = 36: Latitude is 36 degree 33').)

On the 14 March you get 30 degree on the sextant and the table shows (-3) so; 30 - 3= 27 NORTH latitude.

You are now walking on an iceberg and on the 21 March you get 90 degrees on your sextant & the table indicates 0 degree so:
90 - 0 = 90 you are now in dead centre of the NORTH pole.

Next you are in the SOUTH Hemisphere reading 35 degree on the 21 June and the table gives: -23:27'.

So: 35 - 23:27'= 6:33' SOUTH Latitude which is lot warmer than NORTH pole.

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#NO DECLIVITY TABLE?:#

Then use your brain??? The Summer starts the 21 June ends 23 Sept. Between these 2 dates the #declivity# diminish regularly from 23:27' to 0: degree.

So we will calculate easily? How many degrees & minutes this #declivity# diminishes each day. To do so lets calculate first the number of days making Summer:

June 21 to 30 June = 10 days
Aug. 1 to 31 = 31 days
July 1 to 31 July = 31 days
Sept. 1 to 22 = 22 days

The 23rd day of Sept. is the first of Fall = total 94 days.
So the Summer has 94 days. Youpffff.

To obtain the number of degrees just subtract each day from the #declivity#. Lets convert 23:27' in minutes. Since there is 60 min to a degree we will have $23: \times 60 = 1,380'$ plus the $27' = 1,407'$.

From 21 June to 23 Sept. The sun goes down the horizon from 1,407' to zero in 94 days so in 1 day = $1,407' / 94 = 15: 2/3$ degree.

It is then easy to establish the table starting on 21 June.
We will have 21 June = 23:27' /22 June = 23:27'-15 2/3 = 23:11' 1/3.

We let you figure the rest out, but when alone at sea with zip to do during the day and no bar at night, you appreciate maths.

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Lets us note that those calculations are NEVER absolutely just or dead on.

Because the #declivity# does not diminish or increase in a regular fashion, but the errors will be very slight. A Loran and Radar help a lot also but life is full of surprises.

CALCULATION OF LONGITUDE SEXTANT:

Without watch it is impossible of calculate his longitude. With a stop watch you can still do it.

But it MUST give the exact hour of Greenwich which means that when it is noon in England at the winter hour or at the same time = it is 1PM, in France. So it MUST be at noon on your watch when set on London time. (Greenwich!)

First calculate the height of the sun as it approaches Noon. To know the height of the sun above the horizon you simply subtract from 90 degrees the Number given by the sextant.

EX: Sextant gives 30 degree So the height of the sun on top of the horizon will $90-30 = 60$ degree.

Take several readings and calculations, write them down on paper & write the hour of your reading ex: 2hr.20 = 38 degree. 2.hr.45 = 39 degree 3.00hr = 40 degree 3hr.15 = 39 degree 3.hr.30 = 40 degree.

Thus you see that the sun has attained its peak at 3PM thus it is Noon for you where you are located.

The sun is therefore backward # en retard# from the hour of Greenwich. Now multiply this difference by 15 degree = 45

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degree Longitude WEST.

ANOTHER EXAMPLE:

The sun reaches his zenith at 14.30hr Greenwich time = GMT;
thus do the following calculation:

2.30pm replacing the minutes by centimetre thus 230 cm or 250
for easier calculation $250 \times 15 = 37.50$ or 37:degree 1/2 or
37:30' thus; The longitude is 37 degree 30' WEST.

When one is WEST of Greenwich the sun is ALWAYS late one
hour. When at EAST of Greenwich the sun is ahead of one hour.

EX: You are in the Mediterranean Sea and you notice on your
watch at 10.30am that the sun has reached its zenith: 10:30=
10:50 now $12 \times 10.50 = 1.50$ and $1.50 \times 15 = 22.50$ or 22:30'
which is your longitude EAST.

But what will prove us that we are one of the other
hemisphere? Relatively simple problem, when we navigate between
France & USA we have much chance to travel in N. Hemisphere
however around the Equator we have much chance to err.

The first point to determine which hemisphere is the
sun direction. At Noon the sun will be at the SOUTH of the
Northern Hemisphere and at the NORTH for the Southern Hemisphere.

It is ALWAYS true in our regions but not necessarily so for
the case of the Tropics where depending of the season the sun
passes sometimes SOUTH or NORTH.

So as soon as a survivor has crossed the 23;27 latitude of
the NORTH or SOUTH Tropics toward the Equator he MUST be

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sharp and MAKE SURE of the position of the sun in the sky!

For he will have to modify his calculation accordingly to the place the sun will be at noon if NORTH or SOUTH. With a compass it will be easy to establish his position if no compass then too bad, wait for the night stars to tell you where you are.

REMEMBER that at 6am the sun is exactly EAST, at 9AM = S. EAST. Noon at SOUTH, 3PM = S/W 6PM = WEST but at the Equinox or Equator.

In Winter it goes to sleep well before 6PM but it has not reach WEST as it goes down.