

Outside fix

No errors

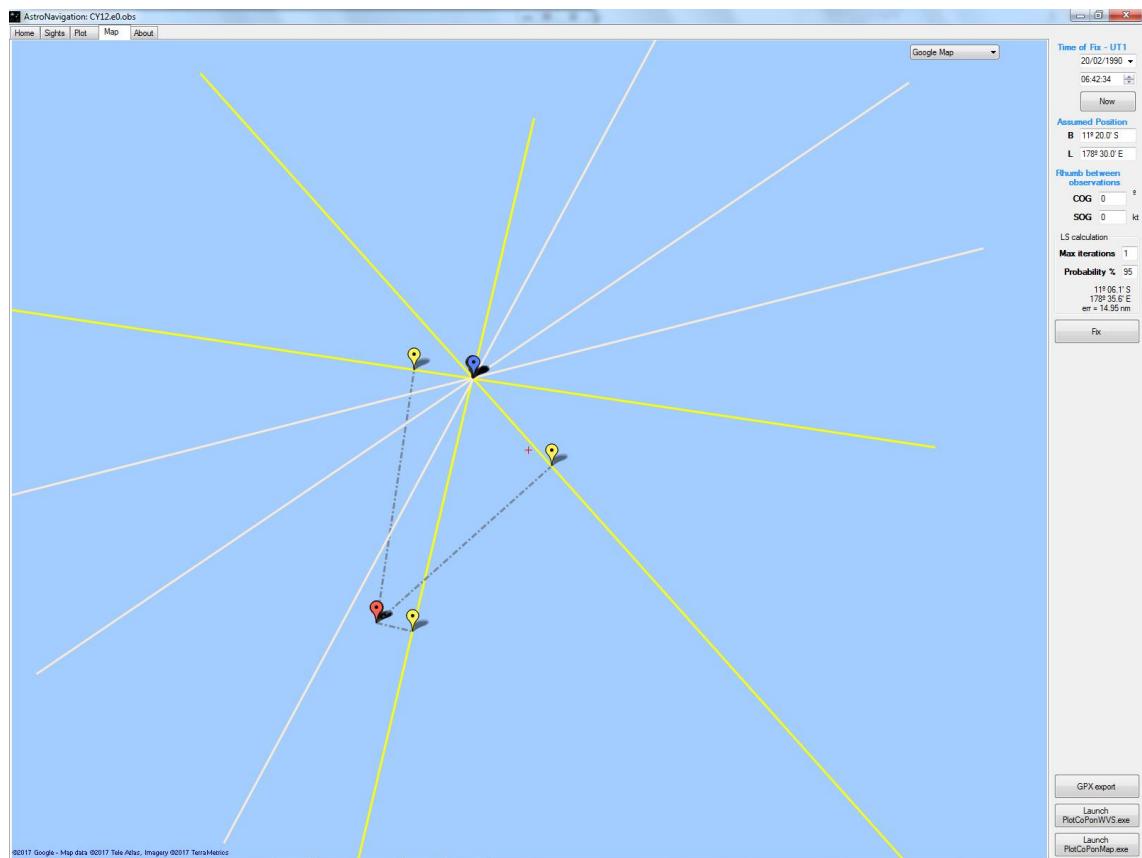
DR 20/02/1990 06:42:34 UT $11^\circ 20.0' S$ $178^\circ 30.0' E$

SOG = 0

3 sights:

Date	UT	Star	GHA	Dec	Ho
20/02/1990	06:39:15	Sirius	$148^\circ 34.2'$	$16^\circ 42.2' S$	$57^\circ 40.6'$
20/02/1990	06:40:54	Capella	$171^\circ 10.3'$	$45^\circ 59.6'$	$32^\circ 10.1'$
20/02/1990	06:42:34	Pollux	$134^\circ 23.9'$	$28^\circ 3.1'$	$29^\circ 59.9'$

Fix at 06:42:34 UT?

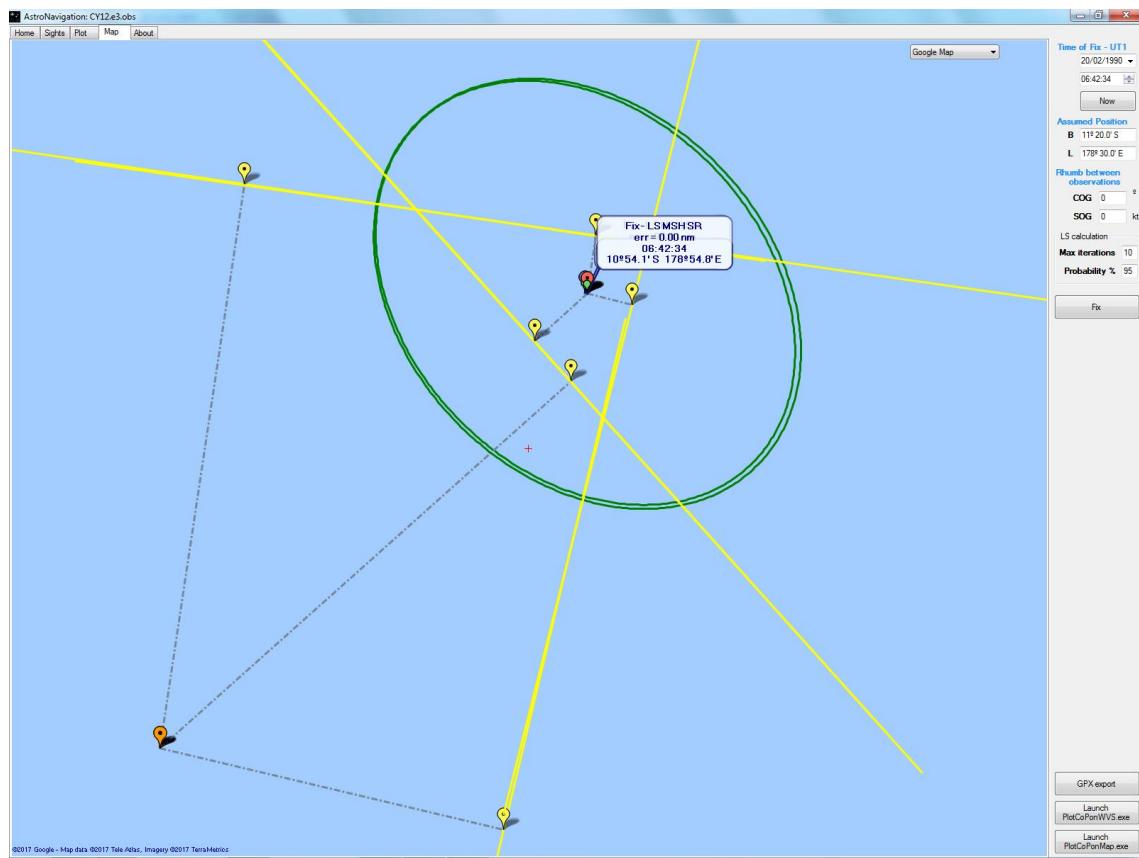


Fix: $11^\circ 06.1' S$, $178^\circ 35.6' E$

3 sights with a systematic error in h_o :

If an error of $18'$ is introduced to all altitudes h_o , then, the methods based on the MSH LoPs are unable to solve the problem.

Date	UT	Star	GHA	Dec	h_o
20/02/1990	06:39:15	Sirius	148° 34.2'	16° 42.2' S	57° 58.6'
20/02/1990	06:40:54	Capella	171° 10.3'	45° 59.6'	32° 28.1'
20/02/1990	06:42:34	Pollux	134° 23.9'	28° 3.1'	30° 17.9'

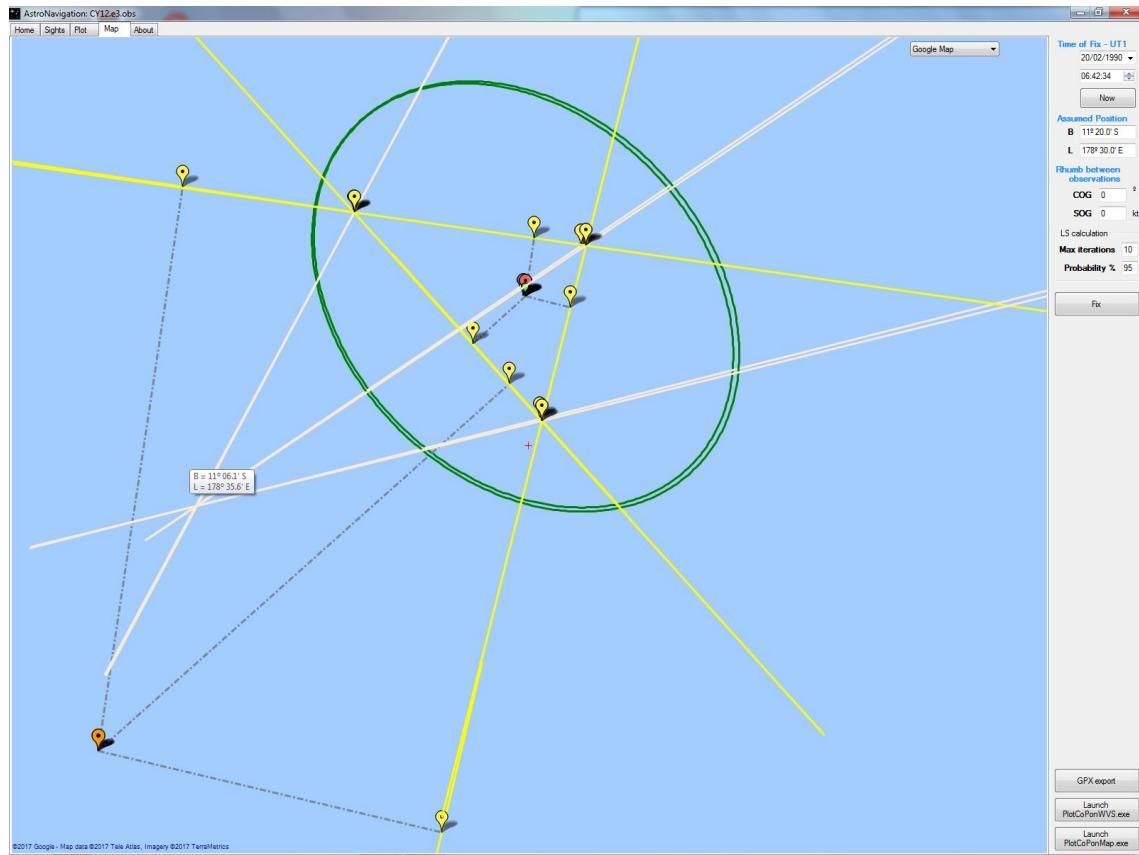


Using the LS SR method for n MSH LoPs, the solution is:

$10^{\circ} 54.1' S, 178^{\circ} 54.8' E$. (For only one iteration: $10^{\circ} 54.0' S, 178^{\circ} 54.7' E$).

Fix by bisectors:

The fix may be obtained by using the bisectors as true lines of position.



Fix: 11° 06.1' S, 178° 35.6' E

Distance(MSH solution, Bisectors Fix) = 22.3 nm