

REV 3 TonyOz <http://fer3.com/arc/m2.aspx/Venus-merpass-for-Lat-Sun-time-sight-for-Lon-TonyOz-apr-2020-g47480>

10 Apr 2020 (HoE = 4.5 m) , T = +5°C P = 1,000 hPa (1,000mb)

Ha (Tony): Sextant heights corrected for instrument Error *and for Dip* : **process with HoE=0.0 m**

Hg (AMC): Geocentric heights derived from sextant observations. They can be directly compared to **Ho(Tony)'s**. And: **Hdr (AMC)**: Geocentric heights computed from assumed DR position.

Mean Values Intercepts and Azimuths are computed from Fix① N60°10.5' E029°46.9'

Body	UT;	Ha (Tony)	Intercept + : T / - : A	Azimuth	Weight	Ho(Tony) not used	Hg (AMC)/ Hdr (AMC)
① Sun	11:58:38	33°24,4'				33°38,9'	
	12:00:23	33°16,9'				33°31,4'	
Mean values	11:59:30.5	33°20.65'	+0.5'	215.6°	2		33°35.26' / 33°34.81'
② Venus	12:09:40	54°19,3'	+0.0'	161.6°	1	54°19,0'	
Mean value	12:09:40.0	54°19.30'	+0.2'	161.6°	1		54°18.75' / 54°18.58'
③ Sun	12:12:02	32°23,7'				32°28,2'	
Mean value	12:12:02.0	32°23.70'	-0.0'	219.1°	1		32°38.26' / 32°38.24'
④ Venus	12:14:12	54°29,9'	+0.4'	163.4°	1	54°29,6'	
	12:16:56	54°34,8'	-0.4'	164.4°	1	54°34,5'	
	12:18:58	54°38,4'	-0.7'	165.2°	1	54°38,1'	
	12:20:35	54°41,7'	-0.5'	165.8°	1	54°41,4'	
Mean values	12:17:40.25	54°36.20'	-0.3'	164.7°	4		54°35.65' / 54°35.99'
⑤ Sun	12:22:30	31°33,0'				31°47,4'	
	12:23:36	31°27,5'				31°38,0'	
	12:24:46	31°21,7'				31°32,2'	
Mean values	12:23:37.33	31°27.40'	-0.1'	222.4°	3		31°41.90' / 31°41.97'
⑥ Venus	12:40:30	55°08,8'	+0.0'	173.6°	1	55°08,5'	
	12:42:05 ?	55°10,7' ?	+0.6'	174.2°	1	55°10,4' ?	
	12:43:05 ?	55°10,7' ?	-0.1'	174.6°	1	55°10,7' ?	
	12:44:12	55°11,8'	+0.2'	175.1°	1	55°11,5'	
	12:45:37	55°13,6'	+1.1'	175.6°	1	55°13,3'	
	12:46:33	55°13,6'	+0.6'	176.0°	1	55°13,3'	
Mean values	12:43:40.33	55°11.53'	+0.2'	174.8°	6		55°11.00' / 55°10.80'
⑦ Sun	12:50:23	29°04,0'				29°14,4'	
	12:51:46	28°55,6'				29°05,9'	
	12:53:01	28°48,4'				28°58,7'	
	12:54:05	28°38,6'				28°49,0'	
Mean values	12:52:18.75	28°51.65'	-1.9'	230.0°	4		29°05.98' / 29°07.92'
⑧ Venus	12:55:55	55°15,4'	-0.3'	179.7°	1	55°15,1'	
	12:57:01	55°15,4'	-0.3'	180.2°	1	55°15,1'	
	13:00:15	55°15,4'	+0.0'	181.4°	1	55°15,1'	
	13:02:35	55°14,9'	+0.1'	182.4°	1	55°14,6'	
Mean values	12:58:56.50	55°15.275	-0.5'	180.9°	4		55°14.74' / 55°15.21'

① - Venus LAN method : **Transit Time at 12h56m45.0s, yielding Fix① at N60°10.5' E029°46.9'**

② - **From Fix① here-above**, treat 8 sets of averaged observations as classical LOP's with individual weights equal to each number of observations. **Final Fix② at N60°10.6' E029°48.8'**. **GPS position N60°10.3' E029°48.5' i.e. 0.3 NM from Fix②.**

③ - **From Fix② as DR Pos. run again all Venus observations as classical LOP's and get Fix③ at N60°10.5' E029°47.0', i.e. at 0.05 NM from Fix①.**

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