

# LOCAL APPARENT NOON (LAN) WORKSHEET

for use with Magic Lamp's program #303 on Celestial Navigation

See all of our boating/sailing/navigation DVDs at [www.BoatingDVDs.com](http://www.BoatingDVDs.com)

WATCH TIME LAN		NOONSHOT #1			NOONSHOT #2							
01	DATE	d	m	y	d	m	y	01				
02	1200 DR LATITUDE	.	'	N/S	.	'	N/S	02				
03	1200 DR LONGITUDE	.	'		.	'		03				
04	ZONE CENTER	.	'		.	'		04				
05	$\lambda$ DIFFERENCE	.	'		.	'		05				
06	MERIDIAN PASSAGE		h	m		h	m	06				
07	( $\pm$ ) $\lambda$ DIFF. x 4 MINUTES	( $\pm$ )		m	( $\pm$ )		m	07				
08	WATCH TIME		h	m		h	m	08				
<b>DECLINATION</b>												
09	1200		12	h	00		12	h	00	09		
10	( $\pm$ ) ZENITH DISTANCE	( $\pm$ )		h		( $\pm$ )		h		10		
11	Greenwich Mean Time			h	00			h	00	11		
12	DECLINATION	.	'	N/S	.	'	N/S			12		
<b>SEXTANT CORRECTIONS</b>												
13	hs (sextant altitude)	.	'		.	'				13		
14	( $\pm$ ) IC (index correction)	( $\pm$ )		'	( $\pm$ )		'			14		
15	(-) DIP (ht. of eye corr.)	(-)		'	(-)		'			15		
16	APPARENT ALTITUDE	.	'		.	'				16		
17	( $\pm$ ) SUN MAIN CORR.	( $\pm$ )		'	( $\pm$ )		'			17		
18	( $\pm$ ) ADD'L. CORRECTION	( $\pm$ )		'	( $\pm$ )		'			18		
19	Ho (observed altitude)	.	'		.	'				19		
<b>ZENITH DISTANCE</b>												
20	ZENITH (point above)		89		60.0	'		89		60.0	'	20
21	(-) Ho (observed altitude)	(-)				'	(-)				'	21
22	ZENITH DISTANCE	.	'		.	'					'	22
<b>LATITUDE: Cases I and II</b>												
23	DECLINATION	.	'		.	'					'	23
24	( $\pm$ ) ZENITH DISTANCE	( $\pm$ )		'	( $\pm$ )		'				'	24
25	LATITUDE		N/S	.		'		N/S	.		'	25
<b>LATITUDE: Case III</b>												
26	ZENITH DISTANCE	.	'		.	'					'	26
27	(-) DECLINATION	(-)		'	(-)		'				'	27
28	LATITUDE		N/S	.		'		N/S	.		'	28
<b>LONGITUDE</b>												
29	(T1 + T2) $\div$ 2		h	m	s		h	m	s			29
30	( $\pm$ ) ZENITH DISTANCE	( $\pm$ )	h			( $\pm$ )	h					30
31	GMT LAN EXACT		h	m	s		h	m	s			31
32	gha $\odot$	.	'		.	'					'	32
33	(+) $\Delta$ gha $\odot$	.	'		.	'					'	33
34	$\lambda$ W = GHA $\odot$	.	'	W	.	'	W				'	34
35	$\lambda$ E = 360 $^\circ$ (-) GHA $\odot$	.	'	E	.	'	E				'	35

Before use, print out more copies of this blank worksheet for future sun noon shots.