Latitude at LAN

Step 1 Correct Hs to get Ho

1-1	Record Maximum Sextant Height (Hs = peak height of the sun at noon), and mark limb	Lower / Upper Hs		°	'
1-2	Record Index Correction (mark sign + if off, - if on)	IC	Off / On	+ / −	'
1-3	Record eye height (HE) and Look up Dip Correction on the right-hand side of Table A2, front of the Almanac (correction depends on HE)	Dip HE (ft)		−	'
1-4	Sum the above three numbers to get Apparent Height	Ha		°	'
1-5	Look up altitude correction on lefthand side of Table A2, front of the Almanac (correction depends on Ha, Limb, and month) (mark sign + for lower limb, - for upper limb)	Alt corr.		+ / −	'
1-6	Sum the above two numbers to get Observed Height	Ho		°	'

Step 2 Determine the Zenith Distance

				89°	60.0'
2-1	Record Ho from Step 1, above, and then subtract it from 90° to get the zenith distance	Ho		− °	'
2-2	Zenith distance	z		°	'

Step 3 Use the Almanac to Find Sun's Declination

GMT date =

3-1	Record the date and GMT of the sight (the time the sun reached its peak height)	GMT (hr) =		GMT (min) =	
3-2	Turn to the daily page of the Almanac for the date of the sight, and find the sun's declination (dec) for the hour of the sight (line 3-1) and record it here.	Dec (hr)	N / S	°	'
3-3	Record the d-value from the bottom of the dec column in the Almanac. Mark the signs of the d-value and d-corr + if the dec for the next hour is larger, or - if it is smaller.	d-value =	+ / −	d-corr = + / −	'
3-4	Turn to the Increments and Corrections pages at the back of the Almanac (T-9 to 12, in the notes) and find the minutes table for the GMT minutes (line 3-1). On the right-hand side of the double line in the table, find the d-corr corresponding to the d-value of line 3-3.	Declination =	N / S	°	'
3-5	Apply the d-corr to the dec(hr) and record it above.				

Step 4 Find Latitude from Zenith Distance and Declination

Record DR Latitude to use as a guide, and then take the sum or difference of zenith distance and declination to find your true Latitude at LAN.

Declination or Zenith distance	°	'
Zenith distance or Declination	°	'
Latitude =	°	'