Special rules:

If H is less than 1° or greater than 89° then choose a different assumed longitude to bring H within the range of the scales.

If declination is less than 1° omit the first step and set W equal to declination. If latitude is also less than 1° then assume a latitude of 1°. Compute Az and Zn. Interchange declination and latitude then start over again computing Hc using those values and disregard the Az derived during this second computation.

If Y is greater than 89° choose a different assumed latitude to bring Y within the range of the scales.

Compute Az. If Az is greater than 85° use this Az for computing Zn and for plotting the LOP. Interchange declination and latitude then start over again computing Hc using those values and disregard the Az derived during this second computation

	0 < LHA < 90	< LHA < 180	< LHA < 270	< LHA < 360
H =	LHA	180 - LHA	LHA - 180	360 - LHA

(If H < 1° or if H > 89° see special rules)

X = Co-Lat + or - W:

Declination same name:	+W	- W	- W	+ W
Declination contrary name:	- W	- W	- W	- W

D _____

(If declination is less than 1° see special rules)

H _____

(90) (89:60)

Lat. – _____

Co-Lat. _____

W (+/-) _____

(179:60)

X _____

(If X < 90 then Y=X ; If X > 90 then Y = 180-X)

Y _____(Ignore sign of Y)

(If Y > 89° see special rules)

(180) (179:60) (360) (359:60)

Az _____

(If Az > 85° see special rules)

Zn _____

Hc _____

Ho _____

INT _____T/A

Cos Co-Tan

Set 0 → Set D

Set H → Read W

Set W → Set H

Set Y → Read Az

Set Az → Set Y

Set 0 → Read Hc

Azimuth Rules

	North Latitude			
	0 < LHA <	180 < LHA < 360		
If X > 90°	Zn = 360 - Az	Zn = Az		
If X < 90°	Zn = 180 + Az	Zn = 180 - Az		
	South latitude			
If X > 90°	Zn = 180 + Az	Zn = 180 - Az		
If X < 90°	Zn = 360 - Az	Zn = Az		