Time Sight problem outcome Longitude near dateline.

Sun sight	Std. Value		Decim. Value
Date	26-06-2016		-
Time UT	21:00:00		-
Lat South	-40°		-40°
Lon East	174°44,4		174,74°
Sun Hc	10°09,5’		10,15°
ZD=90°-Hc	79°50,5’		79,84°
Dec	23°18,8’		23,31°
GHA	134°14,4’		134,24°
Zn	46,4°		-

General Longitude Sight on Modern Celestial Navigation way with handheld calculator
Used Franks ABC formula with 2 Latitudes to Calc 2Longitudes and draw a position line.
A=cos(ZD) / Cos(Dec) / Cos(Lat)
B=tg(Dec) * tg(Lat)
C=A-B HA=arccos(C)

Sign not necesseray, cos ± max 90° is always positive.

Use the – sign for Dec and/or Lat when it is South

	Lat 1= -40° S			**Lat 2 -42° S**	NB:Latitudes have coarse separation
A	0,25073			0,25846	Normally use 0,1° separation
B	-0,36154			-0,38796	
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C	0.61228			0,64642	
HA=arccos(C)	52,24°		HA=arccos(C)	49,72°	
GHA	134,24°		GHA	134,24°	
	---------- +			---------- +	Suns Zenith =46° so East=+ (West=-)
Longitude 1	186,24°		Longitude 2	183,96°	

Longitude is >180° We use only longitude of max. 180° E or W
I suppose if outcome is > 180° then Longitude is 360°-answer
Longitude 1 173,76° E Longitude 2 176,04° E

Rules for the calculated value from Modern Celestial Navigation Class
If Longitude >360° subtract 360° If longitude<0° add 360°
I think we need one extra rule and perhaps change the last rule???
Extra rule
If Longitude >180° and <360° then Longitude=360°-Longitude, that is East Longitude.
Changed rule
I wonder if the rule:If longitude<0° add 360° can be replaced with the rule:
If Longitude<0° make value positive en write East Longitude