

AMC celestial navigation course

Pro Forma

Sun Sight Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Sun UL / LL Navigator _____

1. UT watch time

Watch time	h m s
Zone	h
Correction (slow +, fast -)	m s
UT	h m s

2. LHA

GHA (UT hours)	° '
Increment (mins/secs)	+ ° '
GHA	° '
Assumed Long (East + , West -)	° '
LHA	°

3. Assumed Latitude

Assumed Latitude	° N / S
-------------------------	---------

4. Declination

Declination (UT hours)	° '
d ____ correction - / +	'
Declination	° '

5. Calculated (tabulated) altitude

Hc (for degrees of declination)	° '
d ____ corr. for minutes of declination - / +	'
Hc	° '

6. True azimuth

Z	°
N. Lat LHA>180 Zn=Z LHA<180 Zn=360-Z	°
S. Lat LHA>180 Zn=180-Z LHA<180 Zn=180+Z	°
Zn	°

7. Sextant and Intercept

Sextant altitude, Hs	° '
Index error, IE (on arc -, off arc +)	'
Dip correction for HE = ____ m	- '
Apparent altitude, Ha	° '
Altitude correction Sun LL / UL	'
Observed altitude, Ho	° '
Calculated altitude, Hc	° '
Intercept	' Towards / Away

Sun Sight Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Sun UL / LL Navigator _____

1. UT watch time

Watch time	h m s
Zone	h
Correction (slow +, fast -)	m s
UT	h m s

2. LHA

GHA (UT hours)	° '
Increment (mins/secs)	+ ° '
GHA	° '
Assumed Long (East + , West -)	° '
LHA	°

3. Assumed Latitude

Assumed Latitude	° N / S
-------------------------	---------

4. Declination

Declination (UT hours)	° '
d ____ correction - / +	'
Declination	° '

5. Calculated (tabulated) altitude

Hc (for degrees of declination)	° '
d ____ corr. for minutes of declination - / +	'
Hc	° '

6. True azimuth

Z	°
N. Lat LHA>180 Zn=Z LHA<180 Zn=360-Z	°
S. Lat LHA>180 Zn=180-Z LHA<180 Zn=180+Z	°
Zn	°

7. Sextant and Intercept

Sextant altitude, Hs	° '
Index error, IE (on arc -, off arc +)	'
Dip correction for HE = ____ m	- '
Apparent altitude, Ha	° '
Altitude correction Sun LL / UL	'
Observed altitude, Ho	° '
Calculated altitude, Hc	° '
Intercept	' Towards / Away

Sun Sight Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Sun UL / LL Navigator _____

1. UT watch time

Watch time	h m s
Zone	h
Correction (slow +, fast -)	m s
UT	h m s

2. LHA

GHA (UT hours)	° '
Increment (mins/secs)	+ ° '
GHA	° '
Assumed Long (East + , West -)	° '
LHA	°

3. Assumed Latitude

Assumed Latitude	° N / S
-------------------------	---------

4. Declination

Declination (UT hours)	° '
d ____ correction - / +	'
Declination	° '

5. Calculated (tabulated) altitude

Hc (for degrees of declination)	° '
d ____ corr. for minutes of declination - / +	'
Hc	° '

6. True azimuth

Z	°
N. Lat LHA>180 Zn=Z LHA<180 Zn=360-Z	°
S. Lat LHA>180 Zn=180-Z LHA<180 Zn=180+Z	°
Zn	°

7. Sextant and Intercept

Sextant altitude, Hs	° '
Index error, IE (on arc -, off arc +)	'
Dip correction for HE = ____ m	- '
Apparent altitude, Ha	° '
Altitude correction Sun LL / UL	'
Observed altitude, Ho	° '
Calculated altitude, Hc	° '
Intercept	' Towards / Away

Sun Sight Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Sun UL / LL Navigator _____

1. UT watch time

Watch time	h m s
Zone	h
Correction (slow +, fast -)	m s
UT	h m s

2. LHA

GHA (UT hours)	° '
Increment (mins/secs)	+ ° '
GHA	° '
Assumed Long (East + , West -)	° '
LHA	°

3. Assumed Latitude

Assumed Latitude	° N / S
-------------------------	---------

4. Declination

Declination (UT hours)	° '
d ____ correction - / +	'
Declination	° '

5. Calculated (tabulated) altitude

Hc (for degrees of declination)	° '
d ____ corr. for minutes of declination - / +	'
Hc	° '

6. True azimuth

Z	°
N. Lat LHA>180 Zn=Z LHA<180 Zn=360-Z	°
S. Lat LHA>180 Zn=180-Z LHA<180 Zn=180+Z	°
Zn	°

7. Sextant and Intercept

Sextant altitude, Hs	° '
Index error, IE (on arc -, off arc +)	'
Dip correction for HE = ____ m	- '
Apparent altitude, Ha	° '
Altitude correction Sun LL / UL	'
Observed altitude, Ho	° '
Calculated altitude, Hc	° '
Intercept	' Towards / Away

Sun's Meridian Passage Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Sun UL / LL Navigator _____

1. UT of local meridian passage

Sun's Mer. Pass. at Greenwich (to the nearest minute)	h m
DR/EP longitude to time, + W / - E (arc to time)	h m
UT of local meridian passage	h m

3. UT watch time

Watch time	h m
Zone	h
Correction (slow +, fast -)	m
UT	h m

4. Sextant

Sextant altitude, Hs	° ' ''
Index error, IE (on arc -, off arc +)	' ''
Dip correction for HE = _____ m	- ' ''
Apparent altitude, Ha	° ' ''
Altitude correction Sun LL / UL	' ''
Observed altitude, Ho	° ' ''

2. Zone time for observation (plan)

UT of local meridian passage	h m
Time zone (change sign)	h
Zone time for observation	h m

5. Latitude calculations

Declination (UT hours)	° ' ''
d _____ correction - / +	' ''
Declination	° ' ''
Zenith Distance = $90^\circ - Ho$	$89^\circ \ 60' \ 0''$ _ ° ' ''
Zenith Distance, ZD	° ' ''
Latitude > Declination (SAME Name) Latitude < Declination (SAME Name) Latitude CONTRARY name to Declination	LAT = ZD + Dec LAT = Dec - ZD LAT = ZD - Dec
Latitude =	° ' ''
	° ' ''
Latitude	° ' ''

Sun's Meridian Passage Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Sun UL / LL Navigator _____

1. UT of local meridian passage

Sun's Mer. Pass. at Greenwich (to the nearest minute)	h m
DR/EP longitude to time, + W / - E (arc to time)	h m
UT of local meridian passage	h m

3. UT watch time

Watch time	h m
Zone	h
Correction (slow +, fast -)	m
UT	h m

4. Sextant

Sextant altitude, Hs	° ' ''
Index error, IE (on arc -, off arc +)	' ''
Dip correction for HE = _____ m	- ' ''
Apparent altitude, Ha	° ' ''
Altitude correction Sun LL / UL	' ''
Observed altitude, Ho	° ' ''

2. Zone time for observation (plan)

UT of local meridian passage	h m
Time zone (change sign)	h
Zone time for observation	h m

5. Latitude calculations

Declination (UT hours)	° ' ''
d _____ correction - / +	' ''
Declination	° ' ''
Zenith Distance = $90^\circ - Ho$	$89^\circ \ 60' \ 0''$ _ ° ' ''
Zenith Distance, ZD	° ' ''
Latitude > Declination (SAME Name) Latitude < Declination (SAME Name) Latitude CONTRARY name to Declination	LAT = ZD + Dec LAT = Dec - ZD LAT = ZD - Dec
Latitude =	° ' ''
	° ' ''
Latitude	° ' ''

Stars Sights Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Navigator _____

1. Time of Civil Twilight

Assumed latitude	° N / S
UT of Civil Twilight at Greenwich (to minutes)	h m
DR/EP longitude to time (arc to time), + W / - E	h m
UT of Local Civil Twilight	h m
Time zone (change sign)	h
Zone time for observation	h m

2. LHA ∅ at UT of Local Civil Twilight

GHA ∅ (hours)	° '
Increment (mins)	+ ° '
GHA ∅	° '
Assumed long (East + , West -)	° '
LHA ∅	°

3. Star sights

Star							
Hc at CT	° '	° '	° '	° '	° '	° '	° '
Zn at CT	°	°	°	°	°	°	°
Watch time	h m s	h m s	h m s	h m s	h m s	h m s	h m s
Zone	h	h	h	h	h	h	h
Correction (slow +, fast -)	m s	m s	m s	m s	m s	m s	m s
UT	h m s	h m s	h m s	h m s	h m s	h m s	h m s
GHA ∅ (hours)	° '	° '	° '	° '	° '	° '	° '
Increment (mins/secs)	+ ° '	+ ° '	+ ° '	+ ° '	+ ° '	+ ° '	+ ° '
GHA ∅	° '	° '	° '	° '	° '	° '	° '
Assumed Long (East + , West -)	° '	° '	° '	° '	° '	° '	° '
LHA ∅	°	°	°	°	°	°	°
Sextant altitude, Hs	° '	° '	° '	° '	° '	° '	° '
Index error, IE (on arc -, off arc +)	'	'	'	'	'	'	'
Dip correction for HE = ____ m	'	'	'	'	'	'	'
Apparent altitude, Ha	° '	° '	° '	° '	° '	° '	° '
Altitude correction	'	'	'	'	'	'	'
Observed altitude, Ho	° '	° '	° '	° '	° '	° '	° '
Calculated altitude, Hc	° '	° '	° '	° '	° '	° '	° '
Intercept and Towards / Away	'	'	'	'	'	'	'
Zn	°	°	°	°	°	°	°

Stars Sights Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Navigator _____

1. Time of Civil Twilight

Assumed latitude	° N / S
UT of Civil Twilight at Greenwich (to minutes)	h m
DR/EP longitude to time (arc to time), + W / - E	h m
UT of Local Civil Twilight	h m
Time zone (change sign)	h
Zone time for observation	h m

2. LHA ∅ at UT of Local Civil Twilight

GHA ∅ (hours)	° '
Increment (mins)	+ ° '
GHA ∅	° '
Assumed long (East + , West -)	° '
LHA ∅	°

3. Star sights

Star							
Hc at CT	° '	° '	° '	° '	° '	° '	° '
Zn at CT	°	°	°	°	°	°	°
Watch time	h m s	h m s	h m s	h m s	h m s	h m s	h m s
Zone	h	h	h	h	h	h	h
Correction (slow +, fast -)	m s	m s	m s	m s	m s	m s	m s
UT	h m s	h m s	h m s	h m s	h m s	h m s	h m s
GHA ∅ (hours)	° '	° '	° '	° '	° '	° '	° '
Increment (mins/secs)	+ ° '	+ ° '	+ ° '	+ ° '	+ ° '	+ ° '	+ ° '
GHA ∅	° '	° '	° '	° '	° '	° '	° '
Assumed Long (East + , West -)	° '	° '	° '	° '	° '	° '	° '
LHA ∅	°	°	°	°	°	°	°
Sextant altitude, Hs	° '	° '	° '	° '	° '	° '	° '
Index error, IE (on arc -, off arc +)	'	'	'	'	'	'	'
Dip correction for HE = ____ m	'	'	'	'	'	'	'
Apparent altitude, Ha	° '	° '	° '	° '	° '	° '	° '
Altitude correction	'	'	'	'	'	'	'
Observed altitude, Ho	° '	° '	° '	° '	° '	° '	° '
Calculated altitude, Hc	° '	° '	° '	° '	° '	° '	° '
Intercept and Towards / Away	'	'	'	'	'	'	'
Zn	°	°	°	°	°	°	°

Planet Sight Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Planet _____ Navigator _____

1. UT watch time

Watch time	h m s
Zone	h
Correction (slow +, fast -)	m s
UT	h m s

2. LHA

GHA (UT hours)	° '
Increment (mins/secs)	+ ° '
v ____ correction - / +	'
GHA	° '
Assumed Long (East + , West -)	° '
LHA	°

3. Assumed Latitude

Assumed Latitude	° N / S
-------------------------	---------

4. Declination

Declination (UT hours)	° '
d ____ correction - / +	'
Declination	° '

5. Calculated (tabulated) altitude

Hc (for degrees of declination)	° '
d ____ corr. for minutes of declination - / +	'
Hc	° '

6. True azimuth

Z	°
N. Lat LHA>180 Zn=Z LHA<180 Zn=360-Z	°
S. Lat LHA>180 Zn=180-Z LHA<180 Zn=180+Z	°
Zn	°

7. Sextant and Intercept

Sextant altitude, Hs	° '
Index error, IE (on arc -, off arc +)	'
Dip correction for HE = ____ m	- '
Apparent altitude, Ha	° '
Altitude correction	'
Additional altitude correction	'
Observed altitude, Ho	° '
Calculated altitude, Hc	° '
Intercept	' Towards / Away

Planet Sight Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Planet _____ Navigator _____

1. UT watch time

Watch time	h m s
Zone	h
Correction (slow +, fast -)	m s
UT	h m s

2. LHA

GHA (UT hours)	° '
Increment (mins/secs)	+ ° '
v ____ correction - / +	'
GHA	° '
Assumed Long (East + , West -)	° '
LHA	°

3. Assumed Latitude

Assumed Latitude	° N / S
-------------------------	---------

4. Declination

Declination (UT hours)	° '
d ____ correction - / +	'
Declination	° '

5. Calculated (tabulated) altitude

Hc (for degrees of declination)	° '
d ____ corr. for minutes of declination - / +	'
Hc	° '

6. True azimuth

Z	°
N. Lat LHA>180 Zn=Z LHA<180 Zn=360-Z	°
S. Lat LHA>180 Zn=180-Z LHA<180 Zn=180+Z	°
Zn	°

7. Sextant and Intercept

Sextant altitude, Hs	° '
Index error, IE (on arc -, off arc +)	'
Dip correction for HE = ____ m	- '
Apparent altitude, Ha	° '
Altitude correction	'
Additional altitude correction	'
Observed altitude, Ho	° '
Calculated altitude, Hc	° '
Intercept	' Towards / Away

Moon Sight Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Moon UL / LL Navigator _____

1. UT watch time

Watch time	h m s
Zone	h
Correction (slow +, fast -)	m s
UT	h m s

2. LHA

GHA (UT hours)	° '
Increment (mins/secs)	+ ° '
v ____ correction	+ '
GHA	° '
Assumed Long (East + , West -)	° '
LHA	°

3. Assumed Latitude

Assumed Latitude	° N / S
-------------------------	---------

4. Declination

Declination (UT hours)	° '
d ____ correction - / +	'
Declination	° '

5. Calculated (tabulated) altitude

Hc (for degrees of declination)	° '
d ____ corr. for minutes of declination - / +	'
Hc	° '

6. True azimuth

Z	°
N. Lat LHA>180 Zn=Z LHA<180 Zn=360-Z	°
S. Lat LHA>180 Zn=180-Z LHA<180 Zn=180+Z	°
Zn	°

7. Sextant and Intercept

Sextant altitude, Hs	° '
Index error, IE (on arc -, off arc +)	'
Dip correction for HE = ____ m	- '
Apparent altitude, Ha	° '
Altitude correction 1	+ '
Altitude correction 2 for H.P. ____ UL / LL	+ '
Observed altitude Lower Limb, Ho LL	° '
Correction if Upper Limb observed (-0°30'0)	- ° '
Observed altitude, Ho	° '
Calculated altitude, Hc	° '
Intercept	Towards / Away

Moon Sight Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone _____ Zone Date _____ Moon UL / LL Navigator _____

1. UT watch time

Watch time	h m s
Zone	h
Correction (slow +, fast -)	m s
UT	h m s

2. LHA

GHA (UT hours)	° '
Increment (mins/secs)	+ ° '
v ____ correction	+ '
GHA	° '
Assumed Long (East + , West -)	° '
LHA	°

3. Assumed Latitude

Assumed Latitude	° N / S
-------------------------	---------

4. Declination

Declination (UT hours)	° '
d ____ correction - / +	'
Declination	° '

5. Calculated (tabulated) altitude

Hc (for degrees of declination)	° '
d ____ corr. for minutes of declination - / +	'
Hc	° '

6. True azimuth

Z	°
N. Lat LHA>180 Zn=Z LHA<180 Zn=360-Z	°
S. Lat LHA>180 Zn=180-Z LHA<180 Zn=180+Z	°
Zn	°

7. Sextant and Intercept

Sextant altitude, Hs	° '
Index error, IE (on arc -, off arc +)	'
Dip correction for HE = ____ m	- '
Apparent altitude, Ha	° '
Altitude correction 1	+ '
Altitude correction 2 for H.P. ____ UL / LL	+ '
Observed altitude Lower Limb, Ho LL	° '
Correction if Upper Limb observed (-0°30'0)	- ° '
Observed altitude, Ho	° '
Calculated altitude, Hc	° '
Intercept	Towards / Away

Polaris Sight Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone ____ Zone Date _____ Navigator _____

1. UT watch time

Watch time	h m s
Zone	h
Correction (slow +, fast -)	m s
UT	h m s

2. LHA ☾

GHA ☾ (UT hours)	° '
Increment (mins/secs)	+ ° '
GHA ☾	° '
DR/EP Long (East + , West -)	° '
LHA ☾	° '

3. Sextant and Latitude

Sextant altitude, Hs	° '
Index error, IE (on arc -, off arc +)	'
Dip correction for HE = ____ m	- ° '
Apparent altitude, Ha	° '
Altitude correction	'
Observed altitude, Ho	° '
a0 correction (LHA ☾ ____ °)	+ ° '
a1 correction (Assumed Lat ____ °)	+ ° '
a2 correction (Month ____)	+ ° '
-1°	- 1°
Latitude	° ' N

Polaris Sight Pro-Forma

DR/EP Lat _____ DR/EP Long _____ Zone ____ Zone Date _____ Navigator _____

1. UT watch time

Watch time	h m s
Zone	h
Correction (slow +, fast -)	m s
UT	h m s

2. LHA ☾

GHA ☾ (UT hours)	° '
Increment (mins/secs)	+ ° '
GHA ☾	° '
DR/EP Long (East + , West -)	° '
LHA ☾	° '

3. Sextant and Latitude

Sextant altitude, Hs	° '
Index error, IE (on arc -, off arc +)	'
Dip correction for HE = ____ m	- ° '
Apparent altitude, Ha	° '
Altitude correction	'
Observed altitude, Ho	° '
a0 correction (LHA ☾ ____ °)	+ ° '
a1 correction (Assumed Lat ____ °)	+ ° '
a2 correction (Month ____)	+ ° '
-1°	- 1°
Latitude	° ' N