- This is not a complete list.

- Symbols are not, and need not necessarily be unique, eg ϕ is used for latitude, both ecliptic and terrestrial. However, they should be in completely different areas.

- A few terms have been included in two categories, eg ERA is in both modern section and that which deals with UT and Earth rotation.

- Where letters are used as symbols eg GHA, they may be italicized as they represent a variable. However, time-scale variables eg TDB, are usually never italicized.

Synbol/Formula	Abbreviation	Description
Systems		
	BCRS	Barycentric Celestial Reference System
	GCRS	Geocentric Celestial Reference System
	ICRS	International Celestial Reference System
	ITRS	International Terrestrial Reference System
	WGS84	World Geodetic System 1984
		Classical, Classic, equinox based
		Modern, New, CIO based
Catalogues & Ephemerides		
	FK5, FK4, FK3	Fundamental Star Catalogues
	JPL DE405/LE405	Jet Propulsion Laboratory Development Ephemeris
	VSOP	
Frames		
	ICRF	International Celestial Reference Frame
		celestial intermediate frame
	ITRF	International Terrestrial Reference Frame
	ted	true equinox and equator of date
	med	mean equinox and equator of date
	natural	(see ASA B26 3)
	proper	(see AsA B26 4)
Origins		
		ICRS origin
		J2000.0 origin
s	CIO	celestial intermediate origin
s'		
	TIO	terrestrial intermediate origin
		equinox
		mean equinox
		true equinox
		Greenwich meridian (low precision)
		Greenwich ephemeris meridian
Poles		
$\mathcal{X}, \mathcal{Y}$	CIP	celestial intermediate pole

Synbol/Formula	Abbreviation	Description
Coordinates		
ϕ	Lat	ecliptic latitude, north +ve
λ	Long	ecliptic longitude, east +ve
ϕ'	Lat	geocentric latitude, north +ve
λ'	Long	geocentric longitude, east +ve
α	RA	right ascension
α_e	RAe	equinox right ascension
α_i	RAi	intermediate right ascension
δ	Dec, DEC	declination
π	HP	horizontal parallax
a		altitude
A		azimuth
Terrestrial coordinates		
ϕ	Lat	latitude, north +ve
λ	Long	longitude, east +ve
ϕ'	Lat	geocentric latitude, north +ve
λ'	Long	geocentric longitude, east +ve
a		radius of the Earth
$f, 1/f$		flattening
Navigation		
$SHA = 360° - \alpha$	SHA	sidereal hour angle
Z_n, Z		true azimuth, azimuth
h_s, h_a, h_o		sextant, apparent, observed altitude
Υ	Aries	equinox
$GHA\Upsilon$	GHA Aries	Greenwich hour angle Aries
$GHA = GAST - \alpha$	GHA	Greenwich hour angle
$LHA = LAST - \alpha$	LHA	local hour angle

Synbol/Formula	Abbreviation	Description
Precession and Nutation		
p_A		general precession in longitude
ζ_A		
z_A		
θ_A		
ψ_A		
ω_A		
χ_A		
π_A		
Π_A		
ϵ		
ϵ_A		
ϵ_0		
p		annual general precession
m		annual general precession in right ascension
n		annual general precession in declination
$\Delta\psi$		nutation in longitude
$\Delta\epsilon$		nutation in obliquity
$\delta\psi_B, \delta\epsilon_B$		frame bias in longitude and obliquity
x_b, y_b, z_b		frame bias in rectangular coordinates
Matrices		
B		frame bias matrix, ICRS to J2000.0 (C2J)
P		precession matrix, J2000.0 to med (J2m)
N		nutation matrix, med to ted (m2t)
NPB		classical combined bias, precession, nutation matrix
$?(X_p, Y_p, s')$		polar motion, xx to xx
$\mathbf{C}, \mathbf{C}(\mathcal{X}, \mathcal{Y}, s)$		ICRS (celestial) to intermediate matrix (C2I)
$\mathbf{C}, \mathbf{C}(\mathcal{X}, \mathcal{Y}, s, \theta)$		ICRS to terrestrial matrix (C2T)
$\mathbf{Q}, \mathbf{Q}(\mathcal{X}, \mathcal{Y}, s, \theta)$		Terrestrial to ICRS matrix (T2C)

Synbol/Formula	Abbreviation	Description
UT, Sidereal time and Earth rotation		
θ	ERA	Earth rotation angle
GST		Greenwich sidereal time
GMST	GMST	Greenwich mean sidereal time
$\text{GAST} = \text{GMST} + \text{EE}$	GAST	Greenwich apparent sidereal time
$\text{GHA}\Upsilon \equiv \text{GAST}$	GHA Aries	Greenwich hour angle Aries
$\text{EE} = \text{GAST} - \text{GMST}$	EE	equation of the equinoxes
CT	CT	complementary terms
$o = \theta - \text{GAST}$		equation of the origins
$\text{GHA} = H = \text{GAST} - \alpha$	GHA	Greenwich hour angle, low precision/nautical
$H = \text{GAST} - \alpha$	HA	hour angle
$\text{LHA} = h = \text{LAST} - \alpha$	LHA	local hour angle
	EqT	equation of time
Classical		
GMST	GMST	Greenwich mean sidereal time
$\text{GAST} = \text{GMST} + \text{EE}$	GAST	Greenwich apparent sidereal time
$\text{GHA}\Upsilon \equiv \text{GAST}$	GHA Aries	Greenwich hour angle Aries
EE	EE	equation of the equinoxes
CT	CT	complementary terms
LMST	LMST	local mean sidereal time
$\text{LAST} = \text{LMST} + \lambda$	LAST	local apparent sidereal time
LHA Υ	LHA Aries	local hour angle Aries
$H = \text{GAST} - \alpha_e$	HA	hour angle, hour angle Aries
$h = \text{LAST} - \alpha_e$	LHA	local hour angle
Modern		
θ	ERA	Earth rotation angle
$H = \theta - \alpha_i$	HA	hour angle
$?? = \theta + \lambda$		local Earth rotation angle
$h = \theta + \lambda - \alpha$	LHA	local hour angle

Synbol/Formula	Abbreviation	Description
Time Scales		
UT0		
UT1		
UT		Universal Time
UTC		Coordinated Universal Time
TAI		International Atomic Time
$\mathit{\Delta}$UT = UT − UTC		
DUT		predicted value of $\mathit{\Delta}$UT
ET		Ephemeris Time, superseded
TDT		Terrestrial Dynamical Time, superseded
TDB		Barycentric Dynamical Time
T_{eph}		Time scale of JPL DE405/LE405 ephemeris
TT		Terrestrial Time
$\mathit{\Delta}$T = TT − UT = TAI − UTC		
$\mathit{\Delta AT} = TAI - UTC$		
$\mathit{\Delta TT}$ = TT − UTC		

Terminology

apparent place — light-time, light deflection, aberration, **NPB** ted
mean place — frame bias and precession only, **PB**
intermediate place — celestial intermediate frame, **C($\mathcal{X}$,$\mathcal{Y}$,s), does this imply light-time, light deflection etc?**

Catherine Hohenkerk
HM Nautical Almanac Office
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