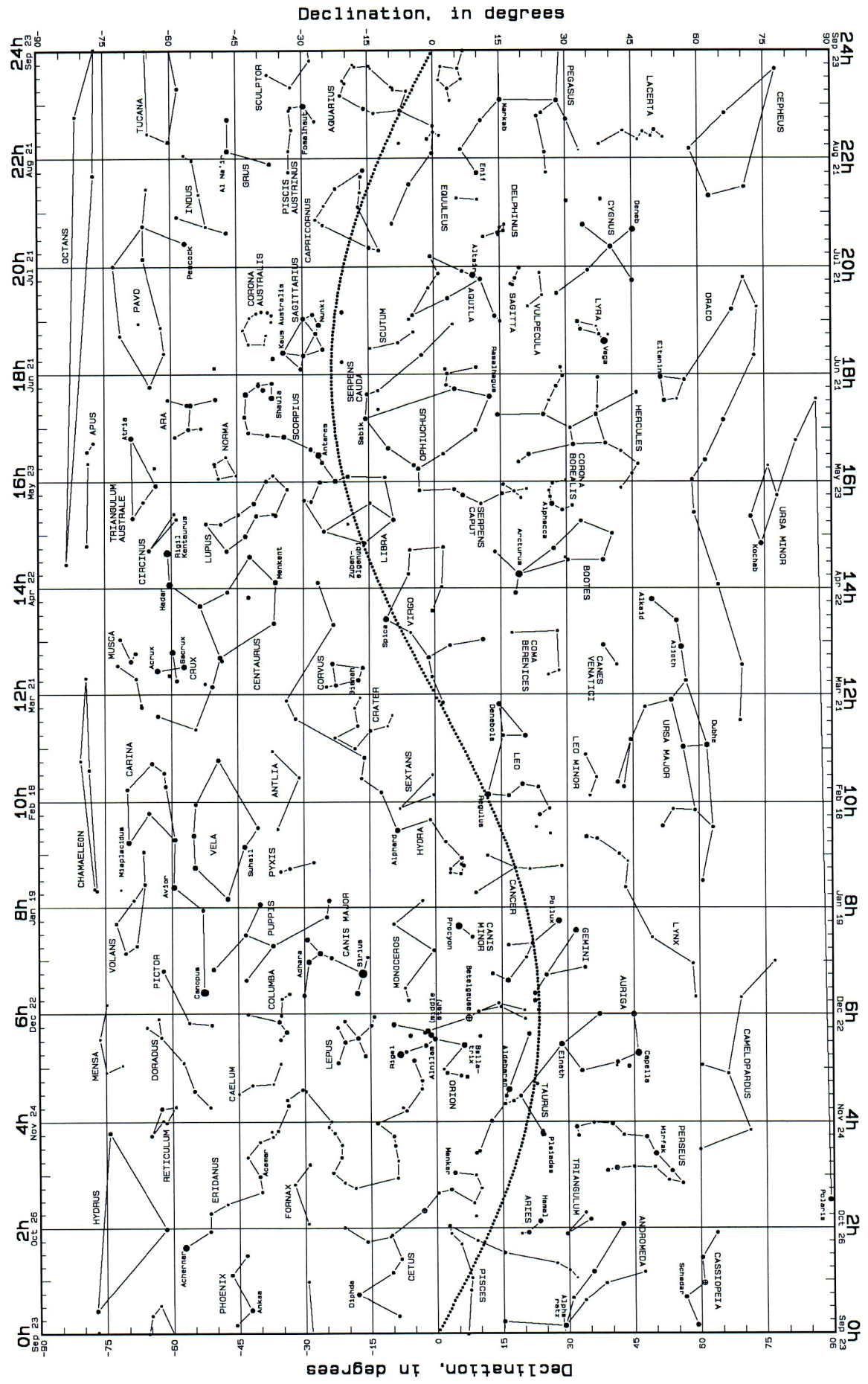


RECTANGULAR MAP OF THE SOUTH CELESTIAL HEMISPHERE (J2000)
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RECTANGULAR MAP OF THE NORTH CELESTIAL HEMISPHERE (J2000)
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NORTH POLAR EQUIDISTANT PROJECTION OF THE CELESTIAL SPHERE TO -45 DEGREES DECLINATION

for the epoch J2000.0 A.D.

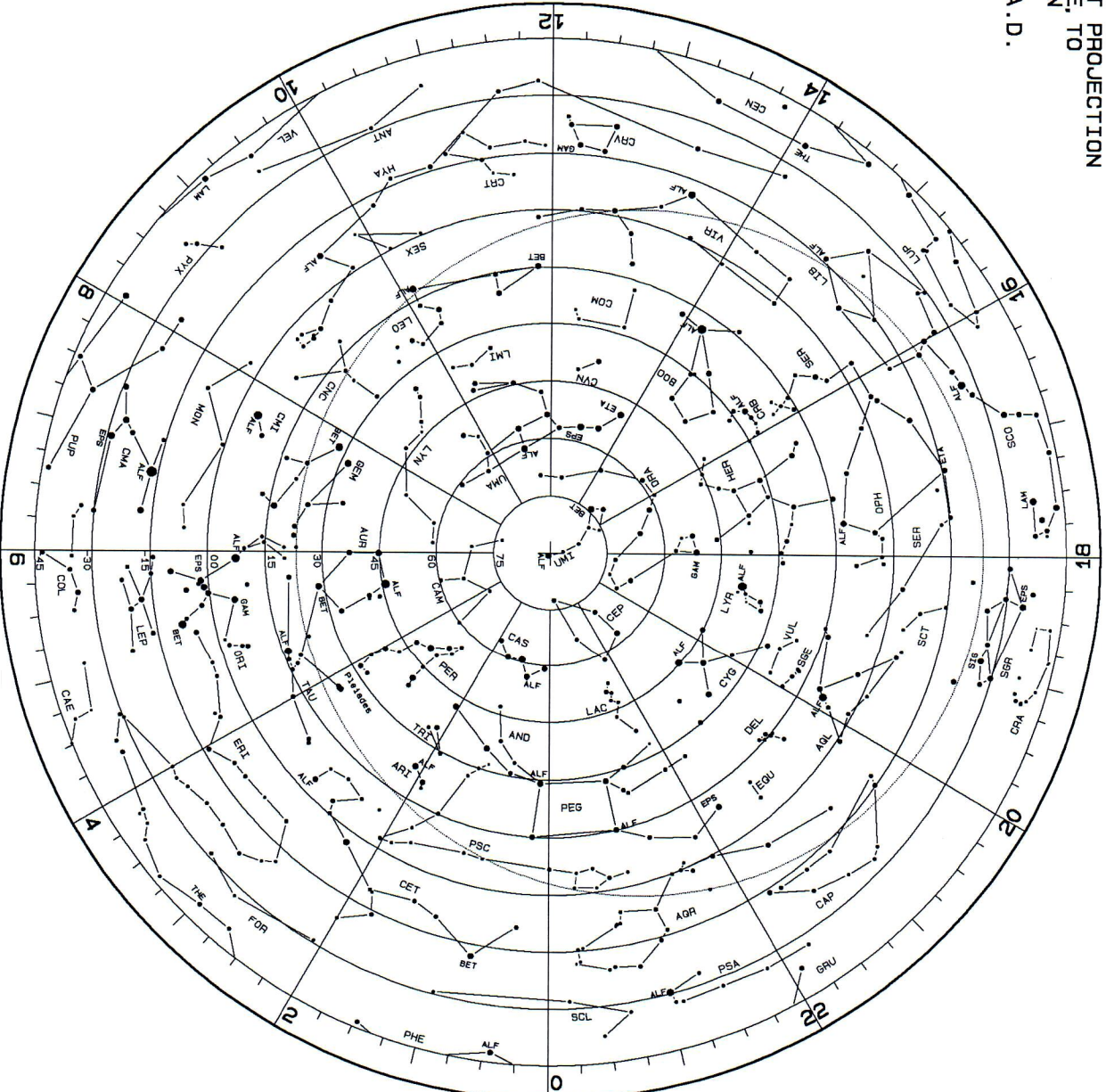
(c) 2018 by Astronomical Data Service
Colorado Springs, Colorado U.S.A.

NAVIGATION STARS

Design.	Name	Magn. R.A. (h)
ALF-AND	Alpheratz	2.2 00.1
ALF-PHE	Ankaa	2.4 00.4
ALF-CAS	Scheder	2.5 00.7
BET-CET	Dipide	2.2 00.7
ALF-ARI	Hama	2.2 02.1
ALF-LMI	Polaris	2.1 02.5
THE-ERI	Acamar	3.4 03.0
ALF-CET	Menken	2.6 03.0
ALF-PER	Mirfak	1.9 03.4
ALF-TAU	Aidebaran	1.1 04.6
BET-ORI	Rigel	0.3 05.2
ALF-AUR	Capella	0.2 05.3
GAM-ORI	Bellatrix	1.7 05.4
BET-TAU	Elneth	1.8 05.4
EPS-ORI	Anilmam	1.8 05.6
ALF-ORI	Betelgeuse*	0-1 05.9
ALF-CMA	Sirius	-1.4 06.8
EPS-CMA	Adhara	1.6 07.0
ALF-CMI	Procyon	0.5 07.7
BET-ORJ	Pollux	1.2 07.8
LAM-VEL	Sunail	2.2 09.1
ALF-HYA	Alphard	2.2 09.5
ALF-LEO	Regulus	1.3 10.1
ALF-LMA	Dubhe	2.0 11.1
BET-LEO	Denebola	2.2 11.8
GAM-CRV	Gjanih	2.8 12.3
EPS-VMA	Alloth	1.7 12.9
ALF-VIR	Spica	1.2 13.4
THE-CEN	Alkaid	1.9 13.8
ALF-BOO	Merkat	2.3 14.1
ALF-LIB	Arcturus	0.2 14.3
ALF-LIB	Zosma	2.9 14.8
BET-LMI	Kochab	2.2 14.8
ALF-CRB	Alphecca	2.3 15.6
ETA-SCO	Antares	1.2 16.5
ETA-OPH	Sabik	2.6 17.2
LAM-SCD	Shaula	1.7 17.6
ALF-OPH	Rasalhague	2.1 17.6
GAM-ORA	Eltanin	2.4 17.9
EPS-SGR	Kaus Australis	2.0 18.4
ALF-LYR	Vega	0.1 18.6
SIG-SGR	Nunki	2.1 18.9
ALF-AOL	Altair	0.9 19.8
ALF-CYG	Deneb	1.3 20.7
EPS-PEG	Enif	2.5 21.7
ALF-PSA	Fomalhaut	1.3 23.0
ALF-PEG	Markab	2.6 23.1

Variable stars are marked with crosses.

The radius of the circle representing a variable star corresponds to its minimum magnitude (maximum brightness).



CONSTELLATIONS

- AND Andromeda
- ANT Antares
- ARI Aries
- AQU Aquarius
- ARL Arcturus
- ARI Aries
- AUR Auriga
- BOO Boötes
- BOO Boötes
- CAE Camelopardus
- CAN Cancer
- CNC Canis Venatici
- CYN Canis Major
- CHI Caris Minor
- CAP Capricornus
- CAS Cassiopeia
- CEN Centaurus
- CET Cetus
- COL Columba
- COM Coma Berenices
- COM Coma Berenices
- CRB Corona Borealis
- CRV Corvus
- CRT Crater
- CYG Cygnus
- DEL Delphinus
- DRA Draco
- ERU Eridanus
- ERI Erismus
- FOR Fornax
- GEM Gemini
- GRU Grus
- HER Hercules
- HYA Hydra
- LAC Lacerta
- LEO Leo Minor
- LMI Lepus
- LEP Lepus
- LIB Libra
- LUP Lupus
- LYR Lyra
- LYR Lyra
- MON Monoceros
- NOR Norma
- OPH Ophiuchus
- ORI Orion
- ORI Orion
- PEG Pegasus
- PER Perseus
- PHO Phoenix
- PSC Pegasus
- PSA Pegasus
- PUP Puppis
- PUP Puppis
- PYX Pyxis
- SGE Sagitta
- SGR Sagittarius
- SCO Scorpion
- SCU Scutum
- SCU Scutum
- SEX Sextans
- TAU Taurus
- TRI Triangulum
- URA Ursa Major
- UMI Ursa Minor
- VEL Virgo
- VIR Virgo
- VUL Vulpecula

SOUTH POLAR EQUIDISTANT PROJECTION OF THE CELESTIAL SPHERE, TO +45 DEGREES DECLINATION

for the epoch J2000.0 A.D.

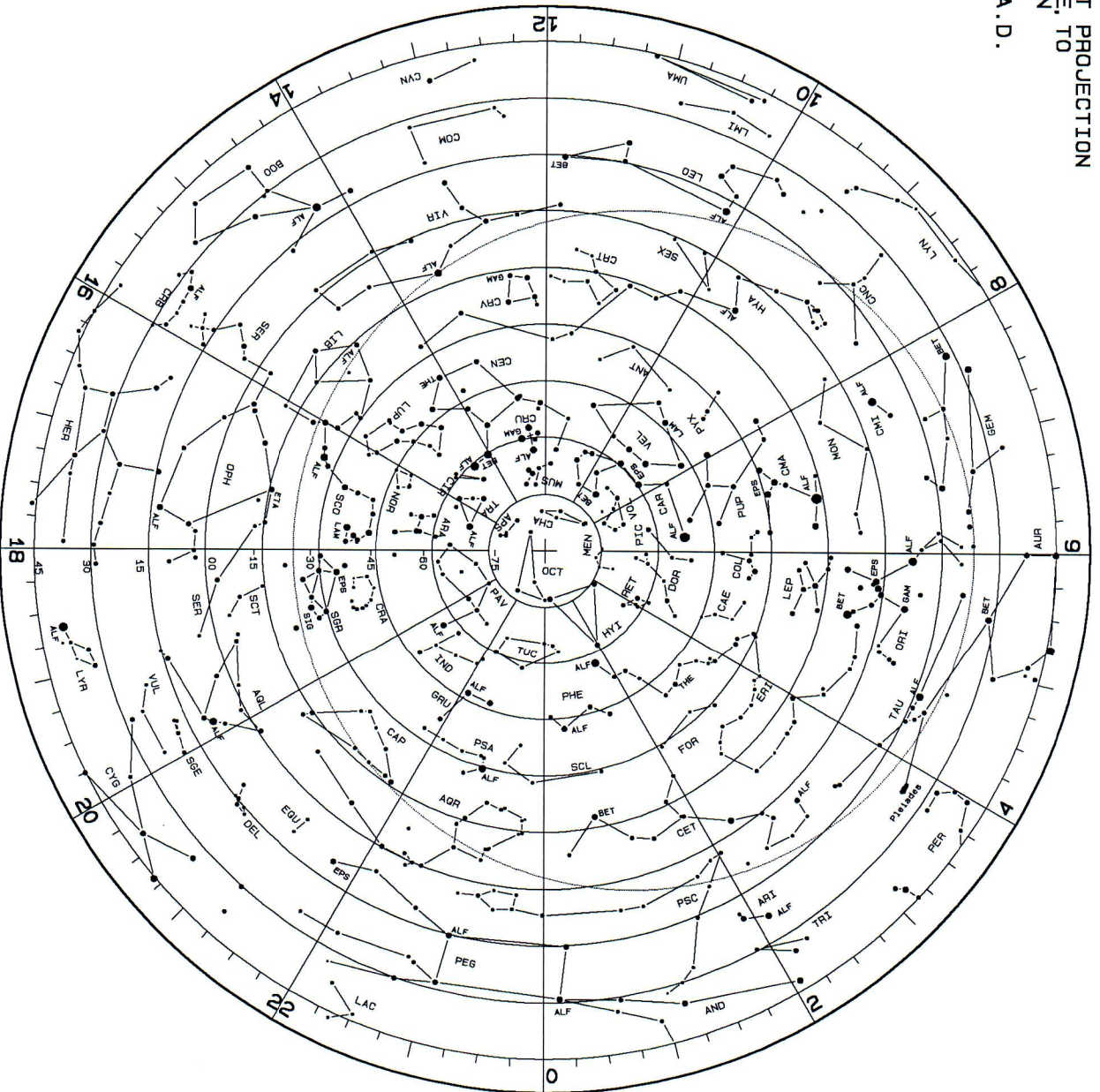
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NAVIGATION STARS

Design.	Name	Magn. R.A. (h)
ALF-AND	Alpheratz	2.2 00.1
ALF-PHE	Anka	2.4 00.4
BET-DET	Diphda	2.2 00.7
ALF-ERI	Achernar	0.6 01.6
ALF-ARI	Hami	2.2 02.1
THE-ERI	Acamar	3.4 03.0
ALF-DET	Menkar	2.8 03.0
ALF-TAU	Aldebaran	1.1 04.6
BET-ORI	Rigel	0.3 05.2
GM-ORI	Belatrix	1.7 05.4
BET-TAU	Elnath	1.8 05.4
EPG-ORI	Alnilam	1.8 05.6
ALF-CAR	Canopus	-0.1 05.9
ALF-CAR	Sirius	-1.4 06.8
EPG-CMA	Adhara	1.6 07.0
ALF-CMI	Procyon	0.5 07.7
BET-DEM	Pollux	1.2 07.8
EPG-CAR	Avior	1.7 08.4
LAV-VEL	Subra	2.2 09.1
BET-CAR	Mispacidus	2.2 09.5
ALF-HYA	Alnair	1.3 10.1
ALF-LEO	Regulus	1.2 11.8
GM-LEO	Denebola	2.6 12.3
GM-CRU	Gemini	1.6 12.4
ALF-CRU	Acrux	1.6 12.5
GM-CRU	Gacrux	1.5 12.5
ALF-VIR	Spica	1.2 13.4
BET-CEN	Hadar (Agena)	0.9 14.1
THE-CEN	Merkent	2.3 14.1
ALF-BOO	Arcturus	0.2 14.3
ALF-CEN	Rigel Kentaurus	0.1 14.7
ALF-LIB	Zosma/gemini	2.9 14.8
ALF-CRB	Alphacca	2.3 15.6
ALF-SCO	Antares	1.2 16.5
ETI-TRA	Arctis	1.9 16.8
ETI-DPH	Sabit	2.6 17.2
LAM-SCO	Shaula	1.7 17.5
ALF-DPH	Rasalhague	2.1 17.6
EPG-SGR	Keus Australis	2.0 18.4
ALF-LVY	Vega	0.1 18.6
SIG-SGR	Nunki	2.1 18.9
ALF-AOL	Altair	0.9 19.8
ALF-PAY	Polaris	2.1 20.4
EPG-REG	Enif	2.5 21.7
ALF-GRU	Al Na'ir	2.2 22.1
ALF-PSA	Fomalhaut	1.3 23.0
ALF-REG	Markab	2.6 23.1

CONSTELLATIONS

- AND Andromeda
- ANT Antlia
- APS Apus
- ABR Aquarius
- AOL Aquila
- ARD Arcturus
- ADT Arctas
- AUG Aur-188
- BOO Bootes



CONSTELLATIONS, CONTD.

- CAE Cassium
- CNC Cancer
- CYN Canes Venatici
- CMA Coma Major
- CMJ Coma Minor
- CAP Capricornus
- CAR Carina
- CEN Centaurus
- CET Cetus
- CHA Chamaeleon
- CIR Circinus
- COL Columba
- COM Comae Berenices
- CHA Corona Australis
- CRB Corona Borealis
- CRV Corvus
- CRI Crater
- CRU Crux
- CYG Cygnus
- DEL Delphinus
- DDR Dorado
- EDU Equuleus
- ERI Eridanus
- FOR Fornax
- GEN Gemini
- GRU Grus
- HER Hercules
- HYA Hydrus
- HVI Hydra
- IND Indus
- LAC Lacerta
- LEO Leo
- LEO Leo Minor
- LEP Lepus
- LIB Libra
- LUP Lupus
- LVA Lynx
- LYR Lyra
- MEN Mensa
- MUS Musca
- MON Monoceros
- NOR Norma
- OCT Octans
- OPH Ophiuchus
- ORI Orion
- PAY Pavo
- PER Pegasus
- PER Perseus
- PHE Phoenix
- PIF Pictor
- PIC Pictus
- PLA Placca
- PSA Puppis
- PLA Platiie Austrinus
- RAJ Reticulum
- PIY Pyxis
- REI Regulus
- SAG Sagittarius
- SCO Scorpius
- SCU Scorpion
- SCT Scutum
- SCU Scutum
- SEK Serpens
- SEX Sextans
- TAU Taurus
- TUC Tucana
- TRA Triangulum
- TRI Triangulum
- UMA Ursa Major
- VEL Vel
- VIR Virgo
- VOI Volans
- VUL Vulpecula