

Asteroids And Dwarf Planets And How To Observe Them

[DOWNLOAD HERE](#)

1;Acknowledgements;6 2;About the Author;8 3;Contents;10 4;Part I: Asteroids and Dwarf Planets;16
4.1;Chapter 1: Introduction;17 4.2;Chapter 2: Small (and Not So Small) Solar System Bodies;22
4.2.1;Planets and Dwarf Planets;22 4.2.2;Resolution 5;23 4.2.3;Resolution 6;23 4.2.4;Asteroids;24
4.2.5;Designations Old and New;26 4.2.6;Numbering and Naming;27 4.2.7;Asteroid Orbits;27 4.2.8;Lost?
Perhaps Not;30 4.3;Chapter 3: Groups and Families;31 4.3.1;Asteroid Groups;31 4.3.2;Vulcanoids;32
4.3.3;Near-Earth Asteroids/Objects (NEAs/Os);32 4.3.4;The Main Belt;34 4.3.5;Trojans;35
4.3.5.1;Locations and Numbers;35 4.3.5.2;Martian Trojans;35 4.3.5.3;Jupiter (or Jovian) Trojans;36
4.3.5.4;Neptune Trojans;36 4.3.6;Centaur;37 4.3.7;The Edgeworth Kuiper Belt;37 4.3.8;Plutinos and
Plutoids;38 4.3.9;Classical Edgeworth Kuiper Belt Objects;39 4.3.10;Scattered Disk Objects;40
4.3.11;Detached Objects;40 4.3.12;And Finally ;40 4.3.13;Moons;41 4.3.13.1;Classical Orbits;41
4.3.13.2;Quasi-Satellites and Horseshoe Orbits;41 4.3.14;Dwarf Planets;42 4.3.15;Exosolar Asteroids;42
4.3.16;Summary;42 4.4;Chapter 4: The Nature of Asteroids and Dwarf Planets;44 4.4.1;Rubble Piles or
Solid Bodies?;44 4.4.2;Binaries and Beyond;46 4.4.3;Asteroid or Comet?;48 4.4.4;Spectral
Classification;48 4.4.5;Opposition Effect;51 4.4.6;What of EKBOs?;52 4.4.7;Dwarf Planets and Their
Moons;53 4.4.8;(1) Ceres;54 4.4.9;(134340) Pluto;55 4.4.10;(136108) Haumea;56 4.4.11;(136199)
Eris;57 4.4.12;(136472) Makemake;58 4.5;Chapter 5: Origins and Evolution;59 4.5.1;The Birth of the
Solar System;59 4.5.2;How the Asteroids Formed;60 4.5.3;Where Near-Earth Asteroids Come from;60
4.5.4;Why Are There Asteroids and No Planets Between Mars and Jupiter?;62 4.5.5;Why Are There
Gaps in the Main Belt?;63 4.5.6;The Edges of the Main Belt;64 4.5.7;How Asteroid Families Came to
Be;64 4.5.8;Planetary Satellites;65 4.5.9;The Origin of Trojan Asteroids;65 4.5.10;Unpredictable
Centaur;65 4.5.11;The Edgeworth Kuiper Belt: Knowns and Unknowns;66 4.6;Chapter 6: Impact?;69
4.6.1;Near-Earth Objects (NEOs);69 4.6.2;Potentially Hazardous Asteroids (PHAs);69 4.6.3;Craters and
Cratering;70 4.6.4;What If?;71 4.6.5;Discovery;73 4.6.6;Uncertainty Becoming Certainty (Hit or Miss);74
4.6.7;Who Watches the Watchers?;77 4.6.8;Deflect or Destroy?;77 4.6.8.1;Deflection;78
4.6.9;Destruction;79 5;Part II: Observing Guide;80 5.1;Chapter 7: Observatories;81 5.1.1;Temporary or

Portable Set-Up;81 5.1.2;Backyard Observatories;82 5.1.2.1;Observatory Domes;82 5.1.2.2;Roll-Off Roof Observatories;82 5.1.2.3;Roll-Away Shed;84 5.1.2.4;A Remote-Controlled Observatory;84 5.1.3;Amateur Astronomical Groups;85 5.1.4;Robotic Telescopes;87 5.1.5;Professional Observatories;88 5.1.5.1;Catalina Sky Survey (CSS);88 5.1.5.2;Panoramic Survey Telescope and Rapid Response System (Pan-STARRS);89 5.1.6;Space Missions;89 5.2;Chapter 8: Visual Observing;92 5.2.1;Getting Started;93 5.2.2;Limiting Magnitude;95 5.2.3;Finding the Target;96 5.2.4;Targets for Tonight;96 5.2.5;What to Record;99 5.2.5.1;Logbook;99 5.2.6;Drawing the Star Field;99 5.2.7;Estimating Magnitude (Visual Photometry);101 5.2.7.1;The Fractional Method;101 5.2.7.2;The Argelander Step Method;102 5.2.7.3;Pogson s Step Method;102 5.2.8;Estimating Position (Visual Astrometry);102 5.2.9;Observing Projects;103 5.2.9.1;How Faint Can You Go?;103 5.2.9.2;Following in the Footsteps;103 5.2.10;Conclusion;104 5.3;Chapter 9: Webcam and DSLR Imaging;105 5.3.1;Webcam Imaging;105 5.3.1.1;Asteroid (6) Hebe by Chris Hooker, UK;106 5.3.1.1.1;Locating the Asteroid;106 5.3.1.1.2;Image Capture;107 5.3.1.1.3;Image Processing Part I;108 5.3.1.1.4;Image Processing Part II;108 5.3.1.2;(1) Ceres John Sussenbach;108 5.3.1.2.1;Image Capture;108 5.3.1.2.2;Image Processing;108 5.3.2;DSLR Imaging;110 5.3.2.1;(44) Nysa Michael Clarke;111 5.3.2.2;Asteroids (11) Parthenope and (16) Psyche: Maurice Gavin;111 5 EAN/ISBN : 9781441964397 Publisher(s): Springer, Berlin, Springer Science & Business Media Format: ePub/PDF Author(s): Dymock, Roger

[DOWNLOAD HERE](#)

Similar manuals: