

Introduction

It's hard not to be impressed when you look at a picture of a beautiful nebula or galaxy in a magazine or online. If you are impressed enough, you may want to take up astronomy as a hobby. That seems to lead a great number of people to look for ways to capture their own images of celestial objects. In today's instant gratification society it is a bitter pill to swallow when we hear that you can't just point your camera up and get a picture of a galaxy. So what do we do?

You have already taken the first step in buying this book! Knowledge is the first great hurdle in astrophotography, the second was always the cost. Fortunately, in today's digital age and worldwide market it has never been cheaper to capture images of the heavens.

I can't begin to tell you how many times I have seen people with a genuine desire to try their hand at astrophotography hear about the thousands, or tens of thousands of dollars in equipment an astrophotographer has spent to get their images and see that gleam in their eye fade and disappear. But you don't have to spend that to get started, or for that matter to get some pretty impressive images. This book will show you how.

Every piece of equipment and software I talk about is readily available. I try to steer clear of solutions for only one particular thing (one brand of camera for example) and give you choices. Much of what I discuss is more about getting you to understand the how and why of the techniques than a simple "buy this and click here" approach, although it can certainly be used that way.

A large portion of this book is dedicated to do-it-yourself (DIY) projects to help you save even more money with a wide range of projects. There are some things however that you just really need to spend the money on even if it hurts, like a good light pollution filter which we will discuss later.

I originally wrote my first book, *Getting Started: Long Exposure Astrophotography*, as a set of pamphlets designed to cover all aspects of astrophotography. As I learned more on the subject, it quickly became apparent that there was so much information out there, and so much of it was aimed at specific types of astrophotography, that I needed to split things into different areas. That was the birth of this book.

Budgets are a very personal thing, and although the title of this book will mean different things to different people I have tried to provide some options for just about everyone. There are some images that can be done with nothing more than a digital camera, computer and a stand or tripod. Still more advanced methods require a little more investment. No image in this book used more than \$1,000.00 of total equipment including camera, telescope, adapters, software, etc. The exception here is that I assume you already have some kind of computer for processing the images you capture. No other assumptions are made.

Astrophotography is like most things in life where you get out of it pretty much what you put in to it. That doesn't necessarily mean money however. Lots of hard work, a few tricks and a little knowledge can be substituted for money in some instances and hopefully that is where this book will come in handy.

The book is written in three basic sections:

Understanding is the title of the first section and it tries to get you to understand what you are trying to do, how to go about it, and what you may need in equipment and software to be able to do it. This is by far the most important section of the book.

The title of the second section is *Doing*, and it is more of a how to section showing you how to accomplish specific steps in the process that is astrophotography.

Third and finally is the section entitled *Building* which is the Do-It-Yourself section where you can see projects for modifying and building things to help in your new found hobby.

Be sure to visit the website for the book at:

<http://www.allans-stuff.com/bap>