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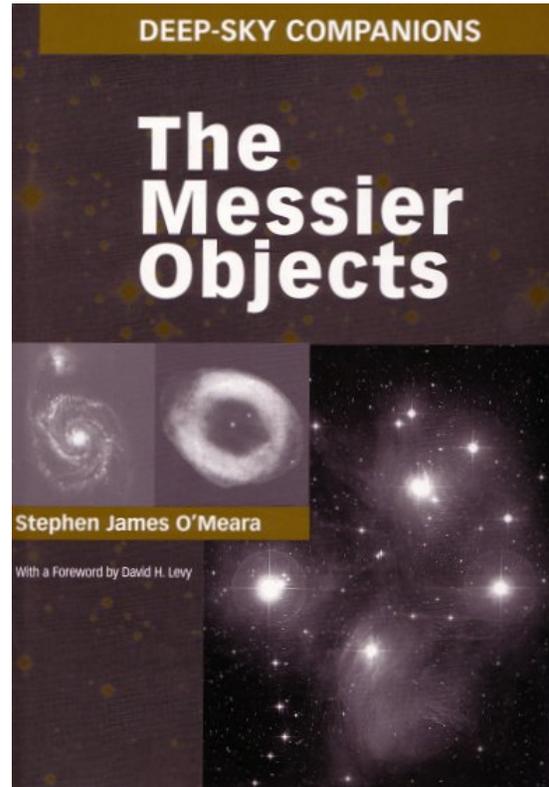
## The Messier Objects – Deep Sky Companions

*Stephen James O’Meara*

4/2004 Tom Trusock - [Click to e-mail author](#)



<b>Level</b>	Armchair astronomer and observer / beginner through advanced
<b>Age</b>	15 and up
<b>Pages</b>	306 pages
<b>Type / Price</b>	Hardback / \$34.95
<b>Publisher</b>	Cambridge
<b>Summary</b>	Crammed with eyepiece impressions, photos, drawings, finder charts, and historical data this book serves as your personal guide to the Messier objects



It’s ironic that in making a list of objects to avoid, Charles Messier essentially immortalized himself. For most amateur astronomers, observing the 110 objects on the Messier list is a rite of passage. While astronomy books flourish, lately we’ve seen something of a dearth of books about the Messiers.

Enter Steven J. O’Meara. O’Meara is, without a doubt, one of the premier visual observers in astronomy today. This gentleman’s inventory of accomplishments seems like a list from the astronomers “mission impossible”. Your mission if you choose to accept it; from the high on a mountainside, be the first to spot Halley’s Comet on its return in 1985, discover planetary features that need to be confirmed by spacecraft, and then determine the rotation period of Uranus.

Making his home in Volcano Hawaii, O’Meara’s instrument of choice is a 4” Genesis refractor. But make no mistake – this is not just a book for small aperture scopes. The dark Hawaiian skies combined with O’Meara’s top notch visual skills ensure that most

folks who read this book (and observe from typical suburban skies) will be skilled and lucky to pick out the details O'Meara notes if they use an 8" scope.

Acknowledging a debt to Mallas and Kreimer's *The Messier Album*, O'Meara's purpose for this book is "to provide new *and* experienced observers with a fresh perspective on the Messier objects." Not content with just the typical facts and figures, he encourages astronomers to look at these objects in a different way than we may have in the past. He extols us to use our mind's eye to see new sights in familiar objects. O'Meara wants this book to be your companion – your personal guide to the Messiers. He's your mentor, your coach, your docent, whose role is in sitting beside you at the scope to show you the wonders of the night sky.

Or that's the intent.

The book starts off with the history of a comet hunter who ironically is best remembered for his list of objects to avoid: Charles Messier. Messier's first list of 45 "confusing" objects was published in 1774 and the rest, as they say, is history. The life and times of Messier and his contemporaries, along with a discussion of the oddballs and mistakes in the catalog is covered in chapter 1, contributed by guest author – David Levy – another amateur heavyweight. Of particular note is the discussion of the oddball inclusions, 40 (two faint stars), 73 (a few faint stars), and the missing Messiers; 47, 48, 91 and 102. Couple this with some discussion regarding the "discovery" of those objects by astronomers who stand a little further downstream in the timeline, and it makes for interesting reading.

Chapter two is oriented towards the novice. Here O'Meara defines the basics any amateur astronomer needs to know; how to navigate the night sky, what types of objects are out there, gives written directions to finding the easier Messiers (by season), supplies an introduction into the Greek alphabet, lists constellation name and abbreviations, shares observing tips, defines apparent size, star colors, and other terms. Experienced amateurs should feel free to skip this section.

Next we find an introduction to the equipment he used to write the book, as well as some technical data and information on his drawings, finder charts and general explanation of the format of the text. This is recommended reading for anyone who wishes to use the book as an actual observing guide.

And then, finally, we get to the meat of the book. In chapter four, O'Meara presents the 110 Messier objects, giving photos and drawings of each, along with short essays that include historical perspective, eyepiece impressions, finder charts and the occasional flight of fancy.

Of some note is his final chapter and appendices; some thoughts on why certain obvious objects were not included in the messier list, and why, if it's a list of comet look-a-likes, some not so obvious comets are included. Then every amateur who has finished the messier list asks themselves – "What next?" and O'Meara gives you a good start by

listing 20 of his favorite non-messier objects. In conclusion, he includes some comments on messier marathons, a quick guide to navigating the morass of galaxies found in the Coma-Virgo cluster, and some suggested reading to close out the book.

So – what’s the bottom line?

O’Meara is a talented and captivating writer whose tone is easy to read yet capable of conveying a vast amount of historical and technical data. Most importantly, he sets a tone necessary for any docent by sharing his experiences and encouraging you to try some experiments yourself to look at the universe in a new light. At times, I had the feeling that he was sitting next to me, sharing his knowledge, thoughts and feelings as we explored the universe together. In this sense, he certainly succeeds.

I enjoyed *The Messier Objects* – particularly during those times when what I really wanted was to be under the stars with old friends but couldn’t. Reading this book is probably the next best thing to actually observing the Messiers.

All in all, *The Messier Objects* is a well written book that serves as excellent reading on cloudy nights and sunny days, and is an excellent addition to the astrobuffs library, but there are a few, fairly minor, issues with the book.

The biggest issue I have with the book is with the included finder charts. First off, any amateur who has ever printed a finder chart off a computer will tell you there is an art to making it useful. For most of us, multiple charts are needed. First, a wide-field view so one can recognize the general area of the object. Then a medium – usually constellation sized - map to plan your star hop or attempt to nail it in the finder scope, and finally a close up map to help you identify the field and acquire your target in the eyepiece. I found it somewhat surprising that O’Meara’s charts were (to me) largely useless, and worse – may have the effect of making the Messiers \*seem\* all too easy to find. The all sky finder chart located at the back of the book gives one a general idea of where an object is located, but generally not enough information to hop directly to it. O’Meara realizes this and gives you an individual finder chart for each messier – but here’s where the problem creeps in.

For my taste, the close-up charts are a bit too limited for naked eye use, often lacking visual clues about where exactly in the constellation the Messier object lies. To the neophyte with a reflex finder, this can spell frustration as they try and fail to land the target in question. Fortunately, the solution is simple – couple this book with a good (yet basic) star atlas or set of computer generated charts. However, that means that if this book is to be your companion- you now need to juggle at least two references at the eyepiece. For the inevitable reprint, it would be nice to see each Messier accompanied by an appropriate sized naked eye finder chart, with the stars mapped down to magnitude 4 or so.

The second biggest concern I have with the book relates to what O’Meara sees, and I alluded to it in the very beginning of this article. I have no doubts of his skill, but

consider the following: given the fact that O'Meara used a 4" scope to write this book, can you imagine a neophyte thinking that by using an 8" scope, they would (easily) be able to see all the details that O'Meara's (extremely) experienced eyes can eek out through his 4". Amateurs need to recall a couple of keys. First, remember the tenants of real estate, for they apply in astronomy as well: location, location, location. O'Meara is observing from pristine dark sky atop a volcano in the middle of the Pacific Ocean. Most of us can only dream about observing under those conditions. Then you should realize that to a certain extent observing is an art which must be learnt, and O'Meara is one of the masters of the modern age. Personally, I think that an experienced observer viewing the Messiers from the suburbs with an 8" scope would be doing well to see most of the details O'Meara brings to life.

Finally, the above brings a related concern. Most amateur astronomers quickly learn to use a technique called averted vision to eek out details in faint objects. This allows you to concentrate light on the rods (superior for light detection) instead of the cones (needed for color vision) in your eyes, for detection and study of faint objects. This takes practice and even an experienced observer can fool themselves into thinking they see something they really don't. The pundits call this effect "averted imagination".

The problem with having read (or currently reading while at the scope) a detailed description of the object is that the astronomer then becomes predisposed to seeing what the author suggests. It can be extremely hard to differentiate this effect from what you are actually seeing. The only way to really determine what you are looking at is through time and practice – revisit an object several times before deciding "yes, I really can see the spiral arms in m51 with my 80mm refractor." A newbie posting that on a public forum is hanging fresh meat up in front of the wolves. I know. I've seen it happen, and I'll tell you it isn't pretty. But in all fairness – this is something you run up against with ANY observing guide/book, and no one is immune. Through practice, you will become an experienced observer. A simple awareness of this phenomena is often enough to counter it. On the other hand – don't discount your observations either. Consider it yet another reason to keep an observing log.

Although *The Messier Objects* could be used at the eyepiece, I found that I didn't. Why? Two of the reasons I state above: the regrettable lack of useable finder charts, and my own natural predisposition to use my "averted imagination". I found I preferred reading it after a session – gleaned historical tidbits about the objects I'd seen, or when making notes for an upcoming session – "use different magnifications when checking for the propeller in m13".

But these shortcomings aside, both practical and armchair astronomers will find much to like in this tome, and I recommend it. In addition to the history, eyepiece impressions, and observing notes, it's an insight into the mind of a superb visual observer.

## ***Related Resources***

Cartes du Ciel: a truly first-rate free(!) sky charting program by Patrick Chevalley – use it to print off more appropriate finder charts for your own Messier hunt's.

<http://www.stargazing.net/astropc/>

The Messier Catalog: excellent information and images about Charles Messier and his catalog – hosted by SEDS – Students for the Exploration and Development of Space

<http://www.seds.org/messier/>

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*So – for your latest messier marathon – did you observe M101 twice?*