

# Star Stuff

Volume 7 Number 4





May 1998

## **Feature of the Month**

#### Past President: Chuck Boren

Chuck Boren has been involved in astronomy since about 1986. It was the last pass of comet Haley that got him more active in the hobby. He was president of the FAAC for 1995. Chuck currently has a 10" f6 Dobsonian telescope that he built himself and what he calls his laptop, a 4" f12 SCT.

#### Solar

We have been getting alerts from Chuck lately about possible Aurora, or Northern Lights. He in involved in monitoring the activity on the sun and sending out word when it looks like conditions are right for a display. Geomagnetic Field Data is received from the National Oceanic and Atmospheric Association in the form or a "K" index, every three hours.

5 to 6 indicates a minor storm

(Continued on page 3)

## House Bill 4254

The light pollution bill is still in the Senate committee for Technology and Energy. Representatives from the area clubs are planning a trip to Lansing with Norbert Vance to testify before the committee. This has not been confirmed yet. If you would like more information on this bill or the trip to Lansing contact Jack Kennedy at 248-399-9403 or e-mail to ikennedy1@voyager.net

### **Book Review**

by Clay Kessler

OK - OK, when I went to Toronto (see the review of the trip) I did get one souvenir. I picked up a copy of <u>Splendors of the Universe</u> by Terence Dickinson and Jack Newton. I had been prowling the local Barnes and Noble for this for about a month prior to my trip so I couldn't resist.

#### Splendors of the Universe

By Terence Dickinson and Jack Newton Copyright 1997 by Terence Dickinson Published by Firefly Books Ltd.

This large hardcover book covers the art and science of astrophotography, both with film and CCD cameras. I claim no special expertise, either as a book reviewer or especially as an astrophotographer! In lieu of actually taking astrophotos, under the great

(Continued on page 4)

### **Contents**

- Featured Highlighted : Past President Chuck Boren
- Splendors of the Universe by Clay Kessler
- Editors Corner
- Astro Lingo by Paul Mrozek
- The Dobsonial Telescope by George Korody
- Meeting minutes from 4-23-98
- Astronomy and Old Books by Harry Juday
- Statically Speaking

#### Star Stuff

Monthly Publication of the: Ford Amateur Astronomy Club.

Star Stuff Newsletter
P.O. Box 7527
Dearborn, Michigan 48121-7527

#### 1998 Club Officers

President Vice President Treasurer

Secretary

Greg Burnett George Korody Ray Fowler Harry Kindt

General Meetings
The Ford Amateur Astronomy Club (FAAC) holds regular general meetings open to the public on the fourth Thursday of the month at 5:00 PM. Meetings are held in conference room 1029 of the Ford Credit Building

#### **Observing Site**

The Ford Amateur Astronomy Club has an established observing site, by permit, at the Spring Mill Pond area of Island Lake Recreation Area in Brighton, Michigan located near the intersections of I-96 and US-23. Members are responsible for opening and closing the gate after the parks 10:00 PM closing time. (Summer season only)

#### Observing Hot Line - (313) 390 5456

On Friday and Saturday nights, or nights before holidays, you can call the hot line number up to 2 hours before sunset to find out if we will be observing that night.

#### **WWW Page**

FAAC maintains a web page on the internet at URL: http://kode.net/~dougbock/faac/ Ford Intranet at:

http://be0084.be.ford.com/fhl/faac

#### Membership and Dues

Membership to the Ford Amateur Astronomy Club is open to both Ford employees and the general public. The dues structure is as follows:

Annual Individual/Family Lifetime Membership

\$ 20.00 \$100.00

Membership benefits include a subscription to the Star Stuff newsletter, discounts on subscriptions to Astronomy and/or Sky and Telescope magazines, after hours use of the observing site at Island Lake, and discounts at selected area astronomical equipment retailers.

#### Newsletter Editor:

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#### **Editors Corner**

By Jack Kennedy

With the poor weather we have had this winter, most of our astronomy has been done without the aid of a telescope. We browse the internet, talk astronomy at meetings and read books. So it seems natural to dedicate an issue to books and book reviews.

There seems to be a connection between the love of the night sky and the love of books. At least in Michigan we seem to need books to get us through the long periods of cloudy weather. Its as if we are able to take some of the night sky with us regardless of the weather, and regardless of where we are. Finding a good book store with a generous astronomy section is like finding an astronomical gold mine. And we are fortunate for the excellent quality of much of the printed material on our hobby.

I spend very enjoyable hours in the local bookstores when ever the need arises. General astronomy, astrophotography, CCD imaging, how to make a telescope are just a few of the wonderful books in my collection. Is seems very natural to want to have a picture of the wonders the night sky offers us.

I would like to make a book review a regular part of the newsletter. Let me know what you think after all this is your newsletter. And even more importantly, jot down a few lines on your favorite book. As usual an electronic file is the easiest but hand written are also appreciated.

I am working on getting a better method of reproducing the newsletter so we can have more pictures of club members and events. Some of the pictures of members and their scopes can be found on the FAAC web page. The pictures so far have left something to be desired.

Clear skies.....

6 to 7 indicates a major storm

7 to 9 indicates a severe storm

What this means is, the amount of activity on the sun indicates whether we may see a display of Northern Lights. We are currently coming out of a solar minimum which is a period of minimum activity. Solar activity is on an eleven (11) year cycle, and we are in solar cycle 23 since we have been collecting this type data.

What can we expect from a solar maximum? According to Chuck we may begin to see interruptions in our cable service and for those without cable, poor reception. A solar maximum also brings some interesting viewing of the sum, WITH A PROPER SOLAR FILTER. For those of us living in the mid-latitudes the Aurora will be mild, but on a given night it could be a great show. Some of us were at Island Lake viewing one night and were treated to a wonderful display. The further north you go the better the display will be. If you send any time up north it would be well worth checking the northern sky after dark on clear nights to look for Aurora.

#### Telescope making

Chuck is currently building an 8" f3.5 Schmit Camera. This type scope is designed particularly for astrophotography. It is his intention to use this scope in an automated mode to search for comets. As se found out it was comet Haley that fired his interest in astronomy. With the Schmit Camera and a CCD camera, operated automatically he can search for these elusive objects. As I mentioned before the 10" f6 is a home built scope. The 8" f3.5 mirror is currently in the polishing stage. When

## F.A.A.C. Golf Shirts

If you have ordered a blue golf shirt with the club logo you need to contact:

Ray Fowler to pick it up. Shirts unclaimed will be sold.

the optical assembly is compete it will be mounted on an automated equatorial mount.

#### **Photography**

Chuck has also been involved in photography since high school and operates a dark room and studio in his home. I needed help with a set of negatives I developed that had a purple color to them. It was B&W film. Chuck suggested that I may not have completely developed them and to put them back in the developer. When I did this the color went away and I had a nice set of moon pictures. Thanks to Chuck.

The next time you see Chuck at a meeting or our viewing say Hi.

## ASTRO LINGO by Paul Mrozek

galactic halo - The spherical region around a spiral galaxy in which all the stars, including ancient globular clusters, belonging to the galaxy are found.

gardening - The overturning of lunar soil by micrometeorite bombardment.

glitch - A sudden change in the rotation rate of a pulsar.

graben - A channel on the surface of a planet caused by vertical faulting.

heterodyne spectrometer - An instrument used to measure the strength of the cosmic microwave background radiation.

hydrostatic equilibrium - The stable condition in which gravitational forces are balanced by counteracting gas and radiation pressure.

hypergalaxy - A group of galaxies consisting of a dominating spiral and a group of dwarf galaxies.

## THE DOBSONIAN TELESCOPE

## A Book Report by: George Korody

For the past several years I have thought that it would be a fun project to manually grind a large telescope mirror in the 25-40" range and install it in a Dobsonian truss tube type mount. Like many of our grandiose plans, this was probably more of a dream than a realistic undertaking. However, such a project is within the means of amateur telescope makers.

Well, last November I heard that a new book titled THE DOBSONIAN TELESCOPE, A Practical Manual for Building Large Aperture Telescopes, authored by David Kriege and Richard Berry, would soon be released (Willmann-Bell, Inc. (804) 320-7016). immediately placed an order and received the book in February. This book was sure to be a winner since David Kriege is the owner of the highly acclaimed Obsession Telescope Company and Richard Berry was a past editor of Sky and Telescope magazine and the author of many astronomy related books.

This book covers the exact telescope design that I had in mind. It covers both the manual grinding of such large mirrors, as well as the fabrication of the truss tube telescope mount. The experience of these two great authors is evident in their presentation. They seem anticipate your every question and answer with illustrations as well as word. The book is loaded with

supporting charts and formulas. This is truly an outstanding work for those contemplating such a project, reworking an existing telescope, or just for the plain joy of learning about such telescopes.

Dan Bakken, with whom I have had several E-mail contacts regarding my "pipe dream", has manually made several of these telescopes, including Hercules, a portable 41.2" driven monster. referenced in the book, and Hercules can be seen on his WEB site at http://www.runway.net/pilots/dan.

Now, bring on those cloudy Michigan nights and watch the work progress!

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gray rock of Michigan winter, reading about them is one way of keeping my enthusiasm at a fever pitch. I have to say that I was very impressed with this book. All aspects of astrophotography are covered in a simple and interesting manner. Perhaps, if you are already a highly skilled astrophotographer, you may find some of the subjects covered somewhat "basic" for your tastes. I am not that highly skilled and I appreciated the simple start to some complex subjects.

The book is chock full of stunning photographs, most of them taken by fellow amateurs. What is amazing is that a great many of them are wide angle, camera on tripod shots that can be duplicated by anyone! Yes, there are some deep space shots that required darkroom techniques that I cannot equal, but then I don't expect to be a Jerry Lodriguss or Tony Hallas ( at least not this year ③). Comprehensive discussions of cameras, lenses and films help the beginning or intermediate astrophotographer come to grips with this part of the hobby. Tracking mounts are discussed as well as piggy back photography and prime focus photography.

The last section of the book is on CCD imaging. Noted CCD astronomer, Jack Newton, shares his expertise in this well written section. Monochrome and tricolor

(Continued on page 8)

## Meeting Minutes for 4-23-98 by Don Klaser

The meeting was called to order by V.P. George Korody. After making an announcement about our President Greg Burnett and other members attending the Texas Star Party we took out pizza and pop break. During the break members introduced themselves and talked about their recent astronomical activities. George announced the possibility of an aurora tomorrow night (Friday).

Ray Fowler gave the treasurers report. George announced that the position of secretary is open due to Harry and Ada Kindt moving to North West Ohio. Several volunteer positions are still open. Observing Chairperson and Refreshment Chairperson. If your interesting contact one of the club officers. Bob MacFarland reported on a new book that is available to us for review. George reported on the Lake Hudson Stargaze scheduled for Friday night.

The Kensington Metro Park Spring Festival on May 1-2 was reported on by Bob MacFarland. George talked about the upcoming presentation to a local Boy Scout troop on Tuesday June 16 or 17th (Rain/Cloud date). More information will be available at the next meeting. There was a discussion on Schroters Valley by Ray Laura. He spoke on the changes he has notices over the last 60 years. George mentioned that anyone wanting to try and find an old picture taken of this area 40 or 50 years ago, it could be compared to today's pictures.

The main program was presented by George Korody. He gave a slide presentation of the best pictures of David Malin. The meeting was then adjourned.

### ASTRONOMY AND OLD BOOKS (Part 1)

by Harry L. Juday

Although I have always had a peripheral interest in Astronomy (a small telescope in the 1960's, learning some of the major constellations, star names and locations and a stab at Celestial Navigation), it was not until after my retirement from Ford in Jan. 1997 and the arrival of Comet Hale-Bopp, that I really took a strong interest. After telling my wife Anna that I would like to have a good telescope to view the comet better, she stated that she would like to get me a good 'scope for my Retirement and upcoming Birthday. This was a most kind, generous and welcome response.

As it turned out, telescopes within our agreed upon budget were a little hard to come by during that period, but we did manage to locate a Celestron 8" Celestar SCT at Rider Hobbies in Kalamazoo. About a week later, I had the scope and and after the first views in my life of the night heavens with a decent telescope, I knew I was hooked.

It quickly became apparent to me that I had a huge amount of learning to do if I ever wished to classify myself as a serious amateur astronomer. I immediately subscribed to Astronomy and Sky and Telescope Magazines and Anna and I joined the Ford Amateur Astronomy Club, all of which was educational and beneficial.

However, I soon realized that besides looking through my telescope, I would have to do some serious reading and studying to learn some of the many things I wanted and needed to know.

Reading the magazines and a visit to Borders Books showed me that there are many books on the subject available, and

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(Continued from page 5)

that most of them are very expensive. I bought a few that seemed to give the most useful information but as I had already started to buy some of the other items I believed I required (extra eyepieces, filters, camera attachments and an off-axis guider for astrophotos, etc.) I was far exceeding my budget and needed to find an economical way to pursue at least part of this wonderful, fascinating, infinite and new (to me) hobby I had embraced.

Enter Used Book Stores. Anna and I have had a long love affair with used book stores. We would make a couple of visits every year to the ones in the Detroit and Ann Arbor areas and would usually come back loaded down with bargain-priced books on many various subjects, so we reasoned that there should be many useful used books on Astronomy available at reasonable prices.

Our next visit to John King's in Detroit proved that we were correct, there were numerous books available, many of which were the same items on the shelves at Borders, but at 1/2 or 1/3 the cost.

Alright already, so where are all these wonderful sources of inexpensive used Astronomy books and can they be found in any used book store?

First off, no, you can not expect to find a book treasure in every store. It's like looking for faint objects in the night sky, they are out there and with a little patience and perseverance, you can find much affordable, useful information and occasionally, a real gem. A caution though, there is also a lot of old and outdated books setting on shelves, but I would like to say more about both of these items and specific books that I have found interesting in a future article.

Most importantly, here is how to find some

of the used bookstores that we are familiar with, along with a little commentary.

#### **DETROIT AREA:**

- 1. One of the largest and best used books stores anywhere is the John King main store on Lafayette and 5th in downtown Detroit. John King is one of the 5 largest book dealers in the United States and his 4 story main store has about 1 million books. categorized by subject and, for the most part, arranged alphabetically by author. Each floor has a knowledgeable person on duty to help, if required. The store is easy to get to by taking the Howard Street exit from the Southbound John Lodge Freeway (U.S. 10). This exit is just before you make the big curve to go under Cobo Hall. There is secure parking in the book stores' private. fenced lot immediately east of the store, entrance off of Lafayette. The last time we were in this store, they had about 20 feet of books on Astronomy and related subjects (e.g. Space Travel, etc.).
- 2. John King has a second store at 22524 Woodward (East side) just South of 9 Mile in Ferndale. Although this store is not as large as the main one, it usually has a high quality selection of all types of books.

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- 3. The Library bookstore is at 169 W.Nine Mile, on the South side. I have not had any luck with Astronomy books there, although they have a fair general selection.
- 4. The Royal Oak Used Book Store is at 1410 N. Woodward (East side), they have a fair selection of Astronomy books as well as a good general selection of material.

There are 2 more good stores on the East side of Woodward between 14 and 16 Mile roads, Phoenix and Classic Books. Although not large, they have good selections of high

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quality used books and each has some Astronomy selections.

#### ANN ARBOR AREA:

There are a number of used book stores in the Ann Arbor area, but I will mention 6 that we frequent, and usually have good luck in. 4 of these are located near the corner of State and Liberty Streets.

- 1. Davids Books is at 622 East Liberty, upstairs over a record shop. They have a good selection at reasonable prices, however, they are not always the best conditioned books you will find.
- 2. Books in General is also upstairs at 332 South State St. (South of Liberty, West side). They have high quality books and I have found some good Astronomy items there.
- 3. Kaleidoscope Books is North of Liberty at 217 State St. on the East side. This store has many items, however it is disorganized and, I find, high priced for the selection and quality of the books available, I often don't bother going in.
- 4. Phoenix Books is West on Liberty about 1 1/2 blocks from State St. on the South side. This is a very good store with a large general selection, although the Astronomy books are mixed within the Science section.
- 5. West Side Books is at 113 West Liberty (first block West on Main St.). They have a good selection of books, however they are a little scant on Astronomy. For those who may also have other interests, they have an excellent Nautical selection and specialize in books about the Arctic and Antarctic (but these are stored in a special room and you have to ask to see them).
- 6. Wooden Spoon Books is at 200 North 4th Ave.

This store has a main owner and several

small dealers with there own space. It is a good store with reasonable prices and one can usually find something of interest there.

A Book Review by Jack Kennedy

NightWatch by Terence Dickinson Published by: FireFly Books Ltd.

As a novice I have come to rely on this book for both the sky charts, which have the magnitudes of the brighter stars and the general astronomy information. The books is full of great pictures, charts, and general information to make the night of observing more enjoyable. The book gives us a tour of the universe in eleven steps. Similar to the powers of ten. Then a quick how-to on measuring distances in the night sky, then an introduction to star hopping and how how the night sky move through the seasons.

No general book on astronomy would be complete without a primer on the different types of viewing equipment. There is a good comparison with pros and cons of the different types.

The section I use the most comes next. Because the book is spiral bound it lays open on any page for easy use near the telescope. The pages even seem to handle the dew quite well. The charts are very complete with the magnitudes of the brightest stars and highlights of each constellation.

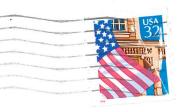
The tour is complete with a chapter on planets, comets and meteor and auroras.

A great addition to any astronomy collection.

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Ford Amateur Astronomy Club Star Stuff Newsletter P.O. Box 7527 Dearborn, MI 48121





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CCD imaging is explained in depth and the gear required is discussed giving the whole process a more familiar feel. To top this off there are a slew of fantastic CCD images demonstrating the power of this cutting edge tool for amateur astronomers.

The end of the book includes tables of data and lists of resources for the budding astrophotographer. I highly recommend this book for the beginning or intermediate amateur astrophotographer or anyone interested in astrophotography.

