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# The FOCAL POINT

Newsletter of the Atlanta Astronomy Club, Inc.  
Volume V, Number II      October 1992

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The October meeting will be held at 7:45 p.m., Friday, October 16th, at the Fernbank Science Center Planetarium.

Club members will see the *Georgia Before Columbus* program in the planetarium. Please arrive no later than 7:45 pm! A short meeting (with refreshments) will follow in Classroom I.

At the November meeting, astronomer David Dundee of Fernbank will speak in greater depth on "*Astronomy During the Era of Columbus*". Please see next month's *Focal Point* for details.

Don't miss either of these exciting Club meetings!

## WELCOME TO NEW MEMBERS

K.V. and Tushar Thrivikraman  
Richard P. DeRoberts

Please make these new members feel welcome when you see them at a meeting or at an observing session.

## GOOD NEWS & BETTER NEWS!

by Eugenia Abbey, Treasurer

It is not often that a treasurer has the privilege of announcing a dues decrease. But here it is!

*Sky & Telescope* magazine has recently released us from their former requirement that all members of the Club subscribe to their magazine (in exchange for a substantial discount). We will still receive the discount, but only those who want the magazine will have to pay for it.

Consequently the board of directors has set a new dues structure, effective November 1, 1992, as follows:

Regular membership (single or family)	\$20.00
Student membership	\$10.00
Subscriptions:	
<i>Sky &amp; Telescope</i>	\$20.00
<i>Astronomy Magazine</i>	\$16.00

The subscription rates are exactly what the two publishers charge us.

In addition to the magazine discount, Sky Publishing Corp. offers those who subscribe through our Club a 10% discount on any of their other publications. Effective immediately these orders can be placed directly with Sky Publishing, either by mail or by their free telephone order line, 800-253-0245. Just mention that you are a member of the Atlanta Astronomy Club when placing your order, and don't forget to deduct the 10%!

## THE IMPORTANCE OF FREEDOM

by Shelby Emory

As I watch a rerun of "Star Trek: The Next Generation", I wonder if mankind will ever travel beyond the moon into outer space. This episode concerns people frozen in a cryonic state, revived after 400 years to find a civilization so advanced they are unable to understand what their senses perceive. If I were frozen and revived after 400 years, would I find a global society actively engaged in space exploration, or a society that died from over-indulgence in the pursuit of personal gain and self-centered interests? If mankind doesn't concentrate on preserving its own existence mankind may not be here in 400 years.

Our future lies in space, in being able to use its properties and in traveling elsewhere to inhabit other worlds. But NASA space exploration programs are facing budget cuts that seriously jeopardize many of the missions that have millions invested in them. One such project is the space station "Freedom", a multi-faceted laboratory in space that will focus on biological and materials research. This important facility has fallen under the same criticism as other NASA projects. Part of the problem is the American people's distrust and disinterest in the space program, particularly after the "Challenger" accident in 1986, and the huge amount of money and commitment needed for these projects.

When seven people died in "Challenger", the world was shocked and angry. Support for shuttle-related projects became virtually non-existent. The O-Ring mistake was so obvious a high school physics student could have

predicted the problem. "Freedom" will require at least twenty shuttle missions to build. Can we trust NASA and its contracting companies to get us safely into orbit? How do we know more deaths won't result?

A two billion dollar down payment will be required to start Freedom rolling, and another \$25 billion to maintain it for its thirty-year life. Some argue this could be spent on housing the homeless, feeding the hungry, curing cancer or AIDS, stopping drugs, or any other serious problem. "Why spend millions sending a man into space when that same money could house and feed hundreds? This money should be spent on the unfortunate here, not wasted in space. Who cares about the atmosphere on Jupiter's moons, the effects of zero gravity on microorganisms, of the possibility of other planets around other stars, when people are suffering here at home?"

And finally there are the people who just don't care - the same ones who don't care about endangered animals, deforestation, acid rain, or pollution, as long as they have a new car parked in the driveway.

Many people are unaware of the benefits a space station will bring. New technology in engineering and robotics will result just from the experience of construction. Global earth studies will monitor important environmental changes. Some of the most important scientific advances will need the zero gravity or freezing cold of space to occur. Chemicals inseparable here can be manipulated in space to make life-saving medicines. The same is true for studying certain microorganisms and proteins needed for medical technology. Metals and fluids behave differently in microgravity, and new alloys or materials can be developed that can do for us what silicon, plastic and rubber have done since their development. Satellites can easily be put into orbit or repaired when needed. New types of propulsion, such as ion drives and solar sails, need to be tested in space. A major development would be the study of superconductors, which have the ability to transmit energy with no friction. Superconductors can only work in the absolute cold - an easy environment to find in space.

More important is the need to explore - to find new places for humans to live. "Freedom" would be a midway point en route to the planets. We may need to live on Jupiter's moons someday, when Earth is overcrowded. Although people died on "Challenger", exploration has always been, and will be, hazardous. Men have died exploring the poles, the wilderness, the sea, and the mountains. Men have died testing rockets and airplanes, so that others can travel safely. We've also been successful, with over four dozen shuttle missions, the Skylab experiments, and probes which have taken us to worlds millions of miles away. We can continue exploring and still house the homeless and feed the hungry, if we find within ourselves the incentive to do these things, as they are all important.

I hope we will always be, as we have always been, diligent explorers.

## **VISUAL ASTRONOMY WORKSHOP**

Stargazing is one of the oldest pastimes known to man, holding a universal appeal (no pun intended!) to all cultures throughout history.

With that in mind a visual astronomy workshop will be held at the Villa Rica Observatory on the evening of October 24th. Basic observing skills such as sky orientation, constellation identification, methods of locating celestial objects and the use of our 20-inch reflector are topics that will be covered.

Whether your interests lie in seeing the rings of Saturn or hunting Sanduleak planetary nebulae, I encourage you to attend. Anyone wishing to better know the night sky is welcome.

As I write this, our 10-inch mirror is in California being realuminized. It should be back in service by early November.

If you have any questions or need additional information, call Dave Riddle on weekday evenings at 438-7818.

## **TRIVIA:**

Who was the first person to make two orbital spaceflights? (Answer in next month's issue.)

**FOR SALE:**

Jaegers 6" f/5 refractor lens and cell, five-foot tall Cave equatorial mount, 2" focusing rack and diagonal mirror, 2" 60 mm Kellner, 1-1/4" 20 mm Erfle and 1-1/4" 5 mm Ortho eyepieces. Lots more stuff. Needs work and a good home. \$400.00 Please call Victor Beitzel at 872-1876 (eve.) 266-8022 (days)

**FREE SOFTWARE TONIGHT!**

In recent years many amateurs have discovered a new aspect to their hobby. Computing! Many amateurs like to write programs, and many of these "amateur" programs are every bit as good as those commercially marketed for hundreds of dollars. Most amateurs use the shareware system. This means that the software is given to you free, and you are expected to pay (on the honor system) a small fee if it suits your needs, and if you make extensive use of it.

The club has an extensive collection of shareware and freeware programs available to members. For example:

**TONIT.EXE**

A program that calculates the positions of the Sun and Moon, time of sunrise and sunset, twilight times, moonrise, moonset and other interesting things. Good for 19th through 23rd Centuries. Configure for any location in the world. Accurate to a fraction of a minute. For IBM and clones. DOS 2.11 or higher required. By Lenny Abbey.

**JUPE.EXE**

A compendium of information for the observer of Jupiter. Shows satellites, location of Red Spot, and central meridian for any given date. Includes diagrams showing location and appearance of most named features. Detailed help and information screens. Requires IBM or clone with 256K, and EGA or VGA. This program is unique. Version 2.0 by Lenny Abbey.

If you would like to have a copy, just call the treasurer at 634-1222, and your disk will be delivered at the next meeting, or sent via mail.

There is a charge of \$2.00 per disk to cover handling, postage (if any) and reproduction charges. Any profits will be added to the club treasury.

**ATLANTA ASTRONOMY CLUB  
STATEMENT OF RECEIPTS & DISBURSEMENTS**

Year ended	8/31/92	8/31/91
Cash Beginning	885.23	96.38
<b>Receipts</b>		
Dues	3621.00	3729.00
Sale of Publications	358.92	481.00
Contributions		23.95
Interest	49.36	35.56
Sale of Equipment		60.00
Picnic	81.00	
Other	47.54	
	4157.82	4329.51
<b>Disbursements</b>		
Sky & Telescope	1886.00	1988.00
Newsletter	598.74	591.45
Cost of Publications sold	375.50	410.00
Observatory	310.76	175.58
Astronomical League	201.35	223.05
Office Expense	177.27	152.58
Hotline	104.49	
IDSA membership	100.00	
Picnic	141.62	
Other	107.94	
	4003.67	3540.66
Cash ending	1039.38	885.23
Number of Memberships	117	130

**SPACE JUNK RE-ENTRY?**

(Film at Eleven)  
by William Snell, Editor

On September 30, shortly after 9 pm, club member Chris Crews and I, observing at Villa Rica, saw what could have been a small satellite re-entering the atmosphere! The object moved roughly west to east and took more than 30 seconds to cross the sky. It glowed a dull orange (maybe 1st mag) and left a 10 to 15 degree "contrail." Chris observed it with binoculars and saw several smaller pieces in addition to the main body.

Meteorologists at a local television station received many reports from the public and concluded that it was a meteor. If any other club members saw this object please let me know. I am interested in hearing from observers who were east or west of the Atlanta area.

The *Focal Point* is published monthly by the Atlanta Astronomy Club, Inc. The AAC is a non-profit organization dedicated to the advancement of amateur astronomy.

Meetings are held on the third Friday of each month (the second Friday in December) at the Bradley Observatory of Agnes Scott College in Decatur, Georgia.

Dues are \$35 annually and include a subscription to *Sky & Telescope* magazine, the Astronomical League's *Reflector* and use of the Club observatory in Villa Rica, Georgia. (A new dues structure takes effect November 1, 1992; see notice inside.)

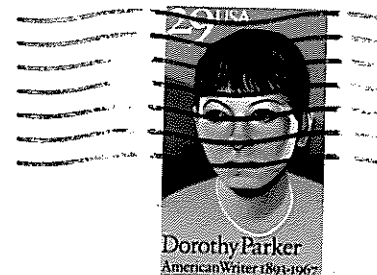
For up-to-date information on Club programs and activities please call the AAC's telephone hot-line at 621-2661.

Article submissions are strongly encouraged; please deliver to the editor for consideration. The submission deadline for the November 1992 issue of the *Focal Point* is November 7th. Permission is granted to duplicate and redistribute in a non-profit manner, in part or whole, provided credit is given to the authors, the Club and this publication.

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Program Chairman .....	Steve Gilbreath .....	409-1915
Observing Chairman .....	Dave Riddle.....	438-7818
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Treasurer.....	Eugenia Abbey .....	634-1222



FIRST CLASS

The FOCAL POINT

Newsletter of the Atlanta Astronomy Club, Inc.

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