

THE FLINT RIVER OBSERVER

Newsletter of the FLINT RIVER
ASTRONOMY CLUB
(an affiliate of the Astronomical League)

A Special Edition Honoring
DR. RICHARD W. SCHMUDE

Spring, 2008

FRAC: A Tradition of Greatness

The Flint River Astronomy Club has a proud record of high achievement that is massively out of proportion to the club's size. Consider:

What other astronomy club with less than fifty members can boast of:

(a) hosting its own star party (**Georgia Sky View**);

(b) having not one, but **two** Master Observers – **Bill Warren** (#4) and **Phil Sacco** (#11) -- among its members;

(c) having produced a first-place winner (**Katie Moore**, in 2000) in the Astronomical League's annual "**Jack Horkheimer Award for Exceptional Service to Astronomy By a Young Astronomer**" competition; and

(d) having won "**Most (Activities) For Its Size**" honors in the A. L.'s annual Astronomy Day celebration (in 2004)?

We also probably are one of the few clubs in the nation that can boast of having its own promotional video, the stunningly beautiful "The Night Sky Explorers" produced by **Tom Danei** and narrated by **Phil Sacco**.

Any of those achievements would be a source of considerable pride for *any* A. L. affiliate club, large or small. But wait: there's more.

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The Astronomical League Award

It occurred to **yr. editor** recently that, in considering all that our members have accomplished over the years, one person's contributions to astronomy and our club have thus far been largely overlooked. So we decided to do something about it.

When we went to the A. L. website and clicked on the "Awards" link, we learned that the highest award offered by the A. L. is the **ASTRONOMICAL LEAGUE AWARD**, which "is presented to any person, either amateur or professional, who has made worthwhile contributions to the science of astronomy on a **national** or **international** level."

The A. L. AWARD is not an annual presentation, but is given only when nominees are deemed suitable by the selection committee, which consists of the president of the A. L. (**Terry Mann**), the past-president (**Bob Gent**), and the 2nd past-president (**Chuck Allen**). The selection of AWARD recipients must be unanimous.

So that was where we decided to send our letter nominating Dr. Schmude. We asked him to send us a copy of his resume and started writing. Here is the text of that letter, which was submitted to the A. L. on Feb. 15, 2008:

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“To: Members of the Astronomical League Award Selection Committee:

“On behalf of the Flint River Astronomy Club (FRAC), an 11-year Astronomical League affiliate club based in Griffin, Ga., it is my distinct pleasure to nominate one of our members, **Dr. Richard W. Schmude, Jr.**, as a candidate for the **ASTRONOMICAL LEAGUE AWARD**. Dr. Schmude is an accomplished professional astronomer and respected educator whose many and diverse ties to amateur astronomy in general, and to FRAC and the Astronomical League in particular, merit our nominating him to receive the League’s highest and most prestigious award.

“Educational Background and Publications

“Having earned his B. A. degrees in Chemistry (1981) and Physics (1986), his

M. S. degree in Chemistry (1984) and his Ph.D. degree in Physical Chemistry (1994), all of them from Texas A&M University, Dr. Schmude began his teaching career at Gordon College in Barnesville, Ga., in 1994. He presently serves as a full professor in Chemistry at that institution, teaching courses in Astronomy, Chemistry, Physics and Physical Science.

“Dr. Schmude’s professional publications include: four Science Education papers, 20 Chemistry papers appearing in such noteworthy periodicals as *The Journal of Chemical Physics* and *The Journal of Physical Chemistry*; and, more to our purposes, an incredible **89** Astronomy papers appearing in such periodicals as: the *Journal of the Royal Astronomical Society of Canada*; the *Journal of the Association of Lunar and Planetary Observers*; and the *Georgia Journal of Science*.

“As you know, Dr. Schmude authored the Astronomical League’s *JUPITER OBSERVER’S HANDBOOK*. His as-yet unpublished works include *THE SOLAR SYSTEM COLORING BOOK*, a delightful little hands-on astronomy resource for elementary children and teachers, and a book-in-progress, *URANUS, NEPTUNE, PLUTO AND HOW TO OBSERVE THEM*.

“Astronomy Positions

“For the past seventeen years, Dr. Schmude has served as the Remote Planets Coordinator for the Association of Lunar and Planetary Observers (ALPO). As such, his responsibilities have included gathering data on the remote planets, collecting and collating

data from others, and writing remote planets reports for ALPO's *Journal*.

"Dr. Schmude has been a Board Member of ALPO since 1999 and has served as Jupiter Coordinator since 2001. His responsibilities in the latter position have included writing apparition reports about Jupiter and coordinating the observations of more than 100 observers per year.

"The years 2003-2005 were especially busy for Dr. Schmude: during that span he served a two-year term as Executive Director of ALPO – and, as you are also aware, he served a two-year term as National Secretary of the Astronomical League.

"Talks and Workshops

"A member of the Royal Astronomical Society of Canada (RASC) for fifteen years and a life member for three, Dr. Schmude has delivered talks at seven of their General Assemblies, and he gave a poster presentation at the 2001 General Assembly. He also has presented posters at four meetings of the Division for Planetary Sciences of the American Astronomical Society (AAS). His topic at the Society's 204th meeting in June, 2004, was 'Professional-Amateur Collaboration,' an area which he expends considerable time and energy promoting.

"As of Aug. 8, 2007, Dr. Schmude – 'Richard' to his many friends and admirers in FRAC – had conducted **86** workshops for a wide variety of audiences, his most recent FRAC offering being a 2007 workshop on how to find Venus in the daytime. At another such workshop, Richard taught us how to time Jupiter's Great Red Spot crossing the meridian.

"During his thirteen years at Gordon College, Dr. Schmude has delivered **381** talks to audiences ranging from kindergarteners to high schoolers to amateur and professional astronomers. He has been a featured speaker every spring at FRAC's annual star party, 'Georgia Sky View,' and he has addressed our club on more than a dozen occasions – all without remuneration or even travel expenses. On two of those occasions, Richard stepped in on short notice when our scheduled speaker had to bow out.

"From the Dec., 2006 *Reflector* article, 'ALCON Expo (2006) invades Dallas/Ft. Worth,' p. 15: 'Dr. Richard Schmude...gave a presentation on Jupiter and described how amateur images and observations assist professionals in their work. In the lobby afterward he viewed images from local amateurs and suggested ways they can contribute directly to studies of the cloud belts of Jupiter and Saturn.'

"In all, Dr. Schmude has spoken at 12 ALCON conventions, including some ALPO talks.

"In 2004, Dr. Schmude's efforts in arranging and conducting a solar observing for residents of a Barnesville, Ga., nursing home was, in the words of then-AL president **Bob Gent**, 'the deciding factor' in FRAC's earning 'Most (Activities) For Its Size' honors in the Astronomical League's Astronomy Day celebration that year.

"Dr. Schmude has also served as Gordon College's campus coordinator for the American Cancer Society's 12-hour 'Relay For Life' walkathon, and he has used those occasions to show the wonders of the night sky to walkers during their breaks. He was

named 'Volunteer of the Year' in the Barnesville-Lamar County area in 2005.

"Dr. Schmude has taken time out of his busy schedule for other extracurricular activities such as judging area science fairs and conducting monthly observings for his students and the public on the Gordon College campus. He has participated in numerous FRAC public observings over the years, impressing visitors and club members alike with his approachability, his kindness and his ability to teach, to motivate and to inspire. Imbued with a lifelong passion for the universe and its wonders, he wants everyone to experience, first-hand, the joys of the visible universe, and he engages his audiences at their own levels of comprehension. It's a rare gift, and Dr. Schmude uses it with such facility as to make it appear effortless.

"Observation and Research

"In addition to conducting photoelectric magnitude measurements of planetary nebulae, Dr. Schmude has, since 1991, conducted more than a thousand photoelectric magnitude measurements of all the planets.

"Of all the statistics contained in this presentation, however, perhaps the most mind-boggling is his having conducted more than **51,000** visual magnitude measurements of variable stars for the American Association of Variable Star Observers (AAVSO).

"Other research involving Dr. Schmude on behalf of ALPO was cited in the 'Astronomy Positions' section of this letter of nomination.

"Summary

"To summarize what Dr. Richard Schmude, Jr., has meant to astronomy in general, and to the Flint River Astronomy Club and the Astronomical League in particular, perhaps we might be permitted to borrow a statement made a number of years ago by **Bum Phillips**, coach of the NFL's Houston Oilers football team, regarding his star running back, Earl Campbell.

"When asked by a reporter if Campbell was in a class by himself, Phillips replied, 'He may not be in a class by himself, but whatever class he's in, it doesn't take long to call roll.'

"Doubtless, you will receive other noteworthy nominations for the Astronomical League Award. Based on both the quality and quantity of Dr. Schmude's contributions to both professional and amateur astronomy over the past thirteen years, though, it is unlikely that anyone in the world has been more totally or passionately involved in the advancement of astronomy on all levels during that period than he has. Dr. Schmude's all-encompassing devotion to his work as a professional astronomer and contributor to the advancement of amateur astronomy epitomizes what author James M. Barrie (*Peter Pan*) meant when he wrote, 'It's not work unless you'd rather be doing something else.'

"From the perspective of those of us who have known, admired and respected Richard so deeply, astronomy isn't work, or a job or profession for him, it's *a way of life*.

"Dr. Richard Schmude may not be in a class by himself – that's for *you*, the members of the Astronomical League Award Committee, to decide, not us in FRAC – but whatever class he's in, it certainly doesn't take long to call the roll.

“Respectfully Submitted,
Dr. William E. Warren, vice president
Flint River Astronomy Club”

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And here was the selection committee’s official response in an e-mail from AL president **Terry Mann** on Feb. 22, 2008:

“Hi, Dr. Warren,

“Thank you for your nomination of Dr. Richard W. Schmude. Our committee discussed the nominees and have chosen Dr. Schmude to be the recipient of the **2008 Astronomical League Award**. It will be presented to him at the banquet at AICon 2008 in Des Moines, Iowa, in July. I will read part of your nomination letter before presenting the award.

“Thank you for your nomination.

“Terry Mann
President, Astronomical League”

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So now FRAC has a new star in its crown, and Dr. Schmude will have a large, handsome and *very* well-deserved plaque to hang on the wall behind his desk. (We didn’t learn until after the letter was sent that, in 2009, Dr. Schmude will begin serving a *second* two-year term as Executive Director of ALPO.)

AICon 2008, the League’s annual convention, meets this summer in Des Moines, Iowa, from July 17-19. Yr. editor has never been to AICon before, but he’s planning to attend this one.

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An Interview with Dr. Schmude

(Editor’s Note: Since the nomination letter describes at length Dr. Schmude’s work and his contributions to astronomy, we thought it might prove both interesting and helpful to our members to see how he prepares for and conducts his observing sessions. Richard’s observing goals may be different from ours, but the process he employs – knowing what he wants to look for before going out to observe, and then keeping accurate records of what he finds – is something all of us can and should do.)

Ques.: How did you get started in astronomy? Who or what influenced you to become interested in astronomy?

Dr. Schmude: It was probably my dad, Richard W. Schmude, Sr. When I was six years old, we were living in Washington, D. C., and I can remember looking at the Moon and my dad telling me what it was. I remember looking up at the sky and just seeing all these countless numbers of stars, and I was fascinated from that point forward.

Ques.: How did you get from Washington, D. C. to Texas A&M University?

Dr. Schmude: My dad took a job with Humble Oil Co. and we moved to California. Then he got transferred to Houston, Texas, in 1967. I basically grew up in Houston. I

attended jr. college, graduated, and went on to Texas A&M.

Ques.: How often do you observe?

Dr. Schmude: That depends on how you classify an observation. Most of my observing involves measuring the brightness of variable stars and the planets, so the skies need to be clear. If there's any kind of dense clouds, I don't do it. Even a thick haze will prevent me from making measurements. The skies have to be very clear for me to do brightness measurements. That means I rarely do any data collecting during the summer.

One-third of my astronomy work involves studying images, one-third is collecting my own brightness data, and one-third is spent writing reports and attending meetings to present my findings.

Ques.: Where do you observe, and what kinds of equipment do you use?

Dr. Schmude: I do a lot of my observing from my yard, but I also have gone to this little place at the college where I do some work, and I have a friend's house I go to sometimes. I use a 3.5-in. Maksutov telescope – it's not very big, but I don't need a big telescope for the bright planets. I use an Optec SSP-3 photoelectric photometer to measure brightnesses of the planets. And I use different color filters – for example, for Saturn I use the blue, the green (which is a visual filter), the red and the infrared.

When I use all four filters, a planetary observing session lasts about two hours; if I use just the blue filter, it lasts 30-40 minutes.

All of my 51,000 variable star brightness measurements were made either with the unaided-eye or with binoculars.

Ques.: Describe a typical Richard Schmude observing session.

Dr. Schmude: First off, I check the skies. If the skies are clear, I'll go ahead and set up my tripod, my photometer, my telescope, and then go inside and wait for at least 15 minutes for the photometer to warm up and reach the same temperature as it is outside.

I'll start my observing by measuring the brightness of the sky with no object present, then take a reading of the sky plus the object. The difference between the two is the object's brightness.

I use that process in measuring the brightness of variable stars and the planets. I'll measure the brightness of a star of known brightness, and then move my photometer and telescope and measure the brightness of my target – say, Mars or Saturn. I do that back and forth, star – Mars – star – Mars, etc., four or five times, and from that I'm able to calculate the exact brightness of the planet.

After I complete my observations, I go inside and spend 20-30 minutes analyzing the data, doing calculations, and come up with final magnitude values. And then of course I record that. Eventually, I'll publish my findings and present the results of my research at meetings.

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