

THE FOCAL POINT

The Atlanta Astronomy Club, Inc.

Vol. VIII No. 11

April, 1996

The Annual Banquet

It's time to make your reservations for our annual banquet! On **Friday, April 26, 7:00 p.m.**, the Atlanta Astronomy Club will hold its spring banquet at Emory University's Cox Hall (3rd floor banquet room). Our guest speaker will be *Richard Berry*. Mr. Berry is the former editor of Astronomy Magazine, and has written several astronomy books, including books on how to build a telescope and how to build a CCD camera. As you may recall, Mr. Berry was originally scheduled to speak at our February meeting, but was stranded in Oregon due to the flooding. We are pleased that he is flying back out here to speak with us. We hope he will be bringing some fine images of Comet Hyakutake with him!

Make your reservations now for this interesting and enjoyable evening! You are encouraged to bring spouses or significant others, too! We worked hard to keep the cost reasonable; total cost for this year's banquet is just \$15.00 per person. Please, payment must be received **no later** than **Wednesday, April 24!** Please send your check, payable to the Atlanta Astronomy Club, to:

The Atlanta Astronomy Club
c/o Richard and Ginny Mintz
3530 Country Estate Drive
Kennesaw GA 30152

For questions, call Ginny at 770-499-7155 or 770-422-7640

Directions:

Cox Hall is just south of the Student Center on the Emory Campus (see map). Parking there can be difficult at times, so plan on arriving a bit early. (We have been assured, however, that there will be no ticketing of cars in the evening!)

We look forward to seeing you!

Calendar Notes:

April 13John Dobson at Amicalola
April 18 to 20 ...Peach State Star Gaze!
April 26 ...Annual Banquet at Emory
May 11 ...Public Observing at Villa Rica
May 18 ...DeepSky Observing at the
Turkey Farm (North Georgia)

Public Star Gazing with John Dobson

by Alex Languoussis

The Atlanta Astronomy Club and the North Georgia Astronomy Club are pleased to offer you "An Evening Under The Stars with John Dobson" on **Saturday Evening, April 13**, at **Amicalola Falls State Park**. This is an opportunity you won't

want to miss! Mr. Dobson has been hosting sidewalk astronomy gatherings for years, bringing the joys of the night sky to people around the country. His love of educating the public resulted in his design of the alt-azimuth Newtonian telescope, which now bears his name, the Dobsonian telescope.

We will gather at the top of the falls. When entering the State Park, turn left across from the Visitor's Center, and follow the road to the top. We will be in the open area behind the boardwalk overlooking the Falls. Come about 6:00 and bring a blanket and picnic supper. Afterwards, Mr. Dobson will give a talk. The sun sets about 8:00, after which we can then view the wonders of the night sky through the telescopes. Comet Hyakutake should be visible low in the northwest at the end of twilight.

Amicalola Falls State Park is at the foot of the North Georgia mountains. It is located on Georgia Hwy. 52, about half way between Ellijay and Dahlonega. Please drive carefully (watch for deer!). And dress warm! It can be 10 degrees colder outside of the city.

While Atlanta Astronomy Club members have access to the Club's observatory at any time, we also schedule frequent outings such as this, so that we can view the stars from darker skies away from city lights. For more information, contact *Larry Higgins*, 770-227-2233, or *Art Russell* at 404-373-4119, gs01har@panther.gsu.edu.

Last Month's Meeting

by Ken Poshedly, recording secretary

The March 15, 1996 meeting of the Atlanta Astronomy Club was called to order shortly after 8 p.m. at Emory University's White Hall by AAC president Alex Languoussis. By actual count, there were at least 50 persons attending.

Prior to the featured speaker of the evening, there were a number of announcements regarding upcoming comet observing activities and the Peach State Star Gaze. The featured speaker was our own Jerry Armstrong who spoke on educated guesses about how Comet Hyakutake was expected to look in the coming days. Jerry reported seeing the comet one morning even with the Moon up.

After Jerry's talk, several changes to Article VI of the AAC bylaws were presented to the membership by the AAC bylaws committee, headed by Eric Shelton. Introductory comments by AAC president Alex Languoussis were followed by a series of proposed amendments by Lenny Abbey and Phil Bracken. A vote on those amendments resulted in discussion with the bylaw changes being unanimously approved by the membership. The text of the revised bylaws follows:

ARTICLE VI: OFFICERS

(Section 2 has been changed to read as follows and now includes new Sections 3 and 4:

Section 2. The President shall appoint a Nominating Committee at the March meeting. The Nominating Committee shall prepare a slate of nominees for presentation to the membership at the April meeting. The slate shall also be published in the issue of the newsletter mailed to the membership between the April and May meetings. Nominations may also be made by any member in good standing, at any time prior to the election, including nominations from the floor. Nominees must be members in good standing and must have agreed to serve if elected.

Section 3. The election shall be conducted at the May meeting either by a show of hands or by secret ballot. The nominees shall be elected to office by a majority vote of those members in good standing present, provided not less than twenty-five members are present. Elections shall not be held at meetings for which payment of any kind is suggested.

Section 4. The officers shall assume their duties at the close of the May meeting. Any vacancy in mid-term shall be filled by the Board of Directors.

The membership also voted to award lifetime membership to former AAC president Lee Wilson. Alex announced that this year's nominating committee would consist of himself, Don Hall and Eric Shelton. The meeting was then adjourned for refreshments and later revelry across the street at Jaegers Pizza.

Comet Hyakutake and the AAC

by Richard Jakiel

This has been a *very* busy month for the AAC. Comet Hyakutake put on a spectacular show and many of our members spent a great deal of time observing, giving public shows and keeping the media accurately informed. Here's a short summary of events leading up to the comet's closest approach on March 24th, 1996 (*many of the details provided by Alex Langoussis*).

February, 1996: As soon as the IAU announced that this would be no ordinary comet, Alex Langoussis notified Kate King at CNN in case they were not aware of it. Later, Alex would receive a thank you note saying that we were the first to inform them. At the Winter Star Party, the comet was already 8th magnitude and sported a beautiful fan-shaped tail.

March 12/13, 1996: The AAC invited CNN to a midnight comet viewing session at Dauset Trails. About one dozen members showed, and were treated to the 4th magnitude Hyakutake now located in the constellation of Libra. Members Phil Sacco, Larry Higgins and Alex all had "speaking parts" for this taping of Science and Technology Week. These tapes were not only shown for that show, but also appeared in CNN news coverage and later sold to other stations!

March 17 to 21, 1996: The comet brightened sharply this week, going from magnitude ~ 2.5 to 1.0. The tails also grew rapidly, from 10 degrees to over 30 degrees by Thursday, setting the stage for weekend. AAC members spent considerable time coordinating with the local media.

Jerry Armstrong contacted Glen Burns (Channel 2) to announce our open house at Villa Rica on March 23.

March 22, 1996: This was the best and in some ways the busiest night of the "Hyakutake Event". Observing sessions were set up in the North Georgia mountains and at Dauset Trails. Members Doug Chesser and Ken Poshedly set up scopes at the Shiloh Middle School Star Gaze, an event hosted by AAC members Jim and Betty Monroe. The event drew over 150 students and parents, and was covered by Channel 46 (WGNX-TV) and the Sunday Edition of the Atlanta Journal/Constitution. The comet did not disappoint, as the coma was now magnitude 0.7 and the tail stretched an amazing 40 degrees!

March 23, 1996: Open house at Villa Rica! With the help of Glen Burns, the Saturday Edition of the Journal/Constitution and Alex's nearly overheated fax machine, over 300 people showed up to see the comet. Dozens of members brought telescopes, ranging from small refractors and binoculars to Rich Jakiel's "battleship mount" 17.5-inch. Art Russell did a great job showing the comet with the club's 20-inch scope, while Jennifer Jakiel "manned" the 10-inch.

Jerry Armstrong gave a nice talk to the visitors about this and other comets. Both Channel 2 and 5 showed up to give coverage and see the comet. Eric Shelton's stunning 135mm photograph of Hyakutake was shown on Channel 2, though Jerry was "given credit" for the picture! Although there was a veil of cirrus clouds, plus a 4-day old Moon, our guests were treated to a superb site. The coma now shown at 0.0 magnitude, and despite the clouds and light pollution the tail stretched 15 to 20 degrees.

March 24, 1996: Today, several of our members got national coverage. Jerry was interviewed by CNN, and Tushar Thrivikraman's telescope was shown in the broadcast. Tim Puckett was also busy this week, and ABC featured his observatory on its Sunday Night broadcast. Tim's CCD video of Comet Hyakutake was also shown around the world on various TV networks.

March 25th, 1996: Our job was finished, we got ACCURATE information to the public. Time to turn out the camera lights, and head back to the dark skies to see comet light!

The sky slowly started clearing Monday night, the last night the moon would not interfere. Art Russell came by at 11:30, and we headed straight for the mountains. When we got out of the car south of Ellijay, the comet stretched an incredible 68 degrees across the dark sky!

Reflections on Hyakutake...

A Great Horned Owl floated dream-like and silent above my headlight beams, as I led our little convoy of eager comet-seekers down twisty back-country roads toward the California coast. The owl was surely more awake than I, or at least more used to being awake at one AM on a Tuesday morning, but I could begin to appreciate its view of the world. Almost every night for the past week and a half, I had been out late, watching the approach of Comet Hyakutake. On this morning of

March 26, 1996, I had coaxed a group of hesitant friends to come along with me. Their reluctance vanished as we viewed the apparition first from the busy downtown streets of San Francisco's suburban bedroom communities, then from side roads near the freeways that skirt the edge of the light-polluted cities and towns. But now we were headed out where the sky was dark; now it was time for the real thing.

State highway 84 terminates at the ocean, a bit more than half way from San Francisco to Santa Cruz. We pulled over to the side of the road a few miles before its end. City glow loomed up over the spine of the peninsula hills to the north and east, but the sky straight up, and south and west over the broad Pacific, was nearly black.

The comet was magnificent, a display that seemed to dazzle our dark-adapted eyes, even though we knew that in absolute terms it did not truly qualify as bright. I recalled a legend about comets from bygone days, that they are great dragons, bringers of wisdom and of knowledge, speeding among the stars, breathing fire and flame, strewing smoke and sparks far across the trembling heavens. What the ancients saw in the sky usually seems like proof positive that they possessed some of the hallucinogenic substances we regard as modern. Yet this time I could see what they meant—a dragon indeed. To stare at the coma was to gaze into the maw of the beast; the central concentration provided a view down its very gullet. The straight, narrow beam of the inner tail blazed with the lambent, incandescent blue of a bunsen flame, as the dragon expelled its mighty breath at full force. Further away, the streaming gout of fire lost intensity and coherence, and widened and dissipated in fading swirls of translucent smoke and pale luminosity, through the equatorial counter-glow and beyond, out to ninety degrees, half way across the sky.

The image of the comet and the memory of the owl put me in mind of a modern fantasy I had recently read. The book was Jane Lindskold's *Brother to Dragons, Companion to Owls*. Of course, it had nothing to do with comets or astronomy, but the title provided a pretty conceit for the night's experience.

Looking again at the streaming tail, standing wide-eyed in awe of its power and beauty, I grew sad at the rarity of such a sight, the more so because the press had done a reasonable job on this one. Most Americans surely knew there was a great comet out there, and heard lots of astronomers tell them to go out and see it. And most Americans stood up in their well-lit living rooms, turned on the porch lights so as not to trip on the steps, walked outside, and looked up past the street lights, up into the sky of cities and suburbs. Then they wondered what the fuss was about. If they saw anything at all, they saw a bit of fluff, a mere lightning bug. For them, there was no awe and no wisdom, no power and beauty. For them, the Star Dragon refused to appear.

Back home, I took up my book of familiar quotations, on the chance of finding a literary origin for Lindskold's fantasy title. The source was the King James Bible, the words of *Job* [30:29]. I am not Biblically inclined, but I once studied *Job* as literature, and remembered a powerful story of the triumph of faith, persistence, determination, and patience over suffering and disbelief. Of course, that doesn't have anything to do with comet-watching, either.

Or does it?

You can't see a great comet easily. You surely can't do so by stepping out of a brightly-lit house into the street lights. It takes determination, to plan and execute an expedition out away from cities, out where the sky is dark, out to the wild lands where the owls live. It takes patience, to wait for the right combination

of time, of viewing geometry, of weather, and of the changing appearance of the comet itself. It takes persistence, for you must go back and do it all over again, night after night, if the precise circumstances were not just so the first time. It takes patience and persistence in a larger sense, as well, to wait for the rare and unpredictable arrival of a bright comet in the skies of Earth, and meanwhile, to learn and practice the methods and techniques of visual observation of faint objects: Even with plenty of advice about dark adaptation, averted vision, and all the other tricks, my companions—all new to astronomy—could only see a tail two thirds as long as the one I saw.

Some times you have to suffer a little, too. You're cold. You're tired. You are grubby and unkempt. You are late for work the next day. Things go bump in the night and growl unnervingly, half out of earshot on the side of your car away from the road. Pickup trucks and nondescript old cars cruise by slowly, lights on high beam and radios blaring, as their mysterious occupants, visible only as silhouettes, eye you with who knows what malevolent thought or intent.

There are also matters of faith and disbelief. You must have faith that the comet is really there, even if circumstances conspire to hide it from you the first few times out. You must contend with the disbelief of your friends and colleagues, the ones who have already seen it from their front porches, who tell you time and again that it's no big deal, that there is nothing out there worth the time and trouble to see, that there never was, and never could be, a Star Dragon. You must know in your heart, and remember always, that they are wrong.

If you successfully overcome all these obstacles, then you, too, may one day find yourself brother to dragons, and companion to owls.

They make the best of company.

Jay Reynolds Freeman freeman@netcom.com.

Hyakutake Haiku

(a weird collection off the internet..)

by Richard Jakiel

The bright comet Hyakutake has been a major topic of conversation on several internet newsgroups. On *sci.astro.amateur*, countless articles have been posted on observations, magnitude estimates, photographing and media events regarding the comet's close approach to Earth. A particularly unusual topic, or "thread" was *Hyakutake Haiku*. If you can remember back to high school english, haiku is a form of Japanese poetry. There are only three lines of 5, 7 and 5 syllables respectively. Here are some examples from the haiku thread:

*Comet in the sky,
looking upward, I wonder.
Now, chiropracty*

- John McIntyre john@oz.net

*A huge, bright comet,
the first in years of waiting.
Damn light pollution!*

- Jay Freeman freeman@netcom.com

*Desert night, no moon,
comet swims through freezing skies.
My fingers are numb.*

- Craig Berry *cherry@cinenet.net*

*Backyard, late night,
hazy glow my neighbor enthralled.
Dark site? He knows not!*

- Dean Chesterman *dean@er.eul.ca*

*Fixed in comet light,
wind from spaceborn visitor,
cold spine electric.*

- Kevin Walsh *skating@cybernex.net*

(and one of my attempts..)

*Brilliant, bluish coma.
Plumes, fountains, bright tailward spike,
sublimation's toll*

- Richard Jakiel *jakiel@crl.com*

(and one that sort of says it "all", though not haiku)

*From beyond Pluto,
A visitor flies by,
I stand humbled in awe*

- Carolyn Strong *strong@uofport.edu*

FROM THE OBSERVER'S NOTEBOOK

By Art Russell

Beginners' Interest Group.

- Peach State Star Gaze. Many beginning astronomers miss out on a unique observing opportunity when they choose to not attend local star parties such as our own Peach State Star Gaze. The reasons for their choices are all doubtlessly valid. However, as a beginner, if you are worried that you don't "know enough" to be attend the PSSG or any other club event, You're Wrong! If anything, these are the types of events most appropriate for beginners to attend. The atmosphere is far more convivial and at the same time astronomers are doing what they do best... observing! To make it a bit more interesting, I'll be conducting a workshop on star-hopping. I'll schedule it for Saturday evening so that you won't have to rush down for a Friday night session. Look for me somewhere at the north end of the observing field. We'll use this month's Star-hop as our syllabus. So study hard, the exam starts when it gets dark!

- Observing Session at the Peach State Star Gaze! This month we won't schedule a Beginner's session at Villa Rica. Instead, I encourage you all to attend the Peach State Star Gaze. See you there!

- Mentoring. I'm looking for a few "trusted counselors and teachers" of astronomy to help our new beginners get the hang of astronomy as they take their first tentative steps. I don't anticipate any hard and fast requirements on our mentors' part. Simply an interest in answering beginners' questions and a willingness to

occasionally help them out when you're out observing. Give me a call if you think you can help out!

- New Phone Number! Beginners: I've got a new phone number. You can now contact me at 404-373-4119! Rich did you change my phone number on the Focal Point yet?

Mirror Making Special Interest Group. Do you want a telescope and either prefer to build your own, or don't want to spend the big dollars sometimes associated with large aperture telescopes? The solution is the club's Mirror Making Special Interest Group. A little bit of time, effort and a few dollars can give you a quality scope. Give Mel Tolbert a call at 770-434-0789 for the details! Mel, will you have any examples at the Peach State Star Gaze? How about any "how to sessions?"

Observer's Report.

- Comet Crazy! If you missed the festivities at the observatory on 23 March, you missed quite a party. Did we really have +300 people on-hand for Comet Hyakutake? I really don't know. I was too busy running the 20 inch to see how big the crowd was. However, reliable sources tell me that we had a line running from the 20 inch all the way past the Warm-up shack! As advertised, the comet put in a great appearance. Moreover, our guests must have been impressed. This is the first event that I've been paid for! (One of our visitors gave me a bottle of Nervo Vineyards "Farmer's Table" Red Wine in recognition of my "stellar" performance). Who said you can't make a living at amateur astronomy? (I hope the IRS isn't listening!) Hats off and a job well done for the great organizing effort by Larry Higgins, Ken Walburn, Jerry Armstrong and Alex Langoussis.

- 12.5 Inch Fork Mounted Telescope Framework. Gone! The excess 12.5 inch fork mounted telescope framework which I reported was stored at the observatory has been claimed by a member of the club's Mirror Making Special Interest Group. Smitty, can you get your new scope to the Peach State Star Gaze for us to all enjoy?

- Great Globular Challenge. Rumor has it that Phil Sacco is making a run to win the coveted "Great Globular Challenge!" Anybody else care to make it a race at the Peach State Star Gaze? Times getting short, so be sure to get your observations to me before the Annual Banquet on 29 April!

Peach State Star Gaze Update

With only days to go, inquiries and registrations for the third annual Peach State Star Gaze continue to arrive -- even from faraway (from Atlanta) Colorado!

So far, most registrations are from the southeastern United States, specifically Alabama, Florida, Georgia, North Carolina, South Carolina and Tennessee. While the stock of private rooms is now taken, there is still room in the men's and women's bunkhouse/dormitories and on the camping/observing field.

The site of the event is Camp MacIntosh at Indian Springs State Park, near rural Jackson in central Georgia. Last year's event at this same site drew many compliments for the camp layout, dark skies and cleanliness.

With workshops and a full lineup of topnotch speakers, this year's event guarantees your money's worth no matter what the weather. In alphabetical order:

* So you think the Moon's a dead topic and not worth your time? Whoa!! Julius Benton, coordinator of the Assn. of Lunar and Planetary Observers "Selected Areas Program", will talk on serious lunar observing for beginners and amateurs.

* Haven't scraped enough cash up for a telescope and are stuck with a measly pair of 7x35 binoculars or somesuch? Don't fret. Dawn Jenkins, longtime amateur observer from the Cleveland, Ohio, area, will talk on how and what to best observe with binoculars. Want some proof? Check out Comet Hyakutake with a telescope, then check it out with binocs. You're almost certain to enjoy the comet with the binocs more.

* Planets, planets, planets. Who needs 'em? Don Parker does, and if you've ever seen his astrophotos (both film and the ccd kind) in "Astronomy" magazine and "Sky & Telescope" magazine, you may change your mind. Oh, by the way, Don's the coordinator of the Assn. of Lunar and Planetary Observers "Mars Project" and CCD Imaging programs, as well as being the group's official Mars observing coordinator.

* Ho-hum. The Sun is still up, so there's nothing to see. Maybe, maybe not. Longtime astrophotographer James K. Rouse disagrees. Like Don Parker's, Jim's work as well has graced the pages of "Astronomy" magazine and "Sky & Telescope" magazine for many years. This year, Jim will talk about sunset photography. Ever hear of the "Green Flash"? Ask Jim about it.

* Look! It's a bird! It's a plane! No, it's . . . a satellite!? Yep, that's right and now YOU can learn how and when to observe the myriad of those eyes-in-the-skies from Paul Traufler, author of the computer shareware program "Traksat".

Still not satisfied? How about great location, a meal plan to suit any budget, friendly folks and good, ol' southern hospitality?

For more information, send CompuServe e-mail to Ken Poshedly at 102745,313 or non-CompuServe e-mail to 102745.313@compuserve.com or snail-mail to 3440 Everson Bay Court, Snellville, Georgia 30278-4463 or phone (770) 979-9842 or visit the Atlanta Astronomy Club's home page at <http://www.com/~aleko/atlastro.html>

1996 PEACH STATE STAR GAZE OFFICIAL REGISTRATION FORM

Full payment must accompany this form. Make check or money order payable to the Atlanta Astronomy Club. Semi-private rooms include two twin beds. All lodgers have access to shower facilities in the bunkhouses. All requests are handled on first-come-first-served basis. Send completed form and payment to Ken Poshedly, 3440 Everson Bay Court, Snellville, Georgia 30278-4463. If you have any questions, call (770) 979-9842, Internet e-mail 102745.313@compuserve.com, CompuServe mail at 102745.313.

Name _____

Street Address _____

City, State, ZIP _____

Local astronomy club affiliation _____

Size, type of scope, describe your interest _____

Day Telephone _____

Night Telephone _____

Names of all persons in your party _____

Arrival Date _____

Departure Date _____

Fee Schedule

<i>Description</i>	<i>Amount Enclosed</i>
Registration	
\$20 — adults age 13 and up	_____
\$10 — children age 5 thru 12	_____
Free children under age 5	
Family registration subtract \$5 per person from above fees.	
Example: Family of two adults and two children pay \$40 instead of \$60	
Lodging	
Camping — \$8 per person per night	_____
Bunkhouse — \$12 per person per night	_____
State of Georgia Parking fee — \$2 per car (required)	_____
Teeshirt (optional) — \$12 each (quantity below, price at right)	
_____ Extra-large	_____
_____ Large	_____
_____ Medium	_____
Total Enclosed	_____

Beginner's Star-hop, April, 1996

By Art Russell

This month we have a bit of an astronomical smorgasbord. Already on the evening of 3 April we had a total eclipse. For our part, we're going to find seven Messier objects; **M44**, **M67**, **M95**, **M96**, **M105**, **M65** and **M66**. Additionally, we'll also find a double star in the constellation Leo. We'll enough said. Let's head out under dark skies and get going!

Star-hop #1. We start in the constellation Gemini. However, we're only here since Gemini's two brightest stars, *Castor*, *Alpha (α) Gemini*, and *Pollux*, *Beta (β) Gemini*, point the way to the dimmer constellation of Cancer, "The Crab." Look generally southeast from *Castor* and *Pollux* to a distance a little more than 3 times that between *Castor* and *Pollux*. At this point with your naked eye you should be able to see a dim "smudge." This is the open cluster **M44**, **NGC 2632**, also known as "The Beehive," or in antiquity as "Praesepe." At 3.1 Magnitude, **M44** is one of the largest and closest of the open clusters. [Observation #51: At 34X (magnification), **M44** is very easy to find. It is visible to the naked eye. Through the telescope it is very distinct against the background sky. The cluster seems to form a "Martini Glass" in shape].

Star-hop #2. Our next star-hop takes us to the open cluster **M67**, also in the constellation Cancer. Starting at **M44**, you should be able to see the major stars of Cancer. Move from **M44** to the star *Delta (δ) Cancrī*, about 2 degrees to the southeast of **M44** (this may be 2 or 3 eyepiece fields of view in your telescope, be sure to check yours, you'll need to know later!). **M44** and *Delta Cancrī* should be simultaneously visible in binoculars). From *Delta Cancrī*, move through the constellation to the star *Alpha (α) Cancrī*. **M67** is located about 1 1/2 degrees due west of *Alpha Cancrī*. [Observation #67: At 51X, **M67** fills the field of view. I eyeballed the location in comparison to *Alpha Cancrī* and **M67** was in the finder, appearing almost globular. **M67** was well resolved in the eyepiece].

Star-hop #3. Now lets head from Cancer to the prominent constellation Leo, "The Lion." Starting at *Alpha Cancrī*, look directly east until you see a much brighter 1.4 magnitude star, *Regulus*, *Alpha (α) Leonis*, also known as "The Lion's Heart." In this star-op we are looking for *Al Geiba*, *Gamma (γ) Leonis*, which is rated as one of the finest double stars in the sky. Once there, you'll need to use the highest power you have in order to get the best possible view. To get to *Al Geiba*, start from *Regulus* and head north to the next star in Leo, *Eta (η) Leonis*. From *Eta Leonis*, the next star in Leo to the northeast is *Al Geiba*.

Our remaining star-hops for this month will be as interesting as they are challenging since they are all galaxies and typically more difficult to locate and identify than open clusters.

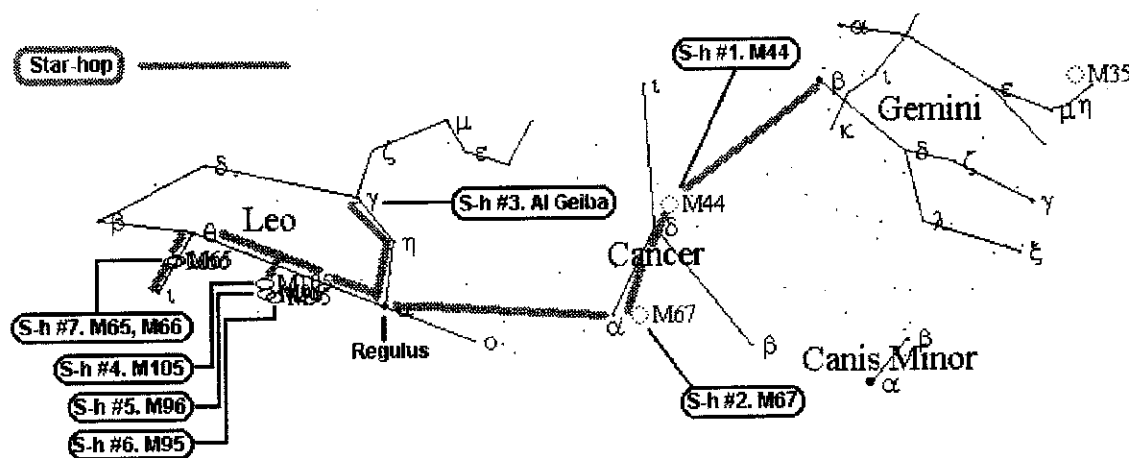
Star-hop #4. From *Regulus*, extend a line east-north-east to the 3.3 magnitude star *Theta (θ) Leonis*. A little more than half way from *Regulus* to *Theta Leonis* is the dimmer 5.5 magnitude star *52 Leonis*. About 1 1/2 degrees south and a touch east of *52 Leonis* is the 9.3 magnitude galaxy **M105**, **NGC 3379**. This may be 1 or 2 fields of view away from *52 Leonis* depending on your telescope and eyepiece combination. Additionally, *52 Leonis* and **M105** may be visible in the same field of view in binoculars. While in the area you may also notice many other fainter galaxies as well. They may be magnitude 12.5 or dimmer. Immediately to the east of **M105** you may see the galaxies **NGC 3384** and **NGC 3389**. [Observation #86 (**M105**): 87X. Very compact nucleus. Halo visible. Approximately egg shaped, nucleus is bright, but halo fades rapidly. **M105**, **NGC 3384** and **NGC 3389** in same field of view. 259X. Nucleus is brighter and seems not centered in the halo. Halo seems to fade at edges gradually instead of abruptly. **M105**, **NGC 3384** and **NGC 3389** in same field of view. 476X. Nucleus seems to take up majority of halo; is not centered. Nucleus is very bright.]. [Observation #87 (**NGC 3384**): 87X. Very similar in appearance to, but more elongated than **M105**. 259X. Brighter nucleus, but overall slightly dimmer than **M105**. 476X. Same as **M105**, but overall not as bright with the nucleus centered].

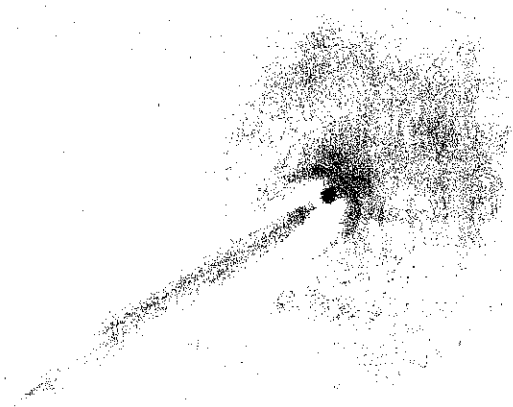
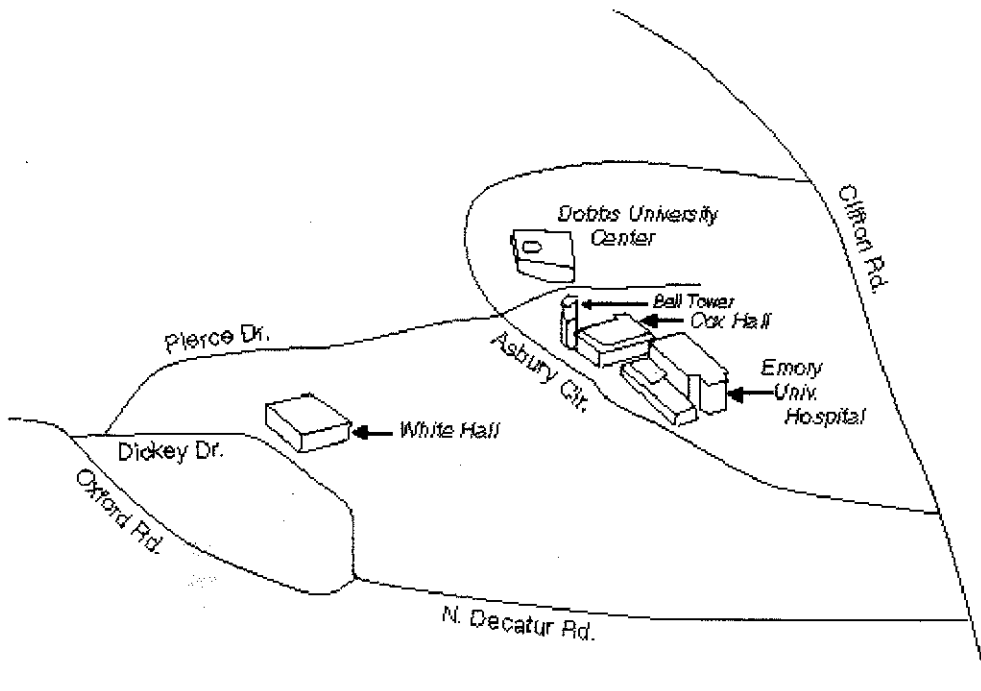
[Observation #88 (NGC 3389): 87X. Only the halo is visible. No bright nucleus is visible. 259X. More prominent halo and hint of nucleus becoming evident. 476X. Elongated halo. No definite nucleus visible.]

Star-hop #5. Our next star-hop begins at **M105** and leads us to another 9.3 magnitude galaxy, **M96**, **NGC 3368**. From **M105**, **M96** is only about 3/4 degree to the south-south-west. You may even be able to see both galaxies in the same field of view if your eyepiece has that much coverage by placing **M105** at one side in the field of view and looking to the south-south-west. If not, simply nudge your scope in that direction as you keep your eye to the eyepiece. With patience, **M96** will come into view. [Observation #85: 87X. Nucleus evident; halo also very evident. Seems to be elongated. 476X. Nucleus much enlarged, but to little advantage. Halo is more prominent, but without any obvious detail.]

Star-hop #6. Our next star-hop is a short one to **M95**, **NGC 3351**. You won't have to go far from **M96** to find its neighboring galaxy, **M95**, since it is about 1 or 2 fields of view away in your telescope. **M95** is almost due west of **M96**. You may be able to get there by simply aligning **M96** on the eastern edge of your eyepiece's field of view. In doing so, you might be able to see both galaxies in the field of view with **M95** in the western side of your field of view. If not, a simple nudge to the west should bring **M95** into the field of view. [Observation #84: 87X. Found **M95** as a small diffuse object, but with a compact nucleus. 259X. Hints of extension around the nucleus, but not definite. Major axis appears oriented north-west to south-east. Hints of mottling extended away from the nucleus. 476X. Nucleus is significantly larger, perhaps 2X. However, little more detail is visible. Extended structure is only suspected.]

Star-hop #7. Our final star-hop takes us to the 9.3 magnitude galaxy **M65**, **NGC 3623**, and the 8.9 magnitude galaxy, **M66**, **NGC 3627**. Both galaxies are visible in the same telescopic field of view along with a third galaxy, **NGC 3628** (magnitude 9.5). We start this final star-hop at the star *Theta Leonis* which we saw earlier in **Star-hop #4**. From *Theta Leonis*, extend a line to the star *Iota Leonis*. Our galaxies are located just to the east of this line and half way between *Theta* and *Iota Leonis*. Once you locate these galaxies, you will find **NGC 3628** in the northern side of your field of view. **M65** will be located south and east of **NGC 3628**. **M66** will be located almost due south of **NGC 3628** and in-line with **M65**. [Observation #80 (**M65**): 109X. Oval in shape; bright nucleus; overall brighter than **NGC 3628**.] [Observation #79 (**M66**): 109X. **M66** seems a bit brighter than **M65** and distinctly brighter than **NGC 3628**, both of which are in the same field of view. Little detail visible; bright nucleus, seems oval in shape.] [Observation #81 (**NGC 3628**): 109X. Very dim with little detail visible. The galaxy appears oriented south-west to north-east.] (*this is a pretty edge-on in a 10-inch or larger scope -editor*)





COMET HYAKUTAKE (1996B2)
 24 MAR 96 0400 (UT)
 @ VILLA RICA - DURING OPEN HOUSE
 EVENT

17.5" f/4.5 @ 227x (INNER COMA)
 COMA ~ 0.0 MAGNITUDE, > 1.5° DIAMETER
 BRIGHT TAILWARD SPIKE (~ 15-20' LONG)
 4 DISTINCT FOUNTAINS IN FRONT OF
 NUCLEUS

DRAWING/OBSERVATIONS BY
 RWJAKIEL

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THE FOCAL POINT

Newsletter of The Atlanta Astronomy Club, Inc.

FROM:

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The Atlanta Astronomy Club Inc., the South's largest and oldest astronomical society, meets at 8:00 p.m. on the third Friday of each month at Emory University's White Hall or occasionally at other locations (check the hot line for details). Membership is open to all. Annual dues are \$20 (\$10 for students). Discounted subscriptions to Astronomy (\$20), and Sky & Telescope (\$24) magazines are available. Send dues to: **The Atlanta Astronomy Club, Inc., 3595 Canton Road, Suite A9-305, Marietta, Ga. 30066.**

Hot Line: Timely information on the night sky and astronomy in the Atlanta area is available on a twenty-four hour basis on the Atlanta Astronomy Club hot line: **770-621-2661.**

Check out our ASTRO discussion list on the Internet: ASTRO@Mindspring.com. Also visit our Internet home-page: <http://www.mindspring.com/~aleko/atlastro.html>



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