



“Gas Giant Life” by Dave Hardy

Upcoming in the PULSAR:

2nd Quarter: Life on Other Worlds. Is it possible? Can we detect it? Can we go visit? If life developed here on Earth, it may have arisen elsewhere in the universe. The Milky Way and distant galaxies may contain other habitable worlds, where even now other intelligent - and possible technologically advanced - races exist.

3rd Quarter: Planet X and Beyond. With the recent discovery of a large frozen body - possibly larger than Pluto - in a distant orbit around the Sun, can we imagine other worlds still to be found in our own solar system?

4th Quarter: High Energy Environments. There are places in this universe where energy rules - rippling, crackling, sparkling energy. High energy environments can also make some of the most aesthetically pleasing pictures....

Pulsar is published four times a year as part of the membership benefits from dues paid. All contents are copyright of the IAAA except where noted. Individual artists retain copyright to works contributed to this publication. Submissions may be sent to “pulsar-editor@iaaa.org”.



INTERNATIONAL ASSOCIATION OF ASTRONOMICAL ARTISTS

BOARD OF TRUSTEES

Kara Szathmáry
David A. Hardy
B.E. Johnson
Dirk Terrell
Don Davis
Paul Hoffman

PRESIDENT
Kara Szathmáry,

VICE PRESIDENT
Dirk Terrell

VICE PRESIDENT, EUROPE
David A. Hardy

TREASURER
Beth Avary

MEMBERSHIP SECRETARY
Joy Day

IT DIRECTOR
BE Johnson

EDITOR, PULSAR
Jon Ramer

PULSAR PUBLISHER
Joy Day, BE Johnson

DIRECTOR OF EXHIBITIONS
Joy Day

DIRECTOR OF FELLOWS
David A. Hardy

IAAA POINTS OF CONTACT

MEMBERSHIPS:

Joy Day
PO Box 3939
Carmel-by-the-Sea, CA 93921, USA
Tel: (1) 831-659-4950
e-mail: membership@iaaa.org
Annual rates by member type: \$40, \$45, or \$50. Make all payments to “IAAA”

VICE PRESIDENT, EUROPE and UK SUBSCRIPTIONS:

David A. Hardy
99 Southam Road, Hall Green
Birmingham, W. Midlands
B28 0AB, England
Tel: (44) 121 777 1802
Fax: (44) 121 777 2792
e-mail: vp-europe@iaaa.org
Annual rates by member type: 26, 28, or 30 GB pounds. Make all payments out to “IAAA”



1st Quarter 2006

The Official Newsletter of the



International Association of
Astronomical Artists



“Infant Galaxy” by Joe Bergeron

Editor: Jon Ramer

IAAA Website: <http://www.iaaa.org>

From the Editor:

Hi Gang!

Well, after three years in Italy, it's been a rough step back into the editor's shoes, but I'm here now and glad for it. First and foremost, a big thank you to Rick Sternbach for editing the Pulsar for the past couple of years, I hope to expand upon his excellent productions. Next, we've had a lot of big events recently with some more in the future - and all the details are here. We're also welcoming some new members and, as always, showcasing some great art! Read on and enjoy....

Jon!

IN THIS ISSUE:

- WORKSHOP NICARAGUA
- EXHIBITION AT THE 2006 INTERNATIONAL SPACE DEVELOPMENT CONFERENCE
- IMPRESSIONS OF OTHER "SPACE ARTISTS"
- THE EARLY UNIVERSE
- PROFILE ROY SCARFO
- PROFILE RON ZDRIOK



Gardens of the "Casa de Los Tres Mundos" in Grenada, Nicaragua

TIME TO WORKSHOP!!

The Board is happy to announce the next great IAAA workshop in Nicaragua! Erik Viktor is our man-on-the-scene and has checked out the requirements for staging a workshop in the town of Grenada, Nicaragua. The city is one of the most beautiful in Central and Latin America, prices are quite reasonable and most interesting sights are within an hour's drive.

Erik has met the curator of the Art Foundation of Granada, an institution sponsored by several patrons in Europe which is sited in an old 16th century Spanish colonial hacienda. He told them about the workshop and our art and they have agreed to provide exhibition rooms, conference rooms, projectors and other multimedia needs, public relations and organizational

support, and a practice room where all members will be able to paint. Please note that this is a very prestigious art institution!

The planned window for the event will be the second half of February 2007. The hotel of choice will be 150 meters across from the institution and is a similar colonial hacienda with inside garden where Erik has spent several nights. He reports it is very, very beautiful (*photos right and far right*). Single rooms go for 45 USD a night. It is preferable and much (*cont'd* →)



cheaper to use minibus services to shuttle to and from events instead of renting a car. Also note that the rooms of this



institution are booked by artists and exhibits from all over the world and well in advance.

Check out photos of some of the sights around Nicaragua we will be visiting, some great views of volcanoes, lakes, and rock

formations at: <http://www.swampbuster.org/workshop/index.html> (some of which are shown here).

Here's some side-info for interested members:

- Back in the 60's the founder of the "Casa de Los Tres Mundos," a well-known Austrian actor, was the first to create a Star Trek-like series for German TV, which may explain why they are so open to our art
- The roads are excellent in Nicaragua
- From Granada the average tour takes around one hour
- There is much more culture (Colonial and Mayan) in Nicaragua
- Hotels are cheaper

Granada is a great city
As the foundation is also a main regional and national cultural magnet, it might be interesting for fellow members to offer students and other visitors of the foundation talks on topics during the workshop such as:

- Astronomy (why not bring some telescopes?)
- 3D animation
- Philosophy
- Painting techniques



Here's an opportunity for us to meet again, in a new landscape, to continue the camaraderie and the experience of discovery and of potential new astronomical renderings to inspire our creativity. So far the following members have expressed intent to attend the workshop:

Erik Viktor (Belgium)
Kara Szathmary (Canada)
Dave Hardy (UK)
Jon Ramer and wife Terri (USA)
Dan Durda (USA)
Bettina Forget (Canada)
Mitchell Bentley and wife Cathie (USA)
Julie Jones (USA)
Lionel Bret (France)
Bill Hartmann and wife Gayle (USA)
Mikey Carroll (USA)
Dirk Terrell (USA)



Let's meet and share our commitment to the genre of astronomical art and laud the goodwill of our hosts! All interested members please reply via the list server or to the contact addresses on the back page. See you in Nicaragua!

Kara Szathmàry, President, IAAA



EXHIBIT AT THE 2006 INTERNATIONAL SPACE DEVELOPMENT CONFERENCE

Report from Jon Ramer and Joy Day



For those of out there who did not know, the 2006 International Space Development Conference was held at the Sheraton Gateway in Los Angeles, from the 4th to the 7th of May. A significant part of the conference was one of the largest public space art

exhibitions ever put on. We had over 100 works of art on display on six portable panels in a really neat arrangement with over 1,000 folks in attendance, and another 40 digital works on projector (*see pictures throughout this article*). Some 26 space artists from around the world participated, including 21 IAAA members! There were many IAAA members in attendance, including Jon Ramer, Aldo Spadoni, BE Johnson, Joy Day, Frank Hettick, Jim Plaxco, Rick Sternbach, David Robinson, and Charley Kohlhas.

Joy Day, BJ Johnson, and Aldo Spadoni were instrumental in the set-up, management, and take down of the show and in making it such a success. The hosts and managers of the conference were thoroughly pleased with the result. George Whitesides, director of the National Space Society,



even told me he was "utterly amazed" and that the show was far better than they had ever had at any ISDC. Aldo Spadoni said that many aerospace colleagues of his who attended the



conference offered very positive comments. We also got interviewed by a reporter from the LA Times for over two hours about the history, future, and importance of space art. Overall, I think the IAAA made a fabulous impression

on a very visible world stage. In fact, the show went over so well, that a curator from a gallery in Hong Kong came up to us and hired the AU on the spot. We definitely made a difference!

We sold 20 works (prints, originals, and plaques), for a total income of about \$1,300. Aldo was the big numbers seller, selling 11 of the 20 - 7 of one particular image. Very popular! BJ was the money guy though, with over 35 percent of the profit. A point to remember, we were NOT set up as a "Sales Event." This show should in NO way be compared to a Planetfest event. We had a very limited amount of wall space. We had various artists shipping one or two pieces each. BJ and Joy drove down the AU and their art, but it was in no way a huge moving van with tons of selections. We didn't have sales people devoted to being there the entire time. We were there for as much as we could, in fact *giving up* much that we would have preferred doing to promote the IAAA, but we couldn't be there for the entire time. We also weren't allowed a "Sales Table"





where people could come to buy. They had to find us. Many did. Probably many didn't. Many more people attend a Planetfest, and we were off in a remote location as ISDC did not have a consolidated sales/exhibits area where people would expect to find stuff for sale. Still, the show was a big hit. The best news is that we made some very good contacts for an Artists Universe show in Hong Kong and possibly a number of other global cities.

Now for the secondary impressions and thoughts. The frustration level was pretty high for the true "space artists" there. Mostly because I still felt we were shunted aside for the "performance" art talks and the All-Powerful Zero Gee parabolic flight that happened Thursday. It was kind of like if it didn't float, it was second class. My brief about the IAAA got shunted to Sunday lunchtime when most people had already left or were leaving. Many of the briefs were

interesting, but not really about what we would call "space art." BJ nailed it perfectly when he said that these people are stealing our term "space art" and turning it into something else. I

believe that our 25th anniversary book will address that to some degree, but the only thing that will truly keep the genre of space



art in our domain (where it belongs) is our much more active participation in events like this.

I did have a tet-a-tet with one individual who challenged Rick with a snotty question about why we think our stuff is 'art.' He's the same individual that called 130 of the works submitted to the jury "illustrations," including ALL of the AU. He bypassed the jury and tried to get me to hang a 3 foot by 4 foot exercise in Bryce object-mapping (globes and cones with pictures of people mapped to them) as part of the show, wanting me to bump six paintings that were space art. I refused, so he pinned it to the wall far away. Which was fine by me.

Anyway, it went very well. The IAAA was even presented an award for dedication to space art. Hopefully we can do more things like this in the future. It's the only way we'll truly achieve our manifesto of raising public awareness.

I'll close with the remarks I gave after getting the award - Ad Astra, To the Stars - but Artists go first!

Jon!

PS - ISDC 2007 will be in Dallas, anyone interested in curating an art exhibition?

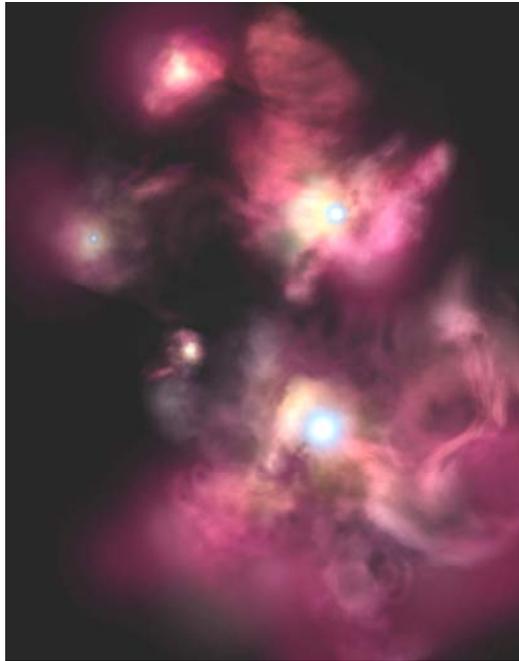


THE EARLY UNIVERSE

By Kara Szathmàry, FIAAA

“First Light” is the birthing process experienced by today’s massive, single and multiple mirrored optical and infra-red telescopes including the Hubble Space Telescope and the infra-red Spitzer Telescope. They are gathering infra-red light and shorter wavelengths that will ultimately reveal and identify the first generations of stars from the ultra-deep study of the cosmos.

Current studies of the morphology of galaxies began in 1994 just after the optics of the Hubble Space Telescope was fixed. They continued in 1995 with the focus on a tiny seemingly empty patch of sky in Ursa Major. By 1998, a similar patch of empty sky in Tucana containing the Small Magellanic Cloud was found in the southern hemisphere. The objective was to gaze as far into the early universe as possible to record the light of the faintest, most remote light, and in essence what the earliest galaxies looked like. The studies brought into focus an astonishing rich field of objects. Long exposure times, across 10-day periods of 120 hours to record faint light of selected clusters at a range of distances, showed that many of these objects were irregular clumps of stars gravitationally bound into groups that appeared to bunch into galaxies.



“First Stars” by Lynette Cook

The universe's first stars formed from clouds of mostly hydrogen and helium gas, with a small amount of lithium gas. These stars were massive and lived a short time by cosmic standards - about 2 million years.

In a “near by” cluster, some 5 billion light years away, a high percentage of spiral galaxies in densely packed regions appeared to have a large number of fragments torn off in collisions. In these small fragments the hydrogen clouds manufactured intense burst of star formations which made them bright. At the 9 billion light year range only elliptical galaxies were recognizable. There were, however, many fragments of ‘blue dwarf stars’ radiating intensely despite being highly red shifted. Quasars began to appear at 12 billion light years along with fewer elliptical galaxies.



“Big Bang” by Mark Garlick

Bang, the universe was cool enough to form atoms without being smashed apart by the intense heat. About that time, the sky turned black. The cosmic microwave background (CMB) radiation dates back to this period.

Primordial hydrogen fused into helium and deuterium to create stellar fuel that spread throughout the universe. Gravity began to organize the universe by pulling material together and drive the formation of galaxies and stars. Entropy, via the 2nd Law of Thermodynamics, may oppose this tendency towards organization and dictate that the overall amount of disorder must increase.

Gravity however, as chief architect of the cosmos, must overcome the 2nd Law to make astronomical (*cont'd* →)

Immediately after the Big Bang, the universe underwent a rapid expansion. It also experienced rapid cooling, and as it did, the various forces which were united into one ‘super force’ gradually broke apart yielding the familiar four forces of today. Gravity broke off first, followed by the strong nuclear force. Finally, the weak nuclear force split off from the electromagnetic leaving light and luminous matter.

The universe at first was opaque. The sky was white as light was absorbed soon after it was created. About 300,000 years after the Big

structures. The success in the epic saga of galaxy formation took place with this collection of basic raw material for the foundation, then synthesizing the nuclear fuel to light up the sky.

Local regions of intergalactic space surrender to the organizational effort of gravity. In about a billion years, matter condensed into a whirlpool galactic structure from the intergalactic background. Galaxies organize themselves into central bulges, massive dark halos, spinning disks sporting beautiful spiral patterns, young galaxies powered by enormous central engines – super massive black holes swallowing nearby matter, and active galactic nuclei growing less dominant with time, leaving more sedentary black holes in their wake.

After formation, these galaxies endure for vast expanses of time. The cosmos forms galaxies, to organize the raw soup material of the early universe, and massive stars to synthesize further element production.

The first generation of stars is expected to be massive, large and evolve quickly due to the purity of the raw galactic material that collapsed by gravitation, generated by the quantum fluctuations within the cosmic soup of the very young early universe. These first generation giant stars eventually exploded, leading the way to shock waves that brought on a further bloom of young hot ultra-violet stars. It is this ultra-violet light that leads to the breaking up of neutral hydrogen atoms and lets “First Light” shine through the domain of the new universe that is still expanding, but much less quickly.



“Star Formation” by Lynette Cook

From an astronomical perspective, the formation of stars is neither random nor designed. Instead, events during cosmic genesis result directly from the action of physics whose laws naturally fostered the development of complex structures against the cold background of deep space.

ARTISTS UNIVERSE SHOW UPDATE

Speaking of the "Artist's Universe".... Five large pieces had to be pulled (artists did not renew with the IAAA), so we need to fill out the show with new works! Joy Day will be putting together a jury to finish filling out the show. If you have pieces you would like to submit, there is no fee for this. We are in need of medium to smaller pieces. They need to be framed, not intrinsically delicate, preferably protected with plex - NO glass, however we have several framed canvases and that's fine. They can be originals or prints. Sorry, we're not set up as of yet to accept sculpture, unless it is fairly flat and not outrageously heavy.

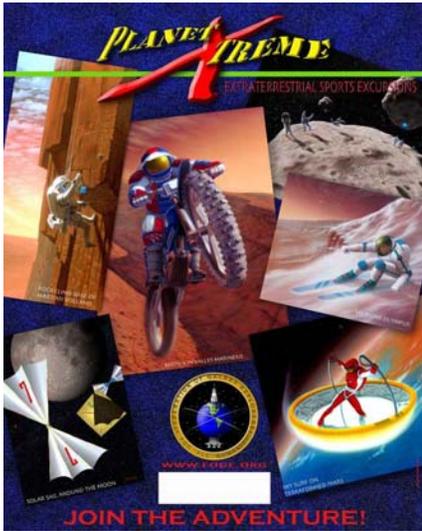
If you would like to submit pieces, please email Joy Day at “joy@glassnebula.com” with a jpeg, the full-framed size, medium, price (they can be NFS), original or print, and any additional information you'd like to add. We will not “drive around” to websites to “pick something out,” so if you'd like to have your work in a internationally traveling exhibit, send in an entry! Especially all you new members out there.....



“New Nebula” by Mick Austin

NOW FOR THE FUN STUFF...

Several members had the opportunity to do some fun posters for the Federation of Galaxy Explorers, presented here for your enjoyment... Also check out "www.foge.org".



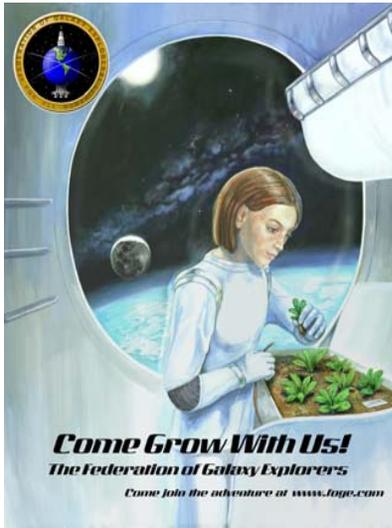
Pat Rawlings



Phil Smith



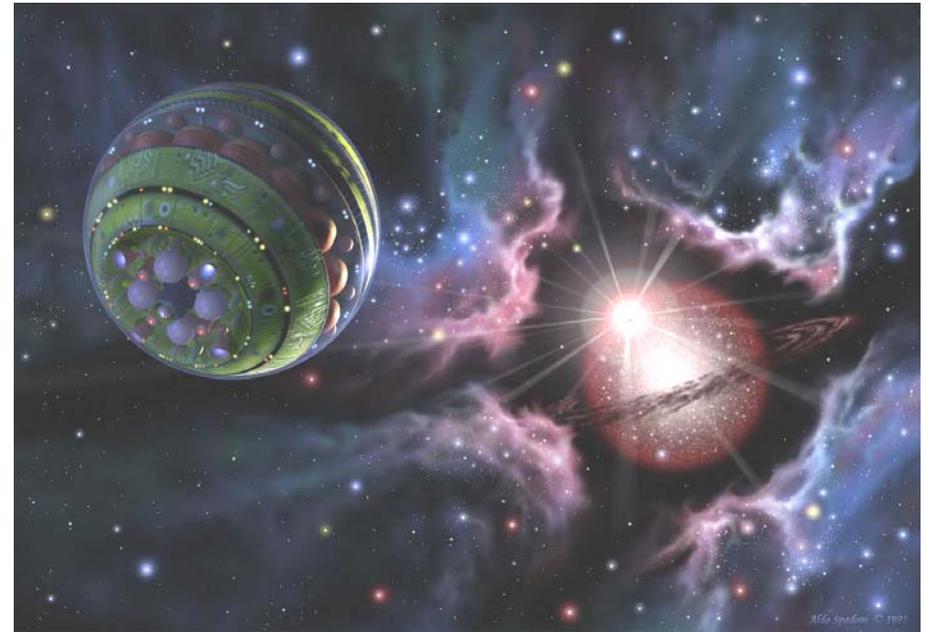
Julie Jones



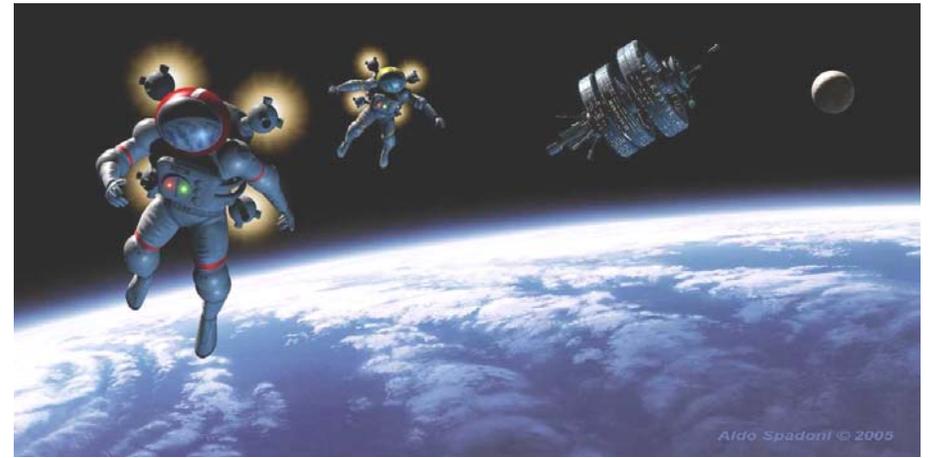
Lyn Perkins

SHOWCASE: ALDO SPADONI

Since Aldo's work proved so popular at the ISDC exhibit, I thought I'd show them off here too....



"Long Shot at the Galactic Core"



"Spacesuits"

SHOWCASE: JOE BERGERON

Joe always makes great art...



“Pink Nebula”



“Voyager”

SHOWCASE: TERRY SUNDAY

Got a nice set of works from Terry Sunday here....



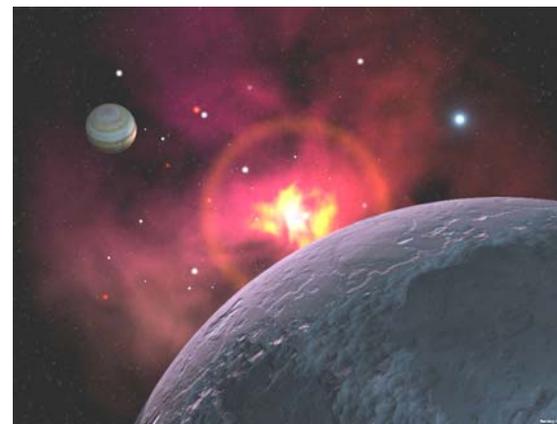
“Jupiter Asteroid Passage”

A large asteroid in an inclined orbit passes close to Jupiter as it approaches the inner solar system.



“Ringed Planet Moon”

Chaotic, tumbled, “grooved” terrain characterizes the surface of a moon in an inclined orbit around a ringed planet in a distant star cluster.



“Ruby Nova”

A ring of glowing gas expands outward from the turbulent center of a star gone nova, viewed from the vicinity of a distant gas giant planet and one of its moons.

PROFILE: ROY SCARFO

I write to express my pleasure on becoming a member of the IAAA. This is the first art organization I have joined. When I came across the IAAA site and saw the exceptional quality and beauty of the members' works, I felt I wanted to have my name and work associated with them.

I'm an old-timer in the space art field having gone to work as an artist for GE Space Technology Center in Valley Forge, PA, back in 1957 until 1973. I had the wonderful opportunity to be involved in the space race from the first Sputnik to today's exciting space probes.

Most of you artists are new to me so I intend to visit each of your sites - and what a pleasure it is. I remember Bob McCall's work, as he did an illustration of our (GE's) Orbiting Astronomical Observatory (OAO) for us, and what a great piece it was! And, of course, Chesley Bonestell, who was a very good friend of mine and with whom I spent many hours talking space.

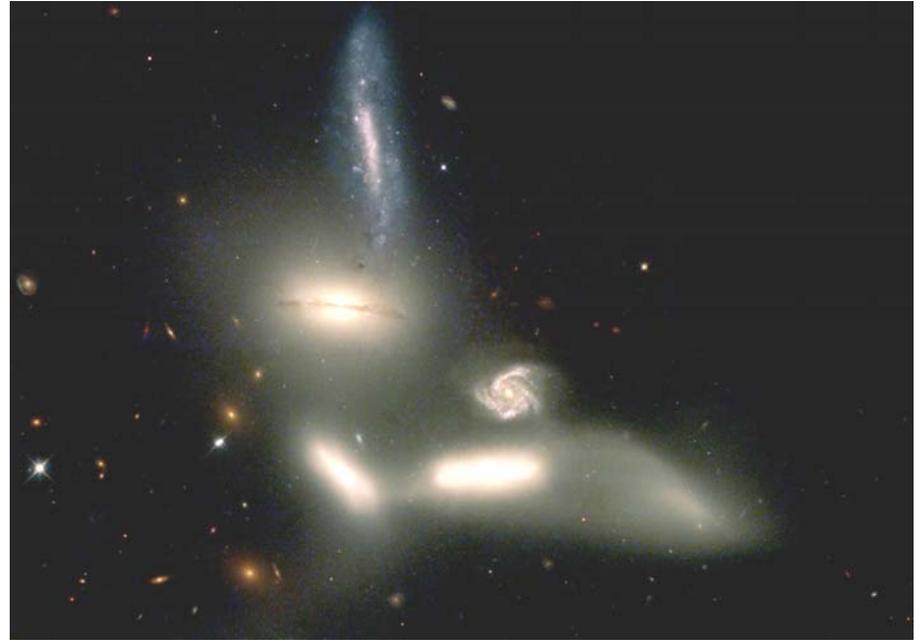
PROFILE: RON ZORICH

It is an honor to be a member of an organization that has such a talented group of artists all focused on getting the word out about astronomy and space.

Artwork has been a life-long avocation for me. I have owned and operated a graphic design and commercial advertising firm for over twenty years. In the past I have also shown artwork and photography in art shows and have also produced commission work for clients. A few years ago, I decided to close the doors to my business and began working for my largest client as a technical illustrator. This move has been a blessing, allowing me time to finally begin personal creative art after many years of providing artwork for my customers.

My interest in astronomy started with the early space program and watching the Apollo moon flights as a boy and continues today with my homebuilt telescopes and astro-photography. I am now able to carry on that enthusiasm with others by creating airbrush paintings that, fortunately for me, has been well received and are selling.

ASTRONOMICAL FEATURE OF THE QUARTER: SEYFERT'S SEXTET



Known as Seyfert's Sextet NGC6027, this intriguing group of galaxies lies in the head portion of the split constellation Serpens. The sextet actually contains only four interacting galaxies, though. Near the center of this Hubble Space Telescope picture, the small face-on spiral galaxy lies in the distant background and appears only by chance aligned with the main group. Also, the prominent condensation on the far right is likely not a separate galaxy at all, but a tidal tail of stars flung out by the galaxies' gravitational interactions. About 190 million light-years away, the interacting galaxies are tightly packed into a region around 100,000 light-years across, comparable to the size of our own Milky Way galaxy, making this one of the densest known galaxy groups. Bound by gravity, the close-knit group may coalesce into a single large galaxy over the next few billion years. As always, if anyone feels like painting this issue's feature, you'll be on the cover of a future Pulsar. *Source: HST website.*