



The Custer Comment

★ *For The Curious* ★

Winter 2009

Volume XXXIX Issue 1

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CUSTER RECEIVES GRANT FROM BNL



Steve Orlando Accepting Grant
Photo: Unknown Photographer

On October 1, 2008, Custer Research Committee Members Jeffrey Owen Katz, Ph.D., Donna L. McCormick, Steve Orlando and Helio Takai, Ph. D., attended a special presentation ceremony. The Custer Institute was chosen as a recipient of Brookhaven National Laboratory's "Break-Thru Mini-Grant." The grant, which is sponsored by Brookhaven Science Associates, was established to help local nonprofits involve 10-15 year olds from populations that are traditionally underrepresented in science, technology, engineering, and math (e.g., females, African Americans, Hispanics/Latinos(as), and Native Americans). There were 19 applicants for the grants, which were given to only five organizations. The grant was prepared and submitted by Steve Orlando, a member of Custer's Research Committee, and Donna McCormick.

The \$5,000 grant was received in support of Custer's Education Through Research Program (CETRP). The program's goal is to inspire students to study science in general and astronomy in particular, and to provide them with hands-on experience and mentoring by active scientists. Students participate in Custer research studies and/or receive assistance with the design and implementation of their own projects; they are then encouraged to publish their findings and/or present them at science fairs. Most of the funds from the Break-Thru Mini Grant will be used to automate one of Custer's observatories so students and researchers can have remote access to the facilities.

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This is the fourth grant Custer received in the past year for its Education Through Research Program. Other grants were: 14" Meade telescope from the National Sharing the Sky Foundation, a \$2888 grant from the Fund for Astrophysical Research, and the grant of a research-grade CCD camera from Santa Barbara Instruments Group.

According to Custer Research Director, Jeffrey Owen Katz, Ph.D., "All of us at Custer are extremely honored to have been chosen as recipients; it is an important acknowledgment of our research and educational efforts. The BNL grant itself is a positive step to counter the decline in science that has occurred since the 1960s when every kid wanted to be a scientist or astronaut. Although interest in science has waned in recent years, Custer is in a unique position to help reverse that trend, at least locally. We have impressive facilities that are not only excellent for research but inspire visitors of every age. We have the motivated, skilled personnel needed to teach students and to instill in them enthusiasm for learning about the universe in which they live. The combination is perfect for encouraging young minds to pursue scientific studies. And the more students we reach, the more we guarantee our country's future at the forefront of scientific advancement." While currently the Institute can only do so much because of limited financial resources and dependence on volunteers to staff the program, the hope is that Custer will eventually attract enough funding to expand the CETRP and, in so doing, involve a greater number of students.

Currently, research at Custer includes studies of exoplanet transits, supernovae, solar phenomena, and cosmic rays.

Any student interested in participating in the CETRP should contact Custer's Research Director, Dr. Jeffrey Owen Katz: 631-765-2626 or email katz@scientific-consultants.com. Students from grades 6 through graduate school are eligible for this program.

The following are members of Custer's Research Committee: Jeffrey Owen Katz, Ph.D., Chair; Matt Blaszczak (engineer, Motorola); Brent Gingrich (engineer, Motorola); Urszula Golebiewska, Ph.D. (biophysicist, Queensborough Community College); Peter Guastella (science research teacher, Manhasset High School; Vice President, Long Island Science and Engineering Fair); Ted Koukounas (Chair, Science and Math, Suffolk County Community College); Mike Kozma (engineer, veteran radio astronomer); Donna L. McCormick (president, Custer Institute); Steve Orlando (chemistry teacher, BOCES); Helio Takai, Ph.D. (physicist, Brookhaven National Laboratory); Chiaki Yanagisawa, Ph.D. (physicist, Stony Brook University, Manhattan Community College). ★

DISTRICT 1 ACKNOWLEDGES CUSTER

In October 2008, Assemblyman Marc Alessi honored Custer with a New York State Assembly Citation. The Citation states as its purpose: "To commend Custer Institute and Observatory Inc. on the occasion of its 30th Annual Astronomy Jamboree...the residents of the 1st District recognize Custer...for their years of educational service and commitment to the field of Astronomy." The Assemblyman was hoping to present the citation in person at the Jamboree but was prevented from doing so due to an earlier engagement running late and traffic. Custer's president, Donna McCormick, said: "The receipt of this distinguished award came as a surprise. It is truly gratifying to know that the efforts of all who work so hard to advance Custer's goals have such impact. Assemblyman Alessi has repeatedly been a good friend to Custer. In addition to our appreciation for this distinguished recognition, we are also grateful to him for having arranged a \$5,000 grant from the 2007-2008 State budget for capital improvements to the observatory. We are proud of his friendship and shall continue to do our best for the community we both serve." ★



COLLEGE LOANS CUSTER 25" SCOPE



*New Scope being delivered
Photo: Justine Haupt*

On October 16, 2008, a 25" f/5 Obsession Dobsonian-style telescope was delivered to Custer from its former home at Suffolk County Community College (SCCC) in Riverhead. Ted Koukounas, a member of Custer's Research Team and Chair of Science and Mathematics at SCCC, made the arrangements for the college to loan the Obsession to Custer. Since the nearly-new telescope was only rarely used by the college, Prof. Koukounas thought that both the scope and Custer would benefit from the relocation. And he was so very right! Within days of its arrival, the scope's mirror was freed from years of classroom chalk dust and collimated. The Observatory Staff immediately set it up and soon there were shouts of "You can see color in the Orion Nebula!" coming out of the darkness on Main Bayview Road. On October 22nd, contractor Steven Born volunteered himself and his crew to hoist the "Dob-a-saurus" up to the dome via a cherry picker. And in December, volunteers from Custer and from the Astronomical Society of Long Island (ASLI president and Board member, Mal Speer and John Vogt) began to "retrofit" the scope with a ServoCAT (partly donated by the manufacturer,

Gary Meyers, of StellarCAT) and Argo Navis (on loan from Custerite David Cohn); this will provide automated tracking, go-to capability, and allow for computerized operation. Observatory-Research Director, Dr. Jeffrey Owen Katz, and Senior Observatory Staff Member, Justine Haupt, have designed revolutionary new optics that will allow for observing from near-ground level (versus perched upon a ladder, as is usually necessary when looking through the eyepiece of a large Dobsonian); Justine will soon be milling the equipment needed for that transformation. We'll notify everyone once the Obsession is fully operational. Soon thereafter, we hope to move forward with arrangements for SCCC teachers and students to use the scope in its new home for the college's special projects and workshops. So, in the coming months, Custer will be enjoying its new, revolutionized telescope, its association with SCCC, and its distinction as not only the oldest public observatory on Long Island, but the one with the biggest telescope as well! In addition to those mentioned above, we'd like to thank the following people for their help with this exciting project: Bill Crispino, Donna McCormick, David Van Popering. ★

CUSTER RECEIVES NYS ARTS GRANT

In 2008, the newly appointed Music Director, Anne Verticchio, created The Music Project to encourage musical expression and education, to provide a venue for local artists to display their talents, and to offer the community a wide range of musical experiences. Ms. Verticchio, a violinist herself, has been actively seeking funding for the program and, during the year, obtained \$600 in donations from Custer members. She also applied to the New York State Council on the Arts Decentralization Regrant Program and, in December 2008, was informed that a grant of \$1,000 had been awarded. The Huntington Arts Council (administrator of the grant) received 68 applications; Custer's was one of the 53 that were funded. Another innovative program began by Ms. Verticchio is Custer's Open Mic Night (held the first Friday of every month from 7:00- 10:00 PM), which is hosted by local singer-songwriter and Executive Director of the Community Action of Southold Town, Liza Coppola. A number of exciting music programs have been scheduled for 2009; for upcoming events, please check CusterObservatory.org. ★

CUSTER ELECTIONS

The June 13th Annual Meeting will be here before we know it. Anyone who would like to propose a candidate to the Nominating Committee should contact Anna Verticchio (email: akam10@optonline.net, snail-mail her care of Custer, or leave her a voicemail message 631-765-2626) by May 1, 2009. The terms of the following Directors expire in June: Donna L. McCormick, President; Kurt Massey, Vice President; Barbara Lebkuecher, Treasurer; Pete Guastella, Secretary; John Mastromarino, CPA, Finance Chair; Directors: Alarico Verticchio and Jeffrey Owen Katz, Ph.D. ★

CUSTER'S NEW WEBSITE

If you go to CusterObservatory.org you'll see some changes have been made. There is a fresh, new look to the homepage which has many informative links to other organizations and astronomical resources. Webmaster David Van Popering did a lot of research on website design so that Custer's would be as user friendly as possible. So far, the feedback has been resoundingly positive. David is continuously working on the site, adding features and updating information, so stop by often. And, if you have a suggestion to make or material to contribute, he welcomes input (DobsonianDave@gmail.com). Excellent work, David! ★

CUSTER IN THE PRESS

In addition to the regular listings of Custer events in the calendars of print and web periodicals, *The Suffolk Times* sent ace photographer, Randee Dadonna, to the Jamboree and published in their October 9th issue a large color photo depicting several Custerites around a telescope. A reporter from *The Long Island Catholic* attended the Jamboree; that resulted in an excellent feature story about the conference with a focus on Bro. Guy Consolmagno's keynote address. Brookhaven National Laboratory's own periodical included Custer in their coverage of the Break-Thru Mini-Grant award ceremony. In November, the Holiday Edition of the Star Publishing Group's magazine, *Living on Long Island*, devoted a full page with photos to Custer's holiday parties ("Holiday Delights: Festive Treats at Historic Setting"). Many radio stations, including WUSB.fm (thanks to Bruce Alan Martin), WBAI.fm (thanks to Ahmad Ali), WLIU.fm (thanks to Bonnie Grice for interviewing Dava Sobel about the Jamboree), WPKN.fm (thanks to Andy Poniros)--frequently promote Custer's events. And we are grateful to *Newsday* for regularly highlighting our events, and to AAA, AOS, ASLI, and all the other amateur observers groups for featuring Custer in their publications. ★

OBSERVATORY-RESEARCH COMMITTEE REPORT

Jeffrey Owen Katz, Ph.D., Chair

In addition to the significant events covered elsewhere in this issue, the following progress has been made over the past quarter.

In October, trenches were dug and conduit layed for network connections and instrumentation lines to the shed and elsewhere. Our thanks go to Dave Warasila for the loan of his trench digger, to Bob Warasila for donating the conduit, and to Helio Takai, the Warasilas and others for their labor. I have since run CAT-5 wiring through that conduit, assisted by Bobbi Eisenberg.

A garage door opener and additional electronics were installed on the shed's north bay roof as another step toward automating that bay and the soon-to-be-installed telescope. Thanks to Justine Haupt, Aditya Risbud, Rico Verticchio, and especially to Jim Eagan and Steve Orlando for their labor-intensive contributions to the endeavor. In the Fall, the pier for the telescope had been cut down, services donated by local mason Steven Born. We're grateful to Custer Member, David Barnett, for machining the mounting plate, and to all those who worked to adjust the pier to accommodate the telescope. The automation project should be complete by the end of February.

The Celestron 14" telescope in the south bay shed is now fully functional and automated. All that remains is to automate the roll-off roof; that project will be modeled after the north bay project. Part of the automation efforts include providing remote internet-based access to these telescopes.

Work to remedy the water intrusion problem in the dome was completed in late October. Additional sealant was applied to the cement block ring, a rubber "skirt" was wrapped around the ring and sealant added to deflect water away from the area. Once the sheetrock is replaced and painted in the ceiling beneath the dome floor, the dome remediation project will be completed.

We currently have an intern who is working on an exoplanet project, which he hopes to present at the 2009 Long Island Science and Engineering Fair. The student is Alexander "AJ" Scaramucci (Manhasset HS) who won one of the two Custer Student Achievement Awards last October. In the coming months, we will intensify our efforts to find and involve other interns. ★

2008 JAMBOREE: CRUNCHING THE NUMBERS



Custer Members L-R Justine Haupt, David Van Popering, Christopher Cardona, and John Leonardi
Photo: Randee Daddona courtesy of The Suffolk Times

Custer's 30th Annual Astronomy Jamboree was held on October 3 and 4, 2008. Approximately 117 people attended the Jamboree in addition to the 26 speakers, Staff members, and guests. Two high school students were presented with achievement awards for their projects: Kaitlin Madigan for "The Altitude of the Sun and the Changing Seasons" and Alexander "A.J." Scaramucci for "A Search for Novae in the Andromeda Galaxy"; each student received a \$100 check and a one year complimentary family membership. The Jamboree was widely publicized by direct mail, distribution of flyers and posters, public service announcements, ads in web-based and print media, and more. Twelve newcomers became Members as a result of the event. Custer received \$350 in cash donations to support the Jamboree (thanks to Tom Burton, Vincent Caracci, Doris Eich, David Fisher, Barbara Lebkuecher, and Nikki Longo). An additional \$315 in services were donated by the Silver Sands Hotel and the Cross-Sound Ferry. Over \$2,100 in prizes were donated for the raffle by the Amateur Observers' Society, Astronomical Society of Long Island, David Barnett, Berger Brothers, Camera Concepts, Claudio's Restaurant, Custer Institute, East End Arts Council, Barbara Lebkuecher, Tom Madigan, North Fork Fun-N-Fitness,

Pepi's Restaurant, and Spectrum Thin Films (which alone contributed nearly \$800 in filters); despite the value of the prizes, the raffle took in only \$509. The entire event, however, was profitable, netting over \$2,819.00. Custer extends its deepest thanks to all those who helped make this a successful event: the speakers, donors, media, attendees, and especially Custer's dedicated Staff. ★

30th ANNUAL CUSTER ASTRONOMY JAMBOREE

Tom Stock

By 8 PM Friday, the wine and cheese and the Johnny Zarrow band were ready to go to kick off one of the best astronomy jamborees I've experienced at Custer Institute. A small crowd gathered, chairs were pushed back, and the dancing began. Bass guitar player Henry Goode's fingers scrambled over his six string guitar, his head tapping instead of a foot stomping. They were grooving, in the zone, belting out rhythm and blues. We listened to great music from the deep, inner core of these great performers as vibrant upwellings in wave after wave of music stormed the main room...and the sky was clear. The concert ended with the "Astronomer's Drinking Song" sung to the tune of "Yankee Doodle Came to Town." We adjourned to the meeting room for our circle of poetry, "The Universe in Verse" with Bob and Steve Chapin.

By the end of the evening, Venus and the Moon had set. Viewing of Jupiter proceeded in the dome and on the grassy green field. The scene was set and the curtain about to go up on a fantastic day of lectures, fellowship, and exhibits at nearby Southold High School.

On Saturday morning I crawled into David Cohn's portable planetarium on the school's gym floor and listened to stories about the constellations by Andi Pisacano. We reviewed the constellations of the zodiac, the seven bird constellations, the story behind the dolphin and Cetus, the whale at the bottom of the sea. We said farewell to the summer triangle and were able to witness time going backwards and the

effects of the atmosphere. What fun! After that, Dr. Mike Inglis had us on the edge of our seats with his gripping talk, "How Many Ways Can Black Holes Kill You?"

The afternoon lectures were fabulous. Dr. Michael Faison's PowerPoint presentation started off with the questions: "Why should I care about science?" and "Why should I care about astronomy?" The answer was: "Because science is interesting and can help us solve problems." He pointed out some of the challenges of the 21st century--population, light pollution--and suggested we check out ScienceDebate2008.com to find out where both presidential candidates stand on 14 science questions.

Dava Sobel's presentation was engaging. She showed pictures of Galileo's notebook, his sketches of the moon, discussed his observation of Neptune, and gave us the perfect ending: Galileo's poem, "Enigma." It was a fascinating talk.

Dr. Dan Davis traced his journey as an amateur astronomer from his teenage years, thus laying the groundwork for a discussion of how he and the keynote speaker, Brother Guy Consolmagno, came to co-author their book, *Turn Left at Orion*.

The final lecture, "Latest News from the Asteroid Belt," held the audience's attention for 90 minutes as Brother Guy used energetic motions to demonstrate enthusiasm for his research on the Vatican's meteorite collection and the latest thinking about the formation of our solar system. Why does the Pope have an observatory? To know and appreciate God's creation!

All the presentations were powerful, informative, engaging and stimulating. What a great way to spend a crisp Fall day on the North Fork of Long Island! ★

STAR PARTY U

Barlow Bob

Solar Director of the NEAF Solar Star Party

You know you're destined to attend Star Party University when your parents refer to your birth as "Baby's first light."

Your amateur astronomy education begins in early childhood. A telescope with a solar filter stands at your window and projects images of sunspots on the wall; you are encouraged to trace the sunspots during your first solar cycle. You watch "Mr. Rogers" on television during the day and "The Star Hustler" at night. Holidays are occasions for educational crafts: on Halloween, you dress up as your favorite constellation and spray your hair silver to simulate the Milky Way; on Christmas, you arrange the lights to form constellations and observe their spectrum through a holographic diffraction grating. At your first Little League game, your parents beam proudly when you fail to catch a baseball because you were too busy observing large sunspots through your glasses (coated with mylar solar filters, of course). In high school, you explore a wide range of subjects: In Computer Science, you create a spreadsheet for your first Messier marathon; the topic of your History term paper is "Women in Astronomy"; and in Shop Class you create a rocker box for your first dobsonian telescope. At college, rather than join a traditional fraternity/sorority, you join the Astronomy Club. As a "newbee" pledge you learn the basics of being an amateur astronomer and become initiated into Star Party University.

Classes at Star Party U are mostly held outdoors from sunset to sunrise. The campus is divided up into TeleVue Terrace, Meade Meadow, Celestron Cove, Astrophysics Acres, and Questar Square. Tuition is inexpensive, but only includes access to the campus, dormitories and cafeteria. Students must pay for their own warm clothing, books, supplies, and laboratory equipment, which they are encouraged to share with each another.

Continued next page.....

There are many educational opportunities for dedicated students. Some prefer the small classes and friendly family atmosphere of the local colleges affiliates of Star Party U. These include: Cherry Springs Star Party in PA (6/18-21/09), AOS StarFest in NY (6/19-21/09), Arunah Hill Days Star Party in MA (8/21-23/09), Delmarva Star Party in MD (9/17-20/09), Connecticut Star Party (9/18-20/09), and the Jersey Starquest Star Party in NJ (10/09). Other students prefer to attend the Ivy League affiliates, such as the Riverside Star Party in CA (1/23-25/09) and the Texas Star Party in TX (4/19-26/09). Summer classes are held annually at the main campuses of Star Party U, most are over three-day weekends during the New Moon. The Stellafane seminar in Springfield, VT (8/13-16/09) offers certificates in subjects related to telescope building. And the Rockland Astronomy Club annually holds a 10-day Summer Star Party in Savoy, MA (8/14-23/09). During Winter recess, students can take advantage of the Winter Star Party in FL (2/21-28/09). And Spring break has never been the same since the inception of NEAF, the annual Northeast Astronomy Forum and Telescope Show (4/18-19/09), where students attend lectures by famous professors, shop for the latest lab equipment, and meet colleagues from the many astronomy clubs and affiliates of Star Party U. For a complete list, click on: Barlow Bob's Calendar of Events:

http://www.arunah.org/barlowbob_calendar_2009.pdf

Unlike most colleges and universities, students never graduate from Star Party U. Classes are now going on at your local campus so enroll today for a lifetime of education, camaraderie, and fun! ★

PAST EVENTS

Since the Jamboree in October, Custer has been host to a number of successful educational and cultural events. The Open Mic Nights with Liza Coppola as M.C. (now held on the first Friday of every month) have attracted many talented musicians from around Long Island and from all age groups.

Members' Nights (last Friday of every month), coordinated by David Van Popering, have been occasions for observing when the weather is clear, and for alternating between lively discussion and working on various projects when it's cloudy.

There have been several Saturday afternoons of StarLab portable planetarium shows, often attended by Scout troops; Andi Pisacano excels as a presenter who makes the experience both fun and educational. Custer had four meteor shower parties: the Orionids on October 18th, the Leonids on November 15th, the Gemnids on December 13th, and the Quadrantids on January 3rd which was exceptionally well-attended by over 100 visitors who joined us that night. On November 22nd, well-know author and astronomy instructor, Phil Harrington, presented an excellent lecture which not only taught the audience about observing equipment but what to consider when purchasing a telescope. And what holiday season would be complete without attending a Custer party?

On December 6th, former president Chuck Cardona decorated the observatory while cooking up a turkey and ham buffet that was enjoyed by several dozen people. The party included a gift grab bag, observing, and an outstanding concert of seasonal tunes by the East End Brass ensemble (our deepest thanks to them for donating their time and talent!). The fourth annual "New Year's Eve Under the Stars" turned into "New Year's Eve Under the Snowflakes" when, on the afternoon of the party, nature dropped approximately 4" of snow on Southold. While that was enough to more than half of those on the reservation list, nearly two dozen adventurous souls (some from as far away as Freeport and Manhattan) found their way to the observatory and had an evening filled with music, fun and camaraderie.

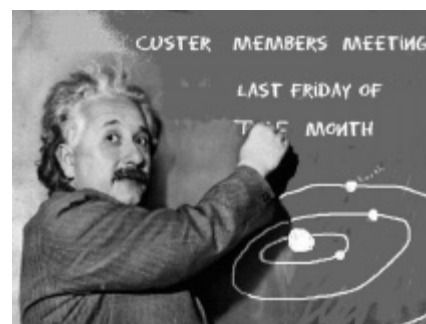
A feast of home-cooked ham, turkey, pot roast, quiche, pasta and veggies was prepared by Custer chefs (thanks to Bill Funke, Justine Haupt, Jeff Katz, Mary Madigan, Donna McCormick, Mary Leonard, and Anna Verticchio) with lots of other great appetizers, snacks, wine, and desserts contributed by the revelers.

Newcomers were given a tour of the observatory and the skies cleared enough for some actual observing, hough it was so cold that even the most stoical of the Staff were reluctant to keep at it for long.

Throughout the evening, Ahmad Ali and Kim Tetrault serenaded the group, and everyone rang in the new year by singing *Auld Lang Syne* between sips of champagne. It was a fabulous evening with old friends and new. No wonder Custer is now the North Fork's new hot spot for a cold winter's eve that's filled with promise for the future days (and especially nights) ahead! ★

YEAR-END APPEAL

The Custer Institute is a publicly-supported educational nonprofit that relies on its Members in many ways, one of which is financial. Custer would like to thank the following people for their generous response to our year-end appeal which raised \$2,995: Kenneth Anderson; Gladys Collier; JoAnn Delafield (Sponsor); Doris Eich; David Fisher; Jonathan Greenfield (Patron); Karl, Ina & Marcelle Greenfield; Frank & Joann Gumper (Benefactors); Tony Hoffman; Robert & Susan King; Laura Klein (Benefactor); John & Mary Leonardi; Thomas Mauri (Benefactor); Raymond Mennell; Pat Milford; Robert Ragonese; Mary Rasmussen; Charles Scaringello; Sven Steen; John Vogt (Sponsor); Anne Walsh (Sponsor); Bob Warasila (Benefactor); and, for their continued support of The Music Project, Barbara Lebkuecher (Patron), Anna & Alarico Verticchio (Sponsors). A special thanks also goes to Megan Peil for her much welcomed and needed gift to the Observatory Staff: a giant box of hand-warmers! ★



UPCOMING EVENTS AT CUSTER

Fri., Jan. 30, 7:00 PM

MEMBERS' NIGHT: LAST FRIDAY OF EVERY MONTH!

A Members-Only (and their guests) evening for mingling, observing, enjoying the observatory and its resources. Admission: FREE.

Sat., Jan. 31, 7:30-9:00 PM

IT'S NOT MAGIC, IT'S PHYSICS!

A fun way to learn and be demystified through lots of demonstrations and the "magic" of a van de Graaff generator that will make your hair stand on end! Each demo will describe a phenomenon and its relevance to daily life. Presenter: Dr. Helio Takai is a physicist at Brookhaven National Lab and is on Custer's Research Committee. Suggested Donation: \$10 Members, \$13 Non-Members, \$5 Students.

Fri., Feb. 6, 7:00 - 10:00 PM

OPEN MIC NIGHT: FIRST FRIDAY OF EVERY MONTH!

Interested in becoming a performer? This is a great opportunity for all you musicians, comics, poets, magicians and storytellers to let loose and get experience in front of a live audience. Everyone else: come and see the stars of tomorrow! Hosted by talented singer and songwriter, Liza Coppola. Suggested Donation: FREE (although any donation to help support our programs would be appreciated).

Tues., Feb. 17, 7:00 - 10:00 PM

SEMINAR: RECESSION/DEPRESSION-PROOFING YOUR NOT-FOR-PROFIT

How and why do some nonprofits flourish while others barely survive? Topics will include: management, Board development, community relations, marketing, funding, fundraising, and effective tips for getting grants. Instructor: Liz Irwin, a nonprofit improvement expert and leader of nonprofit organizations on the East End. Reservations accepted through Feb. 14: contact Liz at 631-433-6016 or LizIrwin@optonline.net. Suggested donation: \$35 Members, \$45 Non-Members. Pay at the door (checks payable to: Custer Institute).

Fri., Feb. 27, 7:00 PM

MEMBERS' NIGHT: LAST FRIDAY OF EVERY MONTH!

Sat., Feb. 28, 7:30-9:00 PM

WHAT'S UP UNDER THE GROUND: THE GEOPHYSICS OF LONG ISLAND

You'll learn about what the geological and geophysical studies, and such modern technology as ground-penetrating radar, reveal about many of Long Island's secrets and history. Presenter: Dr. Dan Davis is a geophysics professor at Stony Brook University and co-author of the best selling book, *Turn Left at Orion*. Suggested Donation: \$10 Members, \$13 Non-Members, \$5 Full-Time Students.

Fri., March 6, 7:00 - 10:00 PM

OPEN MIC NIGHT: FIRST FRIDAY OF EVERY MONTH!

Sat., March 7, 6:00-9:00 PM

ST. PAT'S DINNER AND CONCERT

At 6PM, a corned-beef and cabbage feast prepared by Chef Chuck O'Cardona (feel free to bring your favorite dish or dessert to add to the table). At 8:00 PM, enjoy a toe tapping concert of traditional Irish music by Johnny Cuomo, renown among the Irish on both sides of the Atlantic. Suggested Donation: \$20 Members, \$25 Non-Members, \$10 Students, \$5 Kids under 14.

Sat., March 14, 7:30-9:00 PM

NATURE'S BEACONS: TYPE Ia SUPERNOVAE

You'll learn about Type Ia supernovae, which are bright stellar explosions that occur when a thermonuclear runaway incinerates a compact star known as a "white dwarf," and how they are used in cosmological studies. Presenter: Dr. Alan Calder is an astrophysicist and Assistant Professor of Astronomy at Stony Brook Uni. Suggested Donation: \$10 Members, \$13 Non-Members, \$5 Full-Time Students.

Fri., March 27, 7:00 PM

MEMBERS' NIGHT: LAST FRIDAY OF EVERY MONTH!

Sat., March 28, 7:30-9:00 PM

THE HISTORY OF THE TELESCOPE

2009 is the "International Year of Astronomy" as it marks the 400th anniversary of the telescope. What better way to celebrate than by reviewing the history and evolution of the telescope? Presenter: Edward Furey is a telescope historian and has been a member of Custer for over 15 years. Suggested Donation: \$10 Members, \$13 Non-Members, \$5 Full-Time Students.

MARK YOUR CALENDAR FOR THESE OTHER UPCOMING EVENTS

Saturday, June 13. Custer's Annual Meeting and BBQ

Friday, August 7. Astronomical League 2009 Conference: BBQ and Star Party at Custer (in collaboration with AOS)

Saturday, September 26. (Date Tentative) Custer's 31st Annual Astronomy Jamboree

Saturday, December 5. Holiday Party and Concert

Thursday, December 31. New Year's Eve Under the Stars

ON-GOING: Every Sat. evening, from dusk until midnight, Custer is open to the general public. Staff provide guided tours of the sky (weather permitting) via laser pointers and powerful telescopes. General Admission: minimum suggested donation of \$5 Adults, \$3 Children under 14; FREE for Members. Group visits by classes, scouts, and others are welcome (contact CusterDonna@yahoo.com to arrange). The facilities are also available for private functions.

Custer Notices

CUSTER PIANO FOR SALE

In order to make room in the lecture hall, as well as to finance the restoration of our antique George Steck piano, Custer is selling its Asian console piano with bench. Specs: HSINGHAI model #751357; oldest brand of piano made in China, believed to have been manufactured in the 1980s but in like-new condition; recently tuned; high polish ebony finish; sleek modern leg-less design reduces floor space. Asking \$875. Contact CusterDonna@yahoo.com or call 631-765-2626 to discuss or for photos. Nominal moving charge additional (for moving info, contact Douglas Gregg, Classic Piano Doc, (765-3996).

BENEFITS OF MEMBERSHIP

The Custer Institute is a 501(c)(3) N.Y. State educational nonprofit that operates exclusively on public support (proceeds from events, dues, and small donations); it has no endowment. It is staffed by volunteers dedicated to advancing Custer's educational and research goals, and its service to the community. In addition to the reward of supporting a unique organization such as Custer, Members also enjoy the following: Email subscription to our newsletter, library privileges; discounts on classes, lectures, and other events; invitations to members-only events; voting privileges; access to the facilities; special training programs; opportunity to become an Observatory Staff Member. Annual Dues: \$45 Individual; \$60 Family; \$25 Senior (65+), \$25 Full-Time Student; \$100 Sponsor; \$250 Benefactor; \$500 Patron; \$1000 Corp. Sponsor.

**For an up to date events calendar visit:
www.CusterObservatory.org**

Those who would like to submit material should contact CusterDonna@yahoo.com
with their ideas and/or for a copy of the publication guidelines.

The Custer Comment

Custer Institute
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