Starscan

Johnson Space Center
Astronomical Society

Volume 26, Number 3 March 2010

Becky Ramotowski's picture of the ISS passing through Orion

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Un mensaje del Presidente
(A message from the President)

Greetings:

OK folks, don't forget this month THERE IS NO MEETING. The bulk of you of will be at Fort McKavett enjoying the skies. I hope for everyone's sake the weather is second to none. Due to unforeseen circumstances, we are not going to make it this time around, but there is October that will be here sooner than later. I have my "agents" in place to let me know if any issues arise, and above all, Chris will have the banner, please send a picture of the gang my way.

A big thanks to Al, Don, Charlie, Hernan, and Evelina for helping Aaron Clevenson of NHAC in showing some international students around and joining them for dinner.

Please keep your eyes pealed for additions to the calendar and the NSN as we have already had a request from Katy at the LPI for some help on March 20th. Clear skies folks….

David Haviland

LETTER FROM THE EDITOR
By Connie Haviland

HI EVERYONE;

I thought I would let Dave create, produce, develop and design the Starscan this month, I found myself personally involved due to some technical difficulties on David's part. HE ASKED FOR HELP!!! Being the loving wife and understanding and caring editor I am, I gave him a hand. Honestly speaking, I have been suffering from a very nasty upper respiratory infection, complicated with a possible run of the flu and was unable to get the Starscan out this month. Please be kind and let him know how much we all appreciate his efforts in helping me out. ENJOY…..

LETTER TO THE EDITOR

Easier to sum up than to reproduce here but it has been exciting seeing the Messier compendium be formed right here on the Netslyder with the efforts of many folk. It is going to be a real treat seeing this thing when finished.

Star Parties for 2010

Bob Taylor

March 11-14th, Fort McKavett!!!
April 16th, "dusk" - Haak Winery
May 22nd, 7 p.m. LPI—Moon and Planets
May/June, Date TBA "dusk" - Haak Winery
November 20th, 7p.m. LPI—Jupiter

What's Happening at the George!!!

Need volunteers

Saturday Public Observing – All times are dusk to 11:00 p.m..Please contact the following building manager teams to volunteer:

March 06: Building Managers, McCollum/Sexton (justinmccollum@hotmail.com / carlsexton@hotmail.com)

March 13: Building Managers, McKaye/Sexton (jemckaye@comcast.net / carlsexton@hotmail.com)

March 20: Building Managers, Knauss/Rivich (birdbarn2000@yahoo.com / icgalaxies@cs.com)

March 27: Building Managers, Lockwood/Mills (mplockwood@att.net / k5jmm@yahoo.com)

March 20th, 10 a.m.–1 p.m. – Sun-Earth Day: Magnetic Storms—NOTE a request has been made by Katy for those of us with solar filters to try and attend.

April 17th, 10 a.m.–1 p.m. – Earth Day: AtmospheresPlease note: Each child must be accompanied by a responsible parent or adult the entire time they are visiting the LPI.

For more information e-mail Spaceday@lpi.usra.edu or call 281-486-2106.

For more information, go to
http://www.lpi.usra.edu/education/space_days/
Or call Katy at (281) 486-2106
3600 Bay Area Boulevard, Houston, Texas

Astronomers from Brazil

(compiled from the email list)
Aaron Clevenson originally posted:

Hello fellow astronomers.

I am sorry for the lateness of this note, but we are still finalizing the details...
I had sent a note out previously, but the event is close at this point and I have more information to share.

About 12 amateur astronomers (including 4 high school students and 2 college students) from Brazil will be visiting Houston from 3/1 through 3/3. (They are also visiting Florida.) They would like to spend some time talking with local amateur astronomers. Are any of you available on Monday evening? I have proposed dinner and discussion at a local restaurant (Mexican? BBQ?). They are staying at the EconoLodge near NASA and have no ground transportation, so do not want to travel far.

Are any of you interested and available to participate? I plan to come down, but this is more in your area than NHACs. Also looking for ideas for dinner location... I will bring my wife's van, so I could actually carry 6 passengers somewhere... Thoughts on getting to the restaurant would also be welcome...

Please respond to me at aaron@clevenson.org

I will share other details as I have them. But they will be here Monday.

Thanks.
Aaron

A call was put out and Al Kelly, Don Halter, Charlie Hudson, Hernan and Evelina Contreras were able to make the event. Al Kelly posted the wrap up… with links to pictures.

From Al Kelly…

We had a fine get-together last night with visitors from Brazil. We dined at Mamacitas and communicated with/entertained each other with strings of tortured English and Portuguese. I think we tortured both languages, while they did the best they could with English. Two NHAC members, Aaron Clevenson and ? (my apologies), initiated the visit and drove down for the festivities.

See pictures at:
http://www.kellysky.net/1.jpg
http://www.kellysky.net/2.jpg
http://www.kellysky.net/3.jpg
http://www.kellysky.net/4.jpg
http://www.kellysky.net/5.jpg
http://www.kellysky.net/6.jpg
http://www.kellysky.net/7.jpg
http://www.kellysky.net/8.jpg
http://www.kellysky.net/9.jpg

I managed to record one name, Marcel de Oliveira Souza, who stands at the far right in picture number 8. He has a bachelors degree in physics (astrophysics, I think) from a Brazilian University and autographed his book for me, "Um Passeio Pelo Ce'u." He is a primary organizer of the group.

Buzz Aldrin made a presentation to their group/program last year, giving impetus to the idea of a visit to JSC and the Cape. The four younger visitors (the four seated at the table in picture number 8) are late high school/early college students in the basic astronomy program organized by Marcel and the gentleman at the far left in picture 8. In addition to education, part of their drive is to combat child labor in Brazil. I believe I am correct in remembering that they come from just west of Rio De Janeiro. Marcel and the other mentioned gentleman produce a local TV show on astronomy.

That gentleman brought a rather impressive video camera, so Aaron Clevenson represented NHAC and I represented JSCAS in video interviews welcoming the group.

I think it is always best when my tapings are seen only in Brazil. They were a delightful bunch, very excited by the visit and seeming to enjoy each minute.

Chile Earthquake May Have Shortened Days on Earth

SPACE.com Staff

The massive 8.8 earthquake that struck Chile may have changed the entire Earth's rotation and shortened the length of days on our planet, a NASA scientist said Monday. The quake, the seventh strongest earthquake in recorded history, hit Chile Saturday and should have shortened the length of an Earth day by 1.26 milliseconds, according to research scientist Richard Gross at NASA's Jet Propulsion Laboratory in Pasadena, Calif.

"Perhaps more impressive is how much the quake shifted Earth's axis," NASA officials said in a Monday update. The computer model used by Gross and his colleagues to determine the effects of the Chile earthquake effect also found that it should have moved Earth's figure axis by about 3 inches (8 cm or 27 milliarcseconds).

The Earth's figure axis is not the same as its north-south axis, which it spins around once every day at a speed of about 1,000 mph (1,604 kph). The figure axis is the axis around which the Earth's mass is balanced. It is offset from the Earth's north-south axis by about 33 feet (10 meters). Strong earthquakes have altered Earth's days and its axis in the past. The 9.1 Sumatran earthquake in 2004, which set off a deadly tsunami, should have shortened Earth's days by 6.8 microseconds and shifted its axis by about 2.76 inches (7 cm, or 2.32 milliarcseconds).

One Earth day is about 24 hours long. Over the course of a year, the length of a day normally changes gradually by one millisecond. It increases in the winter, when the Earth rotates more slowly, and decreases in the summer, Gross has said in the past. The Chile earthquake was much smaller than the Sumatran temblor, but its effects on the Earth are larger because of its location. Its epicenter was located in the Earth's mid-latitudes rather than near the equator like the Sumatran event.

The fault responsible for the 2010 Chile quake also slices through Earth at a steeper angle than the Sumatran quake's fault, NASA scientists said. "This makes the Chile fault more effective in moving Earth's mass vertically and hence more effective in shifting Earth's figure axis," NASA officials said. Gross said his findings are based on early data available on the Chile earthquake. As more information about its characteristics are revealed, his prediction of its effects will likely change.

The Chile earthquake has killed more than 700 people and caused widespread devastation in the South American country. Several major telescopes in Chile's Atacama Desert have escaped damage, according to the European Southern Observatory managing them. A salt-measuring NASA satellite instrument destined to be installed on an Argentinean satellite was also undamaged in the earthquake, JPL officials said.

The Aquarius instrument was in the city of Bariloche, Argentina, where it is being installed in the Satelite de Aplicaciones Cientificas (SAC-D) satellite. The satellite integration facility is about 365 miles (588 km) from the Chile quake's epicenter. The Aquarius instrument is designed to provide monthly global maps of the ocean's salt concentration in order to track current circulation and its role in climate change.

An adventure at the USRA, or as many of us refer to it, the LPI building…

David Haviland

As some of you know from the Netslyder, both Chris Randall and myself had to go down to the LPI and get security badges taken as they have switched over from using a keypad system to a photo-ID system. I was taken back to the loading dock where the security area is, my photo was taken and I was invited to go tour the library until the badge was ready. I wandered back and noted the large SCT they have that has been brought out for star parties and the like and their numerous models of planets, moons, and of course the moon.

I wandered about the models of the Mars rovers and then found myself in front of a rather large bookcase, housing multiple colored series. I looked and found myself looking at the archives of Apollo 16. Not just one book but about four shelves of books of varying topics all devoted in that section to Apollo 16. Looking further to my left , starting the series was Apollo 7, and to might right the series finishing with Apollo 17. I found Apollo 15 which must have had something like 35-45 books on a variety of topics ranging from "Raw Telemetry" which appeared to be in print form the raw language at the time (a mix of letters and numbers in pairs, with 8 pairs per line… I thought that was hexadecimal but I'm not a real programmer either), there was nothing but pages and pages of it spanning 3 thick volumes. A volume cataloging what pictures were taken, when – to the second, and by who – LMP, or CDR. Three large volumes encompassed transcripts of all communications from pre-launch discussion all the way to signing off at splashdown. I was in heaven… it seems I was deeply engrossed in fast scanning the transcripts prior to lifting off from the moon, when my contact in security called my name… and called it again, and then one more time. I may have to see at some point if I can go back and spend some time in there.

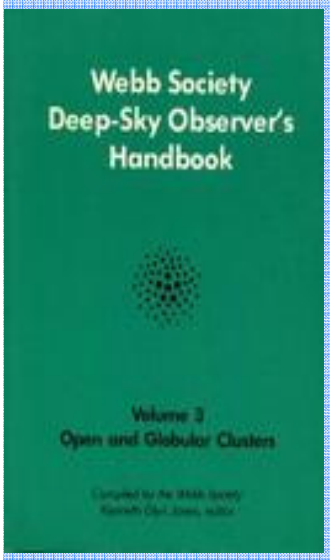
But I'm not done… there is another twist. Birds. Birds that I think are vultures or carrion eating birds. I noted them as I came by the receptionist desk but when I came out after getting my badge, there were even more. They were toward the back of the building, as you face the back within the grand foyer, they were off to the left on the patio.

These pictures don't do the situation justice… all in all, I must have seen 15-20 of these things wandering around. The receptionist said they were picking at some "black stuff" and I wasn't sure what she meant until I saw it. They were picking at the black filler or insulation that sealed the windows against their aluminum casings. Now as I've said at start of a few of my talks to the group, I'm a microbiologist/ immunologist by training not an organismal biologist. I'm hoping some of our "Birders" out there will know and can identify these birds and maybe offer an explanation as to why they seem to find the window insulation so attractive and offer an eco-friendly solution (short of tempting them with carrion of some form) to get them to be elsewhere.

Book Review for Johnson Space Center Astronomical Society

Title: Webb Society Deep-Sky Observer's Handbook: Volume 3: Open and Globular Clusters
Editor: Kenneth Glyn Jones
Enslow Publishers, Hillside, New Jersey, 07205
Joint US-UK publication date: 1980
ISBN: 0-89490-037-X (vol.3)
By Jim Wessel

Continuing from last month with the idea that suburban astronomers must target relatively bright objects, another logical step in that progression is the observation of star clusters. Volume 3 of the Webb Society Deep-Sky Observer's Handbook deals with this very topic in a rather succinct manner. For those that might be interested, this book provides a wonderful companion to the Astronomy League's Open Clusters Observing List, which is an on-again, off-again side project of mine.



Again, in what seems typical for this series, the honor attributed for writing the book seems oddly misplaced. Edmund S. Barker actually wrote the handbook, but Kenneth Glyn Jones gets the cover credit. Barker's writing style is flowing and for the most part easy to read, but occasionally he does stick a sentence it there that makes the reader wish he had taken a deeper breath, first, before tackling it.

There are four major sections to the book. Part one covers open clusters (hereafter OC). Part two provides an understanding of globular clusters (hereafter GC). Parts three and four are catalogs of OCs and GCs, respectively, and both are filled descriptions of the clusters and line drawings of the brighter member stars. An series of appendices follows, and closes the book.

Within Part one, there is an extremely short page and a half overview of the history of OCs. Then, the initial chapter on O Associations attempts to set a distinction between the eponymously named stellar group and the generalized term of 'open cluster'. The author of the book tries to set a rule of thumb with size and distance, and, as you can imagine, fails due to the myriad sizes of OCs which overlap O associations at both extremes. He then tries using the overall shape of each type to be the defining characteristic. This too falls short, as he describes the effect of gravity and distance from the galaxy's core, and also the age of the cluster in question largely determine its shape. Finally, he settles on an increase over the generalized mean of a given area of O-B2 type stars as the ultimate clincher for defining O associations. I find this to be a satisfactory answer, but why go to the effort of all the prior explanations?

The second chapter is titled "Galactic Open Clusters" and here is where the book starts to come into its own. Under it are five sections, each a couple of pages long. They are: 1. Classification, 2. Relation to the Galaxy, 3. Custer morphology, 4. Stellar populations, and 5. Colour (his spelling) magnitude diagrams. The first OC classification system was Shapley's, which I was personally unaware of, then came the more familiar Trumpler system. The section on Relation to the Galaxy talks about OCs' placement throughout the Milky Way, and how they are almost always found along the arms of a spiral type galaxy and often in close proximity to their natal H II region. Cluster morphology covers the shape and density of OCs, and the sometimes similar asterisms are largely eliminated from consideration, as are gravitationally bound and largely spherical globular clusters. The extremely brief section on Stellar populations covers the five categories of stars ranging from extreme Pop. II stars located in the halos of GCs to extreme Pop. I stars which form young OCs and O-B associations. Finally, the section on Colour magnitude diagrams goes into detail on the stellar temperature (hence color), spectra (giving the metallicity of stars) and age of star clusters based on location of the 'turn off point' and is closely tied to stellar evolution.

Briefly stated, chapter three (titled Catalogues of Open Clusters) gives a total of 1039 OCs for the Milky Way Galaxy, as of 1970's 2nd edition of Catalogue of Star Clusters, Associations, and Groups. A recent search on Google suggested that the actual total may be over 10,000 OCs.

The fourth chapter is on observing OCs and is split into two main parts, Identification of OCs and Cluster characteristics. Under the former, Barker mentions the difficulty in separating the true stellar members of an OC compared to the field or background stars, which is even more troublesome when the OC is

in a rich star field of the Milky Way. He points out that use of the Palomar Sky Survey prints are useful in this regard. (Jim's Note: I'll do you a step better – get familiar with using the online STScI Digitized Sky Survey, http://archive.stsci.edu/cgi-bin/dss_form . Using it, you can make a collection of your own of any section of the sky. I have a complete reference collection of these images for use as a 'ground truth' to compare my drawings against as I go through the AL's Open Cluster certification. But back to the book review…). The second section describes OC structure (whether they are loose, compressed, dense, etc), their magnitudes, the number of member stars, whether or not the OC is associated with a H II region, and finally flare stars and colored stars.

The start of the second section of the book begins with an extremely brief historical overview of the history of Globular Clusters (GCs). The fifth chapter proper, Galactic Globular Clusters, is broken into sections identical to the second chapter outlined above. In the first section on classification, the author covers Shapley's scheme then touches on Morgan's scheme based on the integrated spectra of the GC, and finally goes into Oosterhoff groups based on types of RR Lyrae variable stars present. Under the section on relation to the galaxy, we find that unlike OCs, which are typically found along the arms of a spiral galaxy, GCs form a loose halo orbiting around the nucleus, with a density gradient towards the center. The structure of GCs goes into a bit more detail with the Shapley classification scheme and describes stellar concentration differences between the Messier Globs and the far more spread out Palomar Globs. In the next section we again revisit Color Magnitude Diagrams and what they can tell a researcher about the evolution and age of a GC. The remaining topic here is Radio and X-ray sources in GCs.

The very short chapter six talks a bit about GCs that have been found in galaxies other than the Milky Way. Chapter seven fills in a tiny touch more on the history of GCs, mainly from the viewpoint of mid 20th century catalogs. The earliest one the book refers to is Melotte's of 1915 which had 83 member GCs. A few others are discussed in the following years peaking at 131 GCs, and at last Barker comes to the most recent catalog (at the time of the book's publication) which was Alter et al.'s 1970 Catalogue of Star Clusters, Associations and Groups, with no total given. A Google search today gives a figure of 150+ GCs for the Milky Way with perhaps an additional 10 to 20 yet to be found.

Chapter eight turns our attention and focus to the observation of GCs. Its three component parts are Intrinsic Factors, Non-Intrinsic Factors and Further Selected Clusters. The section on intrinsic factors revisits the Shapley classification as function of stellar density against areal size, and then incorporates integrated magnitude of the cluster and looks at the role played by the magnitude of the brighter member stars. Non-intrinsic factors examines the effect of dark nebulae and implied intragalactic dust, as well as the distance between the cluster and the earth on how those components alter our view of GCs. The remaining section talks about resolving GCs, the unusual NGC 2419 and Palomar GCs, and briefly discusses globulars around other nearby galaxies.

Part three of the book is a major section spanning 106 pages. Within, we find 176 selected OCs each complete with a short description and a pretty fair accompanying line drawing showing what the cluster looks like through a typical amateur astronomer's telescope (8-10") at low to medium power. There are an additional 29 OCs covered that only have a written description. This section is worth purchase of the book in and of itself, even though the J1975 epoch was used for coordinates and some the clusters may have moved a bit since then.

Part four is another long section and spreads over 40 pages. Here we find the GCs getting similar treatment, with 53 GCs illustrated with line drawings and description. There are another 10 GCs that only receive a written overview. This too, is an exceptionally worthwhile addition to the book.

The book ends with 5 appendices, one on Class 7 OCs, one on a few more observations on OCs, and one on measurement of distance to OCs using Cepheid stars and the like. There is one on sources to consult for photographic images of clusters, and finally the bibliography, which constitutes the last appendix. As you can imagine from a book published in 1980, it's not a strong source of research materials. Interested parties in that sort of thing should definitely look elsewhere.

For the final wrap-up, I'll start with the negative aspect. The biggest complaint I have for this book is the brevity of the historical overviews. You've have thought that at least some mention of Dreyer's work on the New General Catalog or the Index Catalog would have merited some mention, among others (i.e. Trumpler, Collinder, Dolizde, Biurakan, King, Ruprecht, Terzan, and the Berkley Catalog, just to name a very few) , but it is entirely lacking. Personally, I don't think the coverage presented does the topic sufficient justice. Please take this criticism with a grain of salt, as I am a bit of a history buff, and like to know the details about the progression of discoveries.

On the positive side, I found the two subsections on Colour Magnitude Diagrams to be excellent reads that really tied together the many facets of stellar evolution in a relatively short space. Of course, the copious line drawings and cluster descriptors that formed the lion's share information in the handbook are probably the best reason for inclusion of this book in your personal library. The book is well situated to be a significant aide in your pursuit of viable observing objects in a light polluted environment, or even better, in truly dark skies.

February 22nd, 2010

Could the Space Shuttle Program Be Extended to 2015?

Written by Nancy Atkinson

Congressional legislators in Florida are mounting a campaign to extend space shuttle operations to 2015, adding two flights each year. U.S. Rep. Suzanne Kosmas said a bipartisan plan is in the works, which would require adding another $200 million to the NASA budget for 2010 and between $1.5 – $2 billion a year starting in the 2011-12 budget year. "We're not going to do anything that's not safe," Kosmas was quoted in Florida Today, adding that securing the funding would be difficult in tight budget times, but "we're going to go for it," she said.

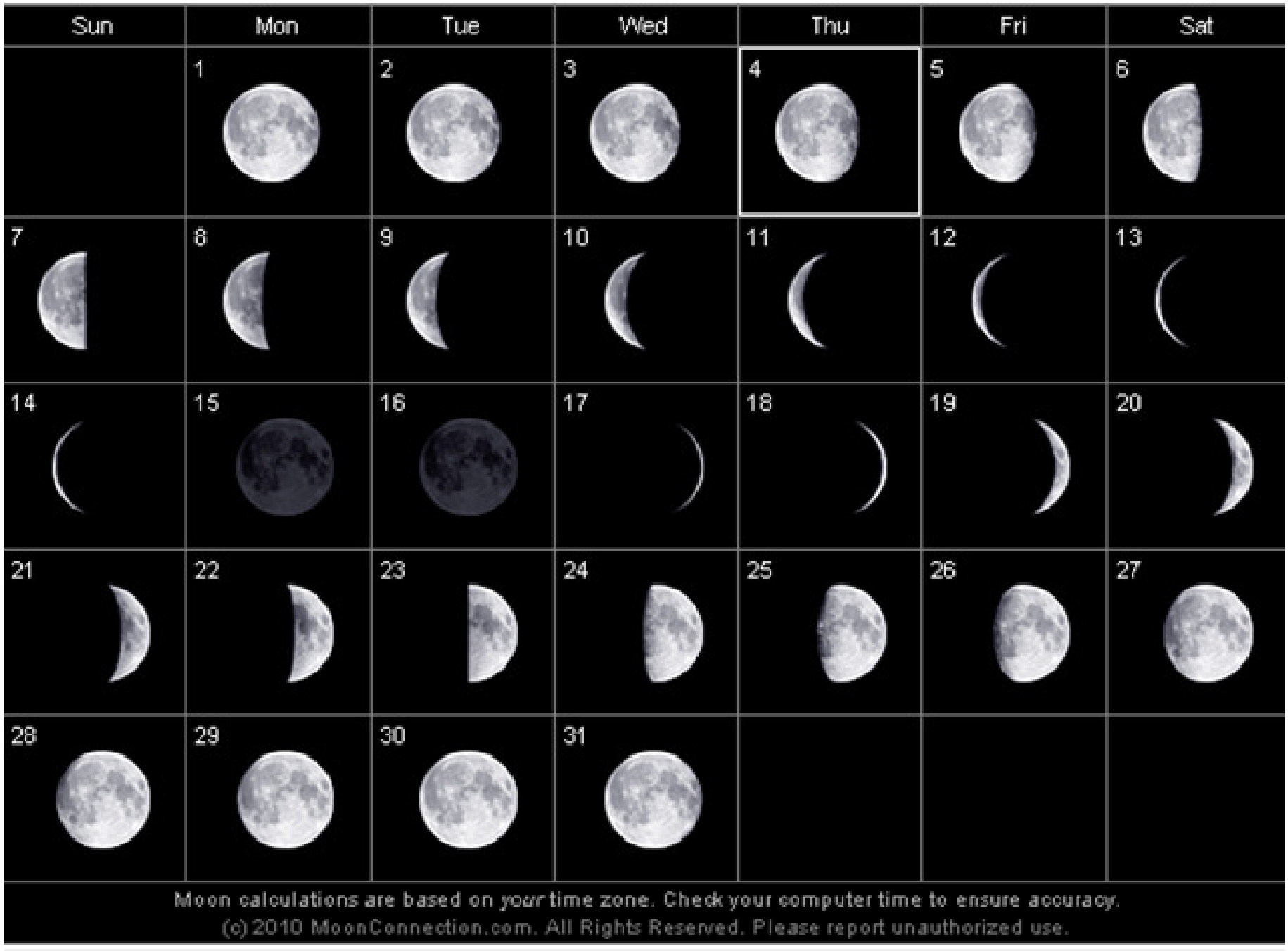
Figure 1: Space shuttle Endeavour lands in darkness on Runway 15 at the Shuttle Landing Facility at NASA's Kennedy Space Center in Florida. Photo credit: NASA/Sandra Joseph and Kevin O'Connell

At Kennedy Space Center early Monday morning after Endeavour returned home safely following the STS-130 mission, space shuttle program managers confirmed that while the shuttles are in good shape to continue flying, extending the program is not the direction their teams have been headed.

"From a technical, engineering standpoint, there would be nothing stopping the vehicles from being able to fly," said space shuttle integration manager Mike Moses. "They have a lot of life in them. We talk about the risks and hazards of flying, and that's a two edged sword. Anytime you're launching into space is a risky proposition, but this is a vehicle that we understand its risks very well, and we've learned how to work around the pieces that can cause us problems – the foam from Columbia is a good example. We've come a long way, if you look at the performance of the external tank since then, we have put a set of controls in place that have been paying off and really driving our risk numbers down." (LEFT: Figure 2: Shuttle launch director Mike Leinbach. Image credit: Nancy Atkinson)

It should be noted that Moses' and shuttle launch director Mike Leinbach did not bring up the issue of extending the shuttle program, but only were responding to questions asked by several journalists about the possibility of keeping the shuttle program going. "You guys are really fishing for me to say I want to keep flying the shuttles!" Moses said, while Leinbach expounded more on the reality staring in the face of the workers at KSC, and warned against giving people any false hope. "We have been very consistent as an agency over the past several years about 2010 being the end of the shuttle program," Leinbach said. "We have not wavered from that. There were people in the system that didn't want to believe that. But here we are in 2010 and the reality is starting to hit us. Our direction to shut down the shuttle program after we finish the station is clear. What is not clear is exactly what we are going on to next. You guys are the ones who asked about extending the shuttle program, we didn't sit up here and mention that. We've been

PHASES OF THE MOON FOR THE MONTH OF MARCH-2010



SUNRISE AND SUNSET SCHEDULE FOR MARCH-2010

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 Twi A: 5:28am Twi: 6:23am Sunrise: 6:47am Sunset: 6:20pm Twi: 6:44pm Twi A: 7:39pm Moonrise: 7:50pm Moonset: 7:07am	2 Twi A: 5:27am Twi: 6:22am Sunrise: 6:46am Sunset: 6:20pm Twi: 6:44pm Twi A: 7:40pm Moonrise: 8:57pm Moonset: 7:44am	3 Twi A: 5:26am Twi: 6:21am Sunrise: 6:45am Sunset: 6:21pm Twi: 6:45pm Twi A: 7:40pm Moonrise: 10:03pm Moonset: 8:21am	4 Twi A: 5:25am Twi: 6:20am Sunrise: 6:44am Sunset: 6:22pm Twi: 6:46pm Twi A: 7:41pm Moonrise: 11:07pm Moonset: 9:01am	5 Twi A: 5:24am Twi: 6:19am Sunrise: 6:43am Sunset: 6:22pm Twi: 6:46pm Twi A: 7:42pm Moonrise: none Moonset: 9:44am	6 Twi A: 5:23am Twi: 6:18am Sunrise: 6:42am Sunset: 6:23pm Twi: 6:47pm Twi A: 7:42pm Moonrise: 12:09am Moonset: 10:31am
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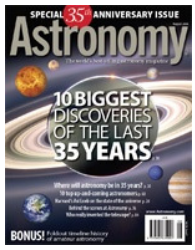
Folks:
In times past, people that have wanted to take advantage of the club discount have had to write their check, put it in with the renewal slip, and then either mail it to me at my home or chase me down at a meeting. In most cases, within a week, I have sent out the renewal. Sometimes, and I don't really mind, the renewals have gone out at my expense for the postage. Without hesitation, question, or fail, it is not the most efficient means to maintain club subscriptions. So as secretary, I'd like to try something new...

You get all your stuff ready for the subscription, whether it be Astronomy or Sky & Telescope, you keep it - you hang on to it. Email (most reliable) or tell me when you see me that you want to take advantage of the club discount for either or both of these publications and that you need a supporting letter. What I'll do is get the letter together and email the "letter from the treasurer/secretary" back to you as a PDF. You print it off, and enclose it with your renewal. For this to work your computer must have Adobe Reader (which is free) and a means to print it. I would like this procedure to become the "Standard Operating Procedure" for Astronomy/S&T discounts through JSCAS. For those still not in the computer age, we can process things as we have in the past.

Clear skies,
David Haviland



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Webpage is under construction, but will be up soon and I take PayPal as well.

ACTUAL PICTURES OF WHAT I HAVE DONE BOTH LIGHT AND DARK BACKGROUNDS

Light pollution:

Any adverse effect of artificial light including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste.

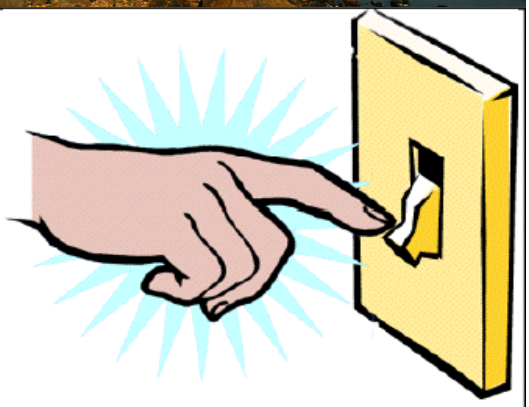
.Do you have a question about light pollution, protecting the night sky, or IDA's resources? **Get Help from IDA** http://www.darksky.org/mc/page.do?sitePageId=56399

Photograph © Phil Hart

IDA
THE LIGHT POLLUTION AUTHORITY

Help turn off the lights...

Join the
International Dark-Sky Association (IDA)
http://www.darksky.org
"To preserve and protect the nighttime environment and our heritage of dark skies through quality outdoor lighting."



Houston Area Astronomy Clubs

Brazosport Astronomy Club
Meets the Third Tuesday of the month, 7:45p.m.
At the Planetarium
400 College Drive
Clute, Texas (For more information, contact Judi James at the Planetarium 979-265-3376)

Fort Bend Astronomy Club http://www.fbac.org
Meets the third Friday of the month, 7:00 p.m.
Houston Community College Southwest Campus—Main Lecture Hall
10141 Cash Rd
Stafford, Texas 77477

Houston Astronomical Society http://spacibm.rice/edu/~has
Meets the first Friday of the month, 8:00 p.m.
University of Houston, University Park
Science and Research Building, Room 117

North Houston Astronomy Club http://www.astronomyclub.org
Meets the fourth Friday of the month, 7:30 p.m.
In the Teaching Theatre at Kingwood College
20000 Kingwood Drive
Kingwood, Texas

Galveston Stargazers
Meets the first Wednesday of the month At Home Cut Donuts, 6807 Stewart Rd, Galveston, TX
From 7PM to 9PM.
Contact: Jim Gilliam at Jim.Gilliam@dars.state.tx.us or
At (409)795-3620, M - F, 8AM to 5PM

Starscan Submission Procedures

Original articles of some relation to astronomy will be accepted up to 6 p. m. (18:00 hrs) on the 25th of each month. THE most convenient way to submit articles or a Calendar of Events is by email and is preferred, but hard copies (CD, disk) are also accepted. All articles must include author's name and phone number. Also include any picture credits. Word, WordPerfect, and text files will be accepted. I have set up a special email account so that I can keep all of the Starscan articles, pictures, information, etc, separate from all of the other email I get. This makes is much easier to edit and set up the Starscan

Please send all submissions to:
conniesstarscanaccount@gmail.com

The author of individual articles bears all responsibility for publishing any e-mail addresses in the article on the World Wide Web

Johnson Space Center
Astronomical Society

2008-Club Officers

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SIGS

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Astronomy 101 — Triple Nickel
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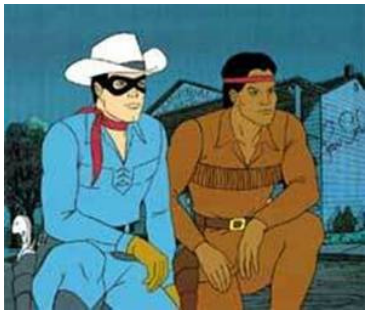
Binocular Observing – "OPEN"
Telescope Making – Bob Taylor
Deep Sky Observing – Hernan Contreras

WHO SAID ASTRONOMERS DO NOT HAVE A SENSE OF HUMOR?



The Lone Ranger and Tonto went camping in the desert. After they got their tent all set up, both men fell sound asleep. Some hours later, Tonto wakes the Lone Ranger and says, 'Kemo Sabe, look towards sky, what you see? '

'The Lone Ranger replies, 'I see millions of stars.'

'What does that tell you?' asked Tonto.

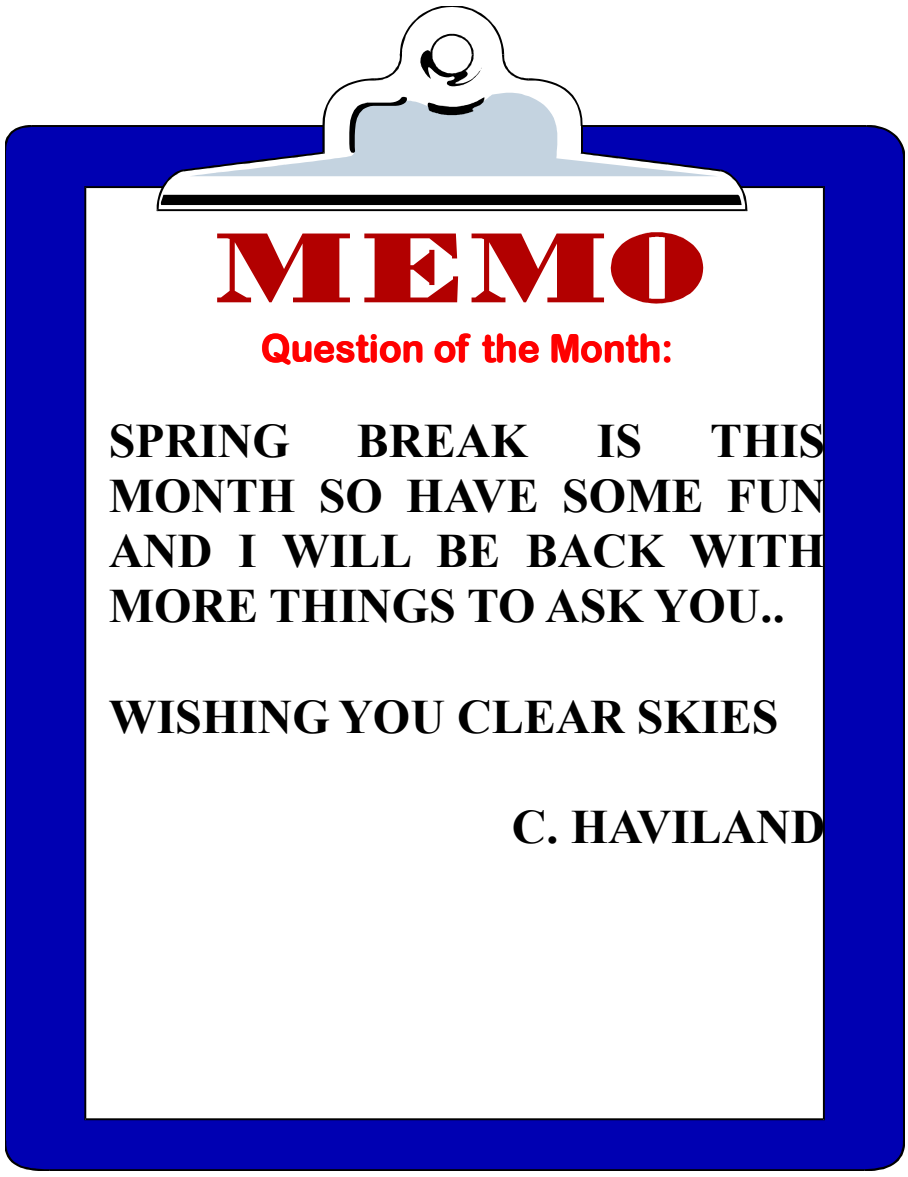
The Lone Ranger ponders for a minute then says, 'Astronomically speaking, it tells me there are millions of galaxies and potentially billions of planets.
Astrologically, it tells me that Saturn is in Leo.
Time wise, it appears to be approximately a quarter past three in the morning. Theologically, the Lord
is all-powerful and we are small and insignificant. Meteorologically, it seems we will have a beautiful day tomorrow. What's it tell you, Tonto?'

'You dumber than buffalo chips. It means someone stole the tent.'

Source: Unknown

Astronomy and Kids

This is the section strictly for kids (or kids at heart). We will be including information, stories, ideas, puzzles or anything that has to do with astronomy. The only difference here is, it will be directed for children. We don't discourage parents or any other adult to get involved. In fact, we encourage it strongly. So we hope you enjoy this section and if it touches a child's interest in astronomy, our goal has been achieved. Enjoy!!



MEMO

Question of the Month:

SPRING BREAK IS THIS MONTH SO HAVE SOME FUN AND I WILL BE BACK WITH MORE THINGS TO ASK YOU..

WISHING YOU CLEAR SKIES

C. HAVILAND

ANSWER TO:
NAME THIS OBJECT AND TELL ME SOMETHING ABOUT IT

M31 The Andromeda Galaxy
Description: spiral galaxy
Constellation: Andromeda

SOLUTIONS AND ANSWERS

QUESTION: Kennedy Space Center is situated on Cape Canaveral. Cape Canaveral has an interesting history. Can you tell me as much as you can find about this interesting location, we now launch rockets, shuttles and science labs into space?

ANSWER: Cape Canaveral, from the Spanish Cabo Cañaveral, is a headland in Brevard County, Florida, United States, near the center of that state's Atlantic coast, 45 minutes east of Orlando by car. Known as Cape Kennedy from 1963 to 1973, it sits east of Merritt Island, separated from it by the Banana River. It is part of a region known as the Space Coast, and is the site of the Cape Canaveral Air Force Station. Since many U.S. spacecraft are launched from both the station and the Kennedy Space Center on adjacent Merritt Island, the terms "Cape Canaveral," "Canaveral" or even "The Cape" have become metonyms that refer to both as the launch site of spacecraft. In homage to its spacefaring heritage, the Florida Public Service Commission allocated "321" as the telephone area code for Cape Canaveral and surrounding counties.

Other features of the cape include Cape Canaveral lighthouse and Port Canaveral. The city of Cape Canaveral is a few miles south of the cape. Mosquito Lagoon, The Indian River, Merritt Island National Wildlife Refuge and Canaveral National Seashore are also features of this area.

In the early 16th century Cape Canaveral was noted on maps, although without being named. It was named by Spanish explorers in the first half of the 16th century as Cabo Cañaveral or Cabo Cañareal, which literally means "Cape Canebrake" (a canebrake is a dense thicket of cane vegetation). The name "Canaveral" (Cañaveral in Spanish) is one of the three oldest surviving European place names in the U.S.[1] The first application of the name, according to the Smithsonian Institution, was from the 1521–1525 explorations of Spanish explorer Francisco Gordillo.[2] A point of land jutting out into an area of the Atlantic Ocean with swift currents, it became a landing spot for many shipwrecked sailors. An early alternate name was "Cape of Currents." By at least 1564, the name appeared on maps.

English privateer Master John Hawkins and his journalist John Sparke gave an account of their landing at Cape Canaveral in the 1500's.[3] A Presbyterian missionary was wrecked here and lived among the Indians. Other histories tell of French survivors from Jean Ribault's Fort Caroline whose ship the "Trinite" wrecked on the shores of Cape Canaveral and from whose timbers a fort was built.
The last naval battle of the American Revolutionary War was fought off the shores of Cape Canaveral in 1783, between the USS Alliance and the HMS Sybill.

Due to the hazards of the Cape to shipping, the first Cape Canaveral Lighthouse was built and completed in 1843. The 1890 graduating class of Harvard University started a gun club called the "Canaveral Club" at the Cape. This was founded by C.B. Horton of Boston and George H. Reed. A number of distinguished visitors including presidents Grover Cleveland and Benjamin Harrison were reported to have stayed here. In the 1920s the grand building fell in disrepair and later burned to the ground.
In the 1900s several communities sprang up in Cape Canaveral. The area was predominately a farming and fishing community. The town was formerly called Artesia[6] and records indicate the following residents and their occupations:

- Burns, M.B. (fruit grower),
- Burns, R.G. (fisherman),
- Chandler, Wyatt. (fruit grower),
- Franklin, A. (painter),
- Holmes, G.W. (apiarist),
- Honeywell, CP. (lighthouse keeper),
- Jeffords, S.L. (assistant lighthouse keeper),
- Peterson, W.C. (apiarist),
- Praetorious E. (assistant lighthouse keeper),
- Quarterman, O.A. (Fishery),
- Thompson, T. (engineer),
- Wilson, F.A. (fisherman),
- Wilson, H. (fruit grower).

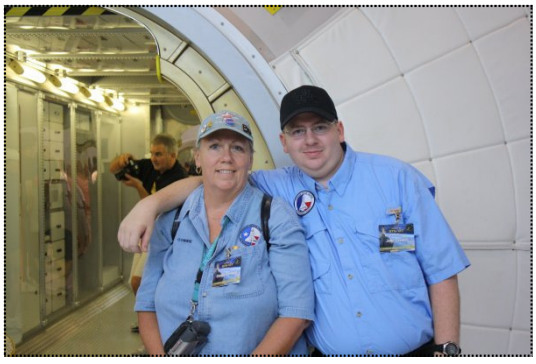
In the 1930s a community of wealthy journalists started a community called "Journalista" which is now called Avon by the Sea. The Brossier brothers built houses in this area and started a publication entitled the Evening Star Reporter that was the forerunner of the Orlando Sentinel.

The first rocket launch from the Cape was Bumper 8 from Launch Pad 3 on 24 July 1950. On February 6, 1959 the first successful test firing of a Titan intercontinental ballistic missile was accomplished here. NASA's Project Mercury and Gemini were launched from Cape Canaveral, although the Apollo program and Space Shuttle missions have launched from Kennedy Space Center on adjacent Merritt Island.
Cape Canaveral was chosen for rocket launches to take advantage of the Earth's rotation. The linear velocity of the Earth's surface is greatest towards the equator; the relatively southerly location of the Cape allows rockets to take advantage of this by launching eastward, in the same direction as the Earth's rotation. It is also highly desirable to have the downrange area sparsely populated, in case of accidents; an ocean is ideal for this. Although the United States has sites closer to the equator with expanses of ocean to the east of them (e.g. Hawaii, Puerto Rico), the east coast of Florida has substantial logistical advantages over these island locations. The tip of the cape is at LC-46 on Cape Canaveral Air Force Station.

Name changes

Post offices in the area were called Artesia from 1893-1954, Port Canaveral from 1954-1962 and Cape Canaveral from 1962 to the present.[7]
From 1963 to 1973 it was called Cape Kennedy. President John F. Kennedy set the goal of landing on the moon. After his assassination in 1963, his widow Jacqueline Kennedy suggested to President Lyndon Johnson that renaming the Cape Canaveral facility would be an appropriate memorial. However, Johnson recommended the renaming not just of the facility, but of the entire cape. Accordingly, Cape Canaveral was renamed Cape Kennedy.

Although the name change was approved by the United States Board on Geographic Names of the Interior Department in 1964, it was not popular in Florida, especially in the city of Cape Canaveral, Florida. In 1973 the state passed a law restoring the former 400-year-old name, and the board went along. The Kennedy family issued a letter stating they "understood the decision"; Jacqueline Kennedy also stated if she had known that the Canaveral name had existed for 400 years, she never would have supported changing the name. The NASA center retains the "Kennedy" name.



LEARN YOUR CONSTELLATIONS

Snoopy says, never stop looking up..reach for the stars and may you always have clear skies!!!!