

ON THE HORIZON



OCTOBER 2014



By Jupiter—The red spot on Jupiter

Research suggests effects of sunlight produce the color of Jupiter's Great Red Spot. The feature's clouds are much higher than those elsewhere on the planet, and its vortex nature confines the reddish particles once they form.

The ruddy color of Jupiter's Great Red Spot is likely a product of simple chemicals being broken apart by sunlight in the planet's upper atmosphere, according to a new analysis of data from NASA's Cassini mission. The results contradict the other leading theory for the origin of the spot's striking color -- that the reddish chemicals come from beneath Jupiter's clouds

In the lab, the researchers blasted ammonia and acetylene gases -- chemicals known to exist on Jupiter -- with ultraviolet light, to simulate the sun's effects on these materials at the extreme heights of clouds in the Great Red Spot. This produced a reddish material, which the team compared to the Great Red Spot as observed by Cassini's Visible and Infrared Mapping Spectrometer (VIMS). They found that the light-scattering properties of their red concoction nicely matched a model of the Great Red Spot in which the red-colored material is confined to the uppermost reaches of the giant cyclone-like feature.

"Our models suggest most of the Great Red Spot is actually pretty bland in color, beneath the upper cloud layer of reddish material," said Baines. "Under the reddish 'sunburn' the clouds are probably whitish or grayish." A coloring agent confined to the top of the clouds would be inconsistent with the competing theory, which posits that the spot's red color is due to upwelling chemicals formed deep beneath the visible cloud layers, he said. If red material were being trans-

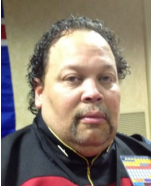
ported from below, it should be present at other altitudes as well, which would make the red spot redder still.

Jupiter is composed almost entirely of hydrogen and helium, with just a sprinkling of other elements. Scientists are interested in understanding what combinations of elements are responsible for the hues seen in Jupiter's clouds, as this would provide insights into the giant planet's make-up.

Baines and colleagues initially set out to determine if the Great Red Spot's color might derive from sun-induced breakdown of a more complex molecule, ammonium hydrosulfide, which makes up one of Jupiter's main cloud layers. They quickly found that instead of a

Inside this issue:

Captains Log	2
Flight Control Log	
XO Log	5
Engineers Log	6
Trek News	7
Trek News	7
Star Wars News	8
By Jupiter (Cont)	9
Horizon Calendar	10



Captains log: Vice Admiral Eddie Allen III

As a group we only did a few things during the month of October. The result is this will be a very short article. I apologize and hope that we can get together more often in the coming months.

Before I talk about our month let me cover an item that needs addressing. Our calendar mentions in the notes that an RSVP is required. I have not covered this item for a while, but it really helps if I get the RSVPs. They allow me to know whether to cancel the item or to continue it. It also saves me a lot of time and money since I must drive up to 2 hours to get to the Columbia location. I would ask that you not allow the thought that others will RSVP to drive your decision. No one is sending one for most occasions. Thanks in advance.

I have been scheduling items in the St Louis area. I have not covered this but if someone wants to meet in or near Columbia and drive to a function together in a car pool, I can add that information to the calendar notice and we can get an email out on the meet. We would simply need the meeting location that you want and the meet time. Consider that Rick and Khane come to many of these functions and go right through Kingdom City.

Our big function for October was drunk or treat. We will definitely discuss this at our meeting as it was a lot of fun. In the end the Laser Lanes and Jose Jalapenos were removed from the list during the day due to other delays that ran the function behind schedule. I can tell you that some of the Horizon crew did not make it to the end of the day due to possible old age issues. J Your CO may have been in that group.

As a reminder we had the following functions:

Tropical Liquers. This was a very refreshing stop. I love this place. Maybe we can skip ice cream in the hot summer months?

Corn Maze. There are photos attached to the article from the maze. We only covered about a quarter of the maze but found one of the markers, two exits, the center, and found our way out without any assistance.

Panhead's BBQ. The bras and panties are gone. The restaurant is a little more upclass than it was before. The food was very good and I really like the Homemade Barbecue Chips.

Battlecreek Paintball. We went we saw and we conquered. Some members played and some sat this one out. Those who sat this one out ended up doing a canceled part of the program.

Laser Lanes was canceled as they had a private event.

Jose Jalapenos was canceled but the Paintball escapees went there anyway. We had a very good desert and drink selection. A photo of my desert is attached.

The last item was East End tavern and the costume judging contest. Some, well actually, all of the older attendees skipped this part of the tour.

Captains Log (cont.)

Next year we plan to follow the bus and not ride on it. They used a school bus which may be a little harder for the older crowd to climb into over and over again.

End Log



The Captain of the Corn



Great ending to a fun outing



Flight Log Commander Rhonda Allen

I'll bet you would not believe that I like Halloween better than Christmas. Yes, I do. Why? Because I don't sell anything for Halloween. Well, I got off for this year's holiday and had to fight Eddie to get to the candy but I handed out the candy. Finally all he did is complain that I handed out too many at a time. Funny, none of the kids seemed to mind. I do like Eddie's idea of having teenagers tell him a joke to get candy. I joined in the fun on that one. I've included a photo of my niece and nephews in their costumes.

Why did Darth Vader cross the road?
My son and grandson are watching a football game. Edward is getting him into the family sport early. They are sooo cute!



XO Log Commodore Khane Williams

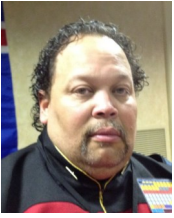
One thing I really like about the Horizon is the flexibility that we have with our calendar. If someone finds a fun event that is in the middle of the “already set” calendar new events can be added at any time. Some of those events are in St. Louis area and I understand that many of us do not travel. I am looking forward to the events in our CO’s backyard. They are always fun and different.

September was a busy month and October slowed down a little. Several events happened in October during one event, the, “Drunk or Treat”. Tropical Liquors, Corn Maze, Pan Head Billie’s restaurant, Battle Creek Paint Ball, Jose Jalapeno’s and Lazer Lanes bowling. Lazer Lanes was a bust. Eddie went in to assure that we were scheduled and they had us down for 5:00 p.m. We arrived about 9:30. We informed Toni that another party was booked at our time so they decided to skip the bowling and Jose Jalapeno’s and go directly to the last stop of the night since the zombies at the paintball park complained that the paint balls were hurting a lot when they hit them. All the guns had to be reset and that took a long time and made the group very behind schedule.

Drunk or Treat was an event Eddie found for us. During that event we went to the Shryock’s Corn Maze. To be a bit obvious it was aMAZing. Eddie and Rhonda made it to the middle of the maze. I did not trek through the maze but stayed in the barn, drank a diet Pepsi, ate some very good Kettle Corn and watched people and the gumball maze. Children would put a quarter in the machine, a lift would take it to the top of the barn and then it went through a maze of wires, tripping levers as it traveled so you were never sure where the gumball would go. Watching the children, both young and old, watching the gumball go through it’s maze was also fascinating. People watching is always fun.

Every year the maze has a different design. This year it was a tractor. This picture was hanging in the reception barn so you could see how the maze was laid out. If you look close, under the tractor, you can see the name Shryock’s. I wondered how they made sure the maze was clear at night and found out that they have trained dogs that run the maze after closing to “usher” anyone who is still in the maze to the exits.





Engineering log: Vice Admiral Eddie Allen III

E MAGAZINES now available

All About Space
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DISCOVER
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Popular Science
Science News
How It Works
Science Illustrated
Brain Dump
Chemistry Today
Astronomy Now
Physics for You
Popular Psychology
Biotechnology & Bioengineering
All About Space
Sky & Telescope
New Scientist
Scientific American

End Log

Trek News

Klingons and the Planet of the Apes



Trek News (Cont.)

http://www.youtube.com/watch?v=MWD9RMp_Gfk Horizon Fan movie trailer.

The CBS subscription service includes all Star Trek TV episodes.

Star Trek comedy called Starship Icarus from Cracked studios: <http://>

trekmovie.com/2014/10/15/watch-first-season-of-cracked-s-star-trek-satire-starship-icarus/

Delta Rising official trailer: <http://www.youtube.com/watch?v=t7KnpmYHEsc>

Khan, Frakes and 4 more stuff up for auction this week: <http://trekmovie.com/2014/10/14/khans-stii-costume-frakes-personal-collection-more-star-trek-items-up-for-auction-this-week/>

Is anyone watching "Red Shirt Diaries?" <http://www.theredshirtdiaries.com/>

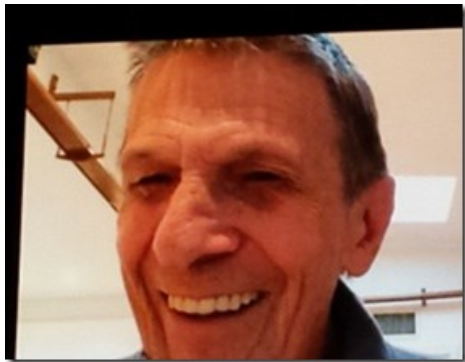
Nichelle Nichols about Orion: <http://www.youtube.com/watch?v=gNAyBekeVyw>

Why Star Trek could be the next MCU for Paramount: <http://trekmovie.com/2014/10/09/why-star-trek-is-paramounts-marvel-and-they-dont-even-know-it/>

Captain Worf TV series: <http://trekmovie.com/2014/10/09/exclusive-michael-dorn-talks-capt-worf-star-trek-series-casting-details-go-ahead-timeframe-more/>

Did Shatner confirm a part in ST3 in 2016? <http://trekmovie.com/2014/10/06/sorry-internet-william-shatner-did-not-confirm-a-star-trek-2016-role-via-twitter/>

Nimoy would be happy to join ST3 in 2016.



<http://trekmovie.com/2014/10/06/leonard-nimoy-would-be-happy-to-join-star-trek-2016-looking-forward-to-conversation-with-bob-orci/>

Did Zoe flash the crowd? Her costume was a hit!



Microsoft teaches Cortana to speak Klingon: <http://trekmovie.com/2014/10/03/watch-microsoft-teaches-cortana-to-speak-klingon-other-star-trek-phrases/>

West German commercial with Nimoy and Shatner: <http://www.startrek.com/article/shatner-nimoy-reunite-for-volkswagen-germany-commercial>

The 2016 ST3 will mostly be shot in Vancouver but a rumor says a small part will be shot in Seoul, South Korea.

Star Wars News



Star Wars shoot for movie 7 on the Irish Island of Skellig was scaled back.



There was a cast party and birthday bash for Carrie Fisher on October 21st.

James Earl Jones' voice is back in Star Wars Rebels: <http://screenrant.com/star-wars-rebels-darth-vader-james-earl-jones/>

The rumor mill says that Daisy Ridley's may be on Tatooine but may actually be on Yavin but then maybe not.

Brent Spiner is in SW Rebels (Senator Gall Trayvis)

Rumor says that a main character will die as will a familiar ship



Warwick Davis, super fan, will be back for SW7. He was also in Return of the Jedi as Wicket W. Warrick.

Aliens from the movie?



<http://www.vans.com/custom-shoes.html>



SW Episode 7 concept art: [http://www.theforce.net/story/front/Star Wars Episode VII Concept Art Leaked Online 160339.asp](http://www.theforce.net/story/front/Star_Wars_Episode_VII_Concept_Art_Leaked_Online_160339.asp)

SW the Clone Wars: The Lost Missions is being released on Blu-ray.

SW meets the Coen Brothers in "Please Kathleen Kennedy."

<http://www.youtube.com/watch?v=2wJtqIV1uE0>

SW Battle Pod Play tests:

[http://www.theforce.net/story/front/Video Star Wars Battle Pod Playtests 160296.asp](http://www.theforce.net/story/front/Video_Star_Wars_Battle_Pod_Playtests_160296.asp)

Jupiter (Cont)

red color, the products their experiment produced were a brilliant shade of green. This surprising negative result prompted the researchers to try simple combinations of ammonia with hydrocarbons that are common at Jupiter's high altitudes. Breaking down ammonia and acetylene with ultraviolet light turned out to best fit the data collected by Cassini.

The Great Red Spot is a long-lived feature in Jupiter's atmosphere that is as wide as two earths. Jupiter possesses three main cloud layers, which occupy specific altitudes in its skies; from highest to lowest they are: ammonia, ammonium hydrosulfide and water clouds.

As for why the intense red color is seen only in the Great Red Spot and a few much smaller spots on the planet, the researchers think altitude plays a key role. "The Great Red Spot is extremely tall," Baines said. "It reaches much higher altitudes than clouds elsewhere on Jupiter."

<http://www.nasa.gov/jpl/cassini/jupiters-red-spot-is-likely-a-sunburn-not-a-blush/index.html>

WHAT IS HAPPENING ON THE HORIZON

22-Nov	Mission	<p>MONTHLY MEETING CO's LUNCH: Shakespeare's 3911 Peachtree Dr, 573-443- 4350 http://shakespeares.com/</p>
	Mission	<p>ACTIVITY: Movie: "The Hunger Games,Mockingjay, Part 1" http://www.imdb.com/title/tt0455944/</p>
	Mission	<p>XO's SNACK: Steak N Shake 3004 Clark Lane, 573-886-8535 http://www.steaknshake.com/</p>
26-Nov	Mission	<p>USS Hexum Holiday Dinner Central Table Food Hall (& Sushi) RSVP to the Hexum: acksmith@charter.com 23 S. Euclid Ave, 314-932-5595 www.centraltablestl.com</p>
27-Nov	Mission	<p>THANKSGIVING DINNER with the XO RSVP by the Sunday before; Dinner at 2:00 pm</p>
5-Dec	Mission	<p>ST LOUIS SCIENCE CENTER - 1st Friday Battlestar Galactica Science & Film (First come first served) Tickets Available at 6 pm for 10 pm show 5050 Oakland Ave, 314-289-4400 http://www.slsc.org/first-fridays</p>
25-Dec	Mission	<p>CHRISTMAS DINNER with the CO RSVP by the Sunday before; Dinner at 2:00 pm</p>
31-Dec	Mission	<p>NEW YEARS PARTY with the CO RSVP by the Sunday before; Party starts at 6:00 pm</p>
31-Dec	Mission	<p>NEW YEARS DINNER with the CO RSVP by the Sunday before; Dinner at 2:00 pm</p>