

September 2007

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S*T*A*R
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On the web at:
<http://www.starastronomy.org>

Edited by: Ahmad & Hanna Jrad



September's Meeting

The next meeting of S*T*A*R will be on Thursday, September 6. Our program will be "*NASA's Deep Impact Mission*" by Elizabeth Warner, University of Maryland.

The meeting will begin promptly at 8:00pm at the King of Kings Lutheran Church, 250 Harmony Road, Middletown.

Please Pay Your Annual Dues at September's Meeting

Membership fees for 2007-2008 of \$25 per individual and \$35 per family are due in September. Additional member donations of \$5-\$10 would be appreciated. Please make payments to Paul Nadolny at the September meeting so we can collect them quickly. If you can't make the meeting, please mail a check made payable to S*T*A*R Astronomy Society Inc to:

S*T*A*R Astronomy Society
P.O. Box 863
Red Bank, NJ 07701

A Big Thank You!

Thanks to everybody who sent in articles for the Spectrogram this month – Gavin Warnes, Steve Fedor, Ahmad Jrad. The Spectrogram continues to rely on the generous contributions of the club members.

The deadline for the next edition of the Spectrogram is Friday September 28th. Please email any contributions to amjrad@verizon.net.

Calendar

Sep 6, 2007 – "*NASA's Deep Impact Mission*" by Elizabeth Warner, University of Maryland

Oct 4, 2007 – "*Webcam Astrophotography*" by Clif Ashcraft

Nov 1, 2007 – "*The Interstellar Medium*" by Dr Hector Arce, American Museum of Natural History

Dec 6, 2007 – "*TBD*"

Jan 3, 2008 - "*NASA's Dawn Mission*" by Dennis O'Leary, S*T*A*R Astronomy

Feb 7, 2008 - "*TBD*" by David Britz, S*T*A*R Astronomy

Mar 6, 2008 - "*Our Changing Sun*" by Ken Legal, S*T*A*R Astronomy

Apr 5, 2008 – "*The Near Side Lunar Megabasin*" by Charlie Byrne, S*T*A*R Astronomy

May 4, 2008 – "*TBD*"

Jun 1, 2008 – AGM

President's Corner

By Gavin Warnes

For those of you who could not make our annual business meeting on June 7, I was elected President with Dennis O'Leary as Vice President, Steve Fedor as Secretary, Paul Nadolny as Treasurer and Rob Nunn as Member at Large. I'm sure we are all looking forward to a great 2007/2008, the 50th year of S*T*A*R Astronomy.

I would like to give you an update of some important discussions that were held at the AGM, as they affect us all. The membership of the club has been in decline for the past few years, and unfortunately we ran at a deficit of \$350 last year. The club has reserves to absorb the loss, but this is not a situation that any of us would wish to continue. We do not have any discretionary spending we can cut, so for the future health of all aspects of the club, we must increase our membership. This is a task that involves all of us.

Like any hobby, astronomy is an activity that people try for a while. For some, it becomes a lifetime interest, while others move on to other things. We will always lose some members each year, we just need to make sure that we add more. We debated whether to increase the dues, but decided to keep them at their current level while requesting that current members make a donation of \$5-\$10 along with their dues next year. I strongly urge you to do this – it buys us time to grow without imposing higher dues on the new members we need to attract. I ask people to please pay their dues at the September meeting so we have a clear picture of our finances at the start of the year.

To help increase membership, we need to do more to increase awareness of the club. A PDF file of the club flyer can be found under the "Club" section of the website. Anybody can download it and print out some copies. We need to make sure that these are available in local libraries and other venues. We will establish a list of people to be responsible for ensuring that these locations are stocked – please see the "Member's Forum" section of the website to volunteer to check on a particular library. We have been trying to increase coverage of STAR in the local newspapers – the Asbury Park Press covered the club twice over the summer and, bizarrely enough, Dennis, Charles and I appeared in the society pages of the Two River Times. Dennis has been building a relationship with the Monmouth Museum, who will be opening their new space exhibit in October and will publish our meeting schedule in their newsletter. We are trying to hold several public star parties in association with local towns this year – we will need volunteers to bring telescopes. In addition, we are giving an "Introduction to Star Gazing" course in Colts Neck Township on Sept 22.

In addition to getting new people to come to the meeting, we need to do a better job of welcoming them. We need a few

people to act as "greeters" to engage newcomers, find out what they are interested in doing and get their contact details. Please let me know if you would like to do this. I am planning to restart beginners observing nights in my back yard, and Steve Fedor will be coordinating monthly observing sessions.

I would like to make 2007/2008 the [Year of the 25"]. We now have an amazing telescope with newly coated optics, working digital setting circles, and a buttery smooth focuser. Let us make sure we make the most of it. Dennis will hold regular QO (Qualified Operator) training so that we can take full advantage of the monster.

One of the great things about STAR is that we have a tremendous amount of knowledge and expertise between us. I am very pleased that four members will be giving presentations this year. Talks given by members also help to lower our costs, as we do not pay honorariums to members (sorry folks!). Please contact me at gwarnes1@comcast.net if you would like to speak or if you have a suggestion for a speaker for the unfilled slots.

Our 50th anniversary picnic was a great success – our biggest crowd ever! Thank you very much to Anne, Ken, Jay, Steve Fedor who worked hard to make it a great event for members and their families. Thanks also to Rob, Chris and Stacey for bringing ice. It was great to have a line of people waiting to look through the 25" scope at the picnic.

At this point I would like to thank everybody who has contributed to STAR last year. Mike and Gordon for all the work they put into the ATM SIG and our website, Daniel for editing the Spectrogram despite his busy schedule, and everybody who wrote articles this year, Charles for organizing the refreshments, Rich for his public outreach efforts, Daniel Kirby, Charles Kirby and Dave Britz for speaking and last year's board.

I am also pleased to announce that Ahmad Jrad has volunteered to be the editor of the Spectrogram this season. His volunteer spirit is just what we need to carry the club forward for our next 50 years. Please help Ahmad out by writing articles.

Sorry for the long-winded first message – I promise to focus more on astronomy and keep it shorter next time!

Thanks for your support. Have a great year!
Gavin

June Meeting Minutes

By Steve Fedor

The 2007 annual business meeting of S*T*A*R Astronomy was held on June 7th and was attended by approximately 25 attendees. At 8:06 pm president Steve Walters called the

meeting to order. Steve Walters began by stating the night's agenda. There were no first time attendees.

Charles Kirby presented "Preserving and Scanning the Night Sky," an excellent presentation on light pollution in cooperation with the IDA which included many examples of good and poor lighting practices. IDA flyers were available and all were encouraged to join the IDA.

Next was a short video on the manufacturing of Astrophysics refractors as recorded by Charles Kirby from the Travel Channel.

Afterwards Steve Walters presented a humorous video of the first IT professional.

This portion of the meeting concluded at 8:28 for a coffee break. Available for inspection were a wedge, 20x80 binoculars, and S*T*A*R clothing. The annual business meeting then began at 9:02.

Steve Walters began by tallying the members present (21) and indicating that a quorum had been achieved. He then presented the business agenda, which was motioned and approved by majority vote to proceed.

Treasurer Paul Nadolny then presented a report of the club's finances. Copies of the report were handed out and are available for all members. Of particular concern was the fact that membership has been decreasing and the obvious financial impact this has had on the club.

An open discussion was held to discuss the issue of declining membership. After much debate, Randy Walton motioned to raise dues to \$30. It was seconded and approved by majority vote. During the discussion, however, it was realized there were two motions on the floor at the same time. Frank Loso motioned to rescind the previous vote, which was seconded and approved by majority vote.

Frank indicated that a better approach would be to keep the dues at current levels and encourage members to make donations as well as making a renewed effort to increase the membership. This was with the stipulation that, if unsuccessful, dues could be raised by a vote in fall 2007. Frank made a motion for this and it was approved by majority vote.

Steve Walters then discussed the current \$250 limit of discretionary spending by the Board. Ken Legal and Larry Campbell motioned and seconded to maintain the current \$250 limit. It was approved unanimously.

Elections of club officers were held. Each of the candidates ran unopposed after an open call for nominees. The candidates were:

Gavin Warnes – President
Dennis O'Leary – Vice President

Steve Fedor – Secretary
Paul Nadolny – Treasurer
Rob Nunn – Member At Large

Randy Walton motioned to accept the candidates in one vote. It was passed unanimously.

Steve Walters was then thanked and received a hearty round of applause for all his achievements and efforts as President.

Our new president, Gavin Warnes, (effective July 1) discussed his plans and visions for the future:

- There will be an article in the June 9 edition of "The Asbury Park Press" about the club and its historical roots. Approximately ten members met with a reporter earlier that week at Steve Walters' home.
- That members volunteer to do presentations for the meetings which will save the expense of compensating outside speakers.
- The club picnic will be held on Aug 4 at Bucks Mill Recreation Area in Colts Neck. This year Gavin will be chairing the picnic committee. Steve Fedor, Nancy McGuire, and others volunteered to assist.
- Announcements of meetings will be placed in local papers.
- Gavin indicated that Dan Pontone had fixed the DSC's on the club's 25 inch Obsession and encouraged members to get out and observe with it, possibly Sat. 6/9 at Coyle field or BW2.
- Gavin discussed the need to begin public observing at local events to increase membership. Rich Gaynor discussed his efforts to organize these events and obtain any required town permission.
- Gavin solicited members for suggestions to help S*T*A*R grow.

Ralph Marantino and Dan Pontone presented ideas such as soliciting donations from the various organizations S*T*A*R does star parties for. No decisions or motions were made regarding these.

Dan then suggested the club's discussion board be recreated as a Yahoo group in order to obtain a higher visibility on the web. This led to a general discussion about updating the club's web site. Ahmad Jrad volunteered to begin this task. It was noted that Gordon Waite provides the server on which our web site resides, and any updates should be bandwidth friendly.

Steve Walters also announced that Ahmad Jrad has agreed to become the new editor of the Spectrogram.

Steve Walters presented the "Intervals of Darkness," as Doug Berger was not available to present it this month.

Nancy McGuire then presented "Object of the Month." This month's objects were the North American nebula and various DSO's in Draco.

Gavin expressed the need for help at the club picnic including shopping, coolers, etc. Steve Fedor stressed the need for members to bring any forms of entertainment to keep the picnic lively such as volleyball, lawn darts, Kites, horseshoes, water balloons, etc.

Ken Legal discussed the Red Bank Charter School program.

Nick Lordi discussed his involvement with "MARCH" (Mid-Atlantic Computer Hobbyist) and the event with "Info Age" magazine on Sat. 3/9 between the hours of 2:00 and 6:00 pm. The event will be held at the Marconi Hotel on Marconi rd. in Shark River, NJ. Contact Nick for details.

Randy Walton announced the following:

- The ASTRA planetarium will be hooked up to NASA for a public observing of a launch. Contact Randy for details.
- The "Save the Planetarium" fund at OCC is conducting various fundraising initiatives. These include the sale of teddy bears with "Save the Planetarium" tee-shirts and fundraiser cards from TGI Friday's. When used TGI Friday's will donate 20% of the food portion of the bill to the fund.
- Also for the fund there is a trip planned to the NJ Blue Claws game on 7/31. Tickets are \$9.00. For \$20, a bear will be included.

Ken Legal thanked and presented certificates of appreciation to the members who participated at the Eisenhower School star party in Sayreville. Members were: Larry Campbell, Russ Drum, Gavin Warnes, John Heidema, Steve Fedor and Rob Nunn.

Steve Walters announced that S*T*A*R's own Daniel Handlin won \$20,000. for taking 8th place in a scholarship competition from Intel. An article about Daniel's award can be found in "the Reflector" published by the "Astronomical League." Congrats Daniel!

The 50/50 was drawn for a prize value of \$18.00. The meeting was adjourned at approximately 10:40 pm. No observing took place afterwards due to cloud cover.

Stellafane 2007

By Gavin Warnes

This August I made my second trip to Stellafane in Springfield, Vermont. It's about a 300-mile journey – everything was going well till the last quarter of a mile up Breezy Hill when my car broke down. Fortunately the AAA came to my rescue and I still had a good time. Dave Britz, Russ Drum and I shared Dave's three-room tent, which is great for company, and you can easily find your way back to the tent at night by following the snoring. This year the event opened a day early so we were there for Thursday

night. Also there were Frank Loso, Art Bianconi, Wayne Petko and Gary Fuchs and family.

For those of you who are not familiar with Stellafane, it is the annual convention held by the Springfield Amateur Telescope Makers. The club was founded in 1923 by Russell Porter, arctic explorer and designer of the 200" Hale Telescope at Mount Palomar. The club's meeting house, Stellafane, gave its name to the convention, which was first held in 1926. Today the building is referred to as the 'Pink House' and is listed as a National Historic Landmark. There is an extensive history available at www.stellafane.com. The Pink House is the venue for the telescope making competition held each year. I'll write about Stellafane itself this month, and next month tell you about the marvelous telescopes that were exhibited this year.

The convention is not for those who crave creature comforts. The clubhouse and observatories are surrounded by many camping fields sheltered by mature trees. There are plenty of 'johnny on the spots' throughout the fields, an outdoor shower for the brave and food tent. It's really a lovely spot when the weather is fine, but can become very muddy when it rains. People go year after year and many bring their families so there is a very friendly atmosphere.



The food tent – no Michelin stars but just fine for a few days



Frank models besides the luxurious showers – marble tiling and gold taps are still to be installed.



Young and old pass the time in the food tent



Sifting through old books at the swap tables



Dave Britz schmoozes Tim Parker, the keynote speaker

2005 saw the construction of the Flanders Pavillion, which is the venue of talks by fellow amateur astronomers and telescope making classes. The building is a huge step up from the hot, sticky, and potentially soggy tent that was used before. The club still owes a small fortune on the building so if you are feeling generous, you can make a donation online at their website.



Clif Ashcraft, our October speaker, talks in the Flanders Pavillion

The swap tables are another big attraction of Stellafane. Starting at 6am (no kidding) you can rummage through all the goodies (and junk) brought by astronomers for sale. Everybody browses hoping to just the widget they need to finish a project.

The night sky at Stellafane is a huge step up from New Jersey. On Friday and Saturday night the Milky Way arced across the sky from horizon to horizon. It's no Cherry Springs, but you can look through as many telescopes as you like. I got to see M51 through a pair of binoviewers on a 28", and the Swan Nebula through a 32" monster. Saturday night also sees the evening presentation where everybody gathers to see who is awarded telescope making prizes, learn if they have won goodies in the raffle (Televue donated \$6k worth of eyepieces, including a new Ethos) and to listen to the guest speaker.



The main observing field – home of monsters

If you haven't been before, Stellafane is well worth a trip. Come prepared for any weather (Friday night was cold in the 40s, Saturday night was balmy) and to have a great time. You have no idea how good a shower feels when you get home.

Are you a S*T*A*R Member?

S*T*A*R is the proud owner of a **monstrous 25" Dobsonian Obsession reflector** – which **YOU can gain access to as a S*T*A*R member!**

Meetings are the first Thursday of each month, except July and August, at 8:00 PM at the King of Kings Lutheran Church, 250 Harmony Rd. in Middletown. Meetings generally consist of lectures and discussion by members or guest speakers on a variety of interesting astronomical topics. S*T*A*R is a member of United Astronomy Clubs of New Jersey (UACNJ), the Astronomical League (AL), and the International Dark Sky Association (IDA).

Memberships: () Individual....\$25 () Family...\$35

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

Email _____

Make checks payable to: S*T*A*R Astronomy Society, Inc. and mail to P.O. Box 863, Red Bank, NJ 07701



September Celestial Events

By Dr. Ahmad Jrad

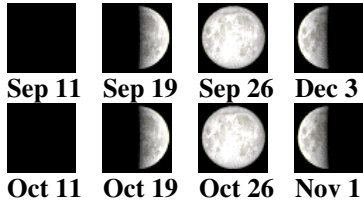
Day	Date 2007	Start Time (Local)	End Time (Local)	Event
Sun	9/9	1:16	4:01	Europa Transit
Sun	9/9	3:53	6:39	Europa Shadow Transit
Sun	9/9	18:22		Uranus Opposition
Mon	9/10	11:23	14:19	Ganymede Shadow Transit
Mon	9/10	20:22	23:06	Europa Occultation
Mon	9/10	22:55	1:40	Europa Eclipse
Tue	9/11	10:25	14:37	Partial Solar Eclipse
Tue	9/11	12:46		New Moon
Thu	9/13	20:18	23:10	Ganymede Occultation
Fri	9/14	1:26	4:23	Ganymede Eclipse
Mon	9/17	10:17	13:09	Ganymede Transit
Mon	9/17	20:12		Mars Western Quadrature
Mon	9/17	23:01	1:45	Europa Occultation
Wed	9/19	15:39		Pluto Eastern Quadrature
Wed	9/19	16:48		First Quarter Moon
Fri	9/21	0:25	3:18	Ganymede Occultation
Fri	9/21	5:25	8:23	Ganymede Eclipse
Sun	9/23	6:38	9:23	Europa Transit
Sun	9/23	9:08	11:55	Europa Shadow Transit
Mon	9/24	14:25	17:18	Ganymede Transit
Mon	9/24	19:23	22:20	Ganymede Shadow Transit
Tue	9/25	1:41	4:25	Europa Occultation
Tue	9/25	4:06	6:51	Europa Eclipse
Wed	9/26	19:46		Full Moon
Wed	9/26	22:27	1:13	Europa Shadow Transit
Fri	9/28	4:35	7:30	Ganymede Occultation
Fri	9/28	9:25	12:24	Ganymede Eclipse
Sat	9/29	13:05		Mercury Greatest Eastern Elongation
Mon	10/1	18:37	21:31	Ganymede Transit

In the Eyepiece

Here is a list of objects for this month. This is reproduced from www.skyhound.com with the kind permission of its creator and author of SkyTools Greg Crinklaw.

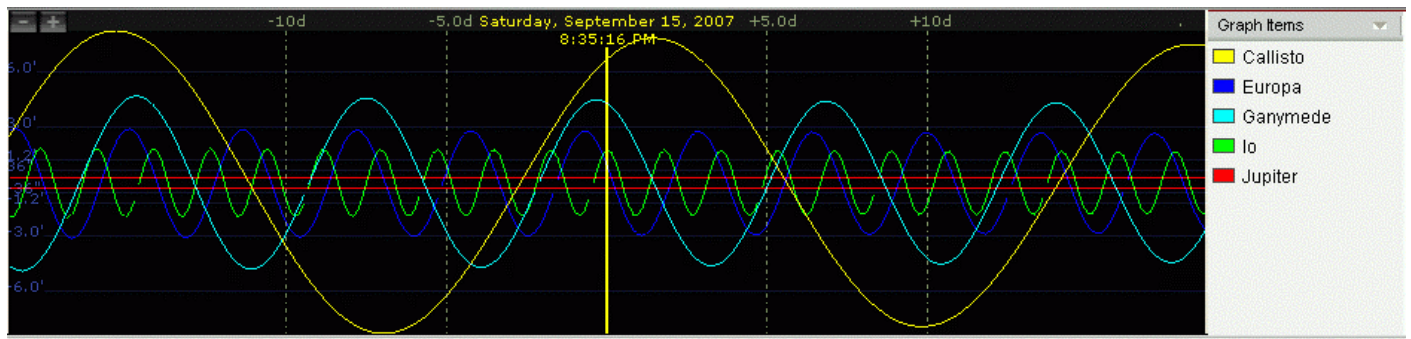
Object(s)	Class	Con	RA	Dec	Mag
61 Cyg	Variable Star	Cygnus	21h06m54.6s	+38°44'31"	6.0
NGC 7027	Planetary Nebula	Cygnus	21h07m01.7s	+42°14'10"	10.4
Cygnus X-1	Black Hole/Variable Star	Cygnus	19h58m21.7s	+35°12'06"	8.8
NGC 6781	Planetary Nebula	Aquila	19h18m28.3s	+06°32'23"	11.8
NGC 6946	Galaxy	Cygnus	20h34m52.8s	+60°09'14"	9.7
NGC 7008	Planetary Nebula	Cygnus	21h00m32.8s	+54°32'35"	13.3
Saturn Nebula	Planetary Nebula	Aquarius	21h04m10.8s	-11°21'48"	8.3
NGC 6819	Open Cluster	Cygnus	19h41m18.8s	+40°11'05"	9.5
NGC 6751	Planetary Nebula	Aquila	19h05m55.5s	-05°59'31"	12.5
Veil/Cirrus	Diffuse Nebula	Cygnus	20h45m42.0s	+30°43'00"	7.0
Gamma 2 Del	Multiple Star	Delphinus	20h46m39.5s	+16°07'27"	3.9
NGC 6934	Globular Cluster	Delphinus	20h34m11.0s	+07°24'18"	8.9
NGC 7006	Globular Cluster	Delphinus	21h01m29.0s	+16°11'18"	10.6
NGC 6905	Planetary Nebula	Delphinus	20h22m23.0s	+20°06'16"	11.9
M 72	Globular Cluster	Aquarius	20h53m28.0s	-12°32'12"	9.2
Hickson 88	Galaxy Group	Aquarius	20h52m22.8s	-05°45'29"	12.2
Cheeseburger Nebula	Planetary Nebula	Cygnus	21h06m18.6s	+47°51'08"	12.7
Crescent	Diffuse Nebula	Cygnus	20h12m00.0s	+38°21'00"	--

Moon Phases



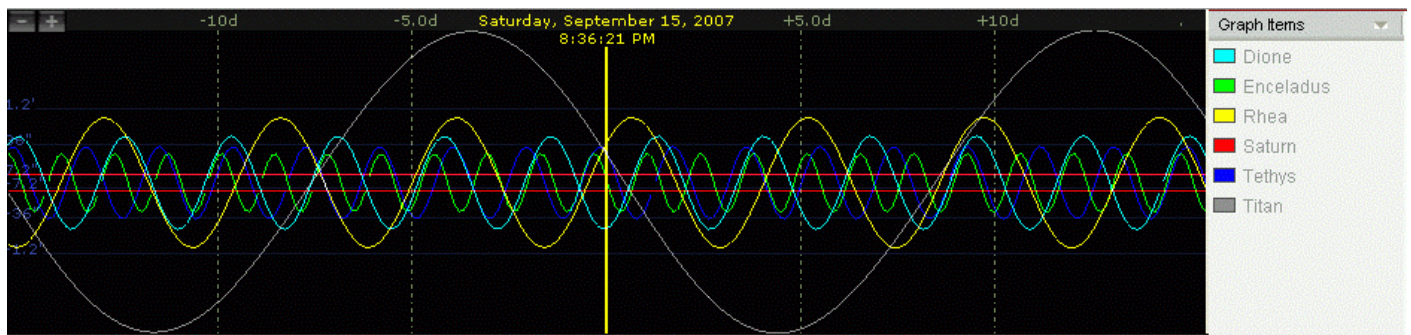
Jupiter Moon Calendar

Here is a graphical depiction of the visible moons of Jupiter for the month of September 2007.

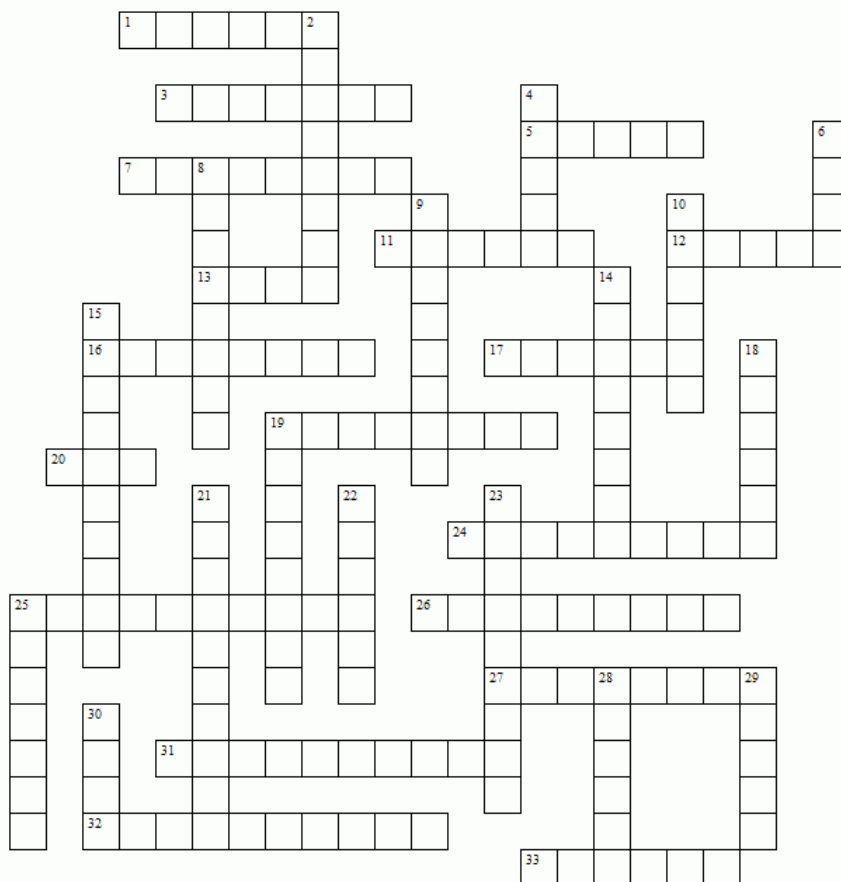


Saturn Moon Calendar

Here is a graphical depiction of the visible moons of Saturn for the month of September 2007.



AstroPuzzle - Sep. 2007



ACROSS

- 1 Beautiful eruptions in the outer part of the Sun's atmosphere.
- 3 Ancient instrument used to tell time.
- 5 The path one object takes around another.
- 7 A group of atoms linked together.
- 11 Point directly above your head in the night sky.
- 12 The dark inner part of a sunspot, or shadow.
- 13 An imaginary straight line on which an object rotates.
- 16 The path the Sun, Moon, and planets all follow in the sky.
- 17 A cloud of gas and dust.
- 19 A rock, or Minor Planet orbiting the Sun.
- 20 Amount of time it takes the Earth to spin once on its axis.
- 24 The study of the universe.
- 25 Study of the Earth using Physics.
- 26 The outermost part of the Earth's atmosphere.
- 27 Negative particle which orbits an atom.
- 31 The gaseous area surrounding a planet or other body.
- 32 Any small object in Outer Space, such as dust, or a rock.
- 33 An object moving around a star.

DOWN

- 2 Jets up to 16,000 kilometers in diameter, in the Sun's atmosphere.
- 4 A small, frozen mass of dust and gas revolving around the sun.
- 6 The hazy-looking patch surrounding the nucleus of a comet.
- 8 Period between new moons. 29 days 12 hours 44 minutes.
- 9 The lighter part of a shadow found on the shadow's edge.
- 10 A very distant immensely bright object.
- 14 A very small particle with no mass or charge.
- 15 When two stars that orbit each other are at their closest point.
- 18 A group of stars, gas and dust held together by gravity.
- 19 A meteorite which is stony.
- 21 The center of gravity of the Earth, and moon.
- 22 3.26 light years
- 23 A sensitive radiation detector.
- 25 When the Moon is more than half full, but less than completely full.
- 28 The outermost part of the Sun's atmosphere.
- 29 That point on the celestial sphere directly below the observer.
- 30 The smallest particle of any element.

Clues at <http://mysite.verizon.net/vzescqc2/astropuzzle/id3.html> Solution at mysite.verizon.net/vzescqc2/astropuzzle/id7.html