

## Resignation of OIC

It is with regret that I inform you that I am resigning as OIC of the Brigade. I've enjoyed working (and meeting some of) you all over the past two years, but I feel it's time to move on.

Again, thank you all for your support, and I hope you will give my successor the same level of support.

That being said, if anyone would like to apply for the position, then you will need to send an email to Linda Olsen at [dragonladye@wildblue.net](mailto:dragonladye@wildblue.net)

Please include your real life and SFI resumes.

Again, it's been a blast and thanks for your support. See ya around!

*Mike Dethlefs*  
OIC, 17thBDE



## ISS MacArthur Standing Down

ATTENTION TO ORDERS!

By order of Starfleet Command, Department of Technical Services, CG 71708 MacArthur is directed to return to SpaceDock at Starbase 2. At that time, the crew shall transfer to the following facility:

Name: Station Deep Space Two  
Vessel Class/Type: Jupiter-Class Space Station  
Registry: SFR-202

Upon completion of transfer, you will confirm new assignment orders and proceed to activate SFR-202 Deep Space Two.

In the interim, please take the time to familiarize yourself with all design specifications and operating parameters for Station Deep Space Two, in order to assure a smooth deployment when the time comes.

All best to you and your crew..

*Admiral Alex Rosenzweig*  
Director, Department of Technical Services  
Director, Office of Technical Information  
[DTS@sfi.org](mailto:DTS@sfi.org) or [alexr@tellurian.com](mailto:alexr@tellurian.com)

## USS Blackheart Re-launched

Please join me in welcoming USS Blackheart to Starfleet. This correspondence chapter is currently in Philadelphia, PA. For info on joining this ship, please contact CAPT Emmett Plant at [tetrisblock@gmail.com](mailto:tetrisblock@gmail.com).

*RADM Jerry Tien*  
Director, Shakedown Operations Command  
[shoc@sfi.org](mailto:shoc@sfi.org)

## USS Devil's Tower launched

Please join me in welcoming USS Devil's Tower to Starfleet. This chapter is currently in Cheyenne, WY. For info on joining this ship, please contact CMDR Lee Montgomery [johnchricton31@hotmail.com](mailto:johnchricton31@hotmail.com).

*RADM Jerry Tien*  
Director, Shakedown Operations Command  
[shoc@sfi.org](mailto:shoc@sfi.org)

## USS Vre Kasht launched

Please join me in welcoming USS Vre'Kasht to Starfleet. This chapter is currently in Pleasant Hill, IA. For info on joining this ship, please contact CMDR Debbie T'Plon Fee at [tplon2001@gmail.com](mailto:tplon2001@gmail.com).

*RADM Jerry Tien*  
Director, Shakedown Operations Command  
[shoc@sfi.org](mailto:shoc@sfi.org)

## OCP Totals

Web Pages

No totals reported this period

**USS Mir homepage**  
[www.ussmir.org](http://www.ussmir.org)

**Region 17**  
[www.region17.org](http://www.region17.org)

**STARFLEET International**  
[www.sfi.org](http://www.sfi.org)

**STARFLEET Marine Corps**  
[www.sfi.org/sfmc](http://www.sfi.org/sfmc)

*\*\*The opinions expressed in this publication are not necessarily those of the newsletter staff or the crew of the USS Mir*









## Memberships Expiring

William Baker expired 10/12/07  
Debra Kern expires 12/13/07  
Keith Holycross expires 3/24/08  
Charles Fisher expires 4/14/08  
Lisa Crunk expires 4/16/08

## Crew Birthdays

Nov 5 Nancy Lynch

\*\*\*\*\*  
**Is there something you would like to see in *The Mir Universe*? If so, send in your suggestions or submissions to your Section Chief. Don't know who your Chief is? Contact the CO or XO for help.**  
\*\*\*\*\*

	<p>Commanding Officer Rear Admiral Nancy Lynch nlynch@zianet.com</p>
	<p>Executive Officer Captain Everett Brooks everett_01@hotmail.com</p>
	<p>Chief of Operations Vacant at this time</p>
	<p>Chief of Security Colonel Randy Lynch rlynch@zianet.com</p>
	<p>Chief of Engineering Lt Commander William Baker ghost8472@hotmail.com</p>
	<p>Chief of Sciences Ensign Ethel Lynch elynch@zianet.com</p>
	<p>875th MSG OIC Colonel Everett Brooks everett_01@hotmail.com</p>
	<p>Chief Medical Officer Ship Historian Lieutenant Kathy McCartney kalyn_mc@yahoo.com</p>

## College of Star Wars opened

Do you consider yourself a Star Wars fan, as well as Star Trek?

After many starts and stops, I am pleased to announce that the College of Star Wars Studies is open and is accepting Students. As of right now we offer 11 courses in various generalized areas; will be adding the various movies, the Clone Wars animated Series as well as Jedi and Sith a bit later on.

Feel up to the challenge? Stop by SFA's Institute of Science Fiction Studies and click on College of Star Wars.

*MGN Truman "T2" Temple*  
*Dean, Institute of Science Fiction Studies*  
*College of Star Wars Studies, Director*  
[hstrymjr@yahoo.com](mailto:hstrymjr@yahoo.com)

## 2006 Participation Streamer

I would like for you to join me in welcoming BDR Norman DeRoux back to active duty after an extensive leave for health reasons. As one of his first acts upon returning to the center seat in the 5th BDE, he has reviewed his records and requested the following award be issued to the 5th Brigade.

Upon review of his facts, it is my most pleasant duty to award the 2006 Participation Streamer Award to the 5th Brigade Birds of Prey under the watchful eye of OIC BDR Norman E DeRoux. More than the necessary 20% of the Brigade participated in the 2006 5BDE Muster in Pasco, Washington. Let it be known that the Streamer for Brigade Participation has been awarded by my hand this the twenty fifth day of September, Two thousand seven.

*Linda Olson*  
*CO Forces Command*  
[Dragonladye@wildblue.net](mailto:Dragonladye@wildblue.net)

# Announcement of the opening of the College of Bond, James Bond

I'm pleased to announce that after many months of preparation, today marks the official opening of the College of Bond, James Bond in the Starfleet Academy as part of the Institute of Intelligence and Espionage.

At this time, the college has five courses ready for students to take:

Dr. No  
From Russia With Love  
Goldfinger  
Thunderball  
You Only Live Twice

All courses are based from the movies, but each has a question that will require some work beyond watching the movie to get the answer.

These courses are not simply straight trivia, but contains questions that will require the student to think as the famed spy does and determine what are his plans and tactics, along with testing your powers of observation.

For further information, you may email me at [bondsfi@teslastation.org](mailto:bondsfi@teslastation.org) or visit the college's website at:

<http://academy.sfi.org/courses/intel/cbjb.shtml>

*MGN Dennis Rayburn*  
*Director, College of Bond, James Bond*  
*STARFLEET Academy*  
[bondsfi@teslastation.org](mailto:bondsfi@teslastation.org)

# Change of Director for Mythological Studies, SFA

First off I want to offer a huge THANK YOU to Bill Rowlette for his service as director for the Mythological Studies. Due to real life commitments, he must step away from Academy for a while.

Bill, there will always be a place for you in the "hallowed halls" of Academy. Let us know when you are ready to return.

Stepping up to the plate will be Wayne Smith of the USS Southern Cross. As you know, Wayne already teaches the College of Borg Technology, and so is an experienced director.

I will make the official changeover at 1 PM EDT. Those of you with outstanding Mythological exams, please return your completed exams to Wayne at the address on the SFA website.

*Adm Carol Thompson*  
*Vice-Dant, SFA*  
[betazoid@mosquitonet.com](mailto:betazoid@mosquitonet.com)

# Beam me up: Just how close are we to teleportation?

*article sent in by Captain Everett Brooks*

**LONDON, England (CNN)** — Admit it — at one point or another we’ve all dreamed of being able to teleport. How much easier and less stressful life would be if, at the flick of a switch, we could whisk ourselves direct from home to work without the intervening two hours crushed onto public transport, face wedged into the armpit of an overweight man with a sweat gland problem.

Now teleportation, long a staple of the world of science fiction — what episode of Star Trek would be complete without Captain Kirk et al “beaming” off the Enterprise onto the surface of some distant planet? — is being talked of as a serious scientific possibility.

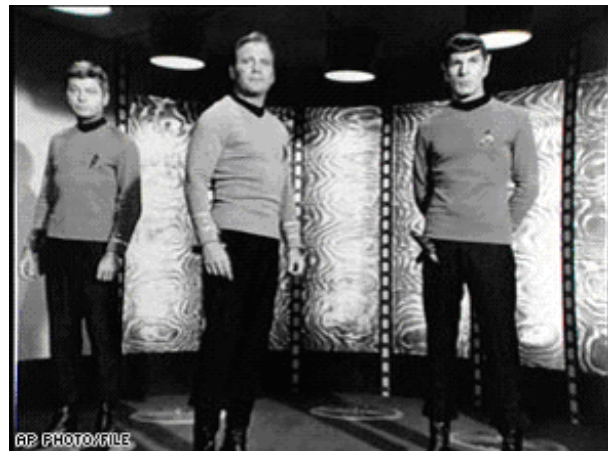
More than just talked of, indeed: over the last couple of years physicists working independently in Austria, Australia and Denmark have all achieved a rudimentary form of teleportation, albeit at the quantum level of atoms and photons rather than the macro level of objects and actual people.

“Exact teleportation was thought to be impossible,” Charles H. Bennett of IBM Research, part of the team that first discovered “quantum teleportation,” told CNN.

“Now, however, it is known to be possible.”

Teleportation — the term was first coined by American writer and paranormal investigator Charles Fort in his 1931 book “Lo!” — is defined by the Oxford English Dictionary as: “The instantaneous transportation of persons, etc., across space by advanced technological means.”

This idea of transferring an object or person in the blink of an eye from one place to another — often across vast distances — has for decades appeared in books and films, from the aforementioned Star Trek “Transporter” to the Portal Keys and Floo Powder of the Harry Potter novels (for a less cheerful take on teleportation check out the 1986 movie *The Fly*, where the process has a very unpleasant effect on poor old Jeff Goldblum).



It even crops up in Islamic mystical tradition in the concept of Tay al-Ard, or “the folding up of the earth,” whereby a person is, without actually moving, miraculously transported to a far-off destination by the world spinning very rapidly beneath their feet.

Sadly for sci-fi enthusiasts the work currently being carried out by scientists is not producing quite the sort of teleportation beloved of popular fiction.

Instead physicists — spurred on by the theoretical work of Charles H. Bennett and others — have been focusing on what is known as “quantum teleportation.”

A brain-pulpingly complex and, at times, surreal field of study — one touching upon such knotty issues as the Einstein-Podolsky-Rosen Effect and The Heisenberg Uncertainty Principle — quantum teleportation involves the transmission not of actual matter, but rather of information.

“This whole area is surrounded by a sort of mystique that makes people feel they can’t understand it,” says Bennett.

“In fact it is simpler than it sounds. What you have to note is that in this sort of experiment the atom itself is not teleported, but rather the delicate quantum information contained in the atom.

“In effect you are disembodying the complete quantum state of one atom and reincarnating it in another atom of the same sort.”

Valerie Jamieson, physics editor of *New Scientist Magazine*, explains further:

“This is not teleportation as we like to think of it,” she told CNN, “Namely an object disappearing from one place and reappearing in another.

“Rather, it is about the transferring across space of the quantum properties of particles, and in particular their spin.

“One way of imagining it is to think of a snooker table with balls on it. In the traditional view of teleportation a spinning ball will dematerialize at one end of the table and exactly the same ball will re-materialize at the other end.

“In quantum teleportation the spinning ball stays where it is, but its spin is transferred to another ball somewhere else on the table, in effect creating a Doppelgänger.

“It is an aspect or a ‘property’ of the original ball that has been transmitted rather than the ball itself. Although to complicate matters the process of transmission would destroy the original ball.”

How is this “quantum teleportation” actually achieved? The process relies upon something called “Quantum Entanglement,” a fiendishly counter-intuitive phenomenon that Einstein described as “spukhafte Fernwirkung” or “spooky action at a distance.”

Basically it involves two separate particles behaving as if they were essentially one and the same, even though they are separated by a great distance. Changes to one particle will be mirrored in the other.

Using this phenomenon physicists have been able to transfer — or in effect teleport — the properties of one particle to another, in the case of atoms over a distance of about half a meter, in the case of photons over tens of kilometers.

While not as overtly exciting or dramatic as the teleportation of an actual person, such quantum teleportation nonetheless has enormous implications for the world of computing both in terms of the amount of information that can be stored and the speed with which it can be moved around.

“Although we are still some way off actually building a quantum computer, the possibilities are extraordinary,” says Professor Neil Johnson of the University of Miami’s Department of Physics.

“In theory it could contain an almost infinite amount of information, and move that information around at almost the speed of light.”

And what of the “classical teleportation” so integral to the adventures of Captain Kirk, Mr. Spock and Harry Potter? Will there ever come a time when actual people, rather than just the particles of which they are made up, will be able to beam from one place to another?

Charles Bennett believes that, in principle at least, it is perfectly feasible to teleport humans without violating any of the fundamental laws of physics. Not only that, but, also in principle, it could be done without resorting to the complexities of quantum entanglement.

“Quantum entanglement is valuable in transmitting particles such as atoms and photons where the most delicate properties are significant and where simple approximation is not enough,” he explains.

“Teleporting a person, on the other hand, would not require reproducing the quantum state anything like as exactly.

“Everything we know about biology and how molecules fit together to produce a living being, including the brain, indicates that creating some level of approximation would give you a real person who was a serviceable replica of the original in terms of looking the same and thinking the same thoughts, without necessarily being a perfect quantum replica.

“The teleported person would end up slightly different, but not in a biologically important way.”

The implication of this is that you could scan a person using some advanced form of the technology used to perform MRI scans, and transmit that scanned information somewhere else — using normal electrical or sound signals — where it would then be reassembled into an approximation of the original.

“It’s the same principle as a fax machine,” says Bennett. “When you fax something what comes out the other end obviously looks like the original and contains the same information. It’s not the same paper, however, or the same type of ink.

“It’s the same, but not the same.

“We already have three-dimensional fax machines, so the basic theory is there.”

What actually happens to the original person when their bio-molecular details are “faxed” somewhere else, and whether your average person on the street would be happy to be reassembled as a similar but at the same time slightly different average person on the street, are, thinks Bennett, moot points.

With each human being made up of trillions upon trillions of atoms — 10 to the power of 28 to be precise — the technology to perform a sufficiently accurate scan to produce even the most basic approximation of a living person does not exist, and probably never will.

“What might be possible in theory is, from a technological point of view, blatantly impossible,” he says.

“If you consider all the atoms in a person, and the fact that in the scan you would have to locate all those atoms to within a nanometer of each other, and then have some machine capable of translating that information into DNA, water, fat, protein etc. — it’s just silly to think about.”

Valerie Jamieson is equally pessimistic about human teleportation moving anywhere beyond the realms of theory.

“I really don’t think it is ever going to happen,” she says. “Then again, one thing I’ve learnt is never to underestimate the ingenuity of physicists, so never say never.”

# Come to IC2008, June 2008 in delightful Ithaca, NY

Hello, STARFLEET, from the entire IC2008 staff! While I've tried to send this to what STARFLEET lists I could think of, please feel free to forward this to region, chapter, or other STARFLEET-related lists as you all see fit!

Well, folks, it really is time or perhaps even past time to start thinking about coming to beautiful Ithaca, NY the last weekend of June, 2008. Not only is the International Conference in Ithaca, but upstate New York is absolutely gorgeous in the summer time, and the perfect place to plan a vacation around the IC.

Future monthly announcements will have interesting facts about the upcoming IC! However, this month, let's give you the basics. It costs 20 a person to register if you do it before the end of the year. The banquet costs another 27 dollars. The hotel is the Ithaca Airport Ramada Inn, which costs \$99.95 a night for that weekend if you use the group code STAR. Some have wondered if a Ramada has enough space – it has 2 class rooms, an amphitheater, 3 board rooms, and 2 ballrooms that divide in to up to 5 meeting rooms. There's plenty of room, and our programming chairs are thinking up great ways to use the spaces provided.

We really hope to see you all there. If you feel the need to contact us, email Dan Adinolfi at [chair@ic2008.org](mailto:chair@ic2008.org) or myself at [jccohen@14850.com](mailto:jccohen@14850.com)

*J.C. Cohen*  
[jccohen@14850.com](mailto:jccohen@14850.com)

## New Unit Activated

Please join with me in welcoming a new unit that has been activated in the 11BDE (the ANZACS).

This is the 375th MEU - The Warriors - who will have at their head OIC, MCPT Brook Thomson.

The significance of this unit is that it is based in New Zealand and becomes the very first solely Kiwi Marine unit activated within the SFMC. We hope to see this unit attract a whole new range of recruits to the Corps in time.

Anyone wishing to contact the 375th OIC can do so at - [poccothomson@yahoo.com](mailto:poccothomson@yahoo.com)

*COL Bruce O'Brien*  
*OIC 11BDE*

## New Academy Courses - College of Parallel Studies

STARFLEET Academy has 6 new courses available under the College of Parallel Studies.

At CoPS you will find basic to advanced studies on parallel universes with a focus on the "Mirror Universe" featured in Star Trek. Future courses will include studies on alternate timelines and 300 level projects.

For more information or to sign up for a course please visit: <http://acad.sfi.org/courses/scifi/cops.shtml>  
or email [N\\_star99@yahoo.com](mailto:N_star99@yahoo.com)

*FCAPT Abe Smith*  
*Direct, College of Parallel Studies*  
[N\\_star99@yahoo.com](mailto:N_star99@yahoo.com)

# STATE of INFOCOM, October 2007

Deep from the bowels of the SFMC Data Warfare Center it's time for the monthly INFOCOM report. Currently I'm writing this report by the soft glow of emergency lighting. Things here at the Data Warfare Center have been getting a little weird as Halloween approaches. I've had to barricade myself in my office against an angry mob of gremlins. If I make it through this alive I have to remember to tell medical not to feed their mogwai after midnight.

Speaking of gremlins, I need volunteers to do some gremlin hunting. The beta sites for the SFMC and SFMCA have been completed and now it's time to test them out. In order to do that I need victims, I mean volunteers to look through the sites, play with them, and then report back to me any gremlin activity they might encounter. So if you want to participate please send me a PRIVATE e-mail. Beta testing is scheduled to run from November 3 through November 10.

## **\*\*SFMC Website\*\***

The current SFMC website is going to be retired in a little over a month. Until then I will be updating it and keeping it current. The new SFMC and SFMCA websites will be going live on December 1. I now have a schedule for the change-over which you can find directly below.

### —SFMC Website Project Schedule—

**\*\*November\*\*** 3rd: Sites will be released to beta testers.

4th - 10th: Beta testing and fixes based on comments.

11th - 17th: Sites will be packaged and readied for move from staging area to final home. Preparation will be made to move discussion lists over to new servers.

18th: \*Final checklist will be performed regarding mail and list settings.

\*Request will be made to Network Solutions to change the DNS records. Shortly after this point the SFMC online presence will be off-line. There will be no email, lists or websites on the sfi-sfmc.org address.

\*Beta sites will serve as temporary presence.

21st or 23rd: New DNS information should have replicated enough to bring the new site online. Email will be the first thing brought online. Once email is back up courses can once again be requested. Lists are the next item to be brought back online. The main Corps list will be first followed by the others.

PLEASE NOTE THAT LIST ARCHIVES WILL BE LOST IN THE TRANSFER. Sites will be installed on the new servers. Sites will be tweaked here and there. 24th - 30th: Sites will be tested on new servers.

**\*\*December\*\*** 1st: Sites will go live.

## **\*\*Need help on your groups website?\*\*\***

If there is any MSG, BN, or BDE out there that needs help in setting up a website or fixing one please feel free to contact me and I'll see what I can do to help.

## **\*\*What do YOU want from the SFMC?\*\*\***

We have announced several changes and plans for the SFMC over the last several months. Generally, these have been well received. However, the members of the General Staff have received very little feedback about what you, the members, would like to see from the SFMC General Staff.

If you have ideas you think we should take a look at, please let us know. You can reach the members of the General Staff as follows:

SFMC Commandant: [dant@sfi-sfmc.org](mailto:dant@sfi-sfmc.org)

SFMC Deputy Commandant: [depdant@sfi-sfmc.org](mailto:depdant@sfi-sfmc.org)

Sergeant Major, SFMC: [sgm-sfmc@sfi-sfmc.org](mailto:sgm-sfmc@sfi-sfmc.org)

Commanding Officer, Forces Command: [forcecom@sfi-sfmc.org](mailto:forcecom@sfi-sfmc.org)

Commanding Officer Training and Doctrine Command: [tracom@sfi-sfmc.org](mailto:tracom@sfi-sfmc.org)

Commanding Officer, Information Command: [infocom@sfi-sfmc.org](mailto:infocom@sfi-sfmc.org)

Remember, we are here to serve you and your needs. We can't do that without your input. Help us make the SFMC even better.

*BGN Sean Niemeyer, SFMC*

*COINFOCOM/SFMC G-3 Officer/*

*Chief of Ops USS Asimov NCC-1647-A*

[infocom@sfi-sfmc.org](mailto:infocom@sfi-sfmc.org)

# AWARD ANNOUNCEMENT

David Lee Kania, front and center!

For your efforts and work to promote space exploration among young students and adults alike, it is my please to present you with the

## PRENTARES AWARD

*Given under my hand this 31st Day of October, 2007.*

*John Roberts*

*Commandant, SFMC*

*[MSGjcroberts2@hotmail.com](mailto:MSGjcroberts2@hotmail.com)*

## STATE OF THE SFMC, October 2007

### Bank Account Information

We started the month of August with a balance of \$1,141.18. We had deposits in the amount of \$236.84 in August, leaving us with a balance of \$1,378.02. We therefore, started September with a balance of \$1,378.02. We had no deposits or withdrawals during the last month so the current account balance remains at \$1,378.02.

### New NCO Ranks

After a request made by John "Kiwi" Kane and in order to reflect the changes made a while back to give senior NCOs a dual track ("Admin" and "Field"), the GS has approved new rank insignia to differentiate between the two ranks. The new insignia are as follows:

For the 1SGT/MSGT (E-8): 1SGT stays the same as it is now. MSGT would wear the ARMY ROTC MSGT Insignia painted silver (It looks the same but does not have the diamond in the center).

For the SGM/MMSGT (E-9): MMSGT gets the current rank insignia (Army ROTC SGM chevrons painted silver), the SGM would wear the same insignia, but the star in the center would be painted gold and not painted silver like the rest of the insignia.

These changes will be reflected in the next update to the MFM.

### SFMC Medical Proficiency Award Changes:

Due to a proposal submitted by the Medical Branch Director, the GS has approved a change in the Medical Proficiency Award (and a new version of the award) as follows:

### Medical Proficiency Award(s)

This award is authorized to marines who have completed either of the conditions stated below:

- 1) Completed a CPR course that is equivalent to a Heartsaver course by the American Heart Association.
- 2) Completed a Basic Cardiac Life Support Course or equivalent.

Documentation of such training must be provided by the certifying organization, and verified by the issuing authority. This ribbon is unlike most others in that it may only be worn as long as the individual's certification is in effect.

### ADVANCED MEDICAL PROFICIENCY AWARD

Issuing Authority: Branch Director - Medical

Frequency: As needed (one award per marine maximum)

Ribbon description: Hunter Green with Gold Oak Leaf

SFMC Ribbon Name: ?

This award is authorized to marines who have:

1. A current CPR certification that is equivalent to a Basic Cardiac Life Support Course by the American Heart Association;
2. A First Aid Course that is equivalent to a Advanced First Aid Course by the American Red Cross; or,
3. Has completed a Emergency Medical Technician Course (Basic)

Additionally Marines who want to wear this ribbon must also have earned a degree for Bachelor of Military Science (Military Medicine) by the SFMCA School of Medicine (completion of MD-30).

Documentation of such training must be provided by the certifying organization, and verified by the issuing authority. This ribbon is unlike most others in that it may only be worn as long as the individual's certification is in effect.

These changes will be reflected in the next update to the MFM.

#### SFMC Historian

Do you have an interest in history? Do you like to write fiction? Then the SFMC wants you! We are looking for an SFMC Historian. This person would be charged with creating the SFMC History, based upon the information in the MFM and other SMFC publications and then "filling in the gaps." You would report to the Commandant of the SFMC and have almost unlimited creative control (it must still be approved and fit in the already established histories). You would also need to work closely with the STARFLEET Historian to make sure there were no contradictions in the histories.

Minimum Qualifications for this post are:

1. Be a member in good standing of STARFLEET and be, at least, a member of the SFMC Reserve;
2. Have passed OTS and PD-10 (OCC and PD-20 are preferred);
3. Have regular and reliable email access;
4. Have the ability to write clearly and creatively within accepted guidelines.

Still interested? Then here is the application procedure:

Write a fictional history for the SFMC Mess night Manual (will be uploaded to the SFMC website in the next few days) detailing the history of the SFMC Mess Night in the same basic manner as the modern day military histories contained in Appendix A of the current draft are written. The history you create must cover the period of time from 2100 to 2261 and should include anecdotes and stories such as those contained in the earlier histories of the modern day military.

What do YOU want from the SFMC?

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If you have ideas you think we should take a look at, please let us know. You can reach the members of the General Staff as follows:

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SFMC Deputy Commandant: [depdant@sfi-sfmc.org](mailto:depdant@sfi-sfmc.org)

Sergeant Major, SFMC: [sgm-sfmc@sfi-sfmc.org](mailto:sgm-sfmc@sfi-sfmc.org)

Commanding Officer, Forces Command: [forcecom@sfi-sfmc.org](mailto:forcecom@sfi-sfmc.org)

Commanding Officer Training and Doctrine Command: [tracom@sfi-sfmc.org](mailto:tracom@sfi-sfmc.org)

Commanding Officer, Information Command: [infocom@sfi-sfmc.org](mailto:infocom@sfi-sfmc.org)

Remember, we are here to serve you and your needs. We can't do that without your input. Help us make the SFMC even better.

*MGN John Roberts*

*Commandant, SFMC*

[jcroberts2@hotmail.com](mailto:jcroberts2@hotmail.com)

# Dust Belt May Become a Second Earth

*article sent in by Captain Everett Brooks*

(Oct. 3) - Astronomers have spotted evidence of a second Earth being built around a distant star 424 light-years away.

A belt of dust surrounding a nearby star has the potential to congeal into an Earth-like planet, scientists said.

Using NASA's Spitzer Space Telescope, astronomers have spotted a huge belt of warm dust swirling around a young star called HD 113766 that is just slightly larger than our sun. The dust belt, which scientists suspect is clumping together to form planets, is located in the middle of the star system's terrestrial habitable zone where temperatures are moderate enough to sustain liquid water. Scientists estimate there is enough material in the belt to form a Mars-sized world or larger.



At approximately 10 million years old, the star is just the right age for forming rocky planets, the researchers say. Their finding will be detailed in an upcoming issue of *Astrophysical Journal*.

"The timing for this system to be building an Earth is very good," said study team member Carey Lisse of the Johns Hopkins University Applied Physics Laboratory in Baltimore, Md.

If the star system were too young, the planet-forming disk would be full of gas, and it would be making gas-giant planets like Jupiter instead. If it were too old, Spitzer would have spotted rocky planets that had long ago formed.

The star system also has the right mix of dusty materials in its disk to form an Earth-like planet, Lisse said.

Using Spitzer's infrared spectrometer instrument, the team determined that the material around HD 113766 is more processed than the snowball-like stuff that makes up infant solar systems and comets, which are considered cosmic "refrigerators" because they contain pristine ingredients from the solar system's formative period. But it is also not as processed as the stuff found in mature planets and asteroids.

"The material mix in this belt is most reminiscent of the stuff found in lava flows on Earth," Lisse said. "I thought of Mauna Kea [in Hawaii] material when I first saw the dust composition in this system – it contains raw rock and it's abundant in iron sulfides, which are similar to fool's gold."

Earlier this year, scientists announced they had found evidence for one, and possibly two, already formed Earth-like planets around Gliese 581, a dim red star located only 20.5 light-years away. The possible planets, called Gliese 581c and Gliese 581d, are located at about the right distance from their star to support liquid water and life as we know it, but many more observations are needed to confirm this.

NASA's Hubble Space Telescope captures a the celestial equivalent of a geode in this gas cavity carved by stellar wind. Real geodes are baseball-sized rocks that start out as bubbles in volcanic flows.

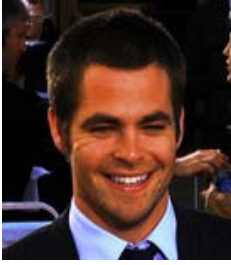
To date, planet hunters have discovered more than 250 extrasolar planets, or "exoplanets." Most of the distant worlds, however, are giant gas planets several times the size of Jupiter.

While life is known to exist only on our planet, the range of exoplanet types found so far has astronomers increasingly confident that many worlds in our galaxy could be habitable. Finding Earth-like worlds in habitable zones is a first step toward the technically challenging task of discovering biology outside our solar system.



# Actors Chosen for New Trek Film

**Kirk: Chris Pine**, LA, California



Six Feet Under (2005)  
Princess Diaries 2 (2004)

**Scotty: Simon Pegg**, Gloucester, UK



Grindhouse (2007)  
Mission Impossible III (2006)  
Doctor Who (2005)

**Sulu: John Cho**, Seoul, S. Korea



Ugly Betty (2007)  
Grey's Anatomy (2006)  
Kitchen Confidential (2006)  
Solaris (2002)



**McCoy: Karl Urban**, Wellington, New Zealand

Pathfinder (2007)  
Out of the Blue (2006)  
Doom (2005)  
The Bourne Supremacy (2004)  
Chronicles of Riddick (2004)

**Uhura: Zoe Saldana**, New Jersey

Avatar (2009)  
Vantage Point (2008)  
Guess Who (2005)  
The Terminal (2004)  
Pirates of the Caribbean (2003)

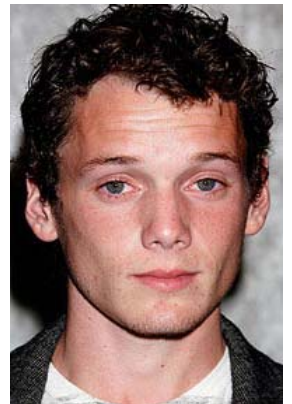


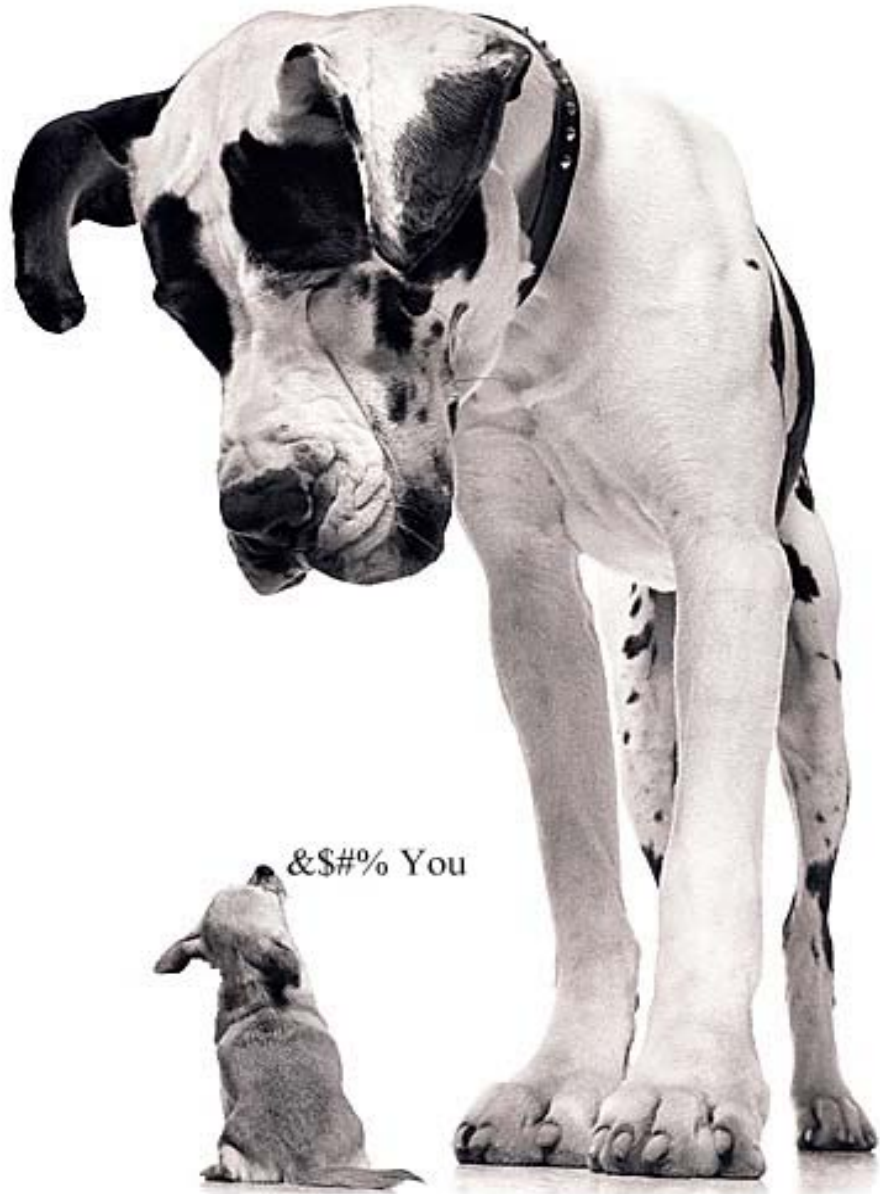
**Spock: Zachary Quinto**, Pittsburg, PA

Heroes (2007)  
24 (2006)  
24 (2004)  
Charmed (2003)  
Six Feet Under (2003)  
CSI (2002)

**Chekov: Anton Yelchin**, Leningrad, USSR

Without a Trace (2003)  
Hearts in Atlantis (2001)





NEVER BE AFRAID TO SAY WHAT YOU FEEL

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