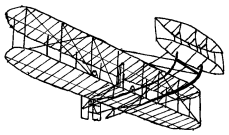
VOLUME 11 NUMBER 6 DECEMBER, 2000



THE WRIGHT STUFF

THE OFFICIAL NEWSLETTER OF THE U.S.S. KITTY HAWK NCC 1659

A VIEW FROM THE CATBIRD SEAT

By J.R. Fisher

Well, I certainly hope everyone got their fill of turkey and all of the trimmings, because we have our holiday dinner coming up on December 17, 2000, a Sunday at 6 p.m. Tom Mukoyama is hosting our affair again this year at the Kanki at Crabtree Valley Mall. As usual, we hope everyone will dress for the occasion, no uniforms. It is the holiday season and we can all make that extra effort to look our best. Besides, we need some pictures of the group and this is one of our best attended functions.

Please be on time, 6 p.m. sharp. It is their busy season as well, and time is money. They have another large group coming in an hour and one-half later so it is imperative that we get in and out in our allotted time. Thank you in advance for your consideration and promptness.

As we mentioned at the last few meetings (which have been poorly attended), we will be doing Raleigh First Night again this New Year's Eve. We will man the button tent from 4 p.m. until 11:30 p.m. on the 31st. We are looking for a few good volunteers to help sell the buttons. We can raise as much as $500.00 if we really push. We always have a good time so please come help. Call me and let me know you will be there.

Also, just around the corner is the PBS telethon. The tentative start is February 21st but it has not been confirmed as yet. We have signed up for 25 seats for both the first Saturday night of the festival and the last Saturday night of the festival. Please make plans to attend. We always have a great time and get plenty of good food. While we don't have a fixed schedule yet, they supposedly will be running a second "Do-Wop" show, and that means lots of pledges.

They have a new volunteer coordinator at UNC-TV, and she has asked us to volunteer in several other capacities this year. She needs some people who are familiar with pledge taking to run some of the orientation sessions during the course of festival, maybe one day a week. On that same schedule, she also needs about 20 volunteers to handle the traffic flow in the studio, getting the food out for the volunteers, etc. Since we have had as much experience as anyone over the last ten, excuse me, eleven years; if you feel comfortable doing any of the above, please call Rhonda and volunteer your time.

We are quickly coming to the end of the year, the century, and the millennium; so it is time to start planning for next year. We have accomplished a lot in the past, we hope to do at least as much in the future.

Our charity and civic activity has fallen off in the last few years but I think that is a bi-product of the aging of the crew rather than a loss of a sense of duty. We have a number of small children on the ship, which means parents have to get sitters, or only one parent can participate while the other watches the children. Some of us are senior citizens and simply cannot do all that we used to do. On the other hand, some of our children are now reaching an age which will allow them to participate in some of our functions and activities. Therefore, we should be able to increase our involvement into our civic projects. When children and their parents both are involved in an activity together, everyone benefits.

Think about things you would enjoy doing and if you think the crew would also like to engage in these activities, let us hear from you.

One of the things that seems to be popular again, is the idea of a game night or afternoon on a weekend. The last few Halloween parties have had board games that were well accepted by those in attendance. Perhaps we can get together once a month or even after a meeting to play a game or two. If there is enough interest, perhaps we could do it by departments and even have challenges between departments. Don't forget there is always laser tag, bowling, and golf to name just a few.

A definite trip this coming year has to be a weekend to Charleston, S.C. and a visit to the U.S.S. Yorktown (USN). By making it one or two nights, there would be ample opportunity to see the aquarium, old Charleston, Fort Sumter, etc. And we already have a guide in the person of our chief of security, Spring Brooks, whose parents live in N. Charleston.

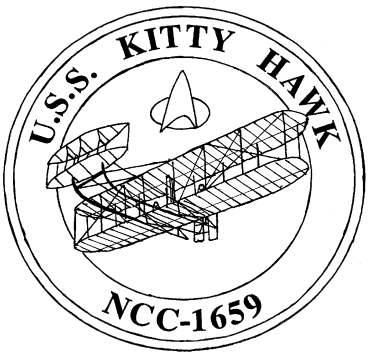
Beyond that, it is really going to be up to you as a crew to decide what we are going to do in 2001. We want everyone to have some event that they will enjoy but we don't want to stray from our original mission statement of helping others. We are a civic group and we have a responsibility to our fellows and to our communities. We really are not that different from the Elk or Lions or Rotary clubs. We just wear a different hat (uniform—whatever); the goals are the same.

Eleven years ago, seems like a long time in some senses, but only a moment in others. Over one hundred people have preceded you as crew on the U.S.S. Kitty Hawk and they have left quite a legacy. We hope that all of you will do as much during your voyage with us over whatever period of time you give us. We hope that you will take away a genuine sense of duty, dedication and appreciation for what we attempt to do on this fine ship. She is a tall ship, one of the best; and she deserves the best possible crew. She has had that; she has that. All the little things we pull together in this newsletter are not just to be cute or clever; but relate directly to the type of crew and ship the U.S.S. Kitty Hawk is. You must have the "Wright Stuff" to be "First in Flight" and To be, rather that to seem".

I thank you for the opportunity to serve you and the U.S.S. Kitty Hawk for eleven years. And for the pleasure of having found so many friends.

In service to you,

Fleet Captain Joffré R. Fisher, Jr.,commanding U.S.S. Kitty Hawk



THE WRIGHT STUFF

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THE WRIGHT STUFF

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THERE'S TRIBBLE IN THE COLLECTIVE

By Jeff Cohn

Part XII: The Wonderful Thing About Tribbles, is Tribbles are Wonderful Things!

Three squadrons of Jem H'Adar warships exited the wormhole and adjusted their course towards the Founder's home world. After blasting their way past surprised Bajoran gunships and the automated defense stations situated near the entrance to the conduit, the vessels sped directly in without even a scan of the nearby Deep Space 9 station. The Great Link sensed with joy the return of one of its components, though there was something uncharacteristic in the event. The Great Link was unable to feel the traditional emotional response of this component to the homecoming. Anticipating euphoria, it instead felt longing. The Vorta and Jem H'adar warriors charged with the protecting their Founder had ceased communicating. The silvery fluid covering much of this otherwise unremarkable rocky world reached out to its wayward part, providing a welcoming beacon onto which the Solids' crafts quickly homed. Once back within the embracing fold of the Great Link, any harm caused by prolonged exposure to the Solids will be cleansed.

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Captain's log Stardate 49301.5.

We have entered the Burnham star system, almost as planned. The surprise is that we are, for the moment, alone. We expected to arrive amidst countless numbers of Triborg ships, however they slowed down to barely Warp 1 before entering normal space approximately 0.8 light years from the system. On Starfleet's orders we have continued to the fourth planet, the tribble home world, in order to rendezvous with Dr. Charles Darwin Fisher. While I look forward to seeing him again, I am concerned about leaving the Triborg ships unattended. I've ordered a probe stationed with the fleet of ships, but it's never the same as being there in person. It is unclear why the Triborg vessels stopped, what they are doing now, and when, or if, they will complete their journey. Captain out.

The *Redoubtable* swung into standard orbit about the lush Type M world. About the size of Mars, Burnham IV was a temperate world. It had only a slight tilt relative to its orbit, so there was little seasonal variation. Broad savannas of grass-like plants covered large proportions of the central land mass, which gradually rose to a well worn central mountain range. Small cities constructed over 150 years of post-colonial expansion dotted the coast. The sentient population consisted primarily of humans, with a smattering of other humanoid species who found the climate and agrarian lifestyle equally pleasant. Despite the difficulties experienced occasionally off-world when tribbles and humans came into contact, all existed in harmony here. A variety of indigenous predators consumed tribbles, and there were no problems with overpopulation.

In the main square of Messier City, the colonial capital, a transporter's shimmer flared briefly then faded. Four Starfleet officers looked out over an attractively designed village square, reminiscent of a French farming community. A number of locals went about their business, some smiled in acknowledgement at the visitors before moving on. Katonga grass, a local grain crop, covered gently rolling fields which extended towards the horizon. The grass stood "nearly as high as an elephant's eye", thought one member of the landing party. There were no native trees on the planet, just a few introduced specimens placed in convenient locations throughout the city to provided shade against the bright sun. To their right, the landing party saw the administrative building and proceeded in that direction.

Climbing the flight of stairs leading up to the main entrance, Commander Benjamin Lawrence stopped as a gray-haired gentleman in field clothes and sun visor skittered down the stairs and stopped before him, beaming. "Benjamin! You're here! What a pleasure to see you again!" "Likewise, Professor Fisher. It's been a long time. Unfortunately, we don't have time to reminisce at the moment." "Agreed, Benjamin, time enough for that when we've dealt with our little situation. Come with me. I have something to show you." The group walked through the administration building, and out the other side. A Flitter rested on its skids in the vehicle holding area. Beckoning the *Redoubtable's* crew to follow, Fisher boarded the small craft. A moment later, they were airborne and heading towards the southeastern settlement of Nouvelle Rouen.

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Half a galaxy away, a Jem H'adar warship separated from its companions and entered the atmosphere of the small rocky world below. It landed on a small outcrop of volcanic basalt and shut down its engines. The other ships, their purpose complete, were released. They descended in an uncontrolled entry, burning to ashes 100 kilometers above the planet's surface. Joy melted into concern as the Great Link was unable to make contact with its component, still inside the Solids' craft. A pseudopod of silvery gray extended from the surface of the basin surrounding the small outcrop. It contacted and spread about the main hatch. The seal was airtight, but the pseudopod exerted enough pressure to force it open. The hatch was ripped away with a great hiss of equalizing pressure. Ignoring the mewling balls of fur slowly moving about, the fluidic arm explored the vessel, tentacles branching off to enter each passage, each deck. Finally, it sensed what it was seeking. Entering an isolated chamber, a tentacle reached out to the changeling, lying nearly motionless on the floor. It remained in humanoid form, unable to regenerate, unable to shift into its native form. The fluidic ten-

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FIRST OFFICER'S LOG
By Carey Muse

I hope everyone had a nice Thanksgiving. We have a busy schedule in December, don't forget our anniversary party on the 17th and First Night on the 31st. Whatever your beliefs are I wish to extend to all of you a happy holiday season.

MEDICAL REPORT
By Amy DeJongh

LASIK is short for "laser-assisted in situ keratomileusis." It is the most commonly performed refractive surgery procedure -- partly because of the relative lack of pain immediately afterward and partly because good vision is usually achieved by the very next day, if not before.

An instrument called a microkeratome is used in LASIK eye surgery to create a thin, circular flap in the cornea. The surgeon folds the flap back out of the way, then removes some corneal tissue underneath using an excimer laser. The laser uses a cool ultraviolet light beam to precisely remove ("ablate") very tiny bits of tissue from the cornea to reshape it. When you reshape the cornea in the right way, it works better to focus light into the eye and onto the retina, providing clearer vision than before. The flap is then laid back in place, covering the area where the corneal tissue was removed.

On Nov 28, 2000, I had this remarkable procedure done. I began the day with 20/400 vision (-4.75 diopter). LASIK is an ambulatory procedure; you walk into the surgery center, have the procedure, and walk out again. In fact, the actual surgery usually takes less than a minute, and you're awake the whole time. My surgery began at around 9:30 and we were on our way by 10!

Here's how it works - Your eyes are first anesthetized with special drops. The doctor will have you lie down, then make sure your eye is positioned directly under the laser. (One eye is operated on at a time, while the other eye is covered.) A kind of retainer is placed over your eye to keep your eyelids

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SCIENCE REPORT
By Elaine Pischke

Merry Christmas and Happy New Year to all. I can't think of a thing to write about, so I'll re-run an oldie from a couple years ago.

A STARSHIP CHRISTMAS

by Elaine Pischke

It's a starship Christmas, what a beautiful sight;
Ten-Forward is decked out in holly and light.
Guinan serves egg nog and a nice synthehol toddy
while Riker (as Santa) sorts out the nice from the naughty.

Humans place presents under a tall tree
while aliens silently wonder about our sanity.
The replicators are as busy as Santa's elves
trying to restock the supply room shelves.

It's snowing like crazy in holodeck one,
and everyone wants to join in the fun.
A snowball fight broke out in there for a while,
and Deanna insists she saw Worf crack a smile.

Beverly directs another holiday show,
a Christmas time classic that we all know.
Data plays Cratchitt, Alexander Tiny Tim,
and Picard plays Ebenezer Scrooge, on a whim.

Geordi waits patiently under the mistletoe
for a pretty young lady who'll want to, well, you know.
And, just because it's Christmas, one lovely young miss
walks up and gives Geordi a great big kiss.

There's peace in the galaxy, at least for one night;
Even Q doesn't feel like picking a fight.
So from Mystery and Spot - a wish for good cheer,
Merry Christmas to all and a Happy New Year.

OPERATION'S REPORT
By Larry Pischke

Gotta make this report brief (aren't they all?) – I've gotta get ready for the upcoming blizzard! Time to chop more wood and split more logs. We need to keep warm, because temperatures in this sub-arctic clime can get deadly!

FREE TO GOOD HOME - One aircraft carrier, slightly used.

That's right, the rumors are true. The US Navy is indeed getting rid of an aircraft carrier. The *USS Saratoga* will be given to a worthy community, free of charge. Of course, said community needs to be near, preferably ON, the coast. This item would make an excellent start or addition to a military museum complex.

There is one small glitch, however. The chosen community must pay for shipping (pardon the pun) the *Saratoga* to her place of honor. That price? $20,000,000.

SECURITY REPORT
By Spring Brooks

Christmas Safety Tips

Consider an artificial tree (they are much safer and cleaner).

A real tree should not lose green needles when you tap it on the ground. Cut 1 inch off the trunk to help absorb water. Leave the tree outside until ready to decorate. The stand should hold at least 1 gal. of water. A 6' tree will use 1 gallon of water every two days. Mix a commercial preservative with the water. Check the water level every day. Secure the tree with wire to keep it from tipping. Keep tree away from floor heaters, fire places, or other heat sources. Use only UL-approved lights, and no more than 3 strands linked together. Use miniature lights--which have cool-burning bulbs. Turn off the Christmas lights when you sleep, or if you leave your home for very long. Never use candles, even on artificial trees. Clean the tree stand to improve the tree's water intake, use one capful of bleach to a cup of water. Dispose of the tree properly.

NEVER BURN A REAL TREE IN THE FIREPLACE.

Install a smoke detector or new batteries in the one(s) you have and TEST it. Use only outdoor lights outside your home. Examine light strings each year, discard worn ones. Fasten the bulbs securely and point the sockets down to avoid moisture build up. Connect no more than three strands together. Never use indoor extension cords outside. Avoid overloading wall outlets and extension cords. Keep outdoor electrical connectors above ground and out of puddles and snow.

Unplug light string before replacing a bulb. Review the original package to verify proper wattage and voltage. When connecting light strands, wrap a plastic bag around connections and tie ends with teflon tape. Never use electric lights on a metallic tree, use colored spot lights. Make sure trees hung with X-mas lights are not touching power lines. When using candles, place them a safe distance from combustibles. Place candles in sturdy containers. Remember, hot wax burns kids. Extinguish candles prior to going to bed. Dispose of fireplace ashes into a metal container until cold. After parties, check around and under sofa and chair cushions for smoldering cigarettes. (Provide lots of ash trays) Install at least one carbon monoxide detector in your home. Have an operable fire extinguisher readily available.

ENGINEERING REPORT
By Brad McDonald

Let me get right to an important issue. In a very bizarre turn of events, the Wright Memorial Visitors Center has been closed with no plans to reopen. That's right! A nationally known and recognized facility, with hundreds of thousands of visitors to its site annually, is closed! Opened in 1950, the Visitors Center was hailed as one of the country's original significant national park sites. While the memorial itself remains open, the book store, replica Wright flyer, artifacts, documents and other exhibits, no longer have a home.

This inexcusable situation came about after recent storms at the Outer Banks, caused increased leaks and subsequent damage to the facility. The building has been plagued with leaks for some time, but the latest storms accelerated the process to such a degree, that there was genuine concern for the safety of visitors and artifacts. Citing a possibility of ceiling collapse, park safety officer, John Girard, called for the closing. Now, all exhibits have been placed in an unnamed storage facility until further notice.

What now? Good question. Originally, it was scheduled for demolition and replacement years ago, so that a new facility could be built in time for the Centennial Celebration. However, a number of historians and architects got a reprieve for the building, citing its significance as an architectural milestone. Randy Biallas, chief historic architect for the Park Service in Washington called it, ". ..a significant example of the post- World War II period in America." True or not, Mr. Biallas neglected his most significant duty, protection of the exhibits and artifacts, not the structure itself. Part of the 'save the building' plan included repairs to the original building and the construction of a second, educational structure as well. Since none of the plans, replacement or renovations seemed to have worked out, we're left with no solution at all. To quote Mary Doll, Memorial Superintendent, "There is no expectation that temporary repairs will be possible and thus, no projected date for reopening the building."

Since my background is in construction, this situation has me worried. I know the protracted process involved in getting a building designed, contract bids and awards, plus actual construction work completed. Even if the process started today, there is barely enough time. While it is possible to "fast track" the process, we are all familiar enough with the usual government red tape and snafus that this prospect seems a dim possibility at best. It's beginning to look like the Dayton, Ohio folks may win out as a Centennial site, simply by default. North Carolina won't have a facility to house the ceremonies. I'm wondering if Mr. Biallas had that in mind. (Is he from Ohio?)

At this point, it's beginning to look like the above scenario could become a reality. I would really like to see someone light a fire under the Parks Service to get the process moving forward and resolve this ridiculous situation. Exactly who and how, I'm not sure, but I believe it's going to take a person or group with considerable clout. I'm open to suggestions, senator, congressmen, national organization or agency, whatever. I do believe that some action should be taken soon.

I'm going to forgo any further news about new movies and books and such, in order not to take away from the Wright Memorial issue. We'll catch up on things, next time around. As always, long live and prosper .

SPACE FRONTIER CONVERENCE 9: Odyssey' s Horizon

By Alastair Browne

Another year, another conference in the City of the Angels, this time at the Manhattan Beach Marriott. The exhibit rooms were set up with lots of exhibits and vendors, including mine, the now famous book "A Proposal- A Permanent Moon Base and a Mission to Mars," along with some space music by Elaine Walker of Zia fame, in New York anyway. Luncheons went daily, with a big banquet Saturday night. There were also lots of parties in different hotel rooms, and one in particular was a Bush for President headquarters-he strongly supports the space program, especially entrepreneurship in this area.

And of course, there were sessions. Each session covered one subject, be it space tourism, the ISS (International Space Station-finally flying), Solar Power Satellites (SPS), Lunar Development, the Space Launch Initiative (SLI), and real markets for space development, to name a few. Each session had a panel of five or six speakers, sometimes more. Each gave a presentation of a talk, sometimes with films or slides, and each person was limited to 10 minutes, to prevent boredom in the audience.

SPACE IS A PLACE, not a program. It is the next step in human evolution, for human civilization to expand. Humanity is to spread out and exploit the resources that space has to offer, the same resources that are becoming scarce here on Earth. The government will not settle space, people will. However, somebody will have to pay the initial costs-nobody stays until somebody pays, or it (space) pays for itself.

The key to going out into space is low launch costs. This is the factor for space commercialization in the form of space tourism, space manufacturing, and going to the Moon.

We're starting out right. Recently, Congress added $4.5 billion for the next five years to develop new, reusable, affordable launch vehicles. This is known as the Space Launch Initiative (SLI). These would be second generation launch vehicles-the shuttle is the first- that are to be cheaper and safer-down to $1000/lb. as opposed to $10,000/lb. the shuttle presently charges.

The ultimate goal is to create a robust commercial market for diverse goods and services in near-Earth space. The SLI policy would be for NASA, rather than own their own vehicles, to purchase launches from private companies that own RLVs. In short, NASA should develop new technologies for new, cheaper, and better launch vehicles, turn them over to private companies, and then get out of the way.

The International Space Station, now that it's flying and the first permanent crew is scheduled to be up there in November, will be the first step in space. I will tell of a space module being built for commercial use. It is called -get this- the Enterprise. The Enterprise is a module, 3.3 meters in diameter and 10 meters long, privately owned by Spacehab, and is to be built in Russia. This module contains research facilities used to provide different services to a broad customer base. This includes furnaces for materials processing, freezers, and storage lockers for long-term experiments in near-zero gravity. This is a habitable environment to support two people continuously -two specialists most likely to perform these experiments. The world energy crisis is a harsh reality. Oil, most of it coming from the Middle East, consists of 40% of the world's energy. It is estimated that by 2010-2012, we will reach the maximum production of oil before the world's supply starts dwindling. In 15 to 20 years, we will reach an economic crisis relating to oil, and emerging nations cannot progress without energy. The Internet alone will account for 25-30% of energy use by 2010. The U.S. will need an additional 146 gigawatts (that's 146 BILLION watts) to restore capacity margins. In short, total demand is growing rapidly. There is also the problem of global warming.

So, what is the criteria if we want a future with plenty of energy? This energy of the future must be:

-Nondepletable
-Low cost
-Environmentally clean
-Available for everyone
-In a useful form

What are the options (and its consequences)?

-Fossil fuels -finite and pollut ing
-Nuclear reactors -waste and weapons
-Hydroelectric -limited capacity (we have reached its limits)
-Terrestrial solar -cost and storage
-Fusion -technology does not yet exist
-Solar Power Satellites - existing technology

Solar Power Satellites, in its mature form, can provide up to 10 gigawatts of electricity per satellite. Simply put, an SPS system is where a 10 kilometer wide satellite is placed in geosynchronous orbit (22,300 miles above one fixed point on Earth) absorb the sun's rays on solar cells, beaming them down in the form of microwaves, to be picked up by a receiving antenna (rectenna) and converted back to electricity for distribution. It is environmentally safe. The microwaves, incidentally, will not fry any living thing. Their power is less than that of the outside of a microwave oven. The power is infinite and cheap. The cost of SPS electricity can compete with hydroelectric power .

There have been other forms of SPS systems proposed: lunar systems, a sun tower (12 km long and 1 km wide, in mid-Earth orbit, generating 400 megawatts, to be used at peak power in the afternoon).

Space solar power can be used to replace all polluting forms of energy-Ieaving oil to be used for other purposes, such as the manufacture

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dril extended a bit further, and rejoined. Drawing the ailing portion within itself, the pseudopod withdrew from the warship and flowed back into the basin. The small component known to the Solids as a Founder dispersed throughout the entire fluidic life form, sharing its experiences, and the Borg nanoprobes, with the Great Link.

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"WHAT ARE WE LOOKING FOR?" shouted Commander Lawrence, above the din of rushing air. The Flitter was an open-seated sky car, and discussions were difficult with the enclosing force field lowered. "LOOK THERE, IN THAT OPEN AREA!" responded Professor Fisher, pointing to a clearing next to a small lake. Lawrence took the binoviewers and looked. The ground seemed to writhe in a myriad of earthtoned colors. Upping the magnification, Lawrence saw the writhing resolve into tribbles. Hundreds, thousands, clambering over each other, piling on, crawling under. "WHAT ARE THEY DOING?", he shouted. "COMPETING" answered the professor. "FIGHTING OVER MATES." "FIGHTING?" There was brief whoosh and then quiet, as Dr. Fisher activated the force field canopy. "Yes Benjamin. Tribbles are normally quiet placid, friendly creatures as you certainly know." During mating season, however, they act as any creature would, and compete for mates. This only happens once every two years, as one mating provides enough genetic diversity for several generations. Now, look in that clearing over there." Dr. Fisher pointed at another clearing, about .5 kilometers away. Drawing near, Lawrence's eyes widened in surprise. There was very little motion here, just a large gathering of tribbles. Dead tribbles. Not all were in that state, a few were visible moving off into the tall grass. Scavengers moved about the remainder, consuming large quantities of carrion. "This group began their ritual several days ago. You see Commander, it's natural selection at work. The tribbles literally fight to the death. Only about 1 percent actually live through the process and successfully breed. They carry the genetic load for the entire species, rebuilding the population for the next cycle." "You believe the Borg tribbles are going to do something similar?" "I think so Benjamin. They have demonstrated behaviors analogous to normal tribbles to this point. They have stopped their progress towards this world, tribbles here interrupt their migration as well, resting and eating as much as possible before entering the breeding areas." "If the Triborg vessels approach this planet with the intent to do what we've just seen below…" "That's right Benjamin. Except your tribbles come equipped with Borg technology."

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of plastics and computer chips.

There is the problem of launching a 10 km satellite into GEO. One solution is to lower launch costs exponentially, but what is even better is to use the resources of near-Earth asteroids and/or the Moon. An entire mining-transportation-manufacturing infrastructure can be built on the Moon, transporting the finished products to GEO, then building the SPS systems on the spot.

The Moon will no doubt play a major part in creating a spacefaring civilization. In doing so, we need:

-Gravity
-Protection from the hazards of space
-Room to grow
-Commercial development
-Science opportunities
-Access (transportation, communication)
-Energy
-Resources

The Moon has all these things. In building SPS systems, space habitats, or space factories, there would be the mining of resources from the lunar surface. The ore would be packed in a bucket, passed through a mass driver and catapulted off the lunar surface into space, to be caught by a "glove" (catcher) and then taken and processed by space factories and made into a product or whatever would be required in building space facilities. A mass driver is a series of magnetic coils that propels ore to a speed, catapulted off to escape lunar gravity. The Moon, and later asteroids and other planets would be used to obtain materials for space manufacturing. This would be much cheaper than using Earth's minerals and lifting them off of Earth's immense gravity well (remember the launch costs).

The first real market for space development will be space tourism. It has been estimated that 70% of the population of the developed world would like to experience spaceflight. These will not be passive sightseers. There are already trips to the Antarctic, up Mount Everest, down to the Titanic -they will now want new adventures, especially aging baby boomers.

The market at present is finite, and the first thing required will be lower launch costs, but the tourism industry might just be the catalyst to achieve it. The process will be slow. First, there will be flight simulations, then sub-orbital flights. With more advanced, reusable launch vehicles, there will then be orbiting flights. Next, orbiting luxury cruise space ships and orbiting hotels and eventually hotels on the Moon.

It will not be cheap, but the tourists willing to pay the price will pave the way for the general public. Their willingness to travel will progress the space movement in the form of cheaper launches, advanced life support systems, and the humankind as a whole traveling, living, and working in space.

There is also the X-Prize. This is a prize of $10 million awarded to the first spaceship that will take three people up 60 miles, and do the same thing again two weeks later. It exists and different companies are vying for it.

I know I have covered a lot in this article, as the conference itself covered it. Space holds a lot of promise and in order for Star Trek to become a reality, we must start from Earth, then Earth orbit, the Moon, the asteroids, Mars, and then to the outer planets, before we can reach the stars.

I will be taking time off from going to these conferences. I intend to revise my book and add appendices to it. However, I will go back around 2002.

Ad Astra! (Translation: To the stars!)

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open -- this is not too uncomfortable, but was the worst part of the surgery for me. It has a suction ring that keeps your eye pressurized, important in LASIK for allowing the surgeon to cut the corneal flap. At this point, my vision went black and the cut was made in the cornea.

The doctor uses a computer to adjust the laser for your particular prescription. (My right eye was 29 seconds, left was 27 seconds). I had to stare at a red light for a short time while the doctor held my head and watched your eye on a television screen to make sure it remained in the correct position while the laser was on.

After the procedure, my eyes were examined with the normal eye instruments to determine if the flap was in place and that no abnormalities were seen. I was then told to go home and take a three hour nap (what a hardship!), then goal being to keep my eyes closed for the first 3 to 4 hours after surgery. When I woke up, I was able to see the clock across the bedroom for the first time even without glasses or contacts!

At my first follow-up appointment the day after surgery, my vision was better than 20/20 in both eyes! My eyes feel a little dry and gritty, but this is normal and moisturizing drops are prescribed for all patients. I was able to drive the day after surgery and went right back to work. What I wonderful Christmas present I received this year!

In other news, normal sickbay hours will be restricted over the next three weeks for system upgrades. Emergency services will be available as usual.

Be safe, be happy, be healthy!

HOLIDAY/ANNIVERSARY PARTY!

6 P.M., SUNDAY, DECEMBER 17, 2000

AT KANKI, CRABTREE VALLEY MALL

THE WRIGHT STUFF
U.S.S. KITTY HAWK
P.O. BOX 52112
RALEIGH, N.C. 27612-2112