

NASA/JPL

STELLAR BABY BOOM: This picture shows a typical young galaxy, teeming with hot, newborn stars and exploding supernovas. The supernovas are seen as white flashes of light.

The Epoch Times · DECEMBER 30 - JANUARY 5, 2005

Spacecraft Sees Infant Galaxies in Aging Universe

WASHINGTON (Reuters) — Billions of years after a galactic “baby boom,” a NASA spacecraft has detected dozens of newborn galaxies in Earth’s part of the universe.

These unexpected cosmic infants were discovered with the Galaxy Evolution Explorer, which managed to spy them because of the massive amounts of ultraviolet light they emit as they furiously form stars out of gas, astronomers said Tuesday.

The closest of them may be a mere billion light-years from Earth, about 9 billion light-years closer than the baby galaxies scientists had observed previously, said Tim Heckman, an astronomer at Johns Hopkins University in Baltimore.

A light-year is about 6 trillion miles, the distance light travels in a year.

Astronomers believe the real boom time for galaxy formation was just a few billion years after the theoretical Big Bang explosion thought to have given birth to the universe.

Before the Galaxy Evolution Explorer, “We didn’t know whether these newborn galaxies were present at all in the universe today or whether this phase of cosmic creation might be over,” Heckman said at a telephone briefing.

The Explorer, known familiarly as *Galex*, is a space telescope which has been orbiting Earth since its launch in April 2003, looking to see how stars formed.

Seeing newborn galaxies now, at relatively close range, is remarkable, Heckman said: “It’s almost like looking out the window and seeing a dino-

saur walking by.”

Astronomers have long looked for baby galaxies to get some clue to the formation of the Milky Way, the galaxy which contains Earth’s solar system. Previous observations have centered on the youngest galaxies that are also the furthest away and therefore hard to study in detail.

“While these newborn galaxies (from the galactic baby boom) are much more numerous in the early universe, we can only obtain crude information about them,” said Alice Shapley, an astronomer at the University of California, Berkeley.

The sample of newborns detected by the new spacecraft is so similar to those from the early times of the universe that it could be an effective tool to study galactic evolution from what

amounts to a ring-side seat, Shapley said.

The new image of the youngest galaxies shows them to be from one-fifth to one-third the diameter of the Milky Way and other mature galaxies. Unlike the Milky Way, with its elegant spiral arms, the baby galaxies are amorphous blobs.

The visible light they emit is about the same as the middle-aged galaxies, but in the ultraviolet realm, they shine much more brightly.

This discovery does not mean that another galactic birth surge is under way, Heckman said.

“What we’re seeing now is the last dregs of galaxy birth, the stragglers,” Heckman said. “We don’t know what’s causing the decline.”

BETTY HILL

One of the first to report an alien abduction

Betty Hill, 85, whose alleged abduction by an alien spacecraft inspired a book, a TV movie, and many other reports of close encounters of the third kind, died of lung cancer on Sunday in her Portsmouth, N.H., home.

"She was a very courageous woman, who didn't have to speak out about the encounter; in fact, her husband didn't want her to," Hill's niece, Kathleen Marden of Stratham, N.H., said Tuesday.

According to Hill, it was a warm, late-summer evening in 1961 when she and her husband, Barney, were driving through Franconia Notch in New Hampshire and saw an unusual light in the sky.

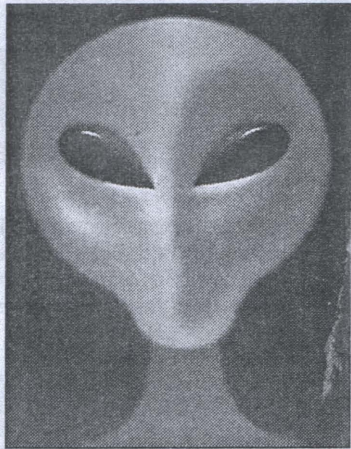
"We assumed it was a satellite, so we stopped and got out to look," Hill said in a story published in *The Boston Globe* in 1996. "As we watched, it turned and started coming towards us."

Puzzled but not scared, Hill said the couple continued driving south under the light of a full moon until the craft came over the highway and stopped in front of them.

"Barney got out of the car with binoculars to try to identify it," she said. "He saw men standing in the window looking down at him. Then the craft began to descend, and he got frightened. He

'SINCE 1961 I'VE BEEN EXAMINED BY MORE PSYCHIATRISTS THAN ANY WOMAN IN HISTORY'

ran back to the car, and we went speeding down the highway."



DISCOVERY CHANNEL

Hill's description of UFOs became the prototype for aliens on TV and in the movies.

The couple turned onto a dirt road, their car vibrated and six beings bathed in bright light blocked their path.

This is how Hill described the unearthly visitors: "Large eyes, small nose, thin slit for a mouth, no protruding part of the ear, no hair. They wore a one-piece dark outfit. Their skin had a grey tone."

The description became the prototype for many of the unearthly visitors that stalk the nation's TV sets and movie screens.

The otherworldly beings examined the couple's ears, noses and throats and collected hair samples and scrapings of their skin. They also showed them a star map of their home, but the location was unidentifiable.

A map she recreated later from memory resembled a cluster of stars named Zeta Reticula.

According to Hill they were released and returned to their car where their dog, Delsey, waited dutifully.

The couple said they did not remember anything about their "abduction," but when they got

home realized their trip had taken longer than it should have. Their watches had stopped and there were polished spots on the trunk of their car that made a compass react erratically.

"After medical hypnosis, the truth came out," she said. "It was the first recognized abduction by astronauts from another solar system."

Perhaps.

But it was undoubtedly one of the first "alien abduction" reports to reach wide circulation and it caused a media furor.

Their alleged encounter was the subject of a 1965 book called *The Interrupted Journey* and a TV movie called *UFO Incident* starring Estelle Parsons and James Earl Jones.

In his book *The UFO Experience* Dr. J. Allen Hynek, a leading UFO enthusiast, described their experience in the chapter titled "Close Encounters of the Third Kind," which was also used as the title of the 1977 Steven Spielberg film about unearthly visitors.

"I know there are some people around who may think I'm crazy," Hill said in a story published in the *Globe* in 1972. "I've learned to live with that. I'll tell you one thing, though. Since 1961 I've been examined by more psychiatrists than any woman in history. And each and every one of them has certified me as sane."

In her book *A Common Sense*

Approach to UFOs, Hill explained that there are actually two types of UFO enthusiasts, "the commercial UFO field in which anything that sells goes, and the real UFO field."

She said that UFOs are not piloted by aliens, "but by a civilization 25,000 years ahead of us."

And she offered her advice to anyone who encounters one: "Don't panic," she wrote. "Just relax. Don't be afraid, they don't hurt anybody. If they wanted to conquer us, they could."

Hill lectured widely and made many personal appearances before gatherings of UFO buffs. She stopped lecturing then, "because of her attitude toward the UFO field at that point," said her niece. "Thousands of people were talking about abductions and nocturnal visits. She thought it was a lot of nonsense."

Hill was raised on a chicken farm in Kingston, N.H. She graduated from the University of New Hampshire. She was a child welfare worker with the State of New Hampshire and was supervisor of referrals in Portsmouth for many years.

"That's what I want to be remembered for," Hill said in a story published in *Boston* magazine in 1979. "For my social work, not as the woman who sees UFOs."

Barney Hill died in 1969.

Tom Long, *The Boston Globe*



John Lennon's alien encounter

John Lennon once had an encounter with aliens, according to psychic Uri Geller. The legendary Beatle, who was murdered in 1980, told Uri he was visited by extra-terrestrials when he was in bed with wife Yoko Ono in 1975. Lennon insisted he wasn't on drugs and definitely saw the 'aliens'.

Lennon also claimed the beings had given him a metal, egg-like object before they left, which he gave to Geller, saying: "It's too weird. If it's my ticket to another planet, I don't want to go there."

- 24 hours news services

DEC. 7, 2004

MACLEAN'S | OCTOBER 25, 2004



Hairy hosers

As sasquatches go, he's a tiny little guy, barely three metres high. It's hard to imagine him even getting served at the beer store. Still, with a 12-pack of locally brewed

Kokanee in his, um, paw, Creston's new town monument is creating quite a stir. Residents of this community in the B.C. Interior liked the idea of a big bronze sasquatch to lure tourists. But they balked at town council spending \$20,000 on it. So now an entrepreneur has joined forces with the beer company to cast the big ape, as well as 50 smaller versions of the hairy hoser. A veritable invasion.

GENE DUPLANTIER
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Magician's \$1M wager: Show me the power

BY SVEN NORDENSTAM

STOCKHOLM • A sworn enemy of superstition, Canadian-born magician James Randi has thrown down the gauntlet to mystics, promising \$1-million to anyone who can prove supernatural powers or a phenomenon beyond the reach of science.

An arch-skeptic who demonstrates with his own sleight of hand how easily it is to dupe the gullible into mistaking trickery for the supernatural, the 76-year-old has written nine books and lectured at the White House, NASA and several top U.S. universities.

The \$1-million "paranormal challenge" lends publicity to Mr. Randi's lifelong mission.

His pursuit of skepticism was sparked by a visit to a spiritualist church in his native Toronto when he was just 15.

Already an amateur magician, he was upset at seeing "common tricks" pass for divine intervention. But his attempts at enlightening the churchgoers cost him four hours of questioning at the police station.

Sixty years on, Mr. Randi is still trying to persuade people to give up their belief in mystic forces beyond their control.

"It's a very dangerous thing to believe in nonsense. You're giving away your money to the charlatans; you're giving away your emotional security, and sometimes your life," he explained in an interview before giving a lecture in Stockholm.

Deeply concerned with the spread of beliefs not based on the principles of science, Mr. Randi is especially worried about the growing popularity of exotic cures and therapies catering to sick people who are then lured away from effective treatments.

"It's a mission and also an obsession," he said.

The challenge also serves to dent the image of professional psychics, as they so far have balked at the chance to win the million.

"They offer all kinds of strange excuses," he said.

On a European tour of Germany, Italy, Ireland, Belgium and Sweden, Mr. Randi tested people who wanted to go for his million. Most applicants sincerely believe they have supernatural gifts, the vast majority claiming to possess the power of dowsing — the ability to detect water with the help of a cleft stick.

Dowsing has never been proved to work in a controlled setting, Mr. Randi said.

"But no one ever changes their mind," he said, recalling only one case where a man backed down from his claim after being tested.

At a lecture to promote critical thinking, a Swedish audience of about 300 applauded and laughed as Mr. Randi blasted away at astrologers, homeopaths, faith healers and psychic mediums, accusing them of defrauding the sick and the desperate.

Riddling his performance with tricks — divining the symbols on cards put in an envelope by an apparently randomly chosen audience member — Mr. Randi said his own expertise at "magic" helps him expose fraudsters.

"As a magician, I know two things: how to deceive people and how people deceive themselves."

On one particular night Mr. Randi was in the company of hundreds of cheering fellow skeptics, but not everyone appreciated seeing their beliefs shattered.

"I get threats all the time. I don't answer the door unless I know who's there," he said.

His most famous adversary is Uri Geller, the Israeli psychic who



AGENCE FRANCE-PRESSE

James Randi says his pursuit of skepticism began in a Toronto church.

became a celebrity in the '70s for bending spoons. Mr. Geller sued him for libel for his book, *The Truth About Uri Geller*.

Mr. Randi pointed out that he does not deny Mr. Geller might have supernatural talent — just as he does not rule out the existence of supernatural phenomena.

"If Geller does it by divine power, he does it the hard way," he said.

Mr. Randi said he would be happy to hand over the prize if presented with solid evidence.

"That would be such an advance for our knowledge of the universe that it would be well worth a million dollars," he said. "The possibility is very, very small, but it's there."

The prospects for the mystically minded do not look too rosy, though. The James Randi Educational Foundation, based in Fort Lauderdale, Fla., has tested hundreds of applicants. No one has passed even the preliminary tests.

Reuters

NATIONAL POST, SATURDAY, DECEMBER 4, 2004

THE GLOBE AND MAIL
TUESDAY, SEPTEMBER 23, 2003

Looking for Luca

"Take a look around you: every single living thing you can see, from dogs to dust-mites, hyacinths to humans, ultimately came from the same primordial organism that lived around 3.8 billion years ago," says Britain's *Focus* magazine. "What this original organism looked like, or where it came from, no one yet

knows. But this mysterious organism does have a name: Luca — the Last Universal Common Ancestor. Luca is the Holy Grail for scientists trying to solve the mystery of the origin of life. . . . But there is likely to be even more controversy over a disturbing possibility raised by the creation of any Luca-like organism: its potential to spawn life-forms that are unrelated to anything that has so far existed on Earth."

Truth is out there

IF YOU think the world is getting stranger by the day, you're not alone.

David Sutton has the proof, collected 365 days a year, for more than three decades.

And he says it's not just the world that's plenty odd, but Canada as well.

Sutton is the editor of the *Fortean Times*, a British magazine that is the world's chief chronicler of everything bizarre and odd. It is the X-Files — one part historic resource, one part scientific journal and one large part wacky story library.

Sutton's mid-December cover featured "Big Foot Exposed," an investigation of the 1967 Patterson-Gimlin film that's often been used as proof of the big hairy mountain man.

Then there's "The dark side" of Santa Claus — and his roots in ancient pagan myth.

Frogs from the sky. Robots run amok. Alien cats. Secret societies. *Fortean Times* has them all, cover to cover.

The publication was founded in 1973 to continue the work of New York-born writer Charles Fort. He spent much of the early part of the last century criticizing scientific explana-



Brit magazine deals with the bizarre, the odd and, as our **Thane Burnett** discovers, anything on the wacky side

tions, pointing out scientists often argued based on their own beliefs, rather than pure research and evidence. Inconvenient information was tossed aside, he fumed.

Fort was the first to come up with the term 'teleportation.'

His mantra that "one measures a circle beginning anywhere" explained his belief that the truth sits between extremes.

'Proper thing to wear'

He once pointed out: "I conceive of nothing, in religion, science or philosophy, that is more than the proper thing to wear, for a while."

As well as its own features, *Fortean Times* culls the fabulous from newspapers and wire services from around the world. Over the years, Sutton and his team have seen wacky trends come and go — from crop circles to spontaneous combus-

tion. Even water monsters aren't as big as they once were. But Sutton is quick to point out, there's always something else, just as bizarre, to take their place.

"In the wake of the *Da Vinci Code* (novel) there's been an explosion of interest in historical conspiracies and the Knights Templar — modern-day Templars coming out of the woodwork in small English towns," he explained of modern curiosity over the ancient Christian warriors.

The Knights Templar may be big right now, but other trends the *Fortean Times* charts are rather small.

"The discovery of tiny humans — homo floresienis in Indonesia was one of the most exciting stories (in 2004), with huge implications for crypto-

zoology — yetis and orang-pendek (mysterious, hairy bipeds) — and the potential discovery of ... new human-

like species."

Sutton pauses, before offering: "Other than that, another year of UFO sightings, ghosts and people doing really daft things."

Canada, he points out: "Figures as much as anywhere else I guess."

Not a ringing endorsement of our wacky side, but a start.

Canadian stories

Over the past 18 months, the Canadian stories that have measured up in the *Fortean Times* have included a sasquatch sighting up north, boys living in the wilds of B.C., a mystery illness on a Vancouver bus and a Niagara Falls mummy returning home to Egypt.

But those Canuck stories couldn't compete to their most popular cover story of the past year.

"It must have been our 'Space Baby' cover, with the

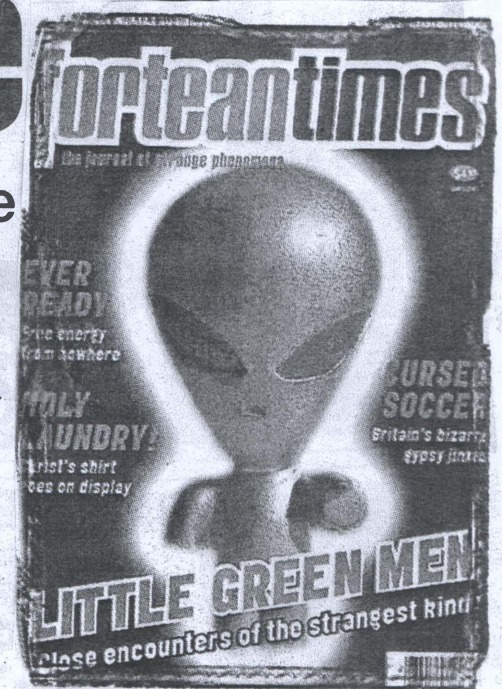
cover line 'My Alien Love Child,' " Sutton said. "It's the story of a 1950s housewife who claimed to have got pregnant by a man from Venus and delivered a baby who was meant to be the next messiah."

Sutton says yes, the world is getting stranger. And no, it's not just you. Though it may be, in part, me.

I explained that my family has always thought I was odd, because I can shake my eyeballs really fast.

"I guess, in the universe of odd things, I really don't rate, do I?" I asked pathetically.

"Actually, I'm very impressed," he replied. "Maybe we should get you on the cov-



■ A copy of *Fortean Times* shows what kind of stuff these Brits are into.

er, although I'm not sure that shaking your eyes really fast would work in a still photo.

"Maybe we'll invite you to our next UnConvention and you can do it live on stage."

Fine, I said, though I'd have to ask my father, Big Foot, first.

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Discoveries 'big deal' for planet search

HABITABLE WORLD HUNT

BY MARGARET MUNRO

The international competition to find habitable new worlds is heating up with the discovery of three new planets, the likes of which have never been seen before outside our solar system.

U.S. planet hunters announced yesterday they have spotted two planets roughly the size of Neptune orbiting nearby stars. Unlike the gargantuan gaseous planets found to date, the scientists say these new smaller planets may be rocky.

The announcement comes just a week after a competing Swiss team revealed it has spotted a similar new planet, described as a "Super Earth," which most likely has a rocky surface.

While the big prize — an Earth-like planet with liquid water that could harbour life — still eludes scientists, the three discoveries are seen as a major step in the right direction.

"It's a big deal," says JJ Kavelaars, a planetary scientist at the Herzberg Institute of Astrophysics near Victoria.

"It seemed that things were stalled at Jupiter-size objects," he said, referring to the more than 130 giant gas planets scientists have discovered in the last decade orbiting other stars. But they have now overcome the technological hurdle, he said, and are now able to detect smaller planets.

The new planets all stick very

close to their parent stars. One, detected by University of Texas astronomers, orbits the star named 55 Cancri, which is a bit brighter than our sun and located 41 light years away.

There are also three gas giant planets orbiting the star but the new planet is the closest, whipping round the star in just under three days. Astronomer Barbara McArthur, head of the Texas team, described the star as the "premier lab" for studying formation and evolution of planetary systems.

Planet hunters Geoffrey Marcy of the University of California-Berkeley and Paul Butler of the Carnegie Institution found the other planet orbiting the star called Gliese 436, which the scientists say, at 30 light years away, is "in our galactic backyard."

This Neptune-sized planet speeds around its star every 2.64 days. One side of the planet is always facing the star and is a scorching 300 to 400 C, said Mr. Marcy, who likened it to a blowtorch. But the back side is always dark and would be much cooler, he said, adding that there could be an in-between region that is "lukewarm."

The scientists said there are likely billions of planetary systems in the Milky Way galaxy alone and the competition to find them is fierce, as was evident at yesterday's news conference telecast by NASA on the Web.

While Canada is not in the race to find planets outside the solar system, Canadian astronomer Gordon Walker pioneered the planet-finding technology in the early 1980s.

He was not, however, lucky enough to find a planet before he retired. The Swiss and later the Americans went on to refine his technique, which infers the presence of planets by measuring the wobbles in stars caused by the gravity of orbiting planets.

CanWest News Service

B.C. company to build Big Bang Chile telescope

ALSO DOES ROLLER COASTERS

Device will study 'shock wave' from birth of universe

BY JOSEPH BREAN

Fresh off its work designing theme park roller coasters, a Port Coquitlam, B.C., company has won the \$3.8-million contract to build a revolutionary radio telescope and then install it on a windswept desert plateau high in the Chilean cordillera.

The Atacama Cosmology Telescope (ACT), which aims to analyze the lingering radiation from the Big Bang, is a "high risk" project, its builders say, because the scientific demands for accuracy are so strict, and the working conditions so dismal.

David Halliday, a University of British Columbia civil engineering professor and a vice-president of AMEC Dynamic Structures — a firm with experience building both telescopes and theme park rides — says his margin of error "will be measured in microns and arc seconds. We need to make sure we've got the thing right."

For that reason, the six-metre telescope will be designed and tested first on paper, then built full-scale behind AMEC's Port Coquitlam offices, where it can be put through its paces. Only after all this has gone well will it be loaded on to an ocean liner in Vancouver and shipped to northern Chile, for the first leg of its journey.

"Not a lot of neighbours," said Bob Margolis, a Princeton University physics professor who is project manager for ACT, a joint effort of Princeton and the University of Pennsylvania, funded by the U.S. National Science Foundation.

This desert location, while downright awful for humans and anything else that lives, is ideally suited to the peculiar demands of cosmology. It is near the ocean, so the air is clean and clear for

stargazing. It is also very high — 5,200 metres — so it is above much of the man-made pollution.

Mark Halpern, a professor of physics and astronomy at UBC, is designing the electronics that will control the telescope's sensors — a "bolometer array" that he describes as "thousands of little superconducting sensors." This technology is not new, but the ACT will use 3,000 bolometers, whereas earlier efforts have been limited to a few dozen.

ACT is not the only telescope to study cosmic microwave radiation — roughly the Big Bang's shock wave — but it will do so in greater resolution than ever before because it will be the first to scan back and forth over one tiny patch of sky. This scanning (about three degrees in five seconds) is tremendously difficult to do with such a large instrument, because of all the vibrations the movement can cause.

It is worth the effort, though, because scanning enhances the subtle fluctuations in the background radiation that might — and here is the key scientific goal — explain why the universe looks the way it does.

"You build a pattern up, a map of the universe shall we say, through radio waves," Prof. Halliday said.

Suzanne Staggs, an associate professor of physics at Princeton University who is in charge of ACT's camera, described the science as an attempt to bridge what we know about the Big Bang with the state of the cosmos today.

The question, she deadpans, is "mildly confusing": If the universe in its first few seconds was a "smooth" ball of super-hot plasma, as Big Bang theory holds, why is the universe today so "lumpy," with stars, planets and comets scattered about in otherwise empty space? How and why did everything glob together, instead of remaining uniformly distributed?

The only hope for an answer is that this plasma was all along emitting radiation that can still be observed today. Somewhere within it, this team believes, they will find the "seeds" of modern galaxies.

National Post

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metro FRIDAY, JUNE 25, 2004

Searching the ocean depths

A survey of the depths of the Arctic Ocean could reveal a lost world of living fossils and exotic new species, scientists said yesterday.

The survey will include

probing a 12,470-foot abyss off Canada described as the "world's oldest sea water."

Scientists in the project plan to use submarines and sonar to find life in the ocean.

The research is part of a \$1 billion US 10-year global marine-life census. The Arctic survey was given a \$600,000 private start-up grant yesterday.



— AP file photo

■ ROSWELL, NEW Mexico's famous UFO crash site, is a popular tourist attraction.

Family floats scary story

A FAMILY in the B.C. Interior has gone public two months after a close encounter with what they believe could be the legendary lake monster Ogopogo.

The Casorso family was startled from sleep Aug. 9 when their rented houseboat on Lake Okanagan, about 250 km northeast of Vancouver, began to rock violently.

"My first thought was it was my teenage sons goofing around," says Kelowna resident John Casorso. "But then I thought, 'How could they rock a 35-foot vessel?'"

Casorso and his wife joined five others on the deck of the boat to investigate. They saw, on an otherwise calm lake, what looked like a 10-metre-long black wave moving away from the boat.

Once he regained his wits, Casorso ran for his camera.

His video starts off fuzzy and distorted from a digital zoom. But several minutes into the amateur tape, it clears and Casorso slowly pans from side to side, showing several long, snake-like figures moving across otherwise placid waters. The creatures move out of sight after about 10 minutes.

Only after seeking a slew of second opinions and inspecting digital stills of the footage did Casorso go public. — CP

The truth is out there

A new class of planets is orbiting stars beside our sun, and the discovery might be a giant leap forward in the search for Earth-like planets capable of harbouring life, scientists say.

metr THURSDAY, JANUARY 8, 2004

Jupiter-like world heats star it orbits

Stars heat planets: that's the astronomical rule. But a gassy planet in the constellation Sagittarius is warming the star it orbits, the opposite of what happens between Earth and the sun, scientists said yesterday.

The hot spot on the star, known to astronomers as HD179949, might have been mistaken for a sunspot except that it is moving at the pace of the planet's orbit, rather than at the speed the star is rotating.

"This is the first glimpse of a magnetic field on an extra-solar planet," Canadian researcher Evgenya Shkolnik

of the University of British Columbia said at a meeting of the American Astronomical Society in Atlanta.

The magnetic field is what seems to be causing the spot warming on the star, some 90 light-years away. A light-year is about 9.5 trillion kilometres, the distance light travels in a year.

The "roaster" planet being studied is almost as big as Jupiter, a gas giant planet in our solar system, and has 270 times the mass of Earth.

Unlike Earth or Jupiter, the planet is nestled close to its star, only 7 million kilometres or so, compared to the 150 million kilometres between Earth and the sun.

Such close-in planets are

called "roasters" or "hot Jupiters" because of their proximity to their stars; these hot planets account for about 20 per cent of the more than 100 planets outside our solar system identified so far.

The travelling hot spot is probably caused by interaction between the planet's magnetic field and the star's chromosphere, a hot layer above its visible surface.

Shkolnik and her colleagues detected the strange relationship using the Canada-France-Hawaii Telescope at Mauna Kea, Hawaii.

More information and pictures are available online at cadc.hia.nrc.ca/cfht/aas/.

Reuters

Amateurs search for life beyond Earth

SETI picks up effort abandoned by U.S. scientists

BY LARRY PYNN

VANCOUVER • In the billion-dollar age of space exploration, a small cadre of volunteers armed with old satellite TV dishes believes the amateur radio astronomer can still make a difference in the quest to answer the most basic of stellar questions: is there intelligent life beyond Earth?

"The search for extraterrestrial life is too important to be left to the professionals," says Paul Shuch, a retired engineering professor from California and Pennsylvania who is now executive-director of the SETI League, an international organization of volunteers searching space for signs of life.

"Let's get the enthusiasts involved."

The U.S. government rendered its verdict on the search for extraterrestrial intelligence in 1993, he said, when the NASA SETI program was abandoned just one year into a planned 10-year project, a saving of just US\$12.5-million per year.

That prompted creation of the SETI League, a way for enthusiasts of extraterrestrial intelligence to keep the hope alive, he explained.

"All over the world, a new kind of SETI player came on line, individual hobbyists who said, 'This is important work and we can do it with the kind of facilities you and I can afford. Maybe not as well or as exhaustively, but we won't be daunted by those realities.'"

Today, league members operate 126 radio telescopes around the world, many of them forged from discarded satellite TV dishes at a cost of as little as US\$1,000-US\$2,000.

"It's the antenna of choice for amateur backyard radio astronomy," he confirmed.

Dr. Shuch will be part of a discussion panel on extraterrestrial intelligence at the 55th International Astronautical Congress, beginning today in Vancouver.

About 2,000 scientists from around the world will be discussing topics as diverse as the Hubble space telescope, NASA's Mars rover, and the impact of climate change on the Arctic's aboriginal people.

The SETI League is a shoestring, non-profit organization,

with Dr. Shuch's flight to Vancouver coming from his frequent-flyer points. Next year's annual budget is just \$17,600, used in large part to educate members on how to set up their own radio telescopes and to amplify, filter and process the photons falling from the sky.

Only about 10% of the league's members have scientific engineering training, the others are as diverse as lawyers, firefighters and construction workers.

"We want to make sure what our members do is rigorous and thorough and well thought out and nobody cries 'alien' but that we gather credible evidence," Dr. Shuch said.

He noted that the search for extraterrestrial life has gained some respectability over the decades thanks to the entertainment industry: the series *Star Trek*; director Steven Spielberg's *Close Encounters of the Third Kind* and *ET: The Extraterrestrial*; and the 1997 film *Contact*, starring Jodi Foster.

"Among certain branches of science, it's still considered fringe," he said despite evidence that simple microbial life may not have started on Earth, but could have been carried here aboard a comet or meteorite.

"To them, SETI is a four-letter word."

In California, however, a separate scientific organization, the SETI Institute, is building a permanent multi-million-dollar array of dishes in the Cascade Mountains dedicated to the search for extraterrestrial life, dubbed the Allen Telescope Array after its major donor, Microsoft

co-founder Paul Allen.

The first 32 antenna dishes are expected to be functional this fall, the next 173 in 2006, with plans for 350 antennas within this decade.

Asked if the Allen array will reduce the need for amateurs, Dr. Shuch argued that the two camps take a different approach: the professionals tend to concentrate intensely on one star after another, while the amateurs take a broader, if less detailed, look at a greater patch of sky. "We look not through a drinking straw but a water glass," he said.

Amateurs do so knowing that the search could be a long one, with no return on their investment of time in their lifetime, he said. "SETI doesn't offer much to those who demand instant gratification. This is most likely a multi-generational search. We're in the infancy of a long process."

While the search for life might turn up a species hostile to humans, he noted that any threat would be thousands of light years away.

"The distance between the stars protects us. There isn't a big problem with a less-than-benign intent.

"On the other hand, even though we may never shake tentacles with these creatures, we can still benefit from their presence, just as I benefit from one-way communication with Socrates, Plato and Shakespeare. Maybe their library is out there waiting for us."

The group's Web site is www.setileague.org.

CanWest News Service
(The Vancouver Sun)

PLANET UTAH

A young Ottawa engineer will spend the two weeks over Christmas and New Year's in a hut in the Utah desert, in the company of five strangers, pretending to live on Mars. Ryan Anderson will miss the first Christmas for his 10-week-old daughter, Kaitlyn, but he says it is worth it. Utah, he believes, is where humans will learn much of what we need to know before sending the first manned mission to the Red Planet. He and the other volunteers have been chosen by the Mars Society — a group of enthusiasts that brings together scientists and amateurs all hoping to contribute to the long job of learning. "It's basically a mockup of a habitat in the middle of the Utah desert," he says. "They send a crew out there with six people every couple of weeks. ...You go through simulated pressure locks and suit yourself up for different things," all to see what real Mars explorers will one day encounter. Tom Spears, CanWest News Service

HUMAN ANCESTORS

A Nova Scotia beach is the earliest known place where our four-legged, five-toed ancestors dragged themselves in large numbers from the sea onto land. One of the world's leading experts has identified fossilized tracks found at Blue Beach, N.S., located 80 kilometres northwest of Halifax, as evidence that tetrapods — reptile-like creatures — came ashore between 345 million and 359 million years ago. "It is the oldest extensive bunch of footprints of land-living vertebrates known on the planet," said Spencer Lucas, a paleontologist at the New Mexico Museum of Natural History and Science. "If you want to understand the history of animals walking on land between 350 and 300 million years ago, you [must] go to Nova Scotia," said Mr. Lucas. The tetrapods who wandered Blue Beach ranged from the size of a salamander to a large dog. Chris Lambie, CanWest News Service

Toronto theatre's ghostly haunts

JOHN GODDARD
STAFF REPORTER

A bare lightbulb burns all night, every night, on the Royal Alexandra stage to repel ghosts.

Since 1907, when the theatre opened, a light has burned from the same wrought iron stand at the stage's dead centre. As a result, perhaps, the theatre is free of the mean and jealous type of phantom said to haunt the Paris Opera.

Benign spirits, however, are reported frequently.

The enduring presence of Vic Egglestone, a stage technician for 40 years until his death seven years ago, can be felt at the old stage door, employees say. In 2002, a ghost-hunting team said it had identified others: an apprentice who fell to his death from the paint room high above the stage; an opera singer in a flowing gown who haunts the first balcony; a man who wanders the upper dressing-room corridor wearing a fedora and cream-coloured jacket.

The Royal Alex is not unique. At the Winter Garden, a ghost known as the Lavender Lady and trailing a lavender scent can often be spotted, patrons say. At the Factory Theatre, footsteps of no clear origin and other unexplained noises can be heard.

"In ancient Greece, it was always felt that theatres were the natural habitat of spirits, partly because theatre arose out of a religious ceremony," says John Karastamatis, communications director for Mirvish Productions, which owns the Royal Alex.

"To ward off spirits, a light would always be lit. In older times it was a flame in the middle of the stage. When electricity came into being, it was a naked light bulb."

The Royal Alex, at 260 King St. W., is the only Canadian theatre still adhering to the tradition, Karastamatis says. Ironically, Mirvish's two other theatres have no ghost lights and no ghosts.

One is the nearby Princess of Wales Theatre. The other is the Canon Theatre at 244 Victoria St., formerly The Pantages, where Andrew Lloyd Webber's *The Phantom of the Opera* played for 4,226 performances over 10 years, ending on Halloween night, 1999.

The most detailed local story of a theatre ghost comes from Whitby.

Twenty years ago, a member of the Whitby Courthouse Theatre spoke of an apparition dropping from the balcony during a performance and approaching the stage. Psychics Stephen Welling and Shirley Richard went to investigate.

They knew the room had once served as the main courtroom for Ontario County, beginning in 1854.

They also knew that in 1873 the Whitby Chronicle had reported sightings of "the courthouse ghost ... a tall figure walking heavily with a cane, and frequently stopping to look up at the sky and groan."

The psychics confirmed its presence in seat G-10 of the balcony.

They also divined its story: Sometime in the 1800s, a youth went on trial, possibly for rape. Upstairs, in a room across from the balcony entrance, his father, or possibly uncle, paced anxiously, awaiting the verdict.

The judge re-entered the courtroom. The man raced through the balcony entrance. The judge pronounced, "Guilty." The man cryptically shouted, "Right the wrong" and toppled over the balcony railing to his death.

One further mystery stands out.

The ghost hunters at the Royal Alex two years ago identified a presence in seat P-11, at the aisle on the main floor.

Employees explained that an elderly woman died in the seat in 1996 during Henrik Ibsen's *The Master Builder*, starring Alan Bates. At intermission, ushers discreetly removed the body in a wheelchair.

Why the deceased woman continues to haunt the seat might be understandable.

How the ushers were able to detect anything unusual about a person sitting slouched over and stiff during a three-hour Ibsen play, however, has yet to be explained.

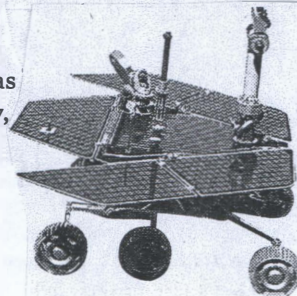
FLYING OBJECTS

A Chinese satellite smashed into a villager's house on its return to Earth, destroying the dwelling but causing no injuries, state media reported yesterday. The capsule, the recoverable section of a probe launched to carry out scientific experiments in space, accidentally landed on the building in southwestern Sichuan province after an 18-day mission, the *Youth Daily* said. "A giant parachute with a conical-shaped black 'top' was seen falling from the sky and landed through the roof of a villager's house in the Tianbeizi vegetable market area," the newspaper said. The roof was completely destroyed, with the supporting pillars knocked to the ground, it said. However the capsule was undamaged and was hauled away after being inspected by experts. The report did not give a reason for the accident and attempted to play down the significance of the crash-landing. "The returning capsule only went through the roof and no one was injured or died. Experts who inspected the return capsule found it was not damaged at all," the report said, quoting local official Ai Yuqing. *Agence France-Presse*

SPACE ODDITY

An unexplained phenomenon akin to a space-borne car wash has boosted the performance of one of the two U.S. rovers probing the surface of Mars, *New Scientist* magazine reported yesterday. It said something — or someone — had regularly cleaned layers of dust from the solar panels of the Mars Opportunity vehicle while it was shut down during the Martian night. The cleaning has boosted the panels' power output close to their maximum 900 watt-hours per day after at one stage dropping to 500 watt-hours because of the heavy Martian dirt. By contrast, the power output of the solar panels of Mars Spirit — on a different part of the Red Planet — has dropped to just 400 watt-hours a day, clogged by the heavy dust. *Reuters*

NATIONAL POST, WEDNESDAY,
DECEMBER 22, 2004



NATIONAL POST, WEDNESDAY, DECEMBER 29, 2004

CAVE EXPEDITIONS

Explorations by an avid Vancouver spelunker that have shed light on British Columbia's globally significant yet largely unprotected underworld have been financed through an unlikely source: a claustrophobic mom who died last New Year's Day at age 50. Carol Ramsey said her expeditions are thanks in large part to her mother, Maureen, who couldn't stand caves but knew their importance for her daughter. Of an estimated \$50,000 Ms. Ramsey has spent to date on five consecutive years caving in the Queen Charlottes Islands, about half has come from Maureen's philanthropy. That money has been well spent. Ms. Ramsey and her caving partner, Paul Griffiths, have unearthed artifacts, including spear points found in sediment layers dating back 11,800 to 12,100 years — making them the oldest evidence of human occupation on the Pacific coast of North America north of California. *Larry Pynn, CanWest News Service*