Help Stamp Out Boring Space Acronyms

Are you confused by the impossible-to-pronounce acronyms sometimes used to identify space missions? You are not alone.

To move away from cryptic acronyms, our nation's space agency is asking your help to find a user-friendly name for a new space-based observatory. It is currently called the Space Infrared Telescope Facility, or SIRTF for short. The observatory will allow scientists to study objects from within our solar system to the distant reaches of the universe. It will see these objects by looking for the heat they radiate in the infrared wavelength. For example, the mission will look for dusty discs around other stars where planets might be forming.

"We are hoping to tap the creativity of the public to find a name suitable for this important mission that will help enrich our knowledge of the universe," said Doris Daou, an education and public outreach representative for the mission.

The Space Infrared Telescope Facility is the fourth and final component of NASA's Great Observatories Program, which includes the Hubble Space Telescope, the Chandra X-ray Observatory and the Compton Gamma Ray Observatory. Together, these four space-based missions enable scientists to study space across many different wavelengths of light.

The deadline for nominations is December 20, 2001. The winner will be flown to Kennedy Space Center in Florida to witness the launch of the observatory, planned for next year. Up to 200 semi-finalists will receive a letter of recognition and an educational kit. All naming contest participants will be able to print a personalized "Certificate of Participation" upon submission of a valid entry.

A short essay explaining the reasons for the suggested name must accompany all submissions. Following NASA's guidelines, names of current or proposed space missions cannot be used, and if the observatory is to be named after a person, that person must be deceased. Submissions are only accepted electronically. The contest is open to all Earthlings, except employees directly affiliated with NASA, JPL or the California Institute of Technology, and their immediate families.

To enter the naming contest go to http://sirtf.caltech.edu/namingcontest/. For more information on the Space Infrared Telescope Facility, visit http://sirtf.caltech.edu.

JPL manages the Space Infrared Telescope Facility for NASA's Office of Space Science, Washington, D.C. JPL is a division of the California Institute of Technology in Pasadena.
Cut and Pasted Impressions of

WUTS 2001

[Editor's Note: The following is an experiment in editorial license. It is an attempt to construct a multi-author article from comments gleaned from the FRAC e-mail list and reassembled in chronological order to better capture the events from multiple points of view. My apologies to the authors of the original reports. - Jim Sapp, Editor]

Jim Sapp: “Steve Lynch and Bill Possel arrived late Wednesday afternoon to find that many of the Cheyenne and Laramie folks had already set up motor home row along the west edge of the south field. Apparently the journey up to Foxpark from Laramie was hindered by wind and hail which caused some sweat, damage, and a little blood for some of them, but nothing that was irrecoverable. Wednesday night’s weather was continual rain and hail, which left deep puddles of standing water that persisted into Thursday afternoon.”

Bill Possel: “I came up on Wednesday and tested my new Scope Coat in the rain and hail. After a sleeping night worrying about the scope, I checked it early Thursday before the next storm hit. Fortunately, everything was dry! The days and nights just kept getting better after that!”

“I set my scope up next to the Laramie RVs and met some wonderful folks. Also found out that I’m now a ‘Greenie’. Guess there are worse things to be called!”

Jim Sapp: “I arrived noonish on Thursday after driving through a brief hail shower south of Laramie, to find the observing site already steadily filling with dark sky pilgrims seeking solace from the hazy, light polluted cities of Colorado’s front range and elsewhere.”

Michael Hotka: “I arrived Thursday afternoon to find Jim busy with hooch building. He is a master builder of tarp hooches. I was impressed.”

[Editor: hooch = slang term for an impromptu temporary shelter from wind, rain, and sun constructed with scavenged or makeshift materials.]

David Dunn: “After getting a later than planned start I headed up to Foxpark Thursday early evening. Driving towards Jelm mountain I was treated to an intense lightning storm that I would soon find out passed over the observing site shortly before my arrival. Having planned to set up in the front field I had asked Steve Lynch to save me a spot. Good thing too as I was able to squeeze into one of the last slots on the north side.”

Jim Sapp: “After setting up camp and dodging a few marauding thunderstorms, our luck ran out a couple of hours before sunset when we were pummeled by rain mixed with pea-sized hail which replenished the previous evening’s remaining puddles and soaked the ground and trees with moisture that would spell doom for many telescopes that immediately dewed up just after the setting sun’s rainbow-illuminating rays retreated into the west. Shortly after dark we saw the space station pass through the northern sky, followed an hour later by an Iridium flare.”

Michael Hotka: “Thursday night was an extreme dew alert. After getting dewed out last year at WUTS, I purchased a Kendrick Dew Removal system. I had a heater on my Teltrad, digital setting circle computer (my computer does not have internal heating) and my eyepiece. I also added a 9V secondary heater I purchased from Randy Cunningham. I worked well into Friday morning with no dew problems. Most everyone in my area had already packed it in by midnight. Money well spent if you want clear optics under most dew conditions.”

David Dunn: “It seems like we always have one night of heavy dew to contend with and Thursday was the night. Knowing it would be a short night anyway, I limited my observing to the ‘ole favorites’ which at Foxpark take on a whole new persona due to the darker, more transparent skies. I always manage to discover something new about an object at this site.”

Jim Sapp: “The rest of the night yielded periods of good seeing and fair transparency depending on which part of the sky you were looking at, but roving patches of watery murk invisible to the naked eye but starkly obvious in the telescope were enough to make most folks abandon their scopes in favor of roaming around the field and/or playing with binoculars, though several stayed up into the wee hours persevering to make the most of the time under a dark sky.

“Though the air was very moist, the temperature stayed warm enough to leave the parka packed away, and gloves were not needed until just before midnight. I hit the sack about 1:30 a.m. and managed to get a rare (for a star party) six hours of sleep.

“Friday morning I awakened to find a white hoary frost covering the ground and 1¼ inch thick plates of ice floating in my solar shower. But the warming rays of the climbing sun and a mild west breeze soon cleared those sparkling reminders of impending autumn away.

“In the space of a couple of short hours the morning’s chill was replaced by a soft warm breeze that persisted through most of the day, with scattered thunderstorm seeds skirting across the sky and occasionally blocking the sun. The afternoon brought out a few kites and young model rocket enthusiasts that passed the time chasing their descending rocket around the field. Late afternoon brought an apparent doubling of the population and a mirror grinding demonstration put on by volunteers taking turns walking around the barrel and pushing the glass, which became a fine ground f/7 mirror ready for polishing by Saturday afternoon.

“A few hours before Friday’s sunset the breeze had settled down to near zero and everyone made the most of enjoying what would surely be one of the few remaining summer-like evenings at this altitude remaining for the year - cloudless and beautiful.”

David Dunn: “The seeing was very good from 11:00pm till 2:00am then softened up. Most of the night was spent chasing down planetary nebulae. These are some of my favorite objects to view from Foxpark due to the great conditions.”

Jim Sapp: “At 6:30 about 60 folks assembled for the pilgrimage up Jelm mountain where they were treated to views through the 92 inch f/27 telescope of Mars, the Cat’s Eye nebula, the Little Gem (NGC6818), and the Saturn nebula which, from all reports, was the highlight of the show. I’m sorry I missed that
view of the Saturn nebula, but I'm very glad I missed the reported
1 hour wait in line for each peek through the eyepiece. Having
seen the spacecraft up close last year, I am sure those
folks that didn't have an aperture to see before the trip returned
with a severe case of it.

David Dunn: “The list for the trip to the WIRO
observatory filled up quickly and I decided to pass on going
to visit my spot to someone else. I did get to go last year and
those images are still vivid in my mind.”

Gary Garzone: “The Jelm trip and especially the Saturn
nebula NGC7009, were my highlight of the weekend. I felt like
a kid waiting for an hour for another ride on the Space Mountain
roller coaster in Disney Land, ready to go again despite the wait.
I will always remember the views.”

Michael Hotka: “Friday night I was one of the 60 that
got to see the 92" telescope. My heart was pounding when I
approached the eyepiece for the first time to see Mars. I did not
know what to expect, but the anticipation was exciting. I was not
disappointed. Mars was huge in the field of view. The Cats Eye
was all layered with the different expanding shells of gas. The
Little Gem and Saturn Nebulas were equally breath taking in their
detail. I confess...I spent at least 2 minutes salivating over the
eyepiece when it was my turn. I even went back for seconds.”

Jim Sapp: “Friday’s mild sunset faded into a beautiful
night sky that produced some fairly crisp views of Mars and great
imaging opportunities. The dry air cooled rapidly and by 11:00
p.m. it was parka time. Slightly dewed surfaces rapidly became
crusted.

“We were treated to a bright overhead passage of the
space station, and at about ten minutes before eleven those of us
who were facing south exclaimed loudly when we saw a beautiful
bright meteor streak straight down through Sagittarius looking
for all the world like it had hit the ground. It changed from an
emerald green to a bright piercing yellow and seemed to fracture
as it neared the horizon. I estimated it to be about four times as
bright as Mars. Very nice! The folks that returned from the
observatory on Jelm mountain around 1:30 or 2:00 a.m. said the
light from that meteor lit up the inside of the dome. I want to see
many more like that! The Jelm travelers also noted that the air
temperature was much warmer on the mountain top than at
Foxpark.”

Gary Garzone: “The meteor was also one to tell stories
about for awhile. It lit up the ground, and that’s the truth Karen.
I have witnessed this time. Really!”

David Dunn: “There was a BRIGHT fireball that I just
cached as it fell behind the trees.”

Michael Hotka: “When the bright meteor passed
overhead and headed into the south, I was inside the dome. I
thought that someone had turned on the white lights in the dome.
It was that bright.”

Jim Sapp: “By about 2:00 a.m. the sky began to get
murky to the point that I decided to cover up my scope, but by
2:30 or so things began clearing up again. At that point I was
ready for some sack time so I hit the hay, though I heard the
voices of many folks that stayed up to get their views of Saturn
and Jupiter before the sun came up.”

David Dunn: “Also observed were Uranus and Neptune.
If I would have been thinking and caught Pluto I could have
logged 7 planets Friday night / Saturday morning as I had gotten
up at dawn and stepped outside to see Saturn, Jupiter, and Venus
before sunrise.”

Jim Sapp: “Saturday morning was cloudless and bright
with a chilly breeze that kept the sunshine feeling good until
early afternoon when folks tended to seek shade, but the heat was
not bad and quite bearable in comparison to just a month ago.

“The swap meet was a little thin as usual for these past
few years, but everyone had a great time hogging and
swapping observing tales and the like.

“My favorite new home grown scope that I noticed
this year was Marty Curran’s new 10 inch Newtonian binoculars.
They are very solidly built and a joy to use.”

David Dunn: “Saturday had the usual feeding frenzy at
the swap table then we were treated to 3 great speakers...”

Jim Sapp: “Late arrivals were still filing in during the
afternoon's speaker's presentations which included an informative
talk by Stephanie McLaughlin on NASA's upcoming Deep
Impact mission to comet 9P//Tempel 1 during it’s next visit to the
inner solar system beginning in 2003. This project will attempt
to impact a penetrator on the surface of the comet to create a 100
meter crater and determine the comet's composition by
spectroscopy. She also described the Small Telescope Science
Program which coordinates the observations of advanced
amateurs and student astronomers equipped and willing to obtain
broadband VRI CCD images of the comet to be used in
conjunction with the mission.

“Next up was Allyn Smith of the University of
Wyoming who gave a rundown of the methods, capabilities,
goals, and impressive early results of the Sloan Digital Sky
Survey. This project is truly one of history’s greatest landmarks
in the area of astronomical data acquisition. Allyn mentioned a
figure in the hundreds of terabytes of information. The positional
and spectroscopic results that will be obtained with this amazing
mine of data will surely change the cosmologist's views of the
universe in dramatic ways in the coming years. Stay tuned.

“The last of the afternoon's speakers was Bruce Bookout
who gave a very interesting talk on archeoastronomy with
particular emphasis on the astronomical architecture of the
Mayan civilization.”

Michael Hotka: “My son and I were impressed with the
speakers and their topics. My wife and I visited Chet-za-neet-za
(phonetic spelling) last summer and got to climb on the great
pyramid. The last speaker mentioned that all climbing on the
ruins has been suspended for this year anyway. I could relate to
this speaker and the Mayan astronomers, for I was very
impressed with what they did and have read some about them
since visiting the ruins.”

Jim Sapp: “Following the speakers, the always popular
and well attended door prize giveaway resulted in a lot of smiles.
Some of the loot included a couple of fancy eyepieces, a 6 inch
mirror grinding kit, some deep sky filters, astro-software, dew
shields, a set of nice sky guide books, some very nice gift
certificates, and the ubiquitous posters, games, calendars, t-shirts,
and other goodies. Good fun!”

David Dunn: “Many great door prizes were handed out
to everyone prepared for the night's observing. Some rather
ominous clouds moved in at sunset that were attempting to
thwart our plan for the evening. Feeling that drastic measures
needed to be taken I attached a flash strobe to my scope and
began blasting clouds out of the sky. Must have worked, by
10:30 most of the sky was clear.”
Jim Sapp: "The evening began with wonderfully mild temperatures and a fairly cloudy sky which did, however, let us see a third passage of the space station at about 8:40. This was a unique passage too. As we watched the spacecraft pass into the east we were thrilled to see it suddenly brighten to several times its typical level - MUCH brighter than any iridium flare I have ever seen. It made Venus's greatest brilliancy look dim in comparison. I am convinced that if it had been fully dark at the time it would easily have cast a dim shadow. Venus does. I'd venture to guess the total light from that reflecting point source to be near that of a half moon. It was theorized that the geometry involving the spacecraft's huge solar panels, the sun, and our location reached a serendipitous alignment that resulted in such a show."

Michael Hotka: "Saturday night, my son and I awaited the parting of the clouds, as did everyone else. We scanned the telescope around to lots of bright objects when sucker holes permitted. Then the sky cleared so we started using the digital setting circles, but they would not work, so we star hopped the rest of the night and had a great time."

Jim Sapp: "As the evening progressed, the sky gradually cleared in stages as clumps of cloud drifted overhead. Views through the slow-moving sucker holes to the south were good, though with the amount and slow speed of the shifting cloud I predicted that it would be a long wait, so I returned to my corner of the north field, covered my scope and put away my eyepiece case, only to turn around and look up to a suddenly clear sky! At that point, in light of the effort I had expended the previous chilly evening at the guiding eyepiece, I decided to treat myself and spend the night relaxing and mooching views from the plethora of other telescopes in attendance. I had a blast doing it too!"

David Dunn: "The one challenge of the night for me was Minkowski's Butterfly. Unfortunately several folks decided to leave during the night which really hindered any chance of achieving and maintaining dark adaption. After 30 minutes of searching and dodging clouds I felt I had found it, but in the process of changing to a higher power eyepiece a car in my line of sight blasted me with its backup lights. That was the last straw for me so I packed up my scope and decided to mooch views the rest of the evening."

Jim Sapp: "The evening was fairly warm, and I never had to break out the perm, though I did take a brief warm-up break in Steve's trailer around 2 a.m. The transparency was pretty good, but it never really kicked in until about 1 or 2 a.m. The seeing wasn't too bad either."

David Dunn: "Conditions finally did improve dramatically by 1:00 a.m. I did manage to hunt down some galaxy clusters in Perseus: Arp 229 & 331 showed up to 9 faint galaxies."

Jim Sapp: "I spent much of the evening just sitting in my lawn chair and gazing into that gorgeous sky, watching the meteors and enjoying the views through my new eyeglasses and reveling in the newly in-focus sights I had not seen in years. For instance, I had no idea that the bright star at the westernmost corner of Capricorn's big triangle is a close naked eye double.

Discovery!!

"After a final quick peak at a swimming Saturn in Gary's 30 inch at about 3 a.m., I gave it up and headed back to my camp in the north field where I found a surprising number of people still going strong. But fatigue was nipping at my heels so I cashed in my chips at 3:30 for six much-needed hours of sleep.

"Sunday morning's weather was highlighted by a fairly chilly breeze and a patch of high thin cloud that took the power out of the sun's warming rays. I was shocked to see how many people had already left. By noon nearly everyone had gone. I was entertaining the thought of spending another night and being very leisurely about packing a few things up, when at about 1:00 in the afternoon a fast-moving thundershower pelted me with pea-sized hail. That, and two more quick rain showers that followed in the next couple of hours turned my mind toward home, so I bugged out at 3:30 leaving only a solitary car to gather Sunday evening's stellar photons. I always regret passing up the chance of a solitary night under a dark sky in the boonies like that, but I had gathered a good dose of starlight for the weekend already.

"Some other nature observations: There was some suspicious looking high haze in the sky most of the day on Saturday, the texture of which reminded me of the forest fire smoke of last year's WUTS. I am inclined to believe that the fires in the Meeker and Jackson areas were contributing to the grayness of the night sky again this year. I never saw one mosquito the entire weekend, though there were an unusual number of little flies that would bite right through your socks. They only attacked intermittently though and were really not much bother. I didn't see any foxes this year, but then again, I've never seen so many ground squirrels there either..."

Michael Hotka: "All in all, it was a great weekend under the stars. Met lots of new friends and got to visit with many old friends again."

Gary Garzone: "I got three of the best nights this summer at an old favorite. Many thanks to Ray Martin and Marty Curran and all the others who put this fun star party on."

David Dunn: "All in all a fun weekend out under the stars (except for the heavy vehicle traffic after dark) and unfortunately the end of a great run of summer observing at Foxpark, though 9 nights there this year should hold me off till next season."

Bill Possel: "For me, this event makes the top of the list of my 30+ years of observing. I probably saw 40 objects I had never seen before. My thanks to all those who organized it. Can't wait until next year!"

Jim Sapp: "WUTS was another great success from my perspective. There were over 185 guests that brought some 1309 diametrical inches of telescope aperture (excluding the WIRO 96 inch on Jelm mountin).

"Once again, a big thank you to CAS, LASSO, and the U. of W. (WIRO/Jelm) for their part in successfully bringing about the highest major star party in the U.S. for the 11th consecutive year."
HEADS UP!
Things to See This Month Only!

Watch the asteroid Ceres glide by the globular cluster M54 near midnight on October 1st.

Near sky happens! Watch the fast action among Jupiter's family of moons in the early morning hours of the 2nd, 11th, 18th, 25th, and 27th of October. With Jupiter reaching quadrature on the 7th, many more eclipses will be visible than in previous months.

Watch the moon glide through the Hyades cluster on the night of October 6-7.

During the last half of the month, watch for the zodiacal light high in the eastern morning sky before twilight begins (get to a dark, clear sky for this).

The Orionid meteors peak before dawn on the morning of the 21st in a moonless sky. Keep your eyes open to see these high speed meteors with persistent trains. ZHR at max is typically 35.

During the last week of the month, and into the first week of November, watch Venus and Mercury close to just over 1/2 degree of each other.

Jupiter's Great Red Spot Transit Times for October, 2001
(Assuming Jovian system H longitude = 76 degrees)

Only events with Jupiter above the horizon and the sun below the horizon are listed. Times shown are MDT (Longmont Daylight Time). Add or subtract 10h 55m for other events not listed.

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Contributors to this month's Journal:
Max Moe: crossword puzzle; Jim Sapp: WUTS report, monthly solar system stuff; Brian Simpson: monthly star chart
Special thanks to MCDATA Corporation for the use of their copier.
Sorry if I missed anyone!

MARS
Longitude of Central Meridian on Saturday Nights in October

Longmont Daylight Time
For different times, add 14.62 degrees for each whole hour going forward, or subtract if going backward.
For different dates, subtract 9 degrees per day going forward, or add 9 degrees per day going backward from the nearest date given.

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Jovian Satellite Predictions for October, 2001

Only events with Jupiter above the horizon and the sun below the horizon are listed. Times listed are MDT (Longmont Daylight Time).

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Key:  Cal = Callisto;  dis = disappearance;  ecl = eclipse;  egr = egress;  Eur = Europa;  Gan = Ganymede;  ing = ingress;  Io = Io;  occ = occultation;  rea = reappearance;  sha = shadow;  tra = transit.

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**FREE TO GOOD HOME**

Nisur Systems "Capella II" altaz mount. Similar to but larger than a TV "Upswing" head. It also has a better design and can carry more weight on the right tripod. Rated capacity is in excess of 10 lbs. I'll sell it for what I paid for it, $99 in order to keep from shipping it back. Since I bought it the price has risen significantly, so this is a major good deal. Contact Archer at (303) 543-9276 or (303) 717-4005. Email: archer@meer.net

**Takahashi FLT-90 + PZ-Z combo**, the outfit I took with me to Madagascar. It served its purpose, and now the piper must be paid. This is the whole system, ready to go: Takahashi FLT-90 90mm f/5.6 fluorite refractor with 1-1/4" prism diagonal, 18mm LE eyepiece, 6x30 finder w/bracket, 2" focuser, 1-1/4" adapter, and 2" extension tube (for photography). All of the above fits in a Pelican 1500 case, which is included. 32mm TV Plossl tube holder, PZ-Z mount with short wooden legs and tray, 4 D-Cell batteries for the drive. The mount just came back from Texas Nautical, where Art went over it and fixed the odd problem that it had. It's still in the boxes that it was shipped back in, and frankly, I'd rather not take it out. I'm offering it to my friends first before going on Astronomat with it. Retail is ~$4600 (incl. case). I'll sell it for $3900. Asking price will be $4000 when it hits astromart. archer@meer.net

**ASTRONOMY PUBLICATIONS**


**FREE TO GOOD HOME**

I have totally switched to CCD imaging but have many hundreds of dollars worth of *scientific film*. It has been frozen for years and in some cases decades. I will give it to anyone that is still doing serious astronomical photography.

gemerson@att.net
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<td>Epsilon Taurus emerges from lunar occultation at about 12:24 a.m.</td>
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<td>114 Taurus emerges from lunar occultation at about 2:11 a.m.</td>
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