

# *Southeastern Space Supporter*

*Newsletter of HAL5 – the Huntsville Alabama L5 Society chapter of the National Space Society*

Volume 7, Number 2 — March–April 1998

## **FIRST WORD**

### **Water Ice Found on the Moon!**

(by Ronnie Lajoie, SSS Editor)

On March 5, NASA announced that the Lunar Prospector spacecraft, now orbiting the moon, had detected clear evidence of water ice in the lunar poles. The following is an excerpt from the very long NASA press release 98-38:

#### **Lunar Prospector Finds Evidence of Ice at Moon's Poles**

(NASA Press Release 98-38)

There is a high probability that water ice exists at both the north and south poles of the Moon, according to initial scientific data returned by NASA's Lunar Prospector.

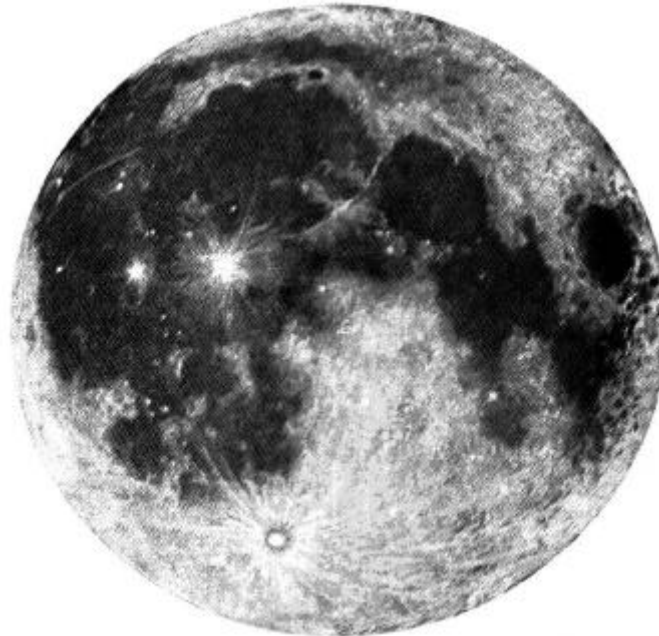
The Discovery Program mission also has produced the first operational gravity

map of the entire lunar surface, which should serve as a fundamental reference for all future lunar exploration missions, project scientists announced today at NASA's Ames Research Center.

Just two months after the launch of the cylindrical spacecraft, mission scientists

dips in the relevant curves over the northern and southern polar regions, respectively," Binder said. "This is the kind of data 'signature' one would expect to find if water ice is present."

However, the Moon's water ice is not concentrated in polar ice sheets, mission scientists cautioned. "While the evidence of water ice is quite strong, the water 'signal' itself is relatively weak," said Dr. William Feldman, co-investigator and spectrometer specialist at the Los Alamos National Laboratory. "Our data are consistent with the presence of water ice in very low concentrations across a significant number of craters." Using models based on other Lunar Prospector data, Binder and Feldman predict that water ice is confined to the polar regions and exists at only a 0.3 percent to 1 percent mixing ratio in combination with the Moon's rocky soil, or regolith.



have solid evidence of the existence of lunar water ice, including estimates of its volume, location and distribution. "We are elated at the performance of the spacecraft and its scientific payload, as well as the resulting quality and magnitude of information about the Moon that we already have been able to extract," said Dr. Alan Binder, Lunar Prospector Principal Investigator.

The presence of water ice at both lunar poles is strongly indicated by data from the spacecraft's neutron spectrometer instrument, according to mission scientists. Graphs of data ratios from the neutron spectrometer "reveal distinctive 3.4 percent and 2.2 percent

How much lunar water ice has been detected? Assuming a water ice depth of about a foot and a half — the depth to which the neutron spectrometer's signal can penetrate — Binder and Feldman estimate that the data are equivalent to an overall range of 11 to 330 million tons of lunar water ice. This quantity is dispersed over 3,600 to 18,000 square miles of water ice-bearing deposits across the northern pole, and an additional 1,800 to 7,200 square miles across the southern polar region. Furthermore, twice as much of the water ice mixture was detected by Lunar Prospector at the Moon's north pole as at the south.

(see Moon Ice on page 7)

### **HAL5 Program Night**

Wednesday, April 22, 1998

7 to 8:30 p.m. (with social afterwards)  
Huntsville Public Library Auditorium

#### **"Solar Electric Ion Propulsion and the Deep Space One (DS-1) Comet Rendezvous Mission"**

Guest speaker will be Robert Bechtel, Chief of the Electrical Division of the NASA Marshall Astrionics Laboratory.

All HAL5 and NSS members are encouraged to attend, and to bring interested friends and co-workers. Open to the public. Free admission.

**Huntsville Alabama L5 Society**

President — Greg Allison  
 Day: 544-4440, Eve: 859-5538  
 Vice-President — Larry Scarborough  
 Day: 881-1944, Eve: 881-4363  
 Treasurer — Ronnie Lajoie  
 Day: 971-3055, Eve: 721-1083  
 Secretary — David Dean  
 Day: 922-4897, Eve: 379-3661  
 Membership — Philomena Grodzka  
 Day: 837-4287, Eve: 536-8638  
 Communications — Bill Brown  
 Day: 842-8867, Eve: 837-7738  
 Special Projects — Alfred Wright  
 Day: 876-8037, Eve: 420-6273  
 Programming — Wade Dorland  
 Day: 551-0008, Eve: 534-2566

**Southeastern Space Supporter**

Volume 7, Number 2  
 March / April 1998

The *Southeastern Space Supporter* is a bimonthly publication of the Huntsville Alabama L5 Society (HAL5), a not-for-profit 501(c)(3) organization devoted to the goal of seeing everyday people living in thriving communities beyond the Earth.

Any opinions expressed in this newsletter are those of the authors or of the Editor, and, unless expressly so stated, are not necessarily those of HAL5 or the NSS.

Visit the HAL5 Web Page on Internet via:

<http://advicom.net/~hal5/>

HAL5 encourages its members to speak out on space-related issues, and welcome submissions of both fact and opinion articles of interest to HAL5 members.

Submit letters or articles to: Ronnie Lajoie  
 162 Kirby Lane, Madison, AL 35757  
 Day phone/message: 205-971-3055  
 Night/Weekend phone: 205-721-1083  
 FAX number: 205-461-5184  
 Electronic mail address: hal5@advicom.net

Deadline for submittal is the last day of the following months: February, April, June, August, October, and December.

Preferred format for plain text is ASCII (text with graphics is *MS Word* or *WordPerfect*) either sent by E-mail or on a PC diskette. Also acceptable are letters and articles sent by mail or faxed; however, the more retyping required, the less likely the acceptance. HAL5 is not responsible for receipt of mailed submissions; none will be returned unless sent with a SASE. Hand-delivered diskettes will be hand-returned. No compensation is paid for submissions.

**HAL5 Hosts and Assists  
 Moonlink Events**

(by Ron Lajoie, Education Team member )

On Wednesday, February 25, HAL5 and the Huntsville Center for Technology held a joint press conference on the school's participation in the *Moonlink* program. Despite a press release and many phone calls (with many positive responses) only one newspaper reporter and cameraman showed. The school provided a room full of students though and the "press conference" went well.

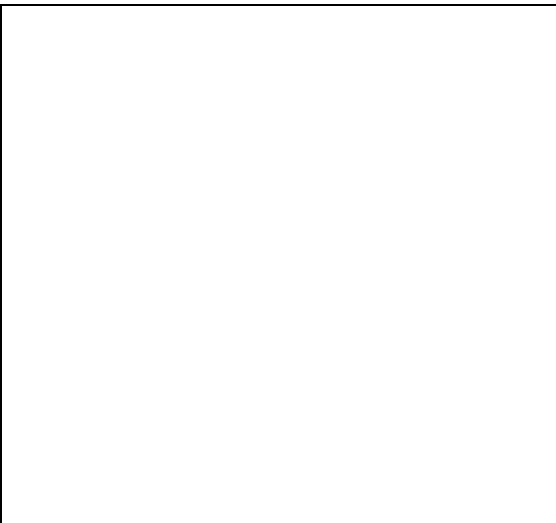
Greg Allison gave a short presentation on the HALO Achievement program, focusing on the parts for high school students and their ability to make payloads to fly on HALO rockoons. Ron Lajoie followed with a presentation summarizing the Lunar Prospector mission and the *Moonlink* Program.

Greg Allison then presented teacher John Stingel with a *Moonlink* certificate (made by Ron Lajoie) to make official HAL5's donation of the *Moonlink* entry fee to the school.

John Stingel then briefed the Press and HAL5 members on the progress he and his students have made in the *Moonlink* program. He said his class chose the North Pole of the moon, 90 degrees

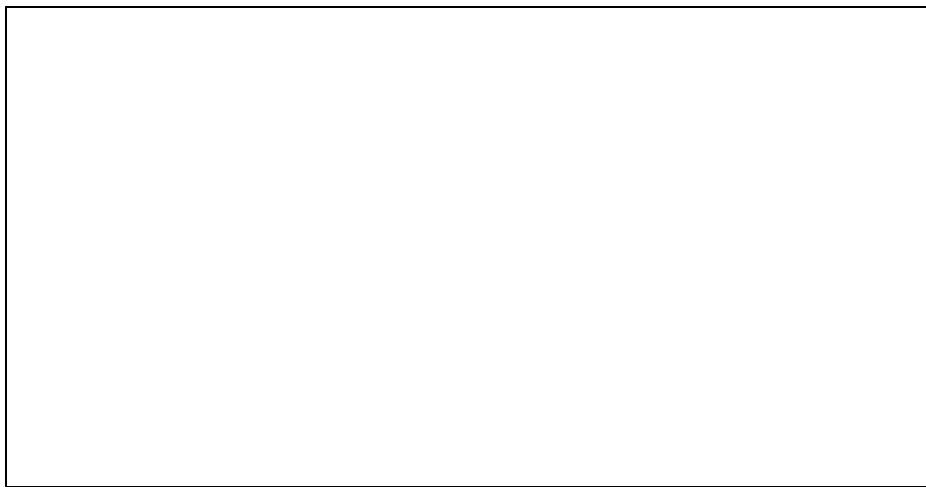
latitude, for their site of study. That puts Stingel's class (metaphorically) on top of the recently discovered richest source of lunar ice deposits.

**HAL5 Assists Moonlink "Mission"**



Ron Lajoie presents Nel Fisher of Mt. Gap Middle School with *Moonlink* Certificate.

On Thursday, March 5, Mt. Gap Middle School, under the leadership of librarian Nel Fisher, successfully conducted a simulated mission, using the HAL5-donated *Moonlink* software. Ms. Fisher and two alternating teams of 7th and 8th grade students prepared and launched the Lunar Prospector moon probe and successfully sent it into orbit around the moon. HAL5 members Greg Allison, Ron Lajoie, and Philomena Grodzka were on hand to land a hand. A good time was had by all. ☆



Mt. Gap Middle School students conduct their *Moonlink* mission simulation.

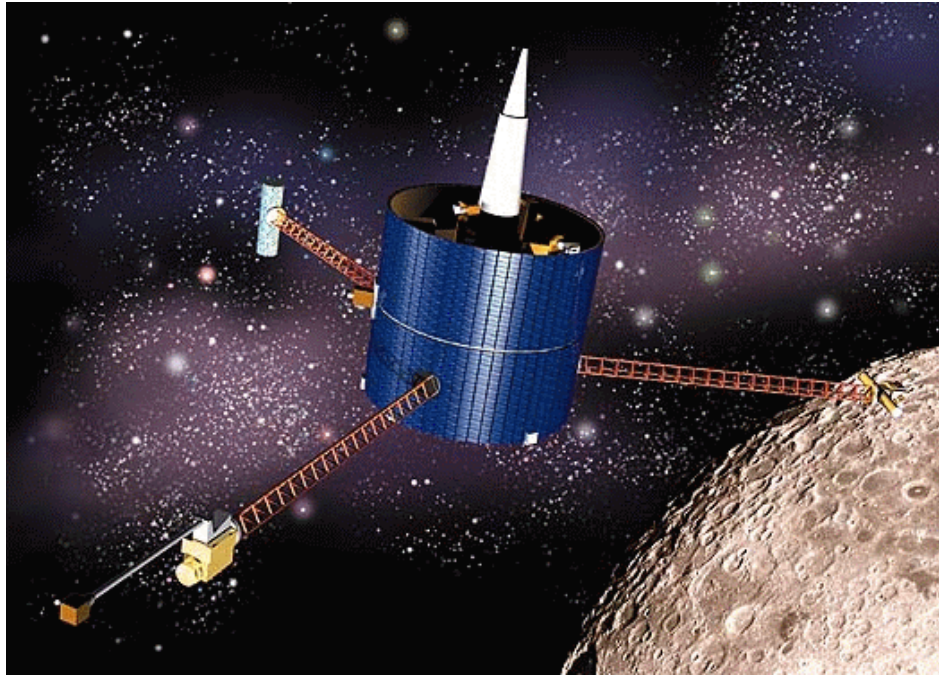
## The 22-Year Long Journey of the Lunar Prospector Probe

(by Ronnie Lajoie)

When it finally launched on January 6, 1998, the Lunar Prospector probe took only 5 days to get from the Earth to the Moon. The cost of the Lunar Prospector mission (including launch costs) is about \$63 million, less than the cost of most launch vehicles, including the Space Shuttle. Within its first 2 months at the moon it detected sufficient evidence for NASA to make an official press release announcing the very probable existence of water ice on the moon on March 5.

This discovery may have little scientific value, but it is of tremendous economic importance to future space development. Water provides drinks for animals and plants, washing fluid for humans and their clothing, and propellant for rocket engines. And it also weighs 8.3 pounds per gallon. At current launch costs of \$10,000/lb to LEO, water on the future Space Station will cost \$83,000 per gallon (and you though a gallon of milk was expensive!) Water delivered to the moon would cost many times more.

Why then was such an important question left unanswered for over 22 years? Certainly not due to technology.



### In the Beginning

The first reference to a Lunar Prospector appears in Gerard K. O'Neill's famous book (and L5 Society "bible") *The High Frontier*, first published in 1976. Near the end of the book, he recounts the events leading from skepticism to general acceptance of his ideas for a "humanization" of space. On page 307, he writes:

"Dr. James Arnold of the Jet Propulsion Laboratory of Cal Tech, deeply involved in plans for a lunar polar orbiter spacecraft which may receive the significant title 'Prospector,' considered it highly probable that permanently shadowed areas on the Moon contain large deposits of hydrogen, carbon, and nitrogen in the form of ice and other compounds."

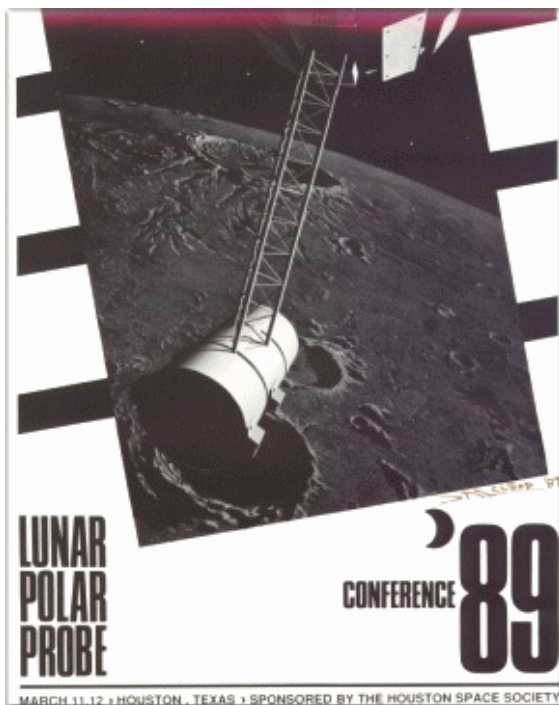
Although NASA apparently dropped the idea, Gerard O'Neill and his Space Studies Institute (SSI) never forgot about it. SSI developed plans for a privately-funded lunar polar probe mission using surplus Apollo parts, possibly as a space shuttle Get-Away-Special experiment. The concept was pitched at NSS's

1988 International Space Development Conference, and drew such interest that a special Lunar Polar Probe Conference was created and held in Houston, Texas in 1989.

SSI continued to study the Lunar Prospector, while seeking funds via its newsletter. NASA had agreed to donate the needed surplus Apollo hardware, but someone would have to pay for the spacecraft and the launch vehicle.

O'Neill's illness and eventual death put an end to SSI's plans for a privately-funded mission. Fortunately, by then, NASA had renewed its interest in the Moon and had successfully performed a joint mission with the Air Force using the experimental Clementine probe. Data from Clementine hinted at possible water ice on the Moon. Suddenly NASA became very interested indeed.

In 1995, the Lunar Prospector became the first entry into the "Discovery" program, where NASA conducts "faster, better, cheaper" space missions. NASA hired Lockheed-Martin to design and build the spacecraft, and launch it on their Athena II launch vehicle. Modern experiments replaced the surplus Apollo parts. 22-plus years later, the Lunar Prospector finally reached the Moon. ☆



# Huntsville Alabama L5 Society (HAL5)

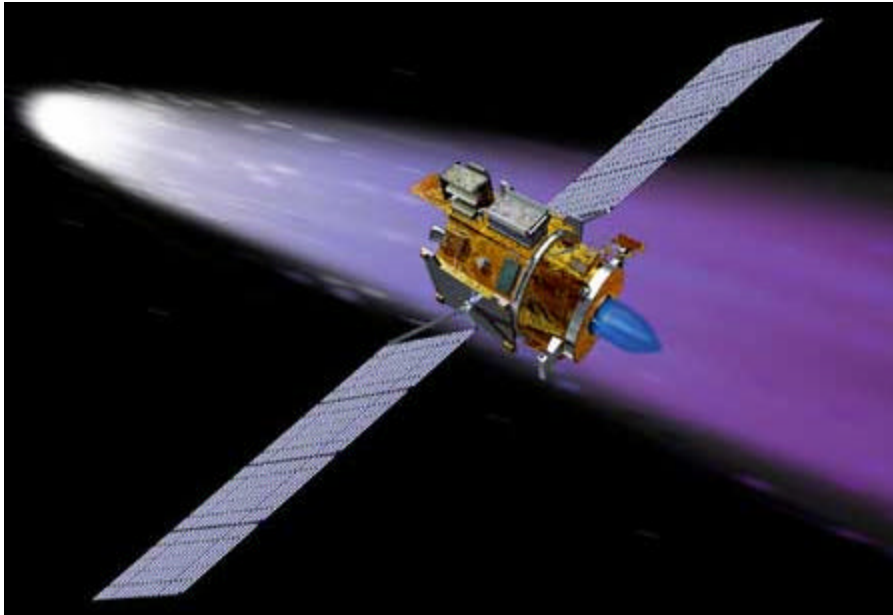
your local chapter of the

## National Space Society

presents



# Solar Electric Ion Propulsion



and the  
DS-1  
Comet  
Rendezvous  
Mission

a free public presentation by

## Mr. Robert T. Bechtel

Chief of Electrical Division, NASA Astrionics Laboratory

**Wednesday, April 22, 1998**

**7:00 pm to 8:30 pm at the**

**Huntsville/Madison County Public Library**

The public is invited. Admission is **FREE**. A social at Shoney's will follow the meeting.

For more information: call Ronnie Lajoie at 971-3055 (day) or 721-1083 (evenings).

For information on HAL5, please visit our Web Site at: <http://advicom.net/~hal5/>

**HAL5 CALENDAR OF MEETINGS AND EVENTS****April 1998**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12 Easter Sunday	13 <b>HALO Rocket Work Party</b> 6 pm at Tim's	14 <b>Project HALO Tech. Meeting</b> Noon at Ponds	15	16 <b>HAL5 Executive Comm. Meeting</b> Noon at Ponds	17	18
19	20 <b>HALO Rocket Work Party</b> 6 pm at Tim's	21 <b>Project HALO Tech. Meeting</b> Noon at Ponds	22 <b>HAL5 Program "Ion Propulsion"</b> 7 pm at Library	23 <b>HAL5 Executive Comm. Meeting</b> Noon at Ponds	24	25
26	27 <b>HALO Rocket Work Party</b> 6 pm at Tim's	28 <b>Project HALO Tech. Meeting</b> Noon at Ponds	29	30 <b>HAL5 Executive Comm. Meeting</b> Noon at Ponds	<b>HAL5 April Program Night "Solar Electric Ion Propulsion" by Robert Bechtel, NASA MSFC</b> 7p Wed., April 22, at Hsv. Library	

**May 1998**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>Technical And Business Exhibition/Symposium (TABES '98)</b> Tuesday, May 12 and Wednesday, May 13, at the Von Braun Center					1	2
3	4 <b>HALO Rocket Work Party</b> 6 pm at Tim's	5 <b>Project HALO Tech. Meeting</b> Noon at Ponds	6 Eta Aquarid Meteors	7 <b>HAL5 Executive Comm. Meeting</b> Noon at Ponds	8	9
10 Mother's Day	11 <b>HALO Rocket Work Party</b> 6 pm at Tim's	12 <b>TABES 1998</b> 9a - 5p in the VBC, Hsv.	13 <b>TABES 1998</b> 9a - 5p in the VBC, Hsv.	14 <b>HAL5 Executive Comm. Meeting</b> Noon at Ponds	15	16
17	18 <b>HALO Rocket Work Party</b> 6 pm at Tim's	19 <b>Project HALO Tech. Meeting</b> Noon at Ponds	20	21 <b>HAL5 Executive Comm. Meeting</b> Noon at Ponds	22 <b>1998 ISDC</b> 9a - 11p in Milwaukee, WI	23 <b>1998 ISDC</b> 9a - 11p in Milwaukee, WI
24 <b>1998 ISDC</b> 9a - 9p in Milwaukee, WI	25 <b>1998 ISDC</b> 9a - 12p in Milwaukee, WI	26 <b>Project HALO Tech. Meeting</b> Noon at Ponds	27 <b>HAL5 Program "Adv. Space"</b> 7 pm at Library	28 <b>HAL5 Executive Comm. Meeting</b> Noon at Ponds	29	30
31	<b>The National Space Society's 1998 International Space Development Conference</b> Thursday, May 22 to Monday May 25 at the Hyatt Regency Hotel in Milwaukee, Wisconsin			<b>HAL5 May Program Night</b> "Advanced Space Transportation Program" by <b>John Davidson, NASA MSFC</b> 7 PM Wednesday, May 27, at the Hsv. Public Library		

**June 1998**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 <b>HALO Rocket Work Party</b> 6 pm at Tim's	2 <b>Project HALO Tech. Meeting</b> Noon at Ponds	3	4 <b>HAL5 Executive Comm. Meeting</b> Noon at Ponds	5	6
7	8 <b>HALO Rocket Work Party</b> 6 pm at Tim's	9 <b>Project HALO Tech. Meeting</b> Noon at Ponds	10	11 <b>HAL5 Executive Comm. Meeting</b> Noon at Ponds	12	13

## HALO SL-2 Status

(by Ronnie Lajoie, HALO member)

The members of the Project HALO team have been hard at work preparing the rocket for the Space Launch 2 (SL-2) rocketoon mission, still scheduled for a launch sometime in June.

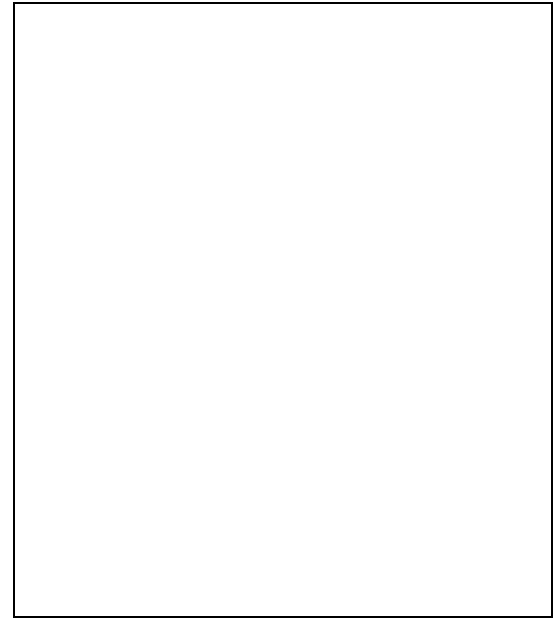
While the Electronics team of Clay Sawyer, Gene Young, and Bill Brown work in their homes on the rocket and gondola flights avionics, the Rocket team still meets weekly on Mondays in the workshop of Tim Pickens.

Most of the shop work done since the report in the last newsletter has focused on machined aluminum parts, such as the new lightweight composite oxidizer tank. After Steve Mustaikis and Tim

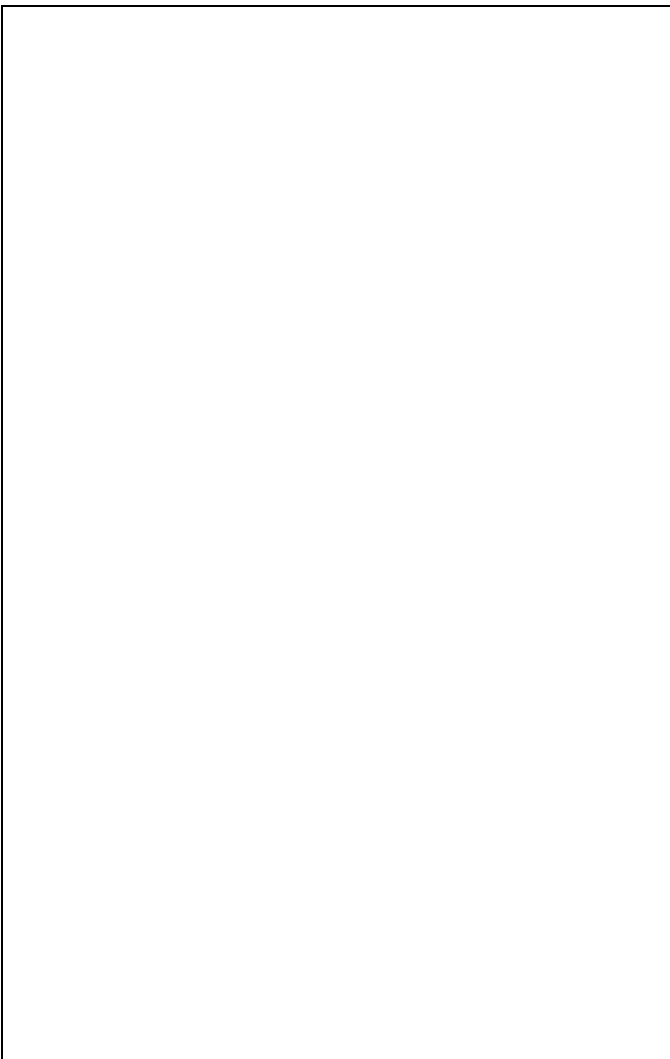
Pickens finished the prep-work on the tank and end-caps, the parts were sent to be professionally welded together. The welded tank was returned in early April.

Steve has prepared the tank for the next phase: applying a "sock" of criss-cross composite material, followed by a wrap of linear composite material, followed by an oven cure. The final product should weight only 5 pounds.

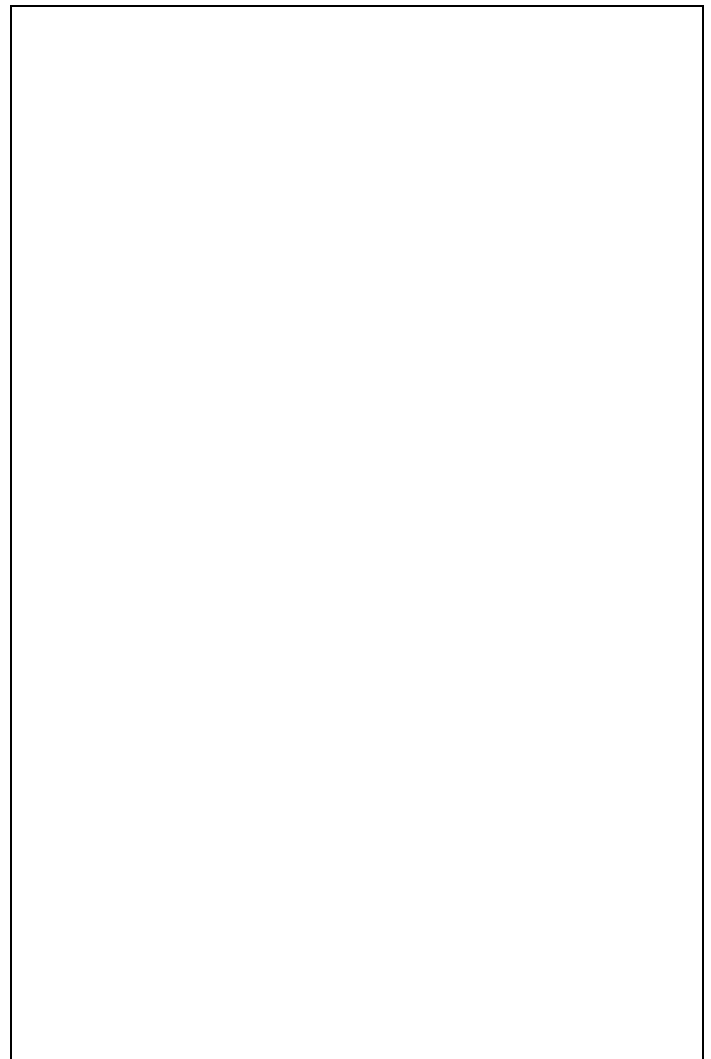
Help is needed in constructing an oven long enough to fit the oxidizer tank. Please contact Tim Pickens at 971-1566 for details. ☆



The aluminum end-cap that will become the top part of the new oxidizer tank.



Alfred Wright uses the small lathe to make aluminum cutters for the balloon gondola cut-down squibs.



Steve Mustaikis uses the large lathe to prepare the new oxidizer tank for welding of the aluminum end-caps.

## 1998 ISDC in Milwaukee, WI

The 17th annual NSS International Space Development Conference (ISDC) will be held during Memorial Day weekend (Friday, May 22 to Monday, May 25) in Milwaukee, Wisconsin at the Hyatt Regency Hotel.

HAL5 is a co-sponsor of the 1998 ISDC, which has the potential for being as successful as our own 1993 ISDC, the most successful one this decade.

As a co-sponsor, HAL5 is entitled to the lowest ISDC registration rates available. ISDC Chair Peter has drafted a special form (enclosed) for HAL5 members. HAL5 adult members can attend for only \$45 (the lowest since 1996), while HAL5 student members can attend for only \$25. These are TERRIFIC rates!

### HAL5 Member ISDC Activities

Greg Allison will be conducting a two-day Foundry workshop to help chapters and individuals start new space projects and businesses. Wade Dorland and Bill Axenroth will be joining him and will serve as advisors and consultants to the workshop participants.

Ronnie Lajoie will be chairing the NSS Chapters' Assembly meeting, with a focus this year on providing resources to chapters. This will be followed by a two-day workshop on chapter resources to be conducted by Ronnie Lajoie and Larry Ahearn, chairman of the NSS Chapter Resources Committee.

Greg (and possibly Bill Brown and Tim Pickens) will give an update on Project HALO. Ronnie Lajoie will also give a talk summarizing his recently-completed NASA contract with Boeing on "Affordable In-Space Transportation".

### You're All Invited!

Ronnie, Greg, and other HAL5 members plan on attending the ISDC. If you would like to travel or room with them, or just meet them there, contact Ron at 205-971-3055 (day) or 205-721-1083 (eve) or email: hal5@advicom.net. ☆

## TABES 1998 in Huntsville

The Technical And Business Exhibition/Symposium (TABES) is the premier symposium addressing critical issues in today's changing global marketplace, particularly in the area of space, defense, business, emerging technologies, and the environment. TABES '98 will occur May 11-13, 1998 at the Von Braun Center.

TABES '98 will expand its agenda to include a Monday Evening Technical Session so that the local engineers and scientists can share their work experiences and accomplishments with others in the community.

Four informal sessions will be held from 6:30 PM to 9:00 PM on Monday, May 11, at the Von Braun Center. No formal paper is required to give a presentation.

Anyone interested in giving a 20-30 minute viewgraph presentation should contact Frank Vinz at work 461-2357, home 881-5536, or by email at:

frankvinz@aol.com

As with all TABES sessions, there will be free admission to all of the sessions.

TABES also hosts the annual Professional of the Year Awards dinner. This year's will be held at 7 PM on Tuesday May 12. Please attend and cheer your Professional of the Year. ☆

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(Moon Ice, continued from page 1)

Dr. Jim Arnold of the University of California at San Diego previously has estimated that the most water ice that could conceivably be present on the Moon as a result of meteoritic and cometary impacts and other processes is 11 billion to 110 billion tons. The amount of lunar regolith that could have been "gardened" by all impacts in the past 2 billion years extends to a depth of about 6.5 feet, he found. On that basis, Lunar Prospector's estimate of water ice would have to be increased by a factor of up to four, to the range of 44 million to 1.3 billion tons. In actuality, Binder and Feldman caution that, due to the

inadequacy of existing lunar models, their current estimates "could be off by a factor of ten in either direction."

The earlier joint Defense Department-NASA Clementine mission to the Moon used a radar-based technique that detected ice deposits in permanently shadowed regions of the lunar south pole. It is not possible to directly compare the results from Lunar Prospector to Clementine because of their fundamentally different sensors, measurement "footprints," and analysis techniques. However, members of the Clementine science team concluded that its radar signal detected from 110 million to 1.1 billion tons of water ice, over an upper area limit of 5,500 square miles of south pole terrain.

### Economic Importance of Lunar Ice

There are various ways to estimate the economic potential of the detected lunar water ice as a supporting resource for future human exploration of the Moon. One way is to estimate the cost of transporting that same volume of water ice from Earth to orbit. Currently, it costs about \$10,000 to put one pound of material into orbit. Using an estimate of 33 million tons from the lower range detected by Lunar Prospector, it would cost \$60 trillion to transport this volume of water to space at that rate, with unknown additional cost of transport to the Moon's surface.

From another perspective, a typical person consumes an estimated 100 gallons of water per day for drinking, food preparation, bathing and washing. At that rate, the same estimate of 33 million tons of water (7.2 billion gallons) could support a community of 1,000 two-person households for well over a century on the lunar surface, without recycling.

Lunar Prospector is being implemented for NASA by Lockheed Martin, with mission management by NASA Ames. The total cost to NASA of the mission is \$63 million. For more info, please visit:

<http://lunar.arc.nasa.gov/>

**HAL5 Membership Report**

The following is a list of the current paid membership of HAL5, which includes 25 renewals and 5 new members, for a total of 30. Last year's membership peaked at 82, which was a new record for the society. Since all memberships expired at the end of last year, more renewals are expected to come in. Also shown are 3 renewed and 3 new subscribers to our newsletter. Welcome to all our new and renewed members and subscribers!

- William Adams, Jr. (R)
- Gregory Allison (President,D)
- William Axenroth (R)
- Mary Bare (P)
- Todd Cayton (R)
- David Cornutt (P)
- Thomas Craig (R)
- A. Bruce Cunningham (N)
- David Dean (Secretary)
- Wade Dorland (Programs)
- Peter Ewing (Secretary)
- Ernest Gilmer, Jr. (R,D)
- Philomena Grodzka (Members)
- Carol Rene Johnson (R,D)
- Gregory Keith (R)
- Ronnie Lajoie (Treasurer,D)
- Keith Lohmeyer (N)
- Timothy McKechnie (R,D)
- Allen Meece (R,D)
- Steven Newman (N)
- Herman Pickens (R)
- Chris Pickens (N,D)
- Charles Schlemm (R,D)
- Ernst Stuhlinger (P)
- Lyle/Ruth Taylor (R,D)
- Janis Tirey (N,D)
- Mark Wells (R)
- Gordon Woodcock (R)
- Alfred Wright (R,D)
- David Yeoman (P,D)
- Larry Kos (S)

**Upcoming Events of Interest to HAL5 Members**

- Wed., Apr. 22 — **HAL5 Program on "Solar Electric Ion Propulsion"** by Robert Bechtel, of NASA MSFC Astrionics Lab, at Huntsville Public Library, 915 Monroe Ave.; free; questions: 971-3055
- Mon., May 11 to Wed., May 13 Technical And Business Exhibition/Symposium (**TABES '98**), at the Von Braun Center; free; questions: 205-837-4287
- Thu., May 21 to Mon., May 25 **1998 International Space Development Conference (ISDC)**, in Milwaukee, Wisconsin; \$100 fee; questions: 971-3055
- Wed., May 27 — **HAL5 Program on "Advanced Space Transportation"** by John Davidson, of NASA MSFC ASTP Office, at Huntsville Public Library, 915 Monroe Ave.; free; questions: 971-3055
- Sat., Jun. TBD — (tentative date) **HAL5 Project HALO Phase II — SL-2 Rockoon Mission**, with balloon launch from NASA barge off Louisiana coast; volunteers needed; questions: Greg Allison at 205-859-5538
- September 17-18 **STEDTRAIN**, at Calhoun College; free; questions: 837-4287

- Huntsville Public Library (S)
- Madison Public Library (S)
- Bob Jones High School (S)
- Butler High School (S)
- Sparkman High School (S)

- (N) - New Member
- (R) - Renewed Member
- (P) - Past Member
- (S) - Newsletter Subscriber
- (D) - Included a Donation

HAL5 welcomes back its previous members and also past members Mary Bare, David Cornutt, Ernst Stuhlinger, and David Yeoman.

HAL5 also welcomes its new members, including Bruce Cunningham, Keith Lohmeyer, Steven Newman, Chris Pickens, and Janis Tirey. Bruce is our 200th member, and will be receiving complementary gifts from HAL5. Congratulations, Bruce! Keith is a past

subscriber to our newsletter. Steve lives in Hartselle. Chris and Janis have provided much assistance to Project HALO, and are donating their newsletter subscribers to Bob Jones High School and the Madison Public Library. Greg Allison, Ronnie Lajoie, and Lyle Taylor also donated newsletter subscriptions.

HAL5 gratefully thanks the many members who included a donation with their membership. Alfred Wright joined as a Supporter member, and included a donation to Project HALO. Ronnie Lajoie, Tim McKechnie, Chuck Schlemm, and Janis Tirey joined as Contributor members. Ernest Gilmer, Carol Johnson, Ronnie Lajoie, Allen Meece, and David Yeoman gave generously to Project HALO. Thank you all very much! Ad Astra! ☆

**Special Announcement**

**HAL5 April Program Night on "Solar Electric Ion Propulsion and the DS-1 Comet Mission" Wednesday, April 22, 7-9 pm**

**Huntsville Alabama L5 Society**  
 1019-A Old Monrovia Rd, Suite 168  
 Huntsville, AL 35806  
 ADDRESS CORRECTION REQUESTED

Place  
 First Class  
 Stamp  
 Here