

## 2006 HUNTSVILLE ALABAMA L5 SOCIETY (HAL5) ANNUAL REPORT TO THE MEMBERSHIP

The most important thing the Huntsville Alabama L5 Society (HAL5) does for Huntsville and surrounding area is to educate and promote space. We are a not-for-profit 501(c)(3), grassroots, space educational / advocacy organization. Together with our national organization, the National Space Society (NSS), we believe in that space development can stimulate our world with immeasurable benefits in the areas of education, energy, environment, industry, resources, and ultimately room to grow for our society. We also believe that by educating and working with the public, the government, and private industry, we can speed up the date when routine, safe, and affordable space travel is available to anyone who wants to go.

In 2006, HAL5 had a good year in our mission to educate and promote space. We accomplished this through our monthly public lectures program; through our Project High Altitude Lift-Off (HALO); and through our participations in congressional lobbying, conferences, and events. It was also the year where we launched our new website, created our first brochure, initiated a new project, test fired a hybrid rocket motor, and helped NSS to create a space settlement. Most importantly, we could not have done this without your support, time, and dedication. We thank you.

### Administrative Activities

When the schedule permitted, the HAL5 Executive Committee met weekly to report on the status of the chapter and discussed upcoming and on-going project activities, and the monthly program. Whenever possible, the meeting time and location is posted on the HAL5 website. These meetings are open to current and prospective HAL5 members.

The HAL5 website ([www.HAL5.org](http://www.HAL5.org)) began its overhaul this year to make it cleaner and easier to navigate. The website is used to announce HAL5 and NSS events and news, as well as a repository for HAL5 and Project HALO information; for example, a collection of our monthly program advertisement flyers since 1994.

### Monthly Programs and Special Events

HAL5 held monthly public lectures or membership meetings on the first Thursday of every month, unless there is a holiday or other conflict. The meetings are held at the Huntsville - Madison County Main Public Library in downtown Huntsville. After each monthly program, a social with the speakers and interested members and guests was held at Denny's restaurant located on University Drive in Huntsville.

HAL5 kicked off 2006 with a public lecture on "In Situ Materials-Based Lunar Habitats" with guest speaker Mr. Michael Fiske, Chief Technologist, Jacobs Sverdrup of Huntsville. In February, we held a Project HALO system meeting. We discussed the future of Tube Launch-1, goals of altitude of 100 km (beginning of space) with video downlink, potential problems and open discussions. We decided to try a competition approach for the avionics package and to engage the other NSS chapters and science clubs. It was announced in the fall 2006 edition of NSS *Ad Astra* magazine.

In March, Mr. Greg Allison, co-founder of HAL5 and Executive Vice President of NSS spoke to us on "Human Destiny: Space or Extinction." Dr. Bill Cooke from NASA Marshall Meteoroid Environment Office spoke to us in April on "Garbage Dump in the Sky: Space Debris and Its Impact on Space Operations." In May, several HAL5 members attended the 2006 International Space Development Conference (ISDC)

in Los Angeles. Our own Mr. Ronnie Lajoie received an NSS Excellence Award for his national-level accomplishments in 2005.

In June, HAL5 held its annual election of officers. The membership re-elected Rebecca Smith as President, Yohon Lo as Vice-President, Peter Ewing as Secretary, Ronnie Lajoie as Treasurer, James Hopkins as Membership Committee Chair, and Evelyn Sabino as Communications Committee Chair. After the election, Dr. Philip Stahl, Senior Optical Physicist at NASA Marshall gave a lecture on "James Webb Space Telescope: The 'First Light' Machine." In July, Dr. Travis Taylor, scientist, engineer, and author gave a fascinating talk on "An Introduction to Planetary Defense: A Study of Modern Warfare Applied to Extra-Terrestrial Invasion." A summary of Dr. Taylor's lecture can be found on HAL5's website.



HAL5 2006 Monthly Program Flyers

In August, Mr. Greg Allison gave another interesting talk on "HAL5, HALO and HARC Exploits — Past, Present and Future." HAL5 held a general membership meeting in September to discuss the status of Project HALO and what's going in NSS and in the *NewSpace* industry. The membership voted to start the next HAL5 educational project, *The Konrad Dannenberg Video Biography* to honor Mr. Dannenberg's contributions to the space program. Mr. Dannenberg was a key member of the Werner Von Braun's rocket team and played an integral role in the start of U.S. Space Program. Konrad is also one of the co-founder of HAL5, and opened the first HAL5 executive committee meeting.

In October, Mr. Craig Sumner, Technical Director of Space Shuttle Propulsion Elements for United Space Alliance, presented the "Space Shuttle Mission Highlights from STS-115." Also in October, several HAL5 members attended the Second X-Prize Cup event in Las Cruces, New Mexico. Greg and Ronnie split their time between the event and NSS meetings. Bart Leahy was there as a reporter for both *Ad Astra* magazine and *Space.com*.

In November, HAL5 welcomed Mr. Steve Cook, Manager of Exploration Launch Project Office at the NASA Marshall Space Flight Center, who gave us an update on NASA'S Ares Launch Vehicles. NASA's Ares rockets, named for the Greek god associated with Mars, will return humans to the moon and later take them to Mars and beyond. Mr. Cook began his lecture with a very eloquent introduction that spoke of the need for space settlement. Finally, in December, Mr. Tom Hancock, spoke to us about the "Skylab Restoration Project: Rescuing the Skylab 1G Trainer." Wrapping up 2006, HAL5 held its annual Christmas party. HAL5 and Ronnie provided space-related door prizes.

## NSS Space Settlement Calendar

To promote a future of humans living and working in space, NSS initiated a contest for artwork to be used in the NSS 2008 Space Settlement calendar. HAL5 is one of the chapter sponsors. Our members, Bart, Ronnie and Yohon worked with the calendar committee in designing this amazing, 14x11-inch, full-color wall calendar. The calendar features twelve original works of art illustrating humanity's future in space. The calendar will be available for purchase online in the summer of 2007 from NSS ([www.NSS.org](http://www.NSS.org)). NSS receives a portion of the proceeds from the sale of this calendar.

## Project HALO

The Project HALO team holds weekly "work party" every Wednesday night, when possible, at the home of Steve Mustaikis. At the work party we make and test, as allowed, parts for HALO Tube Launch 1 (TL-1) hardware. We also use part of this time for technical discussions. The work nights are open to current and prospective HALO supporters. The second TL-1 static flight motor test took place on September 30<sup>th</sup>. Unfortunately, the motor failed soon after successful ignition. Post-test investigation indicated the new injector design, which caused the test failure last year, and the new bulkhead swaging technique worked very well. We have started working on the next test motors, including a sturdy "battleship" design. On the tube launcher side, we designed and built our sub-scaled launcher; testing on that will begin in 2007.



Project HALO Tube Launch – 1 Flight Motor Static Test #2.

## Public Relations and Education Outreach

The Publicity Committee views its mission as threefold: To penetrate the consciousness of the general public so that they are aware of the large popular support for an active national space program, to elicit their help and participation in our programs, and to inform our local membership of our meetings and activities. To that end all notices are posted on the available print and electronic community bulletin boards and in house newsletters, flyers are placed in libraries, book stores, and local schools, and the display case in the main library is used one month a year to show case our programs. We have also taken part in the writing and production of a HAL5 brochure that will be placed in the "take one" racks located in public places around the community. Finally, individual member and the chapter supported the STEDTRAIN committee of Huntsville Association of Technical Societies with contributions to help fund K-12 teacher proposals in science and technologies for their students.

## Membership

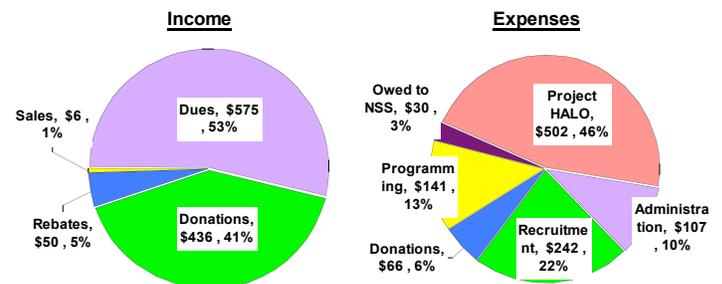
The chapter has been able to manage its affairs by using email and telephone for communications; and we have able to hold the core local membership together. The chapter annual dues for "Regular" members were maintained at \$16 in anticipation of a future regional conference,

new educational project, and work on Project HALO. Dues for "Special" members were lowered back to \$10. "Special" members include students, seniors, retired people and unemployed. 30 of 40 expired members and seven past members renewed their membership, plus we added 11 new members in 2006. We ended 2006 with 48 members. We also continue to email and interact with non-renewing expired and past members. 78 percent of the 2006-paid HAL5 members are either current or past NSS members.

Another role of the Membership Chair is to lead the membership committee with the express purpose of not only recruiting new members, but to retain existing members and expanding it to include moral and welfare issues of the club. The membership committee would have one of the best jobs in HAL5 and that is making sure that everyone is having fun; such as, planning group cook-outs, or planning committees where we can brainstorm all sorts of fantastic space related projects. The goal is to keep everyone connected and further unite HAL5 into a cohesively community. We believe when we pursue this that new members will come to us naturally. Please email Adam Martin at [arm0003@gmail.com](mailto:arm0003@gmail.com) to volunteer for the membership committee.

## Finances

The HAL5 bank accounts had a net decrease in 2006 of only \$21. Increased expenditures on the part of Project HALO were offset by generous donations from HAL5 members. Breakdowns of Income and expenses are shown below. "Rebates" is the first of hopefully many installments from NSS HQ to reward us for helping NSS to increase its membership. The "Owed to NSS" was recruitment money from 2005. The bulk of the Administration expenses is for our P.O. box. We had a rare increase in Membership Recruitment expenses to cover our new brochure. Overall, we are doing very well, thanks to you, our members!



## 2006 HAL5 Officers (June 2006 to June 2007)

President: *Rebecca Smith (Europa59@hotmail.com)*  
 Vice President: *Yohon Lo (YohonLo@yahoo.com)*  
 Treasurer: *Ronnie Lajoie (Space@knology.net)*  
 Secretary: *Peter Ewing (June 06 – February 07)*  
                   *Kathleen Craig (February 07 – June 07)*  
 Public Relations: *Evelyn Sabino (Evelyn\_Sabino@yahoo.com)*  
 Membership: *James Hopkins (June 06 – August 06)*  
                   *Kathleen Craig (August 06 – February 07)*  
                   *Adam Martin (February 07 – June 07)*

In closing, we thank you for your continue support in our endeavors to educate and promote space. We welcome and value your inputs and suggestions on how we can better serve you and our community.

- 2006 HAL5 Executive Officers

AD ASTRA PER ARDUA –  
 "TO THE STARS BY OUR OWN HANDS"  
 - MOTTO OF HAL5