



# **Project HALO — High Altitude Lift-Off**

## **A Project of the Huntsville Alabama L5 Society**

### **About the HALO Team Members**

#### **Gregory H. Allison** **Program Manager**

Greg is one of the founders of the Huntsville Alabama L5 Society and has served as its President for most of its life. Through his leadership and devotion, HAL5 has become one of the leading chapters of the National Space Society (NSS). Greg served as Conference Chairman of the highly successful 1993 ISDC, held in Huntsville. From 1994 to 1995, he served as a Director for the NSS, and in 1995 as Assistant Treasurer for the NSS Executive Committee. Greg continues to serve as Chairman of the Foundry, a project he developed for the 1993 ISDC. Greg currently serves as Program Manager of Project HALO, HAL5's most ambitious project to date. Greg is also leading HALO's Education Committee, which is developing the HALO Achievement program. In 1996, Greg received the NSS Chapters' Assembly Outstanding Chapter Member Award. Occupation: Test program set engineer

#### **William J. (Bill) Brown** **Balloon System Lead**

Bill joined HAL5 in July of 1994 during the initial balloon flight for HAL5's Project HALO. Bill's experience with high altitude weather balloons and HAM radio electronics has been a terrific plus to the project. He currently holds the post of Balloon Team Lead on Project HALO. Occupation: Engineering consultant

#### **Ronald A. Creel** **Engineering and Manufacturing Support**

Ron joined HAL5 in 1995 and has previously served as Communications Chair (95-96). He was elected Secretary (96-97), but had to resign when he moved to Florida. Ron has made great contributions to HAL5's Project HALO in the area of flight performance estimation; he is also one darn good rocket igniter technician. Ron's wit and good have helped tremendously to keep spirits high, whether during the long drive to and from ISDCs or during the long work sessions and rocket motor test firings on Project HALO. Occupation: Engineer

#### **Dr. David L. Dean** **Propellant Design and Analysis**

David joined HAL5 in 1995 and has since participated in HAL5's Project HALO. He is currently serving as

Programming Chair (96-97). Under a NASA grant, Dr. Dean developed a new hybrid rocket fuel. When his NASA funds ran out, he turned to HAL5 for assistance in testing his fuel. HAL5 was more than willing to test his fuel in conjunction with the HALO rocket motor development program, and to show how "professional" an "amateur" organization could be. In his new position, Dr. Dean will be able to help out HAL5 in finding quality speakers to talk on interesting space topics. Occupation: Chemical Engineer

#### **Peter D. Ewing** **Manufacturing Support**

Peter joined HAL5 in 1995 and has attended both the 1995 and 1996 ISDCs. He is currently serving as Communications Chair (96-97). Peter has provided much assistance to HAL5's Project HALO, including the donation of a 50-lb postal scale for weighing rocket motors. His new position will put his talents to good use. Occupation: Army supply administrator

#### **James R. Hopkins** **Engineering and Manufacturing Support**

James joined HAL5 in 1996 and agreed to take the position of interim HAL5 Secretary the departing Ron Creel (96-97). James is a former employee of AMROC and is already helping HAL5's Project HALO in the area of hybrid rocket motor development and testing. James' engineering expertise and practical knowledge is a welcome addition to the Project HALO team. Occupation: Aerospace Engineer

#### **William (Gene) Hornbuckle** **Electronics and Manufacturing Support**

Gene joined HAL5 in 1995 quickly became involved with HAL5's Project HALO in the area of electronics support. Gene was instrumental in setting up the electronics for the data acquisition system at the HALO Rocket Motor Test Facility. Gene has also loaned HAL5 use of his amateur rocket manufacturing skills. He has prepared the asphalt fuel grains for most of HALO's motors and built a set of three composite fins (which rival the quality of some aerospace companies) for the HALO rocket which successfully flew in April, 1996. He recently fabricated a set of three new-improved composite fins for HALO's first space launch.

**Ronnie M. Lajoie**  
**Engineering and Manufacturing Support**

Ronnie joined HAL5 in 1992 and has previously served as Secretary (92-93), Vice-President (93-94), and Treasurer (94-96). He is currently serving as Special Projects Coordinator (96-97). Starting in 1994, Ronnie began serving as Editor of HAL5's newsletter, the Southeastern Space Supporter. He also has been instrumental in setting up and maintaining the HAL5 Web Site. Ronnie is also a key member of HALO's Education Committee, which is developing the HALO Achievement program. At the 1995 ISDC, Ronnie accepted a two-year post as Chairman of the National Space Society Chapters' Assembly. Ronnie's organizational skills have kept HAL5 in tip-top shape, whether keeping minutes and tracking actions for the 1993 ISDC, keeping the financial records in order for HAL5 and its Project HALO, or publishing its bi-monthly newsletter. In 1995, Ronnie received the HAL5 Professional of the Year Award. Occupation: Aerospace engineer

**Steve Mustaikis**  
**Propellant Design and Analysis**

Steve joined HAL5 in 1995, while still a student at UAH, and quickly became a key member of the Propulsion Team for HAL5's Project HALO. Steve's education in space propulsion engineering was a perfect complement to Lead Tim Picken's practical knowledge. Together, they made a great team, and led the group through a highly successfully hybrid rocket motor development phase during 1995. As a member of SEDS, Steve was instrumental in bringing more students onto the HALO team. HAL5 still looks forward to enticing Steve back from California. Occupation: Aerospace Engineer

**Edward M. (Ed) Myszka, Jr.**  
**Electronics System Lead**

Ed has quickly become Lead of the Electronics Team for HAL5's Project HALO. He developed most of the GPS and amateur television and radio package for our rocket which was successfully tested aboard in balloon last September. Occupation: Section Manager

**Timothy L. Pickens**  
**Propulsion System Lead**

Tim joined HAL5 in October 1994 and quickly became Lead of the Propulsion Team for its Project HALO. Tim is the kind of person who can bring the word "amateur" back into a good light. With a Bachelors degree in Business and an Associates in Machining and Electronics, Tim created and successfully launched his own steam-

powered rocket. Tim's love of rocketry, machining-expertise, business-savvy, leadership skills, and incredible imagination (and support of his great wife Melanie) has taken the HALO team from test-stand ground-breaking in January 1995 to a successful ground launch of its asphalt-and-nitrous hybrid rocket (to over 20,000 feet) in April 1996. Tim performs most of the rocket design work, provides articles for HAL5's newsletter (the Southeastern Space Supporter), arranges for major donations and great buys of surplus hardware, and provides a wonderful team spirit. In 1996, Tim received the HAL5 Professional of the Year Award. Occupation: Test Engineer

**Clayton Sawyer, Jr.**  
**Payload Systems Lead**

Clay joined HAL5 in 1996 and quickly became Lead of the Payload Systems Team for its Project HALO. Clay lead a team which designed the payload section of the HALO rocket which flew in April 1996. He currently is leading the payload design and integration activity for HALO's first space launch. Occupation: Engineer

**Dr. Larry K. Scarborough**  
**Gondola System Lead**

Larry joined HAL5 in 1992 and has previously served as Projects Coordinator (94-95) and Secretary (95-96). He is currently serving as Vice-President (96-97). His editorial cartoons have appeared in many issues of HAL5's newsletter, the Southeastern Space Supporter. Larry serves as the technical lead for the balloon gondola for Project HALO, and has designed and built several successfully-tested rocket launch platforms. Larry is also a key member of HALO's Education Committee, which is developing the HALO Achievement program. He was instrumental in arranging for HAL5 to donate a weather balloon to help local elementary school students learn about remote sensing. Occupation: Family physician

**Alfred Wright**  
**Chief Engineer**

Al joined HAL5 in 1995 and has previously served as Special Projects Coordinator (95-96). He is currently serving as Treasurer (96-97). Al has made great contributions to HAL5's Project HALO in the area of flight stability & control design, manufacturing, and ground testing. He has greatly aided in the planning and performance of the vacuum testing of several key components of the HALO rocket. He currently holds the post of Rocket Design Team Lead on Project HALO. Al also serves as Treasurer of the Mississippi-Alabama Section of the AIAA. Occupation: Aerospace engineer