

NAL-JSC NEWS

*NASA Alumni League
JSC Chapter
Renee Lance, Editor*

NAL-JSC New Year

By Denny Holt, Vice-President

Happy New Year from the NAL-JSC Board of Directors. We are getting an early start on what promises to be a very active year. The NAL Board had a retreat on January 12, 2017 to plan the activities of NAL-JSC for 2017.

A major focus of NAL-JSC will be funding programs that educate students about space and science. As such, the following is where NAL-JSC is spending a large part of its budget this year. The NAL Board of Directors approved a 2017 budget of \$13,000 for STEM education in the form of scholarships and contributions to organizations that provide opportunities to groups of students.

Thanks to the generosity of our members,

- 1) Over 1,000 Title 1 students will be able to participate in educational programs at Space Center Houston,
- 2) Eleven classes from Houston area schools can participate in the Mars mission simulation at the Houston Museum of Natural Science's Expedition Center,
- 3) Installation of a simulator at Patricia Huffman Smith Museum in Hemphill, TX, will be completed and students in East Texas will be able to fly the Space Shuttle.
- 4) Support for the 18th annual Space Settlement Design Competition at the JSC Gilruth Center will continue.
- 5) Scholarship aid to deserving students will continue for the AIAA STEM Program, the Science National Honor Society, and the JSC GilruthStarport Scholarship.

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NAL-JSC Programs

By Phil Engelauf, Programs Chair

Recent Programs

Fall Dinner/Social
November, 2016

Preliminary Findings from the ISS One-Year Expedition and Kelley Twins Study



*Dr. John Charles, PhD
Chief Scientist, NASA Human Research Program*

Our fall social was held Tuesday, November 15, 2016 and featured Dr. John Charles presenting an overview of the year-long ISS twins comparison assessment. Dr. Charles currently serves as the Associate Manager for International Science of NASA's Human Research Program, and leads NASA's space life sciences planning for the joint US/Russian one-year mission on ISS.

Dr. Charles gave an outstanding discussion of the science objectives of the one year mission of Scott Kelly onboard the ISS, comparing the effects of long duration spaceflight with a ground comparison to his identical twin, retired astronaut Mark Kelly. Investigations will assess the effects on astronaut vision impacts, bone mass and immune system changes. The data were collected preflight, inflight and postflight on both Scott Kelly and his Russian one-year crewmate Mikhail Kornienko. Given the recent timing of the mission and the ongoing data collection and analysis, few results or conclusions are available to date. A more detailed presentation of results from the mission will be the subject of a future reprise appearance by Dr. Charles.

1st Thursday Series November 3, 2016



Our November program consisted of a tour of JSC's Neutral Buoyancy Laboratory (NBL). The tour was graciously arranged and led by Dan Sedej, formerly the NBL facility manager prior to his retirement, accompanied by Paul Williamson, the current Facility Manager. The tour included a walkthrough of the pool deck area and an overview of past and current training and operations conducted in the water. The current configuration of ISS mockups supports ongoing ISS training as well as some commercial training activity for water survival, underwater Remotely Operated Vehicle operations, and other test and development operations. As a bonus, astronaut Kjell Lindgren was finishing up a session just prior to our tour, and he graciously stopped to shake hands and speak to our group for about 10 minutes. Many thanks to Dan for arranging this great tour!

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Thursday Programs, cont. from P. 2

1st Thursday Series December 1, 2016

The December program featured Mr. Gordon Andrews of the Strategic Communications Office, and Mr. Ian Cion, former Director of the Arts in Medicine Program at The University of Texas MD Anderson Children's Cancer Center. Their presentation gave an overview of the Hope Space Suit Art Program they have been collaborating on over the past year.

Their project engaged young cancer patients in the graphic design of art panels which were incorporated into an intravehicular flight suit that was actually flown onboard ISS. Their efforts attracted attention from suit manufacturers, who contributed generously in both materials and manpower to fabricate the flight article, as well as program managers and astronauts. Former astronaut Nicole Stott continued to engage and support the program after her departure, and ultimately the activity was embraced by European and Russian flight crews.

The Hope effort was a heartwarming and touching story and serves as a reminder that NASA's programs still provide inspiration for people from every walk of life.



Mr. Ian Cion and Mr. Gordon Andrews presented the Hope Spacesuit Design Project

Upcoming Programs

First Thursday

Note: – Due to increasing utilization of the Gilruth Center, we are having to move some of the “First Thursday” programs to other dates. We will try to keep everyone informed well in advance!

Tuesday, February 7, 2017

2:30 – 4:00 p.m.

Gilruth, Long Horn Room

Thursday, March 2, 2017

2:30 – 4:00 p.m.

Gilruth (TBD Room)

Thursday, April 6, 2017

2:30 – 4:00 p.m.

Gilruth (TBD Room)

“Curiosity: The Mars Science Laboratory and Mars Exploration”

Mr. Doug Archer

“EVA Space Suit Design Progress”

Ms. Amy Ross

“Dream Chaser Co-Program Manager”

Mr. John Curry, Sierra Nevada Corp Senior Director

NASA Alumni League Social & Dinner Program Dates

March 7

July 18

November 7

Annual JSC Space Settlement Design Competition for High School

By Norman Chaffee, Senior Advisor

Since 1999 our Senior Advisor, Norm Chaffee, has cooperated with the JSC Education Office to organize and manage a unique educational activity focused on high school students, called the Annual JSC Space Settlement Design Competition (SSDC). The SSDC is an industry simulation game in which 200 students are formed into four teams of 50 students; are organized as a “company”; and are given a significant and complex aerospace design task to accomplish over a three-day weekend period at JSC. Our Chapter makes a small financial contribution to support the activity, and some of our members serve as mentors, judges and in other volunteer roles.

The Competition this year will be held at JSC over the weekend of Friday, March 24 – Sunday, March 26, at the Gilruth Center, in JSC Building 9, and with overnight accommodations at Space Center Houston.

The task for the four competing “companies” this year is to design a large mobile human base on the surface of Mercury to house 7000 human inhabitants. The purpose of the base is for exploration, mining, and materials production

and processing to create products for export within the inner solar system in a detailed scenario set in the year 2087. The surface base is mobile to allow it to always stay at the terminator on Mercury so that survivable temperatures are always experienced.

Complete details are available at the Competition website at www.JSCSSDC.org including instructions for student registration, etc. Cost to attend is \$195 per student, which covers all meals and snacks, accommodations, tee shirts, materials, etc.

This unique educational activity is designed to appeal to students of all interests – not just science, technology, engineering and math, and stresses the skills involved in working and communicating successfully in a large group to accomplish a very large and urgent task where you do not know most of the people involved.

If you have high school students in your extended family – or acquaintances – who might be interested in this event, please let them know about it. If you’d like to participate as a volunteer, Norm would also like to hear from you. Deadline for registration is late February. Those interested can contact Norm at chaffee.norman@att.net or at 713-944-2461.

Education Committee Report

By Frank Hughes, Education Committee Chair

The Education Committee has been very active the past quarter. The NAL-JSC Board approved \$14,000 Education expenditures for the 2017 CY as follows:

- Space Center Houston - \$6000
- HMNS Exploration Academy – \$3000
- Science National Honor Society - \$1000
- Columbia Museum of Hemphill – \$1000
- AIAA STEM Program - \$500
- Space Settlement Design Competition - \$500
- JSC Starport Scholarship - \$1000

The Education Committee is helping

fundraising efforts for the Columbia Museum by providing lectures at the museum in Hemphill. A fundraiser in April will include Scott Parazynski and John Clark. Invitees will be from the area affected by the debris field as Columbia came apart. Norm Chaffee and Frank Hughes will be supporting that effort. Tours for NAL-JSC members can be arranged for the Houston Museum of Natural Science or Space Center Houston. We will get together with the Board to schedule this effort.

Mentoring Committee Report

By Jon Hall, Mentoring Committee Chair

NAL members who are engaged in the JSC Formal Mentoring Cycle for 2016 continued to provide positive feedback. Examples include feedback received the week of December 8, 2016:

Mentor (KY): I met with my protégé last week, mainly to relate how my talk to the UT ASE freshmen went and to thank him for help in updating many of my slides. My protégé's latest job "concern" is that a longtime employee/coworker is retiring after 30+ years and my protégé thinks they are expecting him to "fill his shoes"! My protégé is doing a lot of "interviews" to pick the guy's mind and get as much wisdom as he can! I just suggested that he make copious notes and get as many tips on engine performance that he can! We both have agreed to continue to meet as we are able---maybe every month or two.

Mentor (NC): "I'm having monthly meetings with my protégé and all is going well. We have been talking about the value of expanding her experience base and in the next few months she has decided to make a move from Flight Ops to OZ. I am enjoying the discussions and learning things from her."

Mentor (JC): "I'm continuing to meet via phone or face to face with my protégé about every 2-3 weeks, depending on our schedules."

Mentor (GB): "Nothing new to report – had another lunch meeting with mine. Seems to be going fine."

Promoting STEM Education: During this quarter the Mentoring Committee received a

request to find a suitable mentor for a Friendswood High School student working on a project that is investigating better ways to transport children. Mentoring Committee members reached back to NASA colleagues to establish a mentor/protégé relationship for the student.

Management Seminars:

Development of NAL-JSC management seminars for the JSC workforce is still progressing, albeit on a slower schedule. Since the last NAL-JSC newsletter, efforts have been focused on refining the material, and identifying panel members to assist with the sessions. More information will be made available during CY2017.

On a separate note, a suggestion has been made to form an outreach program to the community which would emulate the JSC leadership retreat "fireside chats." These chats would be held with small audiences in an informal setting conducive to open interaction. The target audiences and venues are still under consideration. This would be experimental to determine interest and participation. (Background: Recall that JSC leaders such as directors and program managers would provide insights into successful leadership and management during informal fireside chats that occurred as part of JSC's Supervisory and Leadership Retreats conducted at Columbia Lakes Resort. This was a relaxed environment, serving snacks, beer and wine. Senior leaders shared anecdotes, and fielded Q&A's. These were intimate settings, usually with less than 20 participants.) More information will be made available during CY2017.



A JSC Fireside Chat

Imagery Identification Project

By Jon Hall, Mentoring Committee Chair

In the previous NAL Quarterly Newsletter, we explained that JSC's External Relations Office (ERO) asked for volunteer help from retirees that worked at JSC in the 1970s – 1990s to assist with identifying archived imagery of all programs from Mercury through Shuttle, JSC workforce and the Institution. NAL JSC members supported efforts in mid-September of 2016 during the STS1/STS2 Anniversary Event.

Since that time, due to other priorities, not much has occurred here in the JSC area. However, we have discovered that the NAL-KSC has a Photo ID

project that could be a model for the JSC project. (Refer to http://nalfl.com/?page_id=2441). It appears that the NAL KSC has a core team with an archivist connection. This might be a good model to emulate. There also might be a way to connect with UHCL, as well, to support the archiving activities that are ongoing at UHCL.

An example from NAL-KSC is shown below. More information will be forthcoming during CY2017.

NOTE: No copyright protection is asserted for these photographs.



To the left is shown an example of KSC Archiving Project. The picture is labeled with numbers and NAL-KSC members are encouraged to identify the people shown in the picture.

- 1.
2. Walt Kapryan
- 3.
4. Paul Donnelly
5. W. O. Chandler
6. Terry Greenfield
7. Ike Rigell
8. Jack Humphrey
9. Mac McCreary

Membership Committee Report

By Estella H. Gillette, Ed.D., Membership Chair

Membership Status. We started out the new year with a membership count of 401 members! Each year, we have gained more and more members. Members from the Shuttle era now make up the greater percentage of our membership. It is hard to believe that some of the “young” folks that some of us welcomed to JSC what seems not so long ago, are now retiring!

Please welcome our newest members. Since our

report in our October 2016 newsletter, we have welcomed 24 new members, including Herb Baker, Reg Berka, Richard Clark, Joshua Figuered, Nancy Garrick, Kristin Ingram, Al Jackson, Bill Jordan, Irene Kay, Patricia Davis Lawson, Lois Lenox, Fred Martin, Tom Pendleton, Jerry Pfleeger, Mike Puryear, Holly Townsend, Nilda Reyes, Margaret Savoy, David Scheffman, and Jim Webb.

See **Membership, P. 7**

Cont. from Membership, P. 6

Thanks! Again, we have received donations from many of our members between October and early part of January. Member Robin Rowley changed his regular membership to Lifetime membership, which means he made a big donation! Other generous members who made donations included Charles Armstrong, Herb Baker, Larry Bell, Sandra Cargill, Kathie Chaffee, Bill Creasy, Tom Davies, Jeff Davis, Bob Eguisquiza, Ginger Gibson, Estella Gillette, Pete Gillette, Jerry Goodman, Teresa Gomez, Judy Guy, Mack Henderson, Frank Hughes, Kristin Ingram, Al Jackson, Sandra Jones, Henry Kaupp, Patricia Lawson, Fred Martin, Garlan Moreland, Scott Murray, Sandra Parker, Alex Pope, Ed Pritchard, David Puryear, Leo Reitan, Nilda Reyes, Ned Robinson III, Joe Rogers, John Rummel, Barbara Shock, Luis Trevino, and John Whalen. These donations allow our chapter to continue to provide scholarships to organizations that provide STEM-related programs and activities to students of all ages. For example, in 2016, with your donations, we were able to award scholarships, including to Space Center Houston; the Houston Museum of Natural Science; the Space Settlement Design Competition; the Columbia Museum in Hemphill, TX, for the installation of a Shuttle Simulator to be used by local students; and the AIAA STEM Program. In addition to the funding, our members are involved in working with these organizations and donate their time, knowledge, skills, and expertise in the planning and implementation of these activities.

More Sad Farewells. 2016 was a sad year because of the loss of 11 of our NAL-JSC members, whom we also knew as NASA colleagues and friends. Members who died during the year included Elizabeth Bains, Ph.D.; Don Curry; Jack Garman; Walt Guy, Lyle Jenkins; Enoch Jones; and Guy Thibodaux. Just since our October newsletter, we sadly must add more names to this list, including Lifetime member Maureen Bowen (November 2016), Gene Cernan (January 2017), Susan Hallmark Garman (January 2017), and Alex (Skip) Larsen (November 2016).

All of these members of our NASA family made their own outstanding contributions to the U. S. Space Program and to the NASA Alumni League. We, among many others who miss them, want to say Thank You!

Reminders:

- **Lifetime Members:** Please remember that although you will never have to pay your membership dues again, you DO have to renew your NAL-JSC on a yearly basis. So, if you currently have a NAL-JSC badge, please check the expiration date to make sure that your badge has not expired. If it has expired, you just have to go to the JSC Badging Office in Building 110 to ask for a new badge. Your name is always on the NAL-JSC Security list that we update on a monthly basis. Again, we thank you for your generous contribution when you joined as a Lifetime member!
- **Members (except Lifetime):** If you have not renewed your membership and go to the JSC Badging Office for a new badge, if your name is not on the list that we send to JSC on a monthly basis, JSC Security will NOT issue you a badge. NAL-JSC updates the list each month to ensure that Security has the most updated information. All membership updates during the month are reported to JSC Security by email and JSC Security makes “pen and ink” changes to the list throughout the month until we send them a new monthly list at the beginning of each month. A real benefit to renewing on time is that your name will always remain on the NAL-JSC Security list! Thanks!
- **Want to Rejoin NAL?** Although we have sent reminders, some members have not renewed. For those members whose membership expired between October and December 2016, your name is now on the “yellow/inactive” membership list. Although this means that you are no longer eligible for the NAL-JSC badge, you will continue to receive NAL email, information, and our newsletter until the 1-year anniversary of the expiration of your membership. At that time, NAL-JSC Communications Chair Dan Sedej will inform you that the 1-year grace period has expired and that you will go off the NAL-JSC distribution list. If you are in this category and would like to renew your membership, please contact Estella Gillette at estellagillette@hotmail.com.

TREASURER'S REPORT

By Susan Braymer, Treasurer

* Thanks to our generous members our treasury continues to grow totaling \$73,938.34 on January 1, 2017, an increase of over 10% from January, 2016. This includes the \$8,008.41 remaining in the Lance Scholarship Fund after the first scholarships were awarded in May (or \$65,929.93 of unreserved NAL funds).

* During 2016, NAL took in \$12,460.50 in dues. Some of our members joined or renewed at the Supporting (\$100) level and 7 members contributed at the Lifetime (\$500) level which further enhanced our bottom line. This was a 21% increase over our 2015 dues contributions. A big thank you to our members!

* Our members donated a total of \$4620.91 during 2016 in addition to their annual dues, a whopping 42% increase! Due to this increase in donations, we were able to contribute to more charitable organizations this year.

* The use of PayPal to pay for dues, dinners, donations, etc. continues to provide a convenience to our members. NAL pays a small fee for this service. During 2016 we paid a total of \$203.28 to PayPal.

* We invested an additional \$15,000 in the Schwab Fund this year, with the aim of using accrued dividends to fund part of our scholarships. Our Investment Committee, chaired by Gordon Ducote, manages these funds to increase the return on our investments through lower risk choices and more predictable dividend income. On January 1, 2017, we had \$38,883.14 in our Schwab account, a 67% increase over last year.

* During 2016 we increased the number and amount of our donations to space related educational organizations. In 2016, NAL made contributions to the following organizations that provide scholarships/programs for students interested in pursuing education in the STEM fields.

> Space Center Houston - \$1500

> Houston Museum of Natural Science Expedition Center - \$1500

> Columbia Museum in Hemphill, TX - \$3750 (for the installation of a Shuttle flight control simulator at the museum to provide visitors "hands-on" experience)

> JSC Gilruth Exchange Scholarship - \$1000

> AIAA Stem Program - \$500

> NASA College Scholarship Fund - \$500

> Space Settlement Design Competition - \$400

Now for the numbers:

	12/31/2015	12/31/2016
Share Account	\$5.00	\$5.00
Checking Account (includes \$8008.41 in the Lance Scholarship Fund)	\$21,335.91	\$12,515.17
Money Market	\$22,453.64	\$22,535.03
Schwab Account	<u>\$23,229.72</u>	<u>\$38,883.14</u>
TOTAL	\$67,024.27	\$73,938.34

NAL News Clips

Donate Your Papers and Records

NASA maintains an archive of historical information at UHCL, which is managed and administered by archivist, Lauren Meyers. Ms. Meyers would appreciate having your personal papers for the archive. No preparation on your part is required – Ms. Meyers and her staff will receive your donation of your papers and records, will go through them carefully to remove any items of a private nature to return to you (such as personnel documents), will systematize your records and keep them in a form that can be accessed by historians and researchers, and by your family and descendants in the future. Don't put it off! Don't let the trash man dispose of your important legacy! You can contact Lauren Meyers at Archives@UHCL.edu or you can call her office at 281-283-3936. If there is interest, we will consider asking Ms. Meyers to conduct an open house of the newly refurbished and enlarged archives facility so that interested members can visit to see how the records are processed and stored.

Lending Library

Our Chapter maintains a lending library of significant aerospace books. The library is located at the offices of Tietronix at 1331 Gemini, Suite 300, and can be accessed through Frank Hughes at 281-404-7259. A list of the available materials and information about how to check out a book is on our Chapter website at www.nal-jsc.org

Chapter Web Site

Our Chapter web site at www.nal-jsc.org has a great deal of information about our Chapter and is constantly being updated by our Board, with the excellent assistance of Frank Hughes and our capable Webmaster, Dan Sedej. Please visit our web site and review all of the information and features. Let us know what you think, and send us any suggestions for improvements.

Regular Monthly Activities

There are a series of regular events that occur monthly that our members organize and in which you may be interested.

Monthly Meeting of the Officers and Directors - Second Thursday of each month at 3:00 p.m. at Tietronix offices, 1331 Gemini, Suite 300, Houston.

“First Thursday”afternoon program series – Held the first Thursday of most months at a meeting room within the Gilruth Center, from 2:30 – 4:00 p.m. The Communications Committee sends out a specific notice and reminder for each of these meetings, and the schedule for future meetings will be on our web site. These meetings are organized by Programs Committee Chair Phil Engelauf. If you have suggestions for a meeting topic, please contact Phil.

Monthly Breakfast – Held on the second Wednesday of the month at Kelley's Grill on FM 518, east of I-45, in League City at 8:30 a.m. The meal is “dutch treat” and the conversation is always lively! This event is organized by E. Bob Stewart, who arranges the distribution of monthly reminders of the breakfast via e-mail to our members and other retirees.

Monthly Luncheon – Held on the first Thursday of the month at 11:30 a.m. at the Hibachi Grill on Bay Area Blvd, between Hwy 3 and I-45. The luncheon is “dutch treat,” and – like the monthly breakfast – the conversation is lively. This event is organized by Larry Moon, who also sends out a reminder each month to our members and other retirees.

Monthly Beer Social – Held on the first Thursday of the month at 4 p.m. at the Gilruth Center small pavilion across from the main entrance. An adult beverage, along with limited soft drinks, is provided with a few snacks. It is a chance to network with other retirees and to discuss and critique the current state of NASA, along with other topics. This event is organized by Larry Ratcliff, and regular attendees can help Larry with a periodic payment to cover the cost of the consumables. Please contact Larry at lrattcliff1@peoplepc.com.