Astronauts, cosmonauts train at JSC

By Ken Fluge

Two of JSC's own returned this week when astronauts Norm Thagard and Bonnie Dunbar returned from Russia for three weeks of life sciences training in support of joint U.S.-Russian space flights.

Accompanying Thagard and Dunbar were their cosmonaut crew mates Vladimir Dezhurov, Gennady Stronkov, Nikolai Budarin, Yuri Onufrienko and Alexander Poleshchuk. Thagard, Dezhurov and Stronkov will be launched to Russia's Space Station Mir early next year for a three-month stay on orbit, a mission known as Mission 18. Budarin, Solovyev and Budarin are training as backups for Mir 18. Solovyev and Budarin will assist the Space Shuttle Atlantis to Mir on STS-71 this fall to serve as the Mir 19 crew. Chumakov and Poleshchuk are training as backups for the Mir 19 cosmonauts.

Thagard and Dunbar have been training for more than two months. The majority of their training has focused on developing the language and skills required for the joint space flights.

"We're not only learning the language to converse, we're learning the technical language needed to do space flights," Dunbar said.

The two astronauts also have completed their survival training and started studying the Soyuz vehicle systems. They will begin studying the Mir systems maintenance, maintenance and troubleshooting.

"Norm and I have several flights behind us, so we have certain amount of comfort with the whole concept of going into space and what to expect," Dunbar said. "We expect to learn a great deal, though, about how to function for a long duration period in orbit, learning about the dynamics of experimentation and living on board the space station."

One of the more important facets of marching ahead is the fact that each party, each country will pay less for their modules," he said. "We're doing just fine."

Thagard also said anyone going from the U.S. to a foreign country will find cultural differences which is why cross-cultural training is necessary.

"The important point is where there are differences, we are bringing them to the table, and we are discussing them," the cosmonaut said. "This is the important facet of marching ahead together in an international program."

"Such cooperation is something necessary for the future because space flight is expensive," Stronkov said. Sharing the data from experiments and familiarizing each other with the training, space flight equipment and scientific payloads also are an important benefit of cooperation.

"You have to pay for new science and new knowledge," he said. "It is possible to agree to the extent that each party, each country will pay less than they were going to have to pay."
**Giltrud Center News**

**SALE:** The NASA JSC Astronaut Seminar will meet at noon May 11 at JSC Auditorium C. Al Jackson will speak on "Comet Shoemaker/Levy Hippies in Jupiter's Valentine." For information, call Al Jackson, 333-7767.

**SWAP SHOP ads are accepted from current members.**

**SALE:** Say Glen, Clear Lake, Nacogdoches, TX, 3-2-5. 3013 sq ft, 3BD, 3BA, $105.9k. 992-1466. '67 Mustang, green, standard, $2500. Mike, x35296 or 992-3004. 32H Hubert, 5KJY, $120. Oamie, x40214 or 286-3105. Sofa, sectional, $25; antique oak rolltop desk, LaRue, $250. David, x45381. Fisher ST-828 speaker system, $326-5518. $10 & $15; games, Dragon Warrior, $10; Pool Holes, $10. David, x45381. Fisher ST-828 speaker system, $326-5518. $10 & $15; games, Dragon Warrior, $10; Pool Holes, $10. David, x45381.

**SALE:** Seabrook, 4-28-5. 2000# elect winch, $20; 9 dr lawn mower, $20; 48 in. roller fumig, Pre-Post Post, Gains; Effects Loop & headphone Westwood; color monitor, $49.5k. 326-3449, centerboard, PRO. Jerry, x38922.


**SALE: Lake Livingston, 30 x 70 tot, paved driveway, $3000. 409-762-6601. Tanks, with 3 man, 2 person, 1 person watercrafts, $25; antique oak rolltop desk, LaRue, $250. David, x45381. Fisher ST-828 speaker system, $326-5518. $10 & $15; games, Dragon Warrior, $10; Pool Holes, $10. David, x45381.

**SALE:** The Houston chapter of the Association of Logistics Engineers will meet at 5:30 p.m. May 26 at the South Beach Hotel, 1800 Bay Area Blvd. Club dinner meeting is scheduled at 6 p.m. For additional information, contact Dan Morgan, x33345 or 482-9205.

**Thursday**

**SLEET SOLVE**—The Houston chapter of the Association of Logistics Engineers will meet at 5:30 p.m. May 26 at the South Beach Hotel, 1800 Bay Area Blvd. Club dinner meeting is scheduled at 6 p.m. For additional information, contact Dan Morgan, x33345 or 482-9205.
'Texas Proud' draws a crowd

Picnickers enjoy food, fun and most of all, shade, at annual event

JSC employees and their families enjoyed a hot time at the old Gilruth Center during this month's annual JSC Picnic, but the fun transcended the soaring temperatures. Because of the heat and some mud leftover from a preceding rainstorm, one of the favorite activities of the May 7 picnic was the dunk tank, where JSC managers -- and some on-the-spot volunteers -- took turns being doused.

Among the other favorites of the 2,400 people who attended were the children’s Batman show and entertainment provided by the 4th Wave Rhythm Band and the Stars of Texas children’s singers and dancers. From left to right, top to bottom:
1) Uncle Buck the clown prepares an inflatable flower petting zoo, which included a turkey this year. Q for a young picnicker.
2) Astronauts Andy Thomas and Lacy Veach sign photographs for young admirers. The astronaut autograph booth was a big hit among young and old.
3) Although this young eater went heavy on the chicken and pickles, she appears to be steering clear of the jalapeño peppers. Another favorite of this year’s “Texas Proud” celebration was the barbecue dinner.
4) Face painting was the “cat’s meow” for some of the attendees.
5) Shade was a valuable commodity, especially when it was time to catch a little shuteye.
6) A Peter Pan-themed bean bag toss drew many youngsters looking to win prizes.
7) JSC Deputy Director George Abbey, Mission Operations’ Ron Epps and JSC Director Dr. Carolyn Huntoon and Hank Hartsfield, standing from left, were joined by Peggy Epps and Judy Hartsfield.
8) A perennial favorite of the picnic is the children’s petting zoo, which included a turkey this year. Q

Photos by Dale Martin and Ronnie Montgomery
Astronomers prepare for comet’s Jupiter plunge

The latest impact of Comet Shoemaker-Levy 9, the "sailing of pearls comet" that will collide with Jupiter this summer, was released Wednesday as scientists involved in the worldwide NASA/National Science Foundation (NSF) investigation discussed how they will study the event. The rapid release of information also released images depicting how the collision is expected to look from the ground and in space for what will be a remarkable opportunity to study the nature of comets and the interaction of Jupiter’s atmosphere and magnetosphere.

Thousands of planet watchers and amateur astronomers are setting up telescopes on the ground and in space for what will be a remarkable opportunity to study the nature of comets and the interaction of Jupiter’s atmosphere and magnetosphere.

For the first time in history, astronomers such as Eugene Shoemaker, of the U.S. Geological Survey, and discoverer of the comet, Heidi Hammel, of the Massachusetts Institute of Technology; Lucy McFadden, of the Goddard Space Flight Center in Maryland, College Park; and Harold Weaver through the devasting wells placed around the WETF when it was built were reconditioned prior to the project, one failed just before the pool was drilled. And on Sunday, May 1, a rattlesnake crawled into some electrical switch gear and all the power to the desalting wells was lost while the pool was still empty.

Plant Engineering Division employees had to work around the clock to keep the water flowing and the pool ready in just over an hour. Still, the power failure" "waste not, want not" for the event.

Once the pool was drained, Anchor Inc., the painting contractor, worked around the clock to control the ground water, blast the concrete pool dry and apply a new high-tech solvent free epoxy coating.

"With some invaluable assistance by people like Charles Lauritch of the Facilities Development Division and Ron Stone of the Plant Engineering Division's Construction Branch, both of whom were instrumental in the design and construction of the WETF, we made a go of it," Scott said. "When they say it can’t be done, it affords a great extra challenge — and makes such a project’s successful completion taste just that much sweeter."

The 384 recommendations and 2,122 actions designed to begin this journey of change. Seventy percent of the recommendations are already being implemented across NASA.

The goal of the NPR is not simply to weat the federal garden; it is to close it off, and to drain the water so that it can’t fill up again. Following the rules in one in which they are accountable for achieving results. To this end, the NPR recommended strengthening systems and stripping away layers of unnecessary regulations that stifle innovation. In place of such a system, we need guiding principles and a system that empowers employees to define their missions and holds them accountable for results.

The NPR report states that "effective entrepreneurship and innovation in government is about customer satisfaction." The NPR focuses on the need to listen to our customers and to maintain strong relationships and to manage them. The NPR report recommends using market dynamics to put customers first.

Empower employees to get results.

In successful governments, authority is decentralized. They use the strength, ideas, energy and creativity of all employees, not just a select few at the top. To reach this end, line employees and supervisors need to be trained and empowered to make decisions and solve problems.

"Summing up four years of entrepreneurship efforts, the NPR concludes that employees have become the driving force behind change. Each of us ultimately has the opportunity and responsibility to contribute to the reinvention of NASA. Given our current budget constraints, we must look for new ways to work more effectively, and to make the agency work better and more efficiently in the long term."

JSC employees can show off their line dancing skills at the country and western dance planned for June 25 at the Glinch Center.

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"Taxes and textbook costs are paid for by winning author James Michener. Employment benefits also will be available to closed government for less: An entrepreneurial government is cost less. Over the next several years, the NPR is expected to look from the ground and in space for what will be a remarkable opportunity to study the nature of comets and the interaction of Jupiter’s atmosphere and magnetosphere."

To date, 170 recommendations are expected to be trained and opportunity and responsibility to continue their activities. For information on these other recommendations, contact Mavis Ikenhans at x49644.