

PEOPLE on the **MOVE****Human Resources reports the following personnel changes:****Key Personnel Assignments**

Mitch Macha was selected as Chief of the Command, Control, and Planning Systems Development and Operations Branch, Advanced Operations Development Division, Mission Operations Directorate.

Eileen Stansbery was named Assistant Director, Office of Astromaterials Research and Exploration Science, Space and Life Sciences Directorate.

Additions to the Workforce

Brad Mudgett joins the Human Resources Development Branch, Human Resources Office, as a Personnel Programs Analyst.

David McMahon joins the Engineering Branch, Aircraft Operations Division, Flight Crew Operations Directorate, as an Aerospace Engineer.

Camille Clark joins the Vehicle Branch, Space Station Division, Safety, Reliability, and Quality Assurance Office, as an Aerospace Engineer.

John Lisle joins the Astromaterials Research Office, Space and Life Sciences Directorate, as a Space Scientist.

Promotions

Margarita Aranda was selected as the Lead Secretary in the Flight Director Office, Mission Operations Directorate.

Reassignments to Other Directorates

Lynn Vernon moves from the Mission Operations Directorate to the Office of the Chief Information Officer.

Marybeth Edeen moves from the Engineering Directorate to the International Space Station Program.

J. G. Holt moves from the Space Shuttle Program to the Space and Life Sciences Directorate.

Retirements

Oma Cross of the Public Affairs Office.

Carl Hohmann of the Engineering Directorate.

Rick Nygren of the International Space Station Program.

Resignations

Leena Joshi of the Mission Operations Directorate.

Carrie Leffert of the Mission Operations Directorate.

Todd Peters of the Engineering Directorate.

Jacque Talboy of the Center Operations Directorate.

Richard Bassett of the Space Shuttle Program.

For additional JSC news, please visit the *Cyberspace Roundup*:
<http://www.jsc.nasa.gov/pao/roundup/>

The Gilruth Center and the JSC Clinic join together

By **Lori Armstrong**

The next Health-Related Fitness Program begins Jan. 7, 2002, and is now accepting applicants. Since 1983, nearly 2,600 JSC employees and their spouses have participated in the Health-Related Fitness Program, provided by Occupational Health and Medicine Services at the Gilruth Center.

This program has been shown to improve fitness levels in nearly 100 percent of participants. Aerobic power is increased by 12 percent, muscular strength and endurance by 46 percent, flexibility by 8 percent and decreased body fat by approximately 10 percent.

A three-year research study demonstrated participants in the program significantly reduced risk factors for cardiovascular disease by decreasing body weight, body fat, blood pressure and total cholesterol and increasing aerobic power and HDL cholesterol - the "good" cholesterol. However, non-participants showed increases in cardiovascular risk factors over the same time period.

Currently, there are 45 people enrolled in the program, led by Larry Wier, EdD, Director of Health-Related Fitness, and Greta Ayers, MED. Typically, groups of 12-15 people meet three times per week for an educational 20-minute class, followed by an individually prescribed exercise program that is tailored to personal needs. Throughout the program, the Gilruth weight room is available to use for training to complement the outdoor walking/jogging trails.

Medical screening is required for participation in the Health-Related Fitness Program. The screening includes a treadmill test, also known as a Graded Exercise Test (GXT), for men over the age of 45 and women over age 55, or for applicants that have multiple risk factors for cardiovascular disease, such as high blood pressure, obesity, sedentary lifestyle, high blood lipids and family history.

The GXT involves walking on a treadmill at increasing inclines and speeds until at least 85 percent of the age-predicted maximum heart rate is reached. An electrocardiogram (ECG) is measured continually while exercising, so that cardiac abnormalities such as arrhythmias and potential arterial blockages may be detected.

If a serious ECG abnormality is detected, the treadmill test may be considered a positive test. Of more than 2,400 tests done at the JSC clinic over a recent three-year time period, about 87 percent were negative (no disease detected), and about 11 percent were either positive or borderline (disease detected or suspected). Two percent of the tests were indeterminate.

Of the tests that were positive or borderline, approximately 7 percent were false positive. A false positive means that an indication of suspected disease resulted from the treadmill study. However, with follow-up testing there was, in fact, no disease. The follow-up tests are invasive and more expensive, but enable the attending physician to view the blood flow through the coronary arteries during exercise.

Nationwide, the false positive record is about 12 percent. Dr. Brian Arenare, a physician in the cardiopulmonary lab said, "Our tests have been fairly accurate in detecting disease, yet in some instances a false positive treadmill test can be seen. The only way to be sure is to follow-up."

If the positive stress test results are supported by follow-up exams, the patient can then take the necessary steps to halt the advancement of life-threatening heart disease. Although the exercise and nutrition skills learned in the Health-Related Fitness Program are very helpful in preventing cardiovascular disease, other measures, such as a coronary stenting or a bypass, are sometimes needed to treat heart disease indicated by a positive GXT and follow-up exam.

For more information on the Health-Related Fitness Program and medical screening call Larry Wier at x30301.

NASA BRIEFS**NASA "WHY?" FILES TV SERIES WINS FIRST EMMY**

An innovative NASA educational television series that reaches millions of elementary students around the world was recognized by the National Academy of the Television Arts and Sciences with an Emmy for "Best Children's Series."

The Office of Education at NASA's Langley Research Center produces the series.

The NASA "Why?" Files introduces students in grades three through five to NASA; integrates mathematics, science and technology through the use of problem-based learning, scientific inquiry and the scientific method; and seeks to motivate students to become critical thinkers and active problem solvers.

Each program includes hands-on classroom and home activities, virtual field trips, research experts and Dr. "D," the tree-house detectives' next-door neighbor and mentor. The tree-house detectives are six ethnically diverse, inquisitive schoolchildren who investigate and solve a variety of everyday problems.

NASA SELECTS 10 INVESTIGATIONS FOR 2005 MARS RECONNAISSANCE ORBITER

NASA announced the selection of 10 scientific investigations as part of the 2005 Mars Reconnaissance Orbiter (MRO) mission. The 2005 MRO will carry six primary instruments that will greatly enhance the search for evidence of water, take images of objects about the size of a beach ball and search for future landing sites on the Martian surface. The investigations selected include two Principal Investigator (PI) Instrument Investigations and eight Facility Team Leader or Member Investigations.

The specific scientific objectives of the MRO mission include: researching the processes of present and past climate change on Mars, searching the surface and shallow-subsurface for sites that show evidence of water-related activity, investigating the processes that are responsible for the formation of the ubiquitous layers that have been observed on Mars and probing the shallow-subsurface to identify regions where three-dimensional layering could indicate the presence of ice or possibly lenses of liquid water.

The 2005 MRO mission represents an integrated scientific-observation platform that will bring together teams from universities, industry, NASA centers and other organizations. The spacecraft will be developed by Lockheed-Martin Astronautics, Denver and is scheduled for launch to Mars in August 2005.

The Mars Exploration Program at NASA's Jet Propulsion Laboratory (JPL) manages the MRO mission.

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Managing EditorMelissa Davismelissa.davis1@jsc.nasa.gov
 Assistant EditorAaron Wyatt

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