

universe

Jet Propulsion Laboratory

I n s i d e

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Lab hosts One NASA discussion

By Mark Whalen

JPL welcomed guests from throughout NASA Oct. 17 for a discussion of the One NASA initiative, a series of collaborative activities across the agency that will support all members of the NASA family.

Dr. Ghassem Asrar, manager of the agency's Earth Science Enterprise; Jim Kennedy, director of the Kennedy Space Center; and Johnny Stephenson, One NASA team lead from NASA Headquarters; joined JPL Director Dr. Charles Elachi for the town hall meeting and subsequent breakout session that covered the impact of NASA's Integrated Financial Management program and Full Cost Accounting at JPL.

"One NASA is not an end, it's a means to an end," Stephenson said. His hope is that in carrying out NASA's vision, employees embrace openness. "Sometimes the minority



From left, Johnny Stephenson, Dr. Ghassem Asrar, Dr. Charles Elachi and Jim Kennedy.

opinion has the best idea. Hopefully we don't get on a bandwagon and do something without hearing everyone."

Stephenson also called on employees "to provide the best capabilities, regardless of the geographic location" to accomplish a mission.

Asrar termed One NASA "A means by which we will assure we all pull together in the same direction." Clearly, the agency's goal is to continue the successful intercenter cooperation already underway.

"We have long employed our knowledge of Earth system properties to help us understand our neighbors in the solar system," Asrar said. "Optical, radar and laser technologies we have developed for Earth

sciences have been sent to other planets in our solar system; similarly, the technologies to study other planets are employed heavily in our Earth Observing System satellites."

Asrar praised JPL for leading NASA's efforts "to do for the oceans what we have done for the atmosphere," creating a capability to monitor the oceans and their role in the Earth's climate and water cycle.

Elachi also stressed the importance of interdependent work among the NASA centers. He thanked KSC staff for their assistance on launches of JPL missions, and also noted many of the Lab's ongoing collaborations with Goddard, Glenn, Ames, Langley and Marshall as solid evidence of One NASA at work.

"One NASA to me is simple: it just makes sense," Elachi said. "It is a spirit, an attitude, with which we approach our work with our 20,000 colleagues on the NASA team."

Another One NASA goal is the implementation of Full Cost Accounting throughout the agency. Owen Barwell, NASA Headquarters director of Full Cost Initiatives, provided a broad overview of the financial management system that allocates funds to flight projects.

JPL Associate Director and Chief Financial Officer Fred McNutt reviewed JPL's Full Cost Accounting system, which the Lab has utilized for years. It allows projects to budget, account for and manage all costs.

In support of the agency-wide effort, McNutt noted, a JPL team has recently conducted briefings on the Lab's financial business planning processes. The team, which includes McNutt along with Steve Proia, Jean Milbrandt and Diane Newmark of the Finance and Contract Management Division and Cory Stevens of the Project Business Management Division, has met with NASA Headquarters, Goddard, Ames, and Marshall, with a visit to Kennedy Space Center scheduled for late October.

"We fully support NASA's conversion to Full Cost Accounting," McNutt said. "At JPL, we can all be very proud of the accounting system we have here to identify project costs," McNutt said.

Photo by Richard Hasegawa / JPL Photolab

Study notes faster-melting glaciers

By Alan Buis

The Patagonia Icefields of Chile and Argentina, the largest non-Antarctic ice masses in the Southern Hemisphere, are thinning at an accelerating pace and now account for nearly 10 percent of global sea-level change from mountain glaciers, according to a new study by NASA and Chile's Centro de Estudios Cientificos.

JPL researcher Dr. Eric Rignot and two Chilean colleagues compared conventional topographic data from the 1970s and 1990s with data from JPL's Shuttle Radar Topography Mission, flown in February 2000. Their objective was to measure changes over time in the volumes of the 63 largest glaciers in the region.

Results of the study, published earlier this month in the journal Science, conclude the Patagonia Icefields lost ice at a rate equivalent to a sea level rise of 0.04 millimeters (0.0016 inches) per year during the period 1975 to 2000. This is equal to 9 percent of the total annual global sea-level rise from mountain glaciers, according to the 2001 Intergovernmental Panel on Climate Change Scientific Assessment. From 1995 to 2000, however, that rate of ice loss from the icefields more than doubled, to an equivalent sea level rise of 0.1 millimeters (0.004 inches) per year.

In comparison, Alaska's glaciers, which cover an area five times larger, account for about 30 percent of total annual global sea-level rise from mountain glaciers. So what's causing the increased Patagonia thinning?

Rignot and his colleagues concluded the answer is climate change, as evidenced by increased air temperatures and decreased precipitation over time. Still, those factors alone are not sufficient to explain the rapid thinning. The rest of the story appears to lie primarily in the unique dynamic response of the region's glaciers to climate change.

"The Patagonia Icefields are dominated by so-called 'calving' glaciers," Rignot said. "Such glaciers spawn icebergs into the ocean or lakes and have different dynamics from glaciers that end on land and melt at their front ends. Calving glaciers are more sensitive to climate change once pushed out of equilibrium, and make this region the fastest area of glacial retreat on Earth."

Rignot said scientists are particularly interested in studying how climate interacts with glaciers because it may be a good barometer of how the large ice sheets of Greenland and Antarctica will respond to future climate change.



Lucia Glacier, Southern Patagonia Icefield.



Photo courtesy of Jeff Osman and Shirley Wolf

A new Spanish dish

An Oct. 6 ceremony marked the completion of a new 34-meter antenna at the Deep Space Communication Complex in Madrid, Spain. JPL Director Dr. Charles Elachi and other guests from JPL and Ingenieria y Servicios Aeroespaciales, which manages the facility, participated in the ceremony.

The antenna and its associated electronics were scheduled to continue calibration and demonstration tracks through the end of the month. Routine operations are due to begin Nov. 1.

News Briefs



Tom Gavin

Gavin honored by AAS

THOMAS GAVIN, associate director of flight projects and mission success at JPL, is being honored as a fellow of the American Astronautical Society.

Gavin will receive the prestigious award at the society's national conference in Houston on Nov. 19. He is being recognized for his many unique contributions to astronautics during his 40-year career at JPL. "I owe this honor to the hard work of all the engineers at JPL who work on the flight projects," Gavin said.

Gavin has served in his current position since May 2001. Since joining JPL in 1962, he has held a variety of engineering and management positions, including mission assurance manager for Voyager and Galileo, spacecraft system manager for Cassini and deputy director for space and Earth science programs. Prior to his current assignment, he was the director for space science flight projects.

Lab supports space conference

More than 50 JPL personnel attended the three-day Space 2003 Conference and Exposition held last month in Long Beach. The event was organized by the American Institute of Aeronautics and Astronautics.

JPL Director DR. CHARLES ELACHI represented NASA at the conference and was joined by the directors of NASA's Ames, Goddard and Johnson centers, and NASA Headquarters representatives. Deputy Director EUGENE TATTINI participated in panels on education and on what's next in the utilization of space.

Overall, the conference was attended by about 1,000 people from the Department of Defense, industry, NASA and others. JPL will also participate in next year's conference, to be held in September in San Diego.

Order office amenities online

It's now easier for JPL customers to order office amenities and services thanks to a new online service center.

The Office Amenities and Services service center is available in the NBS toolkit under "Order Services" at <https://nbs.jpl.nasa.gov/login> and through the help desk at ext. 4-9895. Requests for such work as systems furniture installation, mounting computer keyboards at workstations, repair of systems furniture, and hanging white boards, posters, pictures, and signs inside offices will now be provided by Systechs, via the new online service center. Systechs will also provide seismic anchoring of wall cabinets and bookshelves. These services were previously provided by Jacobs Engineering.

The changeover was made during the recent transition of maintenance and operations services from Jacobs Engineering to All Star Corp. All Star will continue to provide maintenance services such as setting and changing workspace temperatures, ventilation problems, replacing burned-out lamps, office cleaning and trash pick up, plumbing problems, etc.

The new online service center promises more efficiency, less paper-

work and cost savings over previous methods used to order such services. Areas such as Procurement, Facilities, and Accounts Payable will also benefit.

Requests for engineering and design of all new construction and remodel work, to add or modify existing HVAC, plumbing, and electrical systems, office painting, carpentry services, replacement of carpeting or flooring, moving heavy equipment, and locksmith services should still be input to the original Facilities Services service center.

Flying Club offers membership meeting

The fall membership meeting of the JPL/Caltech Flying Club will be held Oct. 30, at Caltech, 201 E. Bridge at 7 p.m. Speaker for the meeting will be Major COLIN MILLER, an F-22 test pilot based at Edwards Air Force Base, who will give a presentation on his experiences as a test pilot in the plane.

Members and guests are welcome, especially those who may be interested in learning to fly or becoming a member of the club.

Another item of note for pilots, prospective pilots, and others interested in aviation is an Air Fair, to be held Nov. 8-9 at El Monte Airport from 9 a.m. to 5 p.m.

For more information, call BOB FERBER at ext. 4-3463.

Volleyball, anyone?

The Caltech Volleyball Club invites competitive players from the Caltech/JPL community to come out for the 2003-04 season. Men's and women's teams are being organized.

Interested individuals should be able to demonstrate proficiency in all primary volleyball skills; position players will be given preference. To sign up, contact DANIEL LOO at (626) 395-3203 or at Daniel.Loo@caltech.edu.

Mentors sought for video contest

NASA's Langley Research Center is sponsoring a video competition for K-12 students and seeks volunteer mentors for the student teams. The mentoring can be done by e-mail.

The NASA Center for Distance Learning, in cooperation with Christopher Newport University and the Institute of Electrical and Electronic Engineers, have created the VINNY™ award, named in honor of Leonardo da Vinci, a man famous for the creative use of science, technology, engineering, and mathematics to solve human problems. The contest was designed to help heighten and increase awareness of science, technology, engineering, and mathematics (STEM).

Teams made up of one teacher and three students will identify and research a global problem and discover ways that STEM can help solve it. Teams will combine skills in research, writing and creativity.

Entries will be accepted in English or Spanish. Winning one-minute videos will be exhibited on the NASA's Kids Science News Network at <http://ksnn.larc.nasa.gov>.

Anyone interested in being a mentor must register by Oct. 31 at <http://vinny.pcs.cnu.edu>.

Special Events Calendar

Ongoing Support Groups

Alcoholics Anonymous—Meetings are available. Call the Employee Assistance Program at ext. 4-3680 for time and location.

Caregivers Support Group—Meets the first Thursday of the month at noon in Building 167-111 (The Wellness Place). For more information, call the Employee Assistance Program at ext. 4-3680.

Codependents Anonymous—Meeting at noon every Wednesday. Call Occupational Health Services at ext. 4-3319.

Gay, Lesbian and Bisexual Group—Meets the first Friday and third Thursday of the month at noon in Building 111-117. Call the Employee Assistance Program at ext. 4-3680 or Randy Herrera at ext. 3-0664.

Parents Group for Children With Special Needs—Meets the second Thursday of the month at noon in the Wellness Place, Building 167-111.

Working Parents Support Group—Meets the third Thursday of the month at noon in Building 167-111. For more information, call the Employee Assistance Program at ext. 4-3680.

Saturday, October 25

Caltech Ballroom Dance Club—The midterm Halloween Party will be held in Winnett Lounge from 8 p.m. until midnight. Costumes are optional. Free admission. Dancing, fun and games and refreshments will be offered.

Flying Leap Players—This group creates the feel of live radio programming from the 1940s and '50s, and will perform at 8 p.m. in Caltech's Beckman Auditorium. Tickets are \$22, \$18 and \$14; high school age and younger, \$10. For more information, call (626) 395-4652.

Wednesday, October 29

Volunteer Professionals for Medical Advancement—Meeting at 10:30 a.m. at the Caltech Credit Union, 528 Foothill Blvd., La Cañada.

Thursday, October 30

JPL Golf Club—Meeting at noon in Building 306-302.

JPL Stories—Richard Shope, research analyst in the Science Research & Analysis Office, will present "From Outreach to Up-reach: My Space Science Adventures at JPL and NASA" at 4 p.m. in the Library, Building 111-104. Come hear about a metamorphosis from mime to education and outreach and then to science research. If you have questions about the story series or wish to participate, call Teresa Bailey at ext. 4-9233.

Fri., Oct. 31—Sun., Nov. 2

"Sweeney Todd"—The C.G. Bond melodrama will be performed by Theater

Arts at Caltech in Ramo Auditorium at 8 p.m. Friday and Saturday, 2 p.m. Sunday. Tickets are \$10 for JPL staff, \$5 for students. For more information, call (626) 395-4652.

Tuesday, November 4

JPL Gamers Club—Meeting at noon in Building 301-227.

JPL Genealogy Club—Meeting at noon in Building 301-271.

The Kennedys: America's Emerald Kings—Thomas Maier will discuss his new book at 8 p.m. in Caltech's Beckman Auditorium. Free admission. A book signing will follow. For more information, call (626) 395-4652.

Tues.-Wed., Nov. 4-5

"Macbeth"—JPL employees, retirees and family members are invited to audition for the Theater Arts at Caltech production of Shakespeare's classic. Auditions will be held in Caltech's Ramo Auditorium at 7:30 p.m., and will also be held Nov. 8 at 1:30 p.m. See <http://tacit.caltech.edu> for related information as it becomes available. The play will be performed during winter term on three consecutive weekends beginning Feb. 20.

Wednesday, November 5

Associated Retirees of JPL/Caltech—Meeting at 10 a.m. at the Caltech Credit Union, 528 Foothill Blvd., La Cañada.

"From PCs to Petaflops: The Future of Really Big Computers"—Thomas Sterling, visiting associate in the Center for Advanced Computing Research at Caltech, will deliver this free lecture at 8 p.m. in Beckman Auditorium. For more information, call (626) 395-4652.

Thursday, November 6

Caltech Women's Club—A Welcoming Coffee will be held from 11:30 a.m. to 1 p.m. in von Kármán Auditorium. For more information, call Carol Anderson at (818) 790-8175.

JPL Gun Club—Meeting at noon in Building 183-328.

Tues.-Wed., Nov. 11-12

Blood Drive—Held in von Kármán Auditorium Tuesday from 10 a.m. to 4 p.m. and Wednesday from 7 a.m. to 1 p.m. Sign up at the Occupational Health Services home page at http://eis/medical/blood_form.html or at the Red Cross site (<http://www.givelife.org>) that provides an automated e-mail reminder for your appointment. Click on "login," then "make appointment," then enter your e-mail address, birthdate and the sponsor code "JPL." Advance signups are available at Occupational Health Services, Building 310-202, prior to the blood drive. For last-minute signups, or to change your appointment, call the Red Cross at 626-960-6956, ext. 225.

JPLer re-enlists in Reserves

By Susan Braunheim-Kalogerakos

JPL Deputy Director Lt. Gen. Eugene Tattini, left, congratulates Eugene Ramos after swearing him in as a U.S. Air Force Reservist.

Deputy Lab Director General Eugene Tattini administered an oath of re-enlistment to JPLer and Air Force Technical Sergeant Eugene Ramos on Oct. 9.

Ramos asked Tattini to administer the oath because "anyone who has attained the rank of general has shown tremendous dedication to service for our country and thus deserves my utmost respect," Ramos said. "To have General Tattini, a JPLer like myself, conduct this event was simply wonderful."

General Tattini was glad to do it. "Although I've done this many dozens of times, I always consider it an honor to be asked to conduct a re-enlistment and to administer the oath," he said.

For the last 16 years Ramos has served as an Air Force Systems Administrator, similar to his job in JPL's Flight System Testbed. The first 10 of these years were served on active duty. He has been at JPL for almost four years.

Ramos decided to re-enlist because he wasn't ready to completely give up the military way of life. "After all, the Air Force

provided me with excellent training during the years I was on active duty, so this is my way of expressing loyalty and gratitude, being in the Reserves," he said.

The event took place in the Flight System Testbed near Ramos' office. Ramos' wife, Chie, and his sons Christian, 11, and Marc Eugene, 8, attended the ceremony along with many of his co-workers.

"As a member of the Air Force Reserve, Technical Sergeant Ramos is a citizen soldier who must balance his time between his family obligations, his JPL job and his military duties," Tattini said. "You really have to be committed to your country to do this. I thought it was marvelous that his family could attend and that his entire section turned out to participate in the ceremony."

"I am committing myself for another six years of service knowing very well what can happen in the world we live in today," Ramos said. "I have taken this oath four times in my military career and this time was by far the best because I did it in front of my family, friends and co-workers."

For the next six years Ramos will report to the 146th Airlift Wing in Port Hueneme on the first weekend of every month. For two weeks a year, he will report to Camp Smith in Hawaii.



Dutch Slager / JPL Photo Lab

A toast to BETTER COMMUNICATIONS

Toastmasters helps JPLers speak with more confidence

By Debbi Dachinger-Llata

A magazine poll once revealed the three greatest fears of Americans: death was third on the list and cancer second. The most overwhelming fear of all was public speaking.

Most people get nervous before performing in public, although public presentation offers opportunities for personal transformation and fulfillment. It is an essential element of many jobs, and in our personal lives we may be called upon to speak in front of others. So, how can we relax our fears and improve our speaking skills? A Toastmasters International Club meeting provides the answers.

The skills learned in Toastmasters are in demand in all aspects of our lives, and can be applied directly to one's workplace. Toastmasters International uses time-tested programs that are continually updated to meet each participant's needs. Self-paced programs allow you to progress as rapidly or gradually as your needs dictate. Toastmasters Club members learn to communicate in ways that enhance success in whatever life path they've chosen. A Toastmaster learns to be a better listener, easily lead teams and conduct meetings, and give and receive constructive evaluations. Toastmasters offers the opportunity to learn and practice the arts of speaking and leadership in a supportive environment.

Clubs are active in approximately 80 countries worldwide. They are inexpensive, personal improvement classes that build confidence and make one a better speaker over time. New members are advised to "stick with it," because every meeting is empowering. Working through the Toastmaster workbook gives participants continuous speaking and speech crafting experience. Many committed members become leaders or achieve advanced certificates.

JPL has its own Toastmasters Club. H. Al Richardson, who had a 31-year career at JPL (1942-1973), started the club at JPL in 1968 and has held a membership ever since. The octogenarian still attends on-Lab meetings and is a great mentor and contributor.

"The number one fear on the planet is public speaking, which means, if there was a funeral, most people would rather be in the casket than give the eulogy." —Jerry Seinfeld

"Toastmasters has increased my self-confidence, and has provided training and management skill experience applicable to other organizations," said Richardson, who currently serves as the club treasurer. "Learning effective people skills is paramount to successful leadership. My Toastmasters experience has involved speech communications, competitive speaking, training leaders, and serving in senior leadership positions."

Jim Raney, a mechanical systems technician in Section 387, found out about Toastmasters through Ken Broda, a NASA pilot and Toastmasters member, when Raney owned up to the fear of speaking in front of an audience. After Raney's fourth meeting, he noticed a marked change in his self-confidence and comfort level. Raney, who wouldn't even take speech classes in college, no longer carries the fear; he has been participating in Toastmasters since 1995 and now speaks enthusiastically to groups of people, while clearly enjoying himself.

Xiaochun (Adam) Wang, a JPL/Caltech

post-doctoral scholar, joined the club in 1997. English is his second language, and public speaking presented a great challenge. As a foreign student, he found the meetings to be positive and encouraging, enhancing his ability to learn American culture and share his Chinese culture. "When my manager promoted me to a supervisory position," said Wang, "he gave me a 'quick tips' book for new managers. In the chapter on communication, one of the tips recommended joining a Toastmasters Club, so I did."

Tyrone Little of the Finance and Contract Management Division joined Toastmasters due to nervousness about speaking up at meetings and social gatherings. "I would just sit quietly for fear that what I'd say might sound silly," he said. "Now if I have something to say I speak up. The important thing is that I'm communicating. I'm able to focus on the topic being discussed and not on the possible criticism. This breakthrough has helped me professionally and personally."

"Since joining Toastmasters, I have grown and overcome my fears to the point of volunteering as the master of ceremonies for different functions," said the current president of JPL's Toastmasters Club, Joy Hodges, who serves as the Space Interferometry Mission project administrator. "I recently gave a eulogy at a friend's funeral, which I would never have done before."

The typical meeting includes a session where impromptu speeches are given, with another for prepared speeches, usually five to seven minutes long, given by several members on specific subjects. Members also improve their skills through immediate peer evaluation on speakers' strengths and suggestions on areas for improvement.

Roger Carlson, a technical editor in Documentation, has attended Toastmasters for two years. "Documentation is often the Rodney Dangerfield of any major undertaking – it gets no respect," he said. "I now offer better presentations, resolve issues, highlight strong points and avoid embarrassment from missing key points. I now communicate more directly and succinctly."

Since Toastmasters began in 1924, more than 3 million members have benefited from the organization's communication and leadership programs. The Caltech/JPL Toastmasters Club is a successful group with twice-monthly meetings. Besides hearing and presenting impromptu talks and prepared speeches, members leave the meetings with constructive lessons and new confidence levels.

Each member works on public speaking skills at an individual pace. In the warm atmosphere of a Toastmasters Club, participants develop assertiveness, learn to motivate fellow workers, and build new and lasting friendships.

For more information about the club, visit <http://www.jplcaltechtoastmasters.com>

JPL Clubs

One in an occasional series

The JPL/Caltech Toastmasters Club meets the second and fourth Wednesday evenings of each month in the 167 conference room. Social time and dinner at 5 p.m. precede the meeting's beginning at 5:30. Meetings conclude at approximately 7:30. Anyone can attend a meeting as a guest at first. Non-JPL employees should contact Debbi Dachinger-Llata, vice president of membership, at ext. 3-3690, to arrange paperwork for the day(s) of your attendance.

Members of the Caltech/JPL Club attended a recent Humorous Speech Contest. From left to right, front row: H. Al Richardson, Tyrone Little, Taher Daud, Roger Carlson, Joy Hodges, and Debbi Dachinger-Llata; back row: Bill Lear, Ross Jones, Jim Raney.



Enroll for benefits by Oct. 31

The annual enrollment period for active employees continues through Oct. 31. Retiree enrollment will be held Nov. 3-21.

The JPL Benefits Office suggests that at a minimum, employees should:

- Review their dependent data online at <http://nbs.jpl.nasa.gov>.
- Review their primary care provider data on the "Employee & Dependent Form" of the annual enrollment web site if currently enrolled in the CIGNA or California Care health maintenance organization.
- Re-enroll in a Health Care or Dependent Care Spending account for 2004.

For questions regarding annual enrollment, call the Benefits Office at ext. 4-3760.

To assist employees in enrolling, the following briefings have been scheduled:

OCT. 28		
9 to 11 a.m.	167 conference room	Health Net Transition of Care
11 a.m. to 1 p.m.	von Kármán	An Overview of 2004 Plan Changes
3 to 5 p.m.	von Kármán	An Overview of 2004 Plan Changes
1:30 to 3 p.m.	167 conference room	Understanding Health Net's RX Program
OCT. 29		
9 to 11 a.m.	167 conference room	Understanding Health Net's RX Program
11 a.m. to 1 p.m.	167 conference room	Health Net Transition of Care
1 to 3 p.m.	167 conference room	Understanding Health Net's RX Program
3 to 5 p.m.	167 conference room	Health Net Transition of Care
OCT. 30		
9:30 a.m. to 3 p.m.	Mall	Medical/Dental questions and answers

Passings

ERNEST ALDOUS, 81, retired from Section 356, died Sept. 13.

Aldous worked at the Lab from 1966-86. He is survived by son Dave Aldous, stepdaughter Sandra, grandchildren Eric and Michelle Aldous, brother Harold and sister Mary Woods.

Memorial services were held Sept. 20 at Plymouth Village in Redlands.

Letters

I would like to express my appreciation and gratitude for the generous donation I received for my brother and also my son who passed away Nov. 2001.

Having experienced such a great loss, I never could have imagined the support and love I received from everyone at JPL. I would like to thank my friends, co-workers and JPL for the beautiful flowers.

Linda Love and family

With gratitude: Many thanks to my friends and colleagues offering their comfort and understanding at the untimely passing of my father-in-law and friend, world-renowned railroad photographer Herbert H. Johnson. Times like this are never easy; having friends like you makes it easier.

Karl Strauss, Section 344

Classifieds

For Sale

ARTWORK, C M Russell "Comming Thru The Rye," 350 lb., 26" x 29" x 21", signed bronze on marble base. \$3,200/obo. 248-8030.

BABY ITEMS: crib, wood, made in Italy, incl. height adjustable mattress, exc. cond. \$150/obo; car seat by Century, front-facing, up to 40 lbs., gd. cond., \$25/obo. 626/791-6101.

BASEBALL TRAINING NET, exc. cond., was \$120, now \$50. 626/850-4378.

BASKETBALL BACKBOARD, portable, good cond., \$65. 626/289-8799.

BUNK BEDS, twin on top, queen on bottom, cobalt blue metal frame, mattresses included, exc. cond., \$200 firm. 626/289 8799.

CART for computer or TV, 37.5" w x 29.5" h x 19.5" d, oak, 2 slide-out shelves, casters, good cond., \$60/obo. 952-1303.

CART/DESK for computer, O'Sullivan model 61925, mobile, cherry veneer, exc. cond., bought for \$120, sell for best offer. 626/449-0997.

CHAIRS (2), upholstered tub-style by RB Furniture, \$25/each; TYPEWRITER, Smith-Corona electric portable, w/spell-check, \$25;

CARD TABLE, Samsonite metal, \$10; all in excellent condition. 240-8384.

CHEST, Bombay, brand new, 3-drawer, med. wood, curved front & legs, very faint flowers on front, can't use or return due to 24 hr. store return policy, pd. \$380, sell for \$300/obo. 249-0573.

CHINA CABINET & BUFFET, oak wood, in excellent condition, \$550/obo. 957-8463.

CONCERT TICKETS, 2, L.A. Philharmonic; Nov. 1, 8 p.m.; Walt Disney Concert Hall; Mahler: Symph. #2, Resurrection; \$35 ea.; Terrace Vw., Row A, 251-252. 626/564-1654, Heather.

CRIB, Jenny Lind by Evenflo, oak finish, 4-position mattress height, easy-access drop side, rolling casters, Target sells new \$110 w/o mattress, selling used, vg cond., including mattress for only \$50. 661/254-7366, Betsy.

DIAMOND CHIP RING, ladies 10YG, with gift box, \$90; CELL PHONE, Nokia 5190 with car charger and Body Glove cover, \$25; VIDEO GAME, Gameboy, color, w/backup charger and Pokemon, silver. \$50/obo. 897-1203, Valerie.

DINING TABLE, solid oak "Wambold," with 4 chairs (modern styling), 84" L x 42" W x 29" H, \$599; AUDIO/VIDEO CABINET, oak, with dual glass doors 48" L x 17" W x 32" H, \$199. 661/287-1514.

DINING TABLE & CHAIRS, seats 10, beveled glass top, 10 black lacquered chairs, excellent condition. \$450/obo. 957-8463.

DRYER, GE gas, exc. cond., large capacity, front loader, 2 years old with low amount of usage; need to sell, new house has electrical connections, \$175/obo. 626/568-3310.

DRYER, GE, heavy duty extra large capacity, five-cycle automatic, vg cond., \$120; COUCH, beautiful 94" long white satin, exc. cond., like new, \$250. 545-0455.

ENCYCLOPEDIA, Britannica, complete set, publ. 1971, exc. cond., \$45. 626/850-4378.

GUITAR, Martin, classical, backpacker/travel,

solid-spruce, nylon-string, 1 yr. old, exc. cond., w/padded case, \$100/obo. 626/797-3196.

GUITAR, Yamaha EG112C, electric, blk., exc. cond., less than a year old, includes gig-bag, strap and whammy bar, \$150. 249-2420.

HOCKEY TICKETS (2), Kings, season ticket holder selling individual games for lower bowl, \$100. 626/852-0821.

KEY BLANKS, Kawasaki ZR-7, \$12 each. 626/355-1209.

MOVING SALE: Sanyo refrigerator, \$150; 8" futon mattress & wooden frame, \$150; wooden dining set with 4 chairs, \$60; misc. kitchen & microwave rack, \$25; vacuum, \$30; 4-pc. all-purpose pot, \$10; ceramic steam pot, \$25; \$4 items: toaster oven, mirror (13" x 49"), Vicks vaporizer, garment rack, iron board. 626/405-1539.

MOVING SALE: queen mattress (S50) single (S25) futon (Ikea, couch/2-p-bed, 1 y.o., \$150); desk (S50), PC (S200), TV (S20), shelves (Ikea, wood, 6 m.o., 3.5 x 2 x 6 ft., \$50), refrigerator (S75), din. table (S25), chairs (Ikea, 4 for \$20), lamps, cooking util., dishes. 957-2437.

MOVING SALE: small refrig., Sanyo, 4.3 cu. ft. \$100; 15" TV \$30; VCR \$25; floor lamp \$20; table lamp \$10; phone incl. message recorder \$15; everything 1.5 yrs old. 626/577-4957.

MOVING SALE: dining table, cherry veneer w/6 chairs, \$400; kitchen table + 4 chairs, \$100; sm. refrig., 7 cu ft., \$80. 310/795-8949, Mauro.

MOVING SALE: queen mattress w/spring box & frame, \$150; stereo, Aiwa, w/4 speakers; \$60; fan heater w/humidifier system, \$25; scanner, HP, \$40; computer desk, \$25; blen-der, \$10; bookshelf, \$8; entertaining center, \$8; standing fan, \$10; water filtration pitcher with 2 filters, Brita, never been used, \$18. 626/405-1539.

MOVING SALE: meticulous owner moving to NYC: Stuffed chair, 2-drawer wood file w/desk extension, ironing board; color TV, JVC 13;" 18.7 cu.ft. side-by-side GE refrig.; Ikea TV stand; Ikea floor lamp; desk chair; Eureka Whirlwind Hepa upright vacuum; ankle weights; drinking glasses; floral dish set, Braun handheld mixer/combo; Black & Decker Scum-Buster; metal clothes drying rack; 30 x 50" beige rug; various kitchen utensils. E-mail thobedk@hotmail.com for pictures/prices.

PIANO, good cond., \$200/obo. 626/287-1025.

PIANO, Yamaha C3 grand, 6 ft., polished ebony, exc. cond., MSRP \$32,495, sacrifice, \$11,000. 790-3899.

POOL FILTER GRIDS, will fit 60' x 60' Titan filter, used, \$175. 661/645-0248, Joe.

STROLLER for baby, Aprica, teal green, exc. cond., was \$299, now \$100. 626/850-4378.

TREADMILL, Trainium by DP, personalized workout, incline control, programmable speed, stop key/safety switch, air-step cushion deck, calorie count, \$200; COFFEE TABLE FRAME, cast iron, dark brown, 4'x 4', needs glass, \$50. 244-8822.

TREES, red banana plant, 5' tall, \$60/obo; fish tail, 6' tall, \$80/obo; ficus, 10' tall, braided, in 30" plastic pot, \$250/obo; CERAMIC BOWL, gray, 2" diameter with planted geraniums, \$40/obo. 626/791-6101.

VACUUM, Hoover SteamVac V2 carpet cleaner, only used once, \$150. 626/578-9720.

WHEELCHAIR, 3-wheeled, manual, \$150. 626/578-9720.

WHEELCHAIR, 4-wheeled, manual, \$150. 626/578-9720.

cassette, alloy wheels, new tires 14K, free rotation contract, 1 owner, zero accidents, vg cond., \$1,800/obo. 626/969-3479.

'84 HONDA CRX, 5-spd, blue, 124K mi., runs great, new tires, replaceable sun cracked fender, no a/c, \$700. 653-9506.

LORINSER wheels for Mercedes, 16" x 8", chrome plated, w/225/60R16 tires & lug bolts, 4 wheels, \$95/ea. 517-2016, after 5 pm.

'93 MERCEDES E-300, 6 cyl., 3.0 L, auto, 133K mi., hunter green metallic exterior, cream leather interior, custom sound system, a/c, power windows/alarm, garage kept, owner has service records, vg cond., beautiful drive, \$7,500/obo. 626/797-6824.

'93 MERCEDES 190E 2.6, 83,000, dark green w/tan interior, 4-dr. sedan, automatic, power steering/locks/windows/seats, sun & moonroof, am/fm stereo tape w/5-disc CD changer, new tires, great cond., luxurious and sturdy car, \$8,600. thobedk@hotmail.com for picture.

'95 NISSAN Quest GXE minivan, 1 owner, clean, exc. cond., gold color, moonroof, alloy wheels, ABS brakes, dual a/c, keyless entry, 76K mi., registration pd. till next Sept., \$7,200/obo. 626/524-5396, David.

'93 NISSAN 240SX, black, 2 dr. w/hatchback, 146K mi., good cond., orig. owner, all records, \$2,700. 248-0258.

'71 OLDSMOBILE Cutlass Supreme, fresh 350 with cam/intake/carb/exhaust, new transmission, B&M floor shifter, mag. wheels, clean, \$10,000/obo. 807-7718, Mike.

'97 SAAB 900SE, convertible turbo, blk., tan leather int., 4 cyl., auto, a/c, cruise, am/fm, cassette, CD changer, pwr. steering/windows/locks, dual power seats, heated seats, dual air bags, 89K mi., \$13,500. 408/981-9020.

'87 SUZUKI Samauri, 4wd, 110K mi., red w/white soft top, nice, clean, well-maintained, mostly kept inside, would be ideal for towing behind motor home, \$2,100. 993-3399.

TIRES (4), Goodyear Eagle P285 60R16, w/Am. racing rims, 6-lug, \$400/obo. 897-1203.

'02 TOYOTA Highlander, limited, 29,700 mi., moonroof, loaded, CD player, dark blue, exc. cond., \$19,750. 909/599-3230.

'82 TOYOTA Celica GT liftback, clean title, auto, white exterior w/blue side stripes, blue interior, power steering/brakes/side mirrors, tint, cass/radio, factory alloy wheels, good tires & battery, alarm, recently serviced trans, registered tags till 5/04, vg cond., strong 2.4L engine & trans @ 167.5K mi., great town car, \$1,900/obo. 626/358-7705.

UNLOADER, 18HP Case 1816 "skidsteer" with role over cage, electric starter, 20-gal. gas tank, 36" bucket, brush fork, excavation teeth, shop manual, spare hydraulic motors & parts, air filters, needs new tires and snow chains, starts good, \$2,000/obo. 248-8030.

'02 VOLOCI electric bike, 30 mph, 25-mile range, 1 yr old, 79 lbs, \$2,100/obo. 550-7555.

'00 VW Jetta, 1.8T turbo, blk w/blk leather, 6 CD, moon roof, 5-spd, loaded, very clean, like new, serviced regularly, 56K mi., moving, must sell ASAP, \$12,000/obo. <http://shard.servebeer.com/~iceman/jetta/jetta.html>. 626/744-9941.

Free

MIRROR PANEL, 19 3/8" x 77"; glass panel, 12 3/4" x 68." 626/799-7593.

POOL, above ground, 15' x 24', with aluminum deck, needs vinyl liner. 952-9467.

PUPPY, half Dalmatian, half Weimaraner, last of 13 puppies, 9 mo. old, very beautiful. Rastadub1@hotmail.com.

Wanted

FEMALE SINGER for car. band, avg. band age is 35; originals, classic/hard rock, Beatles, blues; practice close to JPL. reverb2020@yahoo.com.

SPACE INFORMATION/memorabilia from U.S. & other countries, past & present, for personal use. 790-8523, Marc Rayman.

VANPOOL RIDERS for Lancaster/Palmdale/Littlerock/Acton area; van leaves Angeles Forest Park & Ride 5:45 a.m., leaves JPL 4:10 p.m.; cost \$155 or \$8/day. Ext. 3-0505, Frank Shanklin.

VOLLEYBALL PLAYERS, co-ed, no beginners please; Tues. nights 8-10:00 at Eagle Rock High School; \$4/nt. 956-1744, Barbara.

For Rent

BALDWIN PARK, seeking 2 roommates, females preferred, to share condo w/balcony, all utilities pd. except electricity. 626/327-2155.

GLENDALE guest house, 1 bd., 1 ba., stove, washer/dryer, 11 mi. from JPL, \$895 + elec., water/gas included. 240-0131.

GLENDALE house to share, Verdugo Woodlands area, bd. and ba., male preferred, non-smoker, 5 miles to JPL, \$300 + misc. extras. 241-5419.

LA CRESCENTA area, 1-bdrm. house, \$1,100. 248-3640.

MONROVIA, room in 2-story, 3-bd., 1.5 ba., apt. to share w/1 person, 30 min./JPL at rush hour, spacious, private, furn. bd., lg. closet, own bathrm.; share shower/living rm./kitchen privileges/carport/laundry rm./pool, gd. neighbors, safe, quiet; credit check. \$565 incl. util. + \$400 deposit. 626/358-7705, Mahmood.

PASADENA townhome-style apts., furnished and unfurnished, 2 bd., 1.5 ba., patio, dish-washer, central a/c, new carpet & floors, refrigerator & stove, laundry, parking, close to Caltech & JPL; furnished \$1,295, unfurn. \$1,350 + util. 626/577-3060 ext. 14, Dennis.

PASADENA apt. to share w/JPLers, furnished, 3 bd., 3 ba., townhome-style, patio, central a/c, laundry, close to Caltech & JPL, \$625 + util. 626/577-3060 ext. 14, Dennis.

PASADENA townhouse, lg. 3 bd., 2.5 ba., cent. air and heat, washer/dryer hookups, fireplace, walk to Goldline station, new carpet/linoleum/stove, covered parking, no smoking or pets, water & trash incl., \$1,800. 626/394-5946.

PASADENA house, 3 bd., 2 ba., newly remodeled, quiet neighborhood, walk to shops/Goldline/PCC, water/trash/gardner/parking included, \$1,850. 590-2793.

SIERRA MADRE townhome-style apt. to share, 1,000 sq. ft., lg. patio, 2 bd., 1.5 ba., quiet street, garage parking, washer/dryer for this unit, \$605 + 1/2 util. 626/355-4838.

SUNLAND room in condo, fully furn., share kitchen/bath/laundry, garage parking, a/c, fireplace, pool, Jacz., tennis court, 10 mi./JPL, female preferred, non-smoking, \$500 incl. util., \$400 security deposit, references. 352-3112.

SUNLAND, Shadow Hills area, horse ranch property, 3 bd., 2 ba., 5.5 acres, quiet, horse corral, view from 2nd level, pet OK, available 11/1, \$1,695. 626/584-6526.

SYLMAR home, new 5 bd., 3 ba., rent to own, fireplace, Jacuzzi, bathtub view from 2nd level, spacious, fully landscaped, \$10K credit to you after 1 year, \$2,395. 626/584-6526.

TEMPLE CITY house, 2 bd., 1 ba.; water/trash/gardner/alarm system paid, T.C. schools, \$1,200. 626/792-1601, Mrs. D.

Real Estate

SAN DIMAS, best location in Via Verde area, 2 story, 5 bd., 3 ba., L/R, D/R, FR with fp, office or 6th bd., 2,800 sq. ft., 1/2 acre view lot on 2 fairways of golf course, fully upgraded, must see, \$659K. 626/339-5511 Bill/Kaaren.