Rapid changes seen in Earth’s polar ice sheets

By Alan Buis

Airborne measurements allow views of the frozen world on a grander scale

“Earth’s polar ice sheets are changing over relatively short time scales, that is, decades versus thousands of years,” said Dr. Eric Rignot of JPL and Dr. Robert Thomas of EGG Services at NASA’s Wallops Flight Facility, Wallops Island, Va. Their study, published last month in the journal Science, reviews progress in measuring changes in ice sheet thickness based upon technical advances and observations made over the past decade.

“Earth’s polar ice sheets are changing over relatively short time scales, that is, decades versus thousands of years,” said Rignot. Thomas added that today’s more precise, widespread measurements tell us rapid changes are common. “These observations run counter to much accepted wisdom about ice sheets, which, lacking modern observational capabilities, was largely based on ‘steady-state’ assumptions,” Thomas said.

“Remote sensing is allowing researchers to look at polar processes on continental scales and in greater detail than before,” said Dr. Waileed Abdalati, Cryospheric Program manager at NASA Headquarters. “Closer examination using even broader advanced remote sensing techniques, including NASA’s upcoming Ice, Cloud and Land Elevation Satellite, the Gravity Recovery and Climate Experiment and Europe’s planned CryoSat mission—combined with widespread interferometric synthetic aperture radar (InSAR) data, ice thickness surveys and ground-based measurements—will enable us to estimate ice sheet mass balance for Greenland and Antarctica even more precisely.”

Rignot said understanding how polar ice sheets evolve is vital to society. “The Antarctic and Greenland ice sheets together hold enough ice to raise sea level by 70 meters (230 feet),” he said. “Even a small imbalance between snowfall and discharge of ice and meltwater into the ocean could be a major contributor to the current sea level rise rate of 1.8 millimeters (0.07 inches) a year and impact ocean circulation and climate. During past periods of rapid deglaciation, ice sheet melting raised sea level orders of magnitude faster than today. This is the real threat of the ice sheets.”

Rignot and Thomas’ review summarizes current progress for two methods of measuring changes in ice sheet thickness: the mass budget method, which compares losses by melting and ice discharge with total net input from snow accumulation; and measuring elevation changes over time. These methods use various space remote sensing resources, such as laser and radar altimetry, the Global Positioning System and InSAR.

The review reports Greenland’s ice sheet is losing 50 cubic kilometers (12 cubic miles) of mass a year due to rapid thinning near its coasts. That’s enough to raise sea level 0.13 millimeters (0.005 inches) annually. “Rapid coastal thinning cannot be explained by a few warm summers and is attributed to a dynamic ice sheet response,” Rignot said. "A possible contributor to the observed trend is increased lubrication from additional surface melt water reaching glacier beds through crevasses and meltouts."

Rignot says the mass balance in Antarctica is much harder to calculate because the ice sheet is far larger, more remote and not well covered by existing key satellites. The researchers calculated net ice gains or losses for 33 Antarctic glaciers, including 25 of the 30 largest ice producers. The West Antarctic ice sheet was found to be thickening in the west, thinning rapidly in the north, and probably losing mass overall by roughly 65 cubic kilometers (roughly 15.5 cubic miles) a year, enough to raise sea level by about 0.16 millimeters (0.006 inches) a year. InSAR observations show several major glaciers that are accelerating and contributing to sea level rise. Radar altimetry shows ice shelves in the Amundsen Sea Embayment are rapidly thinning, possibly in reaction to a warmer ocean, as suggested by recent oceanographic data. Melting of ice shelf bottoms is far larger than expected here due to intrusion of warm water on the continental shelf, implying a larger interplay of ice and ocean in ice sheet evolution. Rignot said little is known about the mass balance of Antarctica’s Peninsula mountain glaciers, which receive a quarter of Antarctica’s snow accumulation. The peninsula has warmed 2 to 3 degrees Celsius (3.6 to 5.4 degrees Fahrenheit) over the past 50 years, causing rapid thinning, enhanced melting and rapid disintegration of its ice shelves. The peninsula is a unique laboratory to determine whether retreating ice shelves can induce faster ice sheet flow and raise global sea level, a hypothesis formulated decades ago but still disputed. Recent results show large glacier acceleration in response to ice shelf collapse. If ice shelves do buttress glaciers, the Antarctic ice sheet’s contribution to sea level rise could be much larger in the future than previously believed. Illustrations related to this study may be viewed at http://www.jpl.nasa.gov/images/antarctica.
News

Software architects chosen

Four JPL employees have been selected to participate in the fiscal year 2003 Software Architect program. Affiliated by the Center for Space Mission Information and Software Systems, the program’s new participants are Leonard Chanest (Section 368), John Diehl (382) and Yu-Wen Tang (368). Michael Heflin (335) is this year’s alternate.

The Software Architect program is a half-time, one-year paid internship intended to help train JPL’s next generation of software architects, system engineers and project managers. Participants will receive instruction in core concepts, principles, and state-of-the-art methods in software architectures. On-the-job training and mentoring will take place in a variety of organizations to expose participants to software architectures and mission domains at JPL, and to foster communication and cooperation among them.

Chanest is a knowledge engineer and the configuration manager for Mars Exploration Rovers’ Activity Plan Generation tool (a ground-based science activity planning tool). He earned his bachelor’s degree in computer science from Rensselaer Polytechnic Institute and has been at JPL for eight years.

Dielh is the software lead for the imaging science subsystem and visual infrared mapping spectrometer (VIMS) instruments for the Cassini Grand Divisions Project. He is also a systems engineer in the Cassini Multimedia Image Processing System. He has a master’s degree in mathematics from Pennsylvania State University and 12 years of experience at JPL.

Tang is the acting software chair on the Advanced Projects Design Team (Team X) of the Project Design Center. He has a doctorate in computer engineering from USC and has been with JPL for 10 years.

Heflin has a doctorate in physics from the Massachusetts Institute of Technology and is a co-patent holder of the award-winning GPS-Inferred Positioning System and Orbit Analysis Simulation Software (GIPSY) software package developed at JPL. He has been with JPL for 12 years.

News Briefs

Comets break up far and near

Some comets may break apart over and over again in the farthest reaches of the solar system, challenging the theory that comets break up only occasionally and not too far from the Sun, says JPL’s planetary scientist researchDr. ZDENĚK SEKANINA.

A system of comets called “sungraz- ers” named for their orbit closely brushing the Sun, reveals important clues about how these bodies might break up. Most sungrazing comets are thought to be the smallest could be less than 10 meters (30 feet) across—and move in a highly-like formation of comets that pass near the Sun and disintegrate. Sekanina reports in the Sept. 10 issue of the Astrophysical Journal that many sungrazer comets arrive at the Sun in clusters and on parallel paths. He emphasizes that such tiny frag- ments could have come so close to the Sun on an earlier trip. Therefore, the parents of these tiny fragments could be an important part of a comets natural life cycle.


Women’s Club offers activities

The Caltech Women’s Club is spon- soring a number of get-togethers at Tournament Park that are available to JPL staff.

Preschool Playgroup for children ages 1-4 is held Tuesdays from 10 a.m. to noon every Wednesday. Call at ext. 6380 or Randy Herrera at 3-6315.

Working Parents Support Group—Meets the third 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.

Special Events Calendar

From Caltech to Low Earth Orbit—New Eyes for Hubbert—Astronaut Dr. John Grunsfeld will speak at 11:30 a.m. in Von Kármán Auditorium in talk sponsored by the Caltech Management Association and the JPL Space Flight Awareness Program. Dr. Grunsfeld, only Caltech faculty member to have flown a space mission, is a Senior Research Fellow at Caltech from 1989 to 1992 in the Marine Biology Laboratory.

Saturday, Sept. 21

(2) JPL Family Day—Astronaut Dr. John Grunsfeld will appear in Von Kármán Auditorium during morning hours of the event, which runs from 10 a.m. to 3 p.m. Free lunch will be served at the mall, and numerous Lab facilities will be available for touring. Tickets are required of JPL employees and their guests, and must be picked up by Sept. 13. For more information, call Nancy Kapell, ext. 4-9432.

Sunday, September 22

The Secret Origins of the Bible—Author Tim Callahan will speak at this Skeptics Society-sponsored event at 2 p.m. in Caltech’s Baxter Lecture Hall. Donation for $8, no nonmembers. For information, call (626) 395-4552.

Wednesday, September 25

Investment Advice—a Fidelity repre- sentative will be available for one-on-one counseling in T1720-131. To schedule an appointment, call Fidelity at (800) 642-7131.

(2) JPL Tailgaters Club—Meeting at 5 p.m. in the 167 conference room.

(3) The Career Center at ext. 4-2095 for information.

Thursday, September 26

Estate Planning Workshop—You’ve have worked hard for what you have, now learn how to preserve as much of your assets as possible. This Fidelity workshop from 10 a.m. to noon in Building 180-101 will cover estate planning tools, implications of beneficiary designations, and how the newest tax legislation can help protect your estate. Seating is limited. For a reservation, call Fidelity at (800) 642-7131.

(2) Golf Club—Meeting at noon in Building 306-302.

(2) JPL Stories—“The True Story Behind the Mars Pathfinder Success” will be presented by Bob Manning (Pathfinder flight system chief engineer), Brian Mulhead (flight system manager and project manager), and Richard Cook (mission manager), from 4 to 5 p.m. in the Library Auditorium. This talk was rescheduled from last month. For questions about the JPL Stories series, call Teresa Bailey at ext. 4-9293.

Friday, September 27

Investment Advice—a TIAA/CREF representative will be available for one-on-one counseling. To schedule an appointment, call TIAA/CREF online at tiaacref.com or at (877) 309-3360, ext. 2614.
Lab proposals selected for development

Five proposals from JPL were among those selected last month by NASA for the component technology development program in support of the Earth Science Enterprise. The Advanced Component Technology Program will provide core component and subsystem technology developments that will enable new science measurements and visionary concepts.

The Office of Earth Science awarded 14 proposals, for a total value over a three-year period of approximately $13 million, through the Earth Science Technology Office at Goddard Space Flight Center, Greenbelt, Md. The five JPL investigators and their proposals are:

- Tien-Hsin Chao (Electro-Optic Imaging Fourier Transform Spectrometer); Wendy Edelstein (Ultra-High Efficiency L-Band Transmit/Receive Modules for Large Aperture Scanning Antennas); Lute Maleki (Quantum Gravity Gradiometer for Sub-Surface Mapping); Alina Moussessian (T/R Membranes for Large Aperture Scanning Antennas); and Simon Yueh (Compact, Lightweight Dual-Frequency Microstrip Antenna Feed for Future Soil Moisture and Sea Surface Salinity Missions).

The objectives of the Advanced Component Technology Program are to identify, develop and demonstrate component and subsystem technologies that reduce the risk, cost, size and development time for Earth-observing instruments, platforms and information systems, and enable new Earth-observation measurements. Critical to this design is the relationship between the various technology development programs that the Earth Science Enterprise has available to enable missions. Within this development environment, the Advanced Component Technology Program is complementary to the Instrument Incubator Program for instruments and the New Millennium Program for space flight validation. The overall program is designed to bring components and subsystems to a demonstrated technology readiness level for infusion into future science missions.

For more information, log on to http://research.hq.nasa.gov/code_ylla/current/NRA-02-OES-01/winners.html#Top.

Three awarded for in-space propulsion

In the future, NASA’s fleet of robotic spacecraft might cruise among the planets like sailboats in space, or perhaps they will be propelled from planet to planet by advanced ion engines.

NASA’s Office of Science announced in late August that those technologies and other advanced propulsion ideas have been selected for development as part of a suite of in-space propulsion technologies. Development of these technologies will provide giant steps in capability for NASA to conduct future planetary missions, especially to the outer planets of Jupiter and beyond.

Three principal investigators from JPL were among those chosen by NASA: James Polk (Development of a 65 cm, 20 kW, Xenon Ion Thruster); Jack Mordt (Segmented Thermoelectric Multicoupled Space Reactor Power System); and Bobby Williams, (Development of an Integrated Set of Solar Sail Simulation Tools).

The awards, part of the In-Space Propulsion Program, cover four propulsion technology areas: aerocapture, high-power electric propulsion for nuclear systems, power conversion technologies for nuclear electric propulsion, and solar sails.

Beginning in fiscal year 2003, the propulsion technologies unique to nuclear power systems will be managed under NASA’s Nuclear Systems Initiative, including the high-power electric propulsion and power conversion technologies.

The total anticipated budget for high-power electric propulsion and power conversion in fiscal 2002 is $1 million, $16 million in fiscal 2003, and $16 million in fiscal 2004, contingent on budget approval. Total anticipated budget for proposed work in the aerocapture and solar sail areas under the In-Space Propulsion Program in fiscal 2002 is $2 million, $17 million in fiscal 2003, and $18 million in fiscal 2004, contingent on budget approval.

For more information about these technologies, visit http://spacescience.nasa.gov/news/index.htm

L I V I N G with DEER in our Midst

• Be aware that there is wildlife on Lab at all times.

• Watch for deer and other wildlife at dawn, dusk, and the first few hours of darkness.

• Be particularly cautious in mid-to-late-fall, as this is deer-breeding season.

• Head “deer crossing” warning signs and reduce speed.

• If you see one deer cross, expect others.

• At night, watch for reflection from headlights when driving a car. Headlights reflect in the eyes of the deer, often appearing to be glowing red orbs.

• If a deer “freezes” in the headlights of your car, stop and try turning your lights off and on.

• The speed limit on Lab for cars and bicycles is 20 mph on the site and 10 mph in the parking lots.

Deer are very often seen on the mall (top) and in the hills, but can sometimes be seen in the most unexpected places on Lab, such as the stairs (above) or roof (bottom) of Building 111.

40 years ago...

“Joyce Anderson and Joanne McMaster (r) are introduced to Lab by Fred Vogel, Supervisor, Automotive Repair Shop and Dispatch Office. The distaff additions to Transportation alternate driving “Joyce Anderson and Joanne McMaster (r) are introduced to Lab by Fred Vogel, Supervisor, Automotive Repair Shop and Dispatch Office. The distaff additions to Transportation alternate driving the Visitor Bus, which shuttles visitors from the parking lot to the main gate, and chaufferring, making ‘short haul’ deliveries and pickups on Lab. The girls, making a neat appearance in their JPL uniforms, are a welcome addition to the Lab.”
Classified ads will be available the day before Universe is published at: http://www.jpl.nasa.gov

Letters

I would like to thank all of my friends and colleagues once again for the tremendous support I received during my tenure as Director at JPL. I have truly enjoyed the experience of working with so many dedicated and talented individuals. I look forward to seeing you at our various events and continue to enjoy our interstellar space. Again, thank you.

Ed Stone

I would like to thank my co-workers and the ERC for the kindness expressed at the passing of my father. His presence has guided and helped me through a tough time.

Les Bitter

Classifieds

For Sale

APPLIANCE for bar grill, Sun Belt BBQ (assorted sizes), $25. 626/992-1244.

JPL Deputy Director Eugene Tattini presents a gift to Takashi Aoyama during the letter’s visit to JPL.

Takashi Aoyama, senior vice minister of the Japanese Ministry of Education, Science, Sport and Science Technology, dropped by JPL for a last visit to Los Angeles.

The request for the visit came from the Los Angeles Office of the National Space Development Agency (NASDA) of Japan and from the Japanese Society for the Promotion of Science.

The mission supervises NASDA and provides most of their funds. Aoyama’s responsibilities include science and technology issues, including space issues. He is in charge of the merger of three space-related institutes in Japan; the merger is expected next year.

While at JPL, Aoyama received an overview of the Lab from JPL Deputy Eugene Tattini and discussed Earth science with Earth and Science Technology and Technology Program, and Space Flight Operations Facility.

JPL Deputy Director Eugene Tattini presents a gift to Takashi Aoyama during the letter’s visit to JPL.

VLC/EBT PLAYERS, cord, as begins players, $5. 352-0118, Family.

For Rent

ALTIMA condo for lease, minutes from JPL. 3 bed., 1.5 bath, close to Clara. Appliances, central air & heat, community pool, 2-car garage, 2 secure parking. 626/596-1888

ALSER trailer, 1 / 1, 2 dr., 4-wd., $280/ month during a visit to Los Angeles.

JPL Deputy Eugene Tattini and discussed Earth science with Earth

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ALSER trailer, 1 / 1, 2 dr., 4-wd., $280/ month during a visit to Los Angeles.
JPL scientists have confirmed the first known capture of an object into Earth orbit from a Sun-centered orbit, thanks to continuing observations of what is most likely the long-lost third stage of a 1969 rocket to the moon.

“(Two weeks ago) we didn’t know for sure that it had been captured, and now there’s no doubt that it was captured in April of this year,” said Dr. Paul Chodas of the Near-Earth Object Program Office at JPL. “What’s more, we are virtually certain that it originally escaped Earth orbit in March 1971 and that it will escape again next June. It’s only a temporary visitor.”

The object, named J002E3, was discovered Sept. 3 by Canadian amateur astronomer Bill Yeung, observing from El Centro, Calif. Increasingly precise orbital calculations made possible from a second week of positional observations have nearly ruled out any chance the object will hit the moon or enter Earth’s atmosphere before it departs Earth orbit, Chodas said. Calculations made about a week after the discovery left higher impact possibilities, but now the chances of impact are less than 1 percent at either the moon or Earth, and a third week of observations will likely push the odds to zero. The object is too small to be considered hazardous, in any case.

More than 100 measurements of the object’s position have now been reported from more than a dozen amateur astronomers, said JPL’s Dr. Steven Chesley. The two weeks of movement tracked by those observations may up as much as a fifth of one orbit around Earth. Scientists can extrapolate the object’s path for years into the future and years into the past from that short arc. “The observations coming in are from a loosely organized network of dedicated amateur observers. Their data have been vital in determining this object’s past and future paths,” Chesley said.

The object escaped from Earth orbit in March 1971, Chodas said. That fits its most likely identity as the third stage of the Saturn rocket that took Apollo 12 astronauts to the moon in November 1969. The 18-meter-long (60-foot-long) third stage was last seen in an elongated 43-day orbit around Earth, not much different from J002E3’s current orbit. It probably completed nine or 10 Earth orbits, then swung far enough toward the Sun to be pulled into a Sun-centered orbit, he said. The transition happened through a special “portal” located at the L1 Lagrangian point, where the gravitational pulls of the Sun and Earth are approximately equal.

Analysis by researchers from the University of Arizona and the Massachusetts Institute of Technology suggests that J002E3’s surface is white paint rather than more asteroid-like material. If it is not from the Apollo 12 rocket, some less likely possibilities are one of the four 7-meter-long (22-foot-long) panels that enclosed lunar modules from six Apollo missions or rocket stages from Soviet or U.S. unmanned lunar missions. Those are less likely because they seem too small to match the object’s observed brightness, and they are not known to have been left in orbits that could have escaped Earth. Additional observations in coming weeks may pin down the identification.

After J002E3 escaped Earth’s gravity in 1971, it raced Earth in circles around the Sun, but it had an inner lane, so it completed 33 solar orbits in the time it took Earth to complete 31. In 1986, the object lapped Earth on the inside, too far away to be snagged by Earth’s gravity. This year, it was about to lap Earth again but passed too close to the L1 portal and Earth captured it.

The transition between Earth-centered dynamics and Sun-centered dynamics has been understood theoretically for years and has been used for designing orbits of some spacecraft, but this is the first time a capture into Earth orbit has been confirmed, Chodas said. Comet Shoemaker-Levy 9, which struck Jupiter in 1994, made this kind of transition into Jupiter’s orbit several decades earlier. JPL’s Genesis spacecraft, currently collecting samples of solar-wind material near the L1 point, will use a similar maneuver for a low-energy return to Earth with the samples in 2004.

Earth won’t have seen the last of J002E3 when this peripatetic bit of space junk escapes after its sixth orbit in mid-2003. It will shift from solar orbit to Earth orbit again in decades ahead. “This type of orbit can’t last very long,” Chodas said. “That’s because it would very unlikely to find an asteroid with an orbit like this.” Within several thousand years, the object will likely end its travels by hitting the moon or Earth. That is not cause for concern, though. Five rocket stages like the Apollo 12 third stage were crashed into the moon intentionally as part of seismic research, and several others harmlessly disintegrated when they re-entered Earth’s atmosphere.

Images of J002E3’s calculated path are available at http://neo.jpl.nasa.gov.
Women At Work, a Pasadena-based non-profit, has been named a winner of the 2002 Medal of Excellence Award by the Director's Advisory Council for Women. The awards, established last year to recognize exceptional efforts in developing spaceborne radar instruments, was endorsed unanimously by the Director's Titan radar experiment on the Cassini mission to Saturn. Elachi was joined by 18 other JPL employees, contractors and scientists who have made presentations on its activities to retirees, various major hospitals and major medical foundations, and Bank recruits encouraged retirees to donate their time to form VMFA city’s own communities.

The group has been responsible for a number of medical advancements, including preliminary design of an automated oxygen enrichment system for premature babies; solving a blood clot problem found with a stent that could cause heart attacks; and creation of an advanced-database computer network for pediatricians. For more information, call Bank at (626) 798-3748.

Tetrai re e.g. get's NASA funding

The Volunteer Professionals for Med-}

Dr. Charles Elachi

Dr. Ann Tofield

NASA bestows annual Honor Awards

JPL employees, contractors and} partners were recognized by NASA for their} outstanding work over the past year at the Los Alamos National Laboratory's annual Honor Awards ceremony Sept. 24. Following is a list of recipients, for more detailed information, log on to http://techni.jpl.nasa.gov/psa/awards.

Public Service Group Achievement Award
Business Integrated Defense Systems,} Lockheed Martin Astrosatronics. Group Achievement Award

Ongoing Support Groups
Alcohols Anonymous—Meetings are} available. 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 147-111 (The Wellness Resource Center). 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—Meets the} first and third Fridays of month at noon in Building 111-117. For more information, call the Employee Assistance Program at ext. 4-3680.

Friday, September 27
Investment Advice—A TIAA/CREF-} one-on-one counseling. To schedule an appointment, go online to tiaa.org or call (877) 209-3140, ext. 36241.

Saturday, September 28
Call-Tech Central Chamber Orches-}tres and Choruses—Double bass concert.

"Fables, Farewells and Flashbacks"} will be performed at 8 p.m. in Caltech's Ramsey Auditorium. Admission is free. For information, call (626) 395-4552.

Tuesday, October 2
Health and Safety Fair—To be held} from 10 a.m. to 3 p.m. on the mall and in the von Karman Auditorium. More than 30 health care agencies and four insurance carriers will provide information, massage, and organic farm produce. Health screenings will include blood pressure, bone density, cholesterol, colon cancer and dental skin scan. The Occupational Safety Office will provide information on laser safety, bicycle safety, ergonomics, monitoring equipment, pre-operational safety checks, job-related accident analysis, burn prevention, chemical hygiene, fall protection, radiation, signs, inspections, lockout/ tagout, safety early reporting system, and mishaps. Inclement weather would move event to Building 167-205 on Oct. 4.

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

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

Wednesday, October 2
Associated Retirees of JPL/Caltech—} Meeting at 10 a.m. at the Caltech Credit Union.

Special Event Calendar

Thursday, October 3
P L Gun Club—Meeting at noon in} Building 183-328.

Friday, October 4
Michael Androw and Swingher—This} 19th annual Honor Awards ceremony} for youth high school age and under. For information, call (626) 395-4652.

Tuesday, October 8
JPL Stamp Club—Meeting at noon} in Building 238-143.

Wednesday, October 9
“Countering Terrorism: The Role of} Science and Technology”—Caltech chemistry professor John D. Welch will speak. Admission is $2, $1 for Caltech Beckman Auditorium. Admission is free. For information, call (626) 395-4652.

Tuesday, October 15
JPL Amateur Radio Club—Meeting} at noon in Building 238-143.

Monday, October 16
JPL Toastmasters Club—Meeting at} 5 p.m. in the 167 conference room. Call Roger Carlson at ext. 4-2293 for information.

The Voyager Journeys to Interstellar} Space—Voyager Project Scientist and former JPL Director Dr. Ed Stone will lecture at 8 p.m. in Caltech's Beckman Auditorium. Admission is free. For information, call (626) 395-4652.

Saturday, October 12
The Reduced Shakespeare Company—} The great literary works of the world are condensed into only two hours, beginning at 8 p.m. in JPL's Beckman Auditorium. Tickets are $25, $22 and $19 for high school age and under, $10. For information, call (626) 395-4652.

Sunday, October 13
Chamber Music—The Takacs String} Quartet will perform at 3:30 p.m. in Caltech's Beckman Auditorium. Tickets are $25, $22 and $17 for information, call (626) 395-4652.

Correction
Images on page 1 of the 33 issue of Universe showing ice breaking off from the Pine Island Glacier in Antarctica should have been credited to the Multi-angle Imaging SpectroRadiometer (MISR) program.
Redrawing the Lines for Parking

JPL HAS ALWAYS FACED PARKING CHALLENGES due to space limitations. An extensive review of on-Lab parking eligibility criteria was recently completed. The Executive Council examined a range of proposals and approved changes to the existing on-Lab parking policy. The new policy is driven largely by the establishment of the new Senior Career Level A designation. The changes, although significant for some, will not affect the majority of the Laboratory population. The new policy will be implemented January 6, 2003.

The parking eligibility changes represent a philosophical change from a longtime practice of not taking away on-Lab parking privileges once an individual had been given access. The new policy seeks to be a more equity-based approach aimed at providing on-Lab parking to individuals in some of the most important and complex positions. “Management recognizes that all JPL employees and affiliates make significant contributions to the Laboratory’s goals, but with limited space, not everyone can park on-Lab,” said Sue Henry, deputy director for Business Operations and Human Resources.

Under the new policy, employees classified in the positions of Fellow, Chief Scientist for a Directorate, Chief Technologist for a Directorate, Administrator IV, and most Senior A designations, will now be eligible for on-Lab parking. Currently eligible positions of Managers I, II, and III and Principal are not affected, as are employees with 25 years or more of stigmatious service. Current practices for carpools, vanpools and motorcycles remain the same.

A new alternative, which will take effect in 2003, will provide approximately 300 employees with on-Lab parking privileges through a performance-based allocation system administered by each Directorate. In addition, to give more people at JPL a chance to park on-Lab, a lottery will be held. Most JPL employees who do not have on-Lab parking will be eligible for a lottery that will provide 100 on-Lab parking spaces. The winners will have on-Lab parking for a specific workday each week for an entire year, thus netting 500 winners for a 100-space lottery. Implementation details are being worked.

Who will no longer be eligible for on-Lab parking? Folks most often referred to as “grandfathered” employees. These JPLers at one time became eligible for on-Lab parking, but never had the drive-on privilege revoked even though they may no longer qualify. Interim Employment Program participants will no longer have on-Lab parking. Retirees will be asked to park in the visitor annex area. Also, the current system of on-Lab parking eligibility—such as expediter, special project, special visitor, and medical passes—is currently under review.

Another way employees and contractors can qualify for on-Lab parking is through carpool and vanpool arrangements. Individuals interested in more information should contact the Rideshare Office at ext. 4-RIDE. Additionally, the Lab is looking into increasing the frequency of shuttle service and extending service hours during peak usage times.

Whenever parking is discussed, the question regularly raised is whether or not present parking capacity can be increased. JPL’s Facilities Division is currently developing a Facilities Master Plan, which includes expanding parking capacity over the next 10 years. The plan should be completed by the end of the calendar year. As Facilities Division Manager Bruce Fischer said: “Turning a plan into a physical reality requires funding for infrastructure development. This funding has been difficult to obtain over the past few years.” For the foreseeable future, JPLers will need to manage within the existing, finite surface parking area currently available.

Employees who are affected by the upcoming changes in parking will be notified as part of annual salary review discussions. The new parking eligibility rules will take effect on Jan. 6. This implementation schedule was specifically selected in order to give those employees who are most affected by the changes in parking eligibility ample time to make necessary changes in their work schedule, or find a carpool.

The revised parking requirements will be available soon on JPL Rules at http://rules.jpl.nasa.gov.
Having trouble negotiating your way through JPL’s myriad online resources? Help has arrived.

Inside JPL, the customizable portal to the JPL intranet, is now available to organize the online resources that JPL employees, individual JPL collaborators, and others can make use of through the portal's main page, called data channels, deliver dynamic information supplied by various publishers on "Lab". Examples of data channels include the Daily JPL News, Business Systems Resources, and more. Significant JPL sites are represented within the directory in a search-friendly manner that facilitates quick access to online data and applications.

In addition to browsing the directory, users seeking information will be able to select JPL's portal, with the new features of Google search technology. The Google search engine can be used to search both internal JPL web space and external World Wide Web sites.

By entering the JPL user name and password, employees can customize their portal page by selecting the data channels they wish to display. They may also specify how they would like channels configured on the page, and can change it as often as they like.

For more information about Inside JPL or to set up a demo for your next group meeting, contact Mark at ext. 64948.