

Skeen. Domenici led the way in winning a congressional markup for the \$48 million observatory.

The observatory's future home is on a ridge in the Magdalena mountains near Socorro, about 130 kilometers south of Albuquerque. Besides the clear skies and roughly 3200-meter-high perch, the site's advantages include that it is near both White Sands and New Mexico Tech, it has room for the observatory to expand, and it has a road and other infrastructure already serving ecological and atmospheric studies and the university's lighting lab (see box).

The MRO will consist of an optical-infrared interferometer with eight to ten 1.4-meter telescopes in a reconfigurable Y-shaped array up to 400 meters long plus a single 2.4-meter telescope. Groundbreaking is scheduled for 20 October.

STARS AND SCUDS

The MRO array will have a large number of bigger elements distributed over a wider range of baselines than any other optical interferometer in the works, says Chris Haniff, whose University of Cambridge group is involved in the project. MRO's angular resolution, he adds, "will be a factor of a hundred higher than the Hubble Space Telescope. That means that for any class of astronomical object, you can see more detail."

"One of the exciting things we think we will be able to do is to look at the central engines of active galactic nuclei," says David Westpfahl, project scientist for the MRO interferometer. "All the models have a massive object at the center, such as a black hole, and an accretion disk and polar outflow, but the detailed shape and arrangement of these things are still being worked on. We hope to be able to resolve several of these objects and decide among the models." The MRO interferometer will also be used to deduce the relative rotational axes of stars in clusters, which could shed light on the importance of turbulence in star formation, and to study other aspects of star birth, as well as star aging and planet formation.

Fast slewing is the special feature of MRO's single telescope. It will be able to zip to a particular part of the sky at 10° per second. The slewing was initially incorporated to accommodate the US Army. The MRO offers a good look at target missiles fired from Fort Wingate in western New Mexico, says Tomas C. Chavez, chief of test technology at White Sands. "We could collect phenomenology data during the target's boost and coast phases to help home in on the target with an interceptor." Adds Romero, "This is a match made in heaven. The army wants to use [the telescope] during the day and early morning, we want to use it at night." The 2.4-meter mirror was donated by the air force. Originally intended for classified space-based research, it has hardware added to keep it from sagging in Earth's gravitational field.

Astronomers will take advantage of the fast slewing, too. "One big use of the telescope will be 'alert response to transient astrophysical phenomena,'" says project scientist Eileen Ryan. "An example would be to find the optical counterpart of gamma-ray bursts." For that, the telescope would automatically interrupt other observations when it receives signals from Swift, a satellite NASA is supposed to launch in December. The MRO telescope, Ryan adds, will be bigger and will slew faster than other ground-based telescopes currently hunting for GRBs (see *Physics Today*, July 2002, pages 24 and 25). Mostly, though, the 2.4-meter telescope will be devoted to studying "small Solar system bodies—asteroids, comets, and Kuiper Belt objects," says Ryan. "We want to use the telescope to ask how fast asteroids are

spinning. How big are they? What are their shapes?"

POSSIBLE WITH PORK

What with the MRO being funded directly by Congress, the project often gets labeled as pork. Says Romero, "Without this type of funding, we would not be able to build it. But we think this is a facility that funding agencies like NASA and NSF will take the opportunity to fund research at." And, unusual for a federally funded project, New Mexico Tech and its partners will foot the running costs, estimated at \$2 million a year. If all goes as planned, the single telescope would see first light in 2005, and the interferometer could be up and running a couple years later. ●

MESSAGES FROM THE PRESIDENT

Messages from the President of the United States were communicated to the Senate by Ms. Evans, one of his secretaries.

EXECUTIVE MESSAGES REFERRED

As in executive session the PRESIDING OFFICER laid before the Senate messages from the President of the United States submitting sundry nominations which were referred to the appropriate committees.

(The nominations received today are printed at the end of the Senate proceedings.)

EXECUTIVE AND OTHER COMMUNICATIONS

The following communications were laid before the Senate, together with accompanying papers, reports, and documents, and were referred as indicated:

EC-3008. A communication from the President of the United States, transmitting, pursuant to law, a report that provides the aggregate number, locations, activities, and lengths of assignment for all temporary and permanent U.S. military personnel and U.S. individual civilians retained as contractors involved in the antinarcotics campaign in Colombia, relative to Plan Colombia; to the Committee on Appropriations.

EC-3009. A communication from the Secretary of Defense, transmitting, the report of a retirement; to the Committee on Armed Services.

EC-3010. A communication from the Staff Director, Office of Regulatory and Management Services, Department of Agriculture, transmitting, pursuant to law, the report of a rule entitled "Land Uses; Revenue Producing Visitor Services in Alaska" (RIN0596-AB57) received on June 25, 2003; to the Committee on Agriculture, Nutrition, and Forestry.

EC-3011. A communication from Director, Office of Surface Mining, Department of the Interior, transmitting, pursuant to law, the report of a rule entitled "West Virginia Regulatory Program" (WV-097-FOR) received on June 24, 2003; to the Committee on Energy and Natural Resources.

EC-3012. A communication from the Staff Director, Office of Regulatory and Management Services, Department of Agriculture, transmitting, pursuant to law, a rule entitled "Forest Land Enhancement Program" (RIN0596-AB95) received on June 25, 2003; to the Committee on Agriculture, Nutrition, and Forestry.

EC-3013. A communication from Staff Director, Office of Regulatory and Manage-

ment Services, Department of Agriculture, transmitting, pursuant to law, a rule entitled "Notice, Comment, and Appeal Procedures for National Forest System Projects and Activities" (RIN0596-AB89) received on June 25, 2003; to the Committee on Agriculture, Nutrition, and Forestry.

EC-3014. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "Update of Rev. Proc. 96-30" (Rev. Proc. 2003-48) received on June 24, 2003; to the Committee on Finance.

EC-3015. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "Business Purpose Under Section 355—Fit & Focus—Capital Allocation Purpose" (Rev. Rul. 2003-75) received on June 24, 2003; to the Committee on Finance.

EC-3016. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "Assumption of Partner Liabilities" (RIN1545-BB83) received on June 24, 2003; to the Committee on Finance.

EC-3017. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "2003 Section 43 Inflation Adjustment" (Notice 2003-43) received on June 24, 2003; to the Committee on Finance.

EC-3018. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "2003 Marginal Production Rates" (Notice 2003-44) received on June 24, 2003; to the Committee on Finance.

EC-3019. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "Applicable Federal Rates—July 2003" (Rev. Rul. 2003-71) received on June 24, 2003; to the Committee on Finance.

EC-3020. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "Guidance Regarding Election Under Section 953(d)" (Rev. Proc. 2003-47) received on June 24, 2003; to the Committee on Finance.

EC-3021. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "CRP Cost-Share Payments" (Rev. Rul. 2003-59) received on June 24, 2003; to the Committee on Finance.

EC-3022. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "Compliance Initiative for Nonresident Aliens and Foreign Corporations" (Notice 2003-38) received on June 24, 2003; to the Committee on Finance.

EC-3023. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "Revenue Ruling: Mass Obsolete Ruling" (Rev. Rul. 2003-67) received on June 24, 2003; to the Committee on Finance.

EC-3024. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "Annual Report Concerning the Pre-Filing Agreement of the Large and Mid-Size Business Division for the Calendar Year 2002" (Ann. 2003-43, 2003-26) received on June 24, 2003; to the Committee on Finance.

EC-3025. A communication from Chief, Regulations Unit, Internal Revenue Service, Department of the Treasury, transmitting, pursuant to law, the report of a rule entitled "Correction to Rev. Rul. 2003-50 — BLS Department Store Indexes for March 2003" (Ann. 2003-44) received on June 24, 2003; to the Committee on Finance.

EC-3026. A communication from the Regulations Coordinator, Department of Health and Human Services, Administration for Children and Families, transmitting, pursuant to law, the report of a rule entitled "Child Support Enforcement Program Federal Tax Offset" (45 CFR Part 303) received June 25, 2003; to the Committee on Finance.

EC-3027. A communication from the Chief, Regulations Branch, Department of Homeland Security, transmitting, pursuant to law, a rule entitled "Confidentiality of Commercial Information" (RIN1515-AD29) received on June 24, 2003; to the Committee on Finance.

INTRODUCTION OF BILLS AND JOINT RESOLUTIONS

The following bills and joint resolutions were introduced, read the first and second times by unanimous consent, and referred as indicated:

By Mr. SCHUMER:

S. 1370. A bill to amend the Fair Credit Reporting Act to provide for disclosure of credit-scoring information by creditors and consumer reporting agencies; to the Committee on Banking, Housing, and Urban Affairs.

By Mr. BUNNING (for himself and Mr. BREAUX):

S. 1371. A bill to permit a special amortization deduction for intangible assets acquired from eligible small businesses to take account of the actual economic useful life of such assets and to encourage growth in industries for which intangible assets are an important source of revenue; to the Committee on Finance.

By Mrs. FEINSTEIN (for herself and Mr. ENSIGN):

S. 1372. A bill to amend the Elementary and Secondary Education Act of 1965 to specify the purposes for which funds provided under subpart 1 of part A of title I may be used; to the Committee on Health, Education, Labor, and Pensions.

By Mr. HOLLINGS:

S. 1373. A bill to authorize and direct the Secretary of Commerce, through an independent commission within the Department of Commerce, to protect consumers by regulating the interstate sale of insurance, and for other purposes; to the Committee on Commerce, Science, and Transportation.

By Mr. DURBIN (for himself and Mr. GRAHAM of South Carolina):

S. 1374. A bill to provide health care professionals with immediate relief from increased medical malpractice insurance costs and to deal with the root causes of the current medical malpractice insurance crisis; to the Committee on Finance.

By Ms. SNOWE (for herself and Mr. KERRY):

S. 1375. A bill to provide for the reauthorization of programs administered by the Small Business Administration, and for other purposes; to the Committee on Small Business and Entrepreneurship.

By Mr. REID (for himself and Mr. ENSIGN):

S. 1376. A bill to include the Department of Energy and the Nuclear Regulatory Commission as employers for the purposes of whistleblower protection; to the Committee on Energy and Natural Resources.

By Mr. BINGAMAN (for himself and Mr. DOMENICI):

S. 1377. A bill to authorize a Native American language demonstration program at the University of New Mexico at Albuquerque, in consortium with the Linguistic Institute for Native Americans; to the Committee on Indian Affairs.

By Mr. DORGAN:

S. 1378. A bill to transfer to the Secretary of the Interior authority to revise the Missouri River Master Water Control Manual; to the Committee on Environment and Public Works.

ADDITIONAL COSPONSORS

S. 11

At the request of Mr. ENSIGN, the name of the Senator from Illinois (Mr. FITZGERALD) was added as a cosponsor of S. 11, a bill to protect patients' access to quality and affordable health care by reducing the effects of excessive liability costs.

S. 184

At the request of Mr. DODD, the name of the Senator from Massachusetts (Mr. KERRY) was added as a cosponsor of S. 184, a bill to amend section 401(b)(2) of the Higher Education Act of 1965 regarding the Federal Pell Grant maximum amount.

S. 253

At the request of Mr. CAMPBELL, the name of the Senator from Texas (Mrs. HUTCHISON) was added as a cosponsor of S. 253, a bill to amend title 18, United States Code, to exempt qualified current and former law enforcement officers from State laws prohibiting the carrying of concealed handguns.

S. 296

At the request of Mr. CAMPBELL, the name of the Senator from Colorado (Mr. ALLARD) was added as a cosponsor of S. 296, a bill to require the Secretary of Defense to report to Congress regarding the requirements applicable to the inscription of veterans' names on the memorial wall of the Vietnam Veterans Memorial.

S. 333

At the request of Mr. BREAUX, the name of the Senator from Georgia (Mr. CHAMBLISS) was added as a cosponsor of S. 333, a bill to promote elder justice, and for other purposes.

S. 346

At the request of Mr. LEVIN, the name of the Senator from Michigan (Ms. STABENOW) was added as a cosponsor of S. 346, a bill to amend the Office of Federal Procurement Policy Act to establish a governmentwide policy requiring competition in certain executive agency procurements.

S. 518

At the request of Ms. COLLINS, the names of the Senator from New Jersey (Mr. LAUTENBERG) and the Senator from Louisiana (Ms. LANDRIEU) were added as cosponsors of S. 518, a bill to increase the supply of pancreatic islet cells for research, to provide better coordination of Federal efforts and information on islet cell transplantation, and to collect the data necessary to move islet cell transplantation from an experimental procedure to a standard therapy.

S. 560

At the request of Mr. CRAIG, the name of the Senator from Alabama (Mr. SESSIONS) was added as a cosponsor of S. 560, a bill to impose tariff-rate quotas on certain casein and milk protein concentrates.

S. 569

At the request of Mr. ENSIGN, the name of the Senator from Arkansas (Mr. PRYOR) was added as a cosponsor of S. 569, a bill to amend title XVIII of the Social Security Act to repeal the Medicare outpatient rehabilitation therapy caps.

S. 661

At the request of Mr. SCHUMER, the name of the Senator from Washington (Mrs. MURRAY) was added as a cosponsor of S. 661, a bill to amend the Internal Revenue Code of 1986 to equalize the exclusion from gross income of parking and transportation fringe benefits and to provide for a common cost-of-living adjustment, and for other purposes.

S. 736

At the request of Mr. ENSIGN, the names of the Senator from Nebraska (Mr. NELSON) and the Senator from North Dakota (Mr. CONRAD) were added as cosponsors of S. 736, a bill to amend the Animal Welfare Act to strengthen enforcement of provisions relating to animal fighting, and for other purposes.

S. 764

At the request of Mr. CAMPBELL, the name of the Senator from Rhode Island (Mr. REED) was added as a cosponsor of S. 764, a bill to extend the authorization of the Bulletproof Vest Partnership Grant Program.

S. 847

At the request of Mr. SMITH, the name of the Senator from Connecticut (Mr. LIEBERMAN) was added as a cosponsor of S. 847, a bill to amend title XIX of the Social Security Act to permit States the option to provide Medicaid coverage for low income individuals infected with HIV.

S. 894

At the request of Mr. WARNER, the names of the Senator from Mississippi (Mr. LOTT), the Senator from Michigan (Mr. LEVIN), and the Senator from Nebraska (Mr. HAGEL) were added as cosponsors of S. 894, a bill to require the Secretary of the Treasury to mint coins in commemoration of the 230th Anniversary of the United States Marine Corps, and to support construction of the Marine Corps Heritage Center.

S. 982

At the request of Mrs. BOXER, the names of the Senator from California (Mrs. FEINSTEIN), the Senator from Delaware (Mr. CARPER), the Senator from Ohio (Mr. DEWINE), and the Senator from Arkansas (Mr. PRYOR) were added as cosponsors of S. 982, a bill to halt Syrian support for terrorism, end its occupation of Lebanon, stop its development of weapons of mass destruction, cease its illegal importation of