

Magellan Mission Extension Gets a Boost

NASA's Magellan probe to Venus, troubled by signal transmission problems and facing a proposed shutdown this October, could soon be getting a new lease



on life—if NASA accepts a recent recommendation from its Space Science Advisory Board.

Last Friday, that panel recommended using Magellan to obtain a high-resolution global “gravity map” of the planet. That would require moving the spacecraft from an elliptical orbit to a circular one and extending its mission by 3 years. For an estimated additional cost of \$30 million, the gravity map would provide valuable data that might show how the slow churning of the planet's interior shapes the surface without plate tectonics, says Washington University planetary scientist Roger Phillips, who presented the idea to the panel. “It's the only way to tell how the planet works—the only game in town for the interior.”

If NASA gives the OK, engineers at the Jet Propulsion Laboratory (JPL) will

Feeling gravity's pull. The Magellan probe.

“aerobrake” Magellan to ease it into a circular orbit. Once there, the probe's orbital speed will vary slightly depending on the planet's mass at each point it passes over, slowing where the mass is lower and speeding up where the mass is higher. Earthbound scientists will monitor the probe's strong carrier signal, which has not been affected by recent problems in Magellan's transmitters, for fluctuations known as Doppler shifts that occur when the probe's velocity changes. The resulting data should provide a clear map of the mass distribution in the Venusian interior.

So important do scientists consider this mission that the advisory panel ranked it equal in priority to two other major—and much more expensive—science missions, the Advanced X-Ray Astrophysics Facility and the Cassini mission to Saturn. “It does something that hasn't been done previously and that can't be done unless you fly something new to Venus,” says advisory panel member and JPL researcher Torrence Johnson.

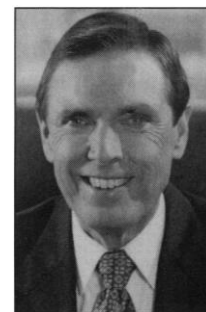
Clean Needles Puncture ADAMHA Plan

Considered a done deal as recently as 3 weeks ago, a bill that would transfer mental health research to NIH appears to have run into a brick wall again. The House returned the bill to a House-Senate conference last week for review, a move that, according to one congressional staffer, “torpedoes” the bill's chances this year.

Long pushed by the Bush Administration, the reorganization would have moved the research components of the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) to NIH while creating a new agency to run treatment programs for alcohol and drug abuse. But the Administration backtracked shortly after drug czar Robert Martinez voiced concerns early last week that the bill might permit the use of federal funds for clean needle exchange programs.

Martinez was apparently successful in taking his case to Health Secretary Louis Sullivan, who subsequently wrote a letter to the House last week asking it to return the bill to conference because “making sterile needles available to IV drug users only encourages more drug use.” The House then voted to do just that, with instructions to ban the use of federal funds for needle exchanges. Martinez praised the move in a statement last week.

Although some legislators predict that the clean needle provision can be handled “cleanly and simply,” others fear that the second conference will simply unleash a variety of other objections to the bill. Says Representative Henry Waxman (D-CA): “There is a good chance that we will get so bottled up on all the issues that might be raised that we may not come out of conference again.”



Robert Martinez

Reorganization of OSI Now a Reality

Scientists under investigation by the federal government for misconduct will soon have the right to request a hearing with full due process rights—part of an extensive overhaul by the Public Health Service (PHS) of its bureaucracy for handling scientific misconduct.

The final plan, which PHS was scheduled to announce shortly after *Science* went to press, are similar to changes outlined in a proposal that leaked to the press 3 months ago (*Science*, 6 March, p. 1199). In order to avoid the “appearance of a conflict of interest” in cases where NIH scientists are accused of misconduct, NIH's Office of Scientific Integrity (OSI)—renamed the Office of Research Integrity (ORI)—will move out of NIH into the office of the assistant secretary of health. The interim director of ORI is expected to be J. Michael McGinnis, currently deputy assistant

secretary for disease prevention and health promotion.

Cases in which ORI believes a scientist has committed misconduct will now be reviewed by a Research Integrity Adjudications Panel, a committee with one to three members that will conduct

full legal hearings for scientists who request them. An agency “fact sheet” suggests that the adjudications panel will not render final judgments on guilt or innocence, but will instead “provide the basis” for a final judgment by the assistant secretary.

Promoting a “Silicon Valley” in New York

Hoping to bolster the fortunes of domestic industries, a Brooklyn-based consortium has developed a plan it calls “Silicon Valley 2000” that aims to beef up the high-tech workforce and manufacturing base in the New York City area.

The goal of the consortium, made up of several local businesses and technical schools led by IBM's Brooklyn division, is to create a “technically literate community” by offering local residents—particularly disadvantaged youth, the unemployed, and the elderly—training for high-tech jobs and course work in communication skills and critical thinking. Consortium members will each provide internships, apprenticeships, and “master mentoring” in their own specialties, says John Southard, vice president for research and development at the Pratt Institute, an architecture and design institute in Brooklyn. IBM, for instance, might offer training in computer science, while Pratt could offer design engineering and manufacturing.

The initiative is designed not just to raise the skills of individuals but also to convince its members to reinvest in the local community. Southard says the program should be under way within a few months.