ASTRONOMY

European Observatory Catches U.S. Star

LONDON—If U.S. astronomers were not already looking nervously over their shoulders at the growing challenge from Europe, Europe's latest achievement should catch their attention. Not content with stealing the limelight with its plan to build the world's largest telescope, the European Southern Observatory (ESO) has now stolen one of the stars of the U.S. astronomical community to lead the project: Riccardo Giacconi, director of the Space Telescope Science Institute in Baltimore. Giacconi will take over at ESO's headquarters in Garching, Germany, next January—and European astronomers can't conceal their delight. "It's really quite a coup," says Martin Rees of Cambridge University's Institute of Astronomy.

Giacconi, an Italian by birth and training, built his reputation as the father of x-ray astronomy after immigrating to the United States in the mid-1950s. As ESO director-general, his major challenge will be to supervise construction of the $200 million Very Large Telescope (VLT) at Cerro Paranal in northern Chile. He will also be responsible for running the 12 telescopes at ESO's existing La Silla observatory, some 350 miles to the south.

S&SI

Riccardo Giacconi

When it opens at the end of the decade, the VLT array of four 8-meter instruments should be the world's leading optical observatory. ESO council president Franco Pacini of the Arcetri Astrophysical Observatory in Florence summarizes Giacconi's qualifications for keeping such an ambitious project to schedule and within budget in two words: "Managerial experience," gained from heading the Hubble Space Telescope project for the past decade.

The appointment may also provide a break with niggling problems that have dogged ESO under its current director-general, Dutch astronomer Harry van der Laan. Recent ESO council meetings have reportedly been tempestuous affairs, with delegates from France, Germany, and Italy—who provide three-fourths of ESO's budget—clashing several times with those from the other five member nations. One leading European astronomer, who asked not to be named, says that van der Laan has fanned the flames by "trying to play off one country against another" to push his vision of the VLT through the council. "We've solved an awful lot of very challenging problems. Of course, that does not come without upheavals," responds van der Laan. He points out that ESO has been through big changes—the budget has doubled while he's been in charge, for example. "Turbulence and problems to some people are a worry. To me, they are a challenge."

Many astronomers will be looking to Giacconi to revitalize ESO's science division. They have complained that the division has lost resources to bolster the VLT project and that ESO astronomers have been left out of the VLT design work. Indeed, the science division "has become marginal," says Pacini. Van der Laan says he has listened to the criticisms and changed these policies. Giacconi may not need such prodding. At the Space Telescope Science Institute, "Riccardo emphasized the science in the institute's name," says Bob Bless from the University of Wisconsin, principal investigator for the Hubble telescope's high-speed photometer, and Giacconi says he will encourage the same "strong scientific input" at ESO.

U.S. astronomers say they're not surprised that Giacconi has chosen to go back to Europe, now that the Hubble project is recovering from its early setbacks. "It's one of the few jobs one could imagine that will have a similar impact on astronomy as being director of the Space Telescope Science Institute," says Sidney Wolff, director of the National Optical Astronomy Observatories. Giacconi describes the ESO job as "a very exciting and attractive proposition." And with European astronomy generally in excellent shape, Giacconi is unlikely to be the last to find Europe an attractive place to work. "The Americans will find this sort of thing happening more often," predicts Rees.

–Peter Aldhous

SPACE SCIENCE

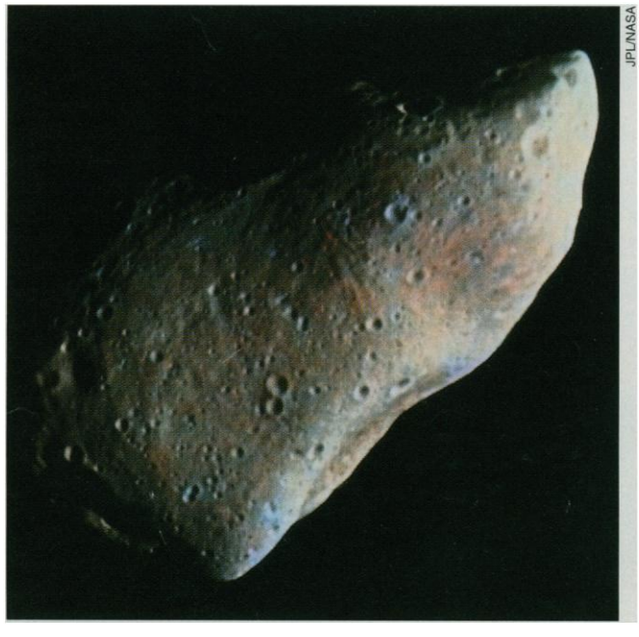
A Battered Gaspra Revealed

Proud NASA scientists unveiled this false-color image of Gaspra last week—the most detailed ever taken of an asteroid. The Galileo spacecraft actually snapped the portrait last October as it flew through the asteroid belt on its complex route to Jupiter, but a balky main antenna necessitated delaying transmission of the image until the spacecraft was once again close enough to Earth to pass data through a smaller backup antenna.

This latest view, three times sharper than earlier images of Gaspra, revealed more than 600 meteorite impact craters on the 19-kilometer-long rock, some as small as 100 meters in diameter. Given the steady drizzle of impactors, though, that's a fairly sparse crop of craters, suggesting that Gaspra is young: Scientists estimate that it formed only about 200 million years ago when it was splintered from a larger asteroid in a catastrophic collision. That collision left scars, seen for the first time in this image, in the form of nearly parallel grooves that mark deep fractures of the asteroid.

The false colors represent variations in reflectivity—largely in the infrared—resulting from enhanced (bluish) or diminished (reddish) amounts of the mineral olivine. Despite such findings, researchers have so far failed to decipher the nature of the rock beneath Gaspra's veneer of rubble (*Science*, 18 October 1991, p. 381). But NASA announced that next summer Galileo will probably visit a second asteroid of a similar type, named Ida—an encounter that had been in jeopardy because of the unplanned consumption of spacecraft fuel in efforts to free Galileo's antenna. Perhaps Ida will be less modest than Gaspra about revealing her inner secrets.

–Richard A. Kerr



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