

ESO SHIPS STEEL TO CHILE DESPITE LABOR AND LAND CONFLICTS

The Very Large Telescope of the European Southern Observatory illustrates a paradox of international relations: Agreements can lead to conflicts. Since ESO arranged with Chile in 1988 to build the VLT at Cerro Paranal, labor difficulties and legal and political problems involving land ownership have complicated administration of the project. However, ESO's recent shipping of more than 100 tons of steel from Europe to South America demonstrates the organization's confidence that the VLT will eventually scan the skies from a Chilean mountaintop. (See the article by Buddy Martin, John M. Hill and Roger Angel in *PHYSICS TODAY*, March 1991, page 27.)

On 5 November the steel left the port of Monfalcone, Italy, for Antofagasta, Chile. After its expected arrival on 20 December, it will be trucked to the top of Cerro Paranal. There the foundation for the first of the VLT's four telescopes has been completed, and the steel—the first of more than a dozen similar shipments to occur over the next couple of months—will be used for the enclosure of that instrument. At about the same time, mirror blank number 2 is being transported by barge from the Schott factory in Mainz, Germany, to the REOSC company near Paris, France. There it will join mirror number 1, which is already halfway through the two-year polishing process.

ESO is an intergovernmental European organization, founded in 1962, with member states Belgium, Denmark, France, Germany, Italy, the Netherlands, Sweden and Switzerland. By 1988 ESO had 14 optical telescopes on La Silla, a mountain about 600 kilometers north of Santiago de Chile. When ESO needed more room for its planned VLT, it came to an agreement with the Chilean military regime of Pinochet, which donated the land on Cerro Paranal to ESO for the express purpose of building the telescope.

But who really owns Cerro Paranal? The Latorres, a local family, claim that they own the land and that it was taken from them illegally,

with no compensation; they have sued. ESO presents itself as being above the fray, but from the perspective of some Chileans, ESO is conveniently forgetting its prior influence in obtaining the terrain without payment.

Riccardo Giacconi, ESO's director general since the end of 1992, told *PHYSICS TODAY* that ESO is watching the judicial proceedings "with interest but without too terrible an anxiety. If the Chilean government did something wrong, then presumably they will have to indemnify the Latorre family, and that's all right by us. On the other hand, we feel we have a perfect right to be there."

Presently ESO is negotiating a new agreement, with the current government. Giacconi said that he and the new Chilean minister of foreign affairs, José Miguel Insulza, are "extremely positive," that they are "down to the dotting of the i's and the crossing of the t's" and that they hope to see the agreement signed by the end of the year.

Labor problems

In addition to the dispute about the land, ESO has had disagreements with Chilean astronomers and workers. Because of its international agreement, ESO was not technically bound by local statutes and initially chose to ignore labor laws. The organization acted "paternalistically," admitted Giacconi, as if "coming from outer space and landing in a spaceship and not really talking to the natives too much." This behavior created tremendous resentment, he said, and ESO is trying to make amends. About 350 people are working day and night shifts on the mountain now, and Giacconi said that ESO has agreed to uphold the principles of Chilean labor legislation.

As negotiations stand now, 10% of the telescope's observing time would be guaranteed to Chileans—though it must still be approved by peer review. About half of this set-aside time would be allocated to alliances with European astronomers, but since close to 80% of the proposals at La Silla have involved cooperative pro-

jects with Chileans, this restriction should, in practice, impose no difficulty. (ESO offered Chile organizational membership two years ago, but Chile declined.)

So the workers are working, and the steel is on the way—Giacconi said that the construction is on schedule, "roughly speaking"—but the lawyers and judges are working too. In spite of its massive investment of time, effort and material in Chile, ESO will not relax just yet. ESO's council has directed continued study of a site owned by Germany's Max Planck Institute on a mountain in Namibia as an alternative locale for the VLT. The measurements show that the Namibian mountain, Gamsberg, would be almost as good as the Chilean location, but Giacconi thinks that the best interests of Chile, ESO and astronomy are served by building the VLT at Cerro Paranal. It is, he maintains, "the best place in the world to put the best telescope in the world."

—DENIS F. CIOFFI

APS LAUNCHES FORUM FOR NONACADEMIC PHYSICISTS

At its meeting last month in Minneapolis, Minnesota, the council of the American Physical Society voted to establish a forum on industrial and applied physics, FIAP. At the same time, APS's committee on applications of physics was charged with instituting a two-year program to reach the society's industrial members and help form a constituency for the forum. Under the APS constitution, a forum is entitled to a voting seat at the council if its membership exceeds 3% of the society's.

The proposal for FIAP came through CAP, which is headed by Abbas Ourmazd of AT&T Bell Laboratories. Ourmazd told *PHYSICS TODAY* that "APS has put substantial resources" behind the outreach program. According to Ourmazd, APS