Germany to exit the SKA

On 5 June, Germany announced it will withdraw from the Square Kilometre Array next summer. The move came as a shock to SKA officials and to Germany's astronomers and physicists, who are now lobbying to remain in the international effort to build the world's largest and most powerful radio telescope.

If the decision stands, Germany's companies will not be eligible to compete for SKA construction contracts and its scientists will lose access to the telescope. Because of data-access rules established this spring, "nonmembers' ability to use the SKA will be severely compromised," says project director general Philip Diamond. At present, Germany has the third-largest community involved in the science planning for the SKA. "For a whole generation of people working in radio astronomy, gravitational waves, and other areas, other countries will all of a sudden become much more attractive," says University of Hamburg astrophysicist Marcus Brüggen.

A spokesperson for the German science ministry says priorities were set "in view of the costs that an international research infrastructure will impose in the future." Moreover, a recent ministry policy favoring investment in projects that are under the auspices of a ministry-funded laboratory has put Germany's participation in the SKA at a disadvantage. The scientific community, says Michael Kramer of the Max Planck Institute for Radio Astronomy in Bonn, believes that the policy "should be revisited because it could be a showstopper for many future projects." In contrast, the European X-Ray Free Electron Laser and the Facility for Antiproton and Ion Research are high priorities in the science ministry; both are international projects located in Germany and have their German contributions backed by the Helmholtz Association.

The decision to leave "was not based on scientific grounds and doesn't reflect on the excellence of the SKA," says Kramer. He notes that the SKA—whose hosts are Australia and South Africa (see PHYSICS TODAY, July 2012, page 25)—is on the European Strategy Forum on Research Infrastructures roadmap. And he worries that if other countries drop out, or choose not to join, both the project and science in Africa could be imperiled.

The withdrawal is particularly puzzling because final costs and contributions from member nations have yet to be set. Germany's astronomers and physicists are contacting the science ministry, politicians, and professional societies in efforts to remain in the project.

The SKA currently counts as members Australia, Canada, China, Germany, India, Italy, New Zealand, South Africa, Sweden, the Netherlands, and the UK. The US was involved early on, but stepped back a few years ago because of uncertainties in the project's definition and cost. "We will await the 2020 decadal survey to decide where to go at that point," says NSF astronomy division head Jim Ulvestad.

In March the UK made the first commitment toward construction. It will pay £100 million ($170 million), or about 15%, of the first construction phase. Scientific data, with a portion of the full-scale SKA completed, are expected to start rolling in sometime in 2020.

Toni Feder

news notes

HAARP reprieve. Just as the US Air Force was about to start dismantling the High Frequency Active Auroral Research Program in Gakona, Alaska, in mid-June, the Department of Defense said to hold back. A few weeks later, on 2 July, air force secretary Deborah Lee James wrote to HAARP proponent Senator Lisa Murkowski (R-AK) that the air force "is willing to slow the closure process and defer irreversible dismantling of the transmitter site."

Now the scientific community has until 15 May 2015 to come up with several million dollars in transition money and a business plan for running the world's most powerful ionospheric heater (see PHYSICS TODAY, April 2014, page 22). The University of Alaska Fairbanks is leading the effort.

Robert McCoy, director of the university's Geophysical Institute, says he is talking to other universities, federal agencies, and scientists and funding agencies in other countries about managing the facility, most likely on a pay-per-use basis.

Despite the reprieve, the air force is removing "government property not essential to operations" while retaining "critical hardware to maximize the potential to reactivate the site," according to James's letter. HAARP users are scrambling to remove, or produce receipts for, equipment provided by their universities. In particular, researchers worry that the air force may take or damage millions of dollars in diagnostic instruments. If the instruments had to be replaced, says McCoy, taking over HAARP would be a "no-go." Saving HAARP "is still an uphill battle," he says, "but at least we bought some time."

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