



Striking workers at the ALMA telescope array occupied the operations building for more than two weeks.

ASTRONOMY

ALMA strike stirs up Chilean labour unions

Other observatories watch for sharpened worker demands.

BY ALEXANDRA WITZE

Messages of support raced across Chile's high desert plateaus. A labour strike had halted work at the world's premier radio telescope, the Atacama Large Millimeter/submillimeter Array (ALMA), and word was spreading to other elite astronomical observatories in the country.

Suddenly, the Chilean workers who staff these observatories — from the engineers who keep telescope software going to the mechanics who service broken equipment — were sharing the world stage. As the strike began at ALMA, workers more than 300 kilometres to the southwest at the Paranal observatory put down their radios instead of handling after-hours calls — not in a strike, but as a gesture of solidarity.

The 17-day dispute at ALMA ended on 7 September, when the labour union reached an agreement with the management that included shorter work shifts and pay rises for some of the 195 union members. But the walkout, the first unionized strike at an international observatory in Chile, underscores the complicated relationship between the predominantly US- and European-funded observatories and their Chilean workers. At Paranal, which is run by the European Southern Observatory (ESO), workers say that the

events at ALMA have emboldened them to speak out and ask for more concessions from management. "What the ALMA union did is open the road for every observatory in Chile to talk about what is going on," says Nicolas Slusarenko, president of the Paranal union and a software engineer at the observatory's Very Large Telescope.

The roots of many of the workers' complaints date back to the 1960s, when US and European astronomers first began to build telescopes in the high Atacama Desert, which is coveted for its pristine night-viewing conditions. Chile, ruled through the 1970s and 1980s by dictator Augusto Pinochet, was viewed as a politically stable place. Construction and labour costs were cheap in comparison to those at other prime sites, such as Hawaii, and Chile was eager to lure investment. Over the years, Chilean governments have granted privileges to certain observatory workers, such as income-tax exemptions for European astronomers working in Chile — but such privileges do not apply to Chileans.

In practice, this means that the observatories are run like small states within Chile — a fact that rankles some union leaders. Slusarenko says that whereas unsafe Chilean businesses could be subject to inspection by a labour ministry agency, no such avenue exists at ESO sites. "Where do I go to protect employees?" he asks.

But the unions have been gaining strength. In the past couple of years, the Paranal union has added members from three other ESO locations to form a 'sindicato' with 105 members overall. And in April 2012, a federation representing about 500 workers was created by joining the ESO and ALMA unions with two others representing workers at US-run observatories.

Last November, a walkout was narrowly avoided at Paranal. The union voted to go on strike over issues such as maternity leave, but that was averted by an eleventh-hour agreement with ESO. That contract expires in November 2014, says Slusarenko, and he expects renewal negotiations to be stressful. "It will be interesting to see if they take into account what happened at ALMA," he says. ESO management says that it has worked hard to develop good relations with its Chilean staff and does not expect any trouble. "We have no reason to expect any change to ESO operations as a result of the recent ALMA strike," says ESO director general Tim de Zeeuw.

Chris Smith, who oversees operations in Chile for the Association of Universities for Research in Astronomy (AURA), a US-based group that operates three sites, also downplays the effect of the ALMA strike. He says that there is a family-like atmosphere at the AURA observatories, and management meets with union representatives every month or two to deal with any labour issues before things get too tense. The ALMA strike is an anomaly, he says. "I don't want anyone to walk away thinking that this sort of conflict is the norm — it's not."

The ALMA strike began after the old labour contract expired and the ALMA union asked for changes in the new contract. The union wanted a 15% pay rise, plus other concessions that were standard at other observatories, such as a working week of 40 hours instead of 45 for administrative staff, and workdays of 11 hours instead of 12 for shift workers. Their employer, the US-based Associated Universities Incorporated (AUI), balked, and the strike began on 22 August.

Workers occupied the main operations building and paraded underneath ALMA's dishes with banners demanding justice. They produced a slick YouTube video (see go.nature.com/jl7z3r) with scenes from the strike. Science observations stopped completely, although some work continued — the project accepted delivery of its next-to-last antenna on 28 August, says Al Wootten, an ALMA project scientist. ALMA is a collaboration between, primarily, ESO, the US National Radio Astronomy Observatory (managed by AUI), and the National Astronomical Observatory of Japan.

After more than two weeks of negotiations, which included the personal intervention of the head of the Chilean labour department, the union and AUI signed a new two-year contract. The shorter working hours start in January, and employees who work at sites

above 5,000 metres will receive a bonus, but the only pay rise granted was 4% to the lowest-paid union members. Staff were paid for their strike days and received a bonus for ending the strike. The AUI would not say how much the extra concessions would cost; ALMA director Pierre Cox will decide how to pay for them

within the project's fixed budget.

The final telescope antenna in the 66-dish array is scheduled for delivery this month, and science observations by principal investigators are expected to resume in early October, says Ethan Schreier, the AUI's president. "We're looking forward to just getting back," he says. ■

RESEARCH

Israel in deadlock on Horizon 2020

Conciliation sought in talks on EU research guidelines.

BY ALISON ABBOTT

When cell biologist Benny Geiger learned that Israel may decide not to participate in the next multibillion-euro research programme of the European Union (EU), he was dumbfounded. "It seemed unreal — my first thought was that there must have been some sort of mistake," he says.

There was not. Israel had objected to EU guidelines published in July, which stated that any new agreement it made with the EU would apply only to territories within its pre-1967 borders. This would make universities and other institutions ineligible for funding of research set to take place in the occupied territories. On 14 August, in a formal response, Israeli officials charged that the policy was an attempt by the EU to push Israel to waive its claims of sovereignty over the territories. As a result, officials announced that the country would not sign up to Horizon 2020 — the

€80-billion (US\$107-billion) financial instrument designed to secure European competitiveness — under the proposed conditions.

For the Israeli scientific community, the stakes are very high. Not being part of Horizon 2020 would be "a huge blow on many levels", says Geiger, of the Weizmann Institute of Science in Rehovot, and chairman of the academic board of the Israel Science Foundation, the country's main research-funding organization. It is not just about the money, he says: it is also about the inability to integrate into the EU scientific community, and the potential loss of collaborative ties. Both would be bad news given Israel's geographical isolation in a region that otherwise has little research activity.

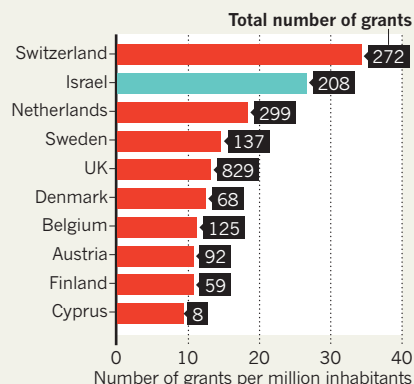
The roots of the conflict lie in the EU's policy of not recognizing Israel's sovereignty over territories it has occupied since 1967, including East Jerusalem, the Golan Heights, the Gaza Strip and the West Bank. In December last year, EU foreign ministers ruled that "all agreements between the state of Israel and the European Union must unequivocally and explicitly indicate their inapplicability to the territories occupied by Israel in 1967".

Israel has been involved in EU research programmes as an associate country since 1996, and is one of just a handful of non-EU member states — including Switzerland and Norway — to have this status. It has benefited enormously. The country paid just €534 million to join the EU's Seventh Framework Programme (FP7), the forerunner of Horizon 2020, but its net gain once FP7 finishes at the end of this year will be about €634 million, with almost 1,600 Israeli scientists participating in grant agreements under the programme.

Almost half of this money supports Israeli participation in various FP7 cooperation projects. The rest went to winners of European Research Council (ERC) grants. Israeli scientists have been unusually successful in ▶

PUNCHING ABOVE ITS WEIGHT

Per capita, Israel has received the second-highest number of European Research Council (ERC) grants among European Union and associate members.



*Data cover ERC starting grants for 2007–13 and ERC advanced grants for 2008–12.

SOURCE: EUROPEAN RESEARCH COUNCIL