Futures

Knock knock

A positive result. **By Jack McDevitt**

ILLUSTRATION BY JACEY

I'd never seen Arthur Parsons as happy as he'd been when NASA launched the *Ava Maxwell*. Arthur was the director at the Mauna Kea Observatory. He'd won a few awards and was a leading cosmologist. I have to admit I'm not entirely sure what that means, but it was the way he was routinely introduced when he arrived at speaking engagements or for television interviews on the science channel. He was a couple of years from retirement, but he wasn't planning to walk away quietly.

He and I have been close for years. My wife smiles at that. I'm a security guard at the observatory and I've never really had an interest in stars. Our connection is chess. He has a passion for it, and I seem to be the only person in the area who plays at his level.

The *Maxwell* is a hypertelescope. Its purpose is to get a decent view of planets around nearby stars. It has multiple reflectors, big ones, large mirrors, distributed out at a range of 50 or 60 kilometres. The reflectors all focus on the same object, the same planet, and reflect the light back to the telescope so that it arrives simultaneously and is combined into a single picture. The term they use is 'in phase'.

It sounded pretty good, but Arthur did not react well during the first two or three years when they didn't pick up anything of consequence. He thought, as a lot of scientists did, that we were surrounded by warm worlds, that we'd find living creatures everywhere. When they saw nothing at Alpha Centauri, their first target, he told me I shouldn't worry, that we lived in a biological Universe. I'm not sure what made him think I cared.

"All my life", he told me one day while we watched rain pouring down, "I've hoped to live long enough to find out whether there's really anyone out there." He managed a weak smile. "I was seriously disappointed when we found nothing on Mars. Not even a microbe." He shook his head. "I'd have loved it if the canals had been there."

They focused on most of the nearby stars: on Barnard's Star, on Lalande, on Epsilon Eridani, on Groombridge, on Tau Ceti and Teegarden and several named Gliese with different numbers. There were lots of planets inside what they called the Goldilocks zone, which meant they'd probably have water, but there was no sign of occupants anywhere. The Universe was beginning to look dark. And people were showing up on TV saying how they'd always suspected we were alone.

Everything changed on 1 April, which ironically was April Fool's Day. I was at home watching the opening day game between the Tsunami and the Atlanta Braves. They were playing in Honolulu. A call came in from the observatory. They were boosting security but were reluctant to say why. "Just get up here as quickly as you can, Vince."

I put the news on while I changed into my uniform, but nothing unusual seemed to be happening. I drove up and pulled into the parking lot. There were a few cars, about what I'd normally have seen. But Ed Weinstein, the

security director, was waiting at the door. "We got a heads-up," he said. "Keep this to yourself. The *Maxwell* picked up some lights."

"Where, Ed?"

"I don't know. Wherever they were looking. It'll probably be getting out soon." When the programme first started, we'd been warned that if something was found the public reaction would be unpredictable. A lot of people thought that human beings were the reason there *was* a Universe. That we were what it was all about. "Actually we might just get a happy crowd. We don't know what to expect, Vince. Just be careful."

There was no problem. Other than a crowd about triple the size of a normal day. "Who's out there?" they were asking. There were jokes about little green men. And, more generally, they wanted to know how far away the target world was. Details arrived on the second day. The planet was one of three orbiting Gliese 357. It was 30 light years from us. Nobody outside our staff had ever heard of it. A few people brought maps.

"Arthur," I said, "what happens now?" I'd expected to see him gloriously happy. The issue that had hung over his head for a lifetime had been settled. But he wasn't making eye contact. In fact, he was staring at the floor and inhaling slowly.

"NASA will send them a message," he said.

"By radio?"

He managed a smile. "Of course. What else have we got?"

"What do you think we'll say?"

"What would you say, Vince?"

"Hello. Greetings from Earth. Hope all's well."

"That would be perfect if they understood English." He closed his eyes.

"What's wrong, Arthur?"

"Nothing. I'm fine."

"I realize they won't speak English." I smiled. "You think we should try Spanish?"

"We need to send something they can understand. Probably prime numbers. Or maybe one pulse, pause, three pulses, pause, six pulses, twelve pulses, and then maybe repeat. It's the best we can do. If we get lucky and pick the right frequency they'll understand we're trying to make contact and hopefully send a reply." He sighed and started to turn away. "See you later, Vince. Got some work to do."

"Arthur, you want to go over to Larry's tonight and have a drink? We ought to celebrate."

"Not tonight, Vince. Maybe tomorrow."

"What's wrong? You've been waiting for this your whole life. We've found somebody. We're knocking at their door."

"Yeah." He nodded. "The hello is going to take 30 years to get there. And their reply, if there is one, will need 30 more to get back. You're right. We're knocking at their door. I wonder who's going to be here if they open up."

Stephen King described **Jack McDevitt** as "the logical heir to Isaac Asimov and Arthur Clarke". He has won a Nebula, and the Campbell, Philip Dick, Heinlein and NASA awards. The IAU put his name on an asteroid.

THE STORY BEHIND THE STORY

Jack McDevitt reveals the inspiration behind *Knock knock*.

In the mid-1940s, when I discovered Isaac Asimov, Theodore Sturgeon and Robert Heinlein, it was clear that the interplanetary adventures on display would arrive in the near future. During the 1960s. Which was when I decided I would join in and become a space pilot. That I would walk on Mars. It seemed perfectly reasonable at the time. And I realized that I would almost certainly live long enough to learn whether there was life elsewhere. I guess that's gone whacko.