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HOW WE CAN FIGHT

LIGHT POLLUTION

p. 14

THE JOYS OF
WIDE-FIELD
IMAGING p. 40

PLUS:

- THE STORY BEHIND LUNAR NICKNAMES p. 36
- ALL ABOUT ASTRONOMICAL ALMANACS p. 24
- CELESTRON'S SKYMASTER PRO BINOCLS REVIEWED p. 46

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Interstellar debris claim debated

WAS IT ALIENS — OR WAS IT A TRUCK? That's the latest twist in the ongoing saga of the metallic spherules recovered last June from the floor of the Pacific Ocean. Harvard University astrophysicist Avi Loeb has controversially claimed these tiny spheres are of interstellar origin, and possibly even pieces of alien technology.

The spherules were found within a search zone informed in part by an analysis co-authored by Loeb of seismic readings from Manus Island in Papua New Guinea. The readings coincided with reports from U.S. government sensors of a suspected interstellar meteor, IM1, entering and breaking up in Earth's atmosphere Jan. 8, 2014.

But a new study presented March 12 at the Lunar and Planetary Science Conference in Houston suggests that the seismic activity in question likely has a more down-to-Earth explanation: It was

from a truck driving along a nearby road.

"The signal changed directions over time, exactly matching a road that runs past the seismometer," said team leader Benjamin Fernando, a seismologist at Johns Hopkins University, in a press release. He added that his team found "lots of signals like this," and that "they have all the characteristics we'd expect from a truck and none of the characteristics we'd expect from a meteor."

Using seismic data from different stations, Fernando and his colleagues triangulated a rough position for IM1's fireball, centered about 105 miles (170 kilometers) away from Loeb's search zone. "Not only did they use the wrong signal, they were looking in the wrong place," Fernando said.

The work adds to a chorus of dissent from scientists regarding Loeb's claims. Objections include the large

uncertainties of pinpointing such a speedy object and that natural or human processes are more likely explanations for the compositions of the recovered spherules, a handful of which are unusually rich in beryllium, lanthanum, and uranium.

Loeb disputed the conclusions of the seismic analysis, writing on his blog that the search zone was mainly determined by U.S. military satellite observations; the seismic readings were used only to refine the location

IM1, WHAT'S YOUR 20?

Scientists suspect that a truck driving on the road next to the Manus Island seismic station was the source of the pseudo-meteor signature. ROBERTO MOLAR CANDANOSA AND BENJAMIN FERNANDO/JOHNS HOPKINS UNIVERSITY, WITH IMAGERY FROM CNES/AIRBUS VIA GOOGLE

within it. However, the U.S. military has not publicly released the full dataset. Loeb also noted that the 90-percent-confidence ellipse for the location of IM1 derived by Fernando's team covers a large area, and that the search zone falls within it.

— ELIZABETH GAMILLO, M.Z.



HOTLY DEBATED. This spherule recovered from the Pacific seafloor is 0.016 inch (0.4 mm) across. AVI LOEB/MEDIUM