

Many See Satellite Over Aust.

Many thousands of people in many parts of Australia and New Zealand saw Russia's artificial satellite move slowly across the sky early last night.

The satellite, which the Russians have named "Sputnik," will pass over Sydney again tonight about 7.40, the chief engineer of the Overseas Telecommunications Commission, Mr. R. R. Long, said last night.

Scientists "Puzzled"

Hundreds of people in Sydney reported seeing the satellite move across a cloudy sky at 7.39 p.m.

But two groups of experts were puzzled and disappointed. They were:

- C.S.I.R.O. radio scientists who reported "strange interference" with the satellite's radio signal as it approached Sydney; and

- Astronomers at Belfield whose view of the satellite through special telescopes was blocked by cloud.

Newspaper offices and radio stations throughout N.S.W. received telephone calls from hundreds of excited callers reporting the satellite.

The "Herald" switchboard received more than 150 calls before 9 p.m. from widely scattered suburbs and country towns.

A "Herald" reporter and photographer watched the satellite pass over the city from the roof of the 14-storey "Herald" building.

The satellite appeared unmistakably at 7.39—the time that Russian scientists forecast it would pass over Sydney.

It resembled a star of average brilliance and moved at the same apparent speed as a high-flying jet aircraft.

The satellite approached from the south-south-east and moved towards the north-north-west.

The sky over Sydney was

heavily clouded except for an area directly above the city.

As the satellite moved across this cloudless patch—about a quarter the area of the sky—its brilliance appeared to diminish gradually.

But the satellite was clearly visible until it moved behind a dark bank of clouds.

Scientists in Sydney were puzzled and disappointed when the radio signal from the Soviet satellite was "interrupted" about 7.25 p.m.—14 minutes before the satellite was directly over Sydney.

Radio listeners—including dozens of radio "hams" throughout New South Wales—heard the satellite's usual interrupted signal change to a continuous buzz.

An expert at the C.S.I.R.O. radio research centre at Sydney University said this change in the signal could have been intentional.

He said it could be due to one of three possible causes:

- The signal could have been changed by an automatic time switch in the satellite.

- A coded radio impulse from Russia could have affected transmission from the satellite.

- A fault could have developed in the transmitter.

Radio listeners reported that the signal became unstable about 7.25, righted itself a few minutes later, then faded out—apparently because of distance.

The Sydney Morning Herald.

TUESDAY, OCTOBER 8, 1957

Over City Tonight

Mr. Long said last night before it disappeared near the moon. The brightness of the moon made it impossible to see past that point.

He said engineers of the Overseas Telecommunications Commission had tracked the satellite at their radio receiving stations at Bringelly, near Sydney, and Rockbank, Victoria.

From these observations, they had computed its orbit accurately, he said.

"The path of the satellite can now be predicted anywhere," he said.

"It will pass over Sydney at 7.40 again tomorrow night, and also twice during the day, but will not be visible in daylight."

Reports from Victoria, Tasmania, South Australia, Western Australia and New Zealand last night said thousands of people had seen the satellite travelling in a south-to-north direction.

Satellite Seen

Interstate

But the secretary of the Sydney Amateur Astronomers' Group, Mr. G. Pastson, said that the group's 20 trained "skywatchers" had missed the satellite because of cloud.

But they would try again tonight, he said.

The satellite was identified over Canberra at 7.40 last night, the research engineer at the Commonwealth Observatory, Mr. K. Gottlieb, said.

Mr. Gottlieb said: "I saw it rising in the forecast position east of the Southern Cross. I followed it for 20 to 30 seconds."

"It began 10 degrees above the horizon and moved across an arc of 110 to 120 degrees

The Professor of Physics at Sydney University, Professor Harry Messel, said that if Russia provided no further information on the satellite, scientists would still gain valuable experience in plotting its course.

"The fact that the satellite can be seen with the naked eye is amazing in itself," he said.

Science Given Great Scope

"It will mean that scientists will be able to plot the course of the satellite and check their calculations by observing its flight."

"This gives science great scope for checking predictions on the flight of satellite bodies."

"It was believed earlier that one of the greatest difficulties would be to find the satellite in the sky—even with special telescopes."

Professor Messel said he watched for the satellite but his view was obscured by cloud.

Role Of Soviet Satellite Puzzling West's Scientists

NEW YORK Oct. 7 (A.A.P.-Reuter).—In the fourth day of its life, the world's first artificial satellite—which the Russians have named Sputnik is creating confusion over the questions:

- Is Sputnik making space studies, such as temperatures or space's shooting stars?
- Is it telling about them in a radio code?
- Will the Soviet inform other nations of what Sputnik learns in this maiden voyage into space?

Professor A. Blagonravov, one of the leading Soviet scientists responsible for Sputnik, said in New York yesterday that the satellite was not the one the Soviet said it would send up in connection with the International Geophysical Year.

“Nothing To Fear”

Speaking through interpreters on a television program, he also said the satellite was not transmitting coded messages.

Professor Blagonravov said Sputnik was purely experimental. The next Soviet satellite would be launched for the I.G.Y.

Nobody should have anything to fear from the Soviet satellite program, which was aimed at eventually carrying human beings into space, he said.

Professor Blagonravov, who has been attending an I.G.Y. conference in Washington, said that Sputnik carried only radio equipment, circuits and

batteries for tracking purposes and was not studying temperatures or other events in space.

But in Moscow a prominent scientist was reported as saying that the satellite was counting hits by meteorites out in space, and would have to report this by some code.

However, because of translation difficulties, it is possible that the Moscow scientist was referring to future satellites, and not to Sputnik.

Sounded Like Code

Some U.S. scientists listening to Sputnik's beeping signals detected changes which, they said, sounded like a code.

They added, however, that this could well be a practice test of a presently meaningless code.

Dr. John P. Hagen, director of the American moon project, “Vanguard,” said in an interview last night that Sputnik's radio signal “appears to contain a code.”

“It could well have no meaning other than to practice a code transmission,” he said.

“This would be expected. It's hard to tell if it represents real information.”

Circled Earth 30 Times

By 4 a.m. G.M.T. today—2 p.m., Monday, Sydney time—the satellite had made 32 complete revolutions round the earth, according to Moscow Radio.

The radio added: “According to measurements so far made, the satellite's period of revolution is virtually unchanged.”

“The apparatus of the artificial earth satellite is functioning normally.”

Soviet scientists, overjoyed at their success in launching Sputnik, yesterday announced that very soon they would launch heavier and larger “moons” equipped with a more varied range of recording instruments.

Professor Fesenkov is heading a team of Soviet scientists helping with I.G.Y. studies at Aswan, on the Nile.

Meanwhile, Western scientists have continued to try to plot the orbit of the satellite and pinpoint the launching site.

Dr. J. Allen Hynek, associate director of the Smithsonian Astrophysical Laboratory, said last night that American scientists would be able to extract more precise data about the satellite than Russian experts when the satellite's radio batteries were exhausted.

The Russians had 75 moon-watching stations. The United States had 150 stations throughout the world, 99 in the United States alone.

In Temple City, California, Dr. W. B. Pickering, chairman of the American I.G.Y. working group on tracking, said the satellite was probably launched from a point north of the Black Sea.

He said the probable point of launching was determined after a detailed study of data assembled by scientists at a tracking station in California and by I.G.Y. officials in the United States.



DR. J. P. HAGEN

An American Associated Press report from Cairo quotes Professor Fesenkov, one of the team which built Sputnik, as saying that animals would be sent up in the second Soviet satellite.

Instruments to test their reaction to space flight would also be packed into the satellite, he said.

Satellite Old Hat To The S-F Men

NEW YORK, October 7 (A.A.P.).—The Russian space satellite is as outmoded as the T-model Ford as far as science-fiction writers are concerned.

They put satellites on the shelf, along with atomic energy and rockets, 10 or 15 years ago, and turned to fantastic new fields to conquer.

"The space satellite is not science fiction any more because it's now science," said John Campbell, editor of "Astounding" magazine, yesterday.

"Some years back, atomic energy used to be science fiction. Rocket engines used to be science fiction. Now they all are just plain science."

Horace L. Gold, editor of "Galaxy," another science-fiction magazine, agreed that the satellite was "old hat" to his writers.

"We know too much about it," he said.

Time Travel Still To Come

"Other things are very far from being immediate realities, such as time travel, travel to very distant stars and travel faster than the speed of light."

Other subjects also had been outmoded for science

fiction, Mr. Gold said. Among them he listed antibiotics, chemical therapy for mental illness, and jet planes.

"Writers hardly ever mention three-dimensional video-phones any more," he said.

These gadgets, he explained, were television tele-phones in three-dimension.

Bid To Control "Moons"

NEW YORK, Oct. 7.—The United States expects to put before the U.N. General Assembly next week a suggestion for the control of outer space missiles, says the "New York Times."

The proposal may cover such a satellite as the Soviet launched last Friday.

The newspaper says however that the move is not a result of the Soviet's launching of the earth satellite, but has been part of the Western program for disarmament since last summer's disarmament talks in London.

Could Be Converted

An earth satellite, in the opinion of the U.S. delegation, could be converted into a weapon-carrying missile.

The "New York Times" quotes diplomatic sources as saying that the U.S. resolution already has the support of 20 nations.

It is believed to urge that all future outer space research should serve "only peaceful and scientific purposes."

"FAR-FETCHED TO BE ALARMIST"

REPLY TO MESSEL

The Commonwealth Astronomer, Professor Bart J. Bok, said in Canberra last night that it was far-fetched to be alarmist about the Soviet's earth satellite.

He was commenting on a statement by the Professor of Physics at Sydney University, Professor H. Messel, on Sunday night that he had "a dreadful feeling that we are nearing the end."

Professor Bok said there might be military implications to the satellite, but one should stress the really peaceful implications.

He said it was the outcome of cheerful rivalry between the nations, with the Russians coming out "on top of the heap."

"It is all to the good in International Geophysical Year," Professor Bok said.

"It is a real achievement in pure science.

"Man for the first time is getting outside the earth's atmosphere and defying the law of 'what goes up must come down.'"

Professor Bok said it would be a long time before cameras could be installed in earth satellites.

The first problems were those of weight and the apparatus to be used.

However, once difficulties could be overcome, cameras could show a number of very interesting and valuable things.

These included the study of cosmic rays, meteorites, the ultra violet radiation of the stars and sun, the precise form of the orbit, and the distribution of matter and face of the earth.

"But that will all be at a later stage," he said.

Professor Bok said the next thing was for a satellite to be invented that would go towards the moon and possibly around it.

"The region of the moon seems relatively close now," he said.

"It will be a matter of combined ingenuity and expense."

Professor Bok said that

eventually cameras might be able to record details of other planets.

The Minister for Supply, Mr. Howard Beale, said in Adelaide yesterday that Russia's earth satellite should be a stimulus and a warning to Australia to concentrate on the training of the maximum number of students in engineering and science.

If we did not, we must fall behind in the race for technological efficiency.

He said the launching of this satellite was one of the most important scientific achievements of the century and spoke volumes for the progress made by the Russians in the science of rocketry.

If the knowledge gained was shared with other nations it would be of the greatest benefit to mankind.

Mr. Beale said Australian scientists at Woomera had been tracking the Russian satellite since last Saturday.

Signals from the man-made moon had been recorded on magnetic tape.

Woomera Scientists

Analysing Signals

Mr. Beale said the Woomera scientists were now analysing the recorded signals.

They would pass on any interesting information to scientific organisations throughout the world.

If Russia provides the necessary data and equipment, the Weapons Research Establishment is willing to authorise Woomera scientists to radio-interrogate Russian satellites in the same way as they will the American satellites, to be launched later, and record the automatic radio replies.

If Russia accepts this offer Woomera will radio the coded signals received from the Russian satellites to Russia through the International Geophysical Year authorities in the U.S.

Mr. Beale said a round-the-clock listening watch was organised at Woomera as soon as the Russians announced the launching of the satellite and its frequencies.

Woomera radio first picked up the satellite at 10.30 p.m. on Saturday.

The Woomera scientists are tracking the satellite on hastily prepared emergency equipment, and their findings may not be perfectly accurate.

Special American equipment worth £100,000 is being assembled at Woomera to track satellites accurately—but it will not be able to follow the Russian "moon" because of the radio frequency used. The frequency varies from that which America is to

U.K. Govt. To Study Claim On Leakage

LONDON, Oct. 7 (A.A.P.-Reuter). — The Prime Minister, Mr. Harold Macmillan, agreed today to consider Labour Party allegations of a leakage beforehand of the Government's intention to raise the Bank Rate to 7 per cent.

This was announced following a visit to 10, Downing Street this morning by two leading Labour Party M.P.s, Mr. Harold Wilson, its economic expert, and Mr. James Griffiths, Deputy Leader of the Opposition.

The Government has so far refused to hold an inquiry into the Labour Party allegations.

Mr. Wilson, in a letter to the Government last Friday, offered to place prima facie evidence before any Government inquiry.

Mr. Macmillan told him in reply: "If you are willing to make this available to me, I am prepared to refer it to the Lord Chancellor and to ask him to report to me whether it affords sufficient ground for further investigation."

Fourth Quin Dies

TOULON, Oct. 7 (A.A.P.-Reuter). — Roland, one of the two surviving Christoffe quintuplets, died at 3 a.m. today.

This morning, doctors said that the condition of the only survivor, Michele, was stationary.

Michele, the first of the quintuplets born last Wednesday, weighed 2lb 1oz at birth.