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NEW ZEALAND ASSOCIATION OF RADIO TRANSMITTERS - BRANCH 63 UPPER HUTT
Branch 63 Clubrooms
Park Street, Upper Hutt

ZL2VH Newsletter – November 2025

President's Report

Thanks to everyone who turned up for the meeting on Friday 24 October 2025 to discuss the purchase of a replacement repeater for Climie 730. As it was pointed out, Climie 730 has been a mainstay of the club for many years as an analogue FM repeater (with IRLP as well since 2003).

A motion was passed unanimously to purchase a new Tait TB7300 VHF repeater. Once the antenna and other jobs are completed (hopefully before Christmas) then we should hear this repeater in service.

There is still some work that has carried over for Climie – the replacement SDR antenna and the 3 GHz Beacon but as you are aware the weather has been really against for trips. So, no trips to Climie over the last month.

Jock White Field 2026 is on Saturday 28 February 2026 and Sunday 1 March 2026. We can activate the clubs callsign again for this event using the caravan. So, mark this weekend down in your calendars as its any easy event to take part in, and if new to ham radio, then a good way to get into operating and log keeping.

Please ensure loan equipment is returned in good condition. If parts are missing, damaged or otherwise please report this. Don't just hide it and leave

it for the next person to find out that the equipment is unusable when next needed.

Repeater Report

Repeater: Status

Climie KiwiSDR	On Air – antenna not connected.
10 m Beacon (28.229 MHz)	On Air
3 cm Beacon (10368.275 MHz)	Off Air
1292 (23 cm)	On Air.
D-Star 5425, 860	On Air
730	On Air
395 (6 m)	On Air

Is Low Earth Orbit Getting Too Crowded?

Hundreds of satellites may soon be flying in orbital regions that are already too packed to allow safe and long-term operations, a new study suggests.

The study found that, while in 2019 only 0.2% of satellites in Earth orbit were forced to perform more than 10 collision-avoidance manoeuvres per month, that percentage had risen sevenfold by early 2025, to 1.4%. That number might still seem low, but it means that some 340 satellites spend a lot of time dodging debris and other spacecraft.

Moreover, the satellite population is set to keep growing. While in 2019 about 13,700 objects (including space junk) zoomed around the planet in low Earth orbit (LEO), at altitudes below 1,200 miles (2,000 kilometres), that number has since risen to 24,185 objects in 2025, an increase of 76%, according to the study. By the end of this decade, some 70,000 satellites may reside in LEO, according to industry growth predictions, representing a more than fivefold increase compared to the 2019 situation.

The study, conducted by William E. Parker, Maya Harris, Giovanni Lavezzi, and Richard Linares of the Department of Aeronautics and Astronautics, Massachusetts Institute of Technology, was published September 26 in the journal, Acta Astronautica. The research was sponsored by the Department of the Air Force Artificial Intelligence Accelerator.

The authors selected 10 collision-avoidance manoeuvres per month as a threshold at which satellite operation may become too complicated to be beneficial. Different operators choose a different threshold to perform collision-avoidance manoeuvres. NASA spacecraft mostly manoeuvre when the collision risk is greater than 1 in 10,000. SpaceX — the world's biggest satellite operator, with its Starlink broadband mega constellation — is more cautious, using its autonomous space dodging system to avoid an object posing a risk greater than 1 in 3.3 million. Frequent manoeuvres present a disruption to operations that some satellite handlers are better able to absorb than others.

[ANS thanks Space.com for the above information. Read the full article at https://www.space.com/space-exploration/satellites/is-low-earth-orbit-getting-too-crowded-new-study-rings-an-alarm-bell. See the complete academic paper at https://www.sciencedirect.com/science/article/pii/S0094576525006332?dgcid=author.]

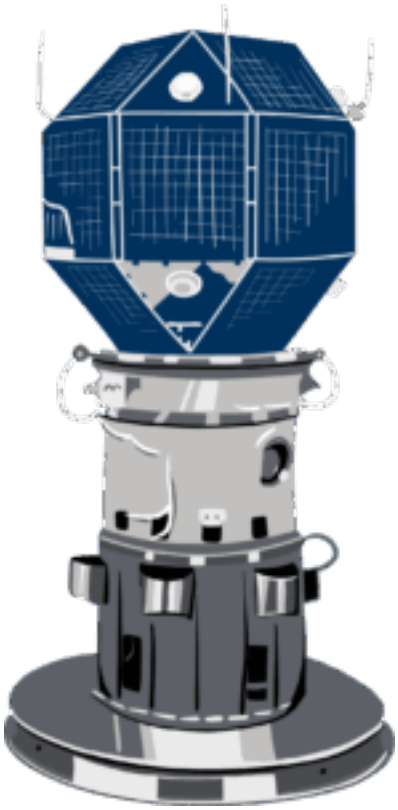
Artist's rendering of space junk in orbit is attached:

Is AO-7 Still the Oldest Satellite?

AMSAT-OSCAR 7, or AO-7, is the second Phase 2 amateur radio satellite constructed by the Radio Amateur Satellite Corporation (AMSAT). It was launched into Low Earth Orbit on November 15, 1974, and remained operational until a battery failure in 1981. After 21 years of apparent silence, the satellite was heard again on June 21, 2002 – 27 years after launch, and it continues to be used by amateurs daily even now. For a couple decades, AMSAT has been able to proudly boast that this bird is the oldest operating satellite in space.

However, that record has been challenged. After 47 years of silence, LES-1, a satellite launched by the U.S. Air Force and MIT's Lincoln Laboratory in 1965, began transmitting again. Its signals were detected by Phil Williams, G3YPQ, from North Cornwall in southwest England on 18 December 2012, verified by other members of Hearsat group, Flávio A. B. Archangelo, PY2ZX, in Brazil on 22 December 2012, and Matthias Bopp, DD1US, in Germany on 27 December 2012.

LES-1 (Illustration courtesy of MIT)



According to Williams, LES-1 was determined to be tumbling with a rotation rate of once every four seconds, as determined by distinctive fading of the signals. It is possible that, after 47 years, the batteries failed in a manner that allows them to carry charge directly through to the transmitter on 237 MHz, allowing the satellite to resume transmissions when it is in sunlight. The satellite continues to be operational as tracked by the SatNOGS network.

[ANS thanks Daily Galaxy for the above information. Read the full article at https://dailygalaxy.com/2025/10/lost-for-50-years-zombie-satellite-signals/.]

Update: Hamvention 2026

The recent flight deals to the USA with Air New Zealand ended on 22 September 2025. So, if you missed out on those then sign up with Air New Zealand and I'm sure they will run another deal before the May 2026 event. I have booked my flights to Los Angeles return which was about $1300.00 plus I added in some extras for the flights. But these were cheap. Also, Fiji Airways and others have deals but not direct from Auckland to the USA, normally a stopover is required on the way. If you are intending to go then book your accommodation now. I will be in Dayton from Thursday 14 May until Monday 18 May 2026. You'll need a rental car to get around the place.