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VHF Band I SRD Technical Consultation
Radio Spectrum Management – Policy & Planning
Resources, Energy & Communications Branch
Ministry of Business, Innovation & Employment
P.O. Box 1473
Wellington 6140

A submission on the Technical Consultation Paper on
VHF Band I SRD Technical Consultation (low power short range devices (SRDs) in VHF Band I, channel 1, specifically at 49 MHz).

Herewith is our response to the Ministry’s paper.

Thank you for the opportunity to make comments.

OFFICIAL INFORMATION ACT 1982

We have no objection to the release of any information contained in this submission.

PRIVACY ACT 1993

We have no objection to our name being included in any summary of submissions that the Ministry may publish.

Yours sincerely,

Peter Ingham

BACKGROUND

The Greater Wellington Marine Model Club (Inc) exists to promote the hobby of constructing and operating Models of Marine craft (including Radio Controlled models). The club was incorporated in 1958 and has members throughout the lower North Island (primarily south of Levin).

The use of 49MHz frequency bands in the USA for radio control of models is generally restricted to "Toy-Grade" devices, often selling for under $100 (and sometimes under $20).

The general characteristics of such Toy-Grade devices is that the transmitters are crystal controlled whereas receivers are not, and have a wide frequency response and utilize Analogue signal encoding.
Often the Transmit frequency will simply be described as "27MHz" or "47MHz" and transmitter output power is not specified.
With the poor receiver quality, it is common for a model to respond to any transmitter running in the band. And hence users may expect to only run a single model in a frequency band in close proximity to other models without experiencing crosstalk that leads to loss of control.

GWMMC club members typically operate "Hobby-Grade" devices, which have significant differences from the "Toy-Grade" devices.

The general characteristics of Hobby-Grade devices is that both transmitters and receivers are crystal controlled and have a much narrower frequency response. Analogue signal encoding is primarily used on the GURL frequency bands of 75MHz and below; Digital Encoding is typically used for higher GURL frequency bands. The available bands are generally broken into "Channels" comprised of agreed frequencies and New Zealand practice is to follow the "channel" frequencies used elsewhere (primarily the standards adopted by the UK RC Model clubs).
During club meetings, clubs will usually operate a Frequency board where club members "reserve" a channel for their use and will not operate (or swap to an alternate pair of crystals) if the frequency is in use by another club member. This allows multiple models to be operated in close proximity without loss of control due to crosstalk (desirable when a single model may represent years of effort to build). Newer equipment tends to be Digital and Spread Spectrum which allows large numbers of models to be operated on the same "Frequency" with no cross talk issues and no issues with other GURL users causing problems have been observed.

COMMENT

We aware that 49MHz is also used in other jurisdictions for purposes other than toy models, including:

- Cordless phones
- Baby Monitors
- Toy Walkie-Talkies
- Wireless Headphones

SUBMISSION

1. We support the objective of bringing the permitted use of this band in line with common usage in other jurisdictions (such as FCC 47 CFR 15).

2. Should the 49MHz band be opened for GUL/GURL use, we do not believe that we would typically use it for operating models.

The club has encountered situations where "Toy" users of the 27MHz GURL band have caused us problems. If 49MHZ were to be permitted and become popular for such users, it would potentially reduce the likelihood of this occurring.

3. The "Note 3" restriction (Model Control) on Option 1 would not appear to be in line with usage in other jurisdictions and would not address issues with Customs enforcement.

4. Options 1,2,3. We believe the e.i.r.p limits should be as low as possible whilst remaining consistent with the limits that apply within other jurisdictions, otherwise this would not address issues with Customs enforcement.

5. Option 4 would not appear to be in line with usage in other jurisdictions and would not address issues with Customs enforcement.

END