

Information paper regarding interference on the WSJT MS calling frequency in the 2 meter band

The 2 m MS calling frequency for WSJT mode, was decided to be 144.370 many years ago by the IARU. This frequency was fairly well chosen, as it resides far away from the SSB calling frequency and the beacon band. However, many hams have observed that in particular around 144.370 one or more narrow band birdies are residing. To be more precise, around 144.371, as we tune to 144.370 (USB, suppressed carrier mode employed). The results are one or more tones within the audio pass band.

K1JT's WSJT is a potent application and is capable of reducing 1 and sometimes 2 tones. As long as these tones are weak and "pure" this feature works reasonably well. Modulated and multiple tone (>2) reception or strong interfering carriers can not be suppressed by the software.

Many, but not all, of the interfering carriers on 144.371 are emanating from switches, routers and sometimes cable TV networks. Nearby frequencies like 144.365 and 144.375 (+1 kHz) seem to be less prone to this kind of interference, at least that is my assumption. Hence, I conducted a rudimentary survey in January and February 2013, requesting 2 m radio hams to inform me about whether or not this issue of interference is EU-wide.

40 hams responded, of which a vast majority had (strong) interference on 144.371 and less or no interference either on 144.365 or 144.375. The response originated mainly from West-European countries, but a few replies came from Ukraine and Estonia as well. Clearly, not enough feedback to defend a proposal for a QSY yet. Hence, I would like to request the national VHF-managers to conduct a national survey whether or not the interference on 144.371 is an issue and if alternative frequencies like for instance 144.365 / 144.375 would be acceptable.

The results of this survey could be used to make a proposal, or to cease such an effort, depending on the outcome. Results can be sent to the Dutch VHF-manager or to me personally (peter@hoefsloot.net).

Thanks for your cooperation,

Peter Hoefsloot, PA3BIY