## SwissDMR ending connections with HB-TRBO (and HB-CONNECT)

Effective April 1, 2017, SwissDMR (Brandmeister) will cease all links to DMR Networks HB-TRBO and HB-CONNECT. This decision is based on careful consideration and consultations among users and repeater sysops. Please find below, the reason for this decision.

In July 2016, SwissDMR (Brandmeister) established interconnections to the former DMRplus network (now HB-CONNECT) and to the HB-TRBO network. From the onset, the links between the networks were limited to Swiss national talk groups, shared transparently on both networks. SwissDMR shared the national calling channel TG 228 and user activated TG 22801 with DMRplus/HB-CONNECT. The HB-TRBO network received TG 228, TG 2280-2289, TG 22801-22804, and a link to the DMR-C4FM gateway TG 22810.

With regards to technical circumstances, SwissDMR's interconnections with the before-mentioned networks worked fine, however, it created significant confusion among users. DMRplus was known to operate with so-called reflectors, and its users found it difficult to adapt to the Brandmeister system. In addition, transceivers programmed for DMRplus operation would be used on Brandmeister using the only common denominator: TG 228. This caused frequent long QSOs on national TG 228, blocking TS1 on all Swiss repeaters. In the French speaking part of Switzerland in particular, these long QSOs in German language were perceived as irritating.

The numbering plan for talk groups is different in all three networks. Even experienced users were often confused and overwhelmed with the required programming and changed operation procedures. This led to the use of unsupported talk groups in other networks, which would block a timeslot on the repeater, but it would not be heard by anyone.

The Brandmeister system was designed to meet international requirements and massive growth from the beginning. It has been proven to be future-proof, stable and scalable.

SwissDMR uses time slot 1 for the nationwide calling channel TG 228, for international traffic and for user activated talk groups. Time slot 2 is dedicated to all regional- and local traffic. This design has been successfully proven, time and time again. All SwissDMR repeater sysops comply with this TG allocation.

HB-TRBO and HB-CONNECT follow a different talk group numbering scheme. They are using time slot 2 for all national, regional and local traffic. Time slot 1 is reserved for DMR-MARC and user-activated talk groups. This system may work in a small network with very little traffic. However, experience of SwissDMR and Brandmeister shows that this concept is impractical in an international and busy network. Even local or regional traffic at very low level would disrupt any possibility of an international or national CQ call being heard. SwissDMR statistical analysis shows that frequently there are four and more QSOs running at the same time without bothering each other.

Interconnections between different DMR networks should be convenient to use. The connections established 2016 between various Swiss DMR networks caused confusion. Feedback collected by SwissDMR from users and repeater operators was worse than expected: the connections to non-Brandmeister networks were not well received by a significant number of already confused and frustrated users.

In order to keep the majority of HAMs happy, a DMR network must be user-friendly, robust and reliable. Too many tinkerers spoil the broth.

The conclusion, after nine months of interconnection with non-Brandmeister networks, is rather disappointing: The partnership appears to be very asymmetrical. SwissDMR will focus on offering a

consistent, innovative and reliable infrastructure, based on Brandmeister technology to serve the best interest of the vast majority of its users. This doesn't mean that SwissDMR will exclude the future possibility of interconnections between different digital operating modes, but SwissDMR will only accept interconnections which will not run the risk of compromising quality and operability.