

BayMACS & TransMACS Descriptions

BayMACS

BayMACS, on the air since September 2003, is a countywide multi-band simulcast repeater system for all public safety users. It is our current solution to allow radio users from different frequencies to talk to each other using their current mobiles and portables on shared interoperability channels.

Today BayMACS allows mobile users on VHF, UHF/T-band and 7/800MHz – and their dispatchers – to communicate throughout the valley floor from Palo Alto to Gilroy. BayMACS has been used in pursuits and active shooter incidents as well as for planned events such as presidential visits. BayMACS has two primary limitations. One, it allows only a single conversation and so cannot easily support simultaneous or large scale events. Two, it is designed to provide on-street mobile coverage. Portable (hand-held) radio coverage is limited.

BayMACS will remain in service as SVRCS is built out and until it is no longer required for interoperable communications.

TransMACS

TransMACS is a communications trailer housing our ACU1000 cross-band gateway along with a tilt-up telescoping mast antenna, dedicated generator and technician workspace. It is designed to be deployed to an incident location and to be self supporting regarding power, heat, A/C, lighting, workspace, etc.

The ACU1000, acquired in 2004, connects eight radios allowing ad hoc connectivity between VHF-low and high-band, UHF, UHF T-band and 800MHz radio frequencies. These radios can be connected as required for the incident to which TransMACS responds.

While numerous similar gateways exist around the state, many are configured to allow incoming mutual aid to talk on local primary radio systems. While TransMACS can also do this, it is programmed to allow interoperable communications at the incident site without impacting agency primary radio systems, which must still be used to conduct daily operations. TransMACS has capabilities similar to the CHP radio interoperability vehicles.

The trailer has been received and final configuration and local equipment installation should be completed by May of 2013.

Cache Radios

Over the last two years, the County has purchased 92 dual-band VHF-700/800 MHz radios on behalf of the South Bay Region for local interoperable use and when responding to other regions of the Bay Area to provide mutual aid where 700 MHz radio communications systems similar to the SVRCS have been/are being deployed and/or in use by law enforcement, fire and medical emergency public service providers.

Other caches of VHF and UHF radios are also being maintained by local agencies for similar interoperable mutual aid use.