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**Mt LEMMON UHF: 444.975 (RPT Tx) / 449.975 (RPT Rx) 100.0 PL**

Linked full time with Keystone

This repeater was quickly constructed when most Commercial and Ham repeaters were burned and commercial power was lost to those that didn't burn. Our building, tower and all our commercial repeaters were among the many that were burned and totally destroyed. We had the (then) 449.975 "Lemmon" repeater on the air before the fire had stopped burning. We provided power with a generator for weeks until commercial power was back on. It was received with such enthusiasm I decided to leave it on the air. This repeater has coverage from Gila Bend & Wickenburg [West], to North of Phoenix [North], Lordsburg, NM to the [East] and Nogales to the [South]. It is easily accessed from many parts of Phoenix with HT's, however in Tucson it is weaker in the Northwest (where I live) near the foothills and unusable at the base of Mt. Lemmon due to the shadowing effect of Pusch Ridge.

Mt. Lemmon can be linked to Mule Mt. (Bisbee) by using 107.2 tone on each end. Also, 123.0 can link all three UHF repeaters together in an *experimental* mode. Fell free to try it. In this case, both the Mt. Lemmon and Keystone repeaters would need to be keyed up with 123.0 (that day) to link them to Mule Mt. They reset and "unlink" at 3 AM every morning.

*Note: Mid 2009 this repeater's Rx and Tx frequencies were swapped, your radio must now Rx low on 444.975 and Tx high on 449.975. This was done to stop noise being generated by the military from jamming the repeater's receiver. The repeater was then re-coordinated late 2009. This noise is affecting all UHF repeaters in the area and because we are secondary to the military there is little we can do about it.*

**KEYSTONE PEAK UHF: (Green Valley): 444.875 (RPT Tx) / 449.875 (RPT Rx) 100.0 PL**

Linked full time with Mt. Lemmon

Because of poor coverage in Northwest Tucson provided by any Mt. Lemmon repeater, I constructed the Green Valley (AKA "Keystone") repeater located West of Green Valley on Keystone Peak, the highest point in the Sierrita Mountains. The repeater's coverage is extremely good into most areas of Tucson, Nogales, North of Casa Grande, West into Sells and East to Benson. This is my main Tucson repeater,

with Mt. Lemmon used for outside Tucson coverage and linking Phoenix traffic to Tucson. Keystone is now linked full time to Mt. Lemmon. 100.0 is the normal tone to use.

Keystone (Green Valley) can also be linked to Mule Mt. (Bisbee) by using 103.5 CTCSS tone on Keystone and using 110.9 tone on Mule Mt. This was changed to stop radios from getting into both ends of the link at the same time. This was a problem until different tones were used on each end. Also, 123.0 can link all three UHF repeaters together in an *experimental* mode. Feel free to try it. In this case, both the Mt. Lemmon and Keystone repeaters would need to be keyed up with 123.0 (that day) to link them to Mule Mt. They reset and "unlink" at 3 AM every morning.

*Note: March 2009 this repeater's Rx and Tx frequencies were swapped, your radio must now Rx low on 444.875 and Tx high on 449.875. This was done to stop noise being generated by the military from jamming the repeater's receiver. The repeater was then re-coordinated late 2009. This noise is affecting all UHF repeaters in the Tucson area, but because we are secondary to the military there is little we can do about it.*

**MULE MT UHF: 444.875 (RPT Tx) / 449.875 (RPT Rx) 110.9 (Keystone link) OR 107.2 (Mt. Lemmon link)**

Mule Mt is located on top a mountain 3 miles NW of Bisbee, AZ. It is reusing the Keystone (Green Valley) frequencies and must be linked with either Mt. Lemmon or Keystone to be used and is not intended to be a stand-alone repeater.

Mule Mt. (Bisbee) can be linked to Mt. Lemmon by using 107.2 CTCSS tone on both ends. Change \* Mule Mt. (Bisbee) can be linked to Keystone (Green Valley) by using 110.9 CTCSS tone on the Mule Mt. end and 103.5 CTCSS tone on the Keystone end. This will keep your radio from trying to key up both sites at the same time. This was a problem until different tones were used on each end. Also, 123.0 can link all three UHF repeaters together in an *experimental* mode. Feel free to try it. In this case, both the Mt. Lemmon and Keystone repeaters would need to be keyed up with 123.0 first (that day) to link them to Mule Mt. They reset and "unlink" from Mule at 3:00 AM every morning.

**Mt LEMMON VHF: 147.100 (RPT Tx) / 147.700 (RPT Rx) 100.0 PL**

**On June 1, 2004, I added a two meter repeater at the Mt. Lemmon site. The frequency is 147.100 + offset with a PI tone of 100.0. June 28 2008 we replaced the antenna and feed line. It now has a new commercial antenna mounted 180 feet on a 160 foot tower at Radio Ridge. 7/8ths hard-line gets most of the 50 watt from the Kenwood TKR-720 repeater to the antenna. At this time it is running about 400 watts ERP. This antenna works quite well, but the repeater was intended to only be temporary. If I get time I have a 110 watt GE MastrII to replace it. At this time it is not linked to the UHF repeaters.**