

SATELLITE TELEPHONE SYSTEM VS. VHF MOBILE RADIO PRELIMINARY ANALYSIS

Point to Point Dispatch

Annual Estimated VHF Usage	60000 min
Equivalent Satellite Airtime Cost	\$150,000

Group Talk (assuming 5 crews/day, 2 hours talk time)

Annual Estimated Satellite Usage	600000 min
Equivalent Satellite Airtime Cost	\$1,500,000
Satellite Rental Costs	\$126,000

TOTAL ESTIMATED ANNUAL OPERATING COST	\$1,776,000
ESTIMATED CAPITAL COST	\$825,000
Capital carrying charge	\$98,157

Weighted annual cost - satellite **\$1,874,157**

VHF MOBILE RADIO SYSTEM

Capital cost	\$8,700,000
Capital carrying charge	\$1,035,111
Annual operating cost (tower space & trunking)	\$480,000

Weighted annual cost - VHF **\$1,515,111**

Assumptions

1. Weighted cost of capital 8.3%, amortized over 15 years
2. Satellite airtime costs assumed to be \$2.50/min
3. Assumes (incorrectly) that satellite provides the same functionality as VHF
4. Assumes the same number of satellite terminals as VHF radios currently in use.
5. Assumes no participation by WST in VHF system.