

# **SANTIAGO INFORMATION**

- HIGHEST POINT IN SOUTHERN CA WITH ACCESS FOR COMMUNICATIONS
- LOCATED AT BORDER OF ORANGE AND RIVERSIDE COUNTIES IN SANTA ANA MOUNTAINS
- 33-42-37N (33.7106), 117-32-03W (117.5333)
- 1733 METERS (5686 FEET) AMSL
- 1222 METERS (4009 FEET) HAAT

# **SANTIAGO DESIGN CRITERIA**

- **Reliable Repeater System**
  - Commercial Grade Equipment, Professional Installation
  - Emergency Generator Power
  - Battery Back-up (4 Hours)
  - Redundant Transmitter (reduced power) for AC fail mode
- **Coverage for all KP Medical Centers with installed equipment and rooftop antennas**
  - San Diego County (Zion)
  - Riverside County (Riverside, Moreno Valley)
  - San Bernardino County (Fontana, Ontario)
  - Orange County (Anaheim, Irvine)
  - Los Angeles County (LAMC, Bellflower, Downey, West LA, Panorama City, Woodland Hills, South Bay, Baldwin Park)
  - Kern County (Future)
- **Coverage with 50 watt mobile radio from parking lot of KP Medical Centers**
- **Coverage of all KP Facilities (MOB's, etc) in Southern California with 50 watt mobile radio**

# SANTIAGO COVERAGE

- Coverage Area
  - Orange County – 790 square miles
  - Kern County – 8,141 square miles
  - Los Angeles County – 4,161 square miles
  - Riverside County – 7,207 square miles
  - San Diego – 4,200 square miles
  - San Bernardino County – 20,053 square miles
- Total area in square miles = 44,552 square miles
- Santiago Repeater Coverage Area = 20,000 square miles
- 60 Mile Radius for Repeater coverage is 11,309 square miles
- Santiago Location
  - Lat 33.71111
  - Long -117.5317

# **SANTIAGO DISTANCES**

- **SANTIAGO TO:**

SAN DIEGO – 72 MILES

WOODLAND HILLS – 70 MILES

PAN CITY – 63 MILES

SHERMAN WAY LAB – 60 MILES

WEST LA – 56 MILES

SUNSET (LAMC) – 49 MILES

PASADENA (REOC) – 47 MILES

SOUTH BAY – 45 MILES

DOWNEY – 38 MILES

BALDWIN PARK – 36 MILES

FONTANA – 26 MILES

MORENO VALLEY – 24 MILES

ONTARIO – 24 MILES

ANAHIEM – 21 MILES

RIVERSIDE – 15 MILES

IRVINE – 14 MILES

CORONA DATA CENTER – 11 MILES

REFERENCE: [WWW.DISTANCEFROMTO.NET](http://WWW.DISTANCEFROMTO.NET)

# Santiago Building



# Santiago Owner

(Note Propane Powered Generator Behind Sign)  
(KPARN Sub Leases Space From Glendale Electronics)



  
**AMERICAN TOWER™**  
CORPORATION

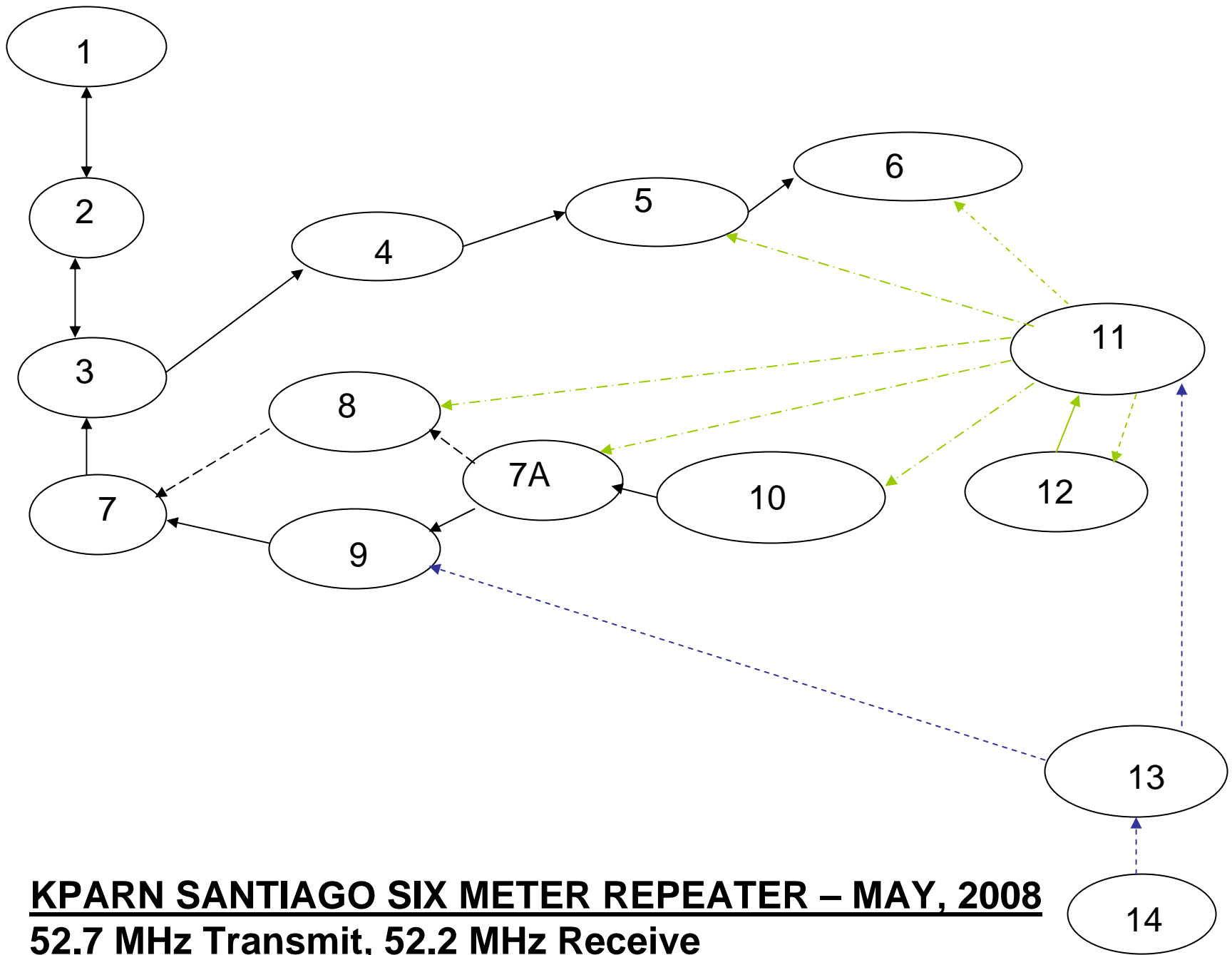
SITE NAME: SANTIAGO PEAK 3 CA  
4444  
SITE NUMBER: NOT REQUIRED  
FCC REGISTRATION NUMBER:

FOR LEASING INFORMATION: 877-282-7483  
877-ATC-SITE

IN CASE OF EMERGENCY:  
877-518-6937  
877-51-TOWER

**NO TRESPASSING**

[www.americantower.com](http://www.americantower.com)  
POSTING OF THIS SIGN REQUIRED BY LAW



**KPARN SANTIAGO SIX METER REPEATER – MAY, 2008**  
**52.7 MHz Transmit, 52.2 MHz Receive**

# KPARN Santiago 6M Repeater

1. Antenna – Kreco – Model CO-40A
  2. EMP – PolyPhaser – Model IS-50NX-CO
  3. Duplexer – Wacom WP-609 (Telewave TCPD 0454) – sn 29023 – 3dB Receive, 4dB Transmit Insertion Loss
  4. Notch Filter – DCI – Model 52.2-D-10R-N3 – Ten Pole – sn 20272 – 9dB Insertion Loss
  5. Preamplifier – Advanced – Model P50VDG – 26dB Gain
  6. Receiver – Daniels – Model VR-3H045-SWA200 - Sensitivity 0.1 uV (12dB SINAD)
  7. Antenna Relay – Tohtsu Coax Relay – Model CX800N
  8. Amplifier – Power Failure – Mirage – Model A-1015-G – sn 48924A – 2 Watts in, 55 Watts out Duplexer
  9. Amplifier – Primary – TPL – Model PA1-3AF-HMS-DE1 – sn 1025 – 2 Watts in, 250 Watts out – 175 Watts Out of Duplexer – Duplexer 4dB Insertion Loss
  10. Transmitter – Daniels – Model VT-3H045-SWA300 – 2 Watts Output
  11. Power Supply – 12 VDC – ICT OEM for Daniels
  12. Battery Backup – Interstate Batteries (2) – 75 Amp Hour Deep Cycle Sealed Lead Acid – Charged by Power Supply (#11)
  13. Line Power – 120 VAC
  14. Emergency Power – Generator Back-Up
- Note: Relay (Item #7) is normal operating position is primary amplifier (#9). Should power fail, relay changes state and activates power failure amplifier (#8). A beep tone on transmit by repeater indicates the power fail amplifier is activated.
  - Note: Repeater Receives and Transmits CTCSS Tone of 82.5 Hz.
  - Repeater – Daniels Model SR-39-1 – sn 112629 – with AC-3E audio Controller – Morse ID: K6ARN
  - Not Shown – Radio Over IP – Transmit and Receive Audio + PTT – Telex Model IP223 – sn22095







## SANTIAGO

MATTHEW  
MARIOTTI

15 YEARS OLD  
OVER FIVE FEET  
TALL

NEXT TO NEW  
SANTIAGO SIX  
METER  
DUPLEXER

JUNE, 2009