DISTRICT COMMUNICATIONS OFFICERS MEETING
AUGUST 7, 2010

DISTRICT 17 – LOMITA
OVERVIEW
(…With a marketing management perspective)

1. Cities and Agencies Served
2. Frequencies and Repeaters
3. Our Members
4. Our Mission and Key Strategic Sites
DISTRICT 17 is:
- Hermosa Beach*
- Redondo Beach
- Torrance
- Lomita
- Palos Verdes Estates
- Rancho Palos Verdes
- Rolling Hills Estates
- Rolling Hills
- (Unincorporated) La Rambla, Westfield, and Academy Hill

* by special arrangement

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Base Image: Google Earth
District 17–Lomita encompasses the southwest corner of L.A. County, serving 313,000 residents in eight cities.
We also support two hospitals and two multi-city districts, Palos Verdes Unified Schools and Palos Verdes Libraries.

**DISTRICT 17 MULTI-CITY DISTRICTS**
- Palos Verdes Peninsula Unified School District (56 hams)
  - Elementary School
  - Intermediate School
  - High School
  - Administrative Site
  - Private School
- Palos Verdes Library District (30 hams)

**MAJOR MEDICAL CENTERS**
- Providence-Little Company of Mary Hospitals (19 hams)
A recent project we’ve undertaken for PVPUSD is testing amateur antennas for the new Malaga Cove headquarters. There are numerous constraints involved at this school site…

Hill rises 700’ above school + additional 500’ elevation to repeater

Net control point

One of few roofs without an overhang

…and the need to make do with equipment already owned.
Of course, we serve the Lomita Sheriff’s station with full coverage on 2-meters, 220, 440, 6-meters, and 10-meters.
1. Cities and Agencies Served

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Due to our District’s topography, we use three repeaters (on 2 meters and 440) to ensure complete radio coverage.

Simplex Frequencies:

- 1.25-meters (EOC Link)
- 3 simplex 2-meter frequencies
While our 2-meter repeater has great coverage of the L.A. Basin, it cannot cover the entire Palos Verdes Peninsula.
To overcome our 2-meter repeater limitations, we use two 440 MHz repeaters; three of our cities also use 440 MHz.

- 2-meters (W6TRW-r)
- 1.29-meters (K6TPD)
- Sheriff's Station, Lomita
- 440 MHz (PVAN)
- 440 MHz (Rolling Hills-r)
- 440 MHz (PV West-r)
- 440 MHz (HBARA)
- 440 MHz (PVE NART)

District 17 DCS repeaters
City Radio Organization repeaters
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As background, District 17’s cities (especially the Palos Verdes Peninsula) have high levels of hams vs. elsewhere.

<table>
<thead>
<tr>
<th>Amateur Radio Operators by South Bay Cities</th>
<th>Amateur Licenses Per 1,000 Residents</th>
<th>FCC Amateur Licenses in City (Individuals)</th>
<th>July 1, 2008 Population (Census Bureau estimates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palos Verdes Peninsula</td>
<td>9.9</td>
<td>638</td>
<td>64,459</td>
</tr>
<tr>
<td>Torrance</td>
<td>6.0</td>
<td>841</td>
<td>140,820</td>
</tr>
<tr>
<td>El Segundo</td>
<td>5.5</td>
<td>89</td>
<td>16,217</td>
</tr>
<tr>
<td>Manhattan Beach</td>
<td>5.2</td>
<td>191</td>
<td>36,605</td>
</tr>
<tr>
<td>Lomita</td>
<td>5.0</td>
<td>101</td>
<td>20,156</td>
</tr>
<tr>
<td>Redondo Beach</td>
<td>4.7</td>
<td>310</td>
<td>66,182</td>
</tr>
<tr>
<td>Hermosa Beach</td>
<td>4.1</td>
<td>80</td>
<td>19,350</td>
</tr>
<tr>
<td>Gardena</td>
<td>3.0</td>
<td>173</td>
<td>58,554</td>
</tr>
<tr>
<td>Lawndale</td>
<td>2.1</td>
<td>67</td>
<td>31,346</td>
</tr>
<tr>
<td>Hawthorne</td>
<td>1.8</td>
<td>153</td>
<td>84,305</td>
</tr>
<tr>
<td>Inglewood</td>
<td>0.9</td>
<td>98</td>
<td>112,714</td>
</tr>
<tr>
<td><strong>District 17 total</strong></td>
<td></td>
<td><strong>1,970</strong></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Amateur licenses are for individuals only as of January 10, 2010; club and repeater licenses excluded; Palos Verdes Peninsula is sum of all four cities; Torrance licenses include amateurs in Hollywood Riviera (Redondo ZIP code 90277); Redondo licenses exclude these.
But within District 17, only 240 “unduplicated” amateurs--12% of 1,970 hams--are believed in disaster radio groups

Eight disaster radio groups, with overlapping membership, provide opportunities for participation and belonging

<table>
<thead>
<tr>
<th>Total Amateurs</th>
<th>Members in DCS</th>
<th>District 17 - Lomita Disaster Amateur Radio Organization</th>
<th>★ = DSWV status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,970</td>
<td>2.0%</td>
<td>Total Amateurs Licensed in District 17’s Area (prev. page)</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>40</td>
<td>L.A. County DCS – District 17 (L.A.S.D.); previously 140 members</td>
<td>★</td>
</tr>
<tr>
<td>86</td>
<td>8</td>
<td>Torrance Amateur Radio Association (Torrance P.D.)</td>
<td>★</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>Neighborhood Amateur Radio Team (Palos Verdes Estates P.D.)</td>
<td>★</td>
</tr>
<tr>
<td>45 est.</td>
<td>6</td>
<td>ARES (A.R.R.L.)</td>
<td></td>
</tr>
<tr>
<td>30 est.</td>
<td>2</td>
<td>South Bay Emergency Communications Service (private group, seeking DSWV status through cities)</td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>6</td>
<td>Peninsula Volunteer Alert Network (City of Rancho Palos Verdes)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Hermosa Beach Amateur Radio Association (City of Hermosa Beach)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>W6TRW / Manhattan Beach ERG</td>
<td>★</td>
</tr>
</tbody>
</table>
In competing against other radio groups in District 17, we recognize DCS has the highest cost in economic terms.
Looking at our 40 current members, we have an older group whose careers mostly involved “high precision” actions.

### District 17 DCS Membership Profile (2010)

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Career (Current or Retired)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retired</td>
<td>Electrical Engineer</td>
</tr>
<tr>
<td></td>
<td>Aerospace (other)</td>
</tr>
<tr>
<td></td>
<td>Scientist</td>
</tr>
<tr>
<td></td>
<td>IT Management</td>
</tr>
<tr>
<td></td>
<td>Refinery operator</td>
</tr>
<tr>
<td>Employed</td>
<td>Company Presidents</td>
</tr>
<tr>
<td></td>
<td>Corp. Vice Presidents</td>
</tr>
<tr>
<td></td>
<td>Lawyer</td>
</tr>
<tr>
<td>Student</td>
<td>Physician</td>
</tr>
<tr>
<td></td>
<td>Pharmacist</td>
</tr>
<tr>
<td></td>
<td>Healthcare consultant</td>
</tr>
<tr>
<td>Average Age</td>
<td>Under 40</td>
</tr>
<tr>
<td></td>
<td>40-49</td>
</tr>
<tr>
<td></td>
<td>50-59</td>
</tr>
<tr>
<td></td>
<td>60-69</td>
</tr>
<tr>
<td></td>
<td>70-79</td>
</tr>
<tr>
<td></td>
<td>80+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Median Age</th>
<th>63</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 40</td>
<td>2</td>
</tr>
<tr>
<td>40-49</td>
<td>9</td>
</tr>
<tr>
<td>50-59</td>
<td>7</td>
</tr>
<tr>
<td>60-69</td>
<td>9</td>
</tr>
<tr>
<td>70-79</td>
<td>8</td>
</tr>
<tr>
<td>80+</td>
<td>5</td>
</tr>
</tbody>
</table>

Many jobs have required high degree of accuracy or precision. Many members also have high opportunity cost of time.
It’s OK to be the highest-priced product if there is a higher quality and image to justify the price

We are using marketing principles to justify our price gap:

- Clearly define mission in positive terms
- Understand client needs vs. people capabilities (and value of time)
- Maintain “brand image” consistent with premium price
- Demonstrate recognizable quality
- Track “Awareness, Trial, Repeat” rates
- Lead through example and inspiration

Our strategies:

- Demonstrate quality across all platforms (meetings, communications, website, etc.)
- Aim for clear communication, zero-defects
- Re-position County events as a way to be better operators, whether for city or DCS
- Achieve results through example: DCS November election night in Torrance already over-subscribed (a first)
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Our primary mission during disasters is ensuring amateur radio operation at high-level and critical sites in District 17

District 17 DCS Mission

- **Our first staffing priority:** all Emergency Operations Centers
  - L.A. County Sheriff’s Dept. Lomita station
  - Assist L.A. County Fire Dept. Battalion 14 HQ
  - Support City / special district EOC’s if additional DSWV operators needed

- **Second staffing priority:** Field communication, at Sheriff’s direction
  - Incident command posts
  - LASD CERT support; other CERT as requested
  - Area evacuation centers
  - City support, if requested
  - Special districts (PVPUSD, PVLD)

- **Mutual aid to other DCS Districts**
Our mission is one of three commitments we’ve made to our members to stabilize and solidify DCS’ position.

Our Commitments to in District 17 DCS Members

- **Mission**: Focus on high-level ham radio disaster communication needs of our cities and special districts
- **Respect Sheriff’s Department policies to retain their trust in us**
- **Provide our members with opportunities for training and public service beyond those of other disaster radio groups**
District 17 EOCs are:

17      Sheriff’s Station
17-A  City of Lomita
17-B  Palos Verdes Estates
17-C  Rancho Palos Verdes
17-D  Redondo Beach
17-E  Rolling Hills
17-F  Rolling Hills Estates
17-G  Torrance
17-H  Hermosa Beach

L.A. County Fire Stations are:

2  Palos Verdes Estates
6  Lomita
53  Rancho Palos Verdes (south)
56  Rolling Hills
83  Rancho Palos Verdes (east)
106  Rolling Hills Estates (Battalion 14 HQ)
55  Avalon
155  Twin Harbors

District 17 is mostly residential, recreational, and retail with some strategic sites besides EOCs, hospitals, and schools.

Strategic Sites In District 17:
- Northrop Grumman aerospace complex
- Exxon Mobil refinery
- Water-supply system for PV Peninsula
- Terranea Resort
- RPV Landslide Zone
- L.A. County radio tower complex

Our Mission

Federal radio tower complex

Fire Battalion 14: Catalina Island

Base Image: Google Earth

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The Exxon Mobil refinery and almost 200 other key sites in Torrance will be covered by TARA’s organization.
The massive L.A. County radio tower complex in RPV serves Sheriff, County Fire, and the County’s trunked radio system.
In back of the L.A. County radio towers are four religious congregations and two large assisted-living complexes. Religious facilities might be used as shelters. HT ham radios will definitely experience intermod near here.

L.A. County radio towers, looking north, 5721 Crestridge Road.
A much-larger Federal radio tower complex, including radars, is atop San Pedro Hill—our District’s highest point.

Be prepared for significant intermod problems when operating near this site with HT radios.
The FAA’s powerful radar dome atop San Pedro Hill monitors all air traffic in Los Angeles / Orange County basin.
Besides all the usual VHF/UHF antennas, San Pedro Hill’s Federal site has a huge rotating HF log-periodic antenna.
The Palos Verdes water supply system is a large-scale gravity drop operation relying on huge electric pumps.

Palos Verdes water system has 36-hour supply

Issues:

- No generator can supply backup electricity for pumps
- Portions of large pipe have very difficult access

Pump house
Intermediate tanks (710 ft.)
Top of hill tanks (1,440 ft.)

From MWD reservoir

Federal radio tower complex
Finally, just southeast of a new $480-million resort complex is the continually-moving Portuguese Bend landslide area.

- HT radios in this area cannot get over the hill to repeaters in L.A. basin.
- Best 2-meter option is RPV EOC’s simplex frequency.

Photos: Al6DF, T-001
The Portuguese Bend landslide area has very difficult radio operating conditions and may be unstable after a big quake.

The sign really means it; driving speed is 15 mph, with sudden dips and rises.

Photos: AI6DF, T-001
The Portuguese Bend landslide area has very difficult radio operating conditions and may be unstable after a big quake.
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5. Summary
In summary, District 17 is striving to provide high-quality services for our client agencies and our members

In Conclusion

- Our District has some major strategic facilities, but also radio operation issues due to topography and RF

- We have a high-cost competitive position among amateur radio groups in District 17...

- …but we’ll manage it to our advantage

- We’ve committed to providing quality and accuracy our client agencies want and our members expect

- Please remember we’re dealing with a competitive challenge from another organization not friendly to DCS

- We need your help to ensure the quality and image of DCS