The Los Angeles Police Department Challenge Cup

By Dean M. Coulter, NØCGW
11668 Curry Ave
Granada Hills, CA 91344

The Los Angeles Police Department (LAPD) Challenge Cup is an annual relay race in which law enforcement agencies from western North America field teams of at least 20 runners each to cover a 120-mile distance. Terrain, climate and a six-minute-mile pace make this perhaps the most grueling police relay race in the US. It was this desolate desert area where our troops were trained for Operation Desert Storm. Every year presents a new combination of climatic conditions: extreme heat, cold, wind, rain and blowing sand. Runners and radio operators have to withstand these rigors.

The 1991 event, on April 21, started at Silver Lake, six miles north of Baker, California (elevation 923 feet). The course headed north over hilly terrain on state highway 127, climbing to Shoshone (elevation 1569 feet). Then the course turned east on State Highway 178, entered Nevada on State Highway 372, and went on to Pahrump, ascending to 2666 feet.

As night fell, the runners proceeded southeast into the darkness on State Highway 160 past Mountain Springs (elevation 5502 feet), down to Interstate 15 and north into Las Vegas (elevation 2033 feet). Expected arrival was during the morning of April 21. The distance was split into 20 legs, ranging from 3½ to more than 7 miles each, depending on the grade of the segment traveled by the runner. The region is extremely dry and barren—hot during the day and cold at night.

Men and women of all ages made up 135 teams representing local, county, state and federal law enforcement agencies. Each team comprised 20 primary runners and five alternates. These participants were selected from many applicants based on finishing times achieved in locally sponsored 10-kilometer runs. Each team was accompanied by its own support group, which dropped off and picked up primary and alternate runners at various checkpoints.

The Amateur Radio Relationship

In past years, radio amateurs had occasionally supported their favorite teams in an uncoordinated manner. Sgt Larry Bryant, N6YLA, of the Los Angeles Sheriff's Department (LASD) determined that 15 or more people were needed to carry out communications for a single team if they traveled along the race course with or ahead of the runners. This added to the automotive traffic along the route, which presented a hazard to everyone involved.

Bryant reasoned that with about 100 hams, the entire race course could be manned throughout the duration of the race, to dramatically decrease the road traffic. Maximum safety of the runners is of paramount importance. The original plan called for four command posts along the course. They were to be linked via two 2-meter repeaters and in touch with the checkpoints nearest to them.

Requests went out on appropriate nets for volunteers. An inventory of equipment was begun. This consisted of Los Angeles Disaster Communications Service (DCS) repeaters, which had been constructed earlier by Wayne Maynard, WB6BFN, and Timothy (Doc) Nordland, WB6MOQ (now a Silent Key), and antennas that were as yet under design and yet to be constructed.

A team consisting of Bryant; his wife Sandy, N6YLB; Jim and Carolyn Bogdan, WB6IMV and N6YKU, respectively; and Bob Zeiter, W6NAA, headed into the desert in three vehicles. Firsthand study of radio propagation over the proposed course was necessary. The team members leapfrogged three baton-transfer points at a time. In this way they determined that 10-watt transmitters would allow simplex operation at all radio locations. Leaving nothing to chance, Zeiter made a videotape showing the course, surrounding terrain and checkpoints.

Two weeks before the race, Jim Bogdan contacted the Frequency Controller and the owners of all 2-meter repeaters in the Las Vegas area. He informed them of the event, its scope and cleared (through them) the frequencies (145.30 and 147.27 MHz) on which DCS wished to operate. The Las Vegas repeater at 147.09, owned by Henry Little, N7AXY, was also extensively used.

With one week before the big event, on April 13, Bryant, the Bogdans, Dennis Soja, KB6NJF, Ted Moody, KB6CUS, and I got together. We built 10 four-element beams from copper tubing and PVC. The gamma matches were tuned for broadband use. Two beams pointing in opposite directions were used for reception, while two more beams, also pointing in opposite directions, were to be used for transmitting at each of the two repeater sites. This left two beams as backups.

Off and Running

The big weekend was upon us. Caravans of radio operators, mobile mikes in hand, left Los Angeles on Friday, April 19, for their desert trek. They planned to "rest up" in Las Vegas. Most of the others left in the early dawn of Saturday, the 20th, wanting to be on post by 1000.

Bryant, Bogdan, Soja, Jack King, KJ6HA, and Lynn Peltcher, N6CMU, arrived early at the first repeater site. Winds were gusting to about 60 mi/h! Bogdan reported, "The wind was blowing so hard that the cars were rocking back and forth about three inches."

The antenna towers blew over as quickly as they could be erected. With persistence and sheer determination, however, all the antennas were finally up and guyed in place.

Communications for the first half of the race were conducted on simplex and by repeater, with the Ibex Pass relay point acting as net control station (NCS). The last half of the race was operated on simplex (through command posts) without an NCS. This resulted in some operator-to-operator interference between the checkpoints and command posts the remainder of the way into Las Vegas. Bill Marple, AA6ZW, and Mike Wilkinson, WA6PRB, DCS Incident Commanders, drove the course in an attempt to solve the problems.

The relay race started on schedule at noon. Driving winds and blowing sand severely reduced visibility, but in spite of the adverse conditions, the runners pressed onward. Runners jumped off in inverted order. Those teams expected to turn in slower times started first, followed by the faster teams. All competitors were expected to culminate their ordeals by 0800 Sunday morning after the long night's run.

As the runners neared Las Vegas in the early dawn, nearly 18 hours after the start, crowds of spectators pressed close to the DCS unofficial race results bulletin board. They wanted to see where their teams were. The winning team finished in less than 11 hours, having started at 6 PM the previous day and crossing the finish line before 5 AM.

Who won? The FBI.

Post-Race Evaluation

As important as the planning of an event is its post evaluation. A debriefing was convened the second week of May. The successes and shortcomings of the event, and solutions for the latter, were thoroughly thrashed out. Enthusiasm remained high among those who participated. Many who attended the post-event analysis firmly indicated that they were ready to sign up for next year.

The DCS operation met its primary goals. Safety was a principal consideration. Teams and runners could be easily located and messages relayed to them. The communications system also provided information and effective team management. The California State Office of Emergency Services is looking into one large support group for all teams fielded during the 1992 LAPD Challenge Cup.