

The RadioTeam Finland DXpedition to Curacao for the 1990 CQ WW DX Contests has certainly taken a prominent place in the history of DX and contesting. Here is the story behind this most impressive effort.



PJ9A/PJ9W The Spirit of Victory

BY FRANK REID SMITH*, AA7FM

The Finns describe their now-famous DX-venture to the Island of Curacao as the transformation of a humble beginning into a magnificent victory. One might expect such reserved language from the Finns, but what transpired in the 1990 fall CQ WW DX Contests at PJ9A/PJ9W has now become unquestionably the largest ever DX/contest operation in the history of amateur radio.

They say journalists should avoid such superlatives, yet anyone in the doubters column has only to look at a few figures. After many years of planning and organizing, the team leaders of RadioTeam Finland, as it is now known worldwide, put out the call for able SSB and CW contest operators. Ultimately, then, this "small" country of Finland would dispatch close to 100 of their best operators, each making the expensive journey from their Nordic homeland of the Midnight Sun to far-away, exotic Curacao of the Netherland Antilles.

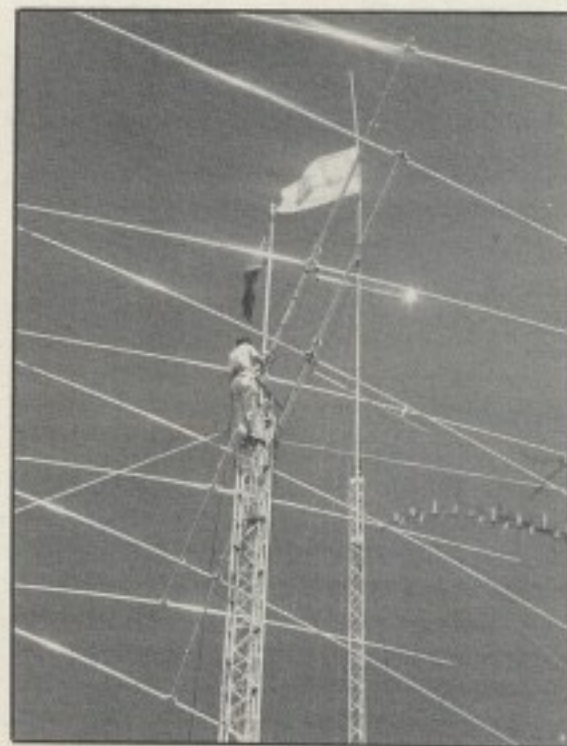
The human effort didn't begin, however, with the assembly of so many talented operators. The assemblage of equipment alone is stupefying. Well over ten tons of handcrafted aluminum towers and beam antennas were shipped in no less than three full-size sea-cargo containers from Finland to Curacao. This included 18 crank-up towers, some as high as 180 feet, and 25 monobander Yagis, including several stacked arrays, all representing a grand total of 508 meters of aluminum piping.

In addition to the many Yagis there were half-sloper beverages for 160 meters, various vertical antennas, and sev-

eral dipoles. Of course, all of this, towers and all, had to be reassembled at the other end!

Naturally, these statistics are only the beginning. Accompanying this aluminum mine were 10,300 feet of coax, 4500 feet of rotator cables, 8600 feet of guy wires, 11,300 feet of nylon rope, and close to 3000 feet of 240 volt/AC electrical wires. Even more enviable were the 15 brand-new Yaesu FT-1000 digital transceivers, each with its full complement of station accessories, including just as many brand-new logging computers.

Unbelievably, the antennas and towers were all manufactured by one highly dedicated individual—Touko Kapanen, OH6RM, whose shop is located in Istmaki, Finland. Touko's manufacturing company, KapaSystems, was an obvious giant in the long list of sponsors of RadioTeam Finland. The firm otherwise manu-



Touko, OH6RM, in final installation of 2 x 5 on 20 meter stacked array. (Photo by K4EIH)



RadioTeam Finland CQ WW SSB participants pose before returning to Finland after the contest. (Photo by K4EIH)

*Consulate of Finland, Phoenix, Arizona

factures sophisticated antennas for use in the military and government services. In fact, the rooftops of many foreign embassies located in Finland's capital, Helsinki, proudly bear KapaSystem's beam antennas.

Along with three other avid DX/contest colleagues—Carl-Heinz "Hessu" Ikaheimo, OH6XY/OH1MXY, Timo Korhonen, OH6NU, and Keijo Veijanen, OH6FT—Touko served as designated team leader of RadioTeam Finland. Among all his amateur friends, he is known by his now-familiar nickname, "Mr. Aluminum."

A multi-multi, worldwide contest effort of this unprecedented magnitude of course could not evolve without years of planning, or in this case some intriguing history. RadioTeam Finland's beginnings actually go back to 1984, but not even to Finland. Actually, it all began in Portugal.

On one cold arctic January day in 1984 Carl, OH6XY, was casually listening in on 20 meter sideband. Tuning across the band, Carl happened across a familiar voice coming in from faraway Portugal—that of the Grand Old Man of Finnish amateur radio, Armas Valste, OH2NB/CT1BCM. (Armas, who is credited with inspiring many new-country DXpeditions [4J1-, OJ0-] became a silent key on March 16, 1991.)

Armas was in a QSO with Carl's good friend Touko, OH6RM, and was discussing plans for one of Touko's towers to be welded together for transport to Portugal. As it turned out, Carl and Touko would drive the tower to Portugal, and the luck of the journey took them to Andorra, C3. The two instantly fell in love with the magnificent scenery they saw in Andorra and wasted no time deciding to return there again, but next time with rigs for a DXpedition.

Carl obtained an Andorran operating license and operated from Andorra in March 1986. All alone for five days, he operated from the broadcasting studios of RADIO SUD. "I can say that the days there were very colorful . . . especially when a hurricane twisted the elements on my Yagi antenna and came close to blowing the whole tower down!" recalls Carl.

In October of the same year Carl organized a multi-single contest expedition, again to Andorra. With the assistance of Jaume Gabot ("Jack") Balda, C31LK, and Ricardo Pallerola, C31ON, Carl obtained permission to operate with a larger group of amateurs and again in the confines of RADIO SUD. Using the call C31LDL, the team produced a score of 3.6 million.

The following year the team participated in the CQ WW Contest using the call C30W and placed eighth overall and fourth from Europe with a total score of 4.6 million.

With new recruits from Finland—



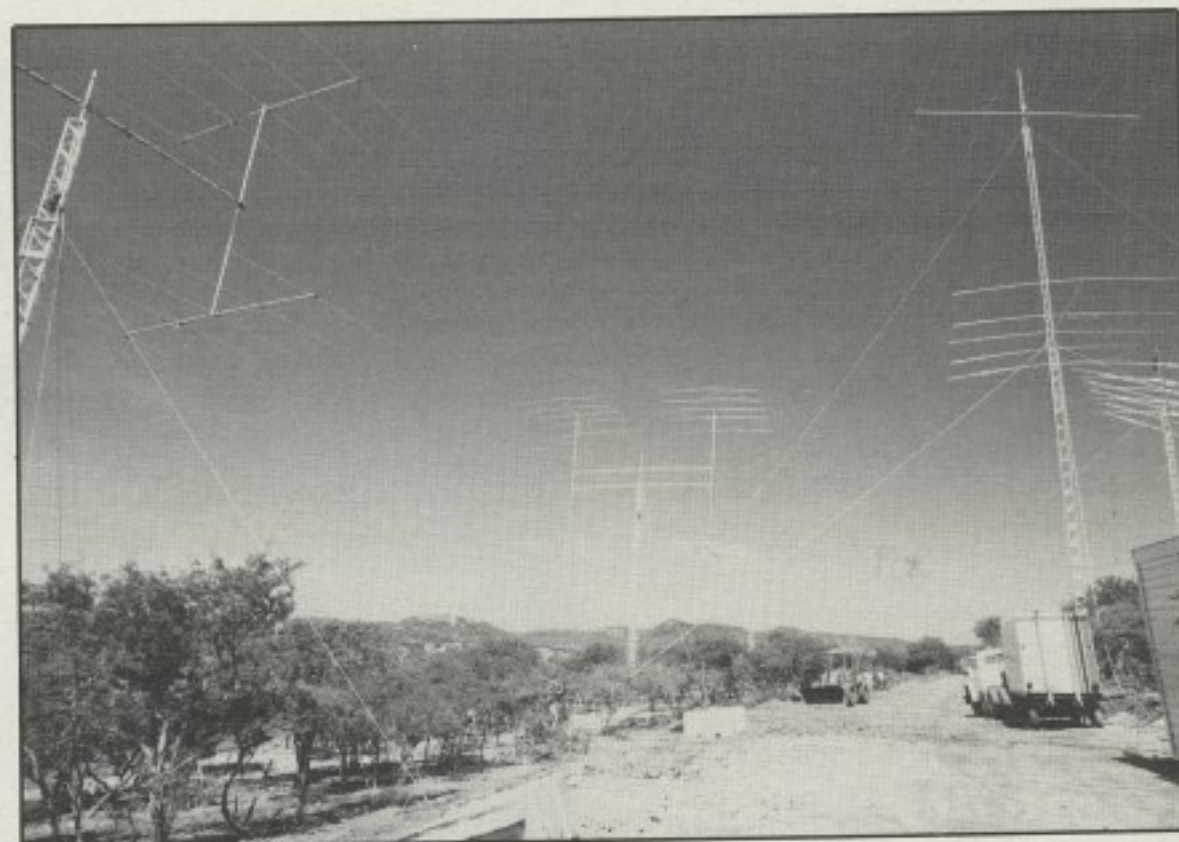
RadioTeam Finland members marching with beams from assembly area to tower site at Devil's Hill. (Photo by WA7LNW)

namely, Timo Korhonen, OH6NU, and Ari "Affe" Vepsalainen, OH6MW—the team discovered their as yet to be revealed secret to success, finishing with an impressive score of 11.7 million, placing fourth overall and second from Europe.

An unexpected nightmare struck RadioTeam Finland in 1989 when the team received word that foreign amateurs were henceforth being denied operating permission in Andorra, the outcome of decisions resulting from apparently mis-

directed policies being promulgated by telecommunications authorities in Spain, France, and Andorra. (Currently, foreign operators can obtain operating permission from Andorra.)

Fearing the worst, Hessu's team then looked into operating from the Island of Guernsey, and did in fact secure operating permission there. It has been said that when one door slams shut, another one opens. The door of better fortune opened up for RadioTeam Finland when one of



Left to right: 20 elements on 15 meters, 20 elements on 10 meters, both stacked, and two 20 meters, one fixed on USA and one fixed on Europe. (Photo by WA7LNW)



Historical Willemstad waterfront buildings, a very popular tourist site. (Photo by WA7LNW)

RadioTeam Finland on Videotape

Sponsored by Yaesu Corporation USA, professional videographer Jack Reed, WA7LNW, has produced a 48-minute commercial-quality videodocumentary of RadioTeam Finland in Curacao. Entitled "Spirit of Victory," the film has won accolades internationally. Premiered in a special viewing for the Central Arizona DX Association in May of this year, the film has been hailed as the new standard by which all DX videos will be compared. It is expected to be released soon to European television broadcasters.

Copies of the film are available at cost in the United States directly from Jack Reed, WA7LNW, 4216 West Redfield Road, Phoenix, Arizona 85023. Make checks payable to Jack Reed in the amount of \$19.95 (Arizona residents please add \$1.00 sales tax).

In Europe, PAL-version VHS cassettes are available from RadioTeam Finland. Please send inquiries to Carl-Heinz Ikaheimo, P.O. Box 1, Korppoo, Finland, or preferably by telefax: 358-26-41194.

CQ magazine's WW DX Contest Directors, Bob Cox, K3EST, flew from America to Finland to hand out a bagful of victory plaques to the Finns.

Upon hearing about the Finns' problems with the Andorrans, Bob gave a quick response: "Why don't you go to Curacao; besides, you won't have to freeze to death!" The Finns are still wondering to this day if Bob could then have imagined the scope and sheer size of the contest operation the Finns would ultimately put together at his suggestion.

Having made the commitment, RadioTeam Finland then went to work with lightning speed as their friends sat by thinking these amateurs had completely lost their minds and gone totally crazy. "It was somewhat reminiscent of Noah of

Biblical times," one team member recalls, "where we had to produce under the pressure of severe time constraints but without losing sight of the vision we had set out for ourselves, while the rest of our friends laughed! Now look who's laughing!"

In just three weeks after Bob Cox's visit to Finland, the first overseas shipping container, packed full of RadioTeam Finland's towers and antennas, was off on its voyage to Curacao. Getting wind of this entire operation, Dick Robinson, K4EIH, president of Electronic Equipment Bank, journeyed to Finland to get a

first-hand, behind-the-scenes tour of Touko's factory in Istanmaki. Soon afterwards, two other shipping containers were dispatched to Curacao.

As the first of nearly 100 amateurs began arriving in Curacao, many with their families, the arduous task of assembling the towers and antennas began. With the Coral Cliff Resort and Beach Club designated as official headquarters and chief operating site for the PJ9A/PJ9W operation, the work commenced.

The team hauled in an 18-ton crane and began raising the towers on a hilltop site which the government of Curacao

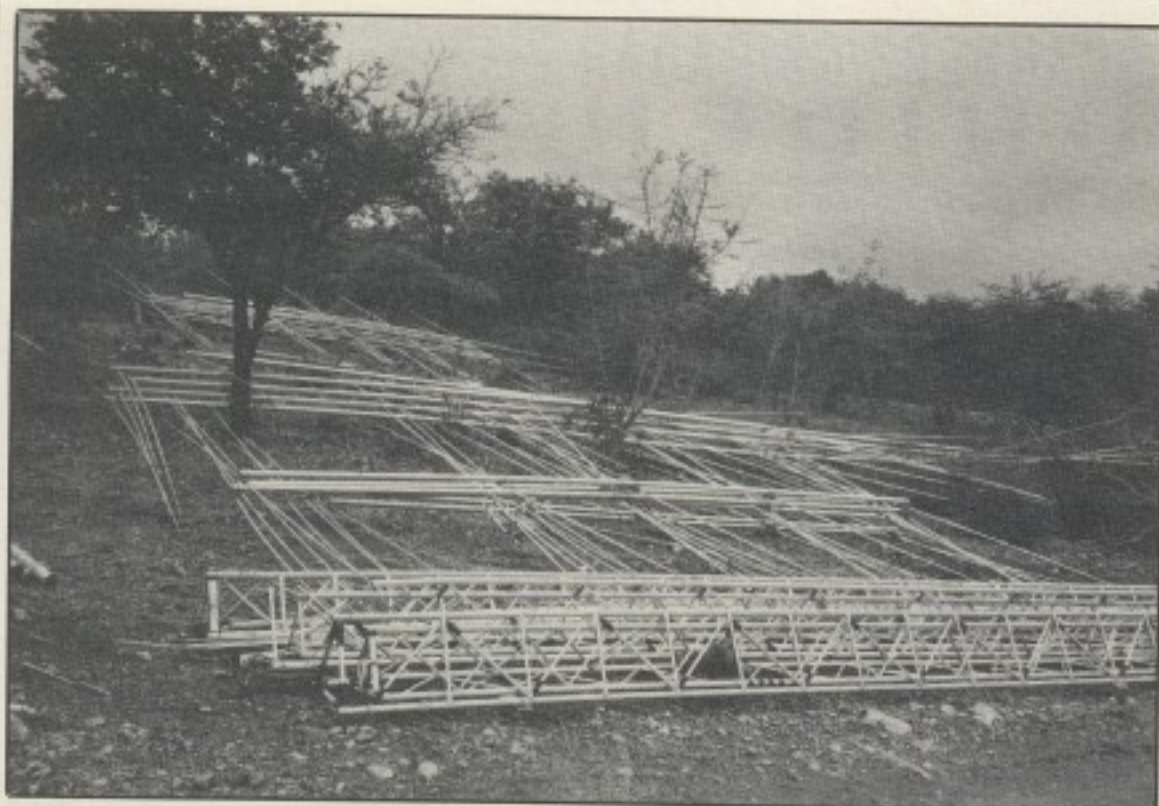
PJ9W			
Band	QSO	Count	Zone
160	377	46	15
80	1,307	89	22
40	2,306	123	30
20	1,963	159	30
15	5,387	168	37
10	5,011	150	37
Total	19,351	735	179
Multiplier 914			
Summary 52,2M			

PJ9A			
Band	QSO	Count	Zone
160	506	45	13
80	1,873	99	27
40	2,004	122	35
20	3,903	139	38
15	3,689	128	35
10	2,821	126	36
Total	15,676	659	36
Multiplier 843			
Summary 39,269,469			

Table I - Summary of the PJ9W/PJ9A effort in the 1990 CQ WW DX Contest.



RadioTeam Finland in the contest. Four stations were manned at this portable operating building. (Photo by WA7LNW)



Inventory of aluminum shipped from Istinmaki, Finland, awaiting assembly under the direction of Touko Kapanen, OH6RM, who manufactured all antennas and towers for RadioTeam Finland. In the foreground are three of the fifteen crank-up towers used in the contest. (Photo by WA7LNW)

shaved of all shrubbery to accommodate their Finnish visitors. After just two hours, observers found themselves awestruck as three monolithic giants rose to take command of this Caribbean landscape. In all their majesty, three 150 foot crank-up towers now stood, the center one bearing a 3-element 80 meter Yagi flanked by its companions bearing 4-element 40 meter counterparts.

Even though the Finns were sensing early signs of victory, it was felt that many difficulties would surely set in. As an example, in their preparing of tower footings, team members discovered that the entire island consisted of little more than decomposed coral. This put well-known Finnish ingenuity to the test. A special anchoring system would have to be devised quickly lest Touko's towers and antennas succumb to the strong winds of the area.

So with help from locals, the Finns found a solution: 3.5 ton pre-cast concrete-block anchors were located on the island and then trucked to the site.

Further aggravating the situation was word that two of the FT-1000s had been stolen at John F. Kennedy Airport during transport to Curacao. And just a day and a half prior to the contest, a major weather front set in, dumping over 2 inches of rain and forcing all work to a virtual standstill.

Just one day before the contest, which turned out to be the hottest, steamiest day of the week, the local electric company arrived unexpectedly and shut off the electricity. This was settled with some traditional Finnish diplomatic maneuvering. Twenty minutes later the disconnect order was rescinded and electricity was restored.

Late that same afternoon freight trucks arrived from Willemstad to deliver two portable operating buildings, each equipped with windows and air-conditioning units. After installation of the team's logging computers, Risto Lund, OH3UU, conducted a fast session in computer logging, and the computers were loaded with copies of MUF-MAP and Mini-Prop. Final preparations were completed just two hours before the contest as the crank-up towers were all elevated to their maximum heights.

A listening station was made ready approximately 18 miles away at the Holiday Beach Hotel. Commanded by Lars Nikko, OH0RJ, of Market Reef fame, the two groups stayed in touch with each other via 70 cm and 2 meter link.

As the contest ended, silence set in as Ville Hillesmaa, OH2MM, and Timo Korhonen, OH6NU, quickly tallied the results. Upon hearing the raw score of 52.2 million, the team erupted with spontaneous cheers undoubtedly heard in faraway Willemstad. The team would later claim a new world record in the CQ WW CW contest November of last year, with a score of 39.3 million.

With all well-earned sense of jubilation aside, it is obvious that an operation this big demands big money as well. So far the turnover of funds in connection with the RadioTeam Finland project has exceeded a half-million dollars. By comparison, this figure is well in excess of even the most exotic DXpeditions of recent memory. Many of the leadership figures in this effort supported their own commitment by taking out personal lines of credit with Finnish Banks. So far the group has received contributions in the meager sum of \$30,000. The team's financial objective is to balance out all bank debits by the fall of 1993. (Donations to RadioTeam Finland are most welcome. They may be sent to RadioTeam Finland, Carl-Heinz Ikaheimo, P.O. Box 1, SF-21711, Korpoo, Finland.)

Now, just about a year later, the team reflects upon the victory of success as



Touko Kapanen, OH6RM, "Mr. Aluminum," making the first contact on 80 meter sideband. His 3-element beam worked perfectly. (Photo by WA7LNW)



Partial inventory of supplies, which included over 10,000 feet of coax and 4,500 feet of rotator cables. (Photo by WA7LNW)



The 2 x 4 on 40 meters. (Photo WA7LNW)




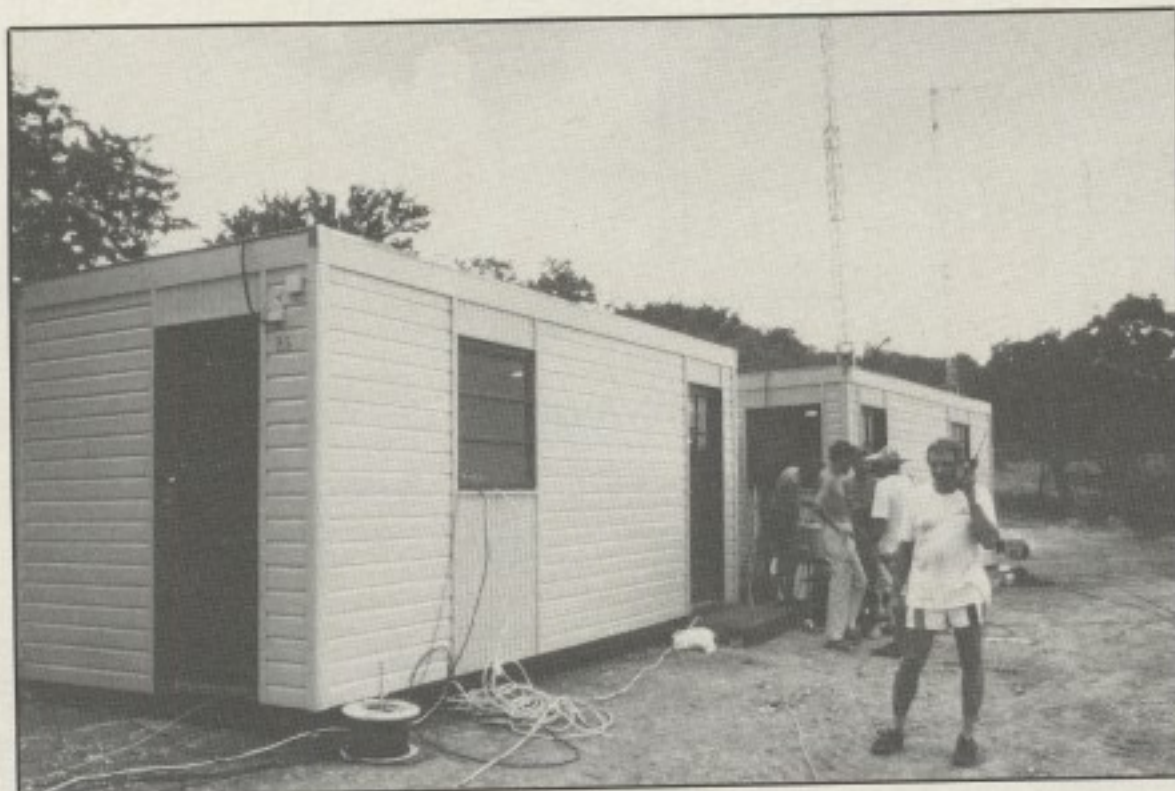
The 300 KW mobile generator being trucked to the operating site.

they plan for the future. Thinking ahead, team leaders paid a visit to several American contesters earlier this year to recruit operators for what in 1991 will be a joint American-Finnish team in Curacao.

Further, RadioTeam Finland has let it be known that for the 1991 contest an ultra-secret contest weapon has emerged from production in Finland and has been sent to Curacao in its own special cargo container. Team leaders will leave it only to the imagination of readers and inquirers as to what this stealth weapon will be. This writer guesses that it may have something to do with the 160 meter QSO count! The only way to really find out is to

stay alert during this month's CQ WW. Good luck in the contest!

RadioTeam Finland wishes to thank its many sponsors who so graciously assisted with this massive effort: Yaesu Corporation USA, Electronic Equipment Bank "EEB"—K4EIH, ICE—W9SU, KLM Royal Dutch Airlines, LandsRadio (Curacao), Coral Cliffs Hotel and Beach Club (Curacao), Benefon Corporation (Finland), Teleste Corporation (Finland), Okobank of Finland, Okobank of Konnevesi (Finland), Pension Varma (Finland), JOT System, KapaSystems—OH6RM, CQ magazine, Salt River Project (Phoenix, Arizona), and Jack Reed, WA7LNW. 



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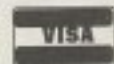
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