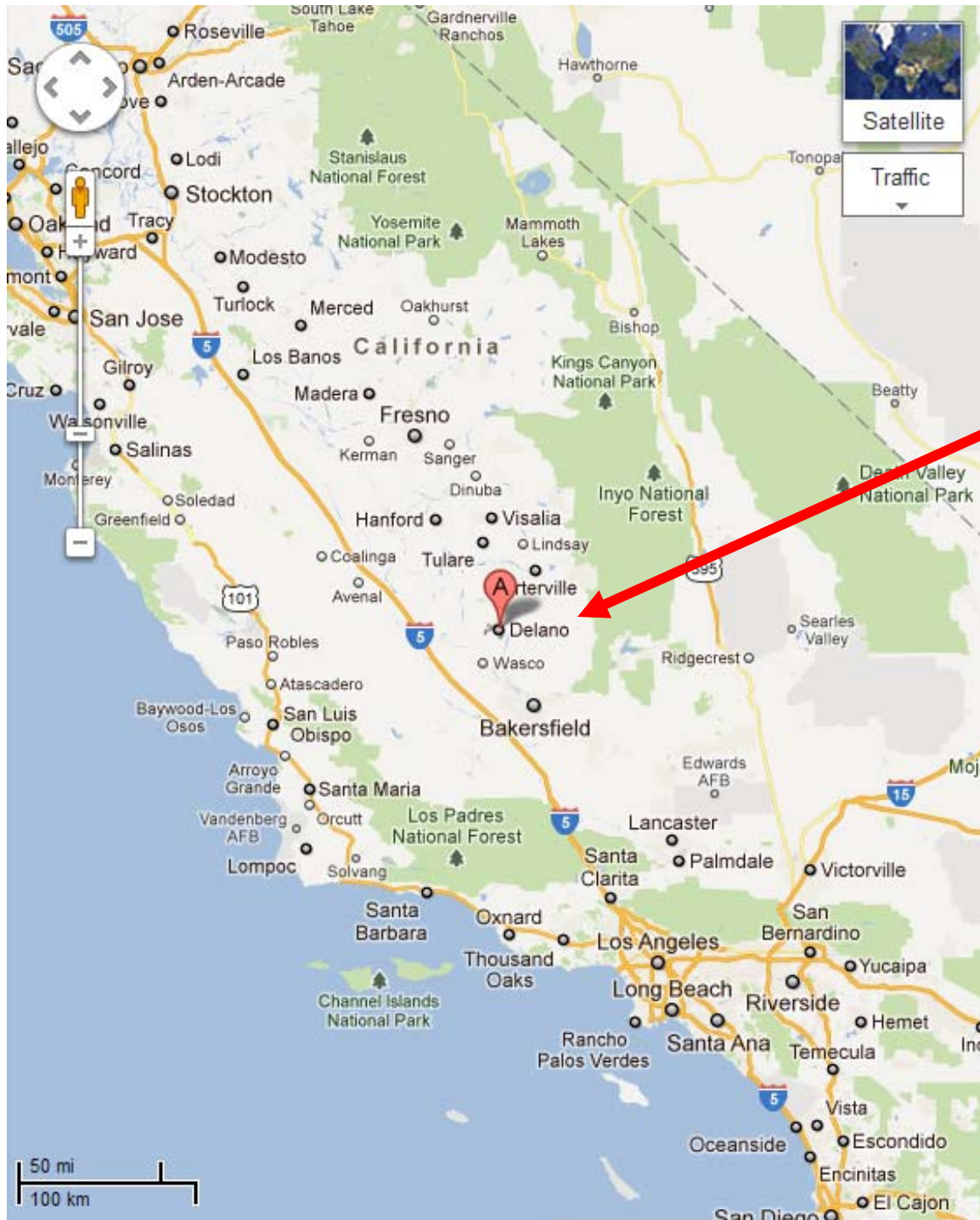




Voice Of America

Delano, Calif.



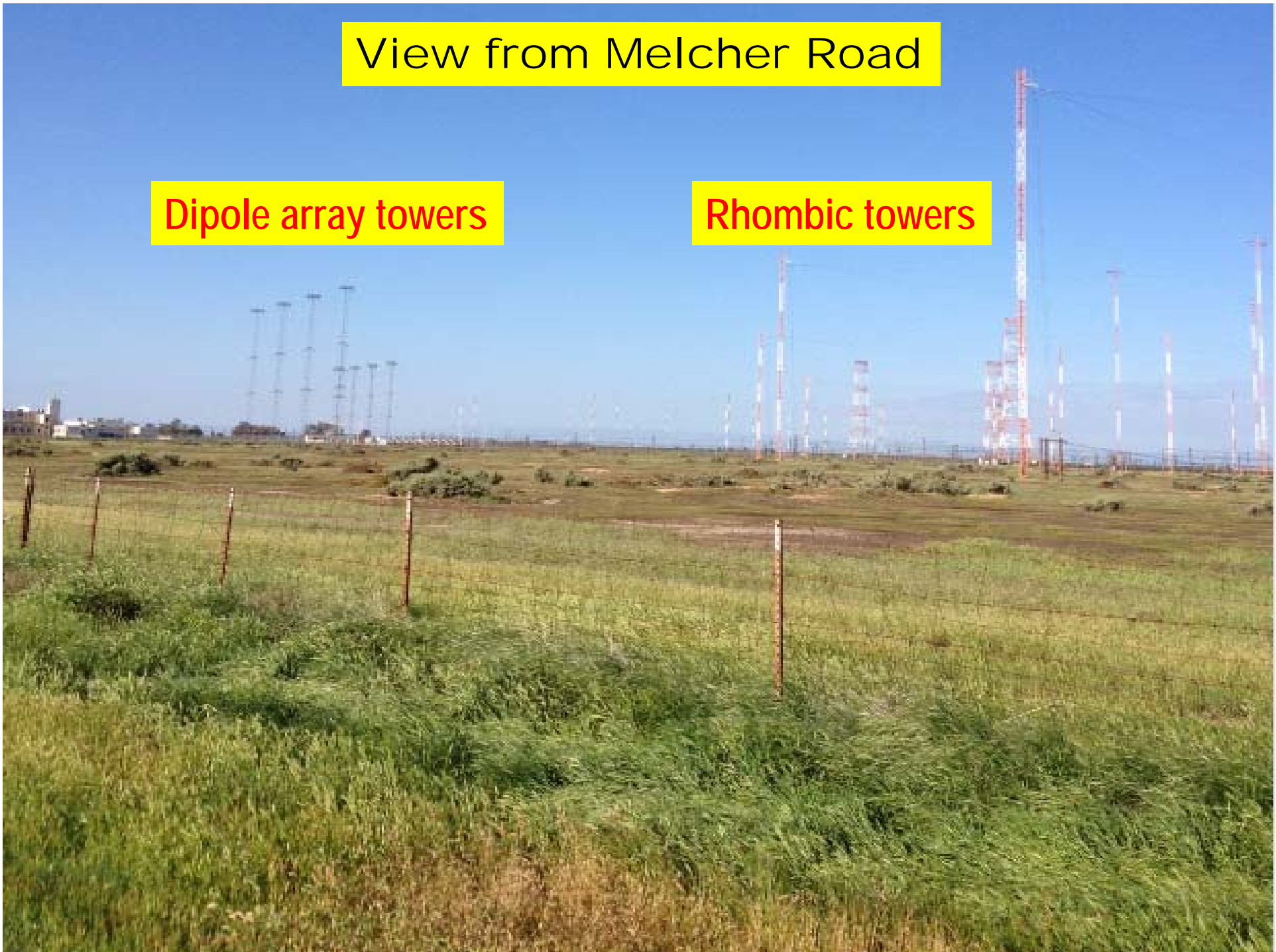
VOA in Delano, CA

Between Visalia and Bakersfield, this 801 acre location houses one of the last powerful HF international broadcast stations.

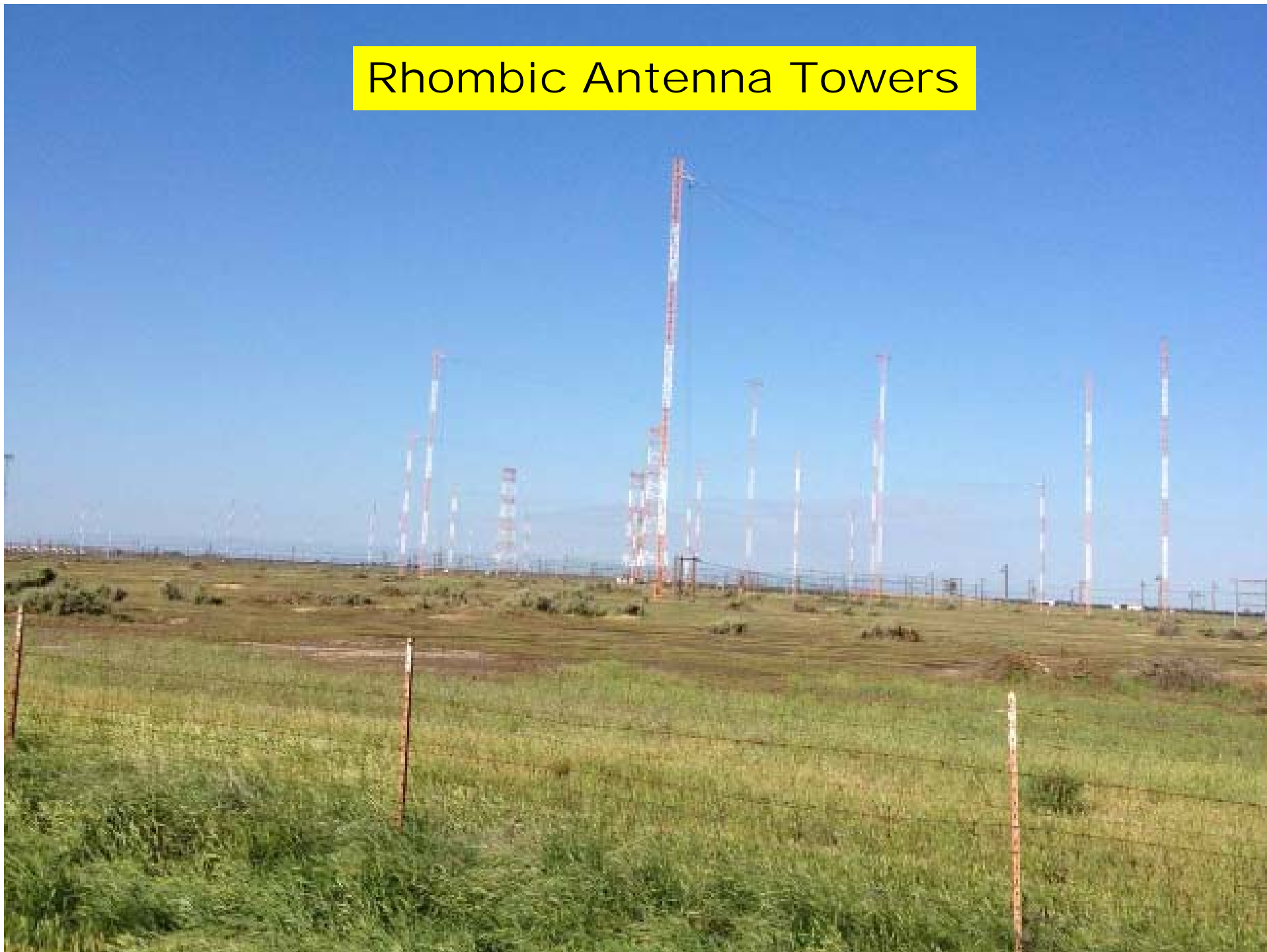
View from Melcher Road

Dipole array towers

Rhombic towers



Rhombic Antenna Towers

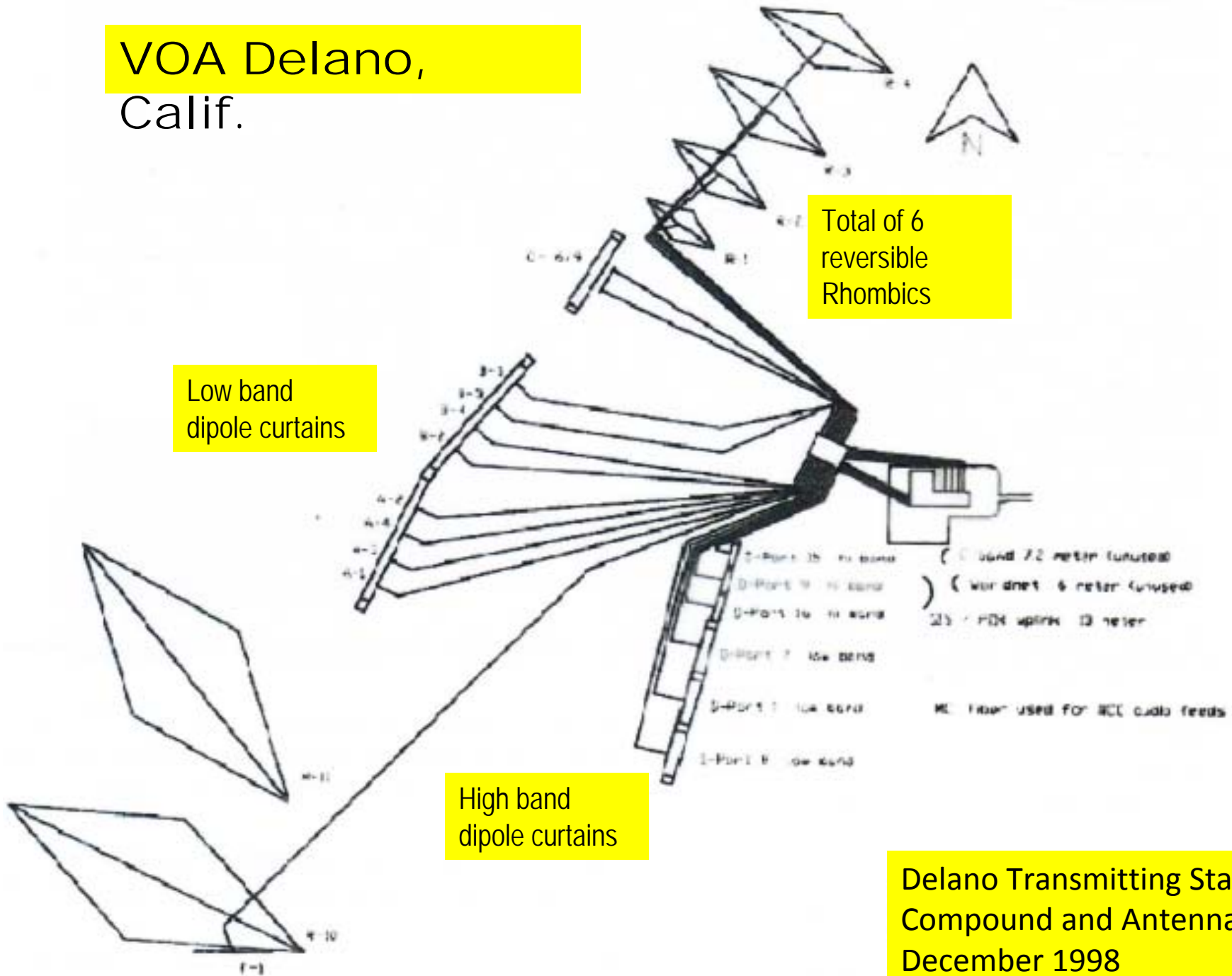


Dipole Array Towers

These are 406 ft 'skyhooks'



VOA Delano, Calif.



Delano Transmitting Station
Compound and Antenna Field
December 1998



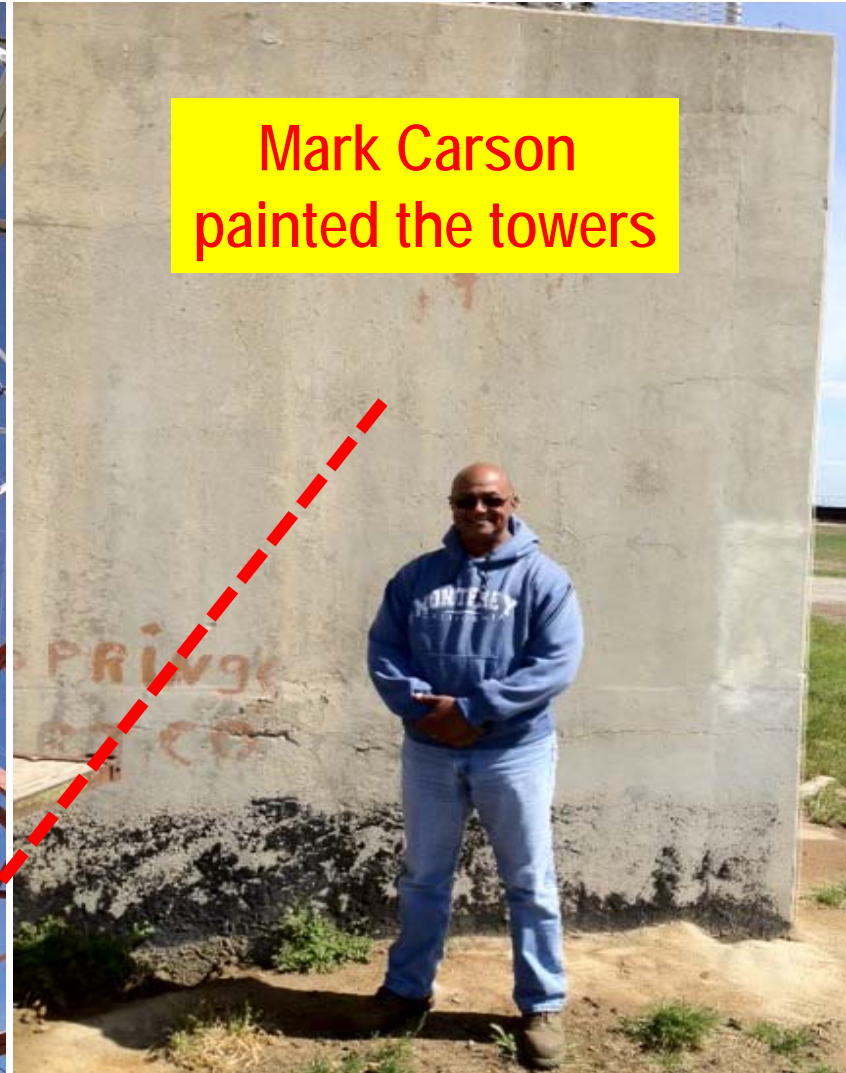
Dipole Array Tower
(Side View)

The precision design
and workmanship
were extraordinary.

Immense Footings



Mark Carson
painted the towers



Can you imagine the forces
exerted on each tower leg?'

Up close and 'personal'



Notice the perfect, alternating white and red painting detail

An aerial photograph of a radio tower lattice structure. The towers are arranged in a grid pattern, with multiple transmission lines strung between them. The dipole arrays are visible as long, thin structures extending from the towers. The background is a clear blue sky.

Part of the dipole arrays
strung between the towers

Multiple transmission lines
allowed for azimuthal and
elevation angle slewing.

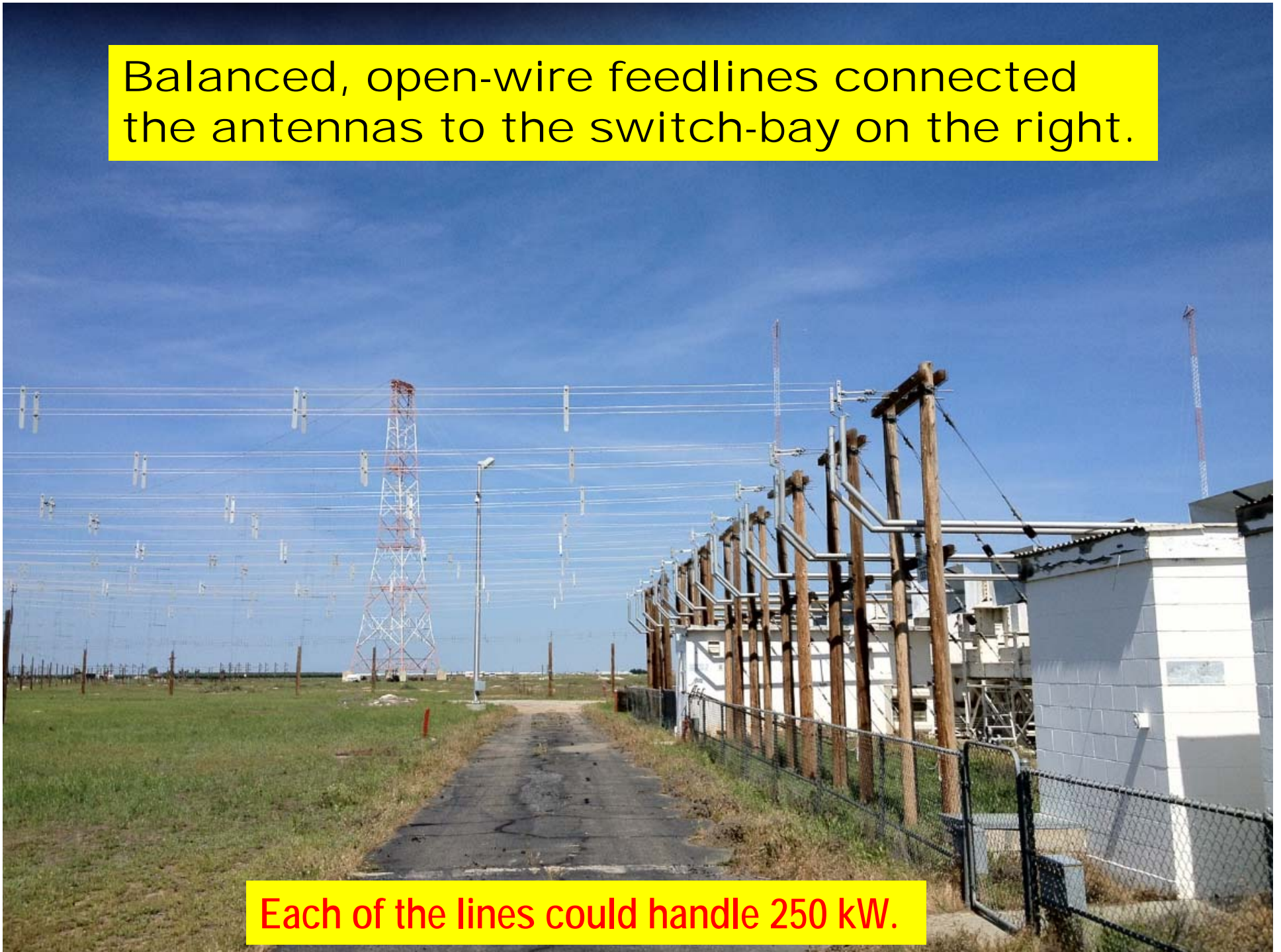
Maintenance at 200'

It goes up another 200'



Balanced, open-wire feedlines connected the antennas to the switch-bay on the right.

Each of the lines could handle 250 kW.





Precise tensioning resulted in this wire layout

This was built in the early 1940's
and is still functional

The image shows two metal towers, each with a concrete base and a lattice structure. They are positioned on a flat, grassy field under a clear blue sky. The towers are connected to power lines, and the text indicates they hold tensioning weights. The terrain is notably flat, as highlighted by the text.

Tensioning weights

Look how flat the terrain is!

Each of the 13 plates probably weighs well over 100 lbs

HF Exciters



The 1 Megawatt transmitter had already been disassembled

Appendix A: Transmitters, Broadcasters, Languages, and Targets

| Transmitter Number & Power ¹ | Broadcaster and Program Language | Target Area |
|---|--|---|
| DL – 01 250 kW | Voice of America Spanish | Central America South America |
| | Office of Cuba Broadcasting/Radio Marti Cuban Spanish | Cuba |
| | British Broadcasting Corporation English | Central America South America |
| | British Broadcasting Corporation Spanish | Central America South America |
| | Εθνική Ραδιοφωνία Τηλεόραση English and Greek | Eastern North America |
| DL – 02 250 kW | Voice of America Spanish | Central America South America |
| | The Royal Thai Government English and Thai | Pacific West Coast North America |
| | Εθνική Ραδιοφωνία Τηλεόραση English and Greek | Western Pacific Area |
| DL – 03 250 kW | Office of Cuba Broadcasting/Radio Marti Cuban Spanish | Cuba |
| | Εθνική Ραδιοφωνία Τηλεόραση English and Greek | Eastern North America |
| DL – 04 250 kW | VOA Worldwide English | Central America South America |
| | Office of Cuba Broadcasting/Radio Marti Cuban Spanish | Cuba |
| | British Broadcasting Corporation English | Central America South America |
| DL – 06 250 kW | British Broadcasting Corporation Spanish | Central America South America |
| DL – 07 250 kW | Voice of America Spanish | Central America South America |
| DL – 08 250 kW | Voice of America Creole | Haiti |
| | Voice of America Creole and Spanish | Central America South America Haiti |
| <i>DL – 09</i> 50 kW | Standby | To Be Determined |
| <i>DL – 10</i> 50 kW | Standby | To Be Determined |

Source: Delano Transmitting Station, November 2004

Delano Transmitter/Operating Schedule

¹ Delano does not have a DL-05 transmitter or make use of that transmitter number.

Where does the power come from?

Several of the higher power amplifier tubes



Continental Electronics

Forward and Reflected Power Meters



2 kW is considered a reasonable reflected power

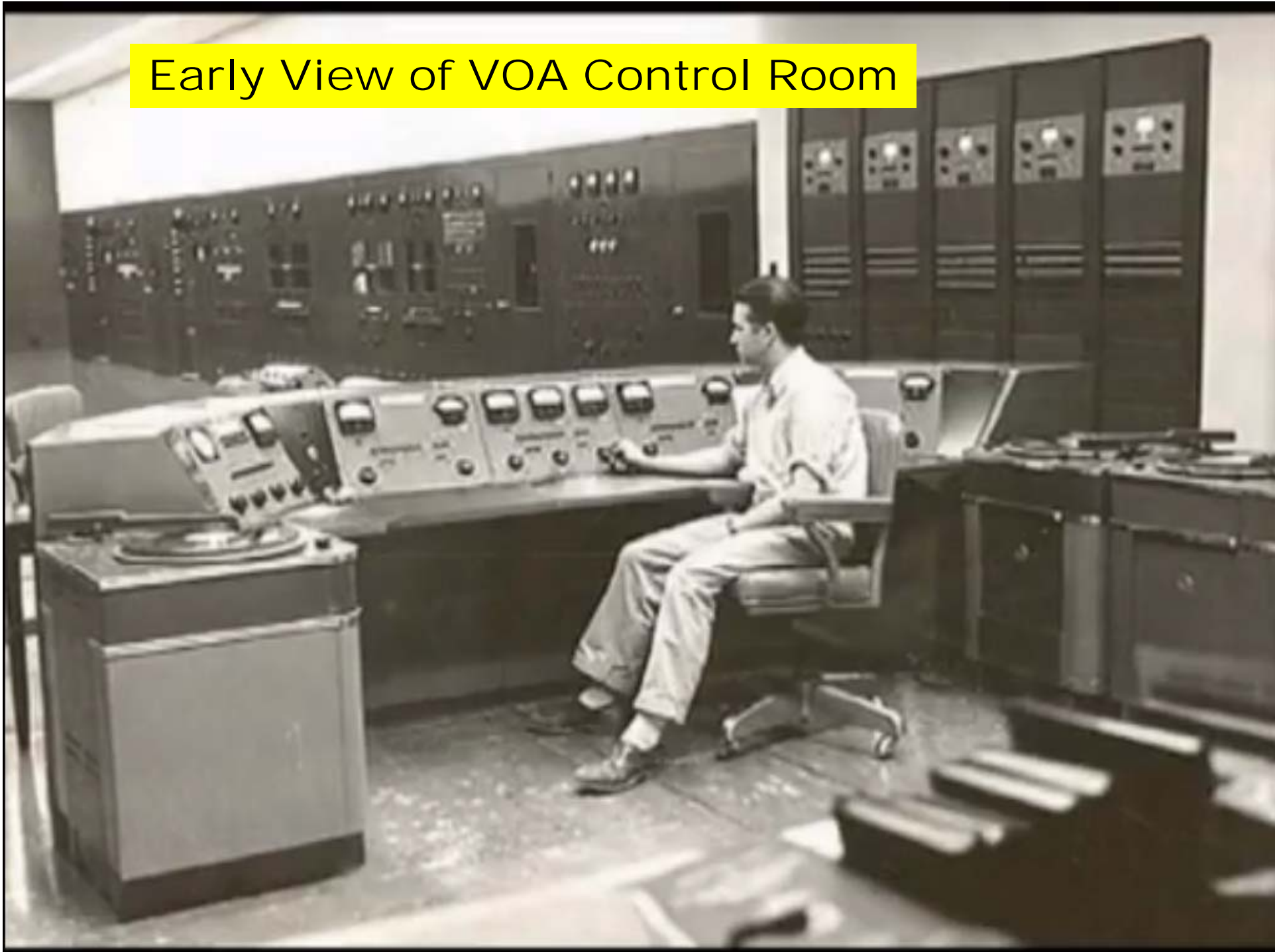



Jennings
Vacuum
Variables
25 - 650 pF
55 kV




Perfect for your new High Power 6m linear amplifier? They have probably all been thrown out by this time. They must have had 40 of these there.

Early View of VOA Control Room



A photograph showing a long, narrow aisle in a server room. On the right side, there is a long row of tall, grey metal cabinets or racks. The floor is made of light-colored square tiles. The lighting is somewhat dim, and the perspective is from the end of the aisle looking down its length.

Much of the Electronics were in these cabinets

A photograph of a control room. In the center, there is a large, light-colored desk with several computer monitors and control panels. A black office chair is visible in the foreground on the right. The room has a tiled floor and a drop ceiling with recessed lights. The walls are a light blue color. There are some cardboard boxes on the floor in the foreground.

2012 view of the control room after dismantling

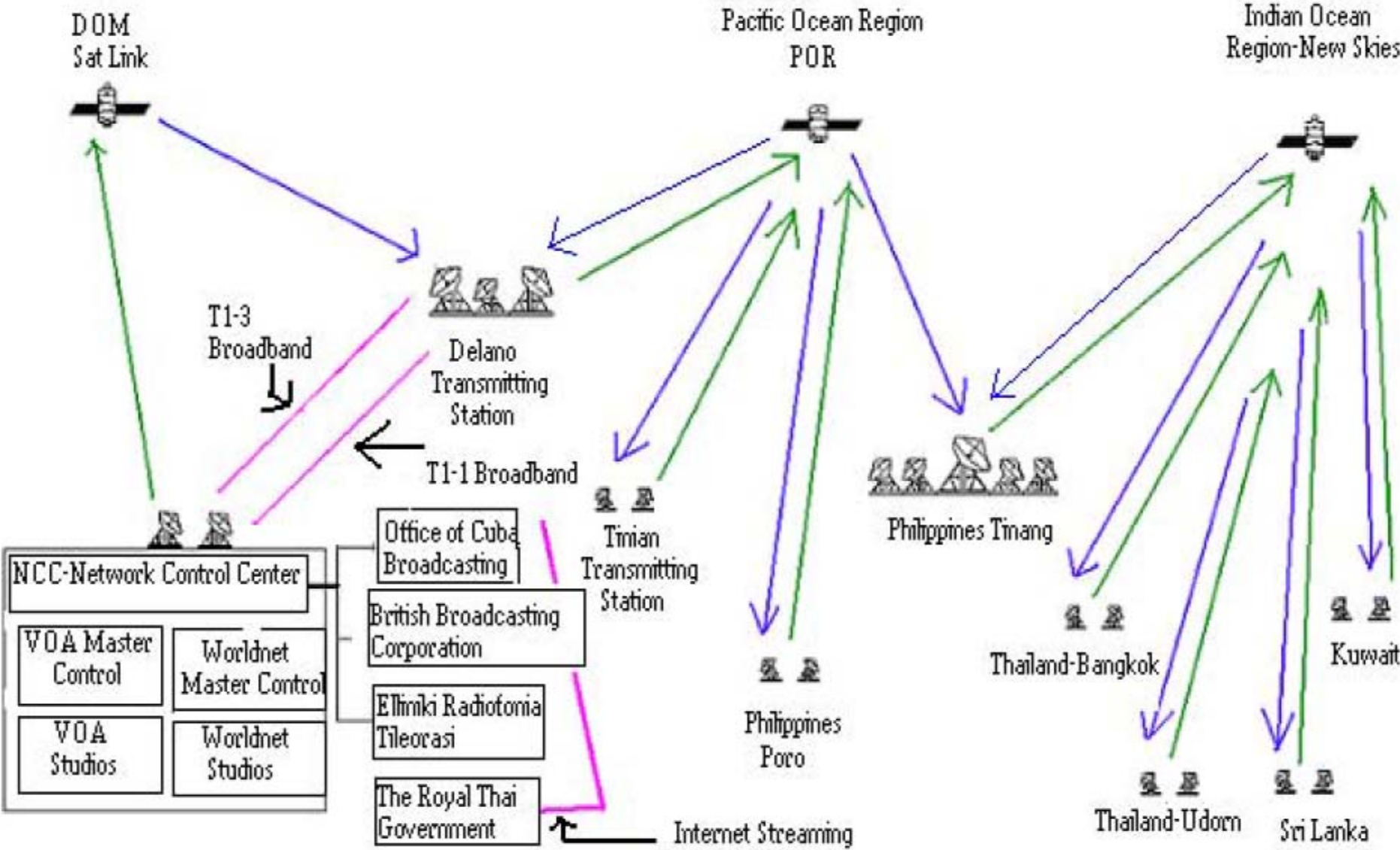
An IBM "386-x" controlled all antennas and transmitters



VOA
Satellite
Interconnect
System

Delano connected by satellite the US, Indian and Pacific Ocean Regions

Satellite Interconnections



Washington, DC provided the programming for overseas broadcasts

Largest
Satellite
System at
VOA



*That's It
Folks!*

Questions?