

Nautel Case Study

Liberman Broadcasting, Houston TX



“We were really impressed with Nautel’s willingness to work with us, listen to our ideas, and incorporate them so quickly.”

-Mike Todd / Chief Engineer

Why Nautel makes sense for Liberman:

- “Other manufacturers told us we couldn’t do what we wanted. The exception was Nautel.”
- “Nautel’s solid state designs help us stay on-air during power outages.”
- “Nautel’s transmitters are truly plug and play devices - installation is fast and easy.”

Nautel V40D transmitter...

- Has a linear broadband design ideal for all N+1 configurations
- Features hot-pluggable RF power modules and power supply modules
- Includes a front panel GUI combined with remote access from anywhere to make operation intuitive

Nautel V40D provides path to solid state operation for multiple stations in Houston complex.

Liberman Broadcasting, Inc. is the largest privately-held, minority-owned Spanish language broadcaster in the United States. The company operates nine radio stations and one TV station in the Houston metro area. Chief Engineer Mike Todd describes their recent renovations:

“About three years ago we began a major upgrade of our transmitter sites in Devers, 56 miles northeast of Houston, and Bay City, 70 miles to the southwest; each site houses two stations. The first station went on-air in April 2006, and the fourth went on-air in November 2007.

From the very beginning, our DOE Chris Buchanan and I wanted to build the new facilities with integrated IBOC technology, and we both felt that with all-new facilities we wanted to go with solid state transmitters and low level IBOC combining. Our hurdle at the time was that there weren’t many high power transmitters with low level combining technology. Several manufacturers simply didn’t offer solid state products that could do this for us, but they said they could accommodate us with a dual tube type transmitter. That option did not appeal to us at all. We really wanted solid state for the reliability aspect but were being told we couldn’t do what we wanted! An exception was Nautel. They told us that yes, it could be done, albeit with a big transmitter. After doing additional research, we selected the V40D transmitter for three of our stations: KTJM, KQQK, and KNTE. These stations required a TPO (Transmitter Output Power) of 32kW for Hybrid operation. For KXGJ we selected the V20D for 11kW Hybrid operation.

Both facilities are brand new from the tower to the concrete. At the Devers site, we have a 2,000 foot tower; the two class C stations are combined with a two channel combiner plus main and backup antennas. The building is 50’ x 50’, concrete filled cinderblock, with a 14’ ceiling. This site has two V40D transmitters installed. The Bay City location has a 1,500 foot tower and houses one V40D and one V20D. One key interest in the solid state Nautel transmitters was our desire to remain on-air during power outages. We had purchased a large backup generator plus a 380 kVa UPS for the site that will maintain the entire facility for up to 15 minutes while the generator is coming online or being serviced. During the recent hurricane IKE and its aftermath, we ended up running on that generator for over two weeks! We had to periodically shut down the generator to check the oil and do maintenance, but the stations never went off the air because our UPS could easily handle the load of the Nautel transmitters. We felt a little smug when we and our competitors were both doing generator maintenance at the same time but they went off-air while we stayed on!

We were the first customers for the V40D, and our installation at KQQK happened before the building was even finished. The V40D went together VERY easily; we literally had it together in

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a matter of hours in our temporary set-up. We had one issue with the installation – the coaxial piping ended up lower than we wanted. With a 14 foot ceiling in the building, we were hoping to have it higher but it ended up at only about 6-1/2 feet. This wasn't an issue for me, being blessed with short legs, but our DOE, Chris Buchanan, would hit his head when he went behind the cabinets. At the next NAB, we sat down with Nautel people to talk about it, and the very next delivery of the V40D for our project had the coaxial piping completely re-done at a greater height along with the engineering drawings and parts for our first installation. We were really impressed with Nautel's willingness to work with us, listen to our ideas, and incorporate them so quickly.

Installation of the other three transmitters was fast and easy, with no issues at all. Nautel's solid state transmitters are truly plug and play devices. We set them in place, hooked them to the antenna, connected power and turned them on.

Post sale support has also been excellent. We haven't had any big problems but the company always responds promptly. We also are enjoying some of the technological advantages of the system. We purchased Nautel's NXLink software for two of the transmitters. When I have problems, which are few and far between, the transmitter will actually e-mail me and tell me what is wrong with it. For example, a few months ago the transmitter e-mailed me to let me know something was wrong. With the message was a checklist; I looked at it and saw right away that one of the power supplies was not putting out any voltage. We called Nautel; they overnighted a new power supply, we plugged it in and sent the old one back for warranty.

Liberman Broadcasting owns a number of Nautel transmitters. In addition to our Houston stations, we have Nautel transmitters for our Dallas, Texas and Burbank, California operations. We're looking at the new Nautel NV40 for another facility that we are planning over the next few years. The NV40 is really attractive to us because it has a much smaller footprint than the V40D, and will save us money on site construction costs as a result.

We have a good working relationship with Nautel, recommend them to others and will hopefully be bringing them more business in the near future."



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