

2007 Station Manager Report

Jeff Maass K8ND 6/06 - 5/07















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PJ2T Station Status Overview

The 2005-06 year at Signal Point was characterized by stability – a comfortable steady-state of maintenance, spares acquisition, and contest operations.

Once again, failures affecting contest operations were rare, although we needed to call upon the depth of our spares to prevent impact in a couple of cases. The alpha amplifiers, in particular, seemed to suffer a series of control circuit failures. Geoff W0CG/PJ2DX has become our expert at repairing these rugged amplifiers, and we have established a collection of repair parts for the Alpha control circuitry.

The acquisition of a Ten Tec Titan I amplifier from the VERONA club continues our trend toward a collection of amplifiers capable of reliable operation at higher power. This year, we gained authorization to operate with 1500W output during contests, putting us more on-par with our competition. Our Alpha 76 and 78 amplifiers, even with a trio of 8874 tubes, are rated for the old 1 KW input US power limit from the 1970s. All new amplifier purchases will be capable of sustained reliable operation at 1.5 KW output for a contest weekend. We currently have three amplifiers that meet this requirement: Ten Tec Titan I, Ten Tec Titan II, and Cary LK-800. The AL-1200 is marginal in this regard.

We have been incredibly lucky with the survivability of our yagis, with only a few maintenance issues over the past five years. This year, we suffered trap problems on the CL-33 tribander, since repaired. We have now reached a point where time and effort needs to be spent in taking the monoband yagis down for re-building and weatherization to guarantee their reliability for the next several years. This is going to require a great deal of effort!

Geoff and Cindy have been very busy indeed, with construction projects, renovations, and maintenance of the house at Signal Point. In addition to the major effort and expense of the newly-built "sun room' (providing a 'radio-free' relaxation area) and "observation platform" on the roof (with new telescope) which are still under construction as this is written, they have painted the West Bedroom and re-organized the storage in labeled bins (as shown in the photo below).



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More renovations of the house are planned, including new kitchen cabinets. This will wait until a cargo container shipment can be made from the US, This same shipment will allow us to ship other larger station-related items that cannot be carried in luggage.



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One of the problems of building Signal Point is the accumulation of "stuff" in the closets. This year, some of the old "stuff" that was no longer needed - broken computers, excess CRT displays, some radio parts – were either discarded, donated, or sold locally. It's hard to "cull the herd", but it's a necessary ongoing endeavor.

As in previous years, the donations of parts and labor from our membership has helped to reduce the strain on the station budget. Unlike previous years, when acquisition of spare tubes, amplifiers, and other major hardware was underway, we end this year with a bit of money in the station account, around \$1300.

PJ2T Station Changes and Improvements

- 1. Half of the 30-meter inv-V disappeared, and was replaced.
- 2. All FT-1000MP transceivers have been equipped with the INRAD roofing filters.
- 3. When Svetlana 4CX1600B tubes once again became available, we purchased one (for \$590), and W8TK purchased a second and donated it to the Club. W4PA tested the two tubes at Ten Tec, and they were full-powered. We are now well-prepared with spare tubes for the Titan II amplifier.
- 4. W8TK donated \$100 to the "tape fund" to purchase Scotch 33 tape for Geoff's Summer maintenance trip.
- 5. W4PA obtained and donated \$800 worth of hard-to-obtain spare boards and components for the Titan II amplifier.
- Obtained sets of 9-pin Cannon-type connectors to allow connectorization of rotor control boxes and antenna switch controls. N8BJQ and K8ND donated some control cable for this project.
- 7. Purchased eight (8) electrolytic capacitors for the Titan I amplifier. The raspy signal of this amplifier is still to be repaired.



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Known Repairs Required / To Be Done Projects

- 1. Repair VERONA Titan I amplifier (hum).
- 2. Re-work all yagis with signs of corrosion.
- 3. Repair 160 meter chirp problem in Ten Tec Omni VI.
- 4. Define / Fix rotor control problem on WARC tower.

Ongoing Maintenance/Projects

- 1. Painting towers, guys, guying hardware.
- 2. Improve organization of equipment documentation at Signal Point.
- 3. Increased Member Task Specialization program: more volunteers needed.
- 4. Inv-L radial repair and burying.



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Station Enhancement Ideas for 2006-07

- We need to enhance our supply of small parts and components new resistors, capacitors, etc. The kit provided by N1ZZ is a great start: now we need to lay in additional supplies for repairs.
- 2. Auxiliary fans on all amplifiers should be switched on automatically with the amplifier, to prevent operation without proper cooling.
- 3. The WARC tower is wasted during contests: how can we add contest-band antennas on that tower?
- 4. Obtain additional 3CPX800A7 spare tubes.
- 5. Repair Cary LK-800 3rd tube socket.
- 6. Connectorization of accessories (rotor boxes, Stackmatch controllers, etc.) to allow them to be easily replaced and moved around station positions.
- 7. Obtain additional 17-inch LCD displays, to provide one at each station, plus spare. Discard all CRT displays for space.
- 8. Networked webcam(s)?
- 9. The 80 Meter signal continue to be our weak point. Possible solutions:
 - a. Rotatable dipole @ 107' on Europe Tower?
 - b. Vertical on cliff top?
 - c. Temporarily-deployable vertical(s) in the "flats"?



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Your Station – PJ2T