

# **Our own Airmail Beacon House – update, part 1**

**(As published in The Oak Ridger's Historically Speaking column on June 30, 2009)**

As I have been delayed getting information on the longest running Oak Ridge Bombers baseball team, I am inserting a series on the status and history of our Airmail Beacon House. I hope to finish the baseball series soon, but I feel it is important to get the full story for readers, if possible.

On January 1, 2008, the 2008 series of *Historically Speaking* columns began with a story about an old potentially historic "Beacon House" located near the Oak Ridge National Laboratory. Now a year later let me give you an update on the status of the preservation of what turned out to be a truly historic Beacon House.

I am proud to tell you that it seems to have a very "bright" future...an obvious play on words regarding the structure's historic beginnings as a light to guide airmail pilots.

The Beacon House was likely constructed in the years just prior to the Manhattan Project, which began in 1942, and resulted in the government reservation being established here in East Tennessee. As I noted in the first article on the Beacon House, airmail using these beacons on the routes began in 1939 and ended in 1949.

Just as a reminder to readers of how we came to know of the Beacon House, I will review the details of how I came to be aware of it. In November, 2007, I got an e-mail from Pat Parr, Oak Ridge National Laboratory's Oak Ridge Reservation Area Manager, telling me of the most unusual small structure and wondering if I had ever heard of it.

She said that when TVA was clearing the right of way for an expansion of an electrical power line near the Oak Ridge National Laboratory an unusual small building had been discovered. She wondered if I knew anything about its history. I did not, but was sure interested. She said TVA personnel had called the building a "Beacon House." This was a new term to me.

Ernest Ryan, of Pat's staff, and I travelled to the site and found the building in good condition, with the exception of the single door being missing and some rust on the tin roof and metal siding. We found two concrete foundation blocks just east of the building that obviously served to support the fuel tank that powered the generator housed inside the structure.

There were also two depressions that seemed located exactly where two of the four foundations for the light tower would have stood. Since learning more about these beacon houses, it seems there would have originally been a large concrete arrow there as a visual indicator of the direction to the next beacon house. There is no trace of that large concrete arrow.

The two depressions make me wonder if there ever was a concrete arrow at this location. The diagrams for such installations show a large concrete pad beneath the light tower, not four separate concrete foundations for the legs. Obviously more research is needed.

The beacon houses were located approximately 10 miles apart. The old access road to this one is still visible. It obviously provided a route to and from a nearby home where the family living there would have been employed to start the generator each evening and stop it each morning.

I have to wonder what happened in late 1942 when the government sent letters to all the families in the area telling them to vacate their homes. Do you reckon the beacon was in use at the time and the family just moved off and left it? That is highly doubtful, in my opinion.

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Of course, that's about what all the families had to do with structures on their home places. Likely the family responsible for the beacon saw no option but to leave it and didn't know any way to have it maintained, if it was still in use at the time.

Was it even still functioning in the winter of 1942? Had technology overcome the beacon method of guiding pilots? The history of beacon lit routes indicates some lasted until as late as 1949. I highly doubt that this one ever operated after the Manhattan Project took possession of the area.

Makes you wonder about the airway route to Knoxville. Maybe the radio beacons that replaced the lighted beacons had already made this beacon house obsolete by 1942.

Some things Mark Dickey of the ORNL Library has learned in his research follow. Mark has really been dedicated in his search for information. He has contacted such locations as the Smithsonian Air and Space Museum, the Library of Congress, the National Archives and Records Administration and done extensive internet searches.

He has learned the history of this window of time when air transport was trying to find its way. Air mail was one of the methods used to try and make air travel profitable in the 1930's and 1940's. We now know many more details of our Beacon House than ever before, thanks to Mark's dedicated research.

One of the most distinguishing markings for these "power sheds," as the representative from the Smithsonian Air and Space Museum called the beacon house, was a 2 foot wide stripe painted mid-height of the wall on all four sides of the shed using black paint. The representative went on to state that the rest of the outside walls were white.

He also noted that the exterior window frames would have been painted medium grey as would have been the exterior portion of the door. The interior of both the door and window frames would have been painted white. The remains of the exterior "black stripe" can still be seen in the photos of the beacon house, if you look closely.

The Smithsonian representative went on to recommend that close scrutiny be used to determine the original paint scheme by closely inspecting areas just beneath the eaves and window frame overhangs where weather damage would be minimized.

However, Mark found another resource that stated the outside walls of the shed along with the roof and the huge concrete arrow on the ground were all painted "chrome yellow number 4" with the 2' band running around the exterior walls painted black and the numbers on the roof painted black. Again, further research is required to determine exactly what color to paint our beacon house during restoration.

The roof would have had two sets of numbers painted black. One number would have identified the airway. The Smithsonian researcher has tentatively identified the airway as of June 1941 as the "Blue civil airways (No. 2).

The National Archives and Records Administration researcher located a "...rotating beacon with course lights approximately four miles to the east of Wheat, TN. The chart shows a number 12 printed next to the beacon symbol." The "chart" referred to came from the July 1940 edition of the Chattanooga Sectional Aeronautical Chart.

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So, it seems our beacon house was located on an airway identified by the number 2 and was beacon number 12. It had a 2' black band painted around the walls at about half way up the walls. It was painted either white or chrome yellow number 4. It had a 51' tall tower painted with alternating bands of white and international orange as of 1932, prior to that the tower would have been painted with alternating chrome yellow number 4 and black bands.

There would have been a 54' concrete arrow pointing in the direction of the airway, also painted chrome yellow number 4 with a 4" black border. This arrow would also have formed the base for the tower and the slab on which the power shed (beacon house) was constructed. There is no remaining physical indication of there ever having been such a huge concrete arrow at the location of our beacon house.

Additionally, the remaining two concrete foundations for the fuel tank are placed in the ground where there would have been a concrete pad if there had actually been an arrow there. This along with the two depressions where foundations for the tower may have been, seem to deny the presence of a concrete arrow.

Next week we will continue our journey to try and learn the history of our Airmail Beacon House.



Our very own historic Air Mail Beacon House!

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The two concrete foundations for the fuel tank obviously installed where the concrete arrow would have been had it been included in this installation.