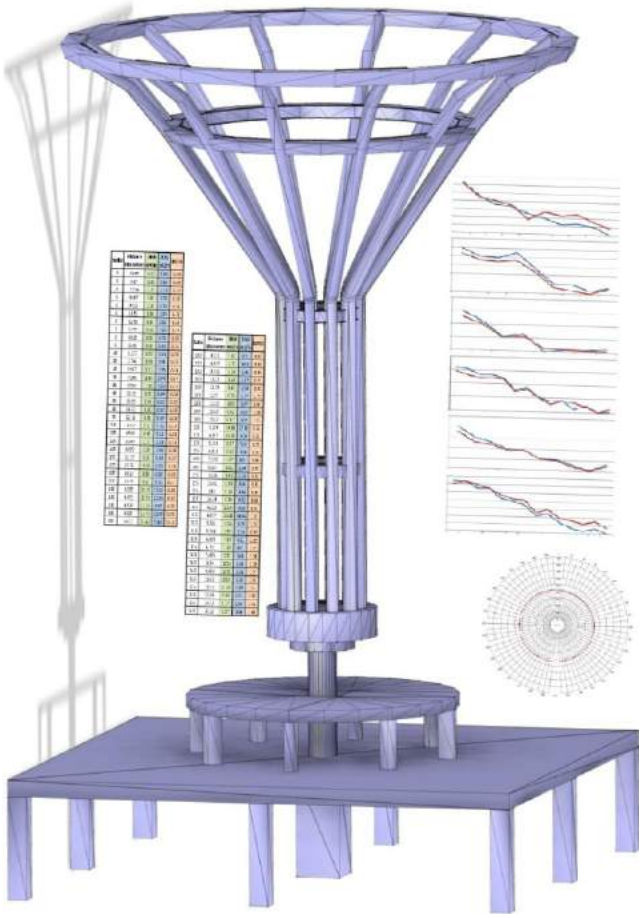
The
Broadcasters' Desktop Resource
www.theBDR.net
... edited by Barry Mishkind – the Eclectic Engineer

Broadcast Operations

A High Efficiency Broadband Antenna

By Grady Moates

[April 2020] For years, there has been a search for a way to reduce the costs of AM broadcast antennas, both from the standpoint of construction costs and land costs. There is a solution at hand.



Many AM radio stations are now suffering from high costs of land and tower construction/maintenance, especially at a time when a lot of the towers built in the late 1940s have reached the end of life, or at least require serious maintenance issues.

The ultimate goal is to be able to place a short antenna to avoid issues with the FAA and minimal ground system, reducing the land area needed, as well as reducing damage from vandals.

After a great deal of research, testing, and even a false start or two, the High Efficiency Broadband Antenna (HEBA) has been on the air at WGFP, licensed by the FCC since July 2018 in Webster, MA. Rising only 72 feet, and requiring only 1/8 of an acre of land, the station has been operating since December, 2016.

BUT DOES IT WORK?

Possibly the most important issue is the coverage from the antenna.

The tests on the HEBA are truly encouraging. As the field intensity measurements show, there is essentially no difference between the HEBA antenna now in use at WGFP, and the traditional guyed tower and ground system it replaced.

For more information, you can find the technical aspects here.
And, for the non-technical folks, a more plain English version is here:

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