

# USER REPORT

## WRVM

### Suring, WI

**Alan Kilgore, CPBE**  
**WRVM 102.7 FM**

**MODEL:**  
**PSIFHR-10C**

#### TECHNICAL SPECIFICATIONS

<b>Frequency / Channel</b>	<b>102.7 MHz</b>
<b>Power Rating</b>	<b>39 kW</b>
<b>ERP</b>	<b>98 kW</b>
<b>Service</b>	<b>Analog</b>
<b>Mount Position</b>	<b>Side</b>
<b>Polarization</b>	<b>Circular</b>
<b>Directional</b>	<b>Optimized</b>
<b>Radomes</b>	<b>White Fiberglass</b>
<b>Deicers</b>	<b>No</b>

**Corporate Office**  
 P.O. Box 113  
 719 Pensacola Road  
 Ebensburg, PA 15931

Phone: 814-472-5540  
 Fax: 814-472-5676  
 Email: sales@psibroadcast.com

“Your company was the only vendor able to meet all our specifications and did so without price gouging. I especially appreciate your valuable experience and innovation for accomplishing our goals.

It was very helpful to have the pattern study, which shows the affects of our tower distorting the free-space non-directional pattern. Your attention to details helped us see the different distortion patterns depending upon where each bay is mounted on the tower's lattice structure. Your study made obvious the different radiation patterns when mounting each bay at or between horizontal or diagonal tower braces. Full-wavelength spacing would not allow all the bays to line up with the tower's repeating pattern of horizontal and diagonal braces.



**WRVM'S PSIFHR-10C ANTENNA**



**WRVM'S ANTENNA BEING TESTED AT PSI**

**CONT'D**

**Propagation Systems, Inc. (PSI)**  
**Quality Broadcast Antenna Systems**



# USER REPORT

## WRVM

### Suring, WI

Alan Kilgore, CPBE  
WRVM 102.7 FM

**MODEL:**  
**PSIFHR-10C**

#### TECHNICAL SPECIFICATIONS

<b>Frequency / Channel</b>	<b>102.7 MHz</b>
<b>Power Rating</b>	<b>39 kW</b>
<b>ERP</b>	<b>98 kW</b>
<b>Service</b>	<b>Analog</b>
<b>Mount Position</b>	<b>Side</b>
<b>Polarization</b>	<b>Circular</b>
<b>Directional</b>	<b>Optimized</b>
<b>Radomes</b>	<b>White Fiberglass</b>
<b>Deicers</b>	<b>No</b>

Corporate Office  
P.O. Box 113  
719 Pensacola Road  
Ebensburg, PA 15931

Phone: 814-472-5540  
Fax: 814-472-5676  
Email: sales@psibroadcast.com

#### CONT'D

“ It was also my desire to reduce minor lobe radiation and concentrate more power into the main lobe at higher population centers. PSI was able to accomplish that and match the bay placement with the tower's bracing pattern by using beam tilt and special wavelength. Other vendors either would not consider all our needs or would only offer designs that required significant and very expensive hardline plumbing. I really appreciate your willingness to consider suggestions and think outside of the box to meet our needs by modifying the feedpoint of each bay to allow 0.844 wavelength physical bay spacing while using full-wavelength inter-bay sections.



PSIFHR-10C ELEMENT

The performance of the antenna has been phenomenal. Even though our old antenna had radomes, it would have high VSWR during heavy snow and icing which required reducing transmitter power. Our PSI antenna has far less windloading with its radomes and has never had high VSWR under any conditions. During one winter with severe icing, all the stations in our region were known to either be operating at very reduced power or were completely off the air while our station was never even affected. Only 400 Watts of the transmitter's 27,000 Watt output were being reflected by our new PSI antenna. Winter icing alarms are only old memories for this station!”

Alan Kilgore, CPRE  
WRVM 102.7 FM

**Propagation Systems, Inc. (PSI)**  
**Quality Broadcast Antenna Systems**

