

The logo for United Medical Maintenance Services (UMMS) is located in the top left corner of a blue vertical bar. It features the letters "UMMS" in a white, sans-serif font, with a white swoosh underline that starts under the "U" and ends under the "S". A small white starburst is positioned above the "U".

**United Medical Maintenance Services**

**Engineering Publications**

**GE MRI crosstalk artifacts**

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Recently I came across a very unusual artifact that was highly intermittent, on high resolution phased array coils, and mainly seen on FSE T2 and some T1 protocols. Refer to figure 1 and 2. Could never reproduce the artifact during service after hours

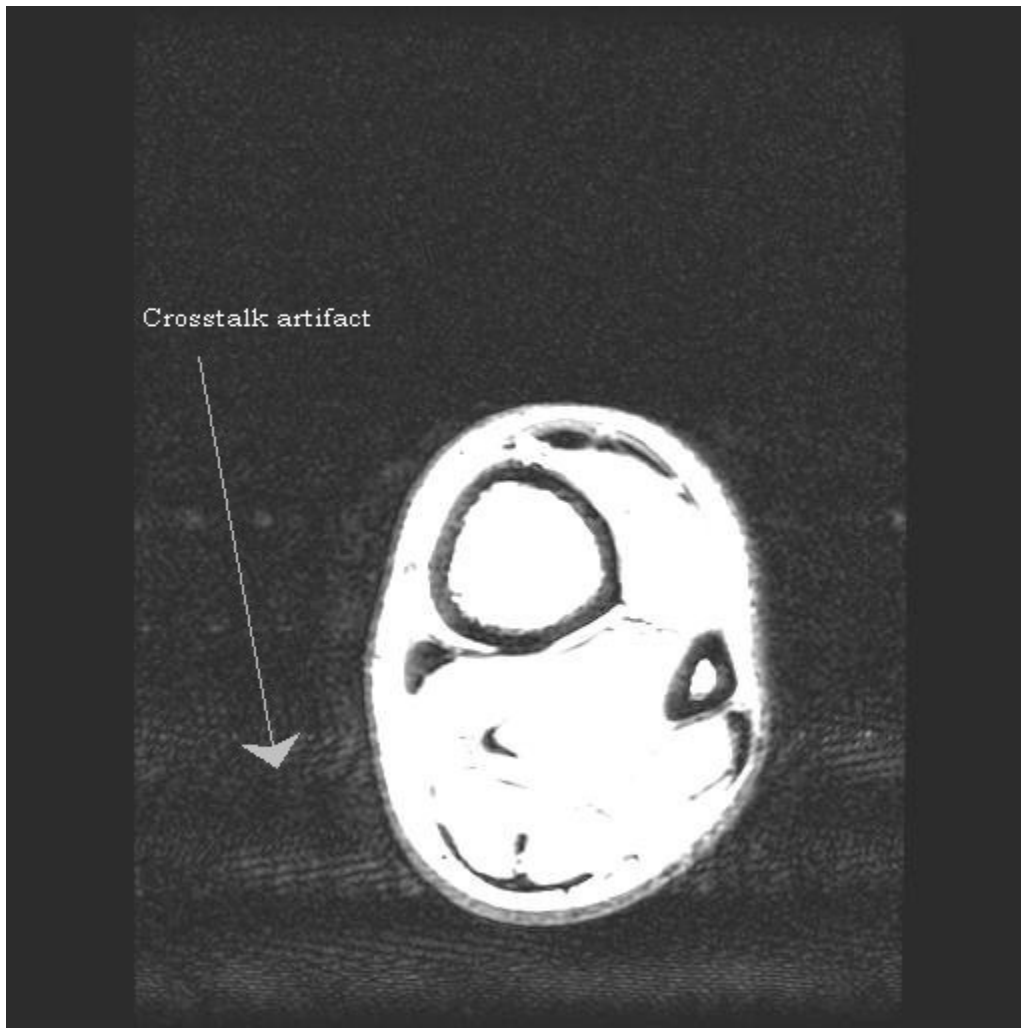
Many parts of system checked out for functionality:

- RF system
- Gradients
- System cabling and connectors
- MRI room lighting system
- MRI cold head system.
- The patient blower system
- The injector system
- The TNS module
- TPS

To no avail all the subsystems checked out. However we did notice the TNS counter taking hits at certain times during the course of normal scanning. As a result the customer would see the artifacts.

The resolution to the problem was that this site had two MRI's, one across from the other in a back-to-back control room. The artifacts were the result of the other MRI unit generating RF noise that was penetrating the others RF shield. It was during our investigation that both MRI's had artifacts. One more pronounced than the other. RF doors were the culprits. Testing of the RF shield revealed weaknesses at the door and pen panel.

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**Figure 1**

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**Figure 2**

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