



[dstl]

Radar imaged model tank, taken at high frequency (10-17GHz) on the Cranfield Ground Based SAR laboratory mini-GBSAR system.



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Radar characteristics of a model Russian T-72 tank using overhead SAR

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T-72 model

This picture is important because it allows you to visually gain an understanding of how an object may be interpreted by radar. Presented is a single high-resolution photographic image taken of a model Russian T-72 tank and the resulting radar image generated from the model.

For the purposes of demonstrating a radar image, a model was used for data collection. A synthetic aperture radar (SAR) volumetric image was formed with the Cranfield mini-GBSAR scanner, which was positioned above the model. The volumetric image was then overlaid over the model's photograph. This shows a visual representation of backscattered electromagnetic waves. By comparing the representation against the original, a better understanding of the radar features is attained.

Key features include:

- Main gun barrel
- Front mud guards
- Rear mud guards
- Rear of tank
- Turret location