

## **Military radar stalls car**



## **A giant military radar interfered with the electronics in a nearby car every time the radar beam pointed at it.**

*Keywords: radar, interference, EMI, EMC, car, Mitsubishi Colt*

### **The Skagen radar station**

A powerful military radar is located at Skagen, near the northern tip of Denmark. Here it watches over the open waters between Denmark, Norway and Sweden.

The antenna is 77 square meters (740 sq ft) large and weighs 30 tons. It is placed inside a large fiberglass dome on top of a 22 meter (68 foot) concrete tower.

It turns five times a minute, taking 12 seconds for its powerful beam to scan the full horizon.

How much nearby it radiates does not appear to be public information, but it can detect an airplane up to 470 Km (300 miles) away.

### **Car problems**

In 2005 the Mitsubishi Colt was named "Car of the Year in Denmark." The Danish magazine *Testbilen*, took a car to Skagen to take pictures in the sand dunes for an upcoming article. But when near the radar station the beam kept interfering with the car's electronics. Every twelve seconds the dashboard died, and then recovered when the radar beam turned away again.

The Danish importer of Mitsubishi cars brought in a second car of the same model. It was affected the same way. Then they tried to shield the two cars' electronic boxes by wrapping them in metallic shielding, but that did not help. (Apparently they didn't try to also shield the wires going to the electronics boxes.)

### **Mitsubishi in Japan**

The Danish importer contacted the manufacturer in Japan and was told they were already aware of the problem. It affected electronics that was intended to be used in other car models and by other car manufacturers in the near future. There was no easy fix available, they were told.

## **What happened since?**

The source of this story was published in 2006. We have not found anything more recent, but the problem was obviously corrected.

## **Comments**

The Skagen radar station is obviously much more powerful than radars found around airports and on civilian ships. The frequency it operates on must be much lower than regular civilian radars, since the antenna is so large. Lower frequencies have longer reach.

The specific frequency was probably an important factor in the interference of the Mitsubishi car. It was probably fine with civilian radars.

## **Sources**

The basic story was published in Danish as the article *Mitsubishi Colt i farezonen!* on February 10, 2006. Available on [www.biltorvet.dk](http://www.biltorvet.dk).

The details about the radar came from the Danish military's websites.

The picture was taken by Sune Wadskjær Nielsen and was freely available for Non-commercial use on [www.forsvarsgalleriet.dk](http://www.forsvarsgalleriet.dk).

## **More information**

Other articles about electromagnetic interference and health concerns are on <http://www.eiwellspring.org>.