

ABOUT ROBIN RADAR

Robin Radar Systems BV is technology leader for tracking and classification of small targets. Our mission is to provide actionable information that increases flight safety for both humans and birds. We do that by combining purpose built radars with unique software algorithms.

Systems are currently operational at airports as well as wind farms in Bulgaria, Denmark, Finland, Germany, Italy, Norway, Poland, Switzerland, Spain, The Netherlands and Turkey. We achieve leadership in global niche markets by turning customers into ambassadors.

Our heritage is more than 30 years of applied science. Robin was spun out of the well-respected Dutch Research Institute for Applied Science (TNO) in 2010. The company name derives from the original project name: Radar Observation of Bird INTensity (ROBIN).

However, we do not take our leading position for granted. Listed in the top-3 of most innovative Dutch companies, we continuously innovate.

**“AS FRONT-RUNNER IN
RADAR ORNITHOLOGY,
WE WANT TO WORK
WITH STATE-OF-THE-
ART TECHNOLOGY.
WE THINK *MAX IS
THE MOST ADVANCED
AVIAN RADAR OF ITS
TIME*”**

Eelco Waardenburg, Director at Bureau Waardenburg



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MAX[®]

THE BEST AVIAN RADAR EVER

robin
radar systems

INTRODUCING MAX

It took more than four years, thousands of coffees and millions of euro's to get there. The result is mind-blowing. We simply had no other choice, ...than to call it Max®

3D bird tracks. One sensor.

Unprecedented tracking

Max® has the fastest rotation speed in the market, resulting in track updates every second. This allows unprecedented 3D visualization of flight paths by exporting tracks into Google Earth.

Full 3D coverage

Max® is a single sensor system, providing full 3D information of all avian targets around. All birds have height information and there is virtually no 'cone of silence' above the radar. The system provides 360-degree coverage from the horizon to 1 kilometer above.

Unique technology

Max® is entirely purpose built to monitor birds.

The antennas are specifically designed to do so. It brings Phased Array radar technology into the hands of bird control units and ornithologists.

“HAVING FULL 3D CAPABILITIES IS CRUCIAL FOR US. THAT'S WHY WE CHOOSE MAX”

Camilla Rosenquist, Wildlife manager at Copenhagen Airport

Simple infrastructure

Max® minimizes infrastructure requirements. The computer servers can be placed in already existing server rooms.

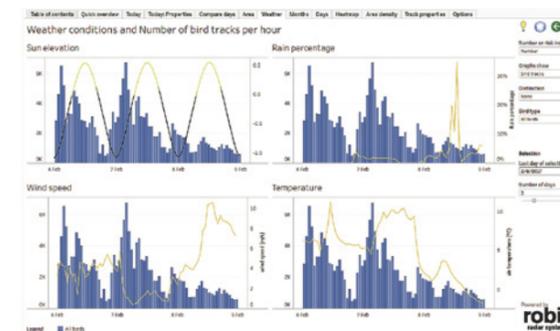
In other words, at the location of the radar, no shelter or housing is required. All Max® needs is normal power and internet network.

Visualization on the spot

Bird movements are displayed in real time on a PC or mobile device. Max® works on commercial tablets based on IOS as well as Android.

Graphics in a click.

Developing new hardware is not the only thing we have done. Our customers often need to convert bird data into reports. We have developed an entire new tool to make appealing graphics in a user friendly way. Just select the variables and time period you want, and the tool will immediately generate a graphical representation.



* real radar data

SYSTEM SPECIFICATIONS

Technology:	Fully solid-state, active electronically scanning phased array antenna
Frequency:	X-Band FMCW, tuneable range: 9550 - 9750 MHz
Average power:	20 W / 43 dBm
Rotation rate:	60 RPM
Instrumented range:	15 km
Detection capability:	Small-aircraft (1 m ² / 0 dBm ²): 15 km range, up to 2 km altitude Small goose/duck (1 SAT / 0.025 m ² / -16 dBm ²): 10 km range, up to 1 km altitude Songbird (0.003 m ² / -25 dBm ²): 6 km, up to 1 km altitude
Elevation accuracy:	0.25°
Bearing accuracy:	0.18°
Altitude accuracy:	5 m at 1 km range, 45 m at 10 km range,
Position accuracy:	5 m at 1 km range, 50 m at 10 km range
Size:	Width x depth x height: 1237 x 699 x 1980mm
Weight:	280kg
Power consumption:	700W nominal, 2750W peak

