



## Teknoscale Oy



### HOW TO READ DATA FROM DOZENS OF MEASUREMENT POINTS AT ONCE?

Teknoscale Oy, founded in 1994, is a private company focused on manufacturing axle load scales and other special scales, such as crane and animal scales. The first wirelessly operating scale, EVOCAR, was introduced in 1998, and since then the company's products have been widely used by traffic control authorities in, for example, the Nordic countries, Germany and Belgium. The latest member of Teknoscale's product range is the EVOPLANE aircraft scale.

#### EVOPLANE aircraft scale

Teknoscale originally applied SATEL modems in the late-1990s to the EVOCAR scale, which are used to weigh the axle loads of heavy vehicles. The scales are used by the police in traffic control and they enable measurement data to be received simultaneously from 10-12 measurement points, i.e. from an entire articulated vehicle at once.

Teknoscale's Jarkko Tuomisto says that the same solution was applied to the EVOPLANE aircraft scale, because in this way it was possible to raise ease-of-use and measurement accuracy to a totally new level. Previously, weighing was done manually by reading screens or by transferring measurement data by cable.

With the aid of SATELLINE modems, scales can be used simultaneously and measurement is accelerated significantly. For example, up to 24 scales, with a combined capacity of up to 35,000 kilograms, are needed to weigh an Airbus A380 aircraft. The weighing of smaller aircraft can be achieved with six scales. Aircraft must be weighed after each major overhaul, so that any change in their centre of gravity can be calculated. In major overhauls, removal, furnishing and painting work is performed, which influences the aircraft's weight distribution.

In structure, the EVOPLANE scale is very low and the angle of ascent shallow, enabling aircraft to be moved with ease in a hangar on to suitably positioned scales.

"The weighing software requests measurement data three times from each scale separately and ensures that the reading is stable," says Tuomisto explaining the measurement process. "Cooperation with SATEL has gone well; the necessary modems have been delivered on time, and help is available when necessary."



The benefits are clear. EVOPLANE makes measurements accurately, quickly and, above all, safely. Measurement personnel do not need to be near the aircraft during the process. Previously, weighing took place, for example, using three detectors at wing measurement points, which in terms of accuracy was uncertain, time consuming and awkward. A new, more pre-

cise version of EVOPLANE for weighing fighter jets is under development.

Teknoscale's Export Manager, Leena Salminen, says that their aircraft scale is currently being used by Lufthansa and Finnair, among others. A new field of business involves Bridgestone, which uses scales to check the condition of straddle carrier tyres.



- Applying SATEL technology to the data transfer of vehicle and aircraft scales
- SATELLINE-1870 radio modems as a component in EVOPLANE aircraft scales and EVOCAR axle load scales
- Modems integrated into the measurement device



SATEL Oy  
Meriniitynkatu 17, P.O. Box 142, FI-24101 Salo, FINLAND  
Tel. +358 2 777 7800 info@satel.com  
Fax +358 2 777 7810 www.satel.com

 **micro-link**  
MICRO-LINK d.o.o. • Jarušičica 9a • 10000 Zagreb  
Croatia • t. +385 1 36 36 884 • f. +385 1 36 45 850  
microlink@microlink.hr • www.microlink.hr