



# PZL OVER THE MOON WITH AUTOMEG TEST SYSTEM FOR HARNESSSES & EQUIPPED ASSEMBLIES

**Spacecraft assembly manufacturer PZL Warszawa-Okecie implemented testing automation to support its expanding harness shop and space assembly operations in Warsaw.**

A subsidiary of Airbus Defence and Space, PZL manufactures electrical harnesses and equipped assemblies for a range of space programs including the C-295, A320 Neo, A330, A400M, MetOp and the Jupiter Icy Moons Explorer spacecraft.

## **THE PROBLEM**

Electrical testing is time-consuming but essential; a bottleneck in the manufacturing process which needed to be improved. The focus on the engineering teams at PZL was on how to best optimize testing rather than minimize the amount of tests which are carried out.

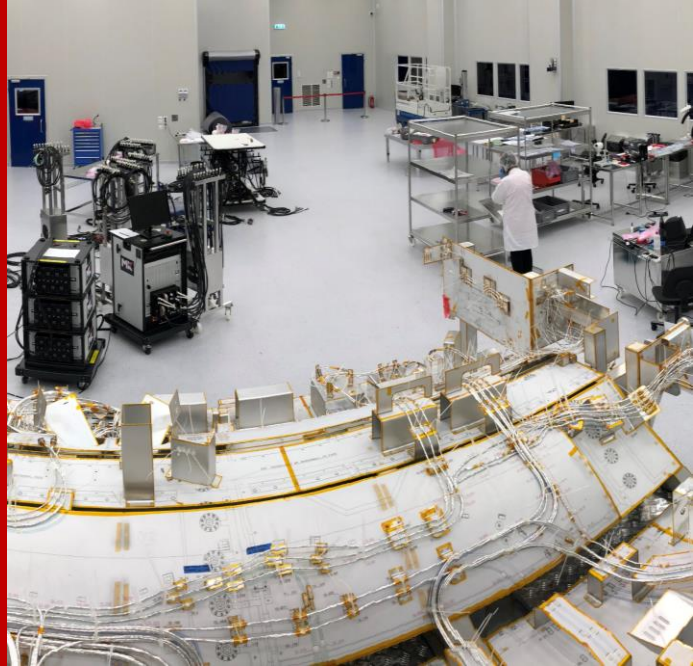
Read more about the **SOLUTION** over the page...



<b>CUSTOMER:</b>	PZL Warszawa-Okecie
<b>REGION:</b>	EMEA
<b>SOLUTION:</b>	MK Test Systems' AutoMeg test system, APG, Active XRef
<b>APPLICATION:</b>	Aerospace, Space, Harness, Equipped assemblies
<b>OUTCOME:</b>	A flexible, automated system enabling usage of source data and existing cables.
<b>BENEFITS:</b>	Flexibility of test location, faster testing, reuse of cables and rapid, error-free hookup.

“The MK Test solution hits our commitment to improve performance and streamline manufacturing through early adoption of best practice, combined with new technology and ideas.”

Jakub Lukasiewicz, Space Programs Production Manager, PZL Warszawa-Okęcie



## THE SOLUTION

The team selected MK Test Systems because of the flexibility of their solution, which took into account PZL's requirements for source data usage and existing cable hardware.

The test system comprised a set of five AutoMeg electrical testing control stations and 15 mobile satellite switching modules, with any number of switching modules able to be controlled by any of the control stations. At any time, any main console can be tested in any location, with up to 15,000 test points available for any project.

### APG – Automatic Program Generation

When creating test programs, engineers at PZL make use of source design data in production and planning.

MK Test's third-generation APG software toolset allows the use of this data in the fully automatic creation of test sequences and programs. Programs are created in real time, allowing all design changes to be accommodated during testing.

MK Test Systems' APG mapping tool allows PZL users to map specific source data formats, enabling the APG tool to be used across all projects.

### Active Xref System

PZL also possessed several interface cables from a previous test solution. To enable reuse of these cables and rapid, error-free hook up of the test system to the product, MK and PZL implemented an intelligent cable ID system.

The unique Active XRef system is double-ended, allowing random hook up of the product and intermediate connections. The test system recognizes the location and sequence of hook up and adjusts the test program to suit, facilitating rapid and error-free hook up.

## THE RESULT

Each stage of the electrical testing process was optimized, achieving PZL's  $\Sigma$ TOP (Electrical Test Optimization) project targets.

## ABOUT MK TEST SYSTEMS

MK Test Systems have been a leading manufacturer and supplier of automatic harness testing systems since 1991. Many of the world's leading aerospace, defence, and rail companies rely on our systems every day of the week to test their products.

We have successfully delivered and implemented over 3000 electrical test systems into 34 countries and have built an enviable reputation for excellence in Automatic Test Equipment (ATE) solutions and the way in which we support our customers.



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