

A new aircraft assembly and maintenance system will enhance reliability

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Researchers at the CEIT-IK4 technological centre have developed an innovative support system for the assembly and maintenance of aircraft for the EADS-CASA aeronautics consortium. The new technique will particularly have a direct effect in greater reliability of aircraft and will start to be used for the manufacture of the future A400M military planes, led by this European aeronautics group.

The project, known as Assembly Support System, is co-financed by the Technological Corporation of Andalusia. It employs enhanced reality technologies with the objective of facilitating operatives to consult and examine the great quantity of information of an aircraft, particularly those areas which have most difficult access, such as the tips of the wings.

In this vein, the Department of Applied Mechanics at CEIT has been charged with developing the communications package; in concrete, the videoconferencing system, as well as the integration of the software and hardware components of the system. This new technique will enable technicians and operatives, when assembling and checking aircraft interiors, to use an application based on voice recognition, designed by the Department of Computer Languages and Systems at the University of Seville, and with which information about the craft can be obtained from a central computer; this information being projected directly on to a portable visualisation device (in this case, monocular spectacles).

The device will have, moreover, a so-called "dead man's switch", the

function of which is to ensure the operator is in a perfect state at all times. It also has a camera whereby the operator can show the supervisor what he or she is observing and, thus, can be guided.

Source: Elhuyar Fundazioa

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