

Rome, 15 July 2008

## **Alenia Aeronautica: a high-tech helmet mounted display for the C-27J Spartan**

Helmet Mounted Display systems are becoming key features in the tactical airlift scenario. Situational awareness, eye-on-target, low level flight enhancement are the key concepts expanded by this leading edge technology. The HMD can be introduced on tactical transport aircraft to improve efficiency in the most demanding missions, alleviating the crew tasks in performing tactical airlift operations.

Alenia Aeronautica and Elbit Systems started a collaboration to give answers to those challenging operational needs by demonstrating the Elbit Helmet Mounted Display LITE use on the Alenia C-27J aircraft.

The C-27J is the only true medium military aircraft available on the market, offering superior and cost effective performances in speed, range, payload, load compartment volume and cross section, combined with the system reliability and considerable commonality of equipment. Today the C-27J is the best selling tactical transport aircraft with 117 units ordered by seven world's air forces.

The HMD can be used as an alternative or as a complement to Head Up Displays for the most demanding segments of the C-27J missions. The HMD LITE has been tested on the C-27J in flight, demonstrating its potential in meeting tactical aircraft needs and ease of installation. During dedicated test flights, different mission scenarios have been simulated, including air drops, landing zones, obstacles, target localization in all meteo condition and simulating different operational scenarios. The HMD LITE is now ready for being integrated and getting operative with the C-27J.

Use of the HMD on the C-27J demonstrated the advantage of providing the pilot with see-through aircraft attitude, navigation and mission information both in on and off-boresight. This feature enhances the pilot's ability to scan the terrain during VFR flights reducing their workload during target recon and both drop and landing on unpaved strips. The HMD LITE can be easily reconfigured in flight from day to night configuration use with night vision goggles as soon as C-27J cockpit "gets dark".

Alenia Aeronautica and Elbit Systems have foreseen the opportunity to collaborate for test activities of the HMD LITE on the C-27J. In order to achieve such goal, both companies have decided to merge their peculiar expertise following a two phases approach for integrating and demonstrating the HMD LITE in the C-27J aircraft.

The first phase is focused on a preliminary analysis on HMD operational advantages on C-27J medium tactical airlift aircraft. This step has been already accomplished by collecting test pilots impressions during walk-through flight assessments of the HMD LITE in stand-alone configuration on the C-27J. Outcomes of such flight activity provided positive impressions and posed sound basis for starting the next phase of the operational demonstration.



**Alenia Aeronautica**, a Finmeccanica Company, is the largest Italian aeronautic player which operates world-wide in the commercial and military aviation, unmanned aerial vehicles and aerostructures. Alenia Aeronautica also coordinates the activities of Alenia Aermacchi and Alenia Aeronavali - wholly owned companies – respectively active in the design and manufacturing of military trainer aircraft and in the overhaul, maintenance and modification of military and civil aircraft. With its joint ventures ATR and SuperJet International, Alenia Aeronautica is the world leader in the regional turboprop market and a top player in the regional jet sector. Over 2007 Alenia Aeronautica reported revenues of 2,306 millions Euro, backlog for 8,248 millions Euro and orders for 3,104. The total workforce is 13.301.

The second phase will bring the HMD LITE to an experimental avionics integration with the Alenia C-27J flight simulator, including HMD symbology development for tactical airlift operations. This phase will also allow to detail HMD concept of use customized to C-27J mission profiles.

At conclusion of this phase an effective means for interested customers will be available to evaluate the HMD LITE operational advantages on the C-27J Flight Simulator before the final C-27J aircraft integration.