



Dispensing flares during test campaign with JAS GRIPEN over Baltic Sea. (Photo: Pia Ericson, FMV)



## FLIGHT TEST CENTRE LINKÖPING

Aircraft testing activities of FMV in Malmslätt, outside of the city of Linköping, was started in 1933, when the Swedish airforce created a special research and test unit within the airforce's central aircraft workshops in the Malmslätt area. The unit was known as the Flight test Centre – FC).

In the early years tests and trials were carried out on everything from individual components, weapons, units and engines to entire aircraft. Until now a large number of the earlier generations of aircraft, to current high-technological aircraft systems and sub-systems of the fourth generation, have been tested by FC. As the requirements of the armed forces for complex operative capabilities and technical prerequisites for joint forces have gradually increased, the focus of the test activities have been shifted from individual products to complex systems. The current test

activities are more focused on checking complete materiel systems, while tests of integrated sub-systems are mainly carried out by the system supplier. Some of the qualified materiel systems being tested at FC are, among others, JAS39 Gripen, ASC 890, HKP14 and various unmanned aerial systems.

FC is an independent unit which is responsible for FMV's customer, delivery and system commitments regarding aircraft and command systems procured by the Swedish armed forces. This also means that we follow, and take part in, the supplier's test activities, which facilitates the verification of the delivery process for hardware and software and its appurtenant documentation. It also ensures that the supplier meets the defined technical/tactical requirements and contractual commitments. In addition to this FC also supports its Swedish and international clients with basic

training for ordered systems before delivery, which leads to a faster capability build-up for the client.

The test center's competence and knowledge of the client's operative environment also means that we have unique qualifications for validating required capabilities.

Since 2001 FC is authorized by the military flying safety inspectorate as a technical construction organisation, with its own operations authorization, which enables own designs, manufacturing and installations in flying systems. For the client this means that specific and flexible solutions can be tested in direct co-operation with FC. Moreover the test center's own maintenance organisation can ensure flight production operations and aircraft maintenance in systems that are unripe for the final client.

The current complex and high-technological C<sup>+</sup> systems make great demands on all systems and platforms that operate in both military and civilian environments. Thanks to our long experience within the area, a gradual adaptation and build up of infrastructure and competence, we also apply testing activities to C<sup>+</sup> systems in air, ground and sea systems, and for joint functions for these.

Moreover Sweden's ever increasing international engagements make demands on testing abilities regarding interoperable systems in co-operation with international actors. One example of this type of co-operation is that FC today has the ability to test the integration of Link 16 systems in our own networks.

Next to the test center there are also establishments for the training of pilots with respect to emergency situations using, among other things, wind and wave basins, overpressure and underpressure chambers and dynamic flight simulator (DFS), with realistic flight simulator functions and G-forces.

For our testing activities we also have access to northern Europe's largest training area over land (Vidsel/NEAT), which makes testing in realistic operative environments possible.

The operative requirements of the future, international industrial co-operation and the ever accelerating technical system development, make great demands on our ability to build up competence and adapt our activities to future client requirements. This is why we are now setting up and implementing testing activities using combined test teams. These are sent out to domestic and international suppliers at an early stage, for quality assurance of our client's requirements.

In the future we can foresee testing of the next generation of manned and unmanned aerial systems as main tasks, which we are already preparing for.

No matter what the challenges of the future will be our abilities will always be competitive, our independence never questionable and our client's always satisfied.



The first NH90 helicopter for Sweden is currently undergoing final system testing.  
(Photo: Pia Ericson, FMV)



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## FMV

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