

Winter testing of Eurofighter Typhoon at test range Vidsel (-28° C)(Photo: Anders Åberg, FMV)



## VIDSEL - A UNIQUE TEST Range in the North

Test range Vidsel is situated about 900 km north of Stockholm. This is a unique resource – mainly for the testing of different missile and UAV systems. This is due to the gigantic available land area, with its comprehensive measuring and communications system, and to the fully equipped airfield (the base) near the testing ground.

The testing ground, which is known as RFN (RobotsFörsöksplats Norrland (missile test ground Norrland)), is the largest landbased testing ground in Western Europe. It was originally set up in 1958 for testing the missile armament of Saab 35 Draken with the US Falcon missile. The testing ground constitutes part of the Swedish Defence Materiel Administrations's (FMV) test and evaluation function (T&E), with responsibility for T&E for systems for the Swedish armed forces, but which are gradually used more and more by client's from foreign armed forces and foreign and Swedish defence industry.

The base has a runway with a length of 2 300 metres, administrative premises, hangars and buildings for technical purposes. The staff amounts to some 140 persons, mainly employed by FMV and Rymdbolaget (Swedish Space Corporation). The co-operation with Swedish Space Corporation (NEAT) among other things means that the flight-restriction areas for the Esrange and Vidsel testing ranges can be interconnected with each other to a 350 km long flight corridor.

The testing area consists of 1  $650 \text{ km}^2$  of uninhabited forest and swamp land, which can be temporarily extended with a further 1  $500 \text{ km}^2$  forest and mountain landscape. This provides great opportunities for advanced missile trials with for example low- and far-flying stand-off weapons.

It is also excellent for flying different types of UAV, including test platforms.

The range has recently been used for advanced missile trials with the modern air-to-air missiles AMRAAM, Meteor and IRIS-T,



UAV SKY-Y during flight test at Vidsel test range. (Photo: Andreas Norin, Pantheon)

as well as the Swedish anti-aircraft missile system Bamse. In addition a great number of UAV flights have been carried out. In addition to this the testing range is also very well suited for tests in cold weather, darkness and difficult snow conditions. We also have daylight conditions 24 hours a day in the summer which enables a still more flexible and efficient test planning.

A normal test consists of a number of aircraft equipped by the client, as well as test instruments within the testing area, with the capability of integrating the client's own measuring instruments. The test is then carried out by an integrated production team, where personnel from the testing range co-operates closely with the client.

The measuring and communications systems used consist of radar stations, remote measuring stations, command and control centres, cine-theodolites, FTS systems and high-speed cameras.

The targets include drones and ground targets. The drone used



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## FMV

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is Robot 06 (Raytheon MQM 107B), which has a varied selection of towed target amplifiers such as for example radar reflectors and flares. By means of co-operation with sub-contractors other types of drones can also be presented, such as IRIS-JET.

The ground targets are normally set up following the client's own specifications, and can for example consist of bunkers, bridges, buildings and battle tanks. The targets are adapted in order to receive realistic signatures, for example using a source of heat for infra-red homing missiles. There are target areas that consist of large flat areas, especially well suited for building of target villages or camps and those areas are also equipped with moving target rails.

At test range Vidsel the focus is always on our clients, and we offer a verified and very appreciated flexibility – our hallmark. Our vocabulary does not include the word "no". We look upon this as part of our ambition to become the most cost-efficient, and one of the most sought after testing ranges in Europe.