

Viper AFT



I am fulfilling my promise that I gave at the end of August to Gonzo and I will write a few words about a new nice lad in our sky, which, with its appearance, raised interest of a few fans during SIAF 2016 in Sliach, where it was inconspicuously stuck at the static display, although next to a MiG-29. With VIPER SD4 / OM-M639, Dušan Šamko showed to all of us beautiful flying, especially at the start of the programme on Saturday.

VIPER AFT with registration OM-M730 had a slightly different position at the military and aviation NATO Days 2016 in Ostrava – it was just on a static display, but inside the real VIP area, together with L-39NG and a B1B bomber, in the immediate company of a B-52 bomber and a KC-10 tanker. Not far away, a novelty of the German aviation, a turboprop Airbus A400M was on the throne. 130,000 viewers mingled there and a large number stopped at the static display of VIPER AFT – the static display of VIPER in the Air Force Trainer version.



I was a bit influenced by the meeting with the veteran of the Czechoslovak aviation František Hlavnička, and since his “If we do not praise ourselves, nobody will praise us” is one of his “wise statements”, I will start a bit with the history.

The idea to create a version suitable for the training of military pilots on the basis of a successful light aeroplane came about a year ago. Viper is undoubtedly an agile aeroplane, its power-to-weight ratio gives it quite decent manoeuvrability and the successful passing of spin tests under the supervision of EASA also prospects for the future.

The on-board equipment and the design of the cockpit reflected the time of its creation and the manufacturer, TOMARK AERO, was willing to start with its modernisation. We decided to propose changes to the cockpit and to the equipment, so that the aeroplane would allow comprehensive training with the emphasis on the maximum application of the HOTAS (Hands On Throttle And Stick) concept, along with additional equipping of the cockpit with a combination of digital and analogue instruments for the training of emergency procedures and also for the basic training of instrument procedures, including precision approach.

A certain model for it, in particular at the beginning, was the L-39 Albatros, of course with regard to the limited dimensions of the cockpit and weight limits. Despite that, we have managed to improve the quality of the equipment also by the installation of a two-axis autopilot. The camouflage is basically identical to the one of the current military Albatroses, the orange tips clearly indicate a training machine, easily identifiable from the ground. The overall design is in the direction of the Air Force segment.



So, after a year's work, prototype OM-M730 came into existence, bearing the number of a grounded L-39 as a symbol and, perhaps, a thankful memory of an aeroplane that served the previous generation of pilots.



Viper AFT exhibited at the latest air show in Nitra

Time will show what the further fate of the project will be. More thoughts and ideas are ready, the project also attracted the attention of, for example, representatives of AERO Vodochody, so we will see.

Such an aeroplane is missing on the market, as one of the instructors of CLV Pardubice, who came to see the smallest exhibit of the exhibition, said: „Gentlemen, hats off, you have managed to get really about everything that is necessary in such a small aeroplane.“

The aeroplane still has to go through a lot of testing, flight tests and measurements before it is tip-top, but also from the aesthetic aspect it looks we have succeeded. It is said that when an aeroplane looks nice, it also flies nicely. We keep our fingers crossed for it.

A few technical details:

V _{cruise}	100 kts
V _{APP}	100 kts (descent speed, locked to ILS)
V _{FLAPS}	80 kts (3 flap positions, position III as “speed brakes“)
Fuel	100 l /95 octane
Endurance	6 hours
Range	ca. 1,200 km

Braked main wheels, brakes on the control stick, steered front wheel, flap and landing gear control in front of the pilot on the left side of the cockpit, 8.33 MHz VOR/ILS (NAVCOM) radio, a CDI+GS indicator, GPS, 2xEFIS (1 possible to switch off), 1xEMS, 2-axis autopilot, (HDG, ATL, NAV, HOLDING) a set of analogue instruments (compass, airspeed indicator, altimeter, VSI, turn co-ordinator with a label, tachometer), analogue onboard clock with a stopwatch. The instructor has only EMS and EFIS in front of him and, of course, a set of switches/circuit breakers. Among them there is also a possibility to switch off the student's EFIS for training purposes to train the switching to backup instruments.

As every proper Air Force aeroplane, VIPER AFT, too, has a ballistic rescue system.

In the future, more markings on the aeroplane's airframe will probably be added, notifying about procedures or dangerous zones in the colour scale of contrast grey shades. So, as it is normal on military aeroplanes, there will be support of the visual of a military aeroplane with everything that is usual on “larger brothers”.

Jenki

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