

### ITALIAN EUROFIGHTER, THE OTHER ALTERNATIVE !

*The Italians see the possibilities of using the Typhoon in the "swing-role concept, and want to apply it in an attack version alongside the existing air defense variant. On the basis of the latest insights they devised to apply both tasks simultaneously in one model. The Italian Air Force is busy conducting tests and has been training with the Eurofighter to actually use the aircraft in the swing-role. This gives the machine the opportunity to perform different tasks in a single mission.*

### WAITING TOO LONG FOR THE F-35

The Typhoon is definitely suitable. So far this possibility was put aside because it was thought to be able to complete the task as a groundattack plane with the Tornado and meanwhile quite outdated AMX structure for 'air-to-ground'. But in addition to the now also aging Tornado one of the main reasons is the spiraling delay in the development of Lockheed Martin's F-35 Joint Strike Fighter or 'Lightning-II'. In addition, the JSF project brings ever-increasing cost, and the whole is even more less attractive with the constant need to solve the technical problems and delays in the complete JSF project. Furthermore, the Italian Parliament speaks about to purchase the F-35's in a total reduction 131 going down to 90, and that number includes the Italian Air Force, including the carrier 'Cavour Marine'. All together, the developments give reason enough to make the consideration to prepare the Typhoon and pilots also for 'air-to-ground' tasks.

### SWING ROLE

The "swing-role" which the aircraft will be assigned means that the plane in one flight - without any conversion period of adjustment - can provide air superiority, interception and also be used for ground attacks. In the same flight an air-to-air combat can often be combined with eliminating ground targets by taking them under fire. As stated, this requires well re-trained pilots.

The in Italy examined option would also be a good alternative for other countries that use the Eurofighter, which can lead to severe consequences. Britain already uses the Typhoon as a bomber. This country is the only one that has also ordered the F35B, the Short Take-Off Vertical Landing (STOVL) version. Germany, Spain and Saudi Arabia have also chosen their Eurofighter to assign the "swing-role". Only Austria has chosen to use the Typhoon solely to defend their airspace. This country does not use the 'air-to-ground' capabilities.

### PRACTICING AT 'DECI'

Italy worked on extensive testing using three Typhoon teams at Decimomannu (Cagliari). Within the framework of testflights and training it was practiced and looked at the possibilities in performing precision bombs with the Litening III pod, as well as cannons aboard which concerns the powerful type Mauser 27mm for hitting ground targets. The flights were conducted by the 4th Wing of Grosseto (single-seaters), the 36th Wing of Gioia del Colle and the 37th Wing Trapani, all equipped with the 'Typhoon Tranche II'. These machines are in series production (46 pcs.) with already integrated upgrade P1E (Phase 1 Enhancement) which enables the use of new advanced precision weapons.

During the tests on Sardinia the planes were armed with Enhanced Guided Bombs (EGBU16) to 1000 pounds (500Kg). Even satellite GPS could be used when there might be a moment of less functioning of the 'common laser-guide' caused by bad weather circumstances. In summary, what it comes down to is that the EGBU16 can be used in two modes, laser and GPS mode. When functioning bad this way, the arm will fall 'ballistically' until it detects the return of the laser (to be picked up by the GPS). The GPS will be leading then at the geographic coordinates of the target. It can also be a combined guide by laser/GPS, laser during the fall of the bomb, GPS when bad circumstances and laser again when conditions approved. Using the EGFBU this way is obtained by integrating the proper guidance systems of precision conventional ballistic bombs (free fall). The EGBU has been chosen as part of the armament for the Italian Typhoon, next to Germany and Spain. Britain and Saudi Arabia have chosen the Paveway

IV (£ 500), the Saudis used this weapon recently in combination with the gun against the units of ISIS Syria, in addition to the Paveway III (2000 lbs). Here also the help of the "Litening III" was used, a standard for all Typhoons. The 'Litening III' is then carried to the central pylon of the fuselage and makes it possible this way to "frame" on groundtargets of all kinds of structures in the battlefield environment even at the moment when the aircraft is flying at full speed and at low altitude, counting in te subject to minimize incidental or collateral damage. The system uses combined laser-designation , high-resolution infrared sensors (FLIR, Forward Looking Infra-Red) and highly sophisticated lenses. The 'Litening III' system is also used in Italy by the 'Tornado' and the Airforce AV-8B "Harrier" of the Navy.

## **MANY HARDPOINTS**

The Typhoon configuration on Sardinia also presents two recently newly certified suspension points under the fuselage. The 'Litening III' is positioned under the center of the fuselage (at the same location of the additional fuel tank which is already integrated on board. It is the future intention to make use of a so-called 'multi-rack' which is capable of carrying two bombs at a time. DeTyphoons have already been tested with six EGBU16 £ 1,000 and in Libya RAF Typhoons already flew missions with four 'Paveway II' examples. The Typhoon is now in a position to tag six different targets and liquidate them all at the same time during one flypast. The Typhoon has eight (!) suspension points under the fuselage, two air-air-wing pylons next to four missile-launchers currently built into the fuselage. It makes the Typhoon to a fatal multi-role opponent!

## **NEW ARMAMENT IN FUTURE**

The machine has many advantages such as a low radar profile and "Super Cruise" which reduces the likelihood of early detection. Furthermore, 'Supersonic Performance' which is 'Beyond Visual Range' (BVR) makes action possible, and 'Helmet Mounted Display' (HMD) which the ambient awareness of the pilot greatly benefits. The plane has an automatic high survival defensive system. It is a platform with a large growth potential. In the short term, the Typhoons will also be equipped with the long-range cruise missile 'Storm Shadow' one of the most powerful weapons available at this time. This is reserved for cruise missile attacks on extremely fortified and secure command bunkers or infrastructures. The 'Storm Shadow' has a range of 500 km and a speed of Mach 0.8. With a weight of 1300 kg / piece, the Typhoon can handle two of these missiles at a time. It is an already tried out and tested weapon that was already in use in Great Britain and Saudi Arabia in the war against Gaddafi's Libya in 2011. Momentarily it is worked on an update 'Eurofighter P2E Phase 2, after the anticipated certification this Typhoon-version can be operational in 2017. This then including the integration of the full range of Paveway II and IV, the "Storm Shadow" and EGBU16 capacity. After 2017, the Typhoon can be updated (P3E version) and perform with Brimstone-2 and Meteor missiles, and with a sniperpod and AMRAAM C7, EGBU31 bombs and AESA radar. This makes the Typhoon already now, and for sure in the near future a very advanced 'killer' a machine that certainly could be a very good alternative for the meanwhile ailing F-35 'Lightning-II', this for many, many years ahead. But that of course is a whole different story.

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