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PRESS RELEASE

Leonardo presents the M-346FA (Fighter Attack) aircraft at Le Bourget

- **The M-346FA is a further evolution of a family concept designed to create a common baseline able to answer to the different air forces requirements in very quick times**

- **The M-346FA will be equipped with the Leonardo Grifo-346 radar**

- **Several Air Forces are already demonstrating their interest in the M-346FA**

Le Bourget (Paris), 18th June 2017 – Leonardo has shown for the first time today at Le Bourget, the Paris kermesse focused on aerospace and defence that will open tomorrow, the new fighter attack version of the M-346, a further evolution of a family concept designed to create a common baseline, able to answer to the different air forces requirements in very quick times.

The M-346 Fighter Attack will be equipped with a dedicated variant of the Grifo multi-mode fire control radar, designed and manufactured by Leonardo.

This new version of the M-346 will take its place next to the two existing variants of the aircraft: the Advanced Jet Trainer and the multi-role M-346FT (Fighter Trainer). Leonardo has already carried out the studies for the FA's radar installation and its mechanical integration with the aircraft.

The M-346FA's characteristics make it not only an excellent advanced trainer, but also a light fighter aircraft capable of carrying out operational missions at far lower costs than those of front-line fighters. Several air forces have already expressed their interest in it.

With seven pylons for external loads, the M-346FA will retain the excellent capabilities of the M-346 family in the advanced and pre-operational training roles, but will also be able to operate very effectively as multi-role tactical aircraft, capable of air-to-surface, air-to-air and tactical reconnaissance missions.

The integration of the worldwide successful multi-mode Grifo radar will provide the M-346FA with unparalleled versatility and effectiveness, thanks to the availability of many specialized radar modes both Air-to-Air and Air-to-Surface.

Leonardo is among the top ten global players in Aerospace, Defence and Security and Italy's main industrial company. As a single entity from January 2016, organised into seven business divisions (Helicopters; Aircraft; Aero-structures; Airborne & Space Systems; Land & Naval Defence Electronics; Defence Systems; Security & Information Systems), Leonardo operates in the most competitive international markets by leveraging its areas of technology and product leadership. Listed on the Milan Stock Exchange (LDO), at 31 December 2016 Leonardo recorded consolidated revenues of 12 billion Euros and has a significant industrial presence in Italy, the UK, the U.S. and Poland.

Note for editors

One of the main features of the M-346FA version is the Grifo-346 mechanical scan, multi-mode radar. The radar antenna will be optimized for seamless integration with the aircraft and will incorporate IFF dipoles. The Grifo-346 will be able to track up to 10 targets simultaneously in Track-While-Scan (TWS) mode, will have a maximum range beyond 50 NM (92 km) in the Look-Up mode and a sub-metric resolution in the Synthetic Aperture Radar (SAR) mode. The radar will feature seven Air-to-Air modes, six Air Combat modes, thirteen Air-to-Ground modes (including for example SAR, Inverse SAR, Ground Moving Target Indicator on SAR, Sea Moving Target Track) and three Navigation modes.

The aircraft can be equipped with targeting and recce pods. The Rafael RecceLite reconnaissance pod is already integrated on the M-346.

In terms of external payload, the M-346 FA will be able to carry auxiliary fuel tanks with a 630 l capacity each, 500 lb Mk 82 bombs (both the free fall and the “Snake Eye” high-drag versions), laser guided bombs (such as the GBU-12 Paveway II, the GBU-49 Enhanced Paveway II and the Paveway IV, Lizard 2+ and 4), GPS guided JDAMs (such as the GBU-38 and the Lizard 4), short range air-to-surface missiles like the MBDA Brimstone and anti-ship missiles like the MBDA Marte ER In addition, the aircraft will be able to employ Air-to-Air, infra-red guided missiles (such as the AIM-9L/X Sidewinder and the IRIS-T), launchers for unguided rockets and a gun pod. The M-346FA will be able to carry over 2,000 kg of external payload.

The aircraft will also be equipped with a Defensive Aids Sub-System (DASS), including a Radar Warning Receiver (RWR) and chaff/flare dispensing system plus a missile approach warning featuring six sensor to ensure a 360° coverage. An active Electronic Counter Measures (ECM) jammer pod and a Radar Cross Section (RCS) reduction kit will also be available as options to interested customers.
For Air-to-Air tasks, such as air defence and air policing, the M-346FA will be typically equipped with four AIM-9L/X or Iris-T missiles, two auxiliary fuel tanks and a gun pod (or an ECM pod), reaching a Take Off Weight of 9,700 kg (including 3,015 kg of fuel and one pilot). In this configuration, the aircraft will be able to perform Combat Air Patrol (CAP) duties for two hours at a 35,000 ft altitude, in an area of interest at a 100 NM (185 km) range from the operating base, with a total mission time of 2 hours and 40 minutes.

In Air-to-Ground roles, the M-346FA will typically carry a targeting pod, two rocket launchers, two guided bombs and two air-to-air missiles, for a total TOW of 8,960 kg (including 2,005 kg of fuel and one pilot). This configuration will be ideal for Close Air Support (CAS) missions: for example the aircraft will be able to effectively operate against a target at a 130 NM (240 km) range from the main base, with a mission profile including two transfer phases (base to target area and back) at optimal altitude and speed, a 15 minutes waiting phase (15,000 ft altitude) at a distance of 15 NM (28 km) from the target, attack and escape phases totalling 30 NM (55 km) at a 420 KCAS speed and a 2,000 ft altitude, a 5 minutes combat phase directly above the target at maximum power.

For reconnaissance roles, the M-346FA can be equipped with the a recce pod, two auxiliary fuel tanks and two air-to-air missiles. The TOW for this configuration will be 9,440 kg (including 3,015 kg of fuel and one pilot), allowing for a 2 hours and 25 minutes Hi-Lo-Hi profile mission over a target at a 480 NM (889 km) range from the aircraft home base.

It is important to consider that the M-346 is equipped with an in-flight refuelling system that can further enhance its patrol time and range.

Obviously, in addition to the aforementioned “combat” missions, the M-346FA will be able to perform the training tasks already available now to the M-346 operators, such as the “aggressor” role in Air-to-Air combat training and the “companion trainer” role to allow experienced pilots to retain their combat readiness, also in terms of mission management capabilities.