



New F-35 Cost Cutting Initiatives

TWO INITIATIVES with industry to reduce F-35 production and sustainment costs were announced by the US Department of Defence on July 11. The first is a two-year extension of the 'Blueprint for Affordability for Production' programme announced in 2014 and the second is the creation of a similar concept to reduce the operation and sustainment costs of the F-35 weapon system.

They are built upon the US government's Better Buying Power initiatives.

The F-35 Blueprint for Affordability for Production programme is a shared commitment between government and industry to drive down F-35 unit recurring flyaway cost by incentivizing production cost reduction initiatives, with a goal of achieving a target price of \$85 million for the air vehicle by 2019. An initial industry capital investment is being made by Lockheed Martin, with major partners Northrop Grumman and BAE Systems, of \$170 million for fiscal years 2014-2016.

As of the end of April, the team had allocated \$146 million of the planned \$170 million towards 193 approved projects with another 75 still being processed. These projects are expected to save \$1.15 million per aircraft in low rate initial production (LRIP) batch 9 and \$1.7 million per aircraft in LRIP 10, resulting in a savings of \$227 million and lifecycle savings of more than \$4 billion over the remaining production run of the aircraft.

Under the Sustainment Cost Reduction Initiative, the three companies are investing up to \$250 million, targeting FY2018-FY2022 to reduce sustainment costs by 10%. At least a \$1 billion saving is projected for the five year period. Industry will only recoup its investment and fee once the accrued savings are verified and below certain thresholds.

Fourth Norwegian F-35A Delivered to Luke



Above: The fourth Royal Norwegian Air Force (RNoAF) F-35A 5110 shortly after arriving at Luke AFB, Arizona. Finn K Hannestad/Norwegian Defence Attaché Washington DC

A FOURTH F-35A Lightning II has been delivered to the Royal Norwegian Air Force (RNoAF) at Luke Air Force Base, Arizona. The aircraft, 5110 (AM-03, USAF/14-5110), the third production aircraft for the RNoAF, arrived at the base on July 27.

The announcement that this was the fourth RNoAF to arrive at Luke implies that the third delivery must also have

taken place, although it has not previously been reported. This was the fourth production aircraft, 5111 (AM-04, USAF/14-5111), which had made its maiden flight on June 9 at Fort Worth, Texas. It is not known when it arrived at Luke.

The first two RNoAF F-35As, 5087 (AM-01, USAF/13-5087) and 5088 (AM-02, USAF/13-5088), had been delivered to Luke on

November 10 last year, when they were flown in from the factory in Fort Worth, Texas – see *Norway's First Two F-35As Delivered to Luke AFB*, January, p11. All four are currently training with the US Air Force's 62nd Fighter Squadron 'Spikes' at Luke. The first aircraft to arrive in country will be delivered to Ørland Air Base next year to join 338 Skvadron.



Above: The first Israeli Air Force F-35I Adir, 901 (AS-1) during its maiden flight. Lockheed Martin

LOCKHEED MARTIN has carried out the maiden flight of the first F-35I Adir (F-35A Lightning II) for the Israeli Air Force (IAF). The aircraft, 901 (AS-1), call sign 'Lightning 2-1', got airborne from Fort Worth, Texas, at 1415hrs on July 25, along with a chase F-16D, 'Lightning 2-2'. It then made a number of orbits around the airfield for initial checks before flying out to the Milsap range, north of the Dallas-Fort Worth area. About 30 minutes into the flight, the F-35I pilot said he was returning

to base as a precaution due to a battery issue and then used the full length of the runway to come to a stop after landing.

The first two IAF F-35Is are scheduled to arrive in Israel on December 12 this year. They will be delivered to Nevatim Air Base in the Negev Desert to join 140 'Golden Eagle' Squadron. The first aircraft had been formally unveiled at Fort Worth on June 22 – see *Israel's First F-35I Adir Unveiled*, August, p24.

Since the Israeli Government decision to purchase the aircraft

was made in September 2010, IAF personnel have been working around the clock to be ready for the arrival of the stealth fighters, preparations for which are now at their peak.

Pilots are currently undergoing conversion training, while maintenance training for ground crew has been under way since April. Other personnel are working to build the required infrastructure in Israel. Additionally, the unique squadron building and simulator centre are nearing completion.

Marine Corps F-35Bs in First Red Flag

US MARINE Corps F-35Bs have participated in Red Flag for the first time. Aircraft assigned to Marine Fighter Attack Squadron 121 (VMFA-121) 'Green Knights' based at Marine Corps Air Station Yuma, Arizona, deployed to Nellis Air Force Base, Nevada, for the exercise, which took place from July 11 to 29.

With the Marine Corps bringing this multi-role, next-

generation fighter, this year's 16-3 iteration of Red Flag marks an historic moment in the US Air Force's premier air combat training exercise. Working with multiple branches, the F-35Bs of VMFA-121 were an intricate part of the demanding exercise that provides aircrews with multiple and intense air combat sorties in a controlled training environment.

The USMC said that, since the F-35 programme is operational and rapidly accelerating, the opportunity to work in a joint environment is a valuable aspect of this Red Flag for the Marines, as well as their only opportunity for integrated, multi-service training before VMFA-121 moves out of the US to be based at MCAS Iwakuni, Japan, as from January 2017.



US Marine Corps F-35B Lightning II 169166 'VK-02' from VMFA-121 on approach to Nellis AFB, Nevada, on July 11 during the type's first participation in a Red Flag exercise. Nate Leong

Ogden ALC Completes Mods on 12th F-35A

OGDEN AIR Logistics Complex (ALC) at Hill Air Force Base, Utah, recently completed modifications on the 12th F-35A for the USAF's active-duty 388th Fighter Wing and Reserve 419th Fighter Wing. The June 30 delivery of 14-5096 (AF-97), gave the two wings the minimum number of aircraft required to reach initial operational capability (IOC).

Hill's 34th Fighter Squadron achieved IOC on August 2 – see *Headlines*. The 34th FS received the first combat-coded F-35As in September 2015 – see

USAF F-35A Training Begins at Hill AFB, November 2015, p17. After flying and testing them, the F-35 Program executive officer determined they needed specific modifications before they were combat ready.

Ogden ALC was tasked with performing these modification. The purpose of the depot-level mod was to correct an overpressure condition in the fuel system during elevated G-manoeuvres.

The F-35A has been designed to withstand manoeuvres of up to 9Gs. With the overpressure

exceeding tank structural limits, lower restrictive G-limits were necessary for safe flying operations until the modification could be completed. To save maintenance time, the ALC also completed two more unit-level mods that would have kept the aircraft on the ground for several more days. Those were related to the fuel overpressure condition and another that prevented fuel migration between internal fuel tanks. It took 35 days to complete the initial aircraft, but this was later driven down to 26 days or less.



Above: The 388th Fighter Wing's 12th F-35A Lightning II, 14-5096 'HL' (AF-97), being towed from a hangar at Hill Air Force Base, Utah, on June 30. Hill's Ogden Air Logistics Complex had just completed modifications on this 12th aircraft, which gave the 388th FW and Reserve 419th FW the minimum number of aircraft required to reach initial operational capability, or combat-readiness. US Air Force/Alex R Lloyd

Third F-35 Training Squadron Activated at Luke AFB

A THIRD F-35 Lightning II squadron, the 63rd Fighter Squadron (FS) 'Panthers', was activated at Luke Air Force Base, Arizona, on August 1. During a ceremony at the base, Lt Col Matthew Vedder, previously 62nd FS Director of Operations (DO), officially assumed command of the 63rd FS.

The 63rd FS will train F-35 pilots as a joint international effort between Turkey and the United States. Turkish and American pilots will fly both Turkish Air Force and USAF F-35s under the guidance of American instructor pilots. The first F-35s are due for delivery to the unit in March next year.

Lt Col Vedder is an experienced F-35 and A-10 fighter pilot with over 2,000 flight hours, including combat deployments to both Afghanistan and Iraq. He assumes command of the 63rd FS after having served more than a year as the DO of the 62nd FS, for which he was responsible for planning, executing and supervising every aspect of flight and ground training operations.

Like the 63rd, Luke's other two F-35 units, the 62nd and 61st Fighter Squadrons train an international cadre of F-35 pilots from partner nations such as Australia, Italy and Norway. With its activation, the 63rd joins the 62nd and 61st as one of three dedicated F-35 training squadrons at Luke.

The 63rd was originally constituted as the 63rd Pursuit Squadron (Interceptor) on November 20, 1940. Most recently it was an F-16 unit at Luke, but was inactivated on May 22, 2009.

Three more squadrons are slated to join the 56th Fighter Wing by 2022 as Luke's F-35 fleet expands towards its goal of 144 jets. After its transition is complete, Luke will maintain its status as the largest F-35 training base in the world.