

Luke AFB, Ariz., is the future home of 144 F-35A Lightning IIs. Some have already arrived.



Lightning Over Luke

Photography by Jim Haseltine
Text by Gideon Grudo



The Arizona skies, long home to F-16s, now also host USAF F-35A pilots and those from other nations. F-35A Lightning II fighters and the pilots and maintainers who operate them are at Luke AFB, Ariz., and not necessarily working with airframes from their own countries. A Dutch pilot may well train on an Australian fighter, for instance. Of the 22 F-35As already assigned to the base, two belong to the Royal Australian Air Force. Eventually, Luke will have 144 F-35As for six squadrons.

At left, a four-ship of 61st Fighter Squadron F-35As fly in formation over the south rim of the Grand Canyon. Two of them belong to USAF and the other two to RAAF.

|1| A 61st Fighter Squadron pilot works with the maintenance crew to prepare and start the aircraft. Eglin AFB, Fla., has been training F-35A pilots from all three services. Luke will train USAF and international F-35 pilots. **|2|** Capt. Nick Rallo performs a preflight check on an aircraft before a mission. **|3|** An F-35 and an F-16 fly in formation during the F-35's delivery flight to Luke in March 2014. Luke will host F-16 pilot training for some time to come. **|4|** SSgt. Jermaine Brandon (left) and SSgt. Mark Abad, avionics technicians with the 61st Aircraft Maintenance Unit review technical data on their Portable Maintenance Aid.



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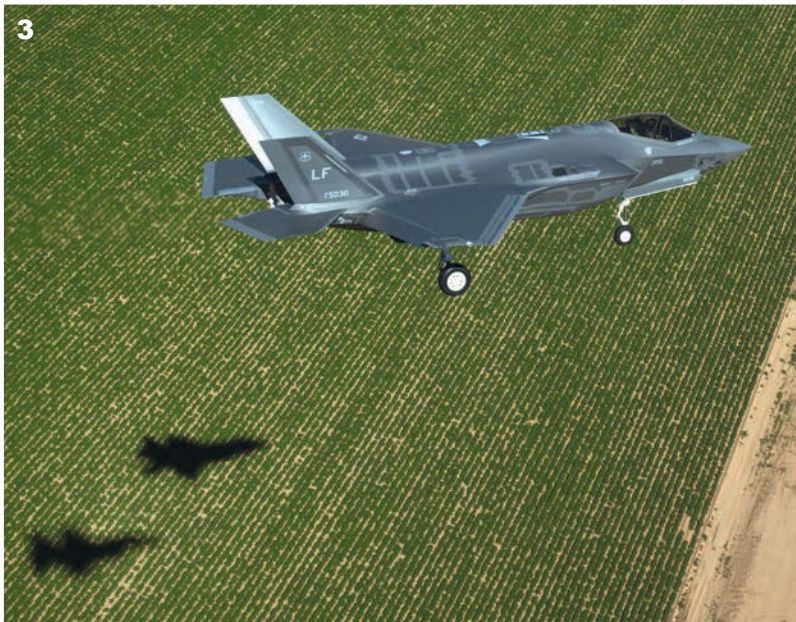
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[1] An F-35 maneuvers during a training mission over the Barry M. Goldwater Range Complex in southern Arizona. **[2]** An F-35A two-ship from the 56th Fighter Wing flies in formation. **[3]** The first F-35A for Luke—the 100th built—on final approach from the Lockheed Martin factory in Fort Worth, Texas, in March 2014. Notice the shadow of the F-16 chase ship. **[4]** A Lightning II lifts off for another mission out of Luke. While the F-35A—the Air Force variant—is a conventional takeoff and landing airplane, the Marine variant, the F-35B, has short takeoff and vertical landing capabilities. The Navy's F-35C has larger wings and control surfaces to allow for aircraft carrier landings.



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[1] Maj. Jon Pitts and Rallo, both F-35A instructor pilots from the 61st FS, walk back to the squadron for debriefing. **[2]** Rallo and a maintenance crew power up for another sortie. **[3]** The first F-35A destined for Luke escorted by an F-16 as they fly over the southern part of the base. **[4]** An F-35A and an F-16 fly in close formation as they come up on Luke. The Lightning will eventually supplant the Viper in USAF and many partner air forces.



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[1] A lineup of F-35As sit under sun shades on the ramp. The 61st is the first Luke squadron to fly the F-35A. **[2]** SSgt. Michael Seymour performs postflight checks on a helmet-mounted display system. Though there were problems with early batches of the helmet, F-35 Program Executive Officer Lt. Gen. Christopher Bogdan says those issues were resolved in 2014. **[3]** A pair of F-35 pilots practice formation flying. **[4]** The 61st FS flagship. To allow radar to see the stealthy F-35 in practice, radar reflectors are mounted ahead of the verticals.



[1] A two-ship over the Grand Canyon. There are no two-seat F-35As, so a pilot's first flight is also his first solo. No antennas protrude from the aircraft's surfaces but are embedded in the surfaces of the aircraft to reduce the radar signature and yield a wide, deep, and precise picture of the battlespace. **[2]** Pitts performs checks on the electro-optical targeting system on an F-35 during a preflight walkaround. The EOTS is like a built-in Sniper pod, with more capability. **[3]** The 61st flagship heads to runway No. 3. **[4]** Lt. Col. Greg Frana, the 61st FS director of operations, briefs a group of pilots. Foreign pilots will be part of the training cadre at Luke.



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[1] An F-35A accelerates into the night sky in full afterburner, showing the power of the Pratt & Whitney F135 engine. While using afterburner, however, the F-35A is noisier than its predecessors, as it generates 43,000 pounds of thrust. **[2]** Crew Chief SSgt. Andrew Hensen goes through a startup with an F-35 pilot. **[3]** Luke was chosen for the advanced training mission because of its good flying weather and access to many nearby ranges. **[4]** The first F-35A at Luke breaks left in the overhead pattern coming in to land at the base. More than 2,500 F-35s are planned—1,763 for USAF—and are expected fly for 40 years or more, meaning Luke will be generating pilots well into the 2060s. ✈