



High Fliers at

**Photography by Sagar Pathak and USAF photographers
Text by Aaron Church**

A 9th Reconnaissance Wing U-2S turns on final approach at Beale. The Dragon Lady is notoriously difficult to land given the tendency of the highly efficient wings to float over the runway.

USAF's U-2 and Global Hawk reconnaissance aircraft require unique skills at Beale Air Force Base.



Beale

Operating the cutting-edge RQ-4 Global Hawk alongside the still potent U-2 Dragon Lady, the 9th Reconnaissance Wing at Beale AFB, Calif., forms the nexus of US Air Force airborne strategic reconnaissance. With manned or unmanned aircraft, Beale has long been home to USAF's eyes in the sky. True to the motto on the U-2 patch, "In God We Trust—All Others We Monitor," it ably carries this role into the future. At the request of the 9th RW, some airmen in these pictures are not identified.

11 Global Hawks, such as this one, are tasked with high-altitude, long endurance, wide-spectrum intelligence gathering, complementing manned and space reconnaissance systems. **12** Crew Chief SSgt. Justin Weeks, 9th Maintenance Squadron, readies a U-2.



13 U-2 pilot Lt. Col. Jon Huggins is helped into a custom-fitted pressure suit designed to combat the physical effects of sustained flight at extreme altitudes where the U-2 routinely operates. **14** The U-2 executes a left turn over Lake Oroville, just north of Beale.



11 A U-2 soars at 20,000 feet over the foothills of the Sierra Nevada in Northern California. With glider-like efficiency, the U-2's 105-foot wingspan enables it to cruise in excess of 400 mph at 70,000 feet—more than twice the altitude of an average commercial airliner. **12** Over Northern California at 70,000 feet, the curvature of the Earth, edge of space, and darkness of space are

clearly visible. **13** Each U-2 undergoes regular, intensive inspections requiring complete disassembly, including removal of the engine and tail section. Here, the air brakes are deployed for hydraulic inspection. **14** Specially modified TU-2s, such as the one shown here, operate as trainers and keep current pilots proficient. The U-2 is a difficult aircraft to fly, and the instructor's aft cockpit

is equipped with full flight controls. **15** A 9th Maintenance Squadron maintainer slithers into a U-2 air intake. The U-2 is powered by a single General Electric F118-101 turbofan, making meticulous inspections vital.

11 Similar to NASA spacesuits, the U-2 flight suit protects the pilot from adverse physiological symptoms such as hypoxia and barotraumas—the result of oxygen deprivation and a change of atmospheric pressure. **12** Decked out in a glossy version of the U-2's overall black paint scheme, T-38 Talon trainers such as this one provide a cost-effective way to maintain flight currency and training requirements. A U-2 in flight passes behind it. **13** A Pontiac G8 chase car waits for an incoming U-2 on the flight line. The chase cars give pilots input as needed during landing. **14** A photo of a foreign airfield taken by a camera in a U-2 sensor bay. Such film is developed and analyzed immediately upon landing. **15** SSgt. Adam Rodgers, an imagery analyst, reviews photo negatives taken on a mission.





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11 Global Hawks on the ramp at Beale. The remotely piloted RQ-4 aircraft performs missions similar to the U-2, and many feel the Global Hawk is the future of intelligence-surveillance-reconnaissance. *12* An airman inspects the tail section of a U-2—every rib, stringer, and rivet is scrutinized to prevent structural failure. *13* A U-2 overflies Beale. The aircraft was adapted from the fuse-

lage of an F-104 Starfighter mated to a high-aspect-ratio wing. *14* The Block 40 variants of the RQ-4B Global Hawk (such as the one seen here) boast a range of more than 10,000 miles and a suite of synthetic aperture radar, electro-optical, and infrared sensors. Eventually, they will also carry a signals intelligence package. *15* A Dragon Lady and its T-38 chase plane cast fleeting

shadows, passing low over Beale's main runway.

11 Aided by airmen from the physiological support squadron, a crew climbs into a tandem TU-2 trainer. The yellow containers supply pure oxygen, which when breathed, decreases the amount of nitrogen in the bloodstream, mitigating the risk of decompression sickness. **12** With its extended nose and wing-mounted sensor pods in silhouette, a U-2 is marshaled to a stop by a crew chief at Beale. **13** A U-2 banks over Lake Oroville at 15,000 feet. The Dragon Lady is very maneuverable and requires a deft touch to control in the thin air at high altitudes. With less than a 12 mph difference between maximum and stall speeds, the aircraft demands constant attention. **14** Racing behind a landing U-2 in a chase car, 99th RS pilots talk one of their own through touchdown. The high-altitude pressure suits restrict visibility, making communication between the pilot and the chase car crucial to judging distance to the ground.





11 Swaddled in his bright yellow pressure suit, a 99th RS pilot guides a U-2 over a lineup of Global Hawks on the flight line at Beale. *12* Large air brakes, seen here deployed, are required to fully stall the U-2 on landing. A highly efficient wing and small profile render the aircraft vulnerable to crosswinds. *13* A senior U-2 pilot helps a potential program applicant become familiar with the U-2 cockpit in one of two simulators housed at Beale. Applicants will fly three evaluation flights in the U-2 to determine if they would be a good fit for the program. *14* A Global Hawk in its hangar at Beale. The RQ-4B's hangars had to be purpose-built to accommodate the aircraft's 130-foot wingspan.

A high-angle, aerial photograph of a U-2 spy plane in flight. The aircraft is dark, with a distinctive red and black checkered pattern on its vertical stabilizer. It is flying from the lower left towards the upper right of the frame. Below the plane, a large, turquoise-colored reservoir is visible, surrounded by rugged, brownish mountains and valleys. The terrain is densely forested, and the overall scene is captured from a high altitude, looking down on the landscape.

A U-2 soars over the Lake Oroville area. Far from a Cold War relic, the U-2 continues to undergo upgrades, and is outfitted with the latest sensors and equipment. Outlasting even its “replacement” aircraft—the SR-71—the U-2 remains an indispensable asset, providing real-time intelligence to commanders on the ground. ■