THE CHALLENGE:
MANEUVER A CAMERA SYSTEM FOR PERFECT IN-FLIGHT PICTURES
An aerial photography systems manufacturer was contracted for a unique project. The goal was to affix a camera system to the fuselage of a modified Cessna 337 aircraft. The camera needed to extend below the aircraft during flight to catch unobstructed aerial pictures. Providing this extension and maneuvering, required a linear actuator that is able to withstand the shock loads the aircraft is subject to during landing sequences. The actuator also needed to be able to meet the loading and rigidity requirements based on the size and weight of the camera.

CRITICAL FACTORS:
RELIABLE CONSTRUCTION FOR A DIFFICULT JOB
The camera system weighs around 200 pounds- controlling it requires a system with the proper construction to reduce camera shaking while the aircraft is airborne, regardless of flight and weather conditions.

Additionally, the actuator needed to have smooth operation, since it will be raising and lowering during flight, as controlled by the aircraft pilot.

- Precision
- Reliability & Long Life
- Customizable
- Smooth Motion
THE BISHOP-WISECARVER ADVANTAGE

TACKLING EXTREME CHALLENGES WITH VERSATILE SOLUTIONS

When it comes to extreme applications, Bishop-Wisecarver has systems and products designed to provide reliable motion, even when conditions get tough. Additionally, our customizeability ensures you get the right solution to meet your application requirements.

- XLA™ actuators provide high load capacities (up to 9,500 lbs dynamically) in a compact envelope
- Rigid construction allows actuator to act as a self-supporting structural member
- T-slot channels along the base for quick and easy mounting, as well as adjustment of peripherals such as switches
- Stainless steel options for additional environmental corrosion resistance
- Customizeable options, including: custom lengths, home & limit switches, bellows, a range of compatible motors & drivers, et al.

RESULTS:

PROBLEM SOLVED.
The XLA™ actuator provided a reliable means of extending the camera below the fuselage. By providing an unobstructed vantage point and a rigid means of mounting the camera to the aircraft, the XLA helped the operator get high-quality aerial photographs. The smooth guided motion and trusted reliability of Bishop-Wisecarver products provided peace of mind for our customer.

SOLUTION:

A CUSTOMIZABLE ACTUATOR WITH RIGIDITY AND RELIABILITY.

Using an XLA™ 15 Actuator, engineers were able to provide exactly what was needed for this project. The XLA 15 was an ideal solution based upon the rigid construction and high moment load capacity. The smooth operation was made possible by the ball screw and a customized 90-degree gear head. Electronic limit switches and actuator controls were mounted inside the airplane so the pilot could control the camera system. Other features, such as a custom wiring harness, were added by request to provide a completely integrated system.

We take pride in being an exceptional service provider and a trusted business partner. Our goal is to give you more than innovative products- we want to work with you to find the best motion product for your exact application needs.