

Weighing an Evolving UAV – the RQ-4 Global Hawk

The UAV RQ-4 Global Hawk from Northrop Grumman provides a high-altitude and long range and endurance sensor platform for both military and humanitarian applications. Changes in payload and mission capabilities required modification to the airframe, and portable weighing systems capable of weighing fueled UAVs.

At the altitudes where the RQ-4 operates, accurate weight and balance information is vital when varying payloads and mission profiles. The aircraft scales' fully-electronic shear beam technology provides accuracy and repeatability when operated in extreme environments along with the UAV.

With a wingspan larger than a Boeing 737, the current RQ-4 operates above 50,000 feet in excess of 30 hours for endurance. Initially developed with a payload of 2,000 pounds, later models have increased this to 3,000 pounds with a more recent integration of a UPA, or Universal Payload Adaptor. This enabled additional mission capabilities and the ability to switch payloads easily – with all the accompanying effects to weight and balance.

For almost 20 years, RQ-4 UAVs have been weighed on Intercomp's Intrinsicly Safe low-profile platform scales. Highly-accurate weight and balance data for the fueled aircraft is provided by certified Intrinsicly Safe scales to meet safety standards around the world for aircraft hangars. Part of the modifications for the RQ-4 Block 30/40 aircraft included changing the main landing gear from dual to single wheel mains, the scale systems were updated to meet the new requirements.

Using AC15-LP™ and AC40-LPDW™ Intrinsicly Safe low-profile aircraft scales, operators require only 3 scales to weight the RQ-4. Intercomp scale systems provide accuracy, portability and safety wherever the missions take the RQ-4 Global Hawk UAV.

To learn more about the RQ-4 UAV Global Hawk, visit northropgrumman.com/Capabilities/GlobalHawk



Dual landing gear on early variants required a shift to the AC40-LPDW™ platform scale.



The AC40-LPDW™ accommodates dual nose or main gear on a single scale.



Later models of the UAV, with single landing gear configuration.

Additional Data or Customer Testimonials Available Upon Request