

Ryan Aeronautical Company Model 72

The Model 72 was originally built by the Ryan Aeronautical Company in 1949, as a standard 205hp Navion, but the airframe never received a normal certification. Instead it was used as a flying testbed for options, and modifications that Ryan planned on introducing into the production line. Among the changes was the installation of a 260hp geared Lycoming engine, which became standard in the Navion B.

In 1952 Ryan began working on an entry into the US Navy's primary trainer competition. Naturally N4860K became the prototype for the project. Numerous changes were made, including the reinforcement of the wing and fuselage for +9/-4Gs, structural elliptical wingtip extensions, a free castoring nose wheel, differential braking, toe brakes, two fixed pilot's seats, adjustable rudder pedals, replacement of the control yokes with sticks, a redesigned instrument panel and throttle quadrant, and the installation of two large skylights in the sliding canopy.

The large wingtips were needed to make the Navion spin, but this created stability problems. The solution was to remove the Navion's standard fin extension. And because aerobatic maneuvers would become standard, the variable pitch propeller now required a governor.

In 1953 the Model 72 began a series of test flights in California, then flew to the US Naval Air Station in Pensacola, Florida for the Navy evaluation. For three months, from late September to early December the Model 72 was tested against entries from Beech and TEMCO, and by all accounts, performed well. Some considered too stable. Other shortcomings included the greenhouse canopy, whose framing impeded visibility. The solution was to make a new canopy from half-inch thick Plexiglas.

Beech won the competition with the tandem seat, Bonanza derived, Mentor.

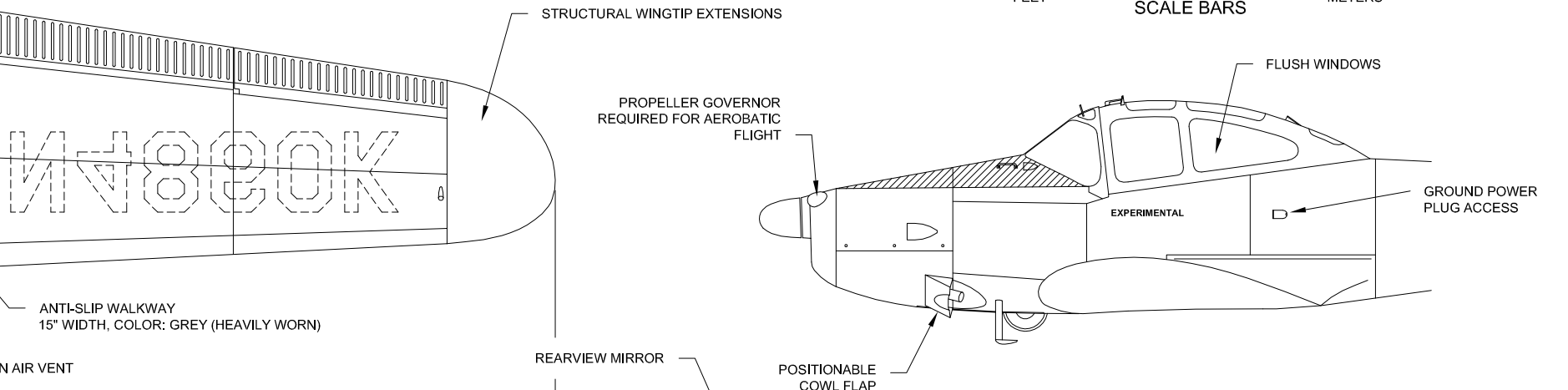
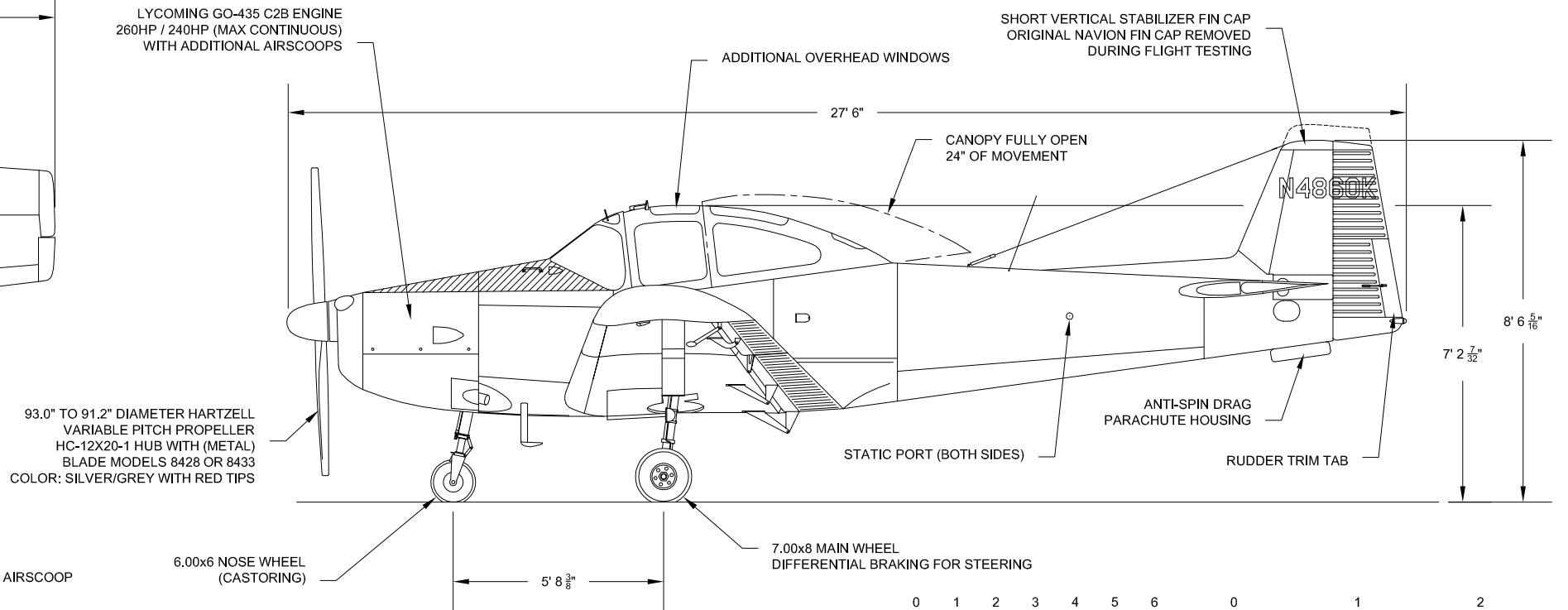
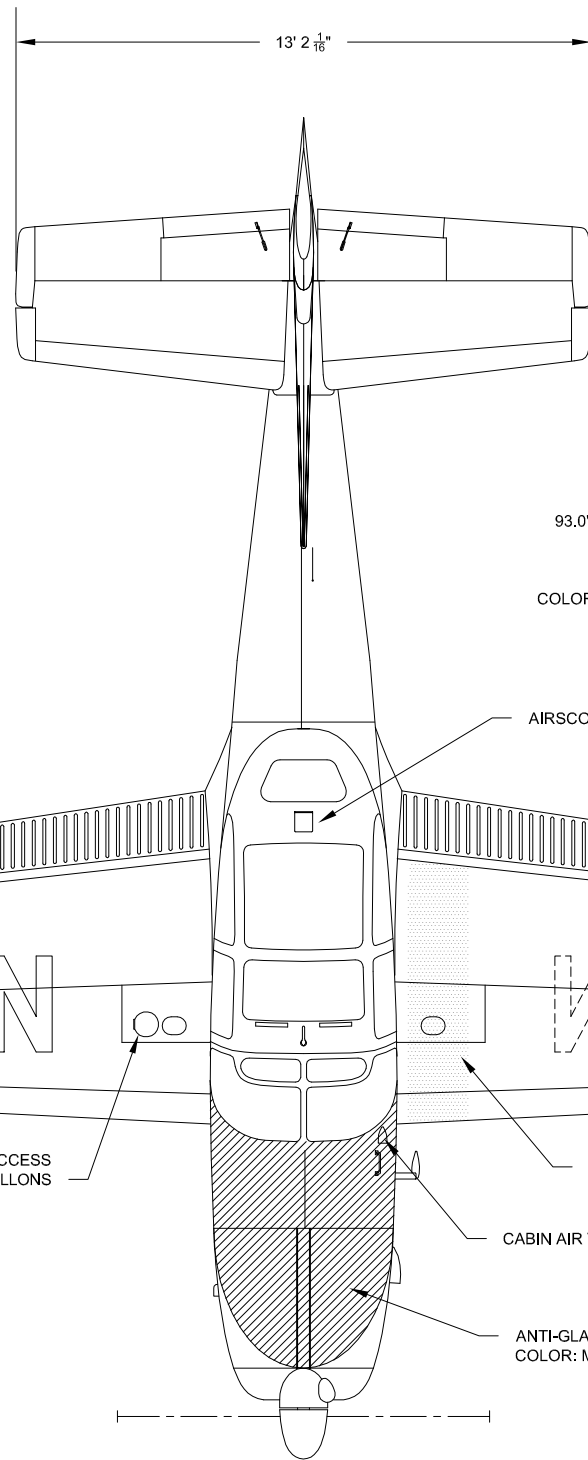
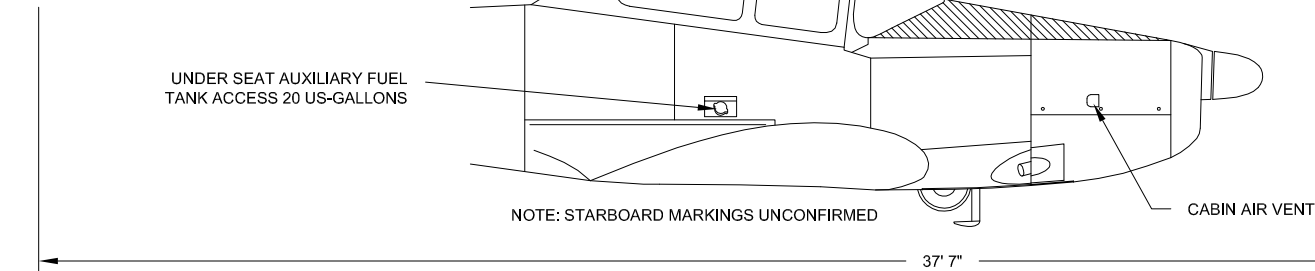
Following the competition N4860K returned to Ryan and spent the next ten years operating as a chase plane during the company's vertical and STOL aircraft programs. It was also used during the early Firebee drone programs. In 1962 the decision was made to sell the Model 72 on the civil market. This was unusual as most x-planes are simply scrapped. Instead the Navion was paint stripped, and given a conventional white and black color scheme.

After flying as a two-seater in California for several years, one of the owners converted it to a four-place interior. In 1979 a Continental O-520 was installed. It crashed that September when the pilot attempted to push poor weather. The Model 72's remains passed through several owners until 2004, when Richard Buchanan purchased them and began a labor intensive restoration back to its 1953 fly-off configuration.

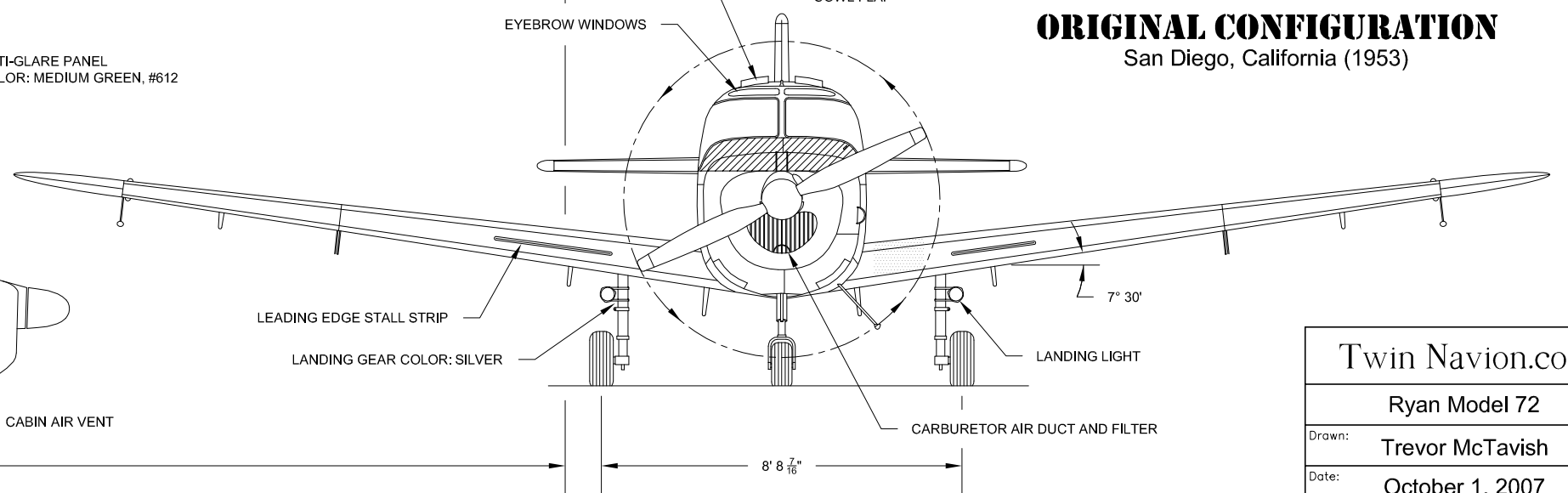
COLOR NOTES:

IN THE INTEREST OF SAFETY, THE MODEL 72 WAS PAINTED IN THE BRIGHTEST COLOR AVAILABLE IN THE RYAN PAINT SHOP - INTERNATIONAL ORANGE. REGISTRATIONS AND TEXT WERE VORY.

ONE OF THE RYAN TEST PILOTS REPORTED THAT THE PAINT FINISH APPEARED "AS SLICK AS A PIECE OF GLASS."



ORIGINAL CONFIGURATION San Diego, California (1953)



Twin Navion.com

Ryan Model 72

Drawn: Trevor McTavish

Date: October 1, 2007

Scale: 1/48 Sheet: 1/2