

THE Big Howard DGAs

An unlikely looking racer with winning ways,
Benny Howard's short-lived 'Mr. Mulligan' left behind
a number of executive offspring

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Over the years, the wings of quite a few production-model airplanes have been clipped to adapt them to racing. Saying that a hot racer reversed this practice and was developed into a production airplane—and a big 4-to-5-place airplane at that—would make a good story. Unfortunately, it wouldn't be exactly true.

The racer in question was the Howard DGA-6, named "Mr. Mulligan." The aircraft was designed by Benjamin O. Howard and Gordon Israel, who had eventual commercial application in mind. The immediate goal, however, was prize money from air racing. Consequently, many design features were biased toward speed, and the power loading was entirely unrealistic for commercial operation.

The DGA-6 was built in a rented store in Chicago as Howard's entry in the Bendix cross-country event of the 1934 National Air Races. Howard, Israel, and others had enjoyed phenomenal success since 1930 with earlier Howard "DGA" racers. The letters stood for "Damned Good Airplane," and the products pretty well lived up to their labels.

"Mulligan" didn't look anything like the classic racer. Not only was it a high-wing, strut-braced cabin monoplane; it had side-by-side seating and dual controls! Fat fuselages were supposed to have high drag, but Howard had seen what the famous Gee Bee racers had done with fuselages fattened to the width of their radial engines, and he had a big Pratt & Whitney Wasp up front that had been honed up from its normal 550 hp to 830.

The structure was conventional, with a rectangular welded-steel-tube fuselage rounded out on the bottom with wood stringers over wood formers, all covered with fabric, as was the steel-tube tail. The top of the fuselage was left flat to improve airflow off the wing that formed the cabin roof. The short wings were all-wood construction and were skinned with plywood and then covered with fabric and polished to a mirror finish. An exceptionally clean wingtip design added to the performance, and trailing-edge flaps assured a reasonable landing speed.

Howard and "Mulligan" had hard luck before they entered their first race.

En route to Los Angeles for the start of the Bendix, the plane was extensively damaged in a forced landing and was unable to race in 1934. Rebuilt and thoroughly debugged the following year, it was ready for the 1935 Nationals and its place in history.

No one really expected a big box like "Mr. Mulligan" to do more than place in competition with the well-proven unlimited racers on hand for the 1935 races, which were held in Cleveland. It turned out, however, that the airplane and its two pilots, Benny Howard and Harold Neumann, pulled off what was probably the biggest surprise in the history of air racing.

Because of its size and correspondingly large fuel capacity, "Mulligan" was conceded a good chance of at least placing in the Bendix Trophy Race, a 2,043-mile dash from Los Angeles to Cleveland. Piloted by Howard and Neumann together, the all-white bird (all the Howard racers had been white) with race number 40 beat the field of eight into Cleveland with an elapsed time of 8 hours 33 minutes, for an average speed of 238.7 mph. This wasn't a new record but was still a sensational performance, in that "Mulligan" edged out Col. Roscoe Turner's Wedell-Williams racer by less than 0.2 mph. It was "Mulligan's" greater tankage that paid off here—it had to make only one fuel stop, while Turner's faster but much smaller ship had to make several.

Fresh from this triumph, "Mulligan" was entered in the closed-course Thompson Trophy Race, the top event for the unlimiteds. Neumann flew alone this time; Howard's bosses at United Air Lines didn't want their pilots participating in dangerous pylon racing.

After running for a while with the pack, Neumann and "Mulligan" found themselves out in front when Turner's temperamental thoroughbred, which had been leading, developed engine trouble and dropped out. "Mulligan" won at a relatively slow 220.2 mph (compared with 1932's blazing 252.6), proving that speed alone will not win air races unless there is a high degree of reliability to back it up.

SPECIFICATIONS AND PERFORMANCE

	DGA-6 "Mr. Mulligan"	DGA-15P (Navy GH-1)
Wingspan	31 ft 8 in	38 ft 0 in
Length	25 ft 1 in	25 ft 8 in
Wing area	150.7 sq ft	210 sq ft
Powerplant	Pratt & Whitney R-1340 Wasp special, 830 hp	Pratt & Whitney R-985 Wasp Jr., 450 hp
Empty weight	2,600 lb	2,700 lb
Gross weight	4,210 lb	4,350 lb
High speed	287 mph @ sea level 292 mph @ 11,000 ft	192 mph @ sea level 201 mph @ 6,000 ft
Cruise speed	262 mph @ 11,000 ft, 75% power	191 mph @ 12,000 ft
Landing speed (flaps)	64 mph	61 mph
Rate of climb	4,450 fpm	1,600+ fpm
Service ceiling	—	21,500 ft
Range	—	1,263 mi
Price	—	\$19,885

In 1936, the rules were changed to prevent the same airplane from being flown in both the Bendix and the Thompson races, so Benny Howard, with his wife as copilot, entered "Mulligan" in the 2,450-mile New York to Los Angeles Bendix. All was going well until the propeller threw a blade over New Mexico. The Howards were badly injured in the resulting crash, and "Mulligan" was totaled.

The crash did not obscure the amazing performance of Howard's cabin airplane or dim his belief that it could be developed into a successful commercial design. A new Howard Aircraft Corp. was formed on Jan. 1, 1937, and a new factory was established in Chicago. The prototype DGA-8, a four-seater powered with a 320-hp Wright Whirlwind engine, was flying later in the year. Full-scale production was soon under way for what was essentially a custom-built line of executive airplanes closely resembling the original "Mr. Mulligan." Thanks to both their performance and their price tags, they hardly qualified as ordinary private-owner types.

From 1937 to 1942, when the Navy took all subsequent production, Howard produced the following variations of the basic design:

Four Place

DGA-8	320-hp Wright R-760E Whirlwind
DGA-9	285-hp Jacobs L-5
DGA-11	450-hp P&W R-975 Wasp Jr.
DGA-12	300-hp Jacobs L-6

Five Place

DGA-15J	300-hp Jacobs L-6
DGA-15P	450-hp P&W R-985 Wasp Jr.
DGA-15W	350-hp Wright R-760E2 Whirlwind

Altogether, some 70 aircraft were built prior to the Navy's order. The Navy got 485 DGA-15Ps: 280 as GH-1, -2, and -3 light transports and 205 as NH-1 instrument trainers. The Army, meanwhile, drafted 20 various DGAs, from -8 through -15, from private owners and assigned Army designations UC-70 through UC-70D. Of the approximately 50 DGAs flying today, the majority are ex-Navy models.

There will soon be a sequel to the DGA-6/"Mr. Mulligan" story, perhaps by the time this reaches print. The bones of the original "Mr. Mulligan" have been salvaged from the Indian reservation where they have lain since 1936. Enough of them are usable to allow the new airplane that is being built by airline pilot Bob Reichart, of Santa Paula, Calif., to be called a restoration rather than a replica of the famous racer that went commercial. □

The Howard DGA-6 "Mr. Mulligan," sensation of the 1935 National Air Races. Built for racing but designed with commercial applications in mind, "Mulligan" bore a strong resemblance to a fattened-up version of the well-known Monocoupe.



The civil DGAs were not intended to be seaplanes, but the Jobmaster Corp., Renton, Wash., worked out an approved Edo float installation in the early 1950s. Several "Jobmasters" are still operating in the Northwest.