



Agricultural Flying

By BRIAN R. BAKER

Before World War II, agricultural flying was centered mainly in the cotton-growing regions of the American South and in the agricultural valleys of California. With the advent of World War II, and the large scale production of aircraft, engines and components suitable for the rigorous treatment involved in agricultural operations, the industry has become nation-wide. Agricultural aviation has, in fact, become a very mobile activity, with aircraft and crews being ferried across long distances to deal with specific infestations as they occur.

The two specialists in the field of agricultural aviation, Bill Larkins and I, live in the West. We are able to obtain fairly good coverage of the agricultural operations in California and Arizona, but we are unable to obtain much photographic material from the other regions in which there is so much activity. Although we both do a certain amount of negative trading, and will probably continue to do so, we would appreciate contributions of material from members in these other areas. This should be in the usual form of photographs suitable for publication, along with all available documentation, including type of aircraft, registration, serial or constructor's number if available, special equipment installed in the aircraft, owner or operator, and the date and place the picture was taken.

The objective of the editors is to produce, in each issue, a page dealing with one specific type of agricultural aircraft. In cases where hundreds of a particular type are in operation, several articles will probably appear, each dealing with a specific modification or function. In addition, photographs of experimental and special purpose airplanes will be published whenever possible.

If any members have photographs of agricultural aircraft, especially those dating back to before World War II, please send them, together with all possible documentation, to the Editor, William J. Horvat, P. O. Box 45-435, Los Angeles, California, 90045.

The Grumman Ag-Cat is the only agricultural bi-plane now in production in the United States. This airplane is currently being manufactured under license by the Schweizer Aircraft Corporation, in Elmira, New York, due to the Grumman commitment to military and commercial contracts.

The Ag-Cat can be fitted with a variety of power-plants and has been in series production since 1957. The airplane originally appeared with a 220 horsepower Continental radial engine, although later versions were built using the Gulf-Coast W-670-240, rated at 240 horsepower. Other variations of powerplant installation include the Jacobs R-755 radial engine on standard production aircraft. The airframe is easily adaptable for the installation of the larger Pratt and Whitney engines, the R-985 and the R-1340, developing 450 and 600 horsepower respectively, although Grumman does not intend to market such a conversion. The company statement to this effect is that " . . . the airplane is designed to fly on its wings, not on its propeller," and the Jacobs engine is the largest they plan to install on production models.

Following current practice, field operators have made numerous modifications to the basic Ag-Cat airframe. The accompanying series of photographs illustrates some of the variations of the Ag-Cat as used in the western part of the nation.





A highly modified Grumman G-164 Ag Cat - typical of present California operations. The 600 hp P&W R-1340, windshield and Swathmaster are all modifications. Sutter-Butte Dusters operates a fleet of these in the fertile rice fields of Northern California. Photo in April 1966 near Sutter, Calif., by W. T. Larkins.



The more normal G-164 with Jacobs R-755A of 300 h.p. and factory installed wing nozzles. McLoughlin Dusters, Oxnard, Calif. November 1965 (Larkins)



Another Jacobs powered model with enclosed canopy and additional spreader. Operated by Griffin Crop Care at Oxnard. Also November 1965. (Larkins)



A rare one-only with AT-6 engine and cowl and three-bladed prop from DeHavilland "Otter," extended wing booms and extra lights for night flying. (Larkins)



Many Ag Cats are flying with the P&W R-985, 450 h.p. engine, from the BT-13. This one, of Thayer Brothers also has a BT-13 cowl and windshield. 1966 (Larkins)