



General Chairman of the convention committee John F. Neace, Bell Helicopter Company, Ft. Worth, Tex., opened the first annual conference of the NAAA. Neace received plaudits of the membership for his efforts in organizing the conference.



Officer slate for '68, left to right: Robert Phillips, Phillips Aero Ag. Co., Ceres, Calif., president; Harold C. Tapley, Tapley Flying Service, Shaw, Miss., vice-president; F. Dale Simpson, Simpson Aero Co., Tribune, Kan., secretary; and Robert G. Ueding, Ueding Flying Service, Vincennes, Ind., treasurer.

N-TRIPLE A FLY-IN

National Aerial Applicators Stage First Annual Conference at Dallas

APPLYING chemicals and plant food by air is big business. A visit with aerial applicators offers convincing proof that the industry plans to keep pace with demands for its services.

Aerial applicators have been organized as a national group

less than a year, but their first annual meeting demonstrated a depth and maturity seldom equalled in new associations. First president of the group, Richard Reade, Mid-Continent Aircraft, Hayti, Mo., pointed to cooperation among applicators as the key to success during the

initial year. He reported that the organization was fortunate in overcoming regional differences and in becoming financially self-sufficient in the early months. In his formal remarks to applicators, Reade stated that NAAA, called N-Triple A by members, will undoubtedly establish criteria for pilot training programs. Training schools will need to follow the program requirements in order to place their graduate pilots with N-Triple A members. Reade predicts that NAAA members will comprise 92% of all applicators. Agrinauts, the term accepted for ag pilots, will have to be management and sales oriented as well as being professional technicians, according to Reade, a pilot with 20 years' experience as an applicator.

Further goals of the association of applicator pilots, Reade reported, will be to continue fostering and promoting state aerial applicator associations. He predicted 5 new state groups



George S. Sanders, left, Aerial Dispersal Systems general manager, presents Agrinaut of the Year award to Richard Reade, Mid-Continent Aircraft Co., Hayti, Mo. Reade also received a plaque from the NAAA group for his outstanding service as president during the '67 year.



Exhibitor Bob Chambers, Dusters & Sprayer Supply, Inc., Chickasha, Okla., left, discusses equipment with Otto M. Neidert, Ulysses Air Service, Ulysses, Kan.



Stanley W. Strew, vice-president, Colloidal Products Co., left, and John C. Coulston, McLoughlin Dusters, Oxnard, Calif., discussed trends and safety.

within as many years. This figure included Iowa operators who have just formed a state group. N-Triple A will help research aerial use of existing and new products and will promote chemicals designed exclusively for aerial application, he said. Reade believes the association can become the leader in creating new and sound credit policy guidelines.

A subject of concern to operators is the high cost of maintaining insurance and the close tie between insurance costs and safety. John C. Coulston, McLoughlin Dusters, Oxnard, Calif., emphasized that safety is money. "What you save (by keeping insurance costs down as a result of a safe operation) goes right on to that slim profit you make," he told the group. "Conversely," Coulston said, "what extra insurance costs over normal expense comes off the slim margin of profit."

Coulston feels that safety for the aerial applicator comes from awareness by someone in charge. He urged operators to check their operations personally, to watch their pilots fly, and to do so on a weekly basis. He suggested letting crews know the safety goals demanded and make them aware that the operator will personally return to check compliance.

In agreement with Coulston, Bill Marsh, Marsh Aviation, Litchfield Park, Ariz., and a vet-

eran pilot and operator, said that operators need to be sure that their pilots know the individual pilot's own capability and the limits of the aircraft which he is flying. Most pilots think they know, Marsh said, but he predicted that on a dead engine landing, that many would undershoot the strip. He urged operators to instruct their pilots on stall recovery techniques at low altitudes. Further, Marsh reported his belief that operating aerial applicators should report all violations of safety regulations for the good of the industry.

Few New Compounds In Aerial Picture

Trends in chemicals for aerial use were discussed by Stanley W. Strew, vice-president, Colloidal Products Co., Sausalito, Calif. Strew pointed to the severe restrictions on efforts of chemical companies in placing new compounds on the market. Because of development costs ranging up to \$5 million and a 5-7 year development period, he expects few new compounds to reach the market during the next few years. Registration requirements for new chemicals are more and more complex.

Greetings proved to be first order of business. Chris D. Stoltzfus, Stoltzfus & Associates, Coatesville, Pa., left, is welcomed by Asa Burroughs, executive-secretary of the Texas AAA, Stonewall, Tex. At the right is Corley Tedder, Tedder Aviation Corp., Texarkana, Tex.





Insurance specialist Charles W. Harper, vice-president, Rebsamen and East, Little Rock, Ark., left, visits with Billy J. Williams, Williams Flying Service, Tutwiler, Miss., center, and Robert A. Phillips, Ceres, Calif. Phillips who was elected president for 1968 served the group as vice-president last year.

Strew pointed out, and uncertainty of future regulations, along with changes in federal, state, and even local laws serve to restrict company progress.

Relatively new in the field of chemical production are the pharmaceutical manufacturers, Strew said. He believes their technology in the environmental health field, their screening programs, and their library of biologically active chemicals will enable such companies to produce some very useful compounds.

Among newer trends, Strew reported, are hormones which are being studied for use in stopping an insect's development, as opposed to killing it outright. Such hormones would likely be safe for use around non-target insects, animals, and humans.

Research on plane dispersal systems, which is being done extensively at Mississippi State University, Starksville, Miss., was discussed by Mike Smith. Smith is a member of the department of Aerospace and Aerophysics at the institution. He said that dispersal systems greatly affect the performance level of planes. The load, he said, is not the most important item. More important, Smith said, is the drag created by the dispersal system.

Research has shown, according to Mississippi work, that the best

rate of climb for a plane will be near the stall speed. A stall speed indicator is valuable as a working tool for the aerial applicator pilot, Smith said. At slower speeds, the power requirement increases greatly.

Dispersal Equipment Causes Excessive Drag

Drag, caused by applicator equipment on the plane, costs many extra dollars when measured by the extra fuel needed per hour. Equipment used today, Smith believes, causes more excessive drag than can be justified. For example, he said that studies have shown that an engine-powered spray system (hydraulic system) can decrease drag from a 55 horsepower requirement down to 10 hp or possibly 12 hp. Another adjustment needed to gain this big saving in horsepower is moving the boom of the spray system up into the wing wake. Proper location of the boom has been found to be critical within one-half inch. The wing wake, Smith said, is very narrow in range. But when the boom is properly located and the engine-powered spray system used, drag becomes a minor factor and climb performance is found to be very close to that of a clean airplane.

Closely attuned to the thinking of Smith was Carl W. Heimer, Piper Aircraft Corporation, Lock-

haven, Pa. Heimer pointed out that a plane is no more than a flying platform. The choice of plane for practically any use is on the market now, he said. Areas needing development, according to Heimer, are safety, which concerns the development of a capsule-type cockpit area, and development of dispersal equipment for aerial application. Heimer believes the aircraft companies must begin more testing programs in both these areas. He stated that dispersal equipment was the greatest current need.

Discussing insurance losses, Charles W. Harper, vice-president, Rebsamen and Ease Insurance, Little Rock, Ark., said that one of the chief causes of losses is the unwillingness of the operator to refuse risky assignments. There are times, Harper told the operators, when they should avoid the risk in the name of "professionalism." Loss control, he said, is one of the practical steps in getting the cost of insurance down.

Members of N-Triple A complimented F. Farrell Higbee, executive director of the group, for his efforts during this first year of organization. Higbee, in his report to the group, said that he will write a weekly letter to the officers and board of directors of the group. Special effort, he said, will be made to form new state associations.

Richard Reade, outgoing NAAA president, left, and Terrell P. Kirk, Jr., Grumman Aircraft, Elmira, N.Y., look over specifications at Grumman's exhibit booth.

