



The British Aviation Insurance Co. Trophy on display in Ottawa. This trophy is offered annually by the Soaring Association of Canada for the best flight of the year, distance or altitude.

numerous and provided lift for one free climb of 950 feet and another of 450 feet.

Several flights were made in a Laister-Kauffmann and a Schweizer 2-22 utility glider towed by a Tiger Moth. About four inches of snow covered the field.

A note of enthusiasm comes from J. B. Taylor in Victoria, B. C., who in 1942 was instrumental in forming the Victoria and Island Gliding Club. After numerous vicissitudes, during which the membership climbed to 122 then dropped to 40 after two gliders had been damaged, the group is re-forming and planning to purchase a two-place high performance sailplane in the United States.

Twelve members reached the "B" stage before the last glider cracked up and since then Mr. Taylor has undertaken to instruct Air Cadets at Royal Roads, the Naval College. He has handed over to them the remnants of a Kirby Cadet glider with the plans. He understands they will build one since they have excellent woodworking and metal working facilities.

A survey of Canadian-owned gliders reveals a very promising picture. Types and locations are as follows:

CADETS: Victoria, B. C.; Vancouver, B. C. (2); Fort William, Ont.; Ottawa, Ont. (3); Halifax, N. S.—total (8). PRIMARY: Victoria, B. C.; Vancouver, B. C.; Lethbridge, Alta.; Ottawa, Ont.; Montreal, P. Q.; Toronto, Ont.—total (6). SCHWEIZER TG-3A: Vancouver, B. C.; Medicine Hat, Alta.; Halifax, N. S. (2)—total (4). GRUNAU BABY: Vancouver, B. C.; Kingston, Ont.; Ottawa, Ont.; Saskatoon, Sask.—total (4). H-17: Saskatoon, Sask.; Montreal, P. Q.—total (2). TG-4: London, Ont.; Oshawa, Ont.; Kingston, Ont (2)—total (4). SGU 1-19: Brandon, Man. (2); Winnipeg, Man.; Toronto, Ont.; Dunnville, Ont.—total (5). SGU 2-22: Oshawa, Ont. SPARROW: Toronto, Ont. PRATT-READ: Ottawa, Ont. (2); Montreal, P. Q. (2)—total (4). FALCON: Montreal, P. Q. BRIEGLER BG-6: Montreal, P. Q. MU-13: Montreal, P. Q. OLYMPIA EON: Ottawa, Ont. *Grand Total* (43).

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DOUBLE TOW

By STEPHEN J. BENNIS

ARE you planning to double tow your gliders? By utilizing both the high and low tow positions we find a safe and efficient method for double towing. Safe because there is a barrier between the gliders—the turbulent slipstream of the tow plane. The man on the high tow position is on the short rope in full view of the low tow man on the long rope. Efficient because with the high and low tow position being employed the climb is approximately that of a single L-K being towed in high tow position. Two L-K's towed in the conventional fan substantially reduced the climb on our tow plane (Waco F2), so much so that the climb was marginal.

In high and low tow the pilot in the low tow has in his field of vision the second glider and the tow plane. The pilot in the high tow position on the same tow need only to hold his position behind the tow plane. He never could see the man on the long rope regardless of what method of towing was employed.

The man on the short tow takes off in the normal climb assuming a position, as soon as he is airborne, directly behind the tow plane and slightly above, while the man on the long rope stays on the ground until his position in relation to the tow plane is achieved by the tow plane getting airborne; then he slides directly behind the tow plane below the slipstream. The ships will be maintained in a position relative to the tow plane as follows—high tow is approximately 3° to 5° above the tow plane, low tow is approximately 10° to 12° below the tow plane, thus affording a safety arc of approximately the difference or 17°. It may be argued that the man in the low tow position may not be able to overcome or hurdle barriers on his initial take-off, but he has positive airspeed as the tow plane begins to accelerate. With this method of double towing the tow plane has a minimum amount of drag at take-off instead of the maximum drag that is created by the conventional fan type of double tow where the pilots in both gliders are jockeying about the disturbing slipstream. It is basically a one-two-three take-off: first the glider in high tow, second the towplane, third the glider in low tow. Take-off in steps is more easily accomplished than trying to get both gliders airborne at the same time.

The release is normal. The man on the short rope drops the tow rope first and turns away. There are two ways in which the man in the low tow can then release from the tow. He can pull up through the slipstream and release, or he can just release from the low tow position. The pull up is more desirable particularly because of the extra altitude gained.

The most important feature of this tow technique is the safety involved, due to the fact that there is no change in tow technique for the glider pilot from the normal single tow he is accustomed to. This method has also proven itself on long cross-country double tows in gusty weather, where it would have been difficult and dangerous to double tow in the conventional "fan."