to forecast the TEMPERATURE at which thermals are likely to begin, leaving the pilots to determine on the spot what time of day the triggering temperature will be reached. Additional information not otherwise provided can be added to the message in the space indicated, e.g., special information pertaining to inversions, stable layers, areas of increasing stability due to passage of cumulo-nimbus clouds, etc.

Another important aspect of the problem being discussed is the transmittal of weather information from the pilots back to the Weather Bureau. This transmittal of information is important for two reasons: one, of course, is that it gives the forecaster a check on his predictions such that in the future he will be able to increase the accuracy of this forecast. The second reason is essentially a personal one in that it allows the forecaster to see the results of his efforts, thereby giving more

Operational experience gained with the "standard forecast message form". *(Figure 1)* in the past summer proved it to be a successful device, i.e., after a weather briefing was made using this form the general concensus was that there was little more to be said concerning the weather outlook. A pilot simply had to decide his task for the day and commence flying. An additional check was made with extensive weather reports obtained by Paul Bikle at Edwards Air Force Base. In all cases the abbreviated form discussed here and the more extensive form proved to be of equal value to the pilots.

It is realized that although the information presented here was useful for its particular purpose in our locale, it may not suffice for all soaring sites in the country. However, it is felt that the idea presented is of value in that it might serve as a guide and can be tailored to fit the particular needs of other groups.

FIGURE 2

LOCAL FLYING DATA								
TAKE OFF SITE								
LOCAL CONDITIONS (CHECK ONE)	-2	-1	0	1	2	3		
THERMAL TRIGGERING TIME								
SURFACE WINDS	DIRECTION							
	N	NE	E	SE	S	SW	W	NW
SURFACE WINDS	SPEED-MPH							
DURATION (LOCAL)								
MAX. ALT. MSL								
MAX. RATE OF CLIMB	FT/MIN							

CROSS COUNTRY DATA		DATE	
CROSS COUNTRY FLIGHT	STRAIGHT OUT	GOAL	GOAL AND RETURN
LANDING PLACE		DISTANCE	
TURNING POINT		DISTANCE	
LANDING TIME		MAX. ALTITUDE	
DURATION		MAX. RATE OF CLIMB	FT/MIN
REMARKS:			

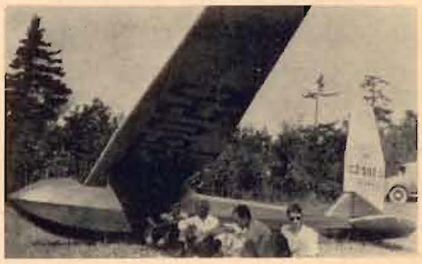
meaning to his work. Although a form was not devised and used in the past summer, one has been devised recently as shown in Figure 2, and will be introduced locally in the near future. It will be noted that again the information has been reduced to a series of numbers, checks, or single words. This was done because past experience has shown that pilots, on completing a week-end of flying, are tired and their interests are turned toward Monday's problems, making it a considerable task to compose a description of their flights and weather conditions encountered thereon. It will also be noted that this information is printed on the back of a 2-cent postcard addressed to the weather office which made the forecast.

UNUSUAL GLIDERS

by PETER M. BOWERS

Grandaddy of all American-designed sailplanes is the Bowlus Albatross, produced along the general lines of the contemporary German types, but essentially American in construction. From a design standpoint, the most unusual feature was the use of movable wingtips instead of conventional trailing edge ailerons. An aluminum torque-tube projected from the inboard end of each tip through wooden bearings in the two end wing ribs.

The wing itself was made up of three parts, a six-foot center section and two 19-foot outer panels. This was current practice in 1930, and it is interesting to note that it is being revived in more modern types, as illustrated by the Mitchell designs and the Maxey-Kearns. Construction was unorthodox by modern standards, however. The spar was a built-up Pratt truss and the ribs were band-sawed from 1/16-inch plywood stiffened with cap strips and occasional uprights. The leading edge was covered with plyood to form a D-tube.



The fuselage was a four-longeron type covered with fabric rather than plywood as in the German types. Torsion bracing consisted of crossed strips of 1/16 x 1-½-inch spruce glued and nailed to the wooden longerons and uprights. The tailpost, instead of being vertical and supporting the rudder, was horizontal and supported the one-piece elevator. No horizontal stabilizer was provided. The landing gear consisted of a single skid, although for training purposes a tripod two-wheel landing gear could be fitted.

Most fabulous feature of the Bowlus was its weight, or lack of it. Empty weight of the 44-foot span ship was only 160 pounds, if one can believe the old specifications. Even 260 would be good by modern standards, but gross weight is listed at only 305 pounds, just 200 pounds LESS than the Bowlus Baby Albatross of

(Continued on Page 26)