

5½ inches with Duke Mancuso still trying to better his distance of 20 inches.

John Williams reported 21.3 miles to San Marcos by way of Escondido. Dave Boone reported 16¾ miles to a point 2 miles south of Carlsbad on the coast. Mancuso, Lambie and Boone, and Briegleb took airplane tows and released for cross country tries. The meet ended at 4:00 p.m. with a report from Ross Briegleb who had landed at San Pasqual 21 miles away, and with Duke Mancuso still trying to get in the running at the spot landing.

At 4:00 p.m. on 10 March, 1957, the afternoon of a perfect Torrey Pines Southern California day, the meet closed and all gliders flying on the cliffs landed. Tired crewmen and pilots began to disassemble their gliders in preparation for the long trip home. The Scorer began his

yearly race against time to complete his records and at 4:30 p.m. on the nose, Jim Spurgeon grasped his trusty mike by the neck and thundered. "and now to award the trophies and prizes!" The trophies and awards were made to the participating glider pilots on the basis of their scores in the various events.

This year a new trophy for the most outstanding modification of an old glider or new glider at the meet was offered at the Mid-winter Soaring Championships, as the Hawley Bowlus award. This trophy was presented by the Helms Athletic Foundation. It is a beautiful sterling silver tray with appropriate inscription. Victor Swierkowski of Sacramento, California won this Hawley Bowlus trophy with his beautifully clean sailplane the "Mitchell Nimbus III."

Well Fellows, again we have a new champion, this time it is Jack Lambie,

of the Eleventh Annual Torrey Pines Mid-Winter Soaring Championships.

We will be looking forward to seeing all of you fine people again next year for the Twelfth Annual, and until then may God be with you all.

## THE TOTAL ENERGY VARIOMETER

by PAUL MACCREADY, JR.

A total energy variometer can give a big improvement in the over-all performance of a sailplane, although it is a simple inexpensive device. The total energy venturi can be used with any type of variometer. This variometer is as important in soaring flight as is an altimeter or airspeed indicator, and should be standard on any sailplane.

The total energy variometer eliminates "stick thermals." It indicates the vertical motion of the air rather than the vertical motion of the sailplane. It is particularly valuable flying at high speed, hunting for the next thermal. Then a slight zoom or airspeed change can cause an indication on a conventional variometer which has little to do with the actual condition of the air. It is best to have two variometers in the sailplane, one equipped with the total energy venturi.

There are several venturis available. The best known, and one which has given excellent service, is the Irving type made in England and distributed by the Schweizer Aircraft Corporation. This venturi has a plate on the back of it, which is effective in reducing the venturi sensitivity to yaw. The unit was designed for use in undisturbed air flow. When you install it near the fuselage of a sailplane, say one foot above the front or the rear of the canopy, it is in disturbed flow and must be re-calibrated. The re-calibration consists of closing off part of the entrance hole to cut down the velocity of air flowing through the venturi. Try taping on a thin bar of metal across the front of the venturi. Then fly the sailplane in still air and zoom up and down. When properly calibrated, the variometer will never give a plus indication in these circumstances. Find the correct calibration by trial and error, concentrating on the speed range between 50 and 80 mph, which is where you will be flying most of the time.

| Event and Place    | Award Name         | Pilot             | Record             |
|--------------------|--------------------|-------------------|--------------------|
| Meet Champion      | John J. Montgomery | Jack Lambie       | 134.7              |
| Duration           |                    |                   |                    |
| First              | Ryan Trophy        | Jack Lambie       | 5 hours 25 minutes |
| Second             | Ribbon             | Duke Mancuso      | 5 hours 20 minutes |
| Third              | Ribbon             | Larry Bell        | 2 hours 29 minutes |
| Altitude           |                    |                   |                    |
| First              | Convair Trophy     | Jack Lambie       | 1,225 feet ASL     |
| Second             | Ribbon             | Duke Mancuso      | 1,080 feet ASL     |
| Third              | Ribbon             | Larry Bell        | 996 feet ASL       |
| Spot Landing       |                    |                   |                    |
| First              | Kohr Trophy        | Carl Walters      | 5¼ inches          |
| Second             | Ribbon             | Jack Lambie       | 5½ inches          |
| Third              | Ribbon             | Sven Anderson     | 7 inches           |
| Bomb Drop          |                    |                   |                    |
| First              | Saran Trophy       | Duke Mancuso      | 5.0 feet           |
| Second             | Ribbon             | Jack Lambie       | 15.3 feet          |
| Third              | Ribbon             | Harold Hutchinson | 19.0 feet          |
| Distance Dual      |                    |                   |                    |
| First              | Essery Trophy      | John Williams     | 21.3 miles         |
| Second             | Ribbon             | Dave Boone        | 16.7 miles         |
| Distance           |                    |                   |                    |
| First              | Solar Trophy       | John Williams     | 21.3 miles         |
| Second             | Ribbon             | Ross Briegleb     | 21.0 miles         |
| Third              | Ribbon             | Dave Boone        | 17.0 miles         |
| Acrobatics         | Hultgren Trophy    | No Contest        |                    |
| Club Participation | Peterson Trophy    | No Contest        |                    |

Below are listed the pilots and their scores in all events.

| Meet Standing Number | Pilot              | 1<br>Duration | 2<br>Altitude | 3<br>Spot Landing | 4<br>Bomb Drop | 5<br>Cross Country | 6<br>Dual Cross Country | 7<br>Acrobatics | 8<br>Total |
|----------------------|--------------------|---------------|---------------|-------------------|----------------|--------------------|-------------------------|-----------------|------------|
| 1.                   | Jack Lambie        | 42.5          | 22.2          | 38.0              | 18             | 14                 |                         |                 | 134.7      |
| 2.                   | Duke Mancuso       | 40.0          | 18.8          | 20.0              | 20             | 13                 |                         |                 | 111.8      |
| 3.                   | Dave Boone         | 7.4           | 7.2           | 20.0              | 5              | 17                 | 16.8                    |                 | 78.4       |
| 4.                   | Ross Briegleb      | 13.5          |               | 20.0              | 5              | 29                 |                         |                 | 67.5       |
| 5.                   | Larry Bell         | 12.5          | 14.9          | 10.0              | 5              | 14                 |                         |                 | 56.4       |
| 6.                   | John Williams      |               |               | 5.0               |                | 10                 | 31.3                    |                 | 46.3       |
| 7.                   | Carl Walters       | 4.4           |               | 40.0              |                |                    |                         |                 | 44.0       |
| 8.                   | Robert Schnelker   | 19.9          | 9.8           |                   | 5              |                    |                         |                 | 34.7       |
| 9.                   | Sven Anderson      | 3.6           |               | 25.0              | 5              |                    |                         |                 | 33.6       |
| 10.                  | Harold Hutchinson  | 5.3           |               | 5.0               | 15             |                    |                         |                 | 25.3       |
| 11.                  | Tom Clark          | 9.0           | 8.7           |                   | 5              |                    |                         |                 | 22.7       |
| 12.                  | Stan Hall          | 14.0          |               |                   |                |                    |                         |                 | 14.0       |
| 13.                  | Lynn Christensen   |               |               | 10.0              |                |                    |                         |                 | 10.0       |
| 14.                  | Ray Parker         | 7.5           |               |                   |                |                    |                         |                 | 7.5        |
| 15.                  | Victor Swierkowski | 3.5           |               |                   |                |                    |                         |                 | 3.5        |
| 16.                  | Harner Selvidge    |               |               |                   |                |                    |                         |                 | 0.0        |