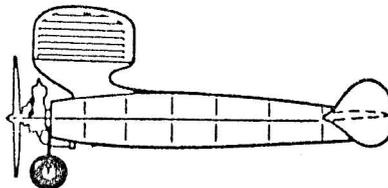


AVA

ASSOCIATION
OF VINTAGE
AEROMODELLERS



SUBSCRIPTIONS TO:

Myrtle Clarke
5 O'Rourke Place
OTAKI

NEWSLETTER No.90/1

9

Dear AVA Readers

Here is the first Bulletin from the Vintage Technical Committee which contains both good and bad news but before we let you into the secret we must pass a vote of thanks to the outgoing committee especially all those who gave so much to the recent Nats.

The New Committee:

Chairman Pat Clarke, 5 O'Rourke Place, OTAKI.
Pat needs no introduction having flown with the Auckland Club earlier than 1940.

Secretary/Bulletin Editor: Myrtle Clarke, 5 O'Rourke Place, OTAKI

Plans Convenor: Ivan Treen, 20 Konini Street, LEVIN.

Ivan is preparing the updated list of plans available. If not in this Newsletter then will be published in the next issue, due May.

Members: Bob Burling, 20 Tasman Street, LEVIN

John Templeman, 9 College Street, PALMERSTON NORTH.

RULE CHANGE: At a meeting held on 4 March 1990 the following rule change was made.

RULE 5.4.3. to read:- Maximum engine run 12 seconds for glow and 15 seconds for diesel.

With 2 entries at the Nats, we are endeavouring to increase popularity of this class.

COMING EVENTS:

The Levin Club- Gareth Newton Memorial - 2-3 June 1990 (Queens Birthday weekend). Free Flight on Saturday 2 June 1990; R/C on Sunday 3 June 1990.

EVENTS Free Flight-Precision and Duration-3 classes commence 9.00am
Radio- $\frac{1}{2}$ A Texaco, Precision and Duration, commence 9.00am.

For further details contact the Clarke's on (069)45975.

All N.D.C. Queen's Birthday events- results to Brian Sutton by 12 June 1990.

South Island Champs- See February edition of "Fliers World"

Now the bad news.

SUBS are now due. AVA Membership/Newsletter \$5.00

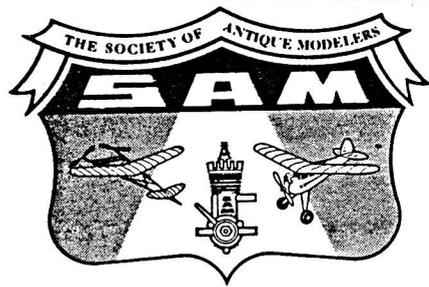
SAM SPEAKS magazine \$10.00 (6 publications per year)

NAME

ADDRESS

Phone

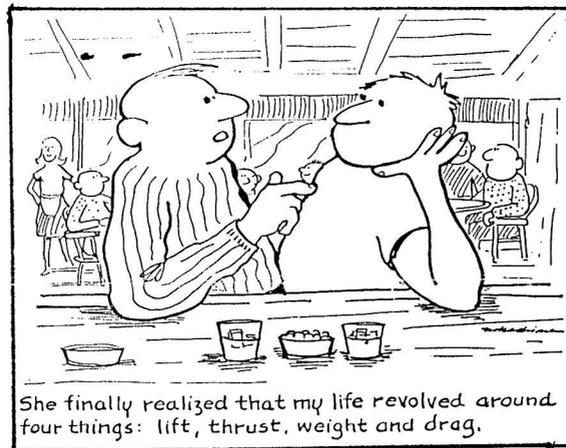
I would like the above information to keep the records straight. Thank you.



SAM-55

Don't forget, flying is for fun.

Please keep those cards and letters rolling in with your news and articles for publication. Your support would be much appreciated.



Event 40 Vintage Precision Open

Sponsor: Wigram MAC

Trophy :

Name	Club	Class	Score
1 P Lagan	WIGA	sr	798.0
2 D.G Mitchell	WIGA	sr	791.0
3 C Duthie	CHCH	sr	774.0
4 C.S King	CHCH	sr	580.0
5 I Treen	LMAC	sr	565.0
6 S.C Grant	CHCH	sr	560.0
7 G.J Smithson	NMAC	sr	556.0
8 K.B McFall	TMAC	sr	539.0
9 B Galpin	NMAC	sr	480.0
10 J Reid	NMAC	sr	333.0
11 J.G Marfell	WOOD	sr	298.0
12 P Stott	CHCH	sr	180.0

Event 41 Vintage Duration Open

Sponsor: Wigram MAC

Trophy :

Name	Club	Class	Score
1 C.S King	CHCH	sr	780.0
2 C Duthie	CHCH	sr	633.0
3 I Treen	LMAC	sr	512.0
4 D.G Mitchell	WIGA	sr	379.0
5 K.B McFall	TMAC	sr	241.0

Event 42 Old Time Stunt Open

Sponsor: 436 Model Shop

Trophy :

Name	Club	Class	Score
1 P Lagan	WIGA	sr	339.0
2 J.D Ryan	RMAC	sr	323.0
3 D.P McAnelly	SMAC	sr	185.0
4 N McAnelly	SMAC	sr	163.0
5 A.B Bell	CHCH	sr	31.0

Event 43 Vintage Midge Speed Open

Sponsor: Vintage Technical Committee

Trophy :

Name	Club	Class	Score
1 D.P McAnelly	SMAC	sr	83.1
2 N McAnelly	SMAC	sr	81.7
3 A Hope-Cross	ROSK	j	77.1
4 J Poletti	CHCH	sr	72.9
5 G.L Tapper	CHCH	sr	65.5
6 J.D Ryan	RMAC	sr	47.5



Aeromodelling is a family affair.
This is John Poletti and family from
the Christchurch MAC. see results.
Mum did a lot of Timing at the Nats!



Ian Henry discussing how it goes!!
Also Christchurch MAC. see results.

WHY MODELS LAND IN TREES.

by Prof. Emil R C Tate

From Aug. 1950 MODEL AIRPLANE NEWS.

Of all the problems that beset serious students of model aeronautics, whether it be high or low propeller pitch; thick or thin stabilizers; R.O.G. or hand launch; or spondules or purfelators to assist R.O.W. takeoffs, none of these problems approach in magnitude and importance the most perplexing problem of all time.

Why do models invariably land in trees?

We have all, I am sure, observed many times the operation of this phenomenon. The day may be calm, or nearly so, the flying area clear, except for one or two trees at the uttermost distance. The model may be launched with due and careful regard to avoid connecting with trees-but sooner or later it becomes esconced firmly and stubbornly, many feet above the ground while the builder tosses twigs, stones and epithets and finally barks his shins scrambling up the trunk to discover the model is perched in a limb too fragile to climb and too heavy to shake. Then he walks a mile for permission to cut the tree, another mile or two to borrow an axe and returns to find the model sitting calmly on the ground, deposited there by a passing breeze. It is an interesting commentary on the cussedness of things inanimate that if he leans the axe against the tree he can fly the rest of the day without the model approaching within 100 feet of it; but should he be foolish enough to return the axe immediately, the model will fetch up in its leafy resting place on the next heave.

Now then, is this rediculously petulant behaviour of tree seeking models merely coincidental; does it belong to the happenstance phylum, or is there some scientific explanation for it?

Careful observation and analysis of all factors has led me to the conclusion that it is no accident when a model lands in a tree. It is merely a physical demonstration of a little known set-up of natural forces. This, I feel entitled to term "Tate's Effect" and modestly urge the acceptance of this term among model builders. In order to explain this effect it will be helpful to visualize an ideal example of Tate's Effect in operation.

Here is the example:

It is an average warm day with just the faintest perceptable breeze stirring. A model airplane (or glider) is gliding in the vicinity of a fairly large tree. As it coasts past, several feet above and to one side, the model builder heaves a sigh of relief. A near miss. But, suddenly, inexplicably, the model dips the wing nearest the tree and circles back toward it. Perhaps, as it flits past the upper branches it barely clears them, if so, it again drops the wing near the tree ans arcs back to plunk into the branches half-way up.

There we have a perfect idealized example of Tate's Effect in operation. It happens every day with minor variations in theme wherever models are flown.

Now, is there some kind of magnetic attraction between models and trees?

No, the answer is not quite as simple as that. Trees, I have found after exhaustive tests, are generally non-magnetic.*

In order to explain this action it is necessary to make a few observations concerning trees in general.

First, what is a tree? Basically it is a large evaporating machine. The quantity of water dissipated through the leaves of a single tree during the course of a warm dry day runs into barrels. That is, it doesn't exactly run into barrels but into the air around the tree. Thus we see that air in the vicinity of trees is of a higher humidity than air some distance away. Humid air has a higher specific gravity than dry air. Keep this in mind. Humid air is heavy air. Now we will deal with hot air. Hot air, as it exists away from trees is light and dry. It is warmer than the moisture-cooled air in the

vicinity of trees. This leads to a flow of air, at low velocity to be sure, but nevertheless a flow.

This is, however, not the whole answer. Tate's Effect is due not only to this flow, but also to the application of Bernoulli's Theorem. Thus, we see that the airflow between moving bodies is compressed, which results in a higher velocity, decreased air pressure which tends to draw the two bodies together.

The close interrelation of these two principles form the heart and soul of Tate's Effect.

Thus we see that as a model approaches a tree, the wing nearest the tree encounters air that is heavier and thicker and is also flowing downward. Thus the wind is suddenly subjected to more resistance on the tree side. Although the downflow of air in the vicinity of the tree is seldom strong enough to upset the model, it is usually rapid enough to counteract any additional lift which the wing might obtain as a consequence of operating in thicker air. This explains why the model banks toward the tree instead of away from it. This effect probably extends for fifty feet or more around the tree on a hot summer day.

Now, the presence of humid air is enough to start the model banking in toward the tree, but may not be enough to capture it on the first pass. Hence we have the operation of Bernoulli's Theorem to consider. As the model wheels about the tree after grazing the high density area, it is bound to come a bit closer. Since there are gentle air currents obtained by the evaporation of water from the leaves, a more or less disturbed area of air exists. The inner wing will, of course, encounter the greatest disturbance first. This further upsets its capacity to sustain the model and it will bank even closer to the tree. At very short range the final stage of Tate's Effect sets in; the low pressure area developed between the leaves and branches and the wing tip sucks the model in and there it is, neatly hung up several feet from the ground. And there you have it. Just what is to be done about it is beyond the scope and province of this article. But, consider the satisfaction, if you will, the next time you hang up a model, of being able to stare down the uniformed sympathizers who voice opinions of bad luck. On the contrary, you know it is not "bad luck" at all—merely a very fine example of that well-substantiated scientific phenomenon known as "Tate's Effect."

* Unfortunately, data is lacking on the tropical *Eucalyptus paniculate* (Ironwood).

SENDER :

MYRTLE CLARKE
5 O'Rourke Place
OTAKI

Phone (069) 45975