

temperature shutdown mode (if it gets too hot it kills the motor, waits awhile, then if it's cool enough powers up again). The other is an overcurrent shutdown - if current goes over 75A it shuts the motor down until you reset it by powering down the system. This will also protect it in the case of shorted outputs.

I did not test the overtemperature shutdown, but I did try the overcurrent shutdown. I verified that it will shut itself down safely if the outputs are shorted together. I also tried a test suggested by the manufacturer - that of putting a fuse across the unit instead of a motor. I found that if you advance the throttle quickly it will, indeed, shut itself down before a 30A fuse blows. If you bring the throttle up slowly, the fuse does blow. Still, this is a surprising demonstration of the speed of the overcurrent protection.

As shipped, the FX-35D has a brake (which can be disabled by cutting one of the jumper wires). This brake seems to be less abrupt in its action than on the Flighttec SEC-SP/M. It comes on smoothly (again, more like the Jomar MiniMax), then drops out.

In prior issues I mentioned that I really liked the motor cutoff method used in the Flighttec SEC-SP/M family of controls in that it shuts the motor down when the power battery is getting low, but returns control of the motor to you after a short delay so that you can stretch approaches or whatever. Since I've been flying a SEC-SP in my trusty ol' Elf 1-20E, I've really come to appreciate this approach (though the delay sometimes can be inconvenient). The FX-35D's default motor cutoff method is very similar, except that it returns control to you virtually immediately - which I think could be even better. The FX-35D also has another mode (selected by cutting a jumper wire) that reduces, but does not cut off, power progressively. I haven't tested that yet - good for 7 cell battery allotment events, perhaps.

The battery eliminator circuit does the usual job (with the added capability afforded by the sequential arming switch mentioned above). It can also be disabled (and should be if you are using more than a 10 cell motor pack). A third option is the "in flight charger" which allows the BEC circuitry to help keep a regular receiver battery charged by kicking in some current when the Rx battery falls below 4.8V under load. All three options - BEC, in flight charger or no BEC operation can take advantage of the sequential arming switch if you wire your system as described in the manual.

There is much more to tell - more than I have space to write about. Therefore, through arrangement with AI/Robotics, PSEMF members will each be mailed a

copy of the instruction manual at about the same time you receive this issue. (I've also sent the Ampeer mailing list to AI/Robotics - hopefully, all of you will also receive this very interesting manual. km)

All in all, this is quite an impressive unit, and with a street price below \$90 it represents a good value if you have need of even a few of the features it offers. I am especially taken with the sequential arming system (which, the manual notes, is patent pending) as it simplifies wiring the inside of the airplane quite a bit, as well as operation of it. I have added it to my current list of recommended microprocessor-based speed controls along with the EMS/Jomar MiniMax95, the Astro Flight 210, the Ace S72635 and Flighttec SEC-SP. It is one of the larger and heavier units in that group, and so is perhaps not suitable for Speed 400 type planes (where the MiniMax would do very well, for example). However, I understand that AI/Robotics is working on a unit to fill that market niche, as well as a higher power handling unit to compete with the big guns - the Jomar

The Howell Meet

On May 20 the Livingston County R/C Club hosted their annual Electric Fly. As usual Keith Clark, CD, had everything very well organized and his crew of club members, including Keith's lovely wife made everything run very smoothly.

Unfortunately, the weather was not quite ideal. Although it was a lovely spring day, the winds blew hard, too hard. They were 25 mph, gusting to over 35 mph. It was impossible



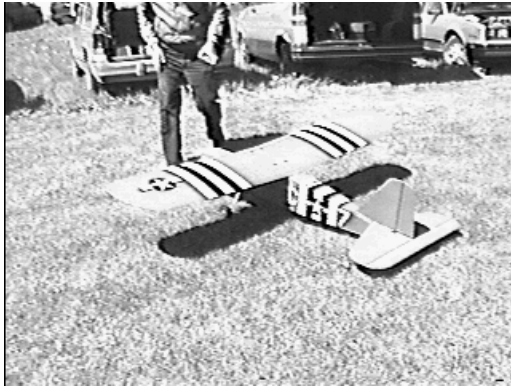
for me to keep my hat on while flying! This didn't stop fliers from flying, but did limit the selection of aircraft flown. There were several mishaps because of the wind, which was of course a cross wind. I managed to bang up the Senior Skyvolt pretty badly. I had had three very good flights in the heavy winds and was getting quite cocky on my ability to handle the wind. On the fourth takeoff, the wind flipped the plane just as it lifted off causing severe damage to the nose, tail, wing and top of the fuselage. That's what happens

Beautiful Jenny and Old Timer seen at Howell, but couldn't fly because of the high winds.

when you cartwheel because you aren't paying the proper attention to the wind.

The loops, Grand Prix and All Up/Last Down all came off on schedule. The All Up/Last Down only had seven planes, probably the smallest field ever here in MI.

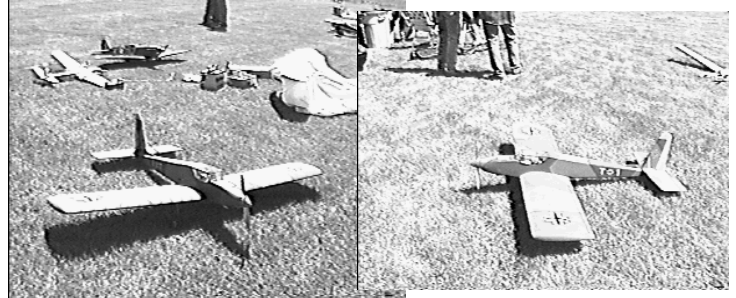
Because of the winds the AULD lasted just over 20 minutes, with Clay Howe winning using a Sig Kadet Senior, Astro 40 powered.



Clay Howe's BIG Senior Kadet - Winner of the AULD.



A couple of the Gliders that did manage to hold their own in the wind.



A couple of shots of Jeff Hauser's Goldberg Sky Tiger disguised as a sorta ME-108.



Dave Grife had some beauties which flew well in the wind. Hughes Racer, Hawker Hurricane, Misquito, Electro-Streak,

and Sig Tri-Star.

It was a great day of well organized activity and will be worth attending next year. The prizes were very nice, including several kits and other valuable prizes. Thanks to Keith and his crew for a wonderful day.

A Great Looking Easy Built Bravo with Great Planes Electric Cub behind.



Bob Shipton with his outta sight F5B type sailplane, explains it all.

Dick Flemming had this beautiful Easy Built Waco. He didn't fly this one in the wind and had a couple of oops with his Wasp and Electra.



Keith Shaw's Spit blew its speed controller, but the Shrike flew just dandy in the wind.



Thanks to Keith Clark & the Livingston County R/C Club!!!