

ERCU MOTORS

As you are all probably aware by now, brushed motors in the power and speed range we use are virtually non existent. The AstroFlight 25 – 5 Turn Marine motor (325) which we currently use and its' parts are now no longer available. This leaves current and future members with no sources for motors other than those in rapidly dwindling individual inventories. To meet this challenge, several things have happened and are happening:

1. I demonstrated a HIMAX 3630-1500 brushless motor with Castle Creations Barracuda 80 speed control in my Such Crust III during Gold Cup Qualifying. This demonstration showed it to be a near match to the Astro in terms of performance. In further the comparison testing, I will be joined by Mike Campbell and Rick Lentz in running the last races of this season with this brushless setup in our boats for no points. This should be a good test of what the equipment can do in the hands of individuals with different abilities and the durability of the equipment itself. The positive of this motor is that is commercially available from online hobby suppliers and possibly some local shops. With two simple adapter rings it will fit our existing motor mounts and not require new shafting. Another positive is that it is smaller and lighter. The down side is that a new speed control is required which is costly as well as the most complex and historically troublesome part of the new setup.

2. AstroFlight has informed us that they are willing to provide a motor they are calling the 325 to us at a new lower price. This is however not the same motor as what we are currently using. AstroFlight has not actually built one yet so the actual specifications (Kv, watts, amps) are yet to be determined. The new motor, which I am calling the 335 to avoid confusion, will be their Cobalt 640 aircraft 40 size motor with a special wound armature to closely match the performance of the old 325 Cobalt Marine motor. I am calling this proposed motor a 335 because it is not a 25 size and will not be a 40 in terms of performance. This motor will require testing like the Himax to determine the suitability of its performance envelope and reliability. David Gardner will have one sample of the new 335 in 2-3 weeks. This sample will in all likelihood be the prototype so the production models may be slightly different. The up side of this motor is that is a brushed design and our old speed controls will still work and aside from the armature, uses available 640 parts. At \$125 a copy and \$50 for the armatures, it will be less expensive than the familiar 325. This motor will also fit our existing motor mounts and requires no adapters. The down side is this motor is that it is bigger (longer) and heavier with closed end bells so it may need to be modified for better cooling in marine service. The increased length may be a problem in some boats. Another negative is availability which will continue to be a problem. The proposed new 335 like the old 325 will not be an “off the shelf” product. The club will have to purchase these motors and their spare armatures in lots of 30 or more and the lead time for production is an unknown.

The Contest Board anticipates being able to put forward one or more motor rule proposals for member comment after the end of this season. In order to be fair to those new members and current that are without motors and those building new boats, it is the intention of the board to make a motor decision one way or another as soon as possible after the end of the season. As members, your interest and attention during the test and evaluation period, and your input is extremely important to this process.

Ron Daum
Contest Board Chairman