

MODEL LAUNCHING TECHNIQUE by LEON BENNETT

Mostly we hand launch a model against little or no wind. We do so by making use of our experience, for we have learned just how much forward speed is needed, and the proper angle for release. Fine. But there are times when our experience is lacking – what then? For example, in a mass launch event, the contest director may call for a launch under windy conditions – at a wind speed we would never voluntarily choose. What type of launch would seem to be most hopeful for getting your model into the air successfully.

First, a word on the least hopeful technique, yet one that has made its way into many old time model publications. The supposed answer is to reduce your launch speed in proportion to the prevailing wind speed – that is to say, the more the wind, the less the push. The idea is to keep the air speed over the wing about the same, supposedly producing a stable flight. In reality, this is certain to fail as the wind speed approaches that of the model. When these two are equal, and release becomes a matter of virtually dropping the model with no impetus of any sort, the lack of launch momentum produces instant instability. Avoid this at all cost – a heave in the right direction – can be a good thing.

Yet we must control that heave because we definitely don't want uncontrolled ballooning of the airplane. In other words, excessive model speeds at the launch can result in an upwards zoom, followed by a stall and dive, almost always into the ground. Personally, I find it best to launch with a near normal throw. To prevent too much lift, I reduce the angle of wing incidence by pointing the nose slightly downward. I have no way of measuring this angle, but I would guess it likely amounts to about 2 to 3 degrees downwards.

Another important factor is that of launch angle itself. Most of us use an upward launch angle to assure a climb of at least a dozen feet before cruise. This altitude gain is regarded as a useful boot towards achieving a long cruise.

With a strong wind, I usually abandon the pursuit of that altitude gain and reduce the launch angle to just a few degrees so that the model is moving approximately horizontal. Thus, with wing incidence and launch angle reduced, I find it possible to fly in considerable wind. But, don't enjoy it. Even if the flying goes well, a down wind landing at great speed can easily wreck your model. And, given enough wind-induced turbulence, the flight part may go poorly despite a good launch. In sum, it's always best to avoid any wind speed approaching that of your model. If caught by much wind at a contest – well, it's your call. Remember, discretion is always the better part of valor.