FREE FLIGHT RULES OF THUMB

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by Aaron Petersen

For Christmas I got an entertaining and somewhat useful book called; "Never Trust a Calm Dog," by Tom Parker. It is a compilation off "rules of thumb." Some examples: "Twenty percent of every group will always be critical of the rest." "If something bites you, it's probably female" "Never make a decision with a full bladder," and so on. In response, I sat down and came up with the following list pertaining to free flight. No doubt you can think of more — if so send them to the Editor.

- 1. Trimmers win and winners trim.
- 2. Rubber scale and sport models seem to perform best with 23-25% of their total weight in the motor.
- 3. If at one minute into its flight a P-30 doesn't look as if it has a good chance to max, it won't.
- 4. At current prices, a good aviation/aeromodeling library costs about \$350 a foot.
- 5. FAI rubber motors that are properly stored, correctly tied, well-lubed, properly broken in, correctly sized, well handled, inspected for flaws and not abused will break on winding less than 1% of the time, even under contest conditions.
- 6. At least one out of 15 outdoor flights will end in a tree. Carry poles in your car.
- 7. A rubber model still unpredictable after 3 serious trim sessions is better off in the trash can.
- 8. If a rubber motor is not well lubed, all bets are off.
- 9. If an embryo model fails to climb over 100 feet in 15 seconds, it's not a winner.
- 10. One biplane a year is plenty for most of us.
- 11. It is "easier" to win prizes at an outdoor contest on a bad, windy day than on a real nice day if you are willing to suffer.
- 12. An indoor scale model or Bostonian will hit the wall or the floor head-on at least 3 times during trimming, and once every 10-12 flights thereafter.
- 13. In searching for a good design for scale rubber, look for a reasonable hook-to-peg distance of at least $\frac{1}{2}$ the wingspan. Much less, and you're better off with CO2 or electric.
- 14. Grief varies directly with weight.
- 15. You can never have too much (a) good rubber, (b) good balsa, or (c) good tissue. Buy up what you can afford, then add 10%.
- 16. If you are at all in doubt about the future availability of any highly useful free-flight item, stock up on that item without delay.
- 17. If you're not completing at least 12 flying models a year you need to build more simple models to reach that level even if they're only Baby ROG types that take a few hours each.
- 18. Free flight modeling costs twice as much in Great Britain as it does here.
- 19. On a good contest day with good air and with good models well flown, launching at random should produce maxes 50% of the time.
- 20. Forty-five minutes a day at the work bench should produce 12 nice free-flight models of various kinds in a years time.
- 21. Any good quality item having anything to do with free flight -- materials, tools, plans, kits, books, powerplants is a sound investment. Nothing like this ever depreciates.

- 22. If, despite all efforts to trim it, a rubber model goes nuts on 3 separate contest. days, stomp it.
- 23. To achieve a really good indoor time with a rubber scale model or a Bostonian, you must have at least 2,000 turns in the rubber motor.
- 24. A life without at least 25 flying sessions a year is not being lived quite right.
- 25. Between 8 and 15 mph wind speed, free flight pleasure decreases by 4% with each added mph. Between 15 and 22 mph, by 10%. Above 23 mph, there is no pleasure, only misery, which increases incalculably.
- 26. A successful contest season in Embryo viII result in at least 3 models flying away or going lost. Ditto Hand Launch Glider. 27. On average there are 10-12 truly perfect days for outdoor free flight per season in Minnesota. Two of these days occur on Saturday or Sunday.
- 28. A successful contest season in Embryo will result in at least 3 models flying away or going lost. Ditto Hand Launch Glider.
- 29. About 2% of the total time you devote to free flight will be spent watching one of your models fly.
- 30. Over a long stretch, the average official, flight time of a P-30, Coupe, Embryo, or any outdoor Rubber Scale model will be very close to its still-air time.
- 31. Rubber motors for 200 good flights of a Pacific Ace will cost as much as a HiLine MINI-6 electric power train for the same airplane. (Ed Note: This was obviously written before the advent of lipo batteries and highly efficient motors which are cheaper than the old Hi-line power.)

(PFFT Ed. Note 2: This is with apologies to both Aaron Petersen and Jeff Renz. The copy from which this was taken was nearly unreadable, so some of the words of wisdom here may not be exactly as they intended.