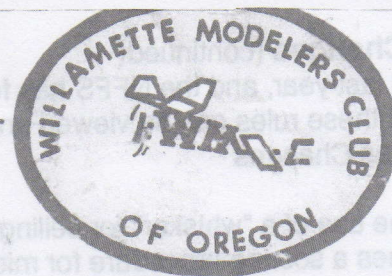


# WMC Patter

## Willamette Modelers Club

Vol. 62, No. 1 January-February, 2022



Official AMA Charter Club #536

### WMC Meeting/Funfly -

**Feb. 5, 12:30 PM Lunch**

### At the Grell Farm

The February 5 meeting of the WMC will be held as usual at the Grell farm beginning at 12:30 pm. Glenn and Linda will provide a simple lunch for us. If the weather is decent, a funfly in advance of the meeting will be held on a field that Glenn will find for us. Please call him in advance for directions to the site.

#### **Agenda:**

Call meeting to order at 2 pm. -Glenn

Minutes from the last meeting - Bob

Treasurer's Report - Bob

#### **Reports**

Report from the Jan. 16 CDs Meeting - B. Hannah, & other CDs

#### **Old Business**

Field Rent donation to Central Linn FFA

George Oldershaw Walk of Fame donation

ByLaws Review status

Approve NWFFC/5 Days in Tangent Events list, entry fees and dates rounds events are to be held.

#### **New Business**

Approve dates, CDs and events for the SPOT and Fall Annual Contests.

Approve Recommended amount for purchase of prizes for summer contests

Set Date for the Annual Unmeeting

Other

Adjourn for Show and Tell

#### **...Around Dist. XI...**

The indoor season is in full swing with one contest complete (see article inside), and 4 more to go. Meanwhile, contest planning is ongoing for the outdoor season. Both the Cloud Dusters and the San Valeers have announced their dates for 2022. For early planners, I've listed them below, and I've included the flyer for the Nor'Cal champs in this newsletter. Dates for the SPOT meet and the Fall Annual have not been set at this time.

Indoor Contest Schedule at South Albany High School-- January 18, February 13, March 20 and April 2 & 3 (See revised flyer this issue)

Outdoor Contest Schedule to date

April 8-10 San Valeers Annual at Lost Hills, CA

April 29-20, May 1 - NorCal Champs at Waegell Field, CA (see flyer)

Aug. 17-21 NWFFC (5 Days in Tangent) at Parker field, OR

Sept 9-11 Annual SPOT meet at Parker Field near Tangent, OR

Oct. Fall Annual FF Meet at Parker Field, near Tangent, OR

Terry Thorkildsen, CD

Bill Vanderbeek, CD

Bruce Hannah, CD

George Gilbert .CD

Not named. CD

#### **New AMA and NFFS Rules for 2022**

The freeflight rules most of us fly by have had a few changes as of Jan. 1, 2022. The AMA Rules cycle

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**Inside: Trip to Lost Hills In Style Report ... First Indoor Report ...Three View: Vector 2 E-20 by Tom Kopriva ... NWFFC Logo for 2022.. Scale Idea ... More, Read on!**  
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## Rules Changes (continued)

changed last year, and the NFFS has followed suit. The abbreviated list that follows highlights the changes. A full set of these rules can be viewed and downloaded from the AMA and NFFS Websites

### AMA Rules Changes

#### Indoor

- Allows the use of a "whisker" for ceiling scrubbing
- Establishes a scoring procedure for mid air collisions and entanglements
- Defines "Commercially available"
- Defines "primary structure" when determining ceiling height.

#### Outdoor

- E-36 First flyoff flight motor run time reduced to 5 seconds
- E-36, A and B Electric flyoff flights add 30 seconds to each max beginning with the second flyoff flight
- Clarifies and defines A and B E.electric events.
- Changes the max for HLG to 90 seconds on all flights.

### NFFS Changes

- Change in effective rulesbook dates to coincide with the AMA rules cycle (2022-2023)
- Addition of 2 indoor Events:: Pistachio Scale, Coconut Scale
- Vintage FAI: Change in name. Now called Vintage FAI Power
- Vintage Wakefield: Clarification of weight requirement
- Nostalgia Gas: Added Lit'l Hopper to the list of legal nostalgia designs
- E-20: Dropped the voltage specification. Any voltage single cell is now permissible
- Golden Age: Minor change to Model Eligibility Standards. Added provision to allow models not kitted or published to be considered for inclusion by action of the subcommittee
- National Cup: Added Andrade Rubber to the National Rubber Cup. Further defines how flights are counted toward National Cup awards.

## Officers of the Willamette Modelers Club -2022

- Prexy: Glenn Grell, 31748 Driver Rd., Tangent, OR 97389
- Veep: Larry Wacken, 30330 Brush College Rd., NW, Salem, OR 97304
- Sec'y: Linda Grell, 31748 Driver Rd., Tangent, OR 97389
- Trea\$: Editor: Bob Stalick, 1930 NW Heron Point Ct., Albany, OR 97321
- Editorial Assistants: Jack Shafer, Larry and Freddie Wacken, Jim Trump did the printing at Trump's Hobbies in Corvallis, Linda Grell did the labels, Garyanna Stalick provided the refreshments.

Subscriptions and memberships. We produce 6 or so issues of Patter each year. You can check us out on line at <Willametteclub.weebly.com> or you can receive a hard copy in your mailbox. In either case, the subscription is \$5. Membership, which gets you a subscription, decal and member card plus the honor of voting at our meetings, costs you \$6 per year. (No change in dues since 1960!)

Special Appreciation: Jim Trump does the printing of Patter at no cost to the WMC. He appreciates the support of our members at his shop in Corvallis. Please buy from Trumps Hobbies and thank him for his support.

## December 5 Indoor Contest Results, Bob Stalick, CD

It's been awhile since we've been able to get into the South Albany High School gym. Since the last time we were there, in 2018, it has been subjected to some serious remodeling, primarily near the lobby area. The gym itself is nearly the same, although the ceiling now has a fire suppression system running between each row of beam. The central wrestling cone has diminished in size and is snug against the ceiling, so it is less of a hazard. The upper "mezzanine" area has been closed off, so it is no longer a model trap. The lobby is much larger and it hosts a second, smaller gym. The secondary gym has a lower and dirtier ceiling, but it might be useful for test flying. The lobby is dominated by a huge sculpture of a Redhawks, which is the school's new mascot name. The restrooms are larger and completely redone. Entry to the building remains the same as in the past. The interior decorations and floor painting are new and striking.



**Dec. 5 Indoor Meet (continued)**

Our first contest of the year drew only five contestants but a larger number of helpers and viewers, including a potential new member, Steve Larson, who recently moved to Corvallis from California. An issue with the heating system brought the fans on in the early part of the day, but it subsided later. I've contacted the District (again!) to make sure it doesn't happen in the future. I've been assured, but we shall see.

I didn't see many new models, but the "no touch" rule went into effect at this meet, and a vote taken at the end was unanimous to continue, so all future meets this year will feature this rule. The plus is that no permanent hangups occurred, and those hangups that did were easily dislodged with little damage.

I was impressed with Robert Hauk's P-38 test bed model. Robert is building a P-38 using foam for construction, but the test bed model is a balsa profile with yogurt can 3 bladed props. He put in some nice flights with it. Tom Stalick flew a Hummingbird kits Hurricane that really looked super. The "Mass" launch was not a no touch affair, but it drew only two contestants in the P-18 class. Next time, there will be more. Anyhow, it was a nice start to the season and good to be back at SAHS.

**The Results****IHLG - 2 entries**

|             |       |
|-------------|-------|
| Robt. Hauk  | 52.47 |
| Tom Stalick | 40.18 |

**Std. Cat. Glider - 2 entries**

|             |       |
|-------------|-------|
| Tom Stalick | 62.86 |
| Bob Stalick | 53.41 |

**Peanut Scale - 3 entries**

|                           |      |
|---------------------------|------|
| Robt. Hauk (Ganagobie)    | 1:16 |
| Tom Stalick (Hiuntington) | :55  |
| Tom Kopriva (Ord-Hume)    | :54  |

**AMA Scale - 3 entries**

|                        |     |
|------------------------|-----|
| Tom Stalick (Ryan M-1) | :25 |
| Robt. Hauk             | :17 |
| Tom Stalick            | :13 |

**No-Cal Scale - 2 entries**

|                     |      |
|---------------------|------|
| Tom Kopriva *(Fike) | 1:57 |
| Robt. Hauk (Zero)   | 1:22 |

**Pistachio Scale - 1 Entry**

|             |     |
|-------------|-----|
| Robert Hauk | :11 |
|-------------|-----|

**P-18 - 2 entries**

|             |      |
|-------------|------|
| Tom Stalick | 2:06 |
| Robt. Hauk  | 2:02 |

**Bostonian - 2 entries**

|             |      |
|-------------|------|
| Robt. Hauk  | 1:46 |
| Tom Stalick | 1:21 |

**Moorhead Event - 1 entry**

|            |      |
|------------|------|
| Robt. Hauk | 1:20 |
|------------|------|

**Noon Mass Launch - 2 entries**

|             |      |
|-------------|------|
| Tom Stalick | 1:21 |
| Robt. Hauk  | :50  |

**Ltd. Pennyplane - 1 entry**

|            |      |
|------------|------|
| Robt. Hauk | 3:08 |
|------------|------|

**A-6 Event - 4 entries**

|             |      |
|-------------|------|
| Mike Altig  | 4:51 |
| Tom Kopriva | 3:51 |
| Tom Stalick | 3:43 |

**Ornithopter - 1 entry**

|             |      |
|-------------|------|
| Tom Stalick | 2:04 |
|-------------|------|

**Mini Stick - 1 entry**

|             |      |
|-------------|------|
| Tom Stalick | 1:19 |
|-------------|------|

**Events offered but not flown:** EZB, F1L,, X-16, 1/2A, A ROG.

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**Raiders From the North a true story by Bill Swift**

They came from Redmond, Tangent and Roseburg to the San Valleers October, 2021 Nostalgia contest in Lost Hills to promote the WMC and the 5-day event next August, win a few events, and have a heck of a good time. Forrest and Sara Menanno also represented the WMC, though their story remains their own. For us four it was an epic trip involving a weather forecast slowly sliding from great to rainy/windy in the days before the trip. Un-deterred, the northern contingent of Glenn and Bruce Grell and Bruce Hannah rolled out early Thursday and picked up Bill Swift in Roseburg. From there the foursome continued south intending to get to Lost Hills that same night. After a quick stop in Weed to have a bite of lunch we soldiered on through the afternoon enjoying fair travel weather with occasional rain showers.

Late that evening we arrived in Lost Hills, checked into the Day's Inn and went to Denny's with specific hopes for dinner. Bruce Grell wanted chicken tenders, Bruce Hannah wanted just a simple hamburger and fries and Glenn and I wanted spaghetti. Upon opening our menus we found little notes and cross-outs in the menus for many of our favorites. But wait, in one menu you could get chicken tenders but not spaghetti. In another tenders were crossed out and in another spaghetti was available. It began to feel like a game where we could simply trade our menus around, order what we wanted and then wonder what we were going to get. The next morning, our testing and trimming day, began to feel like a real Lost Hills day with high winds and dust blowing all over the place. We lingered over breakfast and headed out to the field with the wind dropping to flyable. The flyers were few but we suspected more would arrive on Saturday. The wind died early and Bruce Hannah started the party with some flights on his Class C

## Raiders from the North (Continued)

Faibar. A bit later, after practicing my horizontal dismount off my Honda 90 by riding into a disguised pit of gypsum, I put my Becker Unlimited together to work on its glide. Not too much later the wind came up in gusts and then rose to full blow. In the end testing amounted to 3 flights by Bruce H., two hand glides for me and a couple of Gollywock flights for Bruce G. We headed back to the motel.

Things really looked up Saturday morning because the wind dropped as we ate breakfast and then headed out for the 7 am start of the contest. Vintage Wakefield was on the menu for Bruce H. with his Sky Farer and Glenn and his Earl Thompson design that he calls "ET", with rounds starting at 8 am. The balance of our party was busy with a Gollywock mass launch contested by Bruce H., Glenn and Bruce Grell and Bill entered his Smith Stick in Large OT Stick and the Becker in Nos Rubber. Bruce H. also flew his Faibar and a 1/2A Nos ship between rounds of Vintage Wakefield.

The "morning lift" lasted until about 11am when air picking became very difficult. I was able to get going with the Becker in time to enjoy good lift, maxing out and adding one fly-off just in case. Bruce H. took a drop on a short DT in Vintage Wake but managed a win in the end. I took a drop in Large OT Stick but won the event due to lack of contestants. Glenn was the victim of a couple of odd flights, probably influenced by errant lift and took fourth in Vintage Wake. Bruce H. took first in Golly Mass Launch with Bruce G. taking second and Glenn taking third. Glenn also took a first in Nos Glider with his Ghost despite the glider's having a mind of its own. On his last flight Glenn left the Ghost out in the field to think about its bad behavior.

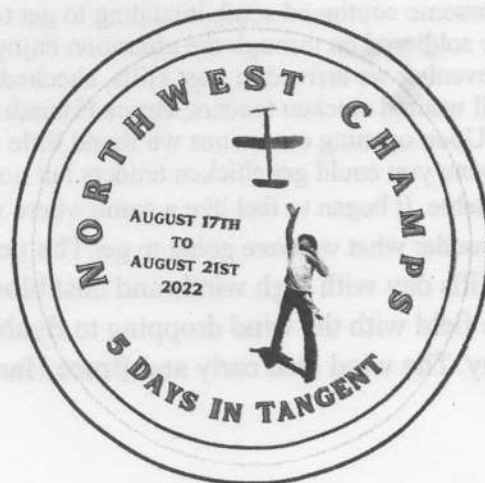
On one of my return trips searching for the Becker I found someone's Nos 1/2A Faibar lying on its back out in the dirt. Upon bringing it back I learned that Jim Kelly had lost it early in the morning on a colossal out of sight overrun and had been out looking for it for hours. When Kelly returned a short time later an investigation ensued and found he had been searching on the wrong channel of his tracker. The next morning he over-ran again just to make sure he had it down.

Sunday dawned with a vivid red sky and lots of clouds and a bit of a breeze. After breakfast we headed out to the field to prepare and register for Vintage FAI, starting rounds at 8. Bruce G. set out to finish his flights in OT Small Stick and Glenn started his in the same event. I flew my La Bestia in Vintage while Bruce H. took out his recently repaired trusty Monks Model. Glenn also got out his Torontonion to try to reel me in in Nos rubber. I had decided to fly my Creep in Nos A between Vintage rounds.

The early air again was quite buoyant but only lasted through round 2 of Vintage when thermal picking again became difficult. Bruce and I survived the third round hex but I dropped in the fourth round with a poor air pick and wound up fourth. Bruce was clean through all five rounds and tied with Guy Menanno and his Lindy. Bruce and Guy flew two fly-offs at the end of which the wind came up very fast and violently catching Bruce out on a long chase. Bruce said the wind was violent enough that he had quite a time getting himself, Monks and his bike all the way back intact. He and Guy decided on a tie for first place in Vintage. Meanwhile Glenn took a drop in Nos rubber and he and Bruce G. took out an OT catapult glider for a few quick flights and both of them finished their flights in OT Small Stick. The wind decided the end of the contest.

The trip home was an event all its own. Not too far north of Lost Hills we ran into rain... lots of rain! When we were approaching Sacramento we began to see "Water on the Roadway" signs. Then a big flashing highway sign advertising "Crashes Ahead". There were numerous cars off the road and at least 4 crashes. In Sacramento we saw a highway worker in a slicker attempting to clear a drain while standing in water up to his waist. Weather reports the next morning reported at least 4" of rain in Sacramento. Dinner was Wendy's in Santa Nella then a very welcome night in Williams.

Monday was marked by breakfast at the Black Bear Diner in Redding. Luckily the forecast for more rain did not materialize until later in the day. Swift dropped off in Roseburg while the rest of the crew headed north into gathering rain, arriving in the early afternoon in Tangent. Bruce H. headed home from there arriving that evening. As we parted all agreed that the trip was a fun mix of some great flying, some typical windy Lost Hills weather, and lots of help and support from each other. Indeed a great time, thanks Glenn for doing all the driving.





### January-February Three View - Vector 2 by Tom Kopriva (three view is 1/2 scale)

The three view this issue is a that Tom developed based on work by Dr. Stan Hill and Keith Hoover. It's one that I saw Tom fly several years ago, and I thought, "What a strange looking ship." What impressed me was how consistent it was. The power pattern was straight up with a gradual transition to glide as the motor slowed down. The glide was surprisingly good as well. I decided to build one for competition in 2021. Mine uses a sheet balsa curved plate wing and a stab I found in the parts box that is built up and about the same size as shown on the plans. I mounted my Badge style DT timer in the pylon, but the rest of the plan was followed to a "T".

Tom sent along a few comments, "All of my Vector models were guesswork. If you use the three view and make an all balsa wing, it will work. The one I used at one contest used a foam wing. For balsa models, I cut out the outline, and it can be any outline you choose, using 1/16" sheet. Place a 1/8" diameter nylon or teflon rod at about 30% chord on a saran wrap covered board.. Dope the undercamber, wet the top surface and pin it down until dry. Then cut the polyhedral joints and glue like a HLG. I've built 7 of these things and they all fly. About 1/8" positive incidence in the wing and the stab at zero is a good starting point. Test glide. Play around with the with the balance by using a long enough rocket tube--shorten or lengthen as needed. As the length doesn't seem critical. Every one I've made flies the same way-- straight up power pattern. What I love about this design is they all fly. The KEY is the Napier timer with the run down built-in. Without it, the model zeroes out like a lawn dart glider and loses half the altitude before it settles into the glide."

My first attempt at a Vector was a wonderful success after I got the incidence and CG worked out. I use a CG at 60% and the incidence is closer to 3/16". Mine glides to the left using stab tilt. I've built another one this time with a foam wing and a bit more chord. Both models just barely make the 30 gram limit for weight, even though no special attempts were made to keep them light.

At the Fall Annual last year, my balsa wing Vector put up 2 maxes and a 46 second flight, good enough for second place in a field of six. I was only two seconds behind Bob Nelson, who placed first. This is an easy model to build, and it's unusual enough to draw attention on the field. I recommend it highly. The three view is 1/2 scale, so enlarge it x 2 and you are set to go.

By the way, the WMC still sells E-20 motors, Napier timers and props. A full listing is available. Contact Bob Stalick <[freeflyer@aol.com](mailto:freeflyer@aol.com)> for more info.

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### **Sport Scale**

### **NWFFC/5 Days in Tangent Logo Design by Sara Menanno**

On page 4 you will see a proposed logo for our 2022 NWFFC. Sara Menanno did the art work. The logo is primarily in blue with yellow highlights. Thanks for the nice work, Sara.

### **ENTRY SCALE--An idea and Proposal by Bill Swift (our LoDoc Scale Judge)**

At the last Fall Annual there was a conversation speculating the great quality of models in the Low Doc event may discourage others from entering. Below is a summary of comments from an email I sent about an entry level scale event. Robert Hauk captured the essence with, "The emphasis should be on good flying and looking good while they fly. We should really strive for a fun event that makes people want to participate." An event similar to Brit. Kit Scale or FAC Simplified Scale that requires a model constructed from a kit or a set of kit plans, with the plans themselves acting as the model's documentation. Only "real" person-carrying aircraft could be entered powered by any means. There was a suggestion requiring only appropriately colored tissue finishes rather than paint. The level of detail would be minimal. No cockpit details would be necessary. Models could be displayed, side by side, on a table top with their associated plans. Models would accumulate "points" (poker chips) for their static score. A flying score for all planes could be judged by another vote, with a minimum

flight requirement of 20 seconds. Take off, The models would be judged for static score by a blind "concours" process where all contest entrants could cast votes for their favorite model.

cruise, and descent, would be judged. A timer calls the time limit and the audience votes (poker chips) for the most realistic flight. The model that accumulates the most votes wins.

This concours style judging would necessitate collecting the models, doing some amount of set up, perhaps shutting down other events during a lunch break, or early morning (the take-off boards would have to be set up and tables arranged, poker chips passed out, etc.) to draw an audience of judges.

The initial email list was short, now interested club members should feel welcome to comment. You may respond to me, Bill Swift, [swiftrose@douglasfast.net](mailto:swiftrose@douglasfast.net), or to Bob Stalick, [freeflyer@aol.com](mailto:freeflyer@aol.com).

# 32nd

## Oakland Cloud Dusters

### Annual Northern California Free Flight Championships

Waegell Field, Sacramento California

April 29th-30th, May 1st, 2022

AAA Category III AMA Sanctioned (20- ) Contest

An "America's Cup and "National Cup Contest

AMA, NFFS Nostalgia, Classic & Special Events, + SAM Rules Apply

Entry Fee: One Event \$20.00, Two or more Events \$35.00. \$5.00 discount with proof of NFFS membership for two or more events. Field Fee: 2022 "Friends of Waegell" Card Holders Free, otherwise \$5.00 per contestant.

Jrs. \$2 per event, with no field fee.

AMA & NFFS Events are TWO Minute Maxes

Contest Directors: Bill Vanderbeek & Fred Terzian (FAI)

Participant Drawing (to all who "enter") \$600+ in Prize Money

1-Design 1/2A Da Box & Top Banana  
Nos. Gas Legal .049-.051

1st \$45, 2nd \$30, 3rd \$15

See Latest NFFS Rules (freeflight.org)

Registration at 8 am Vintage FAI Event on Friday April 29th 9 am to 4 pm

For Additional Info, Check Out: oaklandcloudbusters.org

Modern FAI Event Schedule

#### Saturday Events

8 a.m. to 5 p.m.

\*F1A Glider (five rounds)

\*F1B Wakefield (five rounds)

\*F1C Power (five rounds)

\*F1P (.060 Gas Power)

\*F1Q (Electric)

"Golden Age Event" All three Days!!!

#### Sunday Events

8 a.m. to 3 p.m.

\*F1G Coupe (five rounds)

\*F1H Towline (five rounds)

\*F1J Power (five rounds)

\*F1S (Electric)

\*F1Q (Electric)

EITHER DAY--All Events must be completed on the same day

^Junior P-30 Rubber

^Junior Hand Launch Glider

^Junior Hand Held Catapult Glider

Classic Straight Tow Glider + "Bungee"

^Hand Held Catapult Glider

Old Time Hand Launch Glider

OT Small/Large Cabin Combined

Vintage Wakefield

^Junior 1/2A Gas

Junior A-1 Nordic Towline

+ "He-Man" Hand Launch Glider

^Hand Launch Glider

OCD Catapult Glider

OT Small/Large Stick Combo

^Small/Large Nostalgia Rubber Combined

4 Ounce Wakefield

^Muvihill 151 to 300 sq."

"Andrade" Small Muvihill-200 sq. in.

^P-30 Rubber

1/4A Gas

^1/2A Gas

^A-B Gas

^C-D Gas

^1/4A Gas Nostalgia/.020 Replica Combined

^Early 1/2A Gas Nostalgia

^1/2A Gas Nostalgia

^A-B-C Gas Nostalgia Combined

^A Electric

E-20 Electric

Sunday Mass Launch Events

All "Wock" & Small Old Time Rubber Events @ 9:00 am

E-36 Electric @ 9:15 am

Hand Held Catapult & Hand Launch Glider combined @ 9:30 am

P-30 Rubber @ 9:45 am

Barbecue Lunch, Saturday & Sunday!!! \$7.00 per day

#### General Field Rules

- 1) Flight time max for all events except F1A, B, & C is 120 seconds.
- 2) Gas events will have engine runs of 4 to 11 seconds, depending on event and NCFRC rules. Fly-off engine runs (except F1C) will be determined at that time.
- 3) Rubber events, except F1B & F1G will be three maxes of 120 seconds each. Fly-off flights & times will be determined by NCFRC rules.
- 4) Classic Towline Glider events will use 50-meter (164 feet) towlines.
- 5) Special rules will apply for Moffett, OCD Catapult, etc.
- 6) He-Man Glider Rules: All wood construction (no carbon fiber, etc.) Min. weight 1.5 oz (42.5 g). Min. Span 24". Must have a name prominently displayed on the wing. 4 attempts, best 2 count. All flights before 9:30 am—No use of thermal detecting devices—Time one, fly one.

FAI Events: One hour rounds beginning at 8 a.m. 1-1/2 hour lunch break on Saturday. Sunday at 10 a.m. FAI Mini Events will not be flown in rounds near contest headquarters. All Fly-off flights TBD, depending on drift

#### Contest Information:

Bill Vanderbeek  
8771 Lakeside Drive  
Reno, NV 89511  
1-408-472-0274 (cell)  
billvanderbeek@yahoo.com

Fred Terzian  
4858 Moorpark Ave.  
San Jose, CA 95129  
1-408-674-0464 (cell)  
terzian@pacbell.net

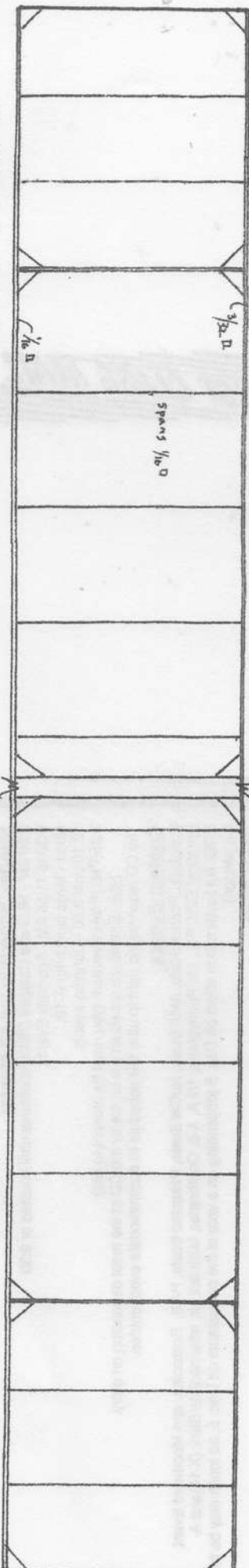
This drawing comes from the guy who, three years ago, said he wouldn't build an electric free flight model. Now, I've found out how much fun there is in the experimentation within the E-20 format. I now have 2 all balsa canards, 3 delta wing canards, 1 tailless canard (after the Cyrano), 2 conventional models, and 4 very high thrust models. The latest designs were taken from Keith Hoover's Hi-Liner and Stan Hill's Vector Director. They have a straight up climb pattern. Use shims for motor thrust changes. The Napier timer is best as it ramps down for the last two or so seconds and allows a smoother transition into the glide. These models are neat as they can be set up with a 10 second resistor and flown in a small field. If you decide to build one, feel free to contact me for any help you need.

Tom Kopriwa—freeflyer123@comcast.net

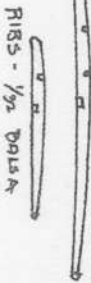
# VECTOR-2 E-20

TOM KOPRIWA = freeflyer123@comcast.net

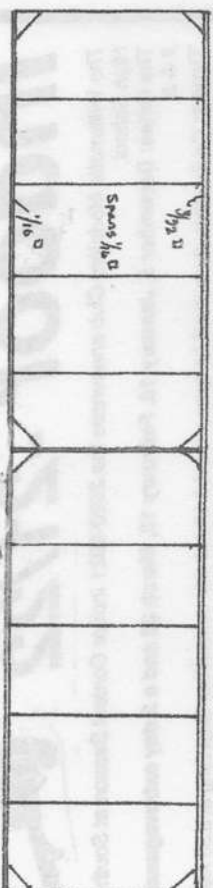
FROM THE VECTOR DIRECTOR BY STAN HILL  
1992 NPS BOOK ON POWER MODELS  
1987-88 ZAC YEAR BOOK  
1989-91 ZAC YEAR BOOK



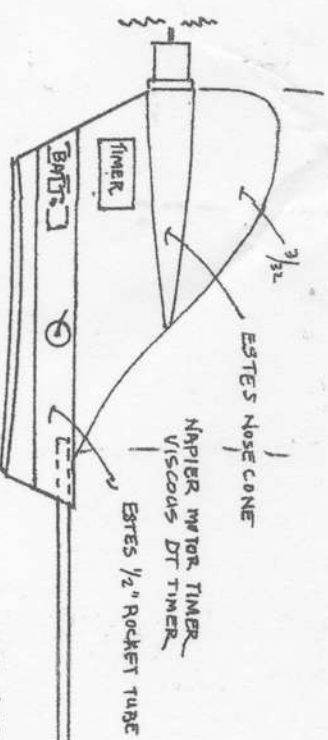
TIP PLATES = 1/32 Balsa ?



BUILD L & R WING SECTIONS WITH TIP DIHEDRAL = COVER  
CAN'T CENTER RIBS: ATTACH TO 7/16\" MAIN RIB WITH DIHEDRAL  
APPROX. 2° INCIDENCE = ATTACH TO ROCKET TUBE

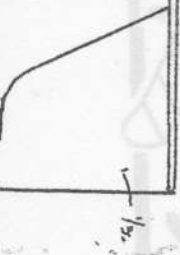


CARBON FIBER TAIL BOOM



C.G. 55-60%

POWER PATTERN = STRAIGHT UP  
GLIDE PATTERN = STAB TILT





Willamette Modelers Club  
Bob Stalick, Editor  
1930 NW Heron Point Ct.  
Albany, OR 97321



**NFFS**

**2021 - 2023**



**NORTHWEST  
FREE FLIGHT  
DIRECTORY**  
\$1.00 PLUS POSTAGE



**FIRST CLASS MAIL**

# Indoor -21/22

The Willamette Modelers Club announces the 2020-2021 Indoor Contest Season at South Albany High School.

**The Dates: December 5, January 16, February 13, March 20 and a 2 day extravaganza on April 2 & 3.**

**Times:** On Sundays, the site will be open around 8:15 AM with competition beginning at 8:30 AM and ending at 3:30 PM. We are expected to be out of the gym by 4 PM. At the 2 day contest, we will begin at 10 AM Saturday, and continue into the evening. Sunday will be a regular scheduled day. We will break on Saturday around 5 PM for dinner, reconvening at around 6:15 for a symposium, hosted by Robert Hawk, followed by night flying.

## Sunday Schedule for All Meets:

8:30 AM - HLG and Catapult Glider-continues until finished or 9:30  
9:30 to 11:55 AM - Specialty Events.  
Noon - Mass launch for P-18.  
12:10 until 3:30 - Duration events.  
3:35 PM. Prizes awarded. (You must be present to win)

Note: Saturday's schedule will be set by the CD at the meet depending on entry.  
The CD reserves the right to alter this schedule to accommodate event entries.

## Contest Events

Specialty: Peanut Scale, AMA Scale, NOCal Scale, Pistachio Scale, P-18, Bostonian, and Moonhead Event.  
Duration: EZB, F1L, Ltd Pennyplane, 1/2 A, A-6, Ornithopter, Ministick, Jr, Intermediate Stick (X-16) and A-ROG. No touch rule in effect on Dec. 5 (depending on a vote of the contestants on Dec. 5, no touch may be for the season)

## Entry Fees

\$10 per Open member and \$0 for Junior and Senior age contestants. A site donation is requested from all who use this facility. Entry Fee for the 2 day contest is \$10 for one day and \$18 for both days. Juniors and Seniors are \$0 for both days. Contestants are requested to assist with cleanup.

## Contest Prizes

Nominal merchandise awards presented to all contestants in order of placing. Awards are made at 3:35 PM each Sunday.

## Site

South Albany High School is located at 3705 S. Columbus St. in Albany, OR. The gym is located off the 37th St., parking lot next to the swimming pool. The gym has a 36 foot ceiling. Please wear gym shoes. No smoking is allowed on campus.

## Contest Sanctions and Directors

All contests will be AMA sanctioned record trials. AMA membership is not required for entry. C.D.s are: December 5- Bob Stalick; January 16-Jake Palmer; February 13- Ben Strauss; March 20- Glenn Grell; and April 3&4- George Gilbert. Further information, contact Bob Stalick, 1930 NW Heron Point Ct., Albany, OR 97321. Pn: 541-928-8101 <treeliter@aol.com>  
It is suggested that each contestant brings his own chair and table.

**Sponsors:** Willamette Modelers Club

Official AMA Chapter

