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DISPATCH

SEPTEMBER 2012

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Schedule of Flying events

Date	Day	Location	Time	Notes
Sept. 11*	Tues.	School, 143rd & Black Bob	6:30PM	Outdoor
Sept. 16*	Sun.	Ozanam	8:30 AM - 12 PM	Indoor
October 6-7*	Sat.-Sun.	**Marion, KS**		**HAFFA Annual Outdoor Contest**
Oct. 21*	Sun.	Ozanam	8:30 AM - 12 PM	Indoor
Nov. 4*	Sun.	Osawatomie	8:30 AM - ?	Indoor
Nov. 18*	Sun.	Ozanam	8:30 AM -12 PM	Indoor
Dec. 2*	Sun.	Osawatomie	8:30 AM - ?	Indoor
Dec. 16*	Sun.	Ozanam	8:30 AM -12 PM	Indoor
Jan 6*	Sun.	Osawatomie	8:30 AM - ?	Indoor
Jan 20*	Sun.	Ozanam	8:30 AM - 12 PM	Indoor
Feb. 3*	Sun.	Osawatomie	8:30 AM - ?	Indoor
Feb. 17*	Sun.	Ozanam	8:30 AM - 12 PM	Indoor
March 3*	Sun.	Osawatomie	8:30 AM - ?	Indoor
March 17*	Sun.	Ozanam	8:30 AM - 12 PM	Indoor
April 6*	**Sat.**	**Osawatomie**	**8:30 AM - 4 PM**	**HAFFA Annual Indoor Contest**
April 21*	Sun.	Ozanam	8:30 AM - 12 PM	Indoor
May 19*	Sun.	Ozanam	8:30 AM - 12 PM	Indoor

***** indicates official HAFFA event/activity

HAFFA Indoor Site Locations:

Ozanam Gymnasium
421 E. 137th St.
Kansas City, MO

Kansas City College & Bible School
7401 Metcalf
Overland Park, KS

Osawatomie City Auditorium
425 Main St.
Osawatomie, KS

For Outdoor flying information contact Mike Basta (913-492-4830)
For Indoor flying information contact Emil Schutzel (913-341-7788)

1. Osawatomie reserves the right to cancel our reservation if they get a paying customer.

INDOOR FLYING SITE FEE UPDATE:

This is a reminder that our indoor flying fee is $10/person.

Misc. by the Editor

The HAFFA Annual Outdoor Contest in early October is quickly approaching. I hope you all plan to attend this excellent event. It is time to begin preparations for this contest. The better you are prepared the more fun you will have on the flying field.

R.O.G Plans

My friend Dave Higgins sent me this plan he developed. Dave lives in the Seattle area and is retired from Boeing. Dave drove to KC three or 4 years ago all the way from Seattle and flew at our indoor meet at the Bible College and met some of our members.
Jeff Renz

Attached is a scaled down file for Dick's R.O.G. (Rise Off Ground), which is an all sheet balsa wood model. I will bring full size plans for this model to the next BEAMS build session (Thursday, August 16th). I will also bring the plywood tooling for making all the parts; so if you want to build one, bring some 1/32" thick balsa wood for the wing and empennage. I managed to get a 50.16 second flight with this simple model at the last BEAMS fun-fly session using an 18.5" loop (37" total length) of 0.080" wide Tan II rubber.
Dave
NOTE: The plans are in a separate attachment with this newsletter. - Editor

Strange Facts

Saturday mail delivery in Canada was eliminated by Canada Post on February 1, 1969!

The Mona Lisa has no eyebrows. It was the fashion in Renaissance Florence to shave them off!

When glass breaks, the cracks move faster than 3,000 miles per hour. To photograph the event, a camera must shoot at a millionth of a second!

A Boeing 747 airliner holds 57,285 gallons of fuel!

The Philadelphia mint produces 26 million pennies per day!

A lightning bolt generates temperatures five times hotter than those found at the sun's surface!

It takes glass one million years to decompose, which means it never wears out and can be recycled an infinite amount of times!

Most lipstick contains fish scales!

Skepticisms is the longest word that alternates hands when typing!

It's illegal to drink beer out of a bucket while you're sitting on a curb in St. Louis!

Over 2500 left handed people a year are killed from using products made for right handed people!
If you counted 24 hours a day, it would take 31,688 years to reach one trillion!

The sentence "The quick brown fox jumps over a lazy dog." uses every letter of the alphabet!
The only 15 letter word that can be spelled without repeating a letter is "uncopyrightable"!

The longest recorded flight of a chicken is 13 seconds!

The world's termites outweigh the world's humans 10 to 1!

Camels have three eyelids to protect themselves from blowing sand!

A quarter has 119 grooves on its edge, a dime has one less groove!

Until 1796, there was a state in the United States called Franklin. Today it's known as Tennessee!

A cockroach can live several weeks with its head cut off - it dies from starvation!

In Natoma, Kansas, it's illegal to throw knives at men wearing striped suits.

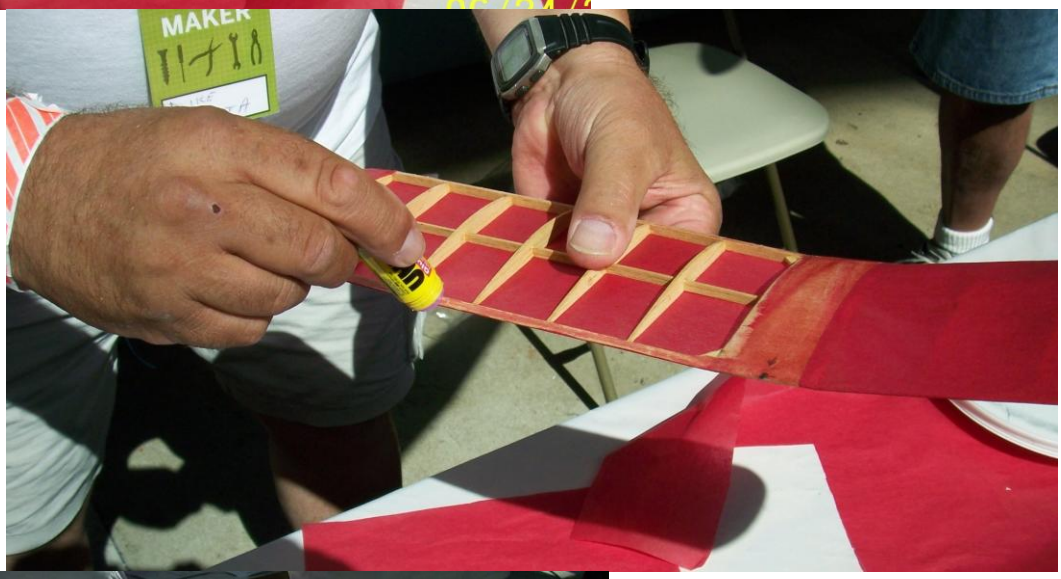
Slugs have 4 noses!

Lightning strikes about 6,000 times per minute on this planet!

Flying Aces Moth by Jeff Renz

When Haffa was down at the Makers Fair Mike and I covered Bob K s Flying Aces Moth. I wound up with the bare bones of the model after Bob passed on. I learned some techniques from Mike. The crowd that walked by got to see it come together. It was a pretty good experience.







A History of F1D World Championships **by Kang Lee**

The first FAI F1D World Championship was held at RAF Cardington, in England, in 1961. The first winner was Joe Bilgri of the U.S.A. Since 1966, the F1D World Championship has been held every other year in locations worldwide:

- Cardington, England
- Debrecen, Hungary
- Rome, Italy
- Slanic, Romania
- Lakehurst, USA
- West Baden, USA
- Nagoya, Japan
- Johnson City, USA
- Wroclaw, Poland
- Moscow, Idaho, USA
- Belgrade, Serbia

year	Location	1		2		3		1	2	3
1961	Cardington	Bilgri	USA	Rieke	GER	Bigge	USA	USA	FIN	GER
1962	Cardington	Rieke	GER	Hacklinger	GER	Redlin	USA	GER	GBR	UsA
1966	Debrecen	Beck	GER	Bilgri	USA	Hyvarinen	FIN	GER	USA	FIN
1968	Rome	Richmond	USA	Kalina	CS	Chlubny	CS	CS	USA	GER
1970	Slanic	Kalina	CS	Richmond	USA	Popa	ROM	CS	USA	ROM
1972	Cardington	Andrews	USA	Rybecky	CS	Jirasky	CS	CS	USA	ROM
1974	Lakehurst	Czechowski	POL	Servaites	USA	Rybecky	CS	POL	USA	CS
1976	Cardington	Romak	USA	Ciapala	POL	Barr	GBR	USA	GBR	CAN
1978	Cardington	Richmond	USA	Romak	USA	Higgs	CAN	GBR	USA	CAN
1980	West Baden	Rodemsky	USA	Richmond	USA	Butty	SUI	USA	SUI	GBR
1982	Slanic	Morar	ROM	Pymm	GBR	Richmond	USA	ROM	GBR	USA
1984	Nagoya	Richmond	USA	Banks	USA	Randolph	USA	USA	POL	SUI
1986	Cardington	Richmond	USA	Banks	USA	Nore	FIN	USA	NED	GBR
1988	Johnson City	Richmond	USA	Banks	USA	Mcgillivray	CAN	USA	CAN	SUI
1990	Johnson City	Richmond	USA	Banks	USA	Randolph	USA	USA	CAN	ROM
1992	Wroclaw	Kujawa	POL	Butty	SUI	Banks	USA	POL	USA	GER
1994	Slanic	Brown	USA	Banks	USA	Randolph	USA	USA	ROM	HUN
1996	Moscow, ID	Brown	USA	Banks	USA	Butty	SUI	USA	GBR	CAN
1998	Slanic	Brown	USA	Ree	HUN	Richmond	USA	HUN	USA	GBR
2000	Slanic	Kagan	USA	Richmond	USA	Tipper	GBR	USA	GBR	ROM
2002	Slanic	Richmond	USA	Popa	ROM	Kagan	USA	USA	ROM	GBR
2004	Slanic	Richmond	USA	Schramm	GER	Orsovai	HUN	ROM	USA	HUN
2006	Slanic	Cailliau	USA	Popa	ROM	Schramm	GER	ROM	USA	HUN
2008	Belgrade	Treger	SVK	Schramm	GER	Kagan	USA	USA	GBR	HUN
2010	Belgrade	Treger	SVK	Kagan	USA	Schramm	GER	USA	HUN	ROM

It is impossible to speak of the F1D World Championship without mentioning the name, Jim Richmond. Richmond, of the U.S.A., has won an unprecedented eight individual titles, the first in 1968 in Rome, and the eighth in 2004 in Slanic, Romania. His wins span five decades and through multiple F1D rules changes. As 2000 World Champion, John Kagan, said, "Lance Armstrong is the Jim Richmond of cycling." We will say more about Jim in a later post.

There has only been three multiple winners:

- Jim Richmond, USA: 1968,1978,1984,1986,1988,1990,2002,2004
- Steve Brown, USA: 1994,1996,1998
- Ivan Treger, Slovakia: 2008,2010



Jim Richmond and his winning model in Nagoya, Japan, 1984
The reason everyone in the photo is looking so intently at Richmond's model is I believe because this was the first appearance of his VD prop.

2012 FAI F1D World Championship Preview by Kang Lee

Who is going to stand at the top of the podium after the 2012 Indoor World Championship?
The 2012 FAI F1D World Championship takes place from August 10-12, in Belgrade, Serbia. This marks the third straight World Championship held in Belgrade, which was also the host in 2008 and 2010.

FAI WORLD CHAMPIONSHIP INDOOR CLASS F1D 2010

Individual results

1	Ivan Treger	SVK	34.08	22.02	39.27*	34.03	29.41	35.42+	75.09
2	John Kagan	USA	35.09	35.57	34.53	36.33*	22.09	36.07+	72.40
3	Lutz Schramm	GER	34.50+	33.05	33.26	34.51*	30.47	31.47	69.41
4	Slobodan Midic	SRB	14.46	35.22*	34.00+	32.12	32.51	31.24	69.22
5	Brett Sanborn	USA	33.41+	32.17	33.17	34.54*	33.40	32.42	68.35
6	Aurel Popa	ROU	33.50+	1.18	34.03*	32.15	2.11	0.00	67.53
7	Dezso Orsovai	HUN	32.10	33.18+	33.42*	25.19	32.58	32.00	67.00
8	Zoltan Sukosd	HUN	32.46*	32.34+	29.45	31.49	26.58	31.16	65.20
9	Derek Richards	GBR	31.11	31.46+	33.07*	31.20	31.22	30.42	64.53
10	Mark Benns	GBR	30.45	31.21	30.50	32.56*	31.35+	27.38	64.31

Ivan Treger pulled off the flight of the Championship with his 3rd round flight of 39:27. His next best flight was 35:42. More consistent was John Kagan of the U.S. with two flights of 36:33 and 36:07. Many thought that Treger's 39:27 was a once in lifetime type of flight and did not think that a combined flight of 75:09 would be achieved again.
Ivan proved the critics wrong the following year at the 2011 European F1D Championship. Here, his 75:16 surpassed his previous two flight total. Most telling were his individual flights of 38:01 and 37:15, showing us that his 39:27 was not a fluke.

F1D FAI European Championshop F1D 2011

Name	FAI Lic	Country	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6	Best	2nd Best	Total	Place
TREGER Ivan	SVK 1001	SVK	36:40	37:15	33:06	37:08	32:51	38:01	38:01	37:15	75:16	1
SCHRAMM Lutz	GER-2196	GER	33:09	32:47	34:05	34:05	34:32	35:52	35:52	34:32	70:24	2
SUKOSD Zoltan	HUN-0321	HUN	32:18	32:41	34:31	35:12	33:14	32:44	35:12	34:31	69:43	3
KAPLAN Mikita	CZE 1016	CZE	30:39	31:55	12:48	33:51	0:00	31:50	33:51	31:55	65:46	4
REE Andras	HUN-0030	HUN	1:12	28:52	32:59	32:10	12:38	32:42	32:59	32:42	65:41	5

The 38:01 is the current Cat III world record as well as the combined total of 75:16.
Challenging Ivan once again will be John Kagan. To stand at the top of the podium, John will need to significantly improve his 72:40 to 75+.

At the 2010 World Championship, Brett Sanborn placed fifth with a respectable time of 68:35. In the last two years, Brett has greatly improved his F1D program by building brand new models and VP hubs. Most recently, he has used carbon outlines for his prop. In April 2012, he set a new AMA Cat II record at Kent. In May at the United States Indoor Championship, he placed first and set a new USIC record. In July, he set a Cat IV world record of 42:05.

The World Championship takes place August 10-12. We will get a preview of standings from the Dorcol Cup, held from August 4-6, when the top fliers get ready.
Stay tuned for continued coverage. During the 6 rounds of the World Championship, updates will be made frequently. Upcoming columns will include a history of the F1D World Championship and the technology behind these magnificent flying machines.

The F1D Model

FAI F1D Rules
3.4. CLASS F1D – INDOOR MODEL AIRCRAFT
3.4.1. Definition
Model aircraft which can only be flown in an enclosed space and which are powered by extensible motors and in which lift is generated by aerodynamic forces acting on surfaces remaining fixed in flight, except for changes of camber or incidence.

.2. 3.4 Characteristics of Indoor Model Aircraft F1D
Maximum wingspan of the monoplane model ……..550 mm, (21.65″)
Maximum chord of the lifting surfaces ……200 mm (7.87″)
Maximum tail span ……450 mm (17.7″)
Minimum weight without rubber motor ……1,2 g,
Maximum weight of the lubricated rubber motor ……..0,6 g.

A U.S. dollar bill weighs 1g. With a typical F1D model length of 33″, how can a model be built to 1.2g? A typical F1D model has the following component weights:

- Wing .35 g
- Motor Stick .30 g
- Tailboom .16 g
- Stabilizer .14 g
- Propeller .25 g
- Total 1.20 g

These are typical weights, but each model is slightly different.
How do you build one of these ships? Here is an excellent "build" thread at the Hip Pocket Aeronautics forum by Tim Haynes Brown of Australia, with many of the world's top builders contributing:

http://www.hippocketaeronautics.com/hpa_forum/index.php?topic=4553.0

Rubber motor

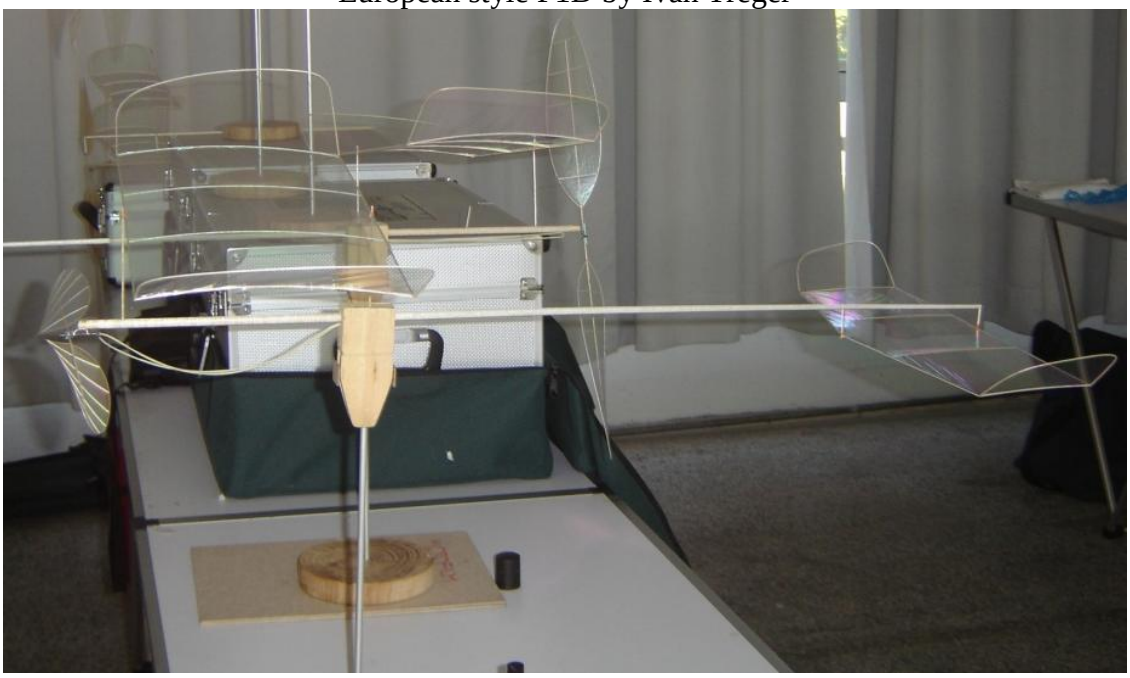
The rubber motor is limited to 0.6g. The length of the rubber motor depends on the flying site and propeller set up, and it ranges from 8.5″ to 9.5″. Because the motor weight is limited to 0.6g, the motor is wound to its maximum capacity in order to maximize energy. A typical motor that is 9″ long is wound with 1600 turns. When wound to the max, the rubber motor is rock hard. It is not atypical for a top flier to break 5 motors before successfully winding one to max. Even then, the danger is not over. The wound motor often breaks while it is being loaded onto the model, and it will also break while the model is flying. Every turn that is put into the motor counts, as the F1D model flies with a slow RPM of 50.

Top fliers use Tan II rubber, May 1999 or March 2002.

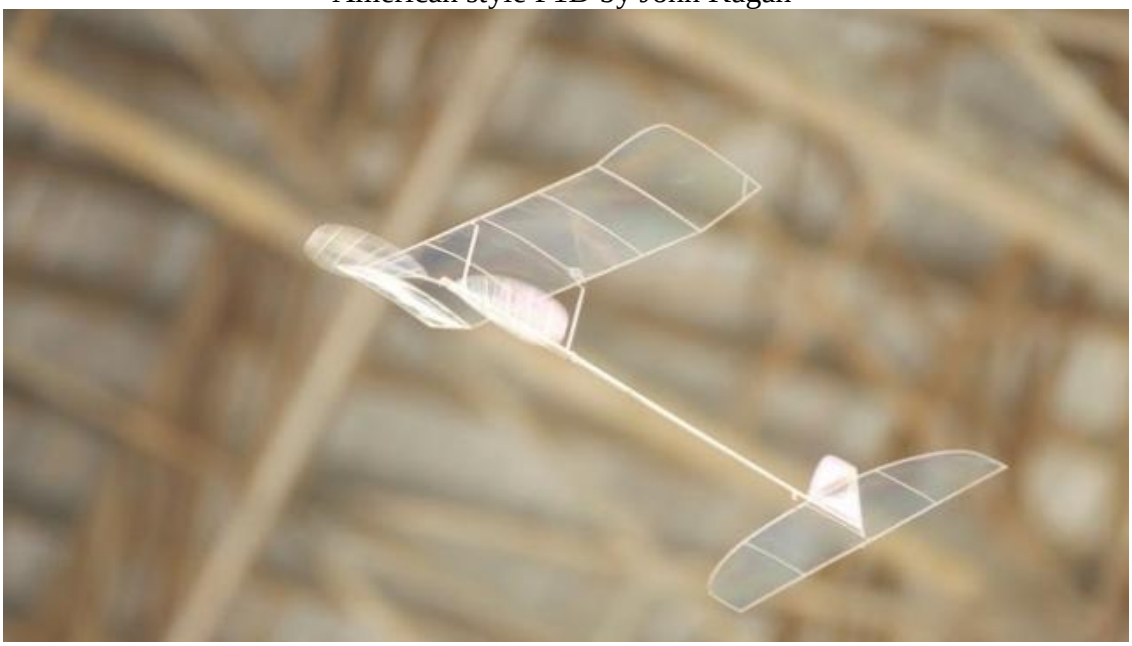
Model Styles

A typical European style F1D has a stab with tip dihedral, with no rudder used. This is perhaps made popular by the models of Bernie Hunt (England) and Jim Richmond (USA). A typical American F1D has a flat stab and a rudder at the end of the tailboom, made popular by American flier John Kagan.

European style F1D by Ivan Treger



American style F1D by John Kagan



Lutz Schramm's F1D with elliptical dihedral



Videos of F1D's in flight

Here is a wonderful video showing two of Europe's top fliers, Jonas Romblad of Sweden and Lutz Schramm of Germany. Lutz's model employs the latest high-tech features and is a beauty in flight.

http://www.youtube.com/watch?v=AhblwxTiBJE&list=PL11C0EC125B4CE40C&index=24&feature=plpp_video

The next video shows Mark Benn's model just after launch. Note how slow the propeller turns, resulting in a very slow, energy conserving climb. You can see how that the propeller has very high pitch at the start of the flight — the propeller blade almost appears perpendicular to the direction of rotation.

http://www.youtube.com/watch?v=2x2QNun9MrA&list=PL11C0EC125B4CE40C&index=41&feature=plpp_video's

Final Results of the 2012 Indoor F1D World Championship

Senior Team:

1. U.S.A.: Brett Sanborn, John Kagan, Nick Ray
2. Great Britain: Mark Benns, Bob Bailey, Derek Richards
3. France: Thierry Marilier, Didier Barberis, Robert Chanpion

Senior Individual:

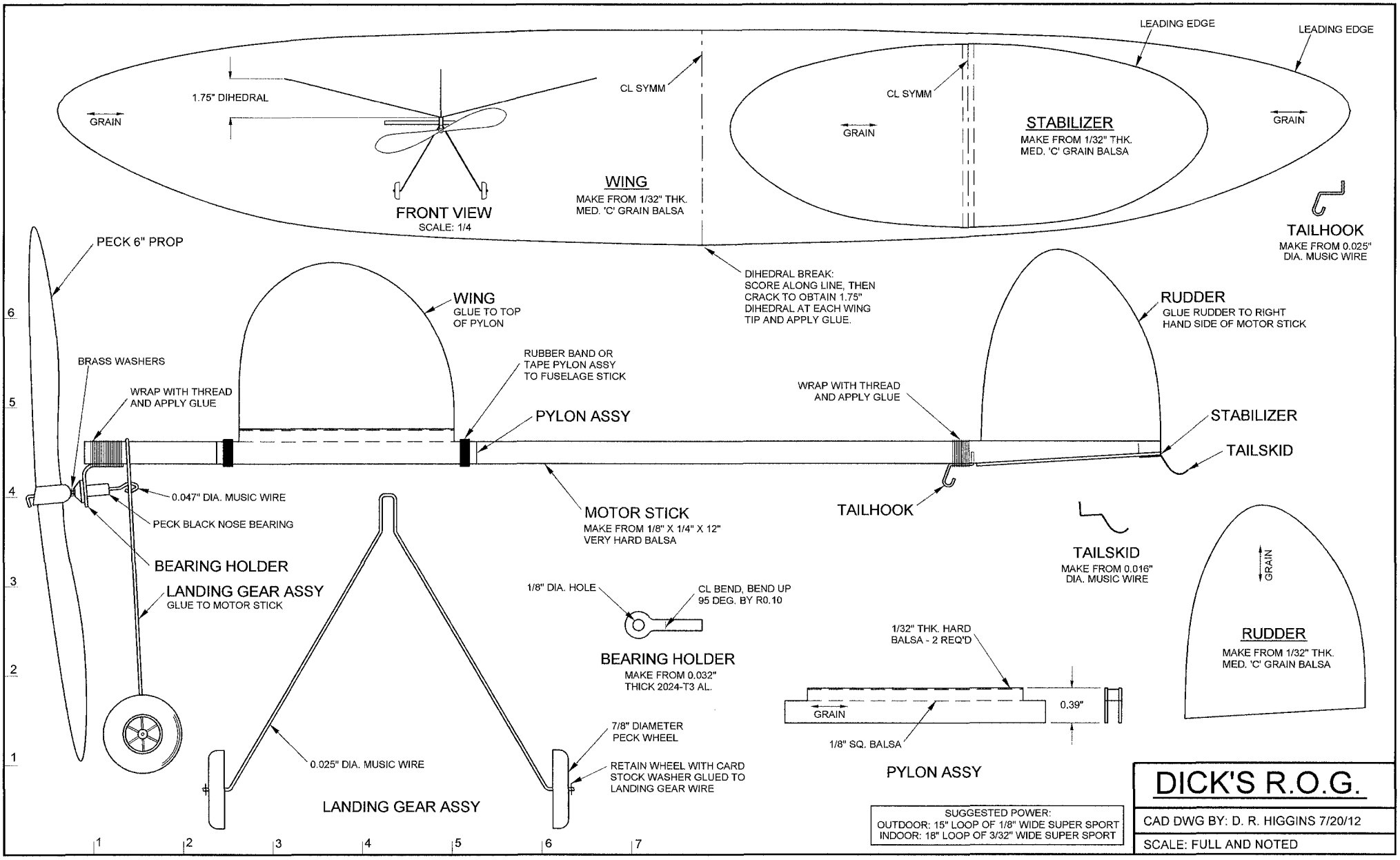
1. Lutz Schramm (GER) 76:11
2. Ivan Treger (SVK) 75:06
3. Brett Sanborn (USA) 69:43
4. John Kagan (USA) 68:54
5. Mark Benns (GBR) 67.47

Junior Team:

1. ROU
2. FRA
3. UKR
4. LTU
5. USA

Junior Individual:

1. Gabriela Kaplanova (CZE) 62:48
2. Alexandru Visan (ROM) 58:49
3. Lucas Marilier (FRA) 57:52
8. Spencer Tyson (USA) 54:03
9. Parker Tyson (USA) 53:56


1.75" DIHEDRAL
GRAIN
CL SYMM
FRONT VIEW
SCALE: 1/4
WING
MAKE FROM 1/32" THK.
MED. 'C' GRAIN BALSA
LEADING EDGE
LEADING EDGE
CL SYMM
GRAIN
STABILIZER
MAKE FROM 1/32" THK.
MED. 'C' GRAIN BALSA
GRAIN
TAILHOOK
MAKE FROM 0.025"
DIA. MUSIC WIRE
PECK 6" PROP
DIHEDRAL BREAK:
SCORE ALONG LINE, THEN
CRACK TO OBTAIN 1.75"
DIHEDRAL AT EACH WING
TIP AND APPLY GLUE.
WING
GLUE TO TOP
OF PYLON
RUDDER
GLUE RUDDER TO RIGHT
HAND SIDE OF MOTOR STICK
BRASS WASHERS
WRAP WITH THREAD
AND APPLY GLUE
RUBBER BAND OR
TAPE PYLON ASSY
TO FUSELAGE STICK
PYLON ASSY
WRAP WITH THREAD
AND APPLY GLUE
STABILIZER
TAILSKID
0.047" DIA. MUSIC WIRE
PECK BLACK NOSE BEARING
BEARING HOLDER
LANDING GEAR ASSY
GLUE TO MOTOR STICK
MOTOR STICK
MAKE FROM 1/8" X 1/4" X 12"
VERY HARD BALSA
TAILHOOK
TAILSKID
MAKE FROM 0.016"
DIA. MUSIC WIRE
GRAIN
RUDDER
MAKE FROM 1/32" THK.
MED. 'C' GRAIN BALSA
1/8" DIA. HOLE
CL BEND, BEND UP
95 DEG. BY R0.10
BEARING HOLDER
MAKE FROM 0.032"
THICK 2024-T3 AL.
1/32" THK. HARD
BALSA - 2 REQ'D
GRAIN
0.39"
1/8" SQ. BALSA
PYLON ASSY
0.025" DIA. MUSIC WIRE
7/8" DIAMETER
PECK WHEEL
RETAIN WHEEL WITH CARD
STOCK WASHER GLUED TO
LANDING GEAR WIRE
LANDING GEAR ASSY
SUGGESTED POWER:
OUTDOOR: 15" LOOP OF 1/8" WIDE SUPER SPORT
INDOOR: 18" LOOP OF 3/32" WIDE SUPER SPORT
DICK'S R.O.G.
CAD DWG BY: D. R. HIGGINS 7/20/12
SCALE: FULL AND NOTED