



South African Model Aircraft Association

Postal address PO Box 7116, Bonaero Park, 1622, South Africa Fax 086-607-8733
Telephone: GM, Bob Skinner 083-283-1681. Administration: Linda Dold 083-612-7047
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www.samaa.org and www.samaa.co.za:89

To: All SAMAA members

Date: 2 October 2021

Communique # 30

Dear SAMAA member,

Greetings to all our SAMAA members and welcome to the start of the 2021 summer season.

SAMAA membership fees – Reminder, please verify your membership status and update accordingly. Kindly contact Linda or Bob at the two offices for any assistance that might be required. We really value and appreciate your support.

Loss/Damage report.

1. An incident was reported at Henley; a jet model aircraft lost control, resulting in damage to the roof of a dwelling nearby.
 - a. The incident was reported immediately to the SAMAA GM and chairman.
 - b. The incident report was received from the member in good time.
 - c. The member settled the damage in an amicable way with the homeowner.
 - d. The SAMAA management reviewed the merits of the case and reimbursed the member for the cost incurred.

2. RC glider and tandem paraglider incident.
 - a. An RC Slope Soaring glider made “in air” contact with overhead tandem paraglider (two persons on board).
 - b. The incident was not reported by the SAMAA member, until requested.
 - c. A disciplinary due process shall follow in the near future.

Planned events: *(Note: based on applications received)*

- Series Scale event on 3 October 2021 @ Rand Model Aeronautic Club (S26 19 15, and E028 03 25). South of Johannesburg. Competitive event for scale model aircraft
Contact: Koos Pretorius 082 928 0368

- LSA @ Irene Radio Flyers (S25 54 34, and E028 13 13)
October 10
Contact Justin Gomersall 084 465 1000



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- MGA Gliding Nationals, for four classes @ Warthog Radio Flyers (S25 33 14, and E028 22 20 North-east of Pretoria, off Moloto Road)
22 – 24 October
Contact Brett Lewis - flymga@gmail.com - 076 191 5277
- LSA Pilot/Judging Clinic @ Rand Model Aeronautic Club (S26 19 15, and E028 03 25)
October 31
Contact Justin Gomersall 084 465 1000
- PERF Fly-in @ Graaff-Reinet Airfield (s32 11 69, and E024 32 47)
10 – 14 November
Contact Zane Mannell 082-827-8410
- Barnstormers Jet Proficiency weekend @ Barnstormers Model Flying Club (S26 00 44, and E028 17 43). Kempton Park/Bapsfontein
12 – 14 November
Contact Jaco Henn 083-271-5991
- Ceres Model Aircraft Club 2021 Fly-in @ Ceres Model Aircraft Club (S33 19 08, and E019 25 13)
28 - 31 October
Contact Peter Brewis 083-362-9156
- Bosveld Radio Flyers Opening Day @ Bosveld RC Flyers (S26 10 58, and E027 38 38).
Randfontein.
30 October
Contact Gerrit van Deventer 083-662-1649
- LSA Fly-in @ Drakensberg Soaring Club at Utopia, west of Underberg (S29 48 42, and E029 23 51)
5 – 7 November
Contact Clint Du Toit 082-894-2068
- Hermanus Slope Fly-in @ Rotary Way Hermanus (S34 41 36, and E019 22 19)
26 November
Contact Simon Pfothenhauer 082-436-9882



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You Tube “IMUSTFLY” channel. Two more exiting episodes were added, one is the unboxing of the brand-new Pilot Extra NG with Rob Snow and David Potgieter as our guest presenters, and the latest one covering the Jets Over Limpopo event at Polokwane, coordinated by the Area 51 club.

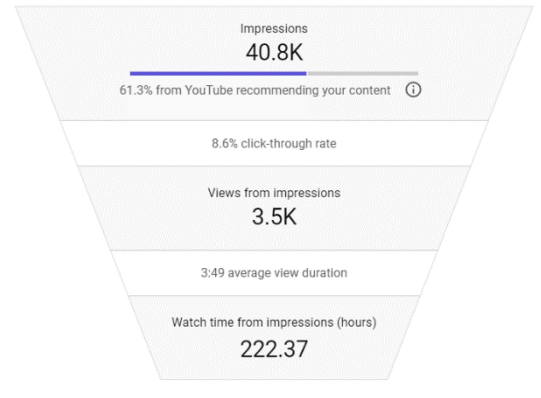
Our views have increased to 7300, with more than 450 subscribers to date. Over 40K impressions and 222 hours spent watching our content. **Marketing in action** ☺

A big congratulations to Daniel Lategan, winner of the #IMUSTFLY coffee mug – Daniel flies at Kraaifly Electric Flyers in Kraaifontein.



Impressions and how they led to watch time ▲

Data available 1 Oct 2020 – 30 Sept 2021 (365 days)



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admin@samaa.org.za

- ✓ Available links #IMUSTFLY channel
<https://www.youtube.com/channel/UCpRL8WDQ20dx5VWMGlfueeg>
- ✓ Distribution WhatsApp link <https://chat.whatsapp.com/J6JHKgzOT7A7SKhSj0nGL5>



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First to find me
owns me 😊



Send marked-up
photo to

admin@samaa.org.za



Balsa wood

Model aircraft are no different to any other type of flying machine, large or small - THE LIGHTER IT IS BUILT, THE BETTER IT WILL USUALLY FLY! With that in mind, it is easy to understand why balsa wood has been the standard material for model aircraft construction since it first became readily available in the late 1920s. Its outstanding strength-to-weight ratio enables hobbyists to construct durable models that fly in a totally realistic manner. Balsa also absorbs shock and vibration well and can be easily cut, shaped, and glued with simple hand tools.



WHERE DOES Balsa WOOD COME FROM?

Balsa trees grow naturally in the humid rain forests of Central and South America. Its natural range extends south from Guatemala, through Central America, to the north and west coast of South America as far as Bolivia. However, the small country of Ecuador on the western coast of South America, is the primary source of model aircraft grade balsa in the world. Balsa needs a warm climate with plenty of rainfall and good drainage. For that reason, the best stands of balsa usually appear on the high ground between tropical rivers. Ecuador has the ideal geography and climate for growing balsa trees. The scientific name for balsa wood is *Ochroma lagopus*. The word balsa itself is Spanish meaning raft, in reference to its excellent flotation qualities. In Ecuador it is known as Boya, meaning buoy.



HOW DOES Balsa WOOD GROW?

There is no such thing as entire forests of balsa trees. They grow singly or in very small, widely scattered groups in the jungle. For hundreds of years, balsa was considered a weed tree. They reproduce by growing hundreds of long seed pods, which eventually open up and, with the help of the wind, scatter thousands of new seeds over a large area of the jungle. Each seed is airborne on its own small wisp of down, similar to the way dandelion seeds spread. The seeds eventually fall to the ground and are covered by the litter of the jungle. There they lay and accumulate until one day there is an opening in the jungle canopy large enough for the sun's rays to strike the jungle floor and start the seeds growing. Wherever there is an opening, made either by a farmer or by another tree dying, balsa will spring up as thick as grass. A farmer is often hard put to keep his food plot clear of balsa. As the new balsa trees grow, the strongest will become



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predominant and the weaker trees will die. By the time they are mature, there may be only one or two balsa trees to an acre of jungle.

HOW LONG DOES IT TAKE A BALSA TREE TO GROW?

Balsa trees grow very rapidly (like all pesky weeds). Six months after germination, the tree is about 1-1/2 inches in diameter and 10 - 12 feet tall. In 6 to 10 years the tree is ready for cutting, having reached a height of 60 to 90 feet tall and a diameter of 12 to 45 inches. If left to continue growing, the new wood being grown on the outside layers becomes very hard and the tree begins to rot in the centre. Unharvested, a balsa tree may grow to a diameter of 6 feet or more, but very little usable lumber can be obtained from a tree of this size. The balsa leaf is similar in shape to a grape leaf, only a lot bigger. When the tree is young, these leaves measure as much as four feet across. They become progressively smaller as the tree grows older, until they are about 8 - 10 inches across. Balsa is one of the few trees in the jungle which has a simple leaf shape. This fact alone makes the balsa tree stand out in the jungle.

WHY IS BALSA WOOD SO LIGHT?

The secret to balsa wood's lightness can only be seen with a microscope. The cells are big and very thin walled, so that the ratio of solid matter to open space is as small as possible. Most woods have gobs of heavy, plastic-like cement, called lignin, holding the cells together. In balsa, lignin is at a minimum. Only about 40% of the volume of a piece of balsa is solid substance. To give a balsa tree the strength it needs to stand in the jungle, nature pumps each balsa cell full of water until they become rigid - like a car tire full of air. Green balsa wood typically contains five times as much water by weight as it has actual wood substance, compared to most hardwoods which contain very little water in relation to wood substance. Green balsa wood must therefore be carefully kiln dried to remove most of the water before it can be sold. Kiln drying is a tedious two week process that carefully removes the excess water until the moisture content is only 6%. Kiln-drying also kills any bacteria, fungi, and insects that may have been in the raw balsa wood.

HOW LIGHT IS KILN-DRIED BALSA WOOD?

Finished balsa wood, like you find in model aircraft kits, varies widely in weight. Balsa is occasionally found weighing as little as 4 lbs. per cu. ft. On the other hand, you can also find balsa which will weigh 24 lbs or more per cu. ft. However, the general run of commercial balsa for model aircraft will weigh between 6 and 18 pounds per cu. ft. Eight to twelve pound balsa is considered medium or average weight, and is the most plentiful. Six pound or less is considered "contest grade", which is very rare, and sometimes even impossible to obtain.

IS BALSA THE LIGHTEST WOOD IN THE WORLD?

No! Most people are surprised to hear that botanically, balsa wood is only about the third or fourth lightest wood in the world. However, all the woods which are lighter than balsa are terribly weak and unsuitable for any practical use. The very lightest varieties don't really resemble wood at all, as we commonly think of it, but are more like a tree-like vegetable that grows in rings, similar in texture to an onion. It is not until balsa is reached that there is any sign of real strength combined with lightness. In fact, balsa wood is often considered the strongest wood for its weight in the world. Pound for pound it is stronger in some respects than pine, hickory, or even oak.

SELECTING BALSA FOR MODEL BUILDING

Most hobby shops have a large rack of balsa sheets, sticks, and blocks that you can choose from if you are going to build a model aircraft from scratch. Undoubtedly, because of the nature of balsa, the actual weight of each piece of wood of the same size can vary slightly. When you select the pieces you want to buy, you should keep their final use in mind. Logically one should select the lightest grades for the lightly-stressed model parts (nose blocks, wingtip blocks, fill-ins, etc.) and the heavier grades for important load-bearing parts of the structure (spars, fuselage stringers, etc.). To a large extent, this selection is already partly done



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for you. The distributor, SIG, purposely cuts up the lightest raw balsa into blocks, and the hardest raw balsa into sticks. Sheets are cut in the entire wide range of density.

COMMON MODELLER'S TOOLS FOR CUTTING AND SHAPING Balsa WOOD

Balsa is a very "friendly" wood to work with -- so light, so soft, so easily worked into so many things. You don't need heavy-duty power saws and sanders like you would if working with a hardwood. In fact, even with an extensive power shop at their disposal, the professional model builders at the SIG factory find that they still rely primarily on 4 or 5 simple hand tools for the majority of their work. If you are just starting out in the model aircraft hobby, here are the tools that they recommend you get:

X-ACTO No. 1 knife with No. 11 blade for general cutting; X-ACTO No. 2 knife with No. 26 blade for carving; razor saw for cutting thick sizes of wood; Razor plane for shaping; a knife or razor blade will work well for cutting balsa sheets and sticks up to 3/16". Always keep replacement blades on hand - blades do wear out and a dull blade can make it impossible to do a good job.

Balsa GRAIN -- LEARN HOW TO IDENTIFY ALL THREE GRAIN TYPES

In selecting balsa sheets for use in your model, it is important to consider the way the grain runs through the sheet as well as the weight of the sheet. The grain direction actually controls the rigidity or flexibility of a balsa sheet more than the density does. For example, if the sheet is cut from the log so that the tree's annular rings run across the thickness of the sheet (A-grain, tangent cut), then the sheet will be fairly flexible edge-to-edge. In fact, after soaking in water, some tangent-cut sheets can be completely rolled into a tube shape without splitting. If on the other hand the sheet is cut with the annular rings running through the thickness of the sheet (C-grain, quarter grain), the sheet will be very rigid edge-to-edge and cannot be bent without splitting. When the grain direction is less clearly defined (B-grain, random cut), the sheet will have most intermediate properties between A and C grain. Naturally, B-grain is the most common and is suitable for most jobs. The point to bear in mind is that whenever you come across pure A-grain or C-grain sheets, learn where to use them to take best advantage of their special characteristics.

A-GRAIN sheet balsa has long fibres that show up as long grain lines. It is very flexible across the sheet and bends around curves easily. It also warps easily. Sometimes called "tangent cut." DO use for sheet covering rounded fuselages and wing leading edges, planking fuselages, forming tubes, strong flexible spars, HL glider fuselages. DON'T use for sheet balsa wings or tail surfaces, flat fuselage sides, ribs, or formers.

B-GRAIN sheet balsa has some of the qualities of both type A and type C. Grain lines are shorter than type A, and it feels stiffer across the sheet. It is a general purpose sheet and can be used for many jobs. Sometimes called "random cut." DO use for flat fuselage sides, trailing edges, wing ribs, formers, planking gradual curves, wing leading edge sheeting. DON'T use where type A or type C will do a significantly better job.

C-GRAIN sheet balsa has a beautiful, mottled appearance. It is very stiff across the sheet and splits easily. But when used properly, it helps to build the lightest, strongest models. Most warp-resistant type. Sometimes called "quarter grain." DO use for sheet balsa wings and tails, flat fuselage sides, wing ribs, formers, trailing edges. Best type for HL glider wings and tails. DON'T use for curved planking, rounded fuselages, round tubes, HL glider fuselages, or wing spars.

Winner of Communique # 29:

Well-done to Tiaan Lennox from Tygerberg Model Flying Club, the winner of our previous word puzzle.

See below for current club standings...



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Current Standings.

Club Name	Club Winnings	Winnings	#	Winner
Durban Model Aircraft Club	1	R 100	Communique 12	Russell Conradt
Maritzburg Model Aircraft Club	2	R 400	Communique 13/23	Roger Auken/Inus de Wet
Modderfontein Model Aero Club	3	R 600	Communique 15/27/28	Doug Moss/Fion Williams/Greg Yatt
Capricorn Radio Modelvliegklub	3	R 600	Communique 16/17/19	Francois Robbertze/Hennie Miller/Dirk De Klerk
Irene Radio Flyers	1	R 200	Communique 18	Nico Brummer
Weskus Radio Flyers	1	R 200	Communique 20	Alex van Breda
St Blaize Model Flyers	1	R 200	Communique 21	Herman Venter
Umbila Radio Flyers	1	R 200	Communique 22	Andrew Clark
Fish Hoek Radio Flyers	1	R 200	Communique 24	Angus McCallum
Pretoria Radio Flyers	1	R 200	Communique 25	Martin Snyman
Karkloof Radio Flyers	1	R 200	Communique 26	Derek Warren
Tygerberg Model Flying Club	1	R 200	Communique 29	Tiaan Lennox

R 3 300

W W C U A X G P C D r r M k y
r R b P K O f n g E H O L P U
r o d a u q c E i H w X Z x r
w s f e l G h h Y k K g k U U
C A t l e s s t r o n g e s t
p f v r i w a s K o i a O z y
E K G w a g m U l p m L l s u
L l w q g i h o F z q a e p F
U j v N R l l t i j m g i i G
M S o j x D c i n s d o r L Y
c r a i r p l a n e t p J a s
g K U b w o s T s g s u z p w
c d Y l u J x g g H b s r s s
X R R K J l f l e x i b l e A
d P w W A g I I J c r u n s s

Please submit your answers to
admin@samaa.org.za with your name and SAMAA
number before 12:00PM 8th of October 2021 to
stand a chance to win R 200.00

airplane	Ecquador	balsa
edges	Lagopus	flexible
lightness	moisture	long
Ochroma	ribs	planking
strongest	weed	trailing

That brings us to the end of this edition; we hope that you have enjoyed the read. Please share your comments and remember “if you want to see the rainbow, you’ve got to put up with the rain!”

Happy landings, and best regards

The SAMAA Management Committee



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