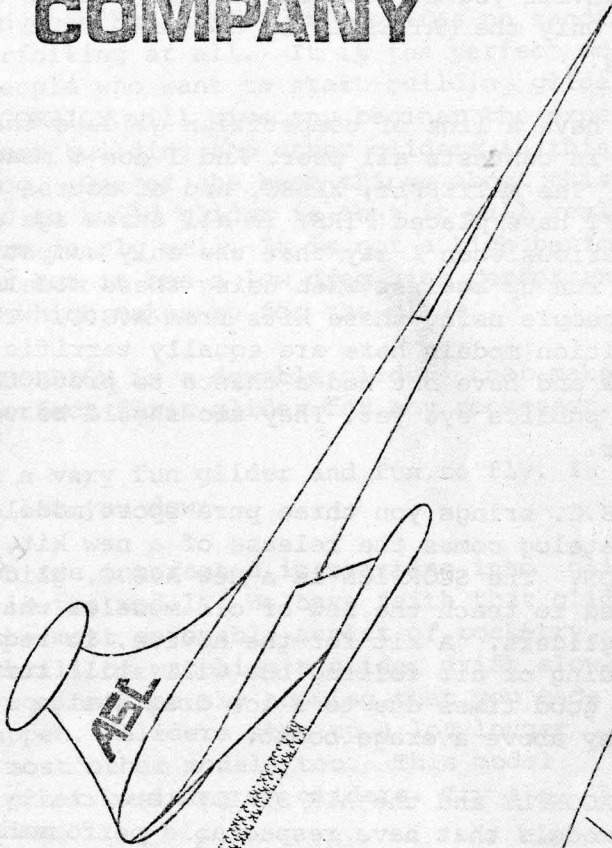


AERONAUTIC & SPACE COMPANY



.....

\$.25

Welcome to the second A.S.C. catalog!

If you are reading this it is obvious that you are one of three things; a rocketeer interested in obtaining exciting and unusual kits, a person mildly interested in model rockets, or lastly someone who just happened to find this wonderful catalog in a gutter and opened it out of boredom! Whichever you are I invite you to read on and see our new line of kits. Only the MATTERFLY is the same as in the old catalog.

We now have a line of competition gliders that have placed in contests all over. And I don't mean fourth place! The MATTERFLY, XEBEC, and of course the WINDRIFT have placed FIRST in all three age divisions. I am serious when I say that the only competition I have run up against when using these models are other people using these kits from A.S.C. The other Competition models here are equally terrific but are new and have not had a chance to prove themselves in the public's eye yet. They too should be very popular.

Now A.S.C. brings you three pure sport models. With this catalog comes the release of a new kit, the SCORPION. The SCORPION is a new A.S.C. glider designed to teach the new or old modeler what there is to gliders. A kit for the novice, it requires no sanding or air foiling but will still turn in fairly good times due to a low drag design resulting in a way above average boost.

The DRAGONFLY and the AIR STRIDER are really fun sport models that have respectable performance and are relatively easy to build. These designs are unique and should be very popular in the coming months.

We hope that you like these kits and that we hear from you soon.

Happy Rocketeering in 1976! Live Long and Prosper.

Andrew P. Kott

President of AERONAUTIC & SPACE CO.

401 WAYSIDE COURT NASHVILLE TN. 37205

scorpion

The SCORPION is the perfect beginner's model. Our R&D department designed this model so that anybody can build it. It requires no sanding or airfoiling at all. It is the perfect model for people who want to start building gliders. The SCORPION will give any beginner the experience to start building the other gliders in this catalog. One of the best things about this simple to build glider is that it will really perform fairly well. It is not a high performance glider but it has a low drag high performance boost which makes up for the glide.

The SCORPION is a durable glider that makes the perfect first glider for any rocketeer.

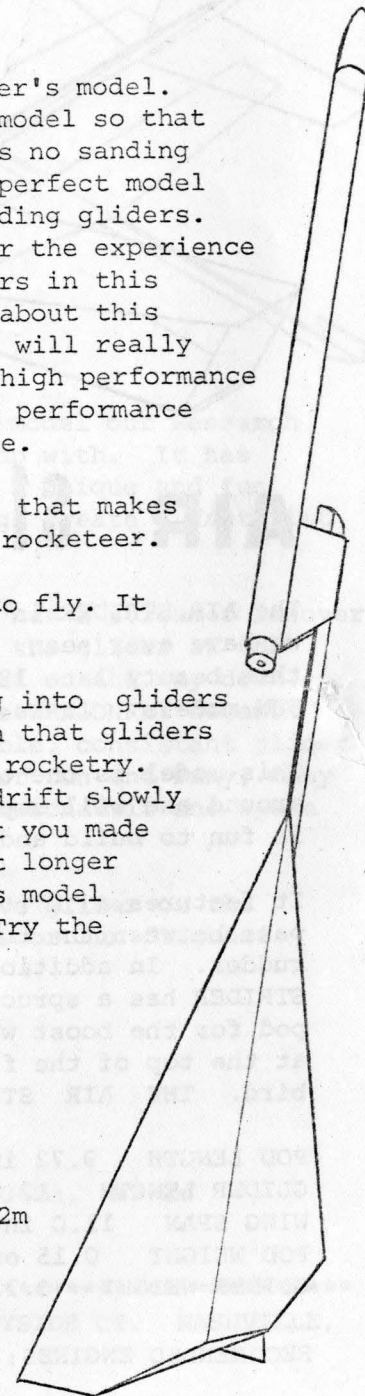
It is a very fun glider and fun to fly. It won't let you down.

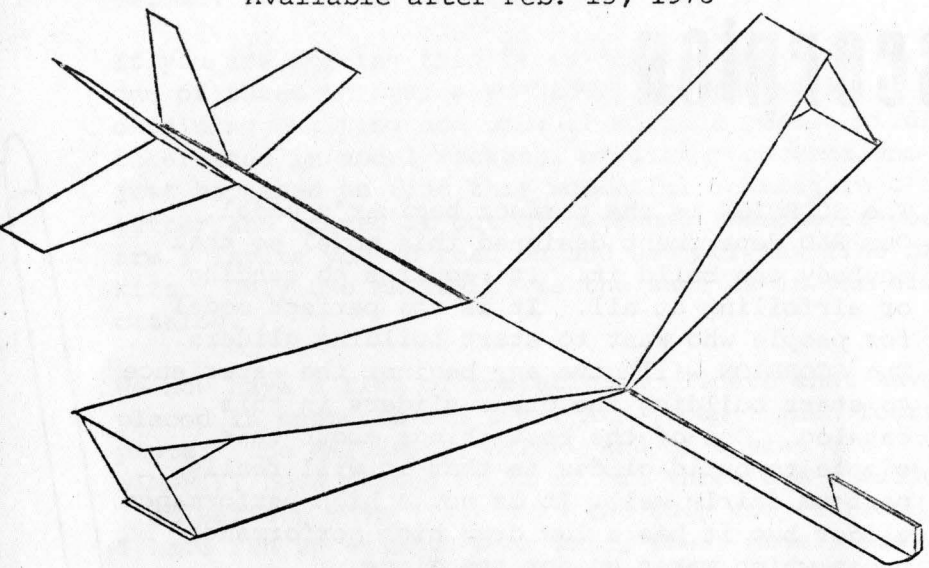
If you are interested in starting into gliders this is the model. We have faith that gliders are the most enjoyable aspect of rocketry. The thrill of watching a glider drift slowly down against the sky knowing that you made it happen. Gliders stay up a lot longer than most other models too. This model is a great beginning in gliders. Try the scorpion.

POD LENGTH 9.72 inches
GLIDER LENGTH 12.10 inches
GLIDER WEIGHT 0.3 ounces
POD WEIGHT 0.15 ounces

RECOMENDED ENGINES: ½A3-3m, A3-2m
B3-3m

Catalog number - G3





AIR STRIDER

The AIR STRIDER is the first bi-plane boost/glider we have ever seen. Our R&D department came up with this beauty late 1975 and it is one of our favorite FUN models. It is just for fun, not competition.

This model is one of the nicest looking gliders around and will impress your friends for sure. It is fun to build and fly.

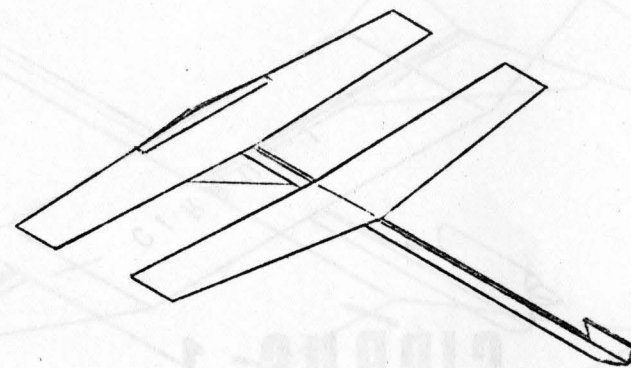
It features a "K" tail that allows the exhaust to pass between the two rudders and not burn either rudder. In addition to the dual wings the AIR STRIDER has a spruce fuselage and a streamer recovery pod for the boost which separates from the glider at the top of the flight. A truly impressive looking bird. THE AIR STRIDER.

POD LENGTH 9.72 inches
GLIDER LENGTH 12.8 inches
WING SPAN 11.0 inches
POD WEIGHT 0.15 ounces
GLIDER WEIGHT 0.13 ounces

RECOMENDED ENGINES: 1/2A3-3m, A3-2m, B3-3m

Catalog - G4

dragonfly



The DRAGONFLY is another unusual model our Research and Development department came up with. It has both a high-efficiency glide and a unique and fun design. The DRAGONFLY's dual wings create a fast flat glide that is lots of fun.

In addition to the dual wings it has a streamer recovery boosting pod that separates from the glider at the top of the flight to reduce weight on the way down. After separating from the pod the DRAGONFLY descends slowly to the ground. It a reliable, consistant glider that will provide you with lots of fun and many, many pleasurable flights as will all Aeronautic and Space Company gliders!

The DRAGONFLY is a very impressive glider on the pad or in the air. Great for Demo or fun flights!

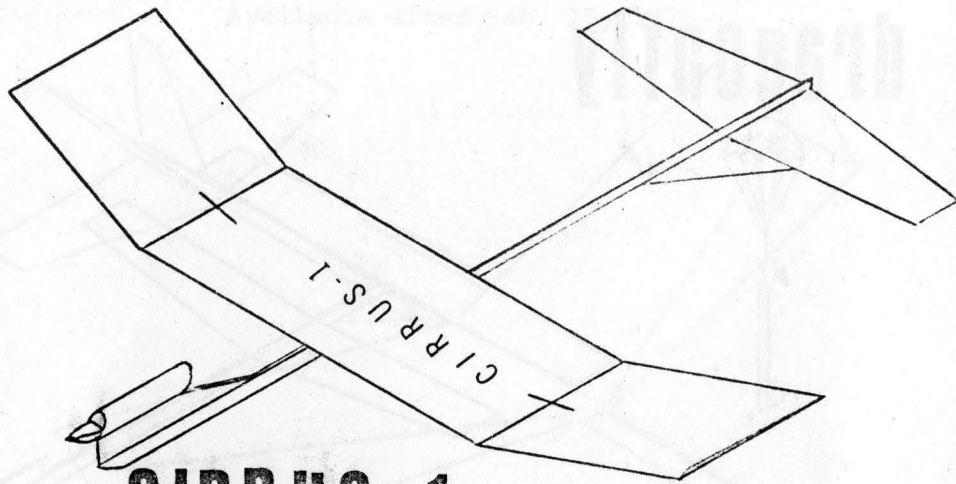
POD LENGTH 9.72 inches
GLIDER LENGTH 11.95 inches
WING SPAN 9.0 inches
POD WEIGHT 0.15 ounces
GLIDER WEIGHT 0.11 ounces

RECOMMENDED ENGINES: 1/2A3-3m, A3-2m, B3-3m

Catalog number - G5

AERONAUTIC AND SPACE COMPANY 401 WAYSIDE CT. NASHVILLE, TN

37205



CIRRUS-1

The ASC CIRRUS-1 is a high performance swift class rocket/glider. It features a flop-wing design. This means that the wings fold up for the boost but at the top of the flight they unfold and the glider glides down.

With the wings folded up the glider boosts straighter and farther than otherwise possible. When the wings open up the glider settles into a smooth long glide.

This also is a fun model that is really impressive to watch. You will be amazed at the performance you can get with this model and it is fully capable of winning at any meet. This model is superior in swift R/G.

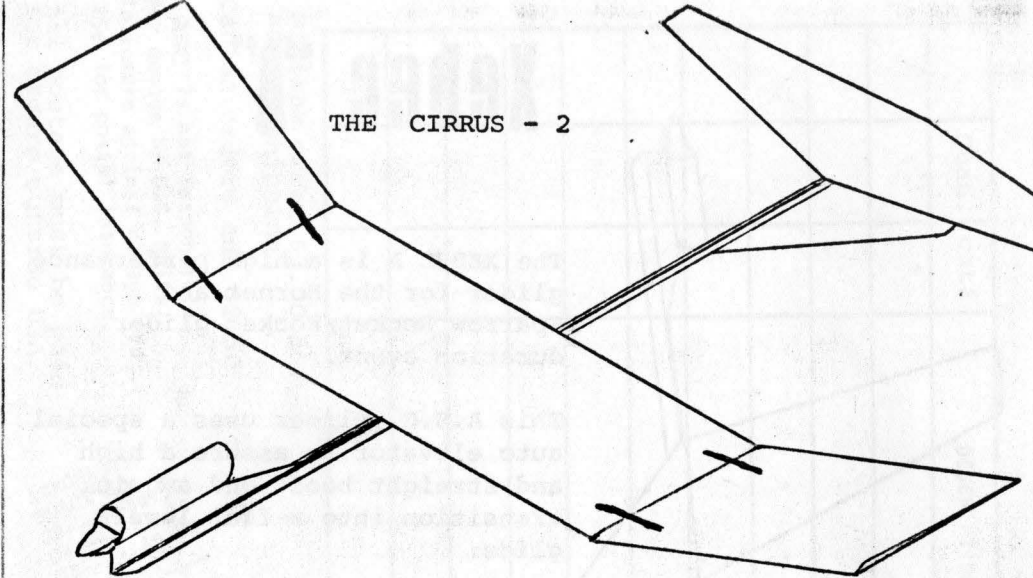
Although this model was designed for competition flying it is a really FUN model to fly. The CIRRUS-1 is one of our favorite sport models in addition to competition flying.

The CIRRUS-1 will give you hours of enjoyment flight after flight. A truly nice model, soon to be one of your favorites.

Recommended engines: A3-2m, B3-3m

Catalog number - G6

Available after April 20, 1976



THE CIRRUS - 2

The CIRRUS-2 is a high performance flop-wing designed for HAWK and EAGLE rocket/glider events. It is much larger than the CIRRUS-1 and uses higher power longer thrusting engines.

The CIRRUS-2 is a great competition model. It is large and fairly hard to build but any intermediate rocketeer could handle it. It uses the flop-wing system as described in the description of the CIRRUS-1. These long thrusting engines are perfect for this model and the result is a beautiful stright boost that lasts a long time causing it to reach fantastic altitudes.

After reaching the top of the flight the wings open up and the CIRRUS-2 takes its own time coming down. It is easy to follow the whole way because of its size.

It may be big but it has a great high-performance glide.

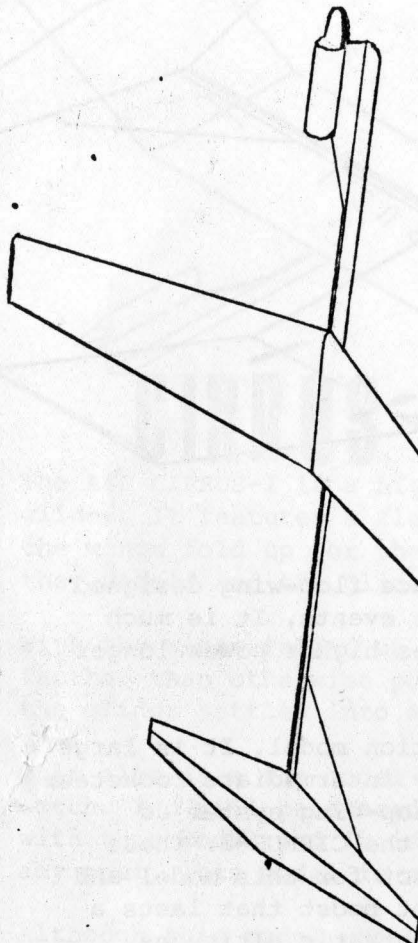
The CIRRUS-2 is a great one to impress a crowd with if you don't care for contest flying. It is great fun to fly and watch!

Recomended engines: C4-2, D4-2, E5-2
C4-2 for first flight.

Catalog number - G8

Available after April 20, 1976

Xebec "A"



The XEBEC A is a high performance glider for the Hornet and Sparrow Rocket/Rocket glider duration event.

This A.S.C. glider uses a special auto elevator to assure a high and straight boost and a quick transition into a flat level glide.

At the top of the flight the elevator pops up to cause a stable high-performance glide that can not be beat. This model has already made a name for itself and will go for National Records soon. It is one of our favorite models and should be one of yours soon. The auto elevator system is simple and reliable and gives this model its high performance boost.

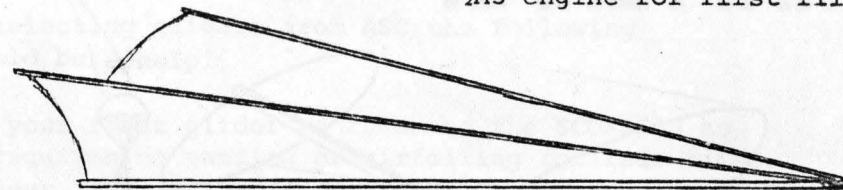
The XEBEC A is not hard to build but A.S.C. does not recomend it to beginers. It features lightweight construction with a stepped spruce fuselage for added lightness and durability while keeping the stab. out of the engine exhaust. This is a true contest winner for anyone who likes being on top.

GLIDER WEIGHT 0.4 ounces
GLIDER LENGTH 18.4 inches

RECOMENDED ENGINES: ½A3-3m, A3-2m

Catalog number - G7

recomended engines: ½A3-3m, A3-2m, B3-3
½A3 engine for first flight



Windrift

When you come to the point in gliders that you are willing to put some time into a glider (1 to 2 hours) and you expect superior performance you have moved up to the class of the WINDRIFT. When you own a WINDRIFT you become spoiled. You will begin to expect ten min. flights on a A type from all your gliders. But only the WINDRIFT by Aeronautic and Space Company can give such performance. It now holds four national records and will be going for more in the next year.

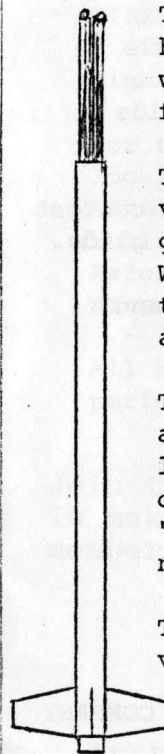
The WINDRIFT is a high performance flex-wing that has already started to make its mark on the rocket world and it won't stop until ALL national records from Gnat B/G to Swift B/G and maybe beyond.

The model comes with or without the launching vehicle so you may buy three or four WINDRIFT gliders for the original launching vehicle. The WINDRIFT itself comes with a specially made spring to open up the glider at the top of the flight. It also features a special thin plastic wing covering.

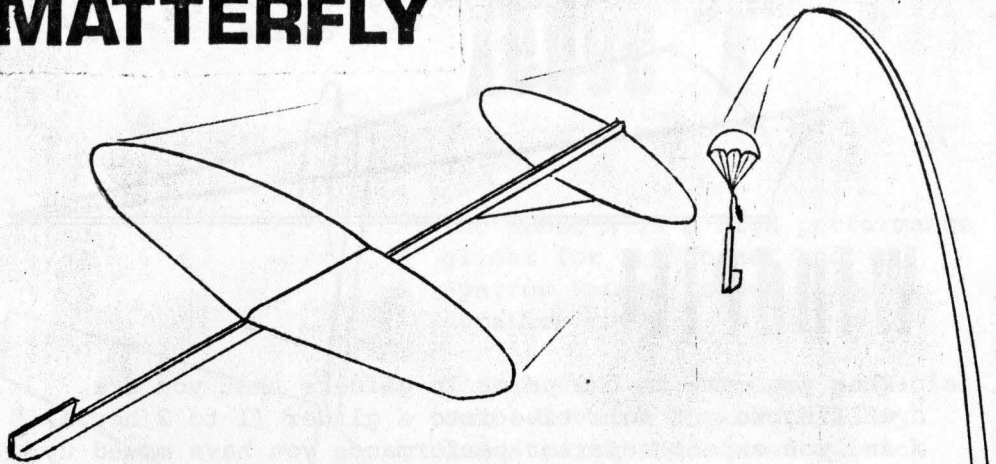
The ASC WINDRIFT weighs only 4 grams and has a wing area of 85 square inches. This gives it a wing loading of .047 grams per square inch. In speaking of the ASC WINDRIFT, Model Rocketeer magazine said "It looks like flex-wings (the windrift) may be the next trend in this event (Boost/Glide)."

The glider (WINDRIFT) folded inside the launching vehicle lifts off for a perfectly straight boost to a high altitude. The engine then pushes the WINDRIFT out via a piston allowing it to open and decend gracefully to the ground. The WINDRIFT is 12 inches long and so is the Launching vehicle.

Combo Catalog number - G2, Glider only Cat.# G2A



MATTERFLY



The MATTERFLY was designed in 1972 by George Gassaway in search for a reliable and high performance Boost/Glider. He created this bird to win contests and that is what it does. It has its stronghold in that it performs well even in HIGH wings when other glider fail.

The model uses 1/8 inch styrofoam wings for light weight and high performance. It features a spruce fuselage and a pod with streamer recovery. It holds A division Swift Boost/Glide National Record.

The matterfly is a great model for fun flying or contest flying. It has a straight boost and a flat level glide.

It has turned in times of more than 300 seconds and is very popular amongst rocketeers everywhere.

POD LENGTH 9.72 inches
GLIDER LENGTH 13.20 inches
GLIDER WEIGHT 0.2 ounces
POD WEIGHT 0.14 ounces

RECOMENDED ENGINES: 1/4A3-3m, A3-2m, B3-3m

Catalog number - G1

AERONAUTIC & SPACE COMPANY
401 WAYSIDE COURT
NASHVILLE, TN. 37205

In selecting gliders from ASC the following should be a help!

For your first glider we recomend the SCORPION as it requires no sanding or airfoiling for fair times. However if you airfoil the SCORPION you can expect considerable performance.

From there the beginner or expert moves to the sport models or simpler competition models.

For those who have built gliders before and like competition or high-performance gliders the WINDRIFT is the optimum glider to date, but it requires some patience to build. The Matterfly is a high performance boost/glider with styrofoam wings and is easier to build. The XEBEC, CIRRUS-1, and CIRRUS-2 are all high performance rocket/gliders. The XEBEC uses a auto-elevator and has VERY nice performance and it is not that hard to build. The CIRRUS-1 and CIRRUS-2 are gliders that use "flop-wings" to permit a efficient boost and a good glide. The CIRRUS-2 is high powered and is quite spectacular.

For those rocketeers who go more for the unusual looking models we recomend the AIR STRIDER and the DRAGONFLY. They are unusual and are fairly easy to build. They are not for competition but as with all Aeronautic and Space Company gliders they have a nice long glide time and are impressive to watch!

All ASC gliders have straight boosts and good performance. Happy Flying!

A.K.

Join the National Association of rocketry (NAR). To make it worth your while we offer a NAR member discount on all the kits in this catalog!

SAVE MONEY



BE A NAR MEMBER

Write Andy Katz, President of A.S.C. for full information on this exciting member discount plan.

WHY DOES A WING FLY?

by George C. Gassaway
Vice President of A.S.C.

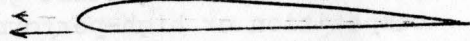
Many people build gliders knowing that a wing produces lift, but do not understand how this happens.

Water Pipe
low velocity | high velocity
high pressure | low pressure



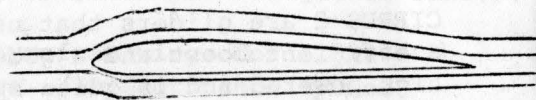
Bernoulli's Principle of Fluids is the basis which wings rely upon to produce lift. This principle states; "AS FLUID VELOCITY INCREASES PRESSURE DECREASES."

An example of this is a garden hose. If you restrict the flow of water in the hose, the velocity is decreased, thereby increasing the pressure. If you allow the flow to return to normal the water velocity increases and the pressure lowers.



wing at slight angle of attack

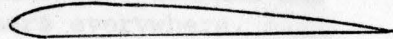
The same thing happens to a wing. As the wing goes through the air a low pressure is created on the top and a high pressure on the bottom of the wing.



airflow around wing

At the leading edge part of the air is divided to go over the top of the wing, and the rest over the bottom. Since the curved top portion has a longer surface than the flat bottom the air over the top must travel faster to meet the "same" bottom air at the trailing edge. The resulting higher top wing velocity creates a lower pressure, and the slight angle of attack creates a little higher pressure than normal (14.7 lb. per sq. in.) on the bottom of the wing.

low pressure
(14.3 PSI)



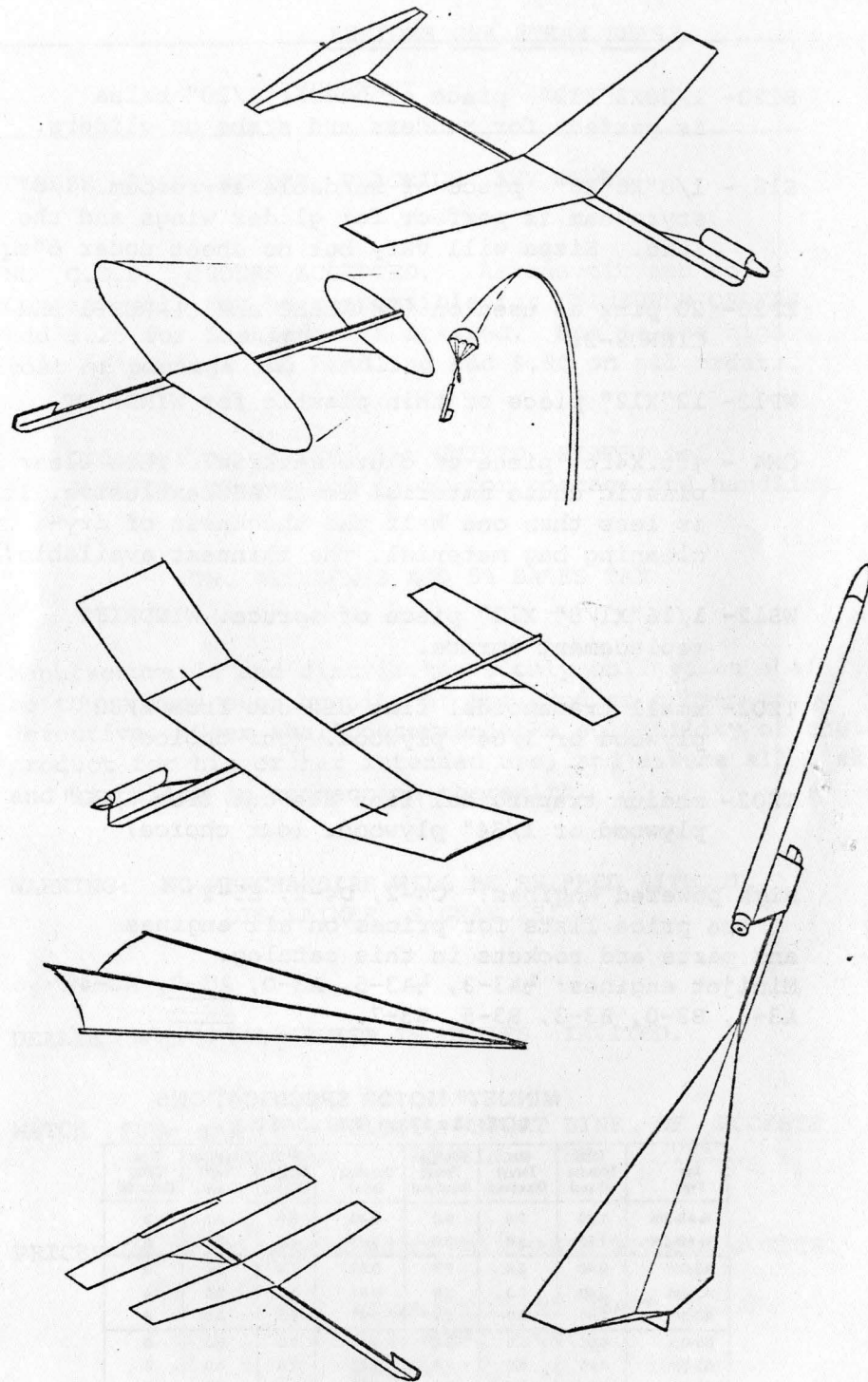
high pressure
(14.9 PSI)

pressures given for illustration
and do not represent true values

The low pressure causes a suction to pull the top surface up, while the high pressure pushes the bottom surface up. The top surface creates 60% of a wings lift, while the bottom is responsible for 40% of the lift.

This information should stress the importance of creating a proper airfoil for good performance.

George Gassaway



SPARE PARTS AND ENGINES

B120- 1/20X3"X12" piece of balsa. 1/20" balsa is perfect for rudders and stabs on gliders.

S18 - 1/8"X6"X6" piece of sandable styrofoam. 1/8" styrofoam is perfect for glider wings and the like. Sizes will vary but no sheet under 6"sq.

EP20- 20 pins as used on the XEBEC and CIRRUS-1 and CIRRUS-2.

WP12- 12"X12" piece of thin plastic for WINDRIFT

CM4 - 4ft.X4ft. piece of chute material. This clear plastic chute material is an ASC exclusive. It is less than one half the thickness of dry-cleaning bag material. The thinnest available!

WS12- 1/16"X1/8" X12" piece of spruce. WINDRIFT replacement spruce.

TZ01- small trapazoidal fins die-cut from 1/32" plywood or 1/64" plywood. (our choice)

TZ02- medium trapazoidal fins die-cut from 1/32" plywood or 1/64" plywood. (our choice)

High powered engines: C4-2, D4-2, E5-2
see price lists for prices on all engines and parts and rockets in this catalog.

Minijet engines: 1/2A3-3, 1/2A3-5, A3-0, A3-2, A3-4, A3-6, B3-0, B3-3, B3-5, B3-7.

MINIJET® MOTOR SPECIFICATIONS

SIZE: 13 x 57mm (0.50 x 2.25 in.)

Motor Type	Total Impulse (N-sec)	Max. Thrust (Newtons)	Average Thrust (Newtons)	Duration (sec.)	Total Weight (Grams)	Propellant Weight (Grams)	Time Delay (Seconds)
1/2 A3-3m	1.20	5.0	3.0	0.43	6.0	2.2	3
1/2 A3-5m	1.20	5.0	3.0	0.43	6.5	2.2	5
A3-0m	2.40	5.0	2.9	0.91	7.0	3.0	0
A3-4m	2.40	5.0	2.9	0.91	8.0	3.0	4
A3-6m	2.40	5.0	2.9	0.91	8.5	3.0	6
B3-0m	4.80	5.0	2.8	1.86	9.0	6.0	0
B3-3m	4.80	5.0	2.8	1.86	9.5	6.0	3
B3-5m	4.80	5.0	2.8	1.86	10.0	6.0	5
B3-7m	4.80	5.0	2.8	1.80	10.5	6.0	7

*Standard pack of 4 motors, 5 igniters

IMPORTANT

PLEASE READ BEFORE PLACEING ANY ORDER

NO C.O.D. ORDERS ACCEPTED. Aeronautic and Space Company will not be responsible for UNINSURED ORDERS. Add \$.25 for insurance if desired. Due to the high cost of postage and handling add \$.90 on all orders.

Orders from outside the UNITED STATES of AMERICA please add \$2.50 for postage and handling.

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Manufacturer's and distributor's only obligation shall be to replace such quantity of the product proven to be defective. User shall determine the suitability of the product for his or her intended use, and assume all risk and liability in connection therewith.

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PRICES ON PRICE LIST SUBJECT TO CHANGE WITHOUT NOTICE.

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AERONAUTIC & SPACE CO.

G3-----	\$4.50
G4-----	\$5.70
G5-----	\$5.20
G6-----	\$?
G8-----	\$?
G7-----	\$5.70
G2-----	\$4.50
G2A-----	\$2.50
G1-----	\$4.40
B120----	\$0.30
S18-----	\$0.65
EP20----	\$0.25
WP12----	\$0.25
CM4-----	\$1.25
WS12----	\$0.10
TZ01--3/	12¢
TZ02--3/	15¢
$\frac{1}{2}$ A3-Xm-	\$1.05
A3-Xm--	\$1.15
B3-Xm--	\$1.25
After 4/20/76	
C4-2--3/	\$1.65
D4-2--3/	\$2.50
E5-2--3/	\$3.60