



FRIGATE CONSTITUTION



RINGMASTER



KRIS-KRAF



CIRRUS



CITABRIA

**S**terling  
MODELS  
INC.  
PHILA. PA. 19134 U.S.A.

Sterling Models have achieved international recognition as the pacemaker in setting consistently higher standards of authenticity, beauty, performance and quality. Today, Sterling continues to create the world's finest model kits... faithfully authentic, breathtakingly beautiful, top operating performance and remarkably easy to build! Throughout the world — wherever model enthusiasts gather — Sterling Models represent the ultimate in personal pride and public achievement.

# Fabulously-Authentic Super-Detailed "Stick Model" Kits

These are unique because such amazing scale detail is achieved with these kits that are relatively easy to build. They can be built many ways, such as: Rubber Powered (as supplied), .020, .049 or CO2 Engine Power. For Free Flight, Control Line, R/C (pulse or Single Channel) or Static Scale. \*Any version makes a museum-like model. Frame members are accurately Die Cut from

the finest quality Balsa Wood, and every part is numbered to insure fast and accurate assembly as clearly shown on the easy step-by-step plan. Highly detailed Plastic Parts simplify assembly adding a touch of realism-in-miniature. Covering material, formed wire parts, Wheels, Decals, Hardware that includes control line parts is a partial list of the contents of these fine kits.



**Kit E-1 CURTISS "JENNY" JN4-D2 Wingspan 32 3/4"**

A perennial favorite of all time with modelers and public alike, the Jenny is a real nostalgic beauty. Detailed plans show real Framework, Rigging, etc.



**Kit E-2 FOKKER DR-1 TRIPLANE Wingspan 23 1/2"**

Scourge of World War I especially with the RED BARON at the controls. Our tripe model is amazingly realistic and a cinch to assemble.



**Kit E-3 DIAMANT SAILPLANE Wingspan 74"**

The soaring beauty of the Diamant comes alive under your hands as you assemble it. Die Cut parts make building easy. Eiffel 400 wing section.



**Kit E-4 CURTISS P-40 WARHAWK Wingspan 27"**

The Flying Tigers made history in the mountains of Burma and China. Our warhawk is a faithful reproduction of the full size ship and highly detailed.



**Kit E-5 CITABRIA Wingspan 33 1/2"**

This modern sport plane is just as much at home towing a sailplane or taking part in an aerobatic meet. Our model is a beauty and a fine flying scale model.



**Kit E-6 PIPER SUPER CRUISER Wingspan 35 1/2"**

A real classic is this 3 place sport plane. A favorite with model builders everywhere since Piper introduced it in the forties, since it flies so well.



**Kit E-7 CIRRUS SAILPLANE Wingspan 87 5/16"**

A real soaring machine is this model Cirrus Eiffel 400 wing section—seeks out and takes full advantage of every thermal current—over 7 ft. of beauty.



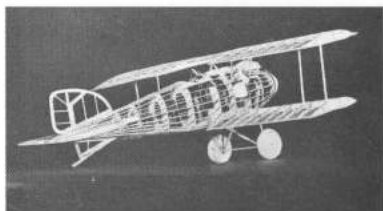
**Kit E-8 STINSON RELIANT SR-8 Wingspan 31 3/8"**

Classic 4 place cabin aircraft of the Golden 30's.



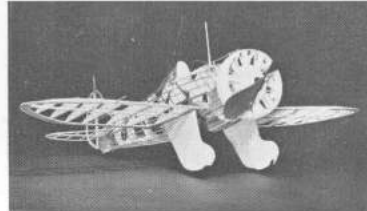
**Kit E-9 ALBATROSS D-2** Wingspan 27¾"

Amazingly streamline WWI Fighter. Flown in combat by Richtofen, Boelke, etc.



**Kit E-10 P26A PEA SHOOTER** Wingspan 28"

First U.S. Air Corps all metal monoplane. Held many military speed and altitude records.



**Kit E-11 Boeing B-17G FLYING FORTRESS** Wingspan 39"

Designed and built by Boeing Aircraft Company, the legendary B-17 Flying Fortress was "the guts and backbone of our aerial offensive" as Gen. Hap Arnold put it.



**Kit E-12 FORD TRI-MOTOR** Wingspan 34¾"

A true classic from the 30's is this 3-engined "Tin Goose" 12 passengers sat in wicker-type chairs with leather cushions for true luxury in flight.



**Kit E-13 TIGER MOTH** Wingspan 33"

Produced by the DeHavilland Company in 1931 The Tiger Moth was to become the most popular and famous trainer ever built.



**Kit E-14 PIPER CHEROKEE CRUISER** Wingspan 37½"

Produced by the Piper Aircraft Corp. The Cherokee is a low wing light plane designed for forgiving flying qualities.



**Kit E-15 BLACK WIDOW P-61** Wingspan 37½"

The "Black Widow" pioneered the "erree" new manner of warfare in 1944—"night fighting".



Plastic Body — Cabin — Augmentor Tube  
Plywood Frame R/C or Tether

**Kit LV 1 Space Squirt**

A 24" Land Vehicle .049 - .051 Engines

## SAFETY RULES FOR FLYING

1. Check your model before each flight to make sure it is in good operating condition.
2. Fly only in a clear unobstructed area.
3. Model must never be flown in the vicinity of high tension or any electrical lines.
4. You should never fly and be in an open area when thunder and lightning storms are in the area.
5. Check carefully to insure the safety of all spectators and property.
6. Now, as you move on to different types of models (Free Flight Gas, Control Line or Radio Control), be sure to check Safety Rules for each type of flying.

Individual Parts For All Kits  
May Be Purchased Separately.  
Write To Factory Directly.



\* Dry Kit. Rubber power material supplied.  
Other power and equipment not included.

# Radio Control Model

Radio Control model kits made by Sterling have consistently taken top honors for many years all over the world. Precision engineered for ease of

assembly, rugged strength and especially excellent flying qualities, they remain the favorite kits of model builders everywhere.

Famous Sport Plane — Scale



**Kit FS-1 PIPER TRI-PACER**

Wingspan 58¾" Engines .19 to .35

A favorite of pilots everywhere — Scale



**Kit FS-2 CESSNA "180"**

Wingspan 45" Engines .09 to .35

World famous Cub seen at all Airports — Scale



**Kit FS-6 PIPER CUB J-3**

Wingspan 54" Engines .09 to .35

Majestic Flying Sport Plane — Scale



**Kit FS-8 PIPER SUPER CRUISER**

Wingspan 72" Engines .29 to .60

World War 2 Trainer — Magnificent kit — Scale



**Kit FS-20 STEARMAN PT-17**

Wingspan 64½" Engines .56 to .70

Super Detail World War 1 Fighter — Scale



**Kit FS-21 FOKKER D-VII**

Wingspan 58½" Engines .45 to .70

Medium Size Super Detail W. W. 1 Fighter — Scale



**Kit FS-22 S. E. 5a**

Wingspan 40¾" Engines .19 to .35

High Performance Advanced Trainer — Original



**Kit FS-25 LANCER**

Wingspan 53½" Engines .35 to .51

High Performance Sailplane — Scale



**Kit FS-26 SCHWEIZER 1-34**

Wingspan 98½" Area 615 Sq. In.

High Performance Original Design



**Kit FS-27 RIMFIRE**

Wingspan 54" Engines .29 to .45

Rugged Design Sailplane — Scale



**Kit FS-28 SCHWEIZER 1-26D**

Wingspan 70" Area 500 Sq. In

Superior trainer — Sunday Flyer — Original



**Kit FS-29 FLEDGLING**

Wingspan 56" Engines .23 to .40

Top performance pattern ship — Original



**Kit FS-30 LANCER SL-62**

Wingspan 62" Engines .56 to .60

A Beautiful Modern Sport Plane — Scale



**Kit FS-31 CITABRIA**

Wingspan 54" Engines .23 to .35

Superior Trainer — Sunday Flyer — Original



**Kit FS-32 GAZARIATOR**

Wingspan 68" Engines .50 to .61

**JOIN:**

ACADEMY OF MODEL AERONAUTICS  
806 15th STREET N. W.  
WASHINGTON, D. C. 20005

**FLY SAFELY**

# Kits — Scale and Original

Kits feature highest grade Balsa, Hardwoods, Plywoods that are beautifully shaped/Die Cut. Hardware, Authentic Decals, Cowls, Canopies, etc., etc. as are needed for each kit. Excellent easy to fol-

low step-by-step plans make assembly a pleasure. For beginner or expert, and the Sunday Flyer, these kits were designed for you.

Classic Cabin Aircraft of the 30's - Scale



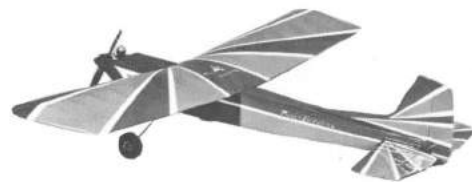
**Kit FS-33 STINSON RELIANT**  
Wingspan 57 1/4" Engines .29 to .40

Classic Biplane of the 30's - Scale



**Kit FS-34 WACO S.R.E.**  
Wingspan 56 1/2" Engines .40 to .60

Small Original Design for Beginners



**Kit FS-35 MINI-FLEDGLING**  
Wingspan 40" Engines .049 to .051

A high performance World War II Fighter — Scale



**Kit FS-36 F4U-1A CORSAIR**  
Wingspan 36" Engines .09 to .10

Classic 4 Place Sport Plane - Scale



**Kit FS-37 Piper Tri-Pacer**  
Wingspan 44" Engines .049 to .10

Scale Model of Formula 1 Racer



**Kit FS-38 REAL SPORTY**  
Wingspan 40" Engines .15 to .25

## R/C ACCESSORIES

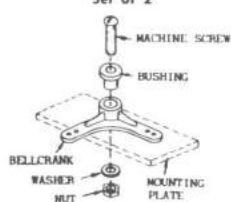
#100  
**"6 NYLON SCREWS**  
4 - 6/32 x 3/4"

#101  
**"10 NYLON SCREWS**  
4 - 10/32 x 1"

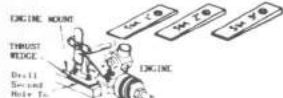
#102  
**1/4" NYLON SCREWS**  
4 - 1/4-20 x 1"

#103  
**1/4" NYLON SCREWS**  
4 - 1/4-20 x 2"

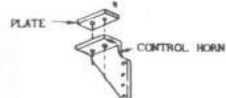
#104  
**AILERON BELLCRANKS**  
Set of 2



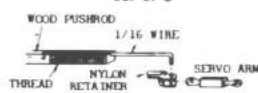
#105  
**THRUST WEDGES**  
2 ea. - 1", 2", 3"



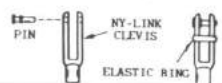
#106  
**CONTROL HORN & PLATE**  
Set of 2



#107  
**NYLON RETAINERS**  
Set of 5



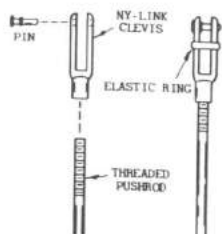
#108  
**NY-LINK CLEVIS**  
Set of 5



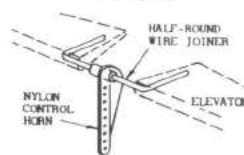
#109  
**THREADED PUSHRODS**  
Set of 5



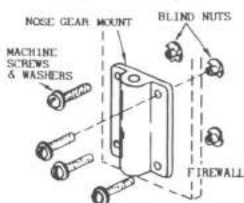
#110  
**NY-LINKS & RODS**  
Set of 5



#111  
**LARGE CONTROL HORN**  
Assembly Set



#112  
**NOSE GEAR MOUNT**  
Complete Assembly Set

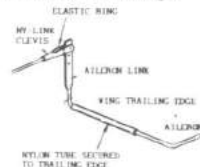


#113  
**NOSE GEAR STRUT**

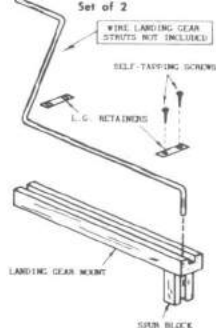
#114  
**STEERABLE NOSE GEAR**  
Complete Assembly Set



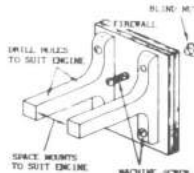
#115  
**STRIP AILERON LINK**  
One Pair — Left & Right



#116  
**MAPLE L. G. MOUNTS**  
Set of 2



#118  
**.09-.40 ENGINE MOUNTS**  
Set of 2



#119  
**.40-.60 ENGINE MOUNTS**  
Set of 2

Rubber Powered (as supplied) Convertable

# Action In Flight

Exclusively ours, these incredible flying model kits are precision made for easy assembly. Their excellent flying qualities and unique, "action-in-flight" features add fun and excitement\* . . . **give YOU the edge in competition!** (Compete for most accurate bomb runs, rocket strikes, etc.) Kits made of selected balsa wood, sanded to micrometer tolerance. Parts die cut accurately for easy,

trouble-free assembly. In-flight action mechanism included in kit installs easily, works every time. And, you get all this: handsomely-detailed formed plastic parts, molded plastic prop, rubber wheels, precisely-finished wire parts (easy for installation, rubber-band motor, authentic scale decals plus full-size plans with easy-as-ABC instructions.

\* Most models



**KIT A-1 FOKKER D7 WING SPAN 24"**  
Most popular fighter of German Air Force in World War I. Our model automatically **FIRES ROCKETS** in flight with simple mechanism included in kit, as it simulates the fine flying qualities of its prototype.



**KIT A-2 STEARMAN PT-17 CROP DUSTER WING SPAN 20"**  
Thousands of U.S. and Allied pilots earned their wings in the Famous Training plane of World War II. After the war they were outfitted with a 450 H. P. & W. engine and front seat removed for **CROP DUSTING** which our model does with amazing likeness.



**KIT A-3 BEECHCRAFT BONANZA WING SPAN 22"**  
World famous executive plane, known for its distinctive "V" tail and its built-in stability. Popular with all pilots for easy flying and efficient operation. Duplicating the action of retractable landing gear, our model **DROPS LANDING GEAR** prior to landing.



**KIT A-4 THUNDERBOLT P-47 WING SPAN 22"**  
One of the most heavily armed fighters of the United States Air Force accompanied Fortresses and Liberators in destructive attacks on Axis facilities. Our model in perfect scale, has operating **LANDING GEAR** that **DROPS** just prior to landing.



**Kit A-5 NIEUPORT 17 WING SPAN 24"**  
One of the truly great French Fighters of World War I. Established an enviable or downing German Observation Ballons by **FIRES ROCKETS**, which our model does automatically in Flight — Dramatically — with uncanny realism.



**KIT A-6 STUKA DIVE BOMBER WING SPAN 20"**  
World War II's most infamous plane. Used in early part of war, it reduced cities to rubble in advance of the German Ground Forces. Our model is a faithful replica that **DROPS BOMB** in flight with mechanism included in the kit.



**KIT A-7 PIPER SUPER CUB WING SPAN 18"**  
This world-famous trainer and personal aircraft was specifically developed agricultural **CROP DUSTING** and similar work. Authentic model does the job with uncanny realism.



**KIT A-8 MESSERSCHMITT ME-109-G WING SPAN 17"**  
Authentic rubber-powered flying scale model of the most famous German fighter and fighter-bomber of World War II. Automatically **DROPS BOMB** in flight with simple mechanism in kit.

\* Dry Kit. Rubber power material supplied.  
Other power and equipment not included.

to engine Power for Control Line, Radio, Free Flight.

# "Stick" Model Kits



**KIT A9 AT-6 TEXAN WING SPAN 18"**  
U.S. Army and Navy pilots alike learned to fly on this famous World War II advance trainer! This model is perfect scale **OPERATES LANDING GEAR** that automatically lowers just prior to landing.



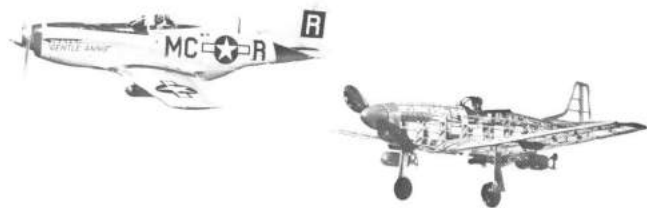
**KIT A10 CURTISS HAWK P-6E WING SPAN 16"**  
Legendary U.S. Army Air Force fighter of the fabulous 1930's, these glamorous planes were actually squadron-painted to resemble a hawk. This faithful replica **DROPS BOMBS** in duet automatically with simple mechanism.



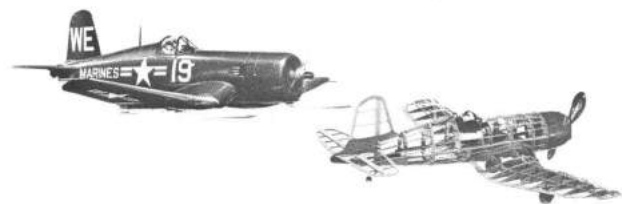
**KIT A11 CESSNA 180 WING SPAN 17"**  
This beautiful and versatile 4-passenger personal aircraft is adapted for use as a cloud seeder to produce rain! This model in perfect scale **SEEDS CLOUDS** dramatically, with amazing likeness.



**KIT A12 L-19 BIRD DOG WING SPAN 17"**  
This remarkable airplane was the U.S. Army's "jeep with wings" in Korea. Used originally for artillery spotting. Model **DROPS PROPAGANDA LEAFLETS** in flight.



**KIT A-13 P-51D MUSTANG WING SPAN 24"**  
Tough, fast and highly maneuverable, the Mustang was one of the greatest allied fighter-bombers of World War II, **DROPS TWO BOMBS**—simultaneously, in flight.



**KIT A-14 F4U-5 CORSAIR WING SPAN 24"**  
Navy and Marine pilots flew this famous inverted gull wing fighter-bomber with devastating success in World War II. Our faithful replica offers uncanny **MULTIPLE** action. **SIX ROCKETS**, three under each wing, **FIRED IN FLIGHT**—two at a time—**AUTOMATICALLY**.



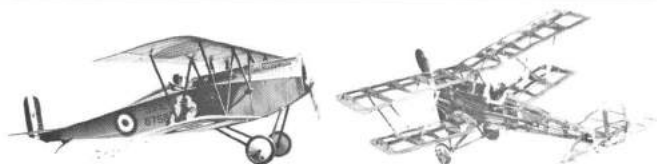
**KIT A-15 ZERO WING SPAN 24"**  
Britain had her Spitfire: Japan had the deadly Zero. A formidable fighter, the Mitsubishi A6M3 "HAMP" was feared before and after Pearl Harbor. **RELEASES BELLY TANK**—with dramatic realism—in flight.



**KIT A-16 FOKKER D-8 WING SPAN 21"**  
Achtung! The dread "Flying Razor" of World War I comes alive again. In its day, the Fokker D-8 was the most advanced and efficient fighting aircraft. Automatically **UNLEASHES** twin **BOMBS** while in flight.



**KIT A-17 S. E. 5a WING SPAN 22"**  
During World War I, this fighting scout of the Royal Air Force wreaked havoc on the top fighters of the Imperial German Air Force. This great bi-plane was also used to knock out enemy airfields and rail centers. Our authentic scale model **DROPS** its twin **BOMBS** automatically, in flight.



**KIT A-18 ANSALDO S.V.A.5 WING SPAN 19"**  
The mainstay of the Italian Air Force until the end of the first World War was this long range scout-fighter. The Ansaldo S.V.A.5 was also used for propaganda purposes. Our model **DROPS LEAFLETS** just like its real-life counterpart did, automatically in flight.

Individual Parts For All Kits  
May Be Purchased Separately.  
Write To Factory Directly.



# Action In Flight

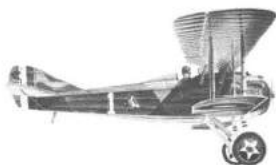
## "Stick" Model Kits



**KIT A-19** **SPITFIRE Mk 1** **WING SPAN 24"**  
One of the truly great fighters of World War II, The Spitfire was the backbone of the R.A.F. Fighter Command ... and the mainstay of the Battle of Britain. Our authentic scale model drops two bombs simultaneously ... in flight!



**KIT A-20** **FOCKE-WULF 190** **WING SPAN 24"**  
The Luftwaffe's most formidable fighter for much of World War II. Remarkably manoeuvrable, with instant response, the 190 marked a milestone in fighter design. Our faithful flying replica automatically drops bomb in flight!



**KIT A-21** **SPAD XIII** **WING SPAN 24"**  
The fabled French Fighter of countless World War I dog fights. A favorite of the A.E.F. the glorious exploits of the legendary Spad are inscribed forever in the annals of fighter aircraft history. Our model in perfect scale drops two bombs ... automatically ... in flight!



**KIT A-22** **PIPER CUB J-3** **WING SPAN 30"**  
The most famous and widely-seen light plane in the U.S.A., the Piper Cub holds a unique place in aviation history. Held in high esteem by the untold thousands who learned to fly in the Cub, it also served as Crop Duster, Ambulance and even did some artillery spotting in World War II. Our model is authentic and a beautiful flyer.



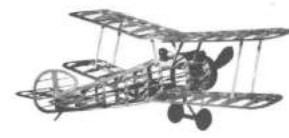
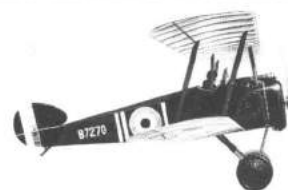
**KIT A-23** **FOKKER EINDECKER E-111** **WING SPAN 25"**  
Forerunner of the famous line of World War I Fokker fighters, the Eindecker was the first to use machine guns synchronized to fire through the propeller. Flown by Oswald Boelcke and Mac Immelman and many other German aces. Simple lines and large wing makes this authentic beauty an excellent flyer.



**KIT A-24** **HAL KRIER'S GREAT LAKE SPECIAL** **WING SPAN 24"**  
This fabulous biplane of the Golden Thirties was rebuilt by the Krier Brothers for barnstorming and aerobatics. With a 185 hp engine and a flashy paint job, Hal Krier proceeded to win everything in sight including the Champion of Champions Trophy. Our model is as beautiful in the air as on the shelf.



**KIT A-25** **AERONCA C-3** **WING SPAN 36"**  
This marvelous airplane trained many thousands of pilots in the early 30's. It is especially dear to the hearts of all scale model builders because it is so well suited to great model flying with its large wing and tail, and low center gravity.



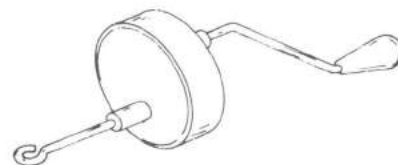
**KIT A-26** **SOPWITH CAMEL** **WING SPAN 24"**  
This is the "super-famous" fighter which constantly flies over the front lines looking for the "Red Baron." Our kit is an authentic reproduction of this classic World War I bi-plane; and an excellent flyer.



**KIT A-27** **SCHWEIZER 2-32** **WING SPAN 42 3/4"**  
A truly magnificent 42 3/4" reproduction of the Schweizer 2-32 sailplane. With the tremendous popularity of sailplane flying today, the Schweizer is a must for every modeler. Faithfully reproduced, the flight performance of this giant 42 3/4" beauty is truly amazing. It performs like a real competition tow-line glider.

### Rubber Power Model Accessories

Red Tissue	6" Prop
Yellow Tissue	7" Prop
Blue Tissue	7 3/4" Prop
Green Tissue	8 1/4" Prop
White Tissue	9 1/2" Prop
Orange Tissue	1/30" Rubber
3 1/2" Prop	1/16" Rubber
4" Prop	1/8" Rubber
4 3/4" Prop	1/4" Rubber



Winder for Rubber Powered Models Molded Nylon - Gear Ratio 5 to 1

Individual Parts For All Kits  
May Be Purchased Separately.  
Write To Factory Directly.

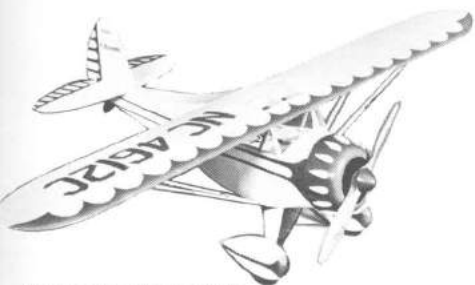


# Control Line Scale Model Kits

Real beauties are these Control Line Scale model kits. Prefabricated of the finest material they contain top quality Balsa Wood which has been density selected and sanded to micrometer tolerance, cleanly die cut for accurate trouble free assembly.

Many shaped parts — Plywood — Hardwood — Formed Landing Gear—Authentic Decals—Hardware—Cowlings and much more . . . All designed for your building and flying pleasure..

Popular Sport Plane of the "thirties"



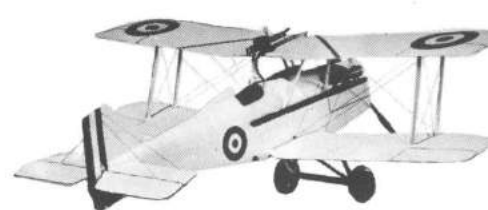
**Kit C-1 MONOCOUE**  
Wingspan 36" Engines .19 to .35

"Golden Era" Cabin Biplane



**Kit C-4 WACO**  
Wingspan 33" Engines .19 to .35

Best Royal Airforce W.W. 1 Fighter



**Kit C-6 SE5**  
Wingspan 32" Engines .19 to .35

Best Imperial German W.W. 1 Fighter



**Kit C-8 FOKKER D-V11**  
Wingspan 32 1/2" Engines .19 to .35

Famous Gull Wing W.W. 2 Fighter



**Kit C-9 CORSAIR F4U-1**  
Wingspan 36" Engines .19 to .60

Capt. Eddie Rickenbackers W.W. 1 Fighter



**Kit C-10 NIEUPORT 28**  
Wingspan 33" Engines .19 to .35

Most used military training Airplane of W.W. 2



**Kit C-12 STEARMAN PT-17**  
Wingspan 32 1/2" Engines .19 to .35

A true classic of the "Golden Thirties"



**Kit C-13 GREAT LAKES TRAINER**  
Wingspan 36" Engines .19 to .35

A Great Selection For  
Your Model Library  
Secrets of Model Airplane  
Building  
Secrets of Control Line  
And Carrier Flying

## STERL-X

Leading Economy Fuel Line

For your protection in buying — the brand name "Sterl-X"

Look for it! Operating temperature without loss of qualities from — 16° F. to 175° F.

Large: 1/8" I.D. x 1/4" O.D.  
Regular: 3/32" I.D. x 3/16" O.D.  
Small: 1/16" I.D. x 1/8" O.D.



Finest gas model wet strength silkspan tissue in rolls at your dealer.



**LIL BEAVER  
ELECTRIC MOTOR  
LB-139**

DESIGNED FOR PEAK PERFORMANCE! INSTALLS EASILY ANYWHERE!

Powers anything . . . Boats, cars, ferris wheels, etc. 1001 uses. Limited only by your imagination. 1 1/2 to 6 volts.

Winners of  
innumerable trophies  
the world over

**CAUTION:**

Do not fly control line  
models in the vicinity of  
electric power lines!

# Operating Power Model Boat Kits

Here is the ultimate realization of every boat builder's dream! Each model is the result of long, painstaking engineering to reproduce exact miniatures of the world's most luxurious vessels, working from original factory drawings. Faithful reproduction is carried to the point of identical usage of mahogany plywood and veneers throughout. All balsa, plywood and mahogany parts are accurately die-cut, embossed and shaped wherever necessary, and construction is internotched so that each master-

piece model "falls together" with amazing ease. Plans include step-by-step illustrations and instructions, with completely detailed power installation for gas engines, electric motors and radio control. The authentic scale cast metal fitting sets which must be purchased separately are specifically made for each model, to create a fabulous reproduction which is equally at home on the mantelpiece or in action in the water.

A medium size Cabin Cruiser, sleeps four



**Kit B-6M CHRIS CRAFT 32' CRUISER**  
Length 28" Beam 9 1/4" B6F Fitting Set at Additional Cost

Smooth and Sleek is this "Cat"



**Kit B-7M CHRIS CRAFT 50' CATALINA**  
Length 31 1/4" Beam 8 3/8" B7F Fitting set at additional Cost

All mahogany Runabout a smooth performance



**Kit B-8M CENTURY SEA MAID "20"**  
Length 27" Beam 9 1/4" B8F Fitting set at Additional Cost

True Luxury in the Yacht, and our model too!



**Kit B-11M CHRIS CRAFT 63' MOTOR YACHT**  
Length 40" Beam 10 1/4" B11F Fitting Set at Additional Cost

A real giant of a kit. Authentic and excellent in the water



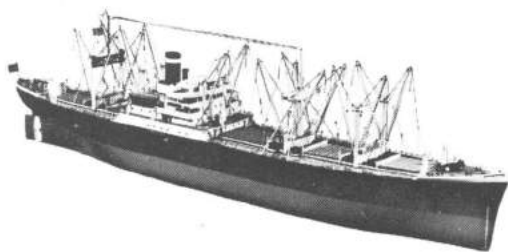
**Kit B-15M CHRIS CRAFT 42' CORVETTE**  
Length 48" Beam 14" B15F Fitting Set at Additional Cost

Authentic Model of the Big Mo. Simple assembly



**Kit B17M BATTLESHIP U.S.S. MISSOURI**  
Length 55 1/2" Beam 6 3/4" B17F Fitting Set at Additional Cost

A Freighter in miniature — Just like the Big One



**Kit B-18M AMERICAN SCOUT FREIGHTER**  
Length 50" Beam 7" B18F Fitting set at Additional Cost

Simple structure,  
Fine Performance in the water



**Kit B-20M CALTEX LUMBA LUMBA**  
Length 38 1/4" Beam 8" B20F Fitting Set at Additional Cost

## 1/2 A GAS MARINE DRIVE

Includes Universal, Flywheel, Rudder Shaft, Stuffing Box, Rudder post, Rudder stuffing box, Nylon propeller.

## A or BC GAS MARINE DRIVE

For 3/16 or 1/4 engine shaft, includes Universal, Flywheel, Rudder, Shaft, Stuffing box, Rudder stuffing box, Rudder post, Nylon propeller.

## ELECTRIC MARINE DRIVE

Includes Universal, Small & Large Rudder, Shaft, Stuffing box, Rudder post, Rudder stuffing box, Nylon propeller.

## MARINE FITTINGS

## FITTINGS ARE ALSO AVAILABLE BOXED, INDIVIDUALLY

1/2A Universal  
1/2A Flywheel  
1/2A Shaft & Stuffing Box

A or BC Universal Either  
A or BC Flywheel Either  
A or BC Shaft & Stuffing Box  
1" Dia. Left Hand Nylon Prop  
1 3/8" Dia. Left Hand Nylon Prop  
1 3/8" Dia. Right Hand Nylon Prop  
2" Dia. Left Hand Nylon Prop  
2" Dia. Right Hand Nylon Prop

# Our Operating Sail Boat Fleet



Winner of the  
America's Cup

## Kit B-22M SCHOONER YACHT AMERICA

Length 51½" Beam 8½" Height 41"  
Operates Rudder only to full house with Sails  
and Rudder . . . Scale Fittings included.

## Fine Beginners Sailboat Kit



## Kit B-19 SKIPPY SAILBOAT

Length 12" Height 18"  
Leaded Keel, Rudder, Sails and fittings included.

A true classic,  
see Emma at  
Mystic, Conn.



## Kit B-21M SCHOONER EMMA C. BERRY

Length 49½" Beam 10¾" Height 40"  
Operates Rudder only to full house with Sails  
and Rudder . . . Scale Fittings included.

Plastic Hull  
Plywood Printed-Plank Deck  
Mahogany Cabin  
Cloth Sails

Metal Fittings  
Keel With Lead Ballast  
Ect  
Free Sailing or R/C



## Kit B-23 SAIL FISH

Height 32½" Length 24" Beam 5"

Plastic Hull  
Plywood Printed-Plank Deck  
Mahogany Cabin  
Cloth Sails

Metal Fittings  
Keel With Lead Ballast  
Ect  
Free Sailing or R/C



## Kit B-24 KING FISH

Height 43" Length 34" Beam 6¼"

Plastic Hull  
Plywood Printed-Plank Deck  
Mahogany Cabin  
Cloth Sails

Metal Fittings  
Keel With Lead Ballast  
Ect  
Free Sailing



## Kit B-25 STAR FISH

Height 20¾" Length 14¾" Beam 3½"



Plastic Hull and Cabin  
Plywood Deck  
Prop Safety Guard  
R/C or Tether

## Kit B-26 PUDDLE JUMPER (amphibian)

Length 18½" Beam 7½" Engines .049  
Operates on land and water — free or R/C

Plastic Hull and Cabin  
Plywood Deck

Prop Safety guard  
R/C or Tether



## Kit B-27 MkII PUDDLE JUMPER

Length 30" Beam 11" Engines .15 to .35  
Operates on land and water — free or R/C

Plastic Hull  
Plywood Printed-Plank Deck

Metal Fittings  
Free Running or R/C



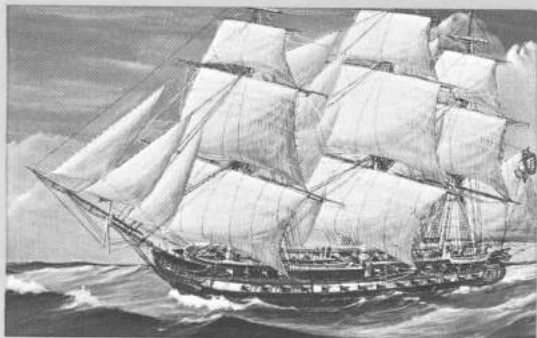
## Kit B-28 "KRIS KRAF"

Length 19" Beam 6¾"  
.049 Engine or Electric Motor

Individual Parts For All Kits  
May Be Purchased Separately.  
Write To Factory Directly.

**Sterling**  
MODELS  
INC.  
PHILA. PA. 19134 U.S.A.

# Historic Masterpiece Wood Ship Model Kits.

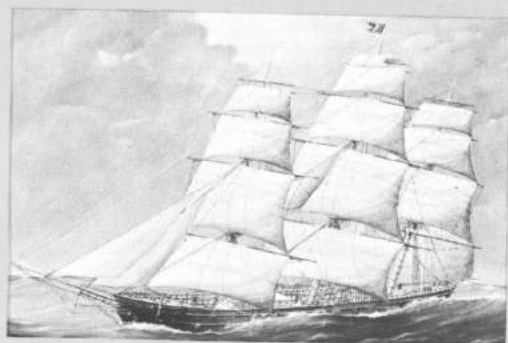


Kit D-1 U.S.S. CONSTITUTION Length 24 1/2"

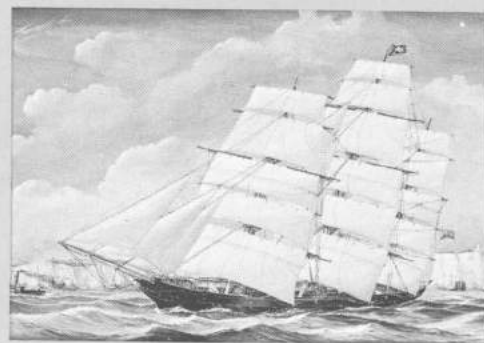
Our historic shelf model clipper ships are truly masterpieces worthy of a place in any museum yet are surprisingly easy to build. Step-by-Step plans in assembly and rigging unerringly guide you thru hours of pleasure. And the hard work is left in our plant: Hulls are machine carved from pattern grade (or similar) pine, sawed in planking grooves, mast and yards come all ready tapered, 3 sizes of rigging cord, fine plywood for other wood parts, single and double blocks, literally hundreds of beautifully cast metal fittings, Brass chain, Mahogany Base and mounting pedestals, and so much more. Kits D1 to D5 feature the rigging as ships looked when they were in port, therefore no sails are provided. Kits are complete except for cement and paint.



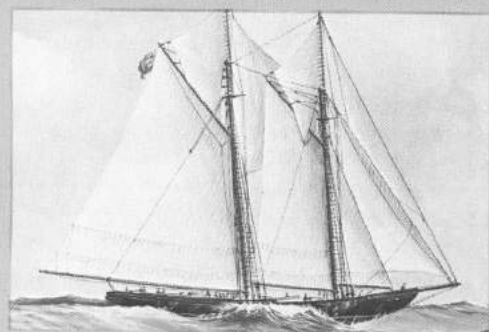
Kit D-2 SOVEREIGN OF THE SEAS Length 22 1/2"



Kit D-4 FLYING CLOUD Length 26"

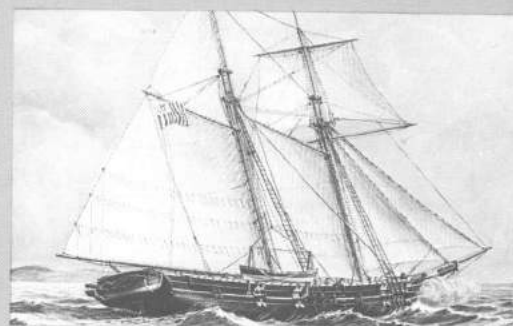


Kit D-5 CUTTY SARK Length 23 1/4"



Kit D-6 BLUENOSE Length 16 1/2"

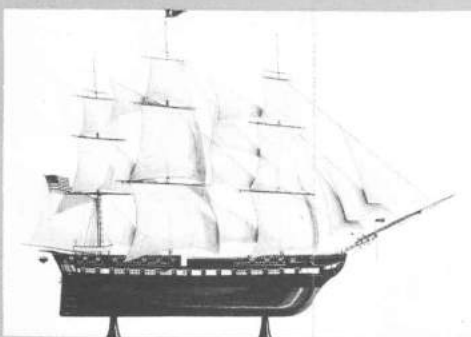
Although somewhat smaller than the kits above, they are exquisitely detailed and contain printed cloth sails, Hulls are machine carved from pattern grade pine (or similar). Tapered Masts and Yards, 2 colors and sizes of rigging cord. Authentic Decals and flags, mahogany base and mounting pedestals, easy to follow step-by-step illustrated plan for both assembly and rigging, chain, Hardwood Parts and everything necessary except for cement and paint.



Kit D-7 U.S.S. HAMILTON Length 14"



Kit D-8 SLOOP FERRET Length 15 1/2"



Kit D-9 U.S.S. CONSTITUTION Length 14 1/2"



Kit D-10 GAZELA PRIMIERO Length 13 3/4"

*The Great Age of Sail . . . Lives Again  
in these Authentic Scale Model Kits*



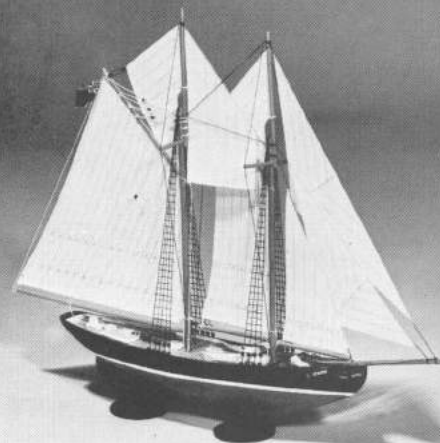
**SPANISH  
GALLEON**

KIT G1 — Length 10"



**USS FRIGATE  
CONSTITUTION**

KIT G2 — Length 11"



**SCHOONER  
BLUE NOSE**

KIT G3 — Length 11¼"



**H.M.S. BOUNTY**

KIT G4 — Length 10½"



**GOLDEN HIND**

KIT G5 — Length 9¾"



**PIRATE BRIG**

KIT G6 — Length 10½"



**EMMA C. BERRY**

KIT G-7 Length 10¾"



**CHARLES W. MORGAN**

KIT G-8 Length 10¾"



**U.S.C.G. EAGLE**

KIT G-9 Length 11¼"

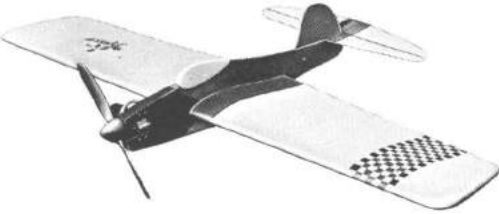
Individual Parts For All Kits  
May Be Purchased Separately.  
Write To Factory Directly.



# Control Line Stunt Model

Here they are . . . awaiting your selection. Every beauty tops in its field for stunt, combat or just plain "Sunday Flying." All are easy to build, completely prefabricated with accurately die cut and/

World's most popular profile control line model



**Kit S-1 RINGMASTER**

Wingspan 42" Engines .19 to .35

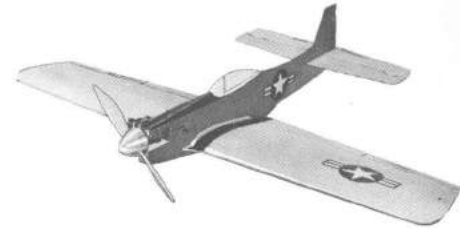
Advanced Construction Techniques of  
World Famous Ringmaster Design



**Kit S1A RINGMASTER**

Wingspan 42" Engines .19 to .35

World War 2 Fighter — Semi-Scale Profile



**Kit S-2 F-51 MUSTANG**

Wingspan 38" Engines .19 to .35

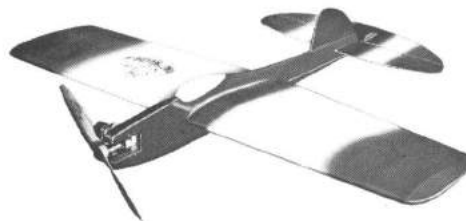
Russian Fighter W. W. 2 — Semi-Scale Profile



**Kit S-3 YAK-9**

Wingspan 40" Engines .19 to .35

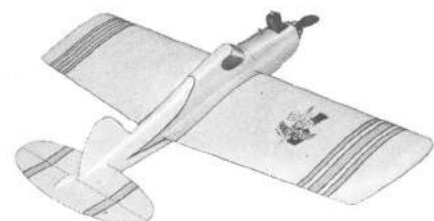
Medium size famous profile Ringmaster



**Kit S-5 RINGMASTER JR.**

Wingspan 30" Engines .09 to .19

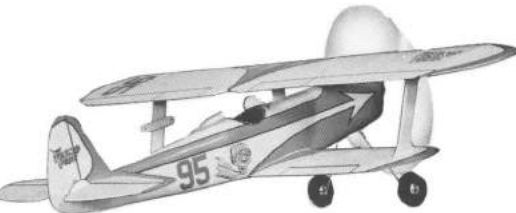
Full Fuselage Ringmaster



**Kit S-6 SUPER RINGMASTER**

Wingspan 42" Engines .19 to .35

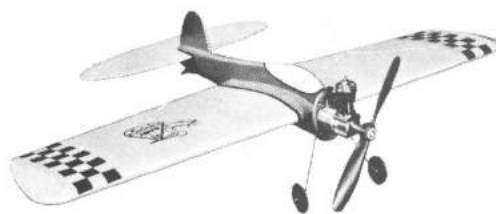
Snappy looking Biplane



**Kit S-12 FLYING FOOL**

Wingspan 34" Engines .19 to .35

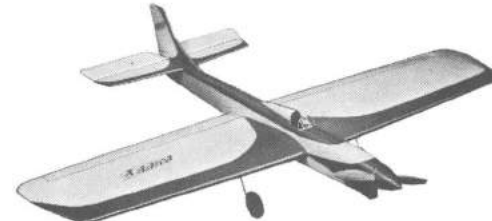
Small size famous Profile Ringmaster



**Kit S-13 BABY RINGMASTER**

Wingspan 21" Engines .020 to .049

High Performance Contest Stunt Plane



**Kit S-15 RUFFY**

Wingspan 50" Engines .29 to .35

World War 2 Fighter — Semi-Scale Stunt



**Kit S-19 SPITFIRE**

Wingspan 52 1/2" Engines .29 to .35

Realistic Ringmaster as Sport Plane



**Kit S-22 RINGMASTER SPORTSTER**

Wingspan 38" Engines .19 to .35

Top performing Contest Stunt Plane



**Kit S-27 SKYLARK**

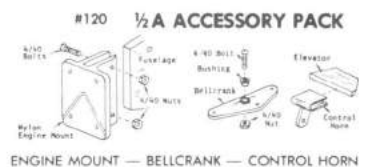
Wingspan 52 1/2" For .35 Engines



PROFESSIONAL SECRETS OF  
MODEL AIRPLANE BUILDING



PROFESSIONAL SECRETS OF  
CONTROL LINE AND CARRIER FLYING



ENGINE MOUNT — BELLCRANK — CONTROL HORN

**CAUTION:**

Do not fly control line models in the vicinity of electric power lines!

# Kits Semi Scale and Original

or shaped parts. Sterling's finest materials and workmanship goes into these models . . . and you will have the time of your life flying any of them in only a few hours.



**Kit S-30 BEGINNER'S RINGMASTER**  
Wingspan 21" For .049 Engines  
All Balsa Beginner's Profile — 6 Wood Parts



**Kit S-31 BEGINNER'S MUSTANG**  
Wingspan 21" For .049 Engines  
All Balsa Beginner's Profile — 11 Wood Parts  
—Semi-Scale W. W. 2



**BEGINNER'S RINGMASTER BIPE**  
Wingspan 21" For .049 Engines  
All Balsa Beginner's Profile — 16 Wood Parts



**Kit S-34 BEGINNER'S SPITFIRE**  
Wingspan 20½" For .049 Engines  
All Balsa Beginner's Profile — 7 Wood Parts  
— Semi-Scale W. W. 2



**Kit S-35 BEGINNER'S THUNDERJET**  
Wingspan 20½" For .049 Engines  
All Balsa Beginner's Profile — 9 Wood Parts  
—Semi-Scale Korean War



**Kit S-36 BEGINNER'S SUPER CUB**  
Wingspan 20½" For .049 Engines  
All Balsa Beginner's Profile—  
7 Wood Parts — Semi-Scale Sport



**Kit S-37 BEGINNER'S EINDECKER**  
Wingspan 20½" For .049 Engines  
All Balsa Beginners Profile —  
7 Wood Parts — Semi-Scale W. W. 1



**Kit S-38 BEGINNER'S SHOESTRING**  
Wingspan 20½" For .049 Engines  
All Balsa Beginners Profile —  
7 Woods Parts — Semi-Scale Racer



**Kit S-39 BEGINNER'S THUNDERBOLT**  
Wingspan 20½" For .049 Engines  
All Balsa Beginner's Profile —  
Wood Parts — Semi-Scale W. W. 2



**Kit S-40 BEGINNER'S CHEROKEE**  
Wingspan 20½" For .049 Engines  
All Balsa Beginner's Profile —  
9 Wood Parts — Semi-Scale Sport



**Kit S-41 BEGINNER'S FOKKER D-VII**  
Wingspan 20½" For .049 Engines  
All Balsa Beginners Profile  
Semi-Scale W. W. 1



**Kit S-42 BEGINNER'S HELLCAT**  
Wingspan 20½" For .049 Engines  
All Balsa Beginner's Profile —  
7 Wood Parts — Semi-Scale W. W. 2



**Kit S-43 BEGINNER'S FOCKE-WULF**  
Wingspan 20½" For .049 Engines  
All Balsa Beginners Profile —  
8 Wood Parts — Semi-Scale W. W. 2



**Kit S-44 BEGINNER'S ZERO**  
Wingspan 20½" for .049 Engines  
All Balsa Beginner's Profile —  
10 Wood Parts — Semi-Scale W. W. 2



**Kit S-45 BEGINNER'S MESSERSCHMITT**  
Wingspan 20½" for .049 Engines  
All Balsa Beginners Profile —  
8 Wood Parts — Semi-Scale W. W. 2



**Kit S-46 HELLCAT**  
Wingspan 42" Engines .19 to .35  
World War 2 Pacific Fighter  
Semi-Scale Profile



**Kit S-47 VIPER**  
Wingspan 24" for .049 Engines  
Full Fuselage ½ A Stunt

# Rubber Powered — Flying — Models of Real Aircraft

## STERLING MODELS Presents: kits THAT MAKE model builders!

Seven beautiful new designs kitted to the needs of those who never built a model. Learn to build and fly all of the models . . . An absolute pleasure for the experienced model builder . . . Be the pro in your neighborhood . . . Teach someone to be a model builder!

21" Wingspans



Kit K-1 Aeronca Champion



Kit K-2 Sonic Turtle



Kit K-3 Luscombe Sedan



Kit K-4 Cessna 170



Kit K-5 Taylorcraft



Kit K-6 Real Sporty



**K-7 PIPER VAGABOND**  
Rubber or Gas Engine Power  
For Free Flight, R/C or C/L

Rubber Power

## PEANUT SCALE MODELS

13" Wingspans



**Kit P-1 BUILDS SE5A AND FOKKER D8**  
Classic Fighters of W. W. I



**Kit P-2 BUILDS MONOCOUCPE AND CITABRIA**  
Classic and Modern High Wing Cabin Models



**Kit P-3 BUILDS WACO SRE AND CADET**  
Favorite Sport Planes of Modeler's Everywhere



**Kit P-4 BUILDS CORSAIR AND ZERO**  
Classic Fighters of W. W. II



**KIT P5 BUILDS TAYLORCRAFT & STEARMAN PT-17**



**KIT P-6 BUILDS JENNY & SPIRIT OF ST. LOUIS**  
World Famous Classics

# REAL SPORTY

for R/C and C/L Flying



The sensational and truly beautiful Real Sporty, a Stand-off Scale Model of the record holder Formula 1 Pylon Racer "Real Sporty", can be flown Control Line or Full House Radio Control. Don't let the sleek appearance make you feel as though only the hot shots can handle this little beauty, IT CAN BE USED AS A REAL SPORT FLYER WITH A MILD ENGINE, or as a pylon racer (it meets all specs for 1/4 midget) with the hot racing engines. The kit comes complete with vacuum formed canopy, cowl and wheel pants.

Kit FS-38

Wingspan: 40<sup>5</sup>/<sub>16</sub>"

Scale: 2<sup>1</sup>/<sub>8</sub>" = 1 ft.

For .15 to .25 Engines

**\$45.95**



# PIPER VAGABOND

For Rubber Power or Gas Engines—Free Flight, R/C or C/L

Kit K-7

Wingspan: 33"

For .049-.051 Engines



**\$24.95**

The "Kid Series", have a big brother, K7 - Piper Vagabond! This all Balsa Scale Model of Pipers inexpensive two place private airplane, is simple to build and is a perfect step up in our "Kid Series" models. Supplied with Rubber Motor, Prop, Colored Tissue and a colorful Decal, the Vagabond is a real eye catcher. Flies well with .049 engine on Control Line and is a real natural for Radio Control, (up to three channel), with the new miniature radio sets.



# PENNY PINCHERS



Scale Type Balsa Glider Hobby Kits

With 13" Wingspans



**\$1.98** each

CHOOSE ANY ONE OR ALL SIX

GET IN ON ALL THE FUN WITH  
ANY OF THESE NEAT FULL COLOR  
GLIDERS YOU CAN ASSEMBLE IN  
JUST MINUTES.

Recommended for Ages 6 to Adult



Balsa Wood Model Airplanes, that will give you the fun of building and flying or you can hang them in the den, work shop or any room in the house. Brighten up your life with these beautiful little airplanes. The only thing you'll need to build any of the six Full Color Scale like Gliders is your 2¢ pinched in the nose for weight, no glue required. You'll have fun pinching pennies this year. Put yours to work in our Penny Pinchers.

# STERLING MODELS INC.

PRICES EFFECTIVE SEPTEMBER 15, 1983



SPITFIRE



FLYING FOOL



RINGMASTER

## 'S' SERIES-STUNT MODEL AIRPLANE KITS C/L

Kit S1	Ringmaster	Span 42"	Engines .19 to .35	21.95
Kit S1A	New Ringmaster	Span 42"	Engines .19 to .35	23.95
Kit S2	F-51 Mustang	Span 38"	Engines .19 to .35	23.95
Kit S3	Yak-9	Span 40"	Engines .19 to .35	21.95
Kit S5	Ringmaster, Jr.	Span 30"	Engines .09 to .19	15.95
Kit S6	Super Ringmaster	Span 42"	Engines .19 to .35	26.95
Kit S12	Flying Fool	Span 34"	Engines .19 to .35	23.95
Kit S13	Baby Ringmaster	Span 21"	Engines .020 or .049	11.35
Kit S15	Ruffy	Span 50"	Engines .29 or .35	36.95
Kit S19	Spitfire	Span 52 1/2"	Engines .29 to .35	41.95
Kit S30	Beginners Ringmaster	Span 21"	Engine .049	8.95
Kit S31	Beginners Mustang	Span 21"	Engine .049	8.95
Kit S32	Beginners Ring, Biplane	Span 21"	Engine .049	9.95
Kit S34	Beginners Spitfire	Span 20 1/2"	Engine .049	8.95
Kit S35	Beginners Thunder Jet	Span 21"	Engine .049	8.95
Kit S36	Beginners Piper Cub	Span 21"	Engine .049	8.95
Kit S37	Beginners Edecker	Span 21"	Engine .049	8.95
Kit S38	Beginners Shoestring	Span 21"	Engine .049	8.95
Kit S39	Beginners Thunderbolt	Span 21"	Engine .049	8.95
Kit S40	Beginners Cherokee	Span 21"	Engine .049	8.95
Kit S41	Beginners Fokker D-7	Span 20 1/2"	Engine .049	9.95
Kit S42	Beginners Helicat	Span 20 1/2"	Engine .049	8.95
Kit S43	Beginners Focke-Wolf	Span 20 1/2"	Engine .049	8.95
Kit S44	Beginners Zero	Span 20 1/2"	Engine .049	8.95
Kit S45	Beginners Messerschmitt	Span 20 1/2"	Engine .049	8.95
Kit S46	Helicat	Span 42"	Engines .19 to .35	31.95
Kit S47	Viper	Span 24"	Engine .049	14.95



WACO



CORSAIR

## 'C' SERIES-SCALE MODEL AIRPLANE KITS C/L

Kit C4	The Waco	Span 33"	Engines .19 to .35	27.95
Kit C6	S.E. 5	Span 32"	Engines .19 to .35	27.95
Kit C8	Fokker D-7	Span 32 1/2"	Engines .19 to .35	27.95
Kit C9	Corsair F4U-1	Span 36"	Engines .19 to .35	31.95
Kit C10	Nieuport '28'	Span 33"	Engines .19 to .35	27.95
Kit C12	Stearman PT-17	Span 32 1/2"	Engines .19 to .35	31.95
Kit C13	Great Lakes	Span 36"	Engines .19 to .35	31.95



## 'FS' SERIES-SCALE MODEL PLANE KITS R/C, F/F and C/L

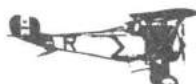
Kit FS1	Piper Tri-Pacer	Span 58 1/2"	Engines .09 to .35	51.95
Kit FS2	Cessna '180'	Span 45"	Engines .09 to .35	34.95
Kit FS6	Piper Cub J-3	Span 54"	Engines .09 to .35	38.95
Kit FS20	Stearman PT-17 RC	Span 64 1/2"	Engines .56 to .65	134.95
Kit FS21	Fokker D-7 RC	Span 58 1/2"	Engine .45 to .65	134.95
Kit FS22	S.E. 5a-RC	Span 40 1/2"	Engine .19 to .29	69.95
Kit FS25	Lancer	Span 53 1/2"	Engine .35 to .51	56.95
Kit FS26	Schweizer 1-34	Span 98 1/2"		63.95
Kit FS28	Schweizer 1-26D	Span 70"		51.95
Kit FS29	Fledgling	Span 56"	Engine .23 to .40	56.95
Kit FS30	Lancer SL-62	Span 62"	Engine .60	72.95
Kit FS31	Citabria R/C	Span 54"	Engine .23 to .35	59.95
Kit FS32	Gazariator R/C	Span 68"	Engine .50 to .61	79.95
Kit FS33	Stinson Reliant	Span 57 1/2"	Engine .40 to .56	82.95
Kit FS34	Waco SRE R/C	Span 56 1/2"	Engine .40 to .61	91.95
Kit FS35	Mini Fledgling	Span 40"	Engine .049 to .051	31.95
Kit FS36	Corsair F4U-1A	Span 36"	Engine .049 to .10	39.95
Kit FS37	Piper Tri-Pacer	Span 44"	Engine .049 to .10	37.95
Kit FS38	Real Sporty R/C	Span 40 1/16"	Engine .15 to .25	45.95

## 'A' SERIES-RUBBER POWERED SCALE MODELS

Kit A1	Fokker D-7	Span 24"	13.95
Kit A2	Stearman Duster	Span 20"	12.95
Kit A3	Beach Bonanza	Span 22"	10.95
Kit A4	Thunderbolt P47	Span 22"	10.95
Kit A5	Nieuport 17	Span 24"	12.95
Kit A6	Stuka Dive Bomber	Span 20"	10.95
Kit A7	Piper Super Cub	Span 18"	7.95
Kit A8	Messerschmitt	Span 17"	7.95
Kit A9	Texan AT-6	Span 18"	8.95
Kit A10	Curtiss Hawk P6-E	Span 16"	8.95
Kit A11	Cessna 180	Span 17"	7.95
Kit A12	Bird Dog L-19	Span 17"	7.95
Kit A13	P51 Mustang	Span 24"	13.95
Kit A14	F4U-5 Corsair	Span 24"	14.95
Kit A15	Zero	Span 24"	13.95
Kit A16	Fokker D-8	Span 21"	9.95
Kit A17	S.E. 5a	Span 22"	12.95
Kit A18	Ansald	Span 19"	8.95
Kit A19	Spitfire MK-1	Span 24"	12.95
Kit A20	Focke Wulf-190	Span 24"	12.95
Kit A21	Spad XIII-C	Span 24"	14.95
Kit A22	Piper Cub J-3	Span 30"	12.95
Kit A23	Edecker E-3	Span 25"	10.95
Kit A24	Great Lakes Special	Span 24"	13.95
Kit A25	Aeronca C-3	Span 36"	12.95
Kit A26	Sopwith Camel	Span 24"	13.95
Kit A27	Schweizer 2-32	Span 42 1/2"	9.95



STEARMAN PT-17  
CROP DUSTER



NIEUPORT-17



STUKA DIVE BOMBER

## 'E' SERIES-'6-WAY' MODEL AIRPLANE KITS

Kit E1	Curtis Jenny	Span 32 1/2"	19.95
Kit E2	Fokker Triplane	Span 23 1/2"	17.95
Kit E3	Diamant Sailplane	Span 74"	17.95
Kit E4	P-40 Warhawk	Span 27"	17.95
Kit E5	Citabria	Span 33 1/2"	17.95
Kit E6	Piper Super Cruiser	Span 35 1/2"	19.95
Kit E7	Cirrus Sailplane	Span 87 1/2"	26.95
Kit E8	Stinson Reliant	Span 31 1/2"	17.95
Kit E9	Albatros D-11A	Span 27 1/2"	19.95
Kit E10	P-26 'Peashooter'	Span 28"	19.95
Kit E11	B-17 G Flying Fortress	Span 38"	27.95
Kit E12	Ford Tri Motor	Span 34"	19.95
Kit E13	Tiger Moth	Span 33"	21.95
Kit E14	Piper Cherokee	Span 37 1/2"	26.95
Kit E15	Black Widow	Span 37 1/2"	27.95

## 'P' SERIES-RUBBER POWERED PEANUT SCALE MODELS

Kit P1	S.E. 5A & Fokker D-8	Span 13"	6.95
Kit P2	Monocoupe & Citabria	Span 13"	6.95
Kit P3	Waco S.R.E. & Cadet	Span 13"	6.95
Kit P4	Corsair/Zero	Span 13"	6.95
Kit P5	Stearman/Taylorcraft	Span 13"	6.95
Kit P6	Jenny/Spirit of St. Louis	Span 13"	6.95

## 'K' SERIES-RUBBER POWERED FLYING MODELS

Kit K1	Aeronca Champion	Span 21"	8.95
Kit K2	Sonic Turtle	Span 21"	8.95
Kit K3	Luscombe Sedan	Span 21"	8.95
Kit K4	Cessna 170	Span 21"	8.95
Kit K5	Taylorcraft	Span 21"	8.95
Kit K6	Real Sporty	Span 21"	8.95
Kit K7	Piper Vagabond	Span 33"	26.95

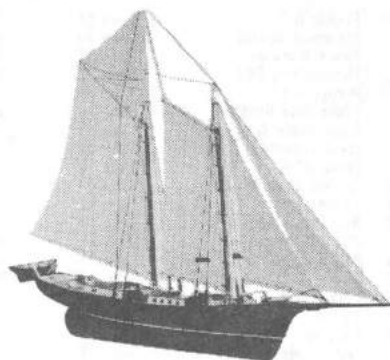
## ACCESSORIES FOR RUBBER POWER MODELS

Winder:	Nylon 5 to 1 Ratio	4.95
Tissue:	Red, Yellow, Blue, Green, Orange	
	White. 20" x 30" sheet	.25 ea.
Plastic Propellers:	3 1/2"	.25 ea.
	4"	.25 ea.
	4 1/4"	.30 ea.
	6"	.35 ea.
	7"	.45 ea.
	7 1/4"	.50 ea.
	8 1/4"	.50 ea.
	9 1/2"	.60 ea.
Contest Rubber:	1/30" sq.	680' spool 20.40
	1/30" x 1/16	425' spool 17.00
	1/30" x 1/8	423' spool 21.15
	1/30" x 1/4	210' spool 21.00

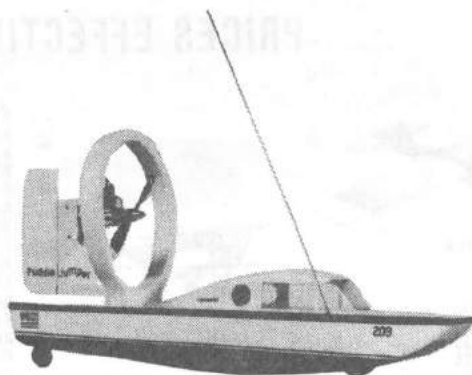
## R/C ACCESSORIES

100	# 6 Nylon Screws	\$ .50	110	Ny-Link and Rods	\$1.75
101	#10 Nylon Screws	.60	111	Large Control Horn	.60
102	1/4 x 1 Nylon Screws	.60	112	Nose Gear Mt.	.89
103	1/4 x 2 Nylon Screws	.79	113	Nose Gear	.89
104	Aileron Bellcranks	.65	114	Nose Gear Ass'm	1.95
105	Thrust Wedges	.65	115	Aileron Link	.95
106	Control Horns	.65	116	Maple L.G. Mount	.95
107	Retainers	.79	118	.09-.40 Eng. Mounts	1.95
108	Ny-Link Clevis	.89	119	.40-.60 Eng. Mounts	2.45
109	Pushrods	1.15	120	C/L Profile Acces.	.95





SCHOONER EMMA C. BERRY



SEA MAID



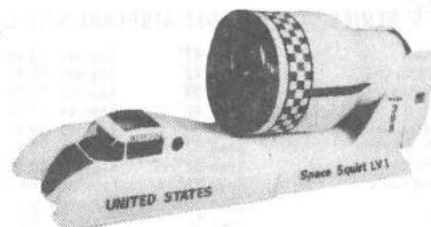
CATALINA



AMERICAN SCOUT



CALTEX LUMBA LUMBA



Kit LV 1 Space Squirt 19.95  
A 24" Land Vehicle .049 - .051 Engines

### 'H' SERIES-PENNY PINCHERS

Kit H1	Hellcat	Length 13"	1.49
Kit H2	Mustang	Length 13"	1.49
Kit H3	Piper Cub	Length 13"	1.49
Kit H4	Cessna 180	Length 13"	1.49
Kit H5	Sabre Jet	Length 13"	1.49
Kit H6	T38A Thunderbird	Length 13"	1.49

### 'B' SERIES-MODEL BOAT KITS

Kit B7M	Chris-Craft Catalina	Length 31 1/4"	51.95
B7F	Cat. Met. Fit. Set	66 Pieces	19.95
Kit B11M	Chris-Craft 63" Yacht	Length 40"	87.95
B11F	Yacht Met. Fit. Set	108 Pieces	26.95
Kit B15M	Chris-Craft Corvette	Length 48"	112.95
B15F	Corvette Met. Fit. Set	62 Pieces	29.95
Kit B17M	U.S.S. Missouri	Length 55 1/4"	74.95
B17F	'MO' Met. Fit. Set	115 Pieces	27.95
Kit B18M	American Scout	Length 50"	79.95
B18F	American Scout Fit. Set	339 Pieces	36.95
Kit B19	Skipper Sail Boat	Length 12"	11.95
Kit B20M	Lumba-Lumba	Length 38 1/4"	59.95
B20F	Lumba Fit. Set	38 Pieces	16.95
Kit B21M	Emma C. Berry	Length 49 1/2"	86.95
Kit B22M	Yacht America	Length 51 1/2"	81.35
Kit B23	Sailfish	Length 25"	26.95
Kit B24	Kingfish	Length 34"	44.95
Kit B25	Starfish	Length 14 1/2"	13.95
Kit B26	Puddle Jumper	Length 18 1/2"	26.95
Kit B27	Puddle Jumper Mark II	Length 30"	56.95
Kit B28	Beg. Boat 'Kris Kraf'	Length 19"	23.95
		Engine .15 to .35	56.95
		Engine .049 or Elec.	23.95

### MARINE DRIVE SETS AND FITTINGS

M90	Elec. Marine Drive	13.50	M99	BC Universal 1/4"	7.50
M91	1/4 Gas Mar. Drive	15.95	M100	BC Flywheel 1/4"	8.50
M92	A Gas Mar. Drive	16.95	M101	ABC Shaft & Stuf. Box	1.60
M93	BC Gas Mar. Drive	16.95	M102	1/4 Nylon Prop. 1"	1.25
M94	1/4 Universal 1/4"	4.95	M103	A Nylon Prop. 1 1/4" L.H.	1.95
M95	1/4 Flywheel 1/4"	4.95	M104	A Nylon Prop. 1 1/4" R.H.	1.95
M96	1/4 Shaft & Stuf. Box	1.60	M105	BC Nylon Prop. 2" L.H.	2.25
M97	A Universal 3/16"	6.95	M106	BC Nylon Prop. 2" R.H.	2.25
M98	A Flywheel 3/16"	8.50			

### 'D' SERIES FULL RIGGED DISPLAY BOAT KITS

Kit D1	U.S.S. Constitution	Length 24 1/2"	69.95
Kit D2	Sovereign of The Seas	Length 22 1/2"	67.95
Kit D4	Flying Cloud	Length 26"	74.95
Kit D6	Blue Nose	Length 16 1/2"	31.95
Kit D7	Cutter Hamilton	Length 14"	31.95
Kit D8	Sloop Ferret	Length 15 1/2"	31.95
Kit D9	U.S.S. Constitution	Length 14 1/2"	32.95
Kit D10	Gazela Primeiro	Length 14"	28.95

### 'G' SERIES-FULL RIGGED DISPLAY BOAT KITS

Kit G1	Spanish Galleon	Length 9 1/2"	7.95
Kit G2	U.S.S. Constitution	Length 11"	7.95
Kit G3	Schooner Blue Nose	Length 11"	7.95
Kit G4	HMS Bounty	Length 10 1/2"	7.95
Kit G5	Golden Hind	Length 9 1/2"	7.95
Kit G6	Pirate Brig	Length 10 1/2"	7.95
Kit G7	Emma C. Berry	Length 10 1/2"	7.95
Kit G8	Charles W. Morgan	Length 10 1/2"	7.95
Kit G9	Eagle	Length 11 1/4"	7.95



PROFESSIONAL SECRETS OF  
MODEL AIRPLANE BUILDING



PROFESSIONAL SECRETS OF CONTROL  
LINE AND CARRIER FLYING

### FUEL TUBING, MODEL SECRETS BOOK & SILKSPAN

T82	Steri-X Small 50'	per foot .15
T83	Steri-X Regular 50'	per foot .20
T84	Steri-X Large 50'	per foot .25
T88	Silkspan List	per sheet .35
T89	Model Secrets Booklet	.50
T81	Control Secrets Booklet	.50

### ELECTRIC MOTORS

LB-139	Lil Beaver	2.39
--------	------------	------

- Send \$1.50 for large, colorfully illustrated catalog.
- Send .75¢ for "Secrets of Model Airplane Building," on design and construction, covering and finishing, flying and adjusting, control system, engines and trouble shooting, etc.
- Send .75¢ for "Secrets of Control Line and Carrier Flying," on pre-flight, soloing, stunting. Carrier rules and regulations, Carrier flying hints and control line installation instruction.

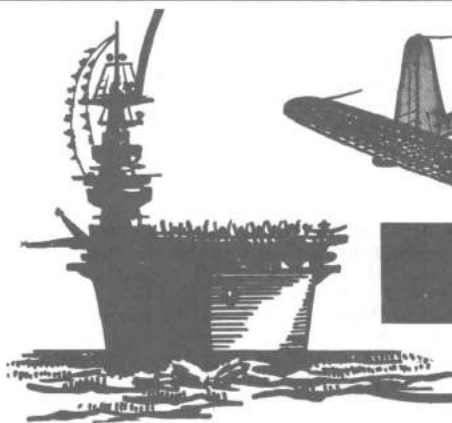
**NO CHECKS SEND CASH OR MONEY ORDER ONLY**

**PRICES SUBJECT TO CHANGE WITHOUT NOTICE**



**STERLING BUILDING**  
3620 'G' STREET  
PHILADELPHIA, PA. 19134

# SECRETS OF CONTROL LINE



## AND CARRIER FLYING



### TABLE OF CONTENTS

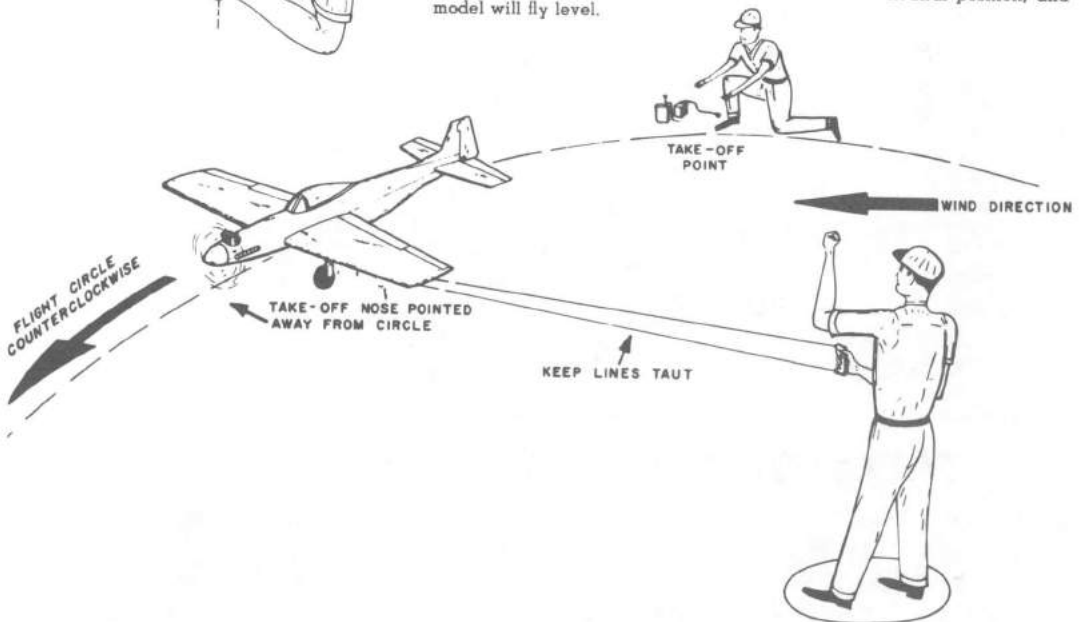
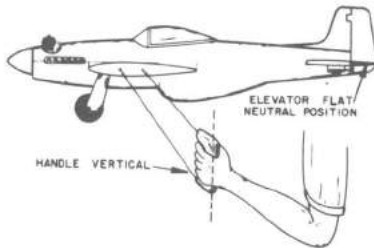
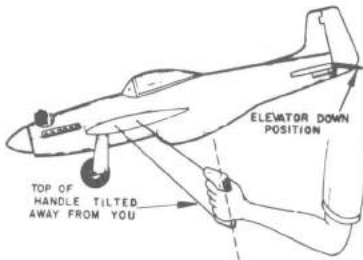
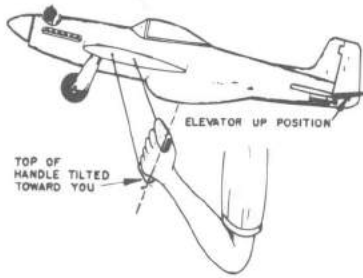
Beginner Pre-flight Instructions .....	Page 2
Making Your First Solo Flight .....	Page 2
Stunting and Basic Rules .....	Page 3
Stunt Flight Patterns - Learn How to	
Fly Eight Basic Stunts .....	Page 3
Official AMA Navy Carrier Regulations .....	Page 5
Carrier Flying for Sport and Competition .....	Page 7
Typical Control Line Installation .....	Page 8



## PRE-FLIGHT INSTRUCTIONS

Before attempting any flying, the beginner in control line flying must practice turning around counter-clockwise (model is flown in that direction) until he can accomplish this without becoming unduly dizzy. If you will practice turning around about 20 or 30 turns at a time, for a day or two, you will find that the dizziness subsides and you will be able to turn with the model and have yourself and the airplane under full control at all times. **THIS IS VERY IMPORTANT!** Dizziness may cause loss of control which will result in a severe crash. If at all possible, secure the help of an experienced control line flyer. **YOUR FIRST FLIGHT** should be made on a calm day. Do not fly on windy days since wind may blow airplane towards you causing lines to go slack. This will cause a crash since lines must be taut in order to maintain control. You will need a helper to fly your model. Since the lines of your model are long, the model will make a large

circle while flying. It would be best therefore, to secure a flying site which is level and free from all obstructions, such as school yard, parking lot, etc. **BE CERTAIN THERE ARE NO ELECTRIC WIRES OF ANY KIND ON FLYING SITE.** Mark off the center with a white cloth or something similar to be sure center is clearly visible at all times. With the flyer holding the handle, the helper should walk the model around the circle counter-clockwise with the lines fully extended to be certain of a clear flight path. Place the airplane so that the lines are fully extended with the handle in the center of the circle with any prevailing wind blowing from the rear as shown with arrow. Now walk from the model to the control handle with a line passing through each hand to be certain that lines are separated and not tangled. Carefully examine sketches showing how different positions of the handle make corresponding changes in the position of the elevator which controls your flying. Note that **ALL MOTIONS MUST BE MADE BY PIVOTING THE ELBOW AND NOT BENDING THE WRIST!** This will result in smooth flying and maneuvering. Test the control movement while your helper holds the airplane so that the lines are taut. Practice them so that you will become familiar and get used to the fact that your wrist remains rigid and all movement comes from pivoting at the elbow. Notice that when you tilt the handle up towards you, the top line (white) pulls the elevator up, which will cause the model to climb. When you tilt the handle away from you, the bottom line (red) pulls the elevator down, causing model to descend. When the handle is vertical, the elevator is in flat neutral position, and model will fly level.



## MAKING YOUR FIRST SOLO FLIGHT

Model is flown in counter-clockwise direction, taking off from the ground. Be certain any wind is behind airplane on take-off. After controls are checked out, stand on the marker in the center of the circle, and have helper start

the engine. When your engine is running properly, helper should point the nose of the airplane slightly away from the center of the circle, keeping lines taut. The flyer once more checks the lines, with helper, to be certain an up

movement of the arm results in the up-movement of the elevator, and vice versa. When flying, lines must always be taut. Slack lines will result in complete loss of control and a crash. If necessary, flyer should step back to keep lines taut. Upon the flyer's signal, the helper should simply release model. Do not push, as it may result in a crack-up. With the flyer holding the handle in neutral position, the model will take off smoothly from ground within a couple of feet and will climb of its own accord. To make the model climb higher, flyer simply pivots his arm slowly upward. To make the model descend, pivot arm slowly downward. Make all motions smoothly and plane will respond immediately without any tendency of jerkiness. Continue flying in a level position about 10 or 15 ft. high until the fuel supply is used up and the engine stops. The model will assume a

smooth glide path and start to descend. It may be necessary for the flyer to move backward slightly to keep the lines taut. When the model has descended to about 2 or 3 ft. from the ground, lift arm to give full up-control and your model will gracefully settle into a three point landing. When the model has stopped, the flyer should remain in position while the helper retrieves the airplane. Both men should now walk back to the circle keeping the lines taut so that they don't get tangled. Model should now be wiped free from oil and accumulated dust and dirt. **THIS FLYING PROCEDURE SHOULD BE FOLLOWED UNTIL FLYER BECOMES EXPERT IN LEVEL FLYING AS DESCRIBED.** At the end of the flying day, carefully wind lines. Drain gasoline from tank and cover engine with cloth to prevent dirt from entering.

## STUNTING

Stunting should not be attempted until level flight is completely mastered, and the flyer feels at home with his model. The various maneuvers described should be taken in the same order that they are written since one must learn to do certain basic movements before others are possible; much in the manner of crawling before one learns

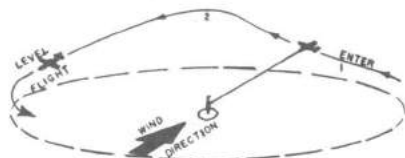
to walk. Read the instructions for each particular stunt carefully and memorize them before attempting to fly the stunt. Flyer must always stand with his back to the wind. Wind will tend to blow the model away from flyer keeping lines taut, insuring full control.

### THE FOLLOWING BASIC RULES GOVERN ALL STUNT FLIGHTS:

1. Check controls for smooth operation before each flight.
2. All take-offs and maneuvers should be started with any prevailing wind behind the model to keep control lines taut.
3. Be certain engine is running steadily and delivering full power.
4. Until you are an experienced flyer, keep wrist stiff, making all motions by pivoting arm at elbow. This will result in smooth flight performance.
5. Until you have become expert, practice all stunting maneuvers at high altitudes so that the model will have a chance to recover normal flight path in any emergency.
6. When doing loops, or similar maneuvers, do not allow lines to be twisted more than five times in one direction. When you have become proficient, lines may be untwisted in flight. For example: Five inside loops, followed by five outside loops.
7. Check all nuts and bolts (on bottom of fuselage, on engine, on wheels, etc.) periodically to be certain they are secure.

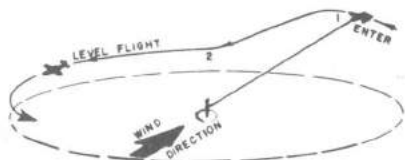
## STUNT FLIGHT PATTERNS

### 1. CLIMB



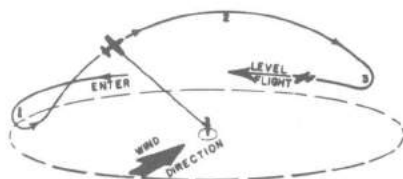
Learning the climb is a basic step enabling the flyer to get the feel of maneuvering the airplane. From level flight, with wind at your back, apply up-control gradually at point 1. This will cause the airplane to climb rapidly. When it has reached a point where the lines are at about a 45 degree angle at point 2, apply down-control slowly and smoothly so that model is brought down to level flight. Practice maneuver until the climb can be performed sharply and the leveling off be accomplished quickly and smoothly before attempting the next stunt.

### 2. DIVE



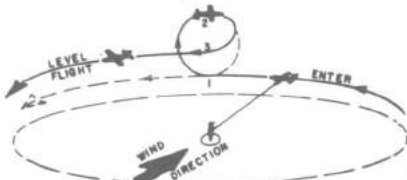
The dive is practiced from high level flight. Actually, it is the reverse of the climb. From high level flight with wind at your back, apply down-control gradually, at point 1. This will cause airplane to dive. As soon as model starts to dive, apply up-control at point 2, so that model is brought back to level flight. Practice maneuver until you can dive sharply and level off the model at your desired altitude, **NEVER LESS THAN 10 FT.** unless you become a real expert. Be very careful in this maneuver. If up-elevator is applied a split-second too late, your model may hit the ground before recovery is accomplished.

### 3. WING-OVER



From level flight, apply up-control at point 1, so that model climbs smoothly to top of circle at point 2. Be certain to note the wind direction since this is the only maneuver that is accomplished into the wind instead of away from it. When you have reached the top of the circle, return control to neutral position and model will continue smoothly around the arc. As soon as model is on the down side of the arc, at point 3, apply up-control to level off, keeping it at a rather high altitude. Practice this stunt until you can execute it smartly and pull out of the dive at your desired level.

### 4. INSIDE LOOP



From level flight, with the wind at your back, apply up-control at point 1 until model climbs to point 2. At this point, apply full up-control and model will complete the loop sharply. When loop is completed at point 3, bring controls to neutral position and model will return to level flight. Loop is finished at a high altitude. Model is lowered to desired altitude by applying down-control slowly. Loops twist the control lines so do not attempt any more than five loops without landing the model and untwisting the lines. Practice inside loops until you have mastered the art since this is a very important maneuver. Each time the recovery is made, use less up-control at point 2 to enlarge the diameter of the circle until a perfect smooth round inside loop is obtained and recovery to level flight is at about the same altitude that you entered the loop, as shown in dotted lines.

### 5. INVERTED FLIGHT

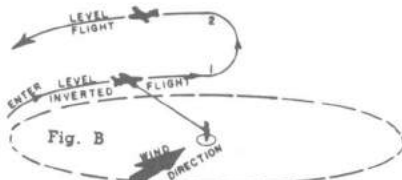
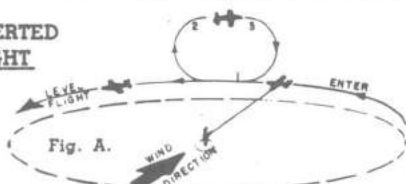
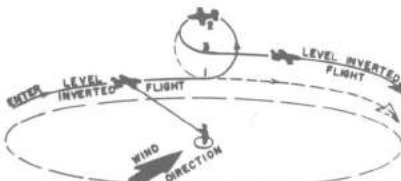


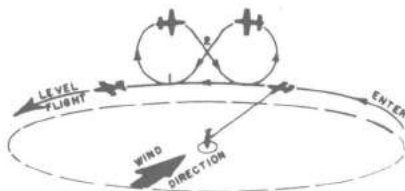
Fig. A. From level flight, apply up-control at point 1 in same manner as starting an inside loop. When model is on its back at point 2, apply down-control, slightly PAST neutral. The model will then level out on the top of the loop in an inverted position with the nose slightly up. Hold this position momentarily until you see and feel the model actually flying on its back, then apply up-control at point 3. Recovery is then exactly the same as when making a regular inside loop. Actually, what this amounts to is making a loop, however flattening-out the top. As you practice and continue to get the feel of inverted flying, the down-control can be held longer at point 2, until you can successfully fly your airplane in an inverted position continuously in level inverted flight. Keep model high to allow plenty room for recovery in the event of any emergency. When model is flying in inverted position, all controls are opposite to the normal. Up now becomes down, and down becomes up. While model is flying in inverted position at a high altitude, move the controls slightly in either direction to practice the feel of the reversed controls so that you become used to it. When you have mastered the art of inverted flight, model can be flown at lower altitudes as desired; until that time however, all inverted flying should be at high altitudes. All recovery to normal flight via the inside loop method should be made from high altitudes. After you are completely confident in your control, then recovery to normal flight can be made from low level inverted flying as shown in Fig. B, by applying full down control at point 1. This will cause the model to climb right out of inverted flight as shown. Bring controls to neutral position as soon as model is right side up at point 2. Be certain the wind is at your back when making maneuvers.

### 6. OUTSIDE LOOP



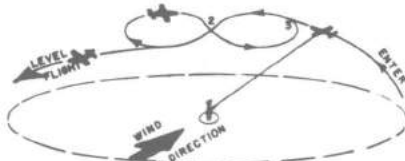
Fly model into inverted position. With wind at your back and at low altitude, apply down-control at point 1. This will cause the model to climb out of inverted position to point 2; immediately apply FULL down-control and model will complete the loop sharply at point 3. Bring controls to neutral position and model will return to inverted level flight. Loop is completed at high altitude. Fly model down to desired level. Do not attempt more than five loops without untwisting lines. Practice making the diameter of the loops larger and larger by applying down-control less and less sharply at point 2. When outside loop is mastered, you should enter and leave the perfect loop from the same altitude in a nice smooth round pattern as shown in dotted lines.

## 7. HORIZONTAL EIGHT



Horizontal eight is actually an inside loop and outside loop combined. From level flight, and with wind at your back, apply up-control at point 1, similar to making an inside loop. At point 2, apply down control until model goes into an outside loop. Complete the outside loop returning to point 2 and apply up-control to complete inside loop to point 1. Neutralize controls to return model to level flight.

## 8. OVERHEAD EIGHT



From level flight, and with wind at your back, apply up-control at point 1 so that model climbs in the same manner as the start of a wide inside loop. At the top of the loop model is almost directly overhead at point 2. At this point apply down slowly so that the model straightens out and reverses its flight path. Hold control in down position until model finishes circle and is once again overhead at point 2. Apply up-control at point 2, slowly so that model eases in the last half of circle to complete the figure eight at point 3, maneuver as shown. Neutralize controls to return model to level flight.

## 20. CONTROL LINE NAVY CARRIER REGULATIONS

20.1 GENERAL. All pertinent AMA Regulations and the regulations for Gas Models—Control Line Speed covering the flyer, the model and flight shall be applicable, except as specified below.

20.2 CARRIER DECK. A carrier deck or suitable area shall be provided for this event. It shall be 44' long by 8' wide, and the deck center line shall be curved to the perimeter of a 60' radius arc, the center of which shall be plainly marked, preferably by an unanchored 18" square block of  $\frac{1}{4}$ " wood or  $\frac{1}{4}$ " plate steel painted white. A sloped protective ramp 4 ft. long extending from the ground up to and flush with the edge of the deck shall be provided at the stern of the carrier deck. The edge of the deck shall be adequately marked, and any landing touching any part of the ramp shall be considered a crash. The arresting area of the deck shall be 20' long, and have arresting cables with a minimum test of 200 lbs. suspended 1" to 1 $\frac{1}{2}$ " above the deck, spaced two feet apart. Sand bags weighing approximately 5 lbs. each shall be attached to each end of the 18' long arresting cables. Screw eyes or other suitable guides shall be used on the outer edges of the deck to hold up the cable and also allow the cable to move through when an arrested landing is being made. The free roll area shall be 24' long and smooth enough to make a free rolling take-off. If carrier is laid out on the ground, crepe paper streamers shall be stretched across two feet in front of the bow and one foot in back of the stern of the carrier, approximately  $\frac{1}{2}$ " from the ground. Touching either streamer in taking off or landing will be considered a crash.

20.3 Aircraft Requirements. Model must have a fixed or retractable landing gear. If a retractable gear is used, it must be lowered for landing. Model must be equipped with an arresting hook which when extended may not be longer than  $\frac{1}{3}$  the length of the fuselage. Model wing span shall be 44"

maximum. The model shall be rigged for counter-clockwise flight. Engine displacement will prescribe the class in which the model (entry) shall compete. Models (entries) shall be placed and compete in two distinct groups: Class I—Models having an engine displacement up to and including .40 cu. in., Class II—Models having an engine displacement of .41 cu. in. and above inclusive. Class II will also include all jet type. In the case of multi-engine models the sum of the displacements (engines) will govern the class into which it is placed. Engines used must be of the reciprocating internal combustion or jet type. To qualify for bonus points, engine(s) must be of the same thrust type as used in the proto type. Neither rocket power nor auxiliary takeoff booster devices are permitted in any case.

Control-line requirements:

20.4(a) The construction of the control lines shall be as specified for control-line speed models (see 6.4). Minimum elevation control lines diameters shall be as follows:

Total Engine Displacement	2-line system	1-line system
.000 = .200 cu. in.	.010"	.018"
.201 = .300 cu. in.	.012"	.022"
.301 = .400 cu. in.	.014"	.024"
.401 and larger, and jet	.016"	.028"

The elevation control lines shall be 60' long, plus 6", minus 0", measured from the grip of the control handle to the center of the model. Model and lines must withstand a pull test of 20 g's. Control handles providing for easy adjustment of line length are permitted, provided they are equipped with a positive safety lock. Readjusting line length after official measurement shall disqualify the contestant.

20.4(b) Auxiliary control lines may be of any diameter.

- 20.5 OFFICIAL FLIGHT. Contestants who do not have their model on the deck within two minutes after being called to fly will have their flight cancelled, and will be charged with an attempt. Three minutes will be allowed to get a model airborne from the time the contestant signals he is ready, or begins to start the engine. Any endeavor to make a take-off is an attempt. Three attempts will be allowed for two official flights. A flight is considered official when the contestant signals for a timed low speed run. In the case of multi engine models, an extra two minutes starting time will be allowed for each additional engine.

#### FLIGHT REQUIREMENTS

- 20.6 GENERAL. All ground area shall be termed water. During an official flight if any part of the model comes in contact with the water, the model will be considered to have crashed, and the flight will end. During official timed runs the model may not lose its forward counterclockwise motion or deviate radically from the flight characteristics of its prototype. The model must not exceed an altitude of 20' for more than  $\frac{1}{2}$  lap during a timed run. No whipping will be allowed. The elevation control line(s) shall emerge from the model within the fore-aft range covered by the wing root chord, and all other lines shall emerge with or between the elevation control line(s). It is permissible to change the position of the movable portion of the rudder during flight. If in the opinion of the judges there is a violation of the above rules, the flight shall be cancelled and the contestant charged with an attempt.

- 20.7 HIGH SPEED FLIGHT. The first seven laps after take-off constitute the high speed phase of the event. Timing will start the instant the model is released for take-off, and shall end when the model completes its seventh lap over the stern of the carrier.

- 20.8 LOW SPEED FLIGHT. When the contestant has decelerated the speed of his model to his satisfaction, he will signal the judges to start timing his low speed run by using a prearranged signal that is acceptable to the judges. The model will then be timed for seven laps, using the stern of the carrier flight deck as the starting point. The start of the low speed run must be signaled for within three minutes of the completion of the high speed run. Time for the seven laps shall be used to calculate the average speed. Plane must maintain a forward counterclockwise direction throughout the low speed run as any deviation will be scored as an attempt. The flyer shall not lengthen the flight radius of the model during low speed flight by walking a circle larger than three feet in diameter. Cutting of engine(s) or multi-engine models is permitted.

- 20.9 ARRESTED LANDING. All landings on the carrier deck shall be made at low speed only. The landing must be completed within eight minutes of take-off. After lining up with the deck upon completion of the low speed run, the pilot shall signal the judges that he is ready to land. After the signal, each lap shall decrease the landing score by 5 points.

#### SCORING

- 20.10 BONUS POINTS. Any scale model of a U. S. Navy carrier aircraft, whether operational or experimental, will be awarded 100 bonus points. Scale 3-view drawings of the full-scale aircraft must be submitted to be eligible for bonus points. (See CLFS Regulations 17.8 for types of plans acceptable.)

No points will be given if the linear dimensions of the major components of the model are not to the same scale, with a plus or minus 5% tolerance. Models which appear to comply with this tolerance upon rudimentary inspection need not be further checked, except in case of dispute. "Major components" are considered to be the fuselage (excluding surface markings) and air brakes; the top view profile of the wing, horizontal stabilizer, elevator, and flaps (ailerons shall not be used as flaps); and the side view profile of the vertical stabilizer and rudder. Although landing gear needs not to be scale, it must emerge from the model in the same location as the prototype. If the engine or accessories protrude from the scale contours of the model, there may be openings in the skin sufficient to accommodate the protruding part with  $\frac{1}{4}$ " maximum clearance at all points around the protruding part. Five points shall be awarded for each engine above one used to power the model, providing such engines contribute to the performance of the model from take-off through at least the high-speed phase of the flight (at completion of high-speed timing, count number of engines running, subtract one, and multiply times 5).

- 20.11 TAKE-OFF. Model must successfully take off from free roll portion of deck.

- 20.12 HIGH SPEED POINTS. All high speeds will be calculated to the nearest m.p.h. High speed points shall be scored as one point for each m.p.h. of speed averaged during the high speed run.

- 20.13 LOW SPEED POINTS. Low speed will be calculated to the nearest  $\frac{1}{3}$  m.p.h. Low speed points shall be scored as three points for each mile per hour difference between the average speeds of the high and the low speed run.

- 20.14 LANDING POINTS. Landings (dead stick included) shall be scored as follows:  
100 points for normal 3-point arrested landing.  
50 points for an arrested landing with plane in other than 3-point attitude.

25 points for an arrested landing with plane coming to rest on its back or with one wheel off the deck.

From the above score, 5 points will be deducted for each unsuccessful landing approach made after signaling; however, landing score in no instance will be less than zero. No points will be allowed for other landings.

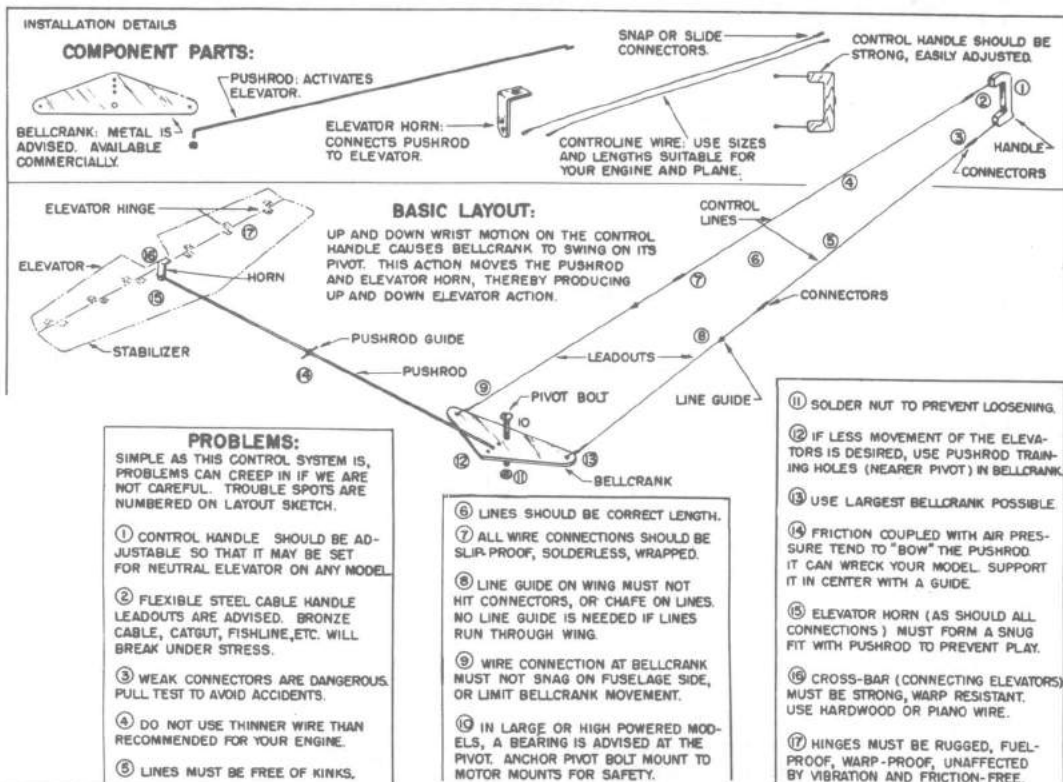
20.15 FLYING FOR RECORD. A score shall be accepted for record purposes provided:

a. A full-sized carrier deck as specified in 20.2 has been used, and

b. All other requirements of Control Line Navy Carrier have been met, and

c. At least two timers, equipped with stop watches having one-tenth second or finer graduations, have timed flights in unison from the same judges position. Record shall be recognized where no more than 0.2 second variation on the high speed and 0.4 second variation on the low speed timings exists between the watches used. The average of the two watches shall be used to calculate speed, and

d. Only those flights made outdoors shall be recognized for record purposes.



## SAFETY RULES FOR FLYING

1. Check your model before each flight to make sure it is in good operating condition.
2. Fly only in a clear unobstructed area.
3. Model must never be flown in the vicinity of high tension or any electrical lines.
4. You should never fly and be in an open area when thunder and lightning storms are in the area.
5. Check carefully to insure the safety of all spectators and property.
6. Now, as you move on to different types of models (Free Flight Gas, Control Line or Radio Control), be sure to check Safety Rules for each type of flying.