SOFTWARE FOR THE COMMODORE 64 and 128

THE GREAT INTERNATIONAL PAPER AIRPLANE CONSTRUCTION KIT

- Print, fold, and fly award-winning, high-performance paper airplanes.
- Graphics library includes designs for everything from barnstorming biplanes to the Space Shuttle.
- Based on the best-selling Great International Paper Airplane Book.

by Neosoft, Inc.

Simon & Schuster

The Great International Paper Airplane Construction Kit for the Commodore 64 and 128

Master Copy Side One

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The Great International Paper Airplane Construction Kit for the Commodore 64 and 128

Master Copy Side Two

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The Great International Paper Airplane Construction Kit for the Commodore 64 and 128

Working Copy Side One

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The Great International Paper Airplane Construction Kit for the Commodore 64 and 128

Working Copy Side Two

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The Great International Paper Airplane Construction Kit

(COMMODORE VERSION)

Printer and Printer-Interface Requirements*

PRINTERS
Commodore 1525
Epson MX, FX, RX, LX, JX
Okidata 82, 83, 84, 92, 93
Star Gemini SG
C. Itoh 8510
NEC PC 8027A

PRINTER INTERFACES
Commodore port
The Connection
MW350
Cardco A, Cardco G Plus

The Program

The program disk contains airplane graphics files and a printout program, stored on both sides of the disk. The airplane files are in KoalaPainter graphics format (160 by 200) and can be used with your KoalaPad just like any other pictures—you can retrieve them, decorate them, save them, etc. The printout program allows you to see any of the planes on the screen and print them out, whether you have the KoalaPad or not.

Starting Up

Turn on your computer. Insert the program disk into the drive, type LOAD "AIRPLANE",8 and press Return. When the computer is ready, type RUN and press Return.

If you are using a Commodore 128, after turning on your computer, type GO64 and press Return. Then follow the above instructions.

^{*}The size of your printed planes varies depending upon which printer and interface you use.

Printing and Decorating Planes

The program disk includes a print program that controls your printer and allows you to print out your planes, full size, on 81/2" by 11" paper. Remember, though, that without using KoalaPainter you can't redecorate the planes. The first time you use the program you will be prompted to set it up to correspond to your printer/printer-interface combination. If your printer or interface is not listed, you may still be able to print out your planes successfully by experimenting with different alternatives. You will probably find that one of the printer/interface combinations works. Once the program is set up to work with your printer, follow the on-screen instructions and menus to display and print out the planes of your choice.

You may use the Koala system to create your own planes or to decorate the planes supplied on the program disk. Print out planes as described above,

after saving them and exiting from KoalaPainter.

The Airplane Files on the Program Disk

FILE NAME PLANEX DPLANEX

Aircraft hardware HARDWARE MARKINGS Aeronautical markings

WINGS1 Wings and tails WINGS2

More wings and tails

DESCRIPTION

Plane A through Plane M, undecorated

Plane A through Plane M, decorated



The Great International Paper Airplane Construction Kit

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Documentation designed by Publishing Synthesis, Ltd./Kenneth R. Ekkens

Photographs by Portnoy/Shung Studio Manufactured in the United States of America

Printed and bound by Kingsport Press

10 9 8 7 6 5 4 3 2 1

ISBN: 0-671-61127-5 (Commodore)

ISBN: 0-671-61128-3 (IBM) ISBN: 0-671-61129-1 (Apple)

Contents

Chapter 1:	Introduction	7
Chapter 2:	How to Use The Great International	
	Paper Airplane Construction Kit	9
Chapter 3:	Tips and Hints	13
Chapter 4:	The Planes	19
Appendix A:	Templates and Graphics	47
Annendix B	Decorated Planes	65

ONE

Introduction

For decades, making paper airplanes has been a laborious act, involving hours of painstaking—and often frustrating—work. Who among us doesn't remember planning what was certain to be the next plane for the Blue Angels, only to have it flutter pathetically to the floor the moment it was launched? And what about those planes you carefully decorated and colored by hand? They were great, sure, but today, do you really want to spend an afternoon decorating a dozen planes in a squadron? Every time you slip up, you have to start from scratch. Clearly, high technology has a role to play in the fast-paced, high-pressure world of paper airplane design.

The Great International Paper Airplane Construction Kit lets you enter the big-time world of computer-aided design and computer-aided manufacturing (CAD/CAM), at a fraction of the cost and with a lot more fun. With it you can select an award-winning paper airplane design, embellish the wings and fuselage with aeronautical art, print out your creation, fold it, fly it, and make aviation history.

The disk contains over a dozen ready-to-print-out paper airplane designs, translated from *The Great International Paper Airplane Book* for easy use on your computer. Included on the disk is a collection of custom-made aviation graphics which can be used with your paint program to embellish the designs with windows, hatches, markings, even pilots with silk scarves! You also get several decorated planes as examples and inspirations.

Before you make your own contribution to computer aviation design, read this manual. Chapter 2 will start you on the right track. Chapter 3 will give you some tips on decorating your planes. By the time you flip through a few sample photos of finished planes in Chapter 4, you'll be ready to create award-winning planes of your own!

9

TWO

How to Use The Great International Paper Airplane Construction Kit

In this chapter you will learn what you need to start making paper airplanes, along with the fundamentals of using *The Great International Paper Airplane Construction Kit*.

GETTING STARTED

You will need a computer with one or two disk drives, a paint program, and a compatible dot-matrix printer which should be hooked up and ready to print. Other helpful tools you should keep handy are scissors, adhesive tape, and colored pens or markers. Paper clips are not recommended, as these planes should fly quite well on their own, thank you.

Note: This kit will work just fine with a single disk drive, but you will have to do some disk swapping. A second drive may make your airplane designing and decorating easier and faster. Hard-disk users will have the easiest time of all: these files can easily be stored on any hard disk for fast access.

In preparing this manual, every effort has been made to explain procedures as clearly as possible. It is assumed, however, that you are familiar with such functions and operations as disk handling, cutting, pasting, copying from a file to your work area, and using the system to select commands. Because this product works in conjunction with your paint program, you should be comfortable with that program, and have at least a passing familiarity with its many interesting and powerful features, such as the magnify, move, cut, copy, and paste commands, to name the more commonly used ones.

The computer terminology in this manual is generic, and should be consistent with that used by many of the popular paint programs available. Specific details for your computer system are found on the reference card enclosed with the disk in the envelope in the back of the manual.

TAKING CARE OF YOUR DISK

Your Master Disk

The pictures which are stored as data files on *The Great International Paper Airplane Construction Kit* master disk should be kept intact and unchanged so that you can call up these great designs and graphics time and time again. *Do not save any pictures or files to this disk*—it is too full to do this with newly created or changed files, so you would be forced to save over existing master files, which is something you definitely don't want to do. Instead, create working disks and storage disks where you can save your own original designs. You will also want to keep backup copies of these working and storage disks. In any event, the first thing you should do to protect your master disk is to lock it by placing a write-protect tab towards the edge of the disk. The second thing you should do is make a backup copy of your master disk.

Backup Your Master Master Disk

The quickest way to backup your *Great International Paper Airplane Construction Kit* master disk is to use a disk copy utility to duplicate the diskette. You will need:

- Diskette with copy utility
- The Great International Paper Airplane Construction Kit master disk
- Blank disk (or a disk you don't mind erasing completely)

Insert your copy utility disk into the drive and follow the instructions. Use your usual method to create a backup disk for the master diskette. Remember to write-protect your master disk to avoid accidental erasure.

Label your *Great International Paper Airplane Construction Kit* backup disk and put the master disk in a safe place.

CREATING A DECORATED PAPER AIRPLANE

With *The Great International Paper Airplane Construction Kit* you will be using your paint program, your backup of the airplane disk, and a formatted blank or work disk. The procedure for creating a plane is simple. After you've chosen a basic plane template from the thirteen plane files, load it into the paint program work screen area. Next, select and copy files provided on this disk or custom-made by yourself onto a blank area of the template. Then decorate a plane by cutting and pasting graphics designs onto the plane template and adding your

own special touches with your paint program. If you are copying several elements from the clip art files, you may have to save your partially decorated plane and go into one of the graphics files. Copy a piece of clip art, reload your partially decorated plane, and paste the copy onto the plane. Repeat this procedure to build and create your airplane design piece by piece. When you're done decorating it, print it out, fold it up—and fly it away! The finer points of paper airplane design are discussed in the rest of the manual.

Of course, to use your *Great International Paper Airplane Construction Kit* efficiently—which will maximize the amount of fun you have—a little bit of preparation will help out a lot. You can prepare yourself by

- maintaining a catalog or directory of all your files.
- having initialized disks ready for saving your masterpieces.

Become Familiar with the Disk Files

The Great International Paper Airplane Construction Kit contains many files: thirteen airplane templates, files of hardware and decorations, and several decorated planes to get you started with some ideas. There are two ways to view the graphics. One way to see the designs and artwork stored as files on disk is to review the appendixes in this manual. Since all of the graphics are displayed there, use the manual as a printed reference.

The second way to view the graphics is to load the files, one at a time, into your paint program. In this way, you will become familiar with the range of your choices.

Select a Plane Design

Look through the various blank plane designs available on *The Great International Paper Airplane Construction Kit* disk (also shown in Appendix A). By having a blank printout in front of you, you can sketch ideas that you want to implement on the design. Fully-decorated examples have been included (see Appendix B) to show the range of possibilities open to you.

Copy Decorations to Your Plane

There are several graphics files that contain decorations you can use in implementing your design. These files are named Hardware, Wings & Tails, More Wings & Tails, and Markings. (Check the reference card in the envelope at the back of this package for the precise file name on

your disk.) They contain everything from jet engines, missiles, and landing gear to paratroopers, airline logos, and trim decals. Once you have selected the graphics designs that suit your plane, you can copy and paste these pictures onto the chosen plane design. You may have to do this one copy at a time, depending upon your paint program. After you paste a decoration onto a plane design, you may have to save the interim picture and go back out to the decorations files to get another graphic, reload the plane, and paste the piece on your plane. Therefore, you may want to copy several decorations at one time when you copy from a clip art file.

Suppose you want to put wheels under the wings of your plane. Put your *Great International Paper Airplane Construction Kit* disk in the drive. You can see which files you want to open by checking a list of the files. Load the Hardware file. Find the set of wheels you want, copy the image, and paste it onto your plane design. After you have decorated your plane, save your design on disk.

Print Out the Plane You Have Designed

Now that you have finished designing and decorating your plane, and have saved it on a storage disk, print it out. This is the moment you've been waiting for! Cut out your plane on the heavy solid lines, fold on the dotted lines (folding instructions for each plane are in Chapter 4), and launch!

Assuming that you're familiar with the basic principles of using your paint program for paper airplane design and manufacturing, you're ready to learn some of the masters' tricks in creating your own award-winning planes. Chapter 3 shows how you and *The Great International Paper Airplane Construction Kit* can take even the humblest paper airplane and turn it into a great work of art.

THREE

Tips and Hints

This chapter contains tips and hints on how to get the most from *The Great International Paper Airplane Construction Kit*, including:

- How to select a plane design
- How to choose and adapt the graphics elements
- How to customize your own designs

SELECTING A PLANE DESIGN

Most of the planes on this disk are designs that won awards in the 1st International Paper Airplane Competition. (Of course, those original designs didn't *look* half as good as what you'll be able to do with *The Great International Paper Airplane Construction Kit.*) Because there were several competition categories that planes were entered under, the designs in this kit have a wide range of attributes and capabilities. Some are award winners for flight characteristics (distance flown, aerobatics, time aloft, etc.); others are included more for their interesting shapes and designs than for their flying abilities. In the next chapter you'll learn some important details about each of these planes. This will help you decide which one you want to start working with.

The airplane graphics in this disk have been carefully designed to coordinate with the planes. As you flip through the photographs of the finished planes, you can see the range of effects possible, from turn-of-the-century gliders to twentieth-century spacecraft. You can, of course, recreate these designs as shown. But the designs can also serve as a starting point for you to customize and create your own original designs. Compare the designs and select the one that best suits you.

CHOOSING AND ADAPTING GRAPHICS ELEMENTS

For an example of how to plan your graphics, look at the completely decorated version of Plane E in the Decorated Planes file. It uses two different sets of wheels, a barnstorming pilot, and some fancy wing and tail elements, as well as some touch-ups.

Print out a copy of this plane and fold it as directed. Note how the pilot's legs and the front edge of the bottom of the wings continue across several fold lines. Now unfold the plane to see where those graphics elements were positioned for this result. Here's how you can create an equally ambitious design.

Plan Your Design in Advance

After you've selected a design, it's a good idea to go ahead and print out a blank one, cut it out, and fold it up. Then mark the places on the surface of the plane where you'd like to add graphics. When you unfold the plane, you'll have a layout of exactly where (and facing which direction) to place your graphics designs. This also will help you avoid decorating an area of the plane that is hidden after the plane is folded. Use the dotted folding lines to help you keep track of where you are on the plane layout in the drawing window.

Capture the Image You Need

After you've decided which graphics elements you're going to use, inspect the different plane parts and markings. You'll note that only one of each is included. However, a basic truth about airplanes is that they're symmetrical and generally require pairs of objects. With your paint system, creating symmetrical pairs is simple. Flip a copy of a part in order to make left rudders from right rudders. The best time to do this is when you're putting a copy into your work area.

If you must rotate an object, it is very important to keep it in full view in the drawing window. Otherwise, you will lose chunks of it before you paste it down. For example, if you are trying to rotate a tail section that is on the edge of the screen, you will inevitably end up with half of the tail—not a desirable state of affairs. The solution is to move a copy of an object you want to rotate into the center of the window. Now you can safely rotate the image. Again, don't worry about messing up the layout of the images in your file. Just don't save the changes. Your master file will revert to its original pristine condition.

When you are copying objects, you will probably also capture "dead space" between the edge of the object and edge of the box. Then, when you paste it onto the working surface of the plane you will also paste this "dead space." If you're working on a white surface that's not necessarily a problem, but if you are working in a filled area or trying to paste a logo to partially cover, say, an engine, you'll inevitably cause that existing image to disappear. Be careful. Make the box as small as possible to minimize the problem. You will, however, undoubtedly have to touch up your plane when this happens.

Paste Objects and Decorations onto the Plane

Open the file of the plane you want to build. With the unfolded layout on the screen in front of you, you're ready to start pasting the graphics

onto your plane. In most cases, the dotted folding lines are enough of a guide to find your way around the plane and position your graphics. If needed, add your own additional reference lines, like drawing two diagonals to find the center of a rectangular area. Once you have located the desired areas and have positioned your graphics designs, these lines can be erased.

In many cases we have provided reference lines both on the plane templates themselves and on the images in the graphics files. Because many of the fuselage, wing, and engine parts have been carefully coordinated, you will often find that certain parts have been drawn to slightly overlap each other. When you work with these parts, all you need to do is move them together until any double lines disappear, and they will appear to have been joined seamlessly. Once again, you may have to touch up the fold lines when you decorate your plane.

Work Efficiently

Complete one side of the plane at a time. For example, when you've finished the right wing, tail, or fuselage section, it's a simple matter to select a large chunk and flip it to the other side of the plane. These techniques save lots of time and create perfectly symmetrical planes. However, don't flip lettering or numbers, or you'll only be able to read them in a mirror! Instead, rotate them to preserve readability.

Print Out "Prototypes" to Check Your Progress

Print out and fold up sample planes as you work. This will help you check alignment and make adjustments.

Use Your Paint Program to Customize Your Design

Use all the painting and drawing features of your paint program—such as fills, brush shapes, changing colors, etc.—to their greatest advantage. The decorated plane J demonstrates a few easy tricks you can do to dress up your designs. You can camouflage your design by filling areas with contrasting patterns. Sometimes it's easiest to do this first, before there are other markings that would stop the fill from spreading.

You can add seams by using the straight line with the thinnest width selected from the line and border options. These thin lines can add details representing control surfaces like flaps, ailerons, elevators, and rudders or seams between parts of the plane (for example, where a wing joins a fuselage) or even things like doors, windows, and

access panels. It's easiest to draw these before adding any elements that would go over them (like missiles or landing gear).

For those fine, realistic 3-D touches, don't forget to add shadows to new elements that you create. A quick way to do so is to make a duplicate of an object and place the copy adjacent to the original. Then fill all of the open areas of the object with solid black to make a solid silhouette. Be sure to position it a little to one side of an overlap. This can create a very effective shadow effect. Look for examples in the Hardware file.

Don't forget about other useful features:

- The text option in your paint system is a good source for letters and numbers.
- You can decorate the planes with graphics images from other clip art files. Just copy them onto the plane like any other design. (If needed, you may want to modify these images on a blank screen before pasting them onto the plane.)
- For more tips on some of the subtler and more interesting design possibilities, refer to the user's guide of your paint program.

Save Frequently

Remember to save your plane often, at least every ten minutes, so you will always have a current copy on disk. This will give you the freedom to try out a few daring ideas (like filling in more than one area at a time) and still allow you to recover by reloading your current plane if you don't like the results. Be sure to save your file before you go to the disk to retrieve clip art from the files.

CUSTOM USES FOR THE GREAT INTERNATIONAL PAPER AIRPLANE CONSTRUCTION KIT

Here are some ideas for different ways to use *The Great International Paper Airplane Construction Kit*:

1. Create a series of planes and form your own Army Air Forces squadron. Design a new mascot, or modify an existing one from the Markings file. Give each plane a unique number.

The numbering scheme of the Army Air Forces in the thirties and forties used letters and numbers to identify and classify the individual planes of a given unit. For example, the twenty-ninth aircraft of the

2nd Pursuit Group would be P (Pursuit), plus B (the second letter of the alphabet for 2nd Group), plus 29 (the 29th plane): PB29. Other group letters were W (Wing), A (Attack Group), B (Bombardment Group), and R (Reconnaissance Group). The squadron commanding officer often took the lowest or highest number of his group. These numbers appeared on the tail and on both sides of the left wing. (The current numbering system dates from 1942. It combines years and serial numbers to make digit-only designators.)

Command bands identified leaders. Two vertical stripes around the fuselage behind the cockpit meant "Squadron Commander." One vertical stripe meant "A Flight Leader." A forward diagonal stripe signified "B Flight Leader" and a backward diagonal stripe meant "C Flight Leader."

Each combat unit had its own crest or shield. Use a historical one or create your own. Some of the most interesting markings from World War I were frowned upon by the War Department. Its guidelines prohibited any design that implied death, destruction, the Devil, or games of chance. Fortunately, you can create your own designs with total freedom, even recording the number of "kills" or missions with small symbols near the cockpit.

2. Dress up your finished designs with a splash of color! A little magic marker, crayon, or colored pencil can add that finishing touch. In fact, the color schemes of military planes were often specified. For example, the Army Air Forces planes of '34 had the following scheme:

ailerons, elevators, fins, and flaps: yellow cowling, fuselage, struts, and tail: light blue propeller blades: maroon walkways and step plates: black

You can do a little historical research on your own and incorporate a color scheme from any year, or any nation. And, of course, you can come up with your own scheme.

- 3. When you're not flying your creations, hang them from the ceiling with thread or fishing line, or display your planes in a mobile.
- 4. For a different look, print your designs on colored or heavier stock paper. Your printer is quite capable of handling virtually any type of paper.
- 5. Use the power of the print screen utility to create miniature airplanes by selecting small parameters. See the reference card enclosed with the disk in the envelope at the back of this manual.
- 6. If you're really ambitious—create a two-sided design! Just be sure the paper is centered in the printer when printing each side.

- 7. Use these graphics designs in other drawings. And don't be bashful about creating your own graphics catalogues or even your own plane templates! We've provided you with over 150 images, and these can be a starting point for your own engines, insignia, crew members, wing designs—whatever you can dream up.
- 8. If you have friends who also have The Great International Paper Airplane Construction Kit, hold your own paper airplane competition.

FOUR The Planes

All of the basic designs for these planes are based on those contained in *The Great International Paper Airplane Book*, which tells the story of The 1st International Paper Airplane Competition, sponsored by *Scientific American* in 1966-67. The book includes the designs of the winners and of other noteworthy entries. The final Fly-Off contained separate competitions for a number of different categories: Aerobatics, Duration Aloft, Origami, and Distance Flown. Each of these had Professional and Nonprofessional awards. It's interesting to note that the planes themselves were devoid of any ornamentation. A few were even done on company stationery, with design notes scribbled all over the wings and tails. With this kit you'll be able to recreate these winning planes and make them *look* like winners too.

Along with each description of a plane we've included a photo of the folded plane and folding instructions. After this chapter you'll find a complete printout of the templates and the graphics catalogues and sample decorations for each plane. The photographs show what these decorated planes look like when they're folded. But there is a trick to folding a decorated plane: since the dotted lines and the decorations print on the same side of the paper, you usually have to start the folding with the printed side facedown, so that when you are through, the decorations are visible on the outside of the folded plane.

Think of these sample decorations as a starting point for creating your own designs. For example, just because we've chosen to decorate a particular plane as a bomber does not mean that it's not equally suitable to transform it into a jumbo jet or a glider. Nor are the graphics we've suggested the only ones you can use. Let your imagination run free: your computer and its software is a perfect medium for experimentation, revision, and fine-tuning of visual ideas.

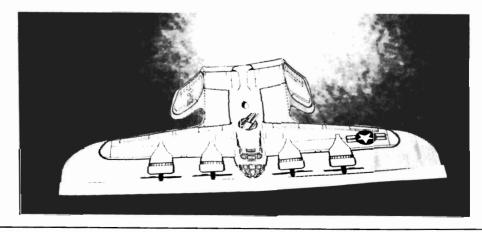
Plane A

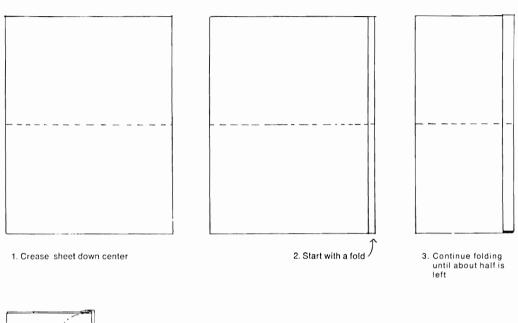
Plane A was the winner in the Aerobatics/Professional category. Working with this design is like going back to Kitty Hawk: its inventor, Captain R. S. Barnaby (U.S.N. Ret.), learned aviation design from Orville Wright himself! This plane has an unusual and very graceful flight pattern: it begins with a sudden dip—sometimes even making a complete loop-the-loop—and then glides in for a long, shallow landing, often making a wide turn in the process. Make sure the wings are bent slightly up and that the wingtips are perpendicular to the body of the wing, or even a little bit in towards the fuselage. Experimenting with the angle of the wing will result in different flight patterns.

This plane's wide wingspan and twin rudders inspired its treatment as a B-25-style bomber. When folded, the visible printed area offers a generous uninterrupted surface for the top view of such a plane. This plane is also a perfect candidate for an experiment in two-sided design.

To recreate this design, first identify the needed hardware: wings, rudder, tail, bubble nose, cockpit/windshield, engines, and gun turrets from the clip art files. Then with Plan A's layout on the screen, begin drawing a fuselage with stretched-out ovals and straight lines. Be sure to leave the center line as a guide. Then add a wing, tail, and rudder. Clean up any rough corners and beef up line weight inconsistencies. We've left the wingtips incomplete so you can either round them out with the pencil or add fuel pods, bombs, etc. Add some engines to the wing, put on the cockpit, gun turrets, and bubble nose. Once the image of the plane is complete, save your interim design and copy the desired markings (numbers, U.S. Air Force insignia, and "mascot" unit markings) onto your plane.

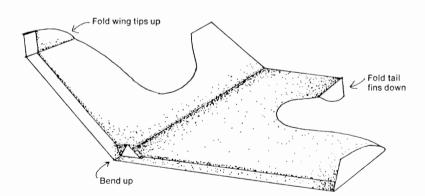
On a plane design like this one (where structural elements of the plane are part of the design) try filling in the "background" with a pattern. This extra contrast makes it easier to see the shape of the plane.







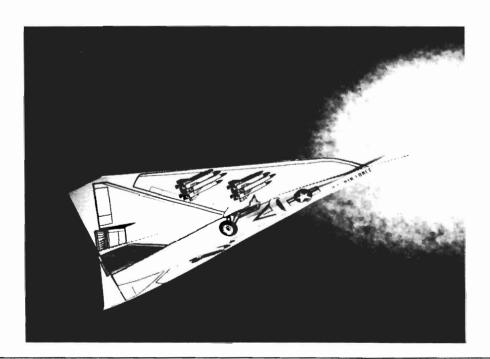
4. Fold in half and cut as shown

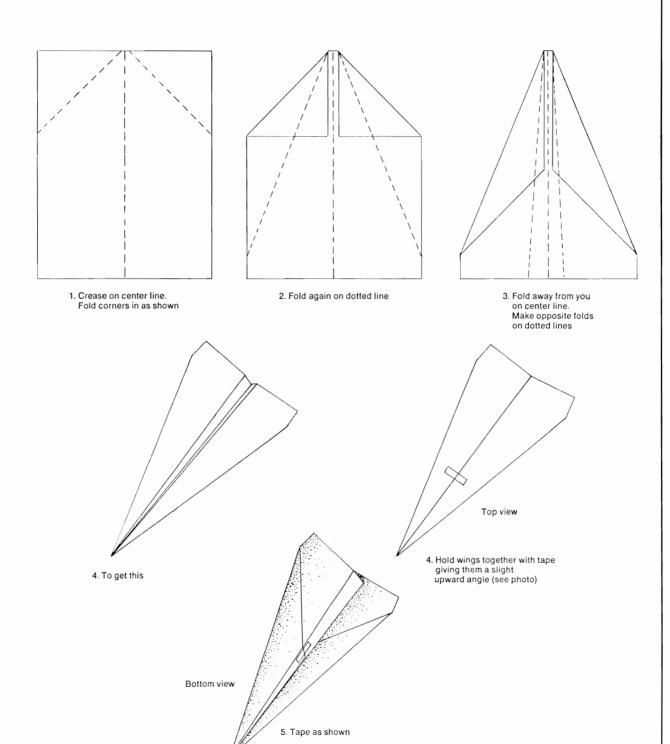


Plane B

Plane B is, perhaps, the quintessential paper airplane design. Not surprisingly, this version took the award in the Distance Flown/Professional category. When launched, its flight is straight and true; you'll need a large room or, better still, a long hallway to enjoy the full effect of this classic.

The simple, straight lines of this design suggest a F–111-style swept wing. Most of the graphics for it can be found in the wings and tails files, or you can draw your own with the straight line. However, you will need to draw your own top wing and also draw some connecting lines between the wings and the cockpit (see the sample plane in Appendix B). Once this is done, add the side intake scoops and landing gear. Don't forget an assortment of missiles or bombs. Finish up with some markings, like on this U.S. Air Force version. This is a good design from which to create a squadron of fighters.



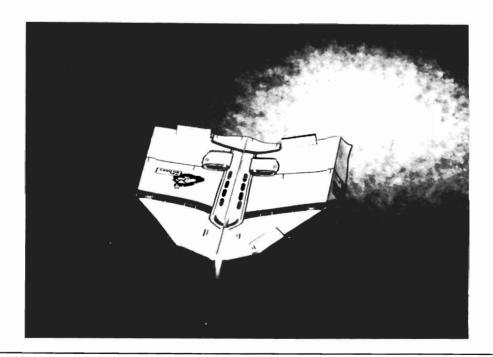


Plane C

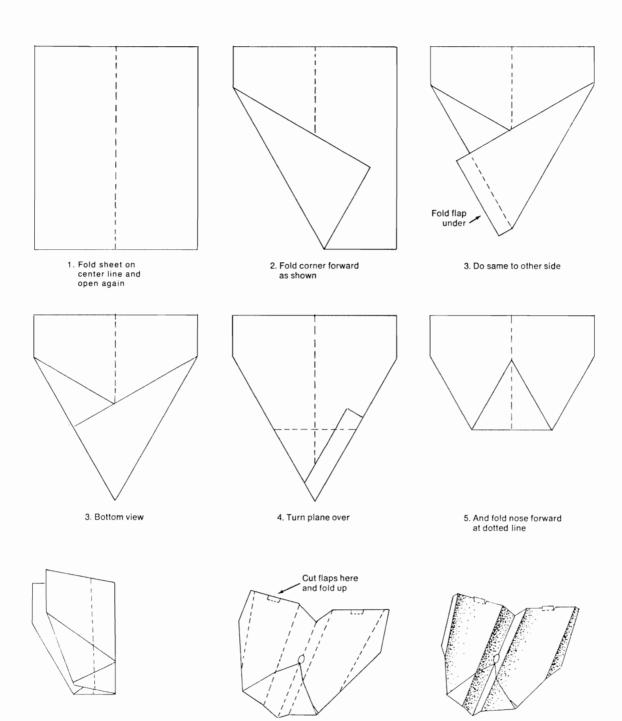
Plane C was the winner in the Duration Aloft/Nonprofessional category. Quite frankly, when we tested this plane, we were impressed more by its ability to perform fancy loops and a slow, flat landing than by the amount of time it stayed in the air. Either way, however, it's a sure-fire crowd pleaser. Use the tail flaps to vary the plane's performance.

When folded, this design offers decoration area on the entire top surface, as well as on a portion of the nose of the fuselage. This version is a twin jet with a pod-style cockpit. Wing and tail sections are stored in the More Wings & Tails file for you; just add your own fuselage. You will have to add a window or two and some lines to complete the fuselage. Because this design folds together in the center, be sure to split your fuselage there so that none of the design gets lost.

If you examine the unfolded plane, you'll see that the cockpit graphics fall out at an angle. The cockpit already has both sides drawn for you at the proper angles. Use it as is, or modify it to your liking. You'll see that on our decorated version we've put in tick marks to help line up the cockpits at the correct angle. You may want to do the same when positioning your own decorations.



6. Fold on center line



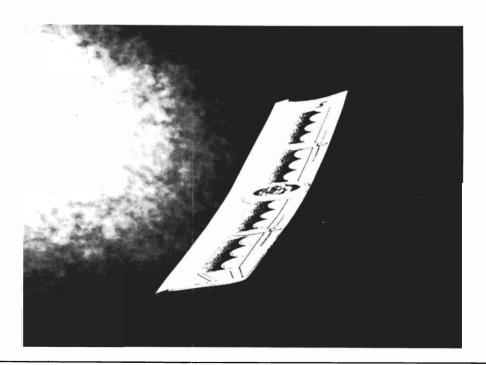
7. And on dotted lines

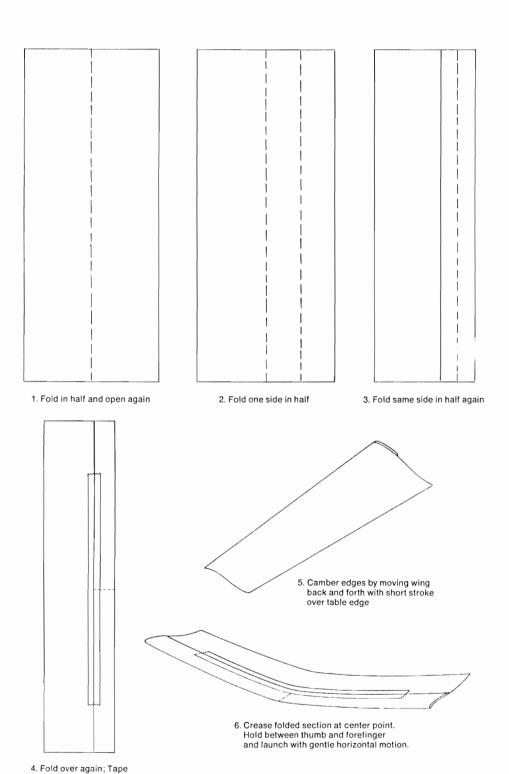
8. And shape as shown
—cut finger hole as indicated

Plane D

With its daring design and spectacular performance, Plane D flew away with honors in the Duration Aloft/Professional competition. It has no fuselage at all, and, thus, inspired this sporty one-man flying wing. Use the straight line to quickly create a wing. When one wing is complete, you can flip it vertically to make the other wing. A few nested ovals can be used to create the outside of the cockpit, then add the pilot and an engine or two. You'll find the wingtips in the Wings & Tails file. The scallop design can be repeated by copying it and then pasting it down, repeating the pattern by lining it up as you go.

Because it's such an unusual design, this can be a difficult plane to fly correctly the first few times. Hold it above your head and give it a gentle push: it will descend in a series of helixes, much like an oak leaf spiraling down from a branch. Experiment with the taping and folding suggestions in the instructions until you get it just right.

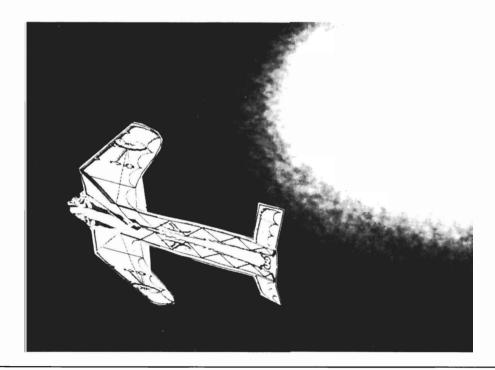


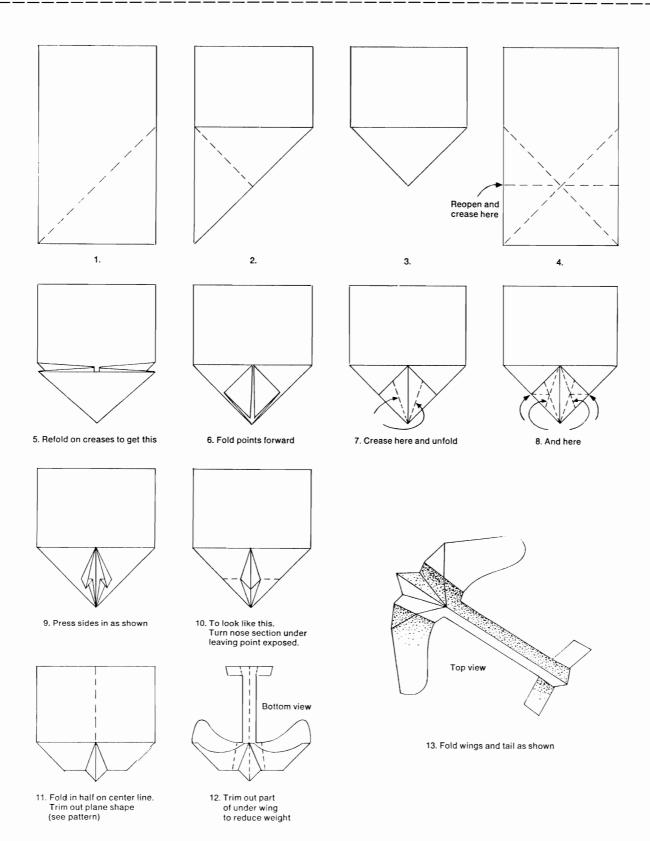


Plane E

Plane E was the Aerobatics/Nonprofessional winner. It's very fast and, depending on how you throw it, quite unpredictable. Sometimes it will dip immediately down to the floor, where it will glide in for a perfect landing. Other times it will take off for the stratosphere, make a few heart-stopping swoops and a long, slow turn—and then glide in for a perfect landing.

Given such a delightful performance combined with its long, narrow fuselage and rounded wing shape, we thought this would make an ideal strut and fabric glider, complete with reclining, goggled pilot. The cloth wings have been designed to fit this plane layout; or you can easily create your own custom wings. Use the pencil to draw scallops, batwings, or whatever, then use the straight line to make the spar lines. Try creating an interesting pattern that will give you the cloth texture; erase a row of pixels of the pattern as a highlight to help create a rounded surface. Look in More Wings & Tails for an example. For a World War I fighter look, combine the camouflage techniques with the cloth-wing look. The result is ultra-sharp!

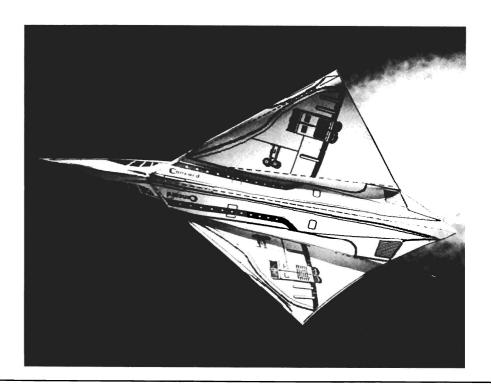


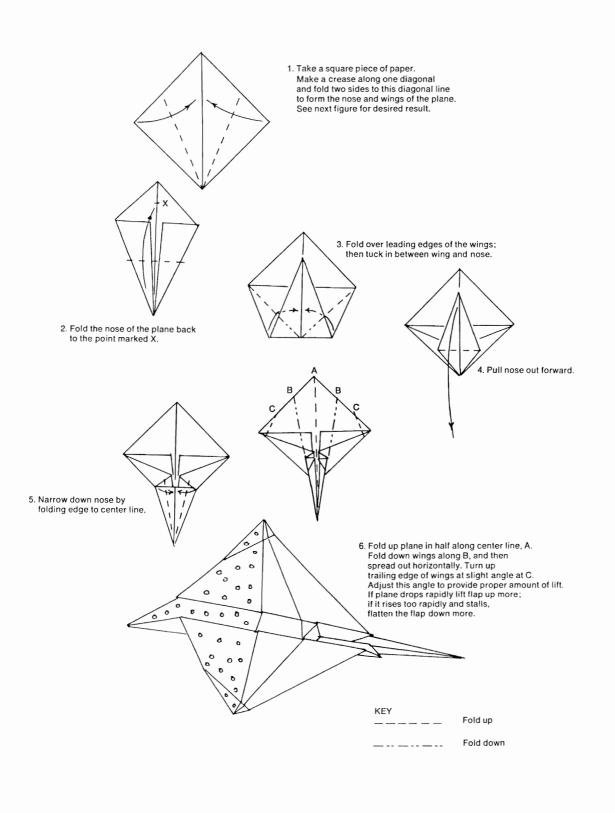


Plane F

Plane F won the award for Origami/Nonprofessional. Considering the nature of this category, don't be surprised if your plane is more of a showpiece than a flyer. Still, it's capable of a few aviation surprises.

This plane's long, angled nose and compact, swept-back wings suggest an SST-type design. Because the major axis of the plane is on the diagonal, any decorations that you create yourself will also have to be on a diagonal, and therefore simple flipping can't be used to generate both left and right sides. If your paint program allows you to rotate graphics elements, you can flip your graphics once, then rotate them once again. This will swing the elements round to the proper orientation. If your paint program won't let you rotate elements, you'll have to decorate the plane using other features of your paint program. Finish your design by adding your own airline logos and filling in the background.

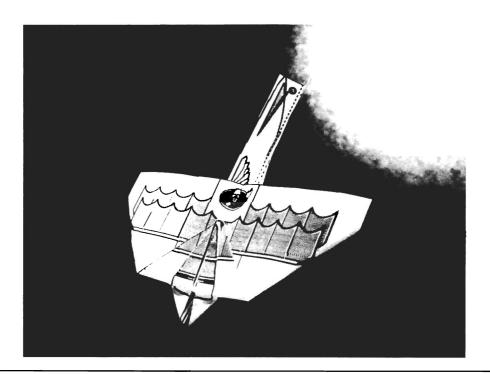


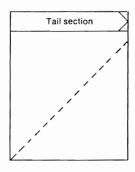


Plane G

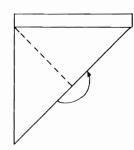
Plane G didn't win any awards, but don't overlook it. This spunky little plane does something none of the winners can: launch it and it quickly climbs to a stall, then circles around and lands quite nicely at your feet. This plane is unusual in its construction, as it's made from two pieces: fold one up to make the wings; the other, down the middle to form a fuselage. Both pieces come from a single sheet of 8½" x 11" paper.

This one is decorated like a World War I biplane. The complicated folding pattern makes covering the entire surface tricky, but with a little trial and error, you can adjust the registration of the graphics elements. The major elements are in More Wings & Tails. You will need to do a lot of duplicating of parts in order to get the biplane perspective. The WWI-style plane is perfect for lots of extra markings. Make a Spad in English markings to dogfight with a German Fokker.

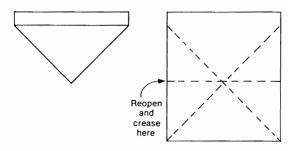




Cut out tail section.
 Fold on dotted line



2. Fold corner up . . .

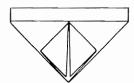


3. To make this

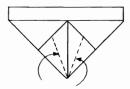




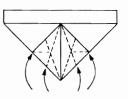
5. Refold on creases to make this



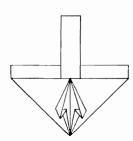
6. Fold points down



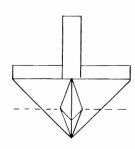
7. Crease here and unfold



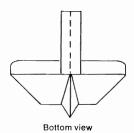
8. And again here



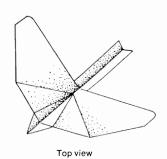
9. Fold in sides
as shown here
to look like next drawing.
Insert tail section
into nose of plane



Fold lower section
 back under plane
 at dotted line leaving
 point sticking out



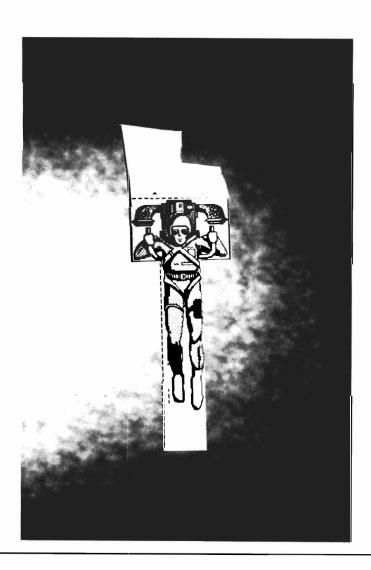
11. Fold plane and tail down center away from you

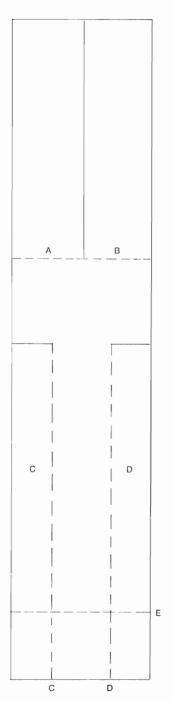


12. Launch this side up

Plane H

Plane H is a unique design for a vehicle with a spinning vertical descent. Stand on a chair or other high place and just drop it. One way to decorate it is as a jet-pack flier. You'll find his tail and his head separately under More Wings & Tails. All you have to do is match up the two halves at the appropriate points and he's ready to fly. To easily customize this flier, change his uniform and add markings to his helmet. Another appropriate design for this is a helicopter design. Jet-tipped 'copter blades can be found in the Hardware file.





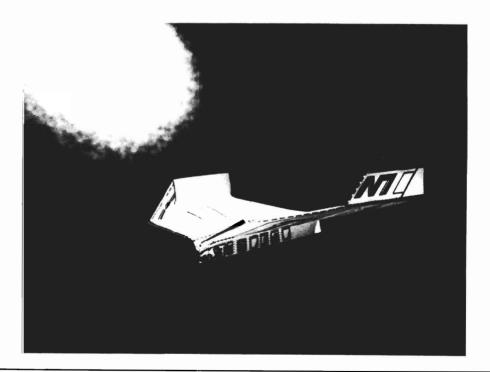
→ INSTRUCTIONS

Cut along all solid lines.
Fold A forward. Fold B backward.
Fold C in and overlap by folding D.
After folding C and D fold up at E.
Launch by dropping from high position

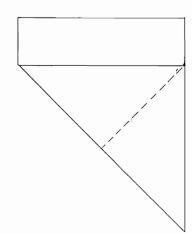
Plane I

Plane I is an interesting case. Flown rightside-up, it is a zippy, somewhat acrobatic flyer. Turned upside-down, it's a smooth sailer. Experiment with the angle of the wings, create flaps or turn up the edges of the wings slightly, and you'll get different flight results.

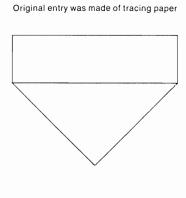
The decorations for Plane I transform it into an imaginary pusherprop commuter aircraft. The pilot's cockpit along with the passenger windows are from the Hardware file. Everything else is up to you. Mix and match the passenger windows, or add your own. If you like flying this plane in "upside-down mode," just flip the decorations over.



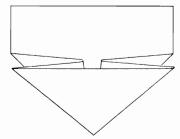
1. Fold up on dotted line



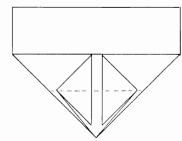
2. Fold again as shown



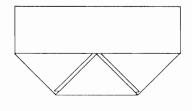
3. Now you have this.
Open up again and . . .



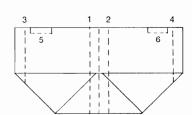
4. See plane E to help with this fo!d



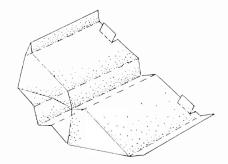
Fold corners down so they don't quite meet at center



6. Fold point up



7. Fold up on center line.
Fold wings down
on lines 1 and 2.
Fold wing tips up
slightly on lines 3 and 4.
Cut sides of wing flaps
and bend up slightly
on lines 5 and 6

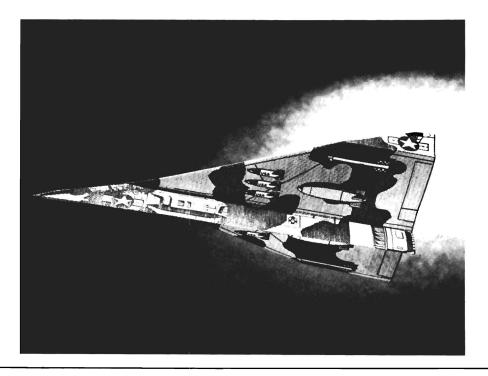


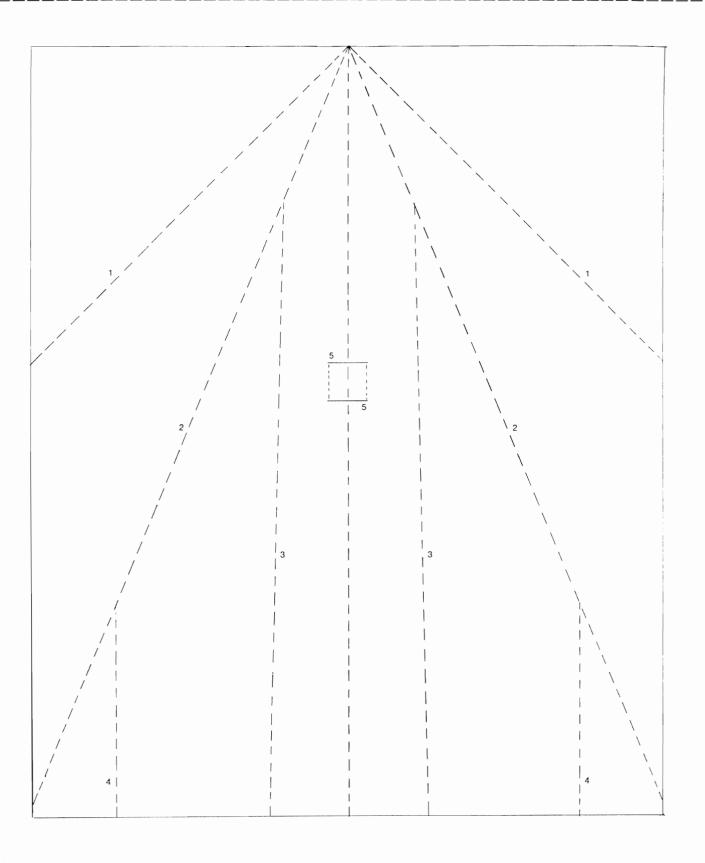
Plane J

Plane J is another basic paper airplane design. Its classic form suggests a modern delta-wing bomber. Select your own arsenal from the Hardware file. Choose from air-to-air, air-to-land missiles, bombs, recon pods, extra fuel pods, and the like. Don't forget to fill in some antiglare black around the cockpit. Also shown are seam and flap lines as well as one camouflage treatment.

${\tt INSTRUCTIONS} \rightarrow$

Fold at center line. Unfold and fold at 1. Hold down and fold at 2. Fold at center and then fold away from center at 3 to form wing. Fold up at 4 to form stabilizer. After folding is completed, cut along solid lines 5—double up on dotted line to lock body together.



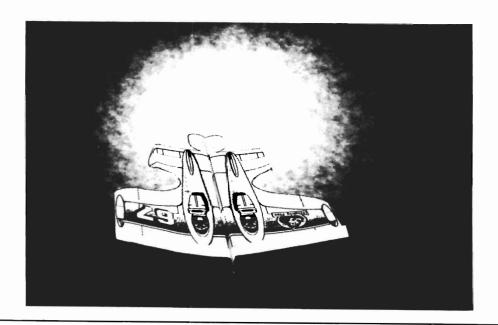


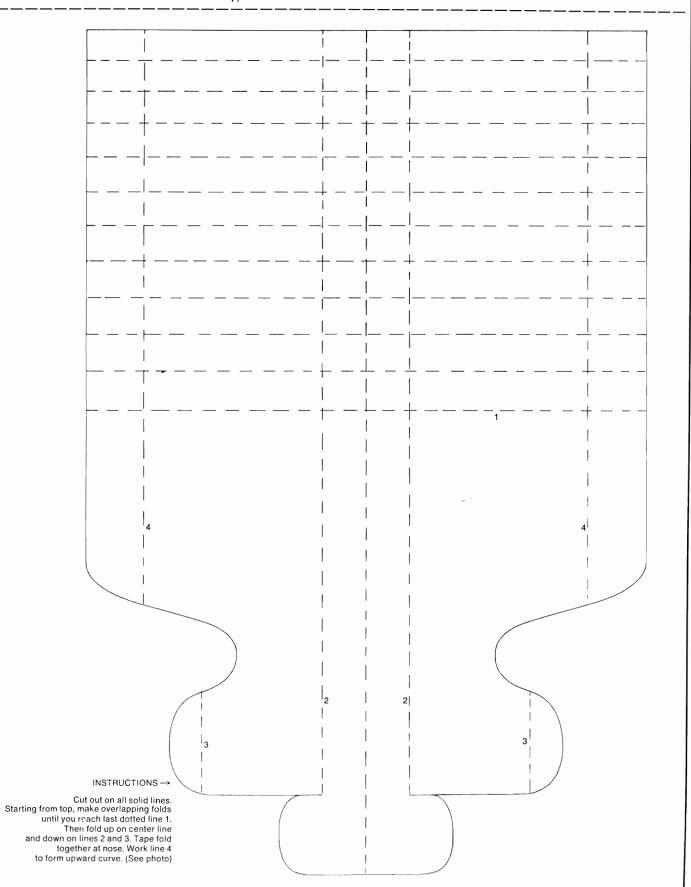
Plane K

This plane flies high and likes to turn. If you throw it gently towards the ground it will also pull up at the last minute and land a little more sensibly.

Plane K's wide waist and ample top surface allow for lots of experimentation. This twin-tail, twin-cockpit design is a fanciful combination of several airplane designs. The major graphic elements can be found in Wings & Tails, but as you can see here, it's possible to make fantastic designs by combining different elements in many ways.

The shading in this example is another easy-to-achieve effect. The fuselage shadow was done by "spraying" many times directly on the plane without "dragging the can." The dark-to-light shading on the wings was done in two steps. First, a portion of the screen was repeatedly sprayed to build up the shade transition. This pattern was copied onto the design and then pasted along the length of the wing. You can use this technique with any other pattern to create lots of dark-to-light, light-to-dark, or even soft-edge camouflage effects. Again, the background was filled in to emphasize the twin-tail shape.

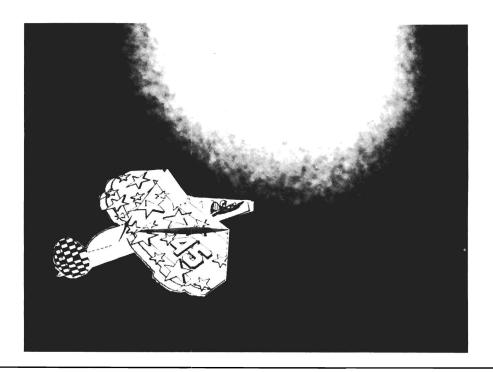


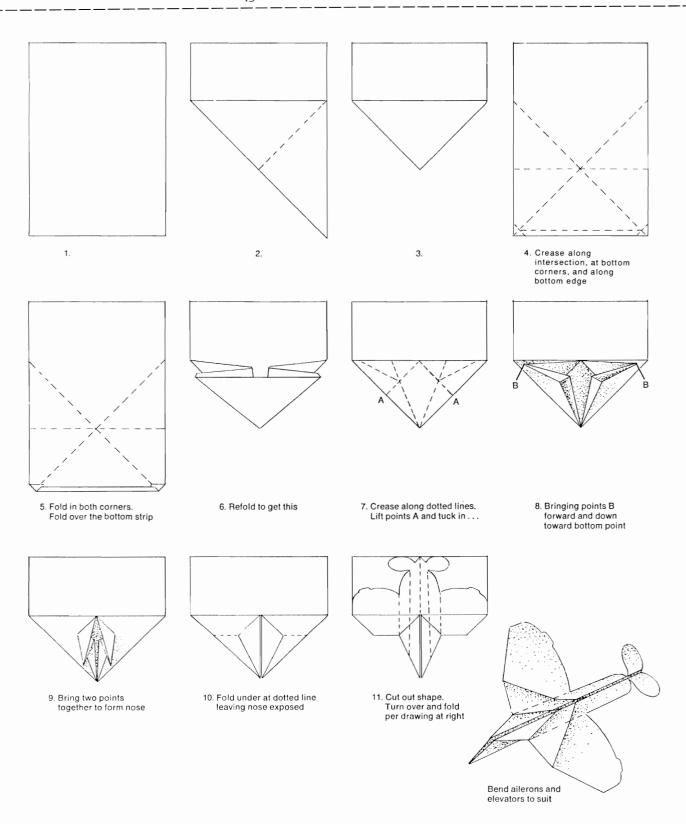


Plane L

Plane L is unique with its well-formed nose, wings, and tail. It's a spectacular-looking plane when fully designed; however, it's not going to win any flight contests so treasure it for its looks. This plane is one of the most fun of all to decorate.

In addition to the interesting shapes of the nose, wings, and tail, the folding pattern presents good decorating surfaces on both sides of the wings and on both sides of the fuselage. As such it makes a perfect sport or stunt aircraft. Lots of wild markings and paint jobs are called for here. One design (which appears in Appendix B) features wild checkerboards and stars: anything goes! Other ideas could include flames applied repeatedly to create a pattern on the leading edge of the wing and tail. You might also try different wing shapes with scallops, angles, and curves.

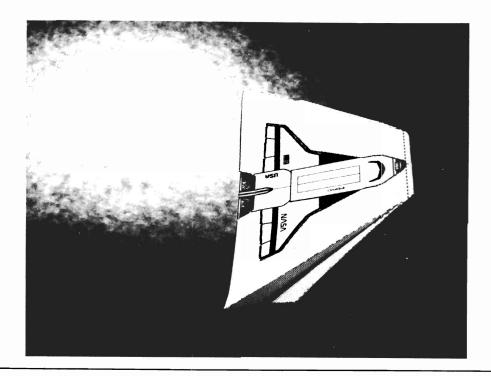


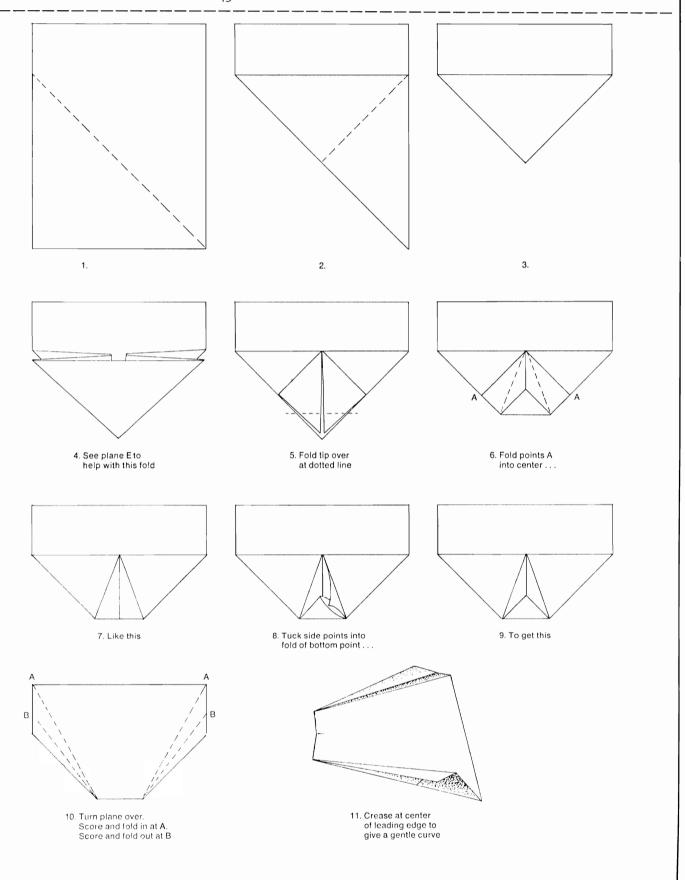


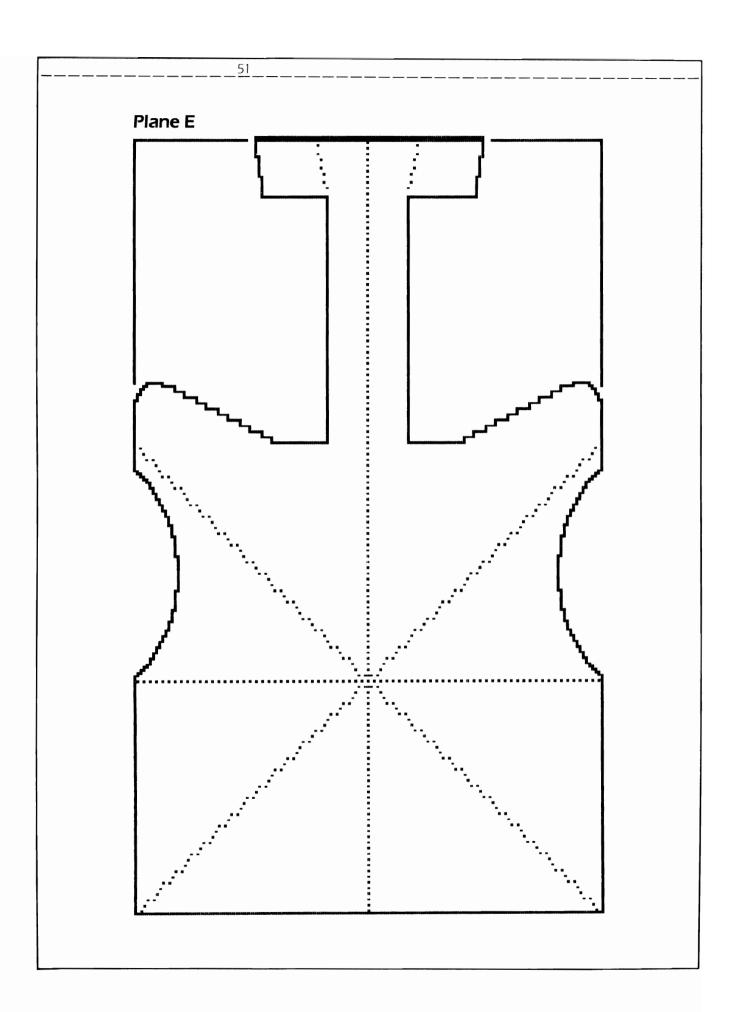
Plane M

The whole top surface of Plane M is available for decoration. This version depicts the space shuttle, which you'll quickly see is an appropriate flight choice. Launch it at a slight upward angle and it will follow a long, arcless path before coming in for a landing as smoothly as its real counterpart.

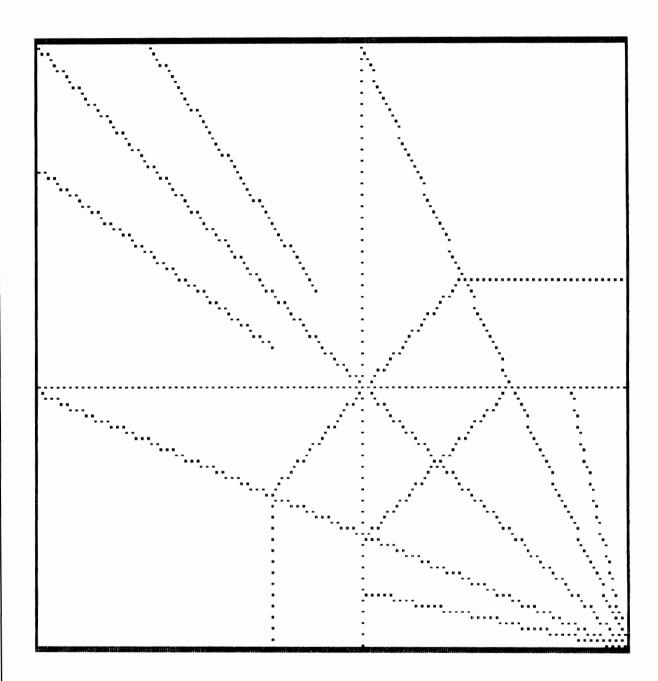
The distinctive graphic design of Plane M can be quickly created from the box and oval tools together with graphics elements found in Wings & Tails. The background is filled in to set off the white delta-wing shape. You can modify this version to show an open bay door and the robot arm in action. You may even want to create your own astronauts to work the arm.

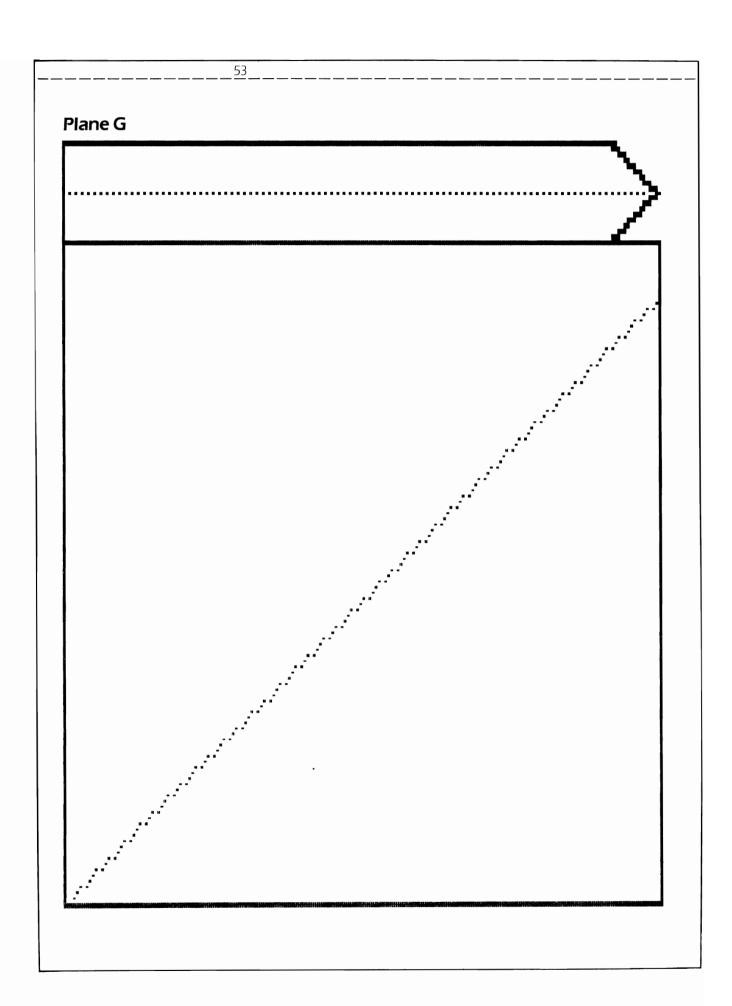


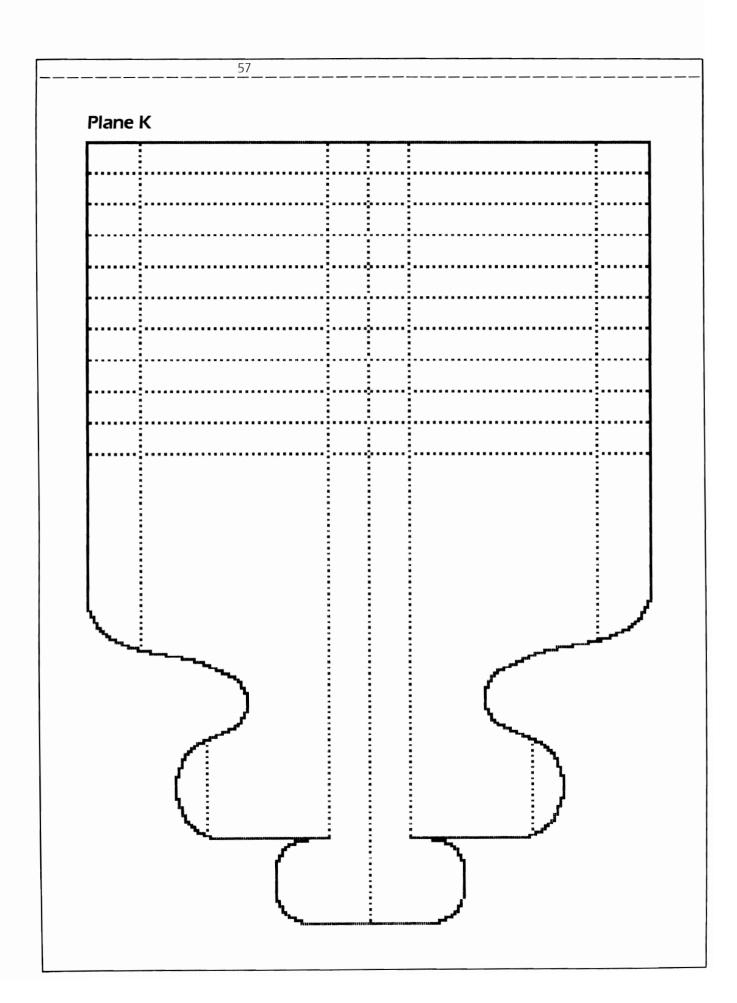


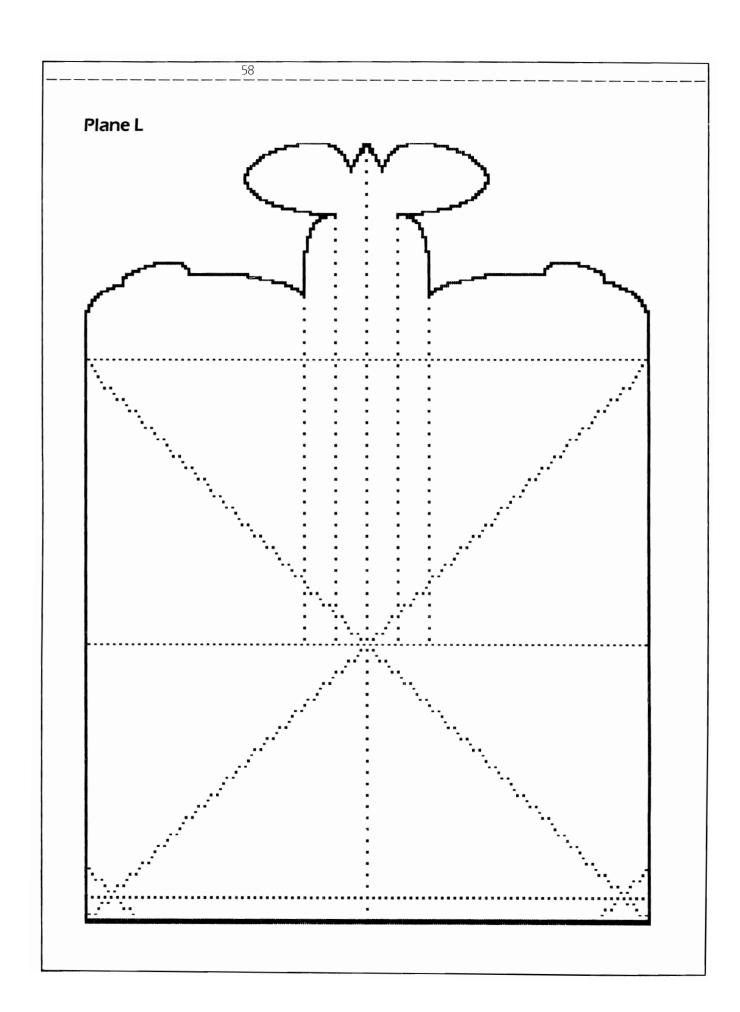


Plane F

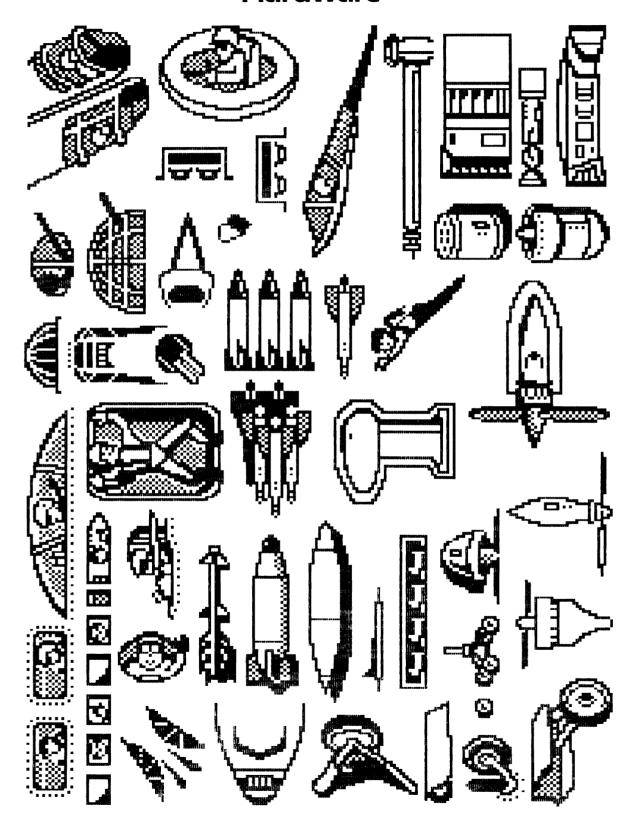






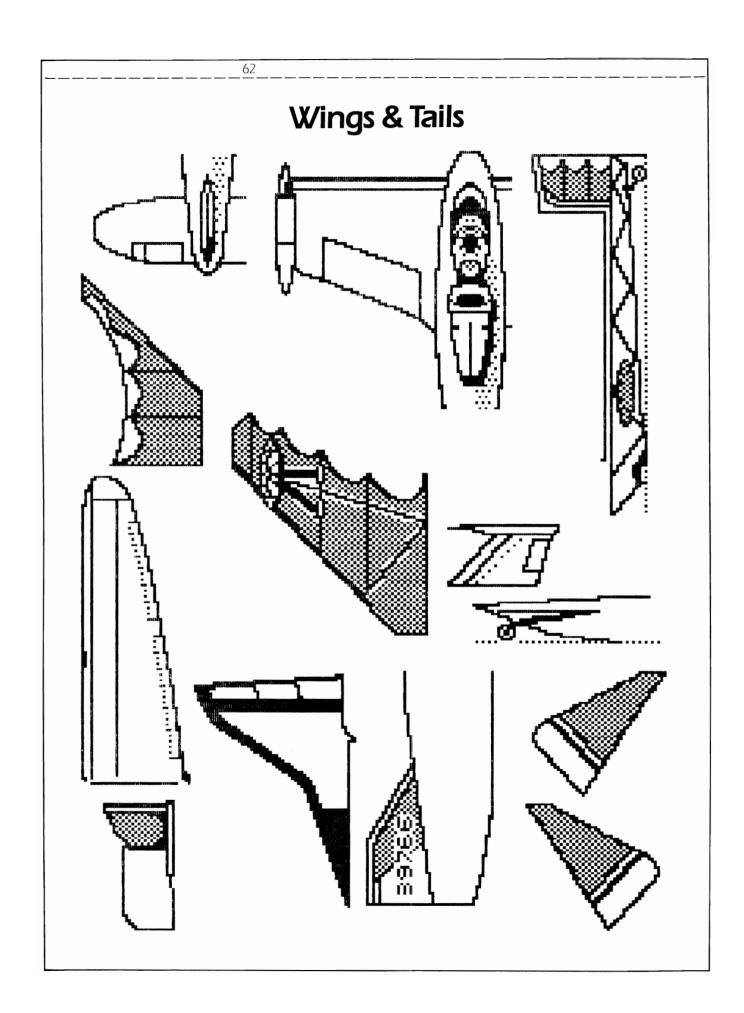


Hardware



Markings

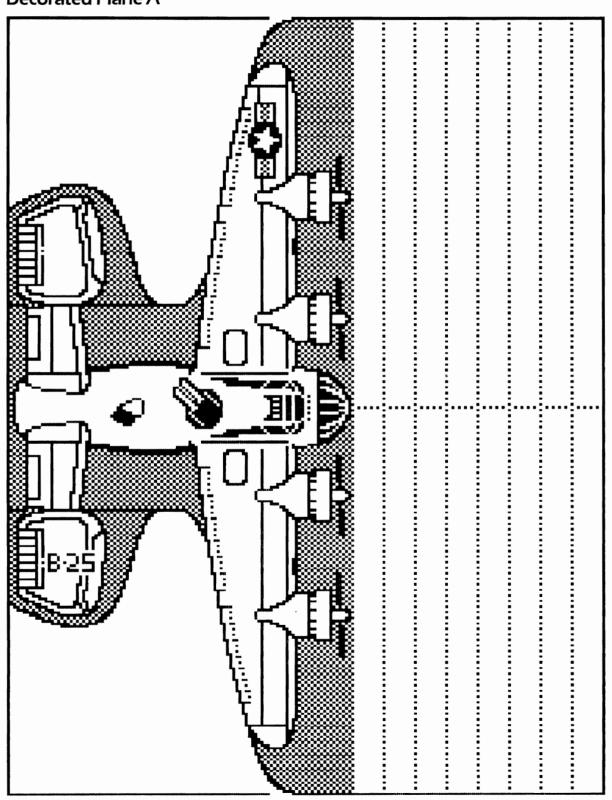




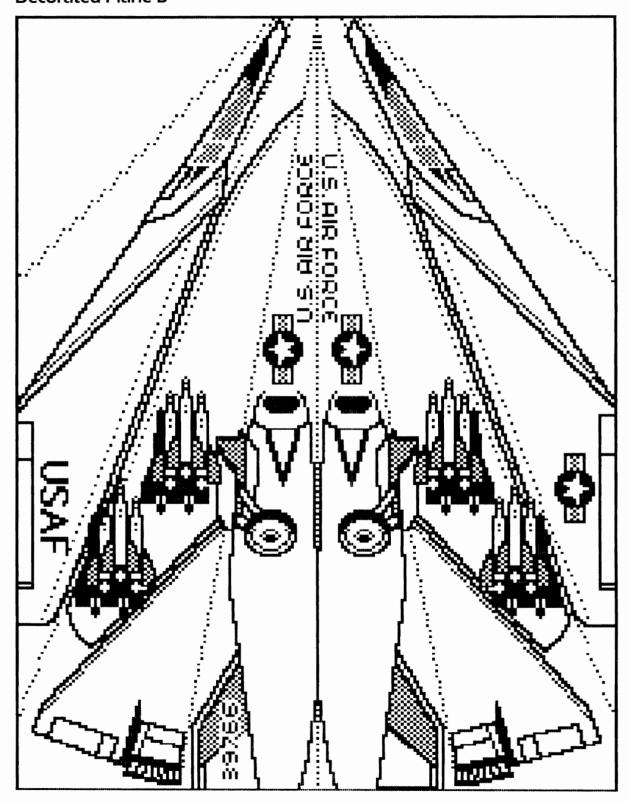


APPENDIX B Decorated Planes

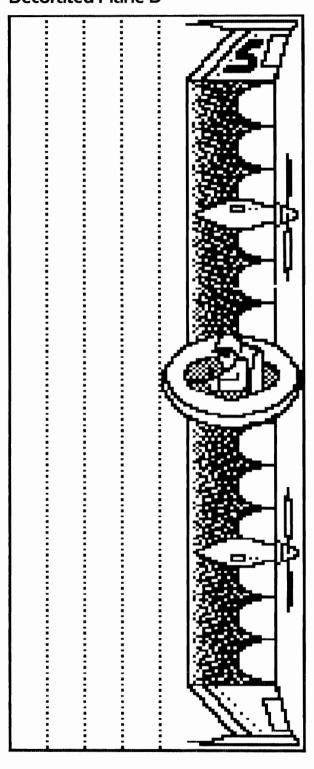
Decorated Plane A



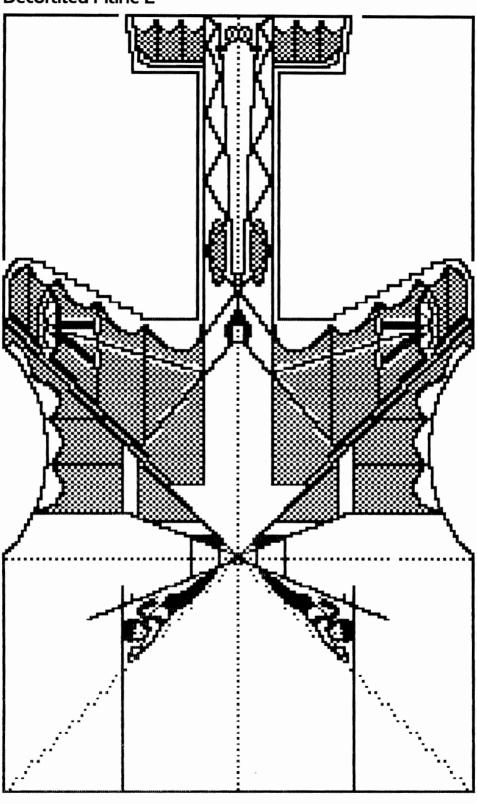
Decorated Plane B



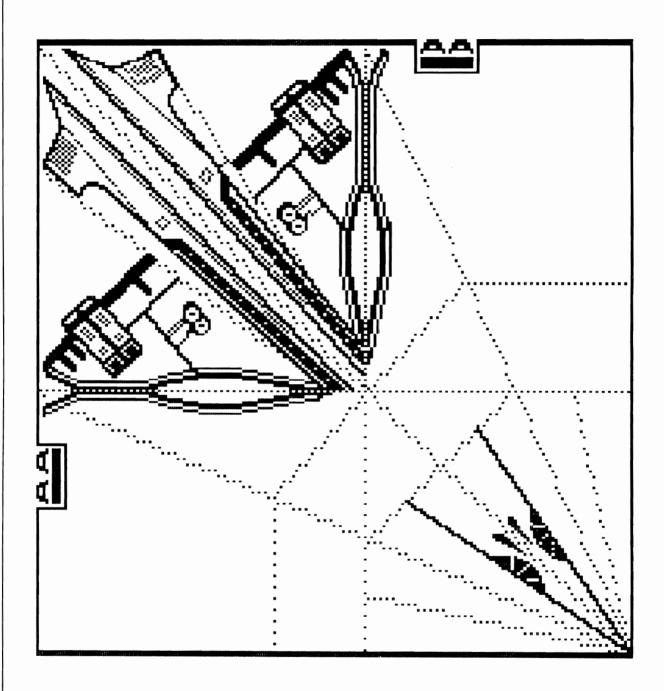
Decorated Plane D



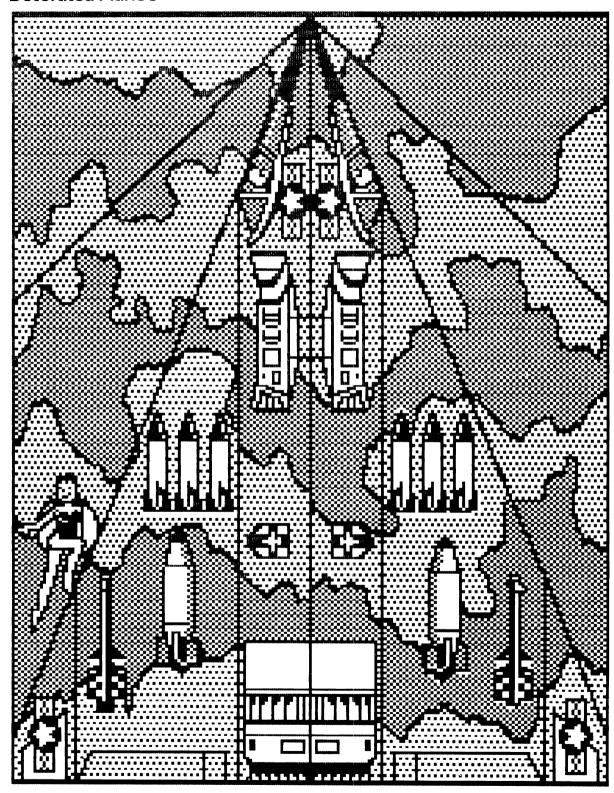
Decorated Plane E

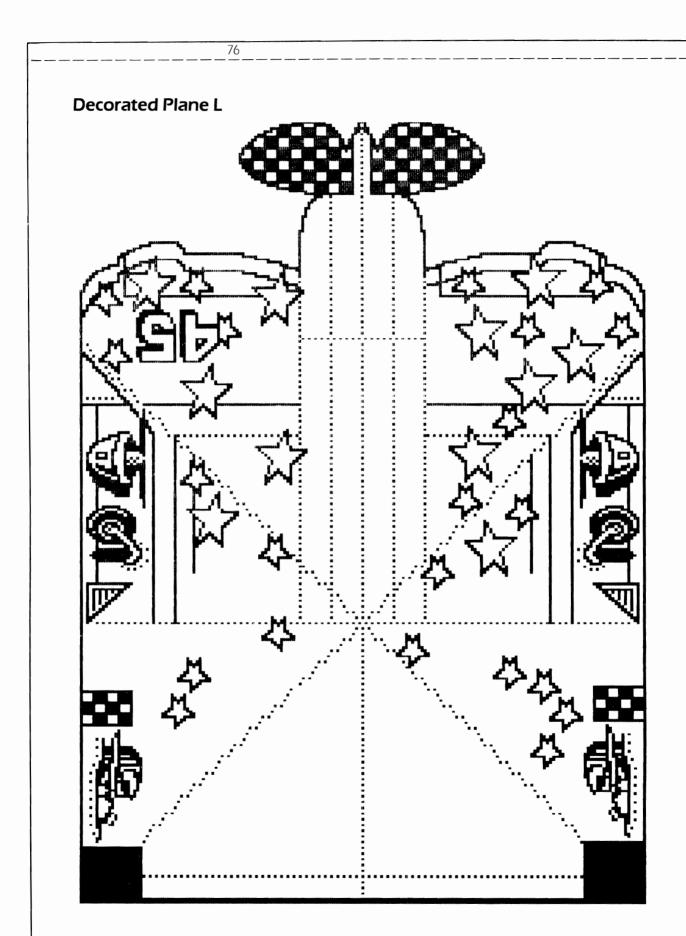


Decorated Plane F

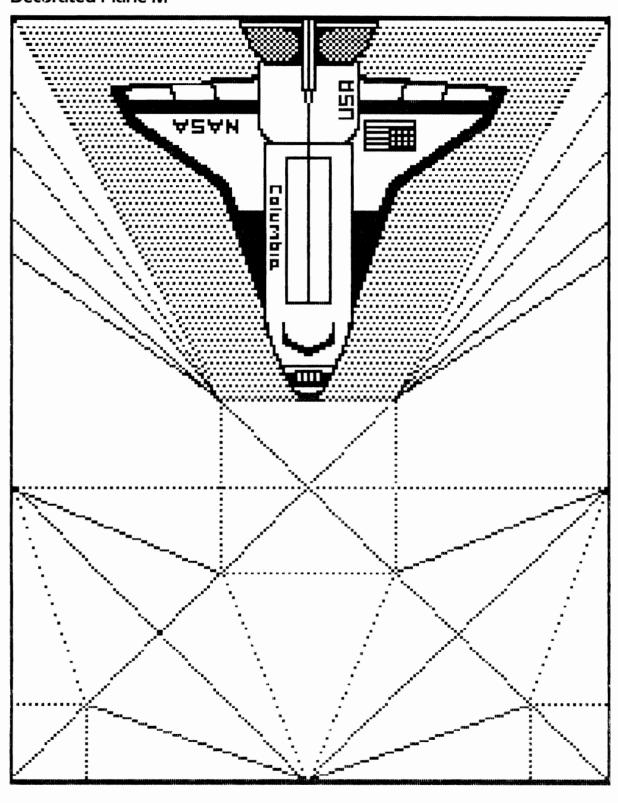


Decorated Plane J





Decorated Plane M



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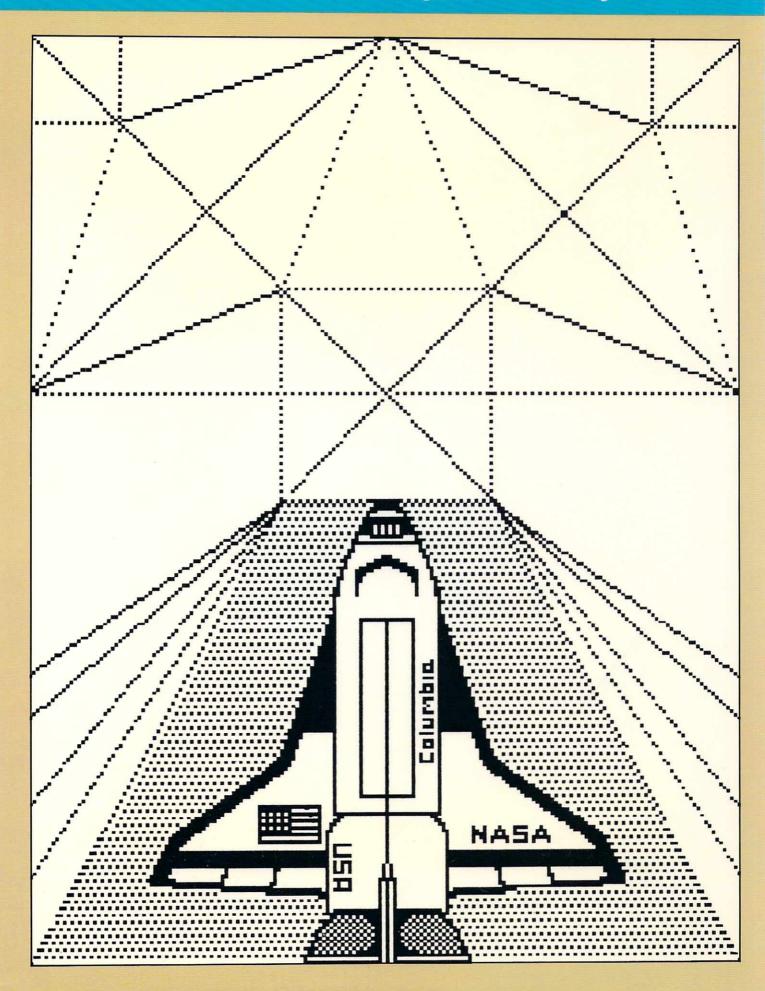
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HONE NUMBER () Great Int	l. Paper Airplane Constructio	on Kit (C-64)
OATE OF PURCHASE	PURCHASE PRICE	
OMPUTER BRAND	MODEL	
OOS VERSION		MEMORY
Where did you purchase this product?		
DEALER NAME		
ADDRESS		
CITY	STATE	ZIP
How did you learn about this product? (C	Check as many as applicable.)	
STORE DISPLAY SALES PER	SON MAGAZINE ARTICLE	ADVERTISEMENT
OTHER (Please explain)		
How long have you owned or used this o	computer?	
LESS THAN 30 DAYS LESS THA	AN 6 MONTHS 6 MONTHS TO A YEAR	OVER 1 YEAR
What is your primary use for the comput	ter?	
BUSINESS PERSONAL E	EDUCATION OTHER (Please explain)	
Where is your computer located?		
	OTHER (Please explain)	

PUT STAMP HERE

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ATTN: PRODUCT REGISTRATION

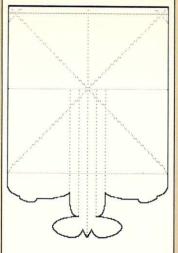


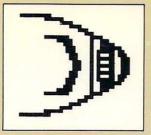
THROW THIS SOFTWARE RIGHT OUT THE WINDOW

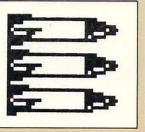
Introducing The Great International Paper Airplane Construction Kit

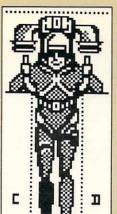




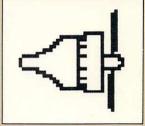












Here's the Wright stuff for Commodore owners! Inspired by the bestselling Great International Paper Airplane Book, this kit is an easy-to-use program with blueprints for an entire fleet of full-page paper airplanes, including an F-111 fighter, vividly decorated stunt planes, the Concorde SST, the Space Shuttle, and even a jump pilot!

Fly the friendly skies of your living room using the 13 blueprints taken directly from the award-winning planes appearing in the 1st International Paper Airplane Competition.

This program contains completed planes that are ready to print, fold, and fly. And better still, with the Koala Pad™ Touch Tablet you can do much more:

add wings, tails, windows, hatches, rockets, landing gear, propellers, stars, thunderbolts, decals, pilots (silk scarf optional) — even stewardesses — from files

of aircraft hardware and aeronautical markings. Create an infinite number of new planes of your own design.

Requires a Commodore 64 or 128, one disk drive, and a compatible printer. For a list of compatible printers, see the plastic envelope inside this back cover.

KoalaPad™ Touch Tablet recommended

Computer Software Division Simon & Schuster, Inc.

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