SR-75 Penetrator Instructions

No. 568

HISTORY

While most aircraft watchers are looking for the *Aurora* to be a singular fantastic advanced aircraft, there is good reason to believe it is actually a *2 plane system*. Secondly, *Aurora* is not the proper codeword even though that word is commonly and widely used to designate the hypersonic system. The correct codeword for the system remains classified.

As best as can be determined at this point in time there is a "mother" aircraft that we have termed SR-75 and a craft - that *is capable of hypersonic speed* - which is launched from the back of the SR-75. This craft we have designated XR-7.

You have the SR-75 model. You can also build the fantastic XR-7, Testor kit No. 567, in matching 1/72 scale to mount atop the SR-75. This makes a most impressive combination.

The SR-75 spans 97 feet 6 inches and is 160 feet 10 inches long. Power is four huge turbojets with afterburners. It has a 3 man crew: pilot; reconnaissance systems operator and a rearward sitting launch control officer to monitor the *variety* of loads which can be launched from the back of the SR-75. The SR-75 is capable of Mach 3.5 and can fly reconnaissance missions as well as being a launch aircraft. It is likely the airplane has the ability to remotely sense nuclear materials, and their effects, using highly sensitive gamma detectors and other devices. This, in today's world, is a very important mission not only benefiting the United States but also other nations concerned with proliferation of nuclear weapons.

The airplane has been seen in flight throughout the United States - both night and day - and appears to be operational. It is said to have been built by the Lockheed Corporation's Skunk Works division. First flights were from the remote test facility at Groom Lake, Nevada.

The Testor models of both the SR-75 and the XR-7 are based upon the best information openly available at this time. A number of technological guesses are incorporated in the model designs since the actual airplanes are still very secret.

REFERENCES

For additional information on hypersonic aircraft see the following book: **Aurora - The Pentagon's Secret Hypersonic Spyplane; Mil-Tech Series**; Bill Sweetman; Motorbooks International, Osceola, Wisconsin 54020 USA.

BEFORE STARTING

1. Study the illustrations and sequence of assembly before beginning.
2. Decide how much detail you wish to add to your model and whether or not you intend to modify or "convert" the basic model in any way. Study carefully all available reference material before beginning to ensure an authentic model.
3. Due to the amount of parts in this kit, do not detach the parts from the runner of the parts tree until you need them. This helps avoid confusion and lost parts.
4. When cementing the parts together, check the way one part fits together with another. This assures a neat job with no surprises.
5. Always remember when working with plastic model cement and paint to keep your work area well ventilated. The fumes from plastic modeling products can be harmful if inhaled.

PREPARATION OF PARTS

1. Never tear parts off the runner (parts tree). Use a Testor Hobby Knife, fingernail clippers, or a small wire cutters to remove the parts from the tree.
2. It is possible some parts may require a little attention with a file or sandpaper to ensure a proper fit and neat appearance. Hobby files and Testor Hobby Sandpaper appropriate for model building are available in most good hobby shops.

PAINTING

You can obtain an excellent finish on your model using Testor products and paints. Detailed descriptions of paint types and color are included on the pages that follow.

Good brushes are essential for proper detailing. Testor brushes are recommended, included in this kit, and are available at good hobby stores. Be sure you have the entire selection for all your modeling needs. Always clean them in Testor thinner, wash in soap and water, and store with bristles upward when not in use.

Wash plastic parts before detaching them from the parts tree. Warm water and liquid dishwashing detergent will remove the oils left from the manufacturing process. Let the parts dry and avoid excessive handling. Immediately before painting, wipe the parts with a "tac rag" (available at auto parts stores) to remove dust and lint.

Most small parts are best painted while still attached to the parts tree. You can also detach them and hold with tweezers or "magic" tape while painting. Paint in one direction only. If your paint is the correct thickness brush strokes will disappear as the color dries. If the paint seems too thick, thin with Testor Paint Thinner. Wheels may be detached from the parts tree and fit onto toothpicks or matchsticks for painting. Just hold the paintbrush against the edge of the wheel and rotate the stick and wheel to obtain a neat finish.

Let the paint dry completely before handling. When the parts are dry, assemble the model, following the directions closely. Remember cement will not hold strongly to painted surfaces. Use your Testor Hobby Knife to carefully remove paint from all surfaces to be cemented. After you have assembled the model you can touchup areas where cement might have marred the finish.

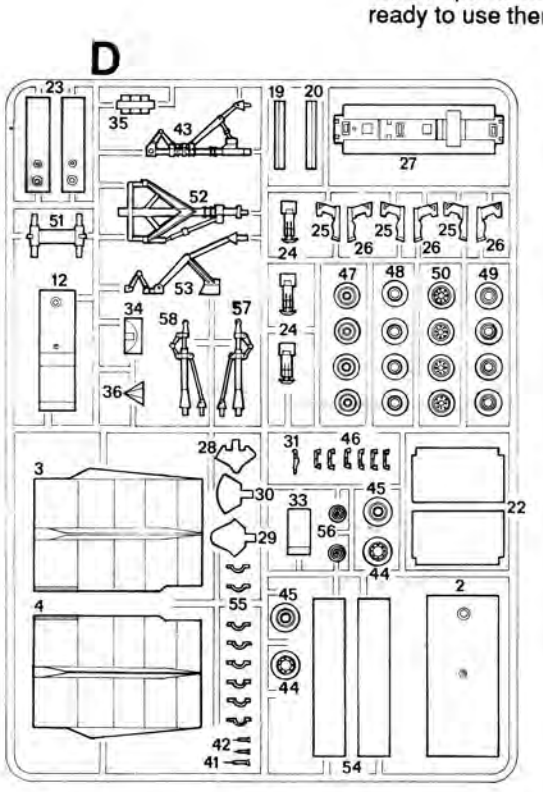
Tweezers will be useful in assembling the many small parts in this kit. The type used by postage stamp collectors is recommended.

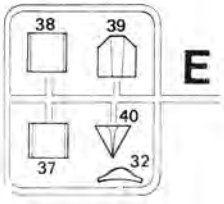
Liquid cement, Testor #3502, is recommended for construction since it can produce the neatest, quickest, and strongest glue joints. Apply small amounts of cement, using the tip of a Testor ***Model Master*** No. 2 brush, to the surfaces to be joined while holding the parts in place. **Do not** use large amounts of cement.

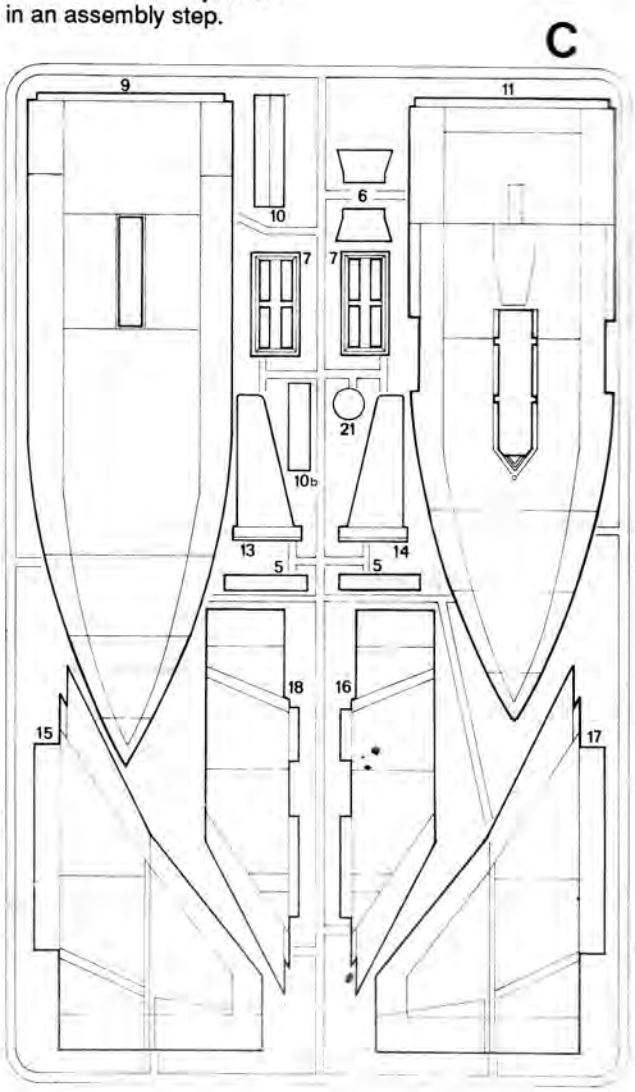
Note: Clear parts are best glued in place with white glue. White glue will not mar the plastic and thus results in a better appearance than conventional model cement.

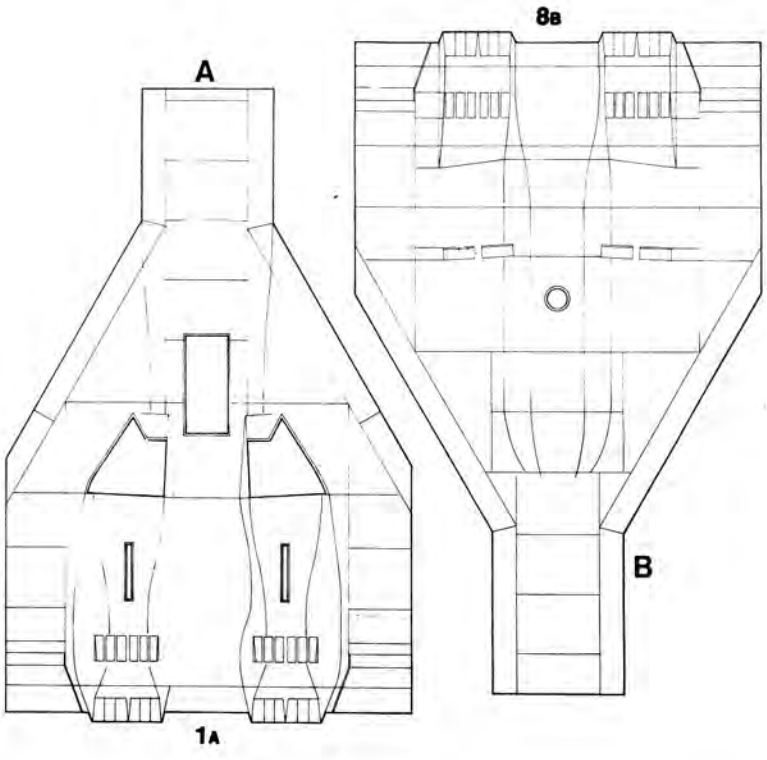
The Testor ***Model Master*** paint system is specially designed to be used on military models. The **Preliminary Painting** instructions on this sheet indicate which ***Model Master*** colors to use as indicated by name and Federal Standard (**FS**) number. These colors are called out by ***bold italic type***. Wherever ***Model Master*** colors are not applicable the required Testor color will be called out by number and name in **regular bold type**.

Use these drawings as a guide to locate the parts in the kit. In the instruction sheet assembly steps the windscreen, for example, will be called as **40E** while the upper forward fuselage will be named as **11C**. Do not remove parts from Parts Tree **D** until you are ready to use them in an assembly step.









COLOR KEY

A FS 17038 Gloss Black
B FS 37038 Flat Black
C FS 36375 Light Ghost Gray
D FS 17875 Insignia White
E FS 34087 Olive Drab
F FS 30279 Dark Tan
G FS 17178 Chrome Silver
H FS 33531 Sand
I No. 1103 Red
J No. 1124 Green
K No. 1114 Yellow

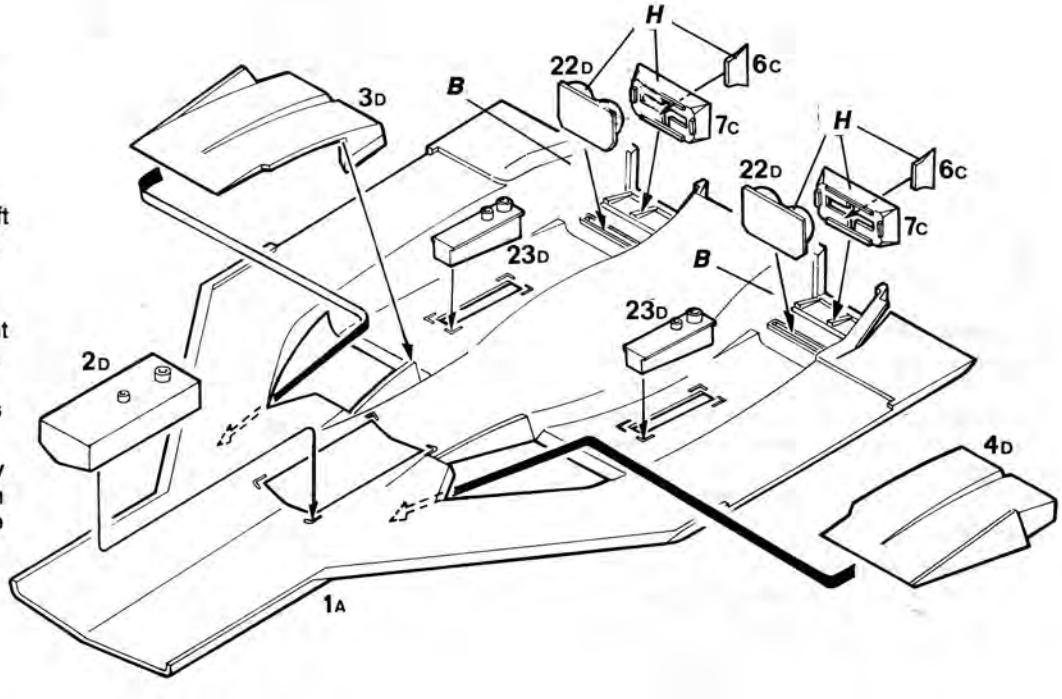
1 MAIN INTERIOR DETAILS

Preliminary Painting

Paint details as shown before assembly. Follow letter callouts and **Color Key**.

Assembly

1. Cement Main Landing Gear Box, **2D**, into place. Follow with the Outboard Gear Boxes, **23D**. Now cement the Left Intake Ramp, **4D**, and the Right Ramp, **3D**, into place as shown.
2. Cement the Nozzle Splitters, **6C**, into the Nozzle Boxes, **7C**, and then cement the Boxes into the Lower Aft Fuselage, **1A**. Now cement the Engine Aft Pipe Bulkheads, **22D**, to the Aft Fuselage as shown.
3. Give this assembly plenty of time to dry before proceeding to Step 2. The Main Landing Gear Box needs the most time to dry since it will be supporting the weight of the entire model once your model is completed.



2 AFT FUSELAGE UNIT

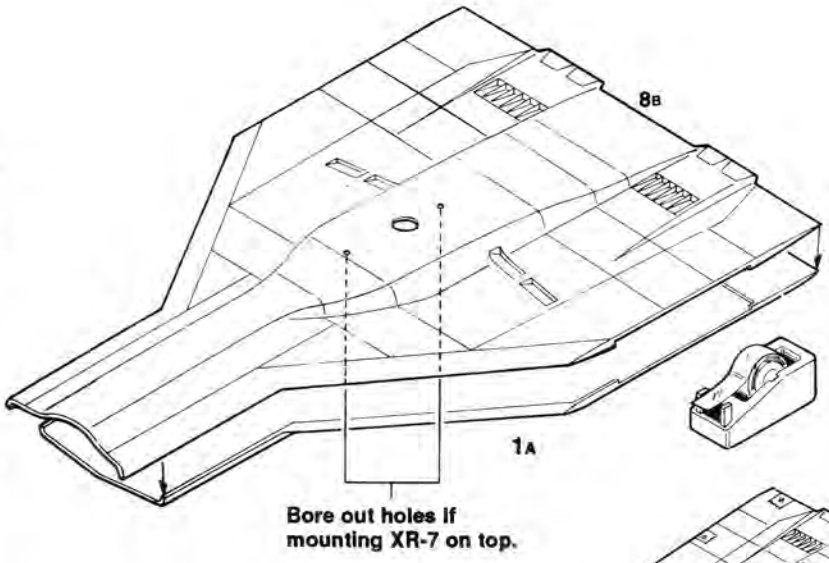
Note: Decide if you will building your SR-75 to have the XR-7 mounted on its back as shown on page 10. If so you must bore out the two holes in the top of the Upper Rear Fuselage, **8B**.

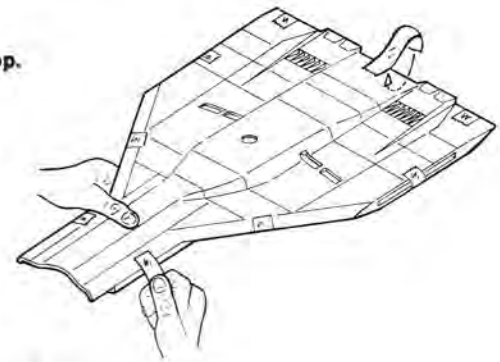
Preliminary Painting

There is no Preliminary painting required.

Assembly

1. Carefully cement the Upper and Lower Rear Fuselage halves, **8B** and **1A**, together. After the parts have dried for a short time clear tape can be used to hold them together. Be neat.





Technical Note

The bulged upper area of the SR-75 is cargo area as well as fuel storage. Its use varies with the mission requirements. As well as carrying and launching the Mach 7 reconnaissance aircraft the Testor Corporation has named as XR-7 *Thunder Dart*, Testor Kit No. 567, the bay can also hold and launch satellite boosting rockets to place new small sized reconnaissance satellites into orbit. The SR-75 is versatile and this makes it valuable and cost effective in a time of downsized military budgets.

COLOR KEY

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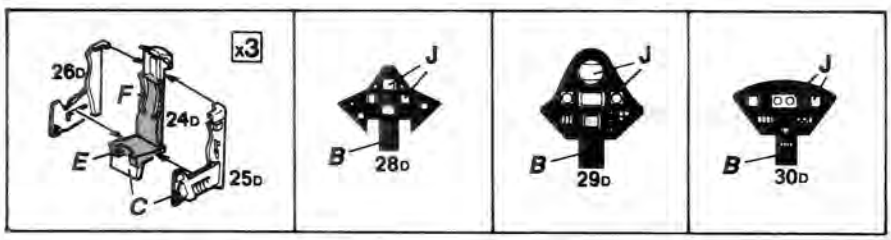


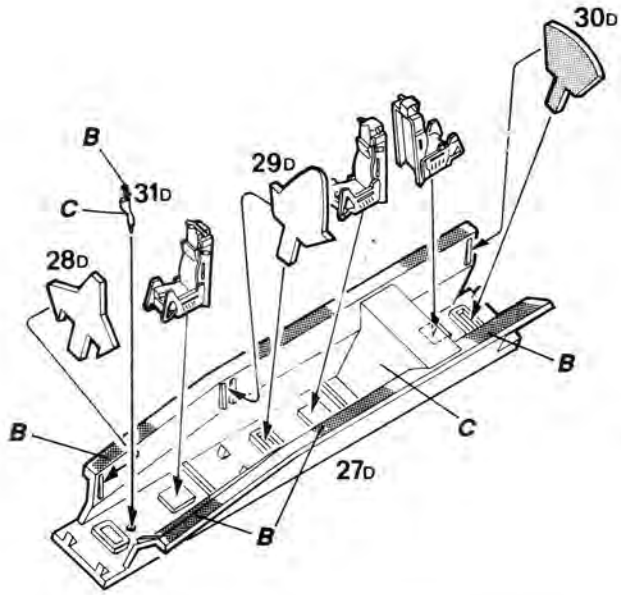
3 COCKPIT TUB

Preliminary Painting

Paint the parts as shown before assembly. Use a little imagination in painting the 3 instrument panels. The knobs should have a variety of colors: red, yellow, green. Use your good judgement. Paint the 3 Seats and the Cockpit Tray, **27D**, as shown.

Assembly

1. Assemble the Seat parts as shown in the first block of the painting panels.
2. Cement the Pilot's Control Stick, **31D**, into place. Next cement the 3 Seats followed by the Panels, **28D**, **29D** and **30D**.



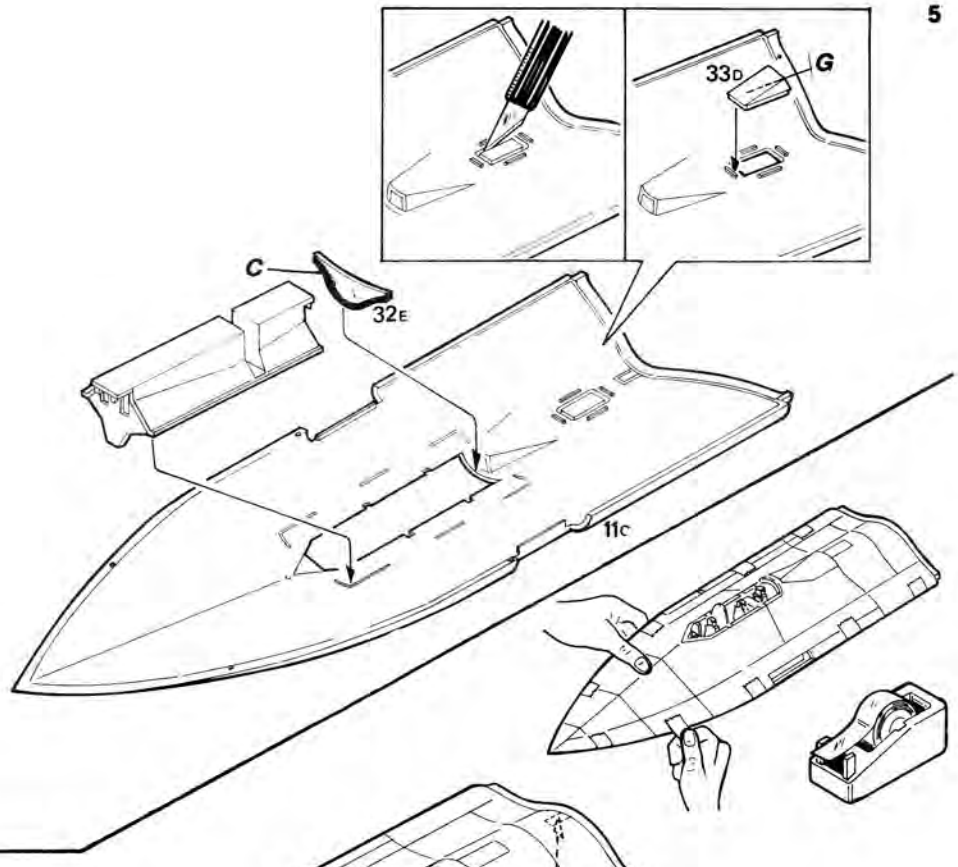
4 FORWARD UPPER NOSE

Preliminary Painting

Paint the edge of the View Glass, **32E**, as shown. If you want to show your model with the Aerial Refueling Socket, **33D**, in place then paint it as shown.

Assembly

1. If building with the ARS, **33D**, in place you must cut the ARS panel out of the top of the Forward Upper Nose, **11C**, where shown. Leave the panel in place if you are not going to install the ARS in the refueling position.
2. Now carefully cement the View Glass, **32E**, into place. Next cement the Cockpit Tray from Step 3 into place as shown on **11C**.



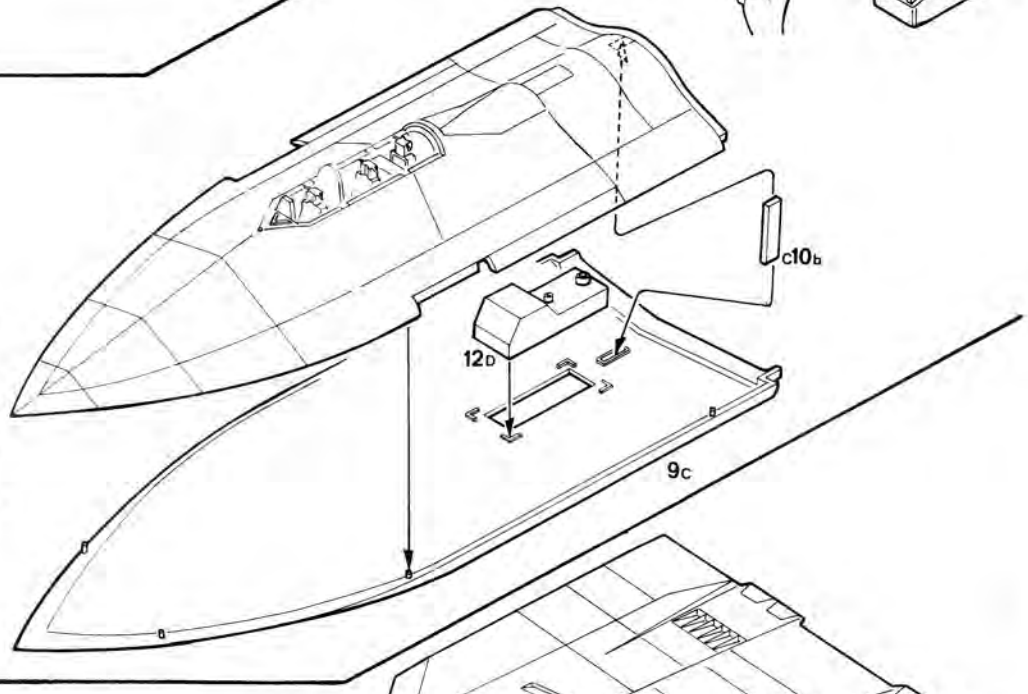
5 FORWARD FUSELAGE

Preliminary Painting

None required in this step.

Assembly

1. Cement the Nose Gear Box, **12D**, to the Lower Forward Fuselage, **9C**, where shown. Next cement the Crush Spacer, **C10b**, to the Lower Forward Fuselage, **9C**.
2. Now carefully cement the upper, **11C**, to the lower fuselage, **9C**, as shown. Be sure to guide the upper end of **C10b** into the proper place in the upper fuselage. Allow the parts to dry before going to Step 6.



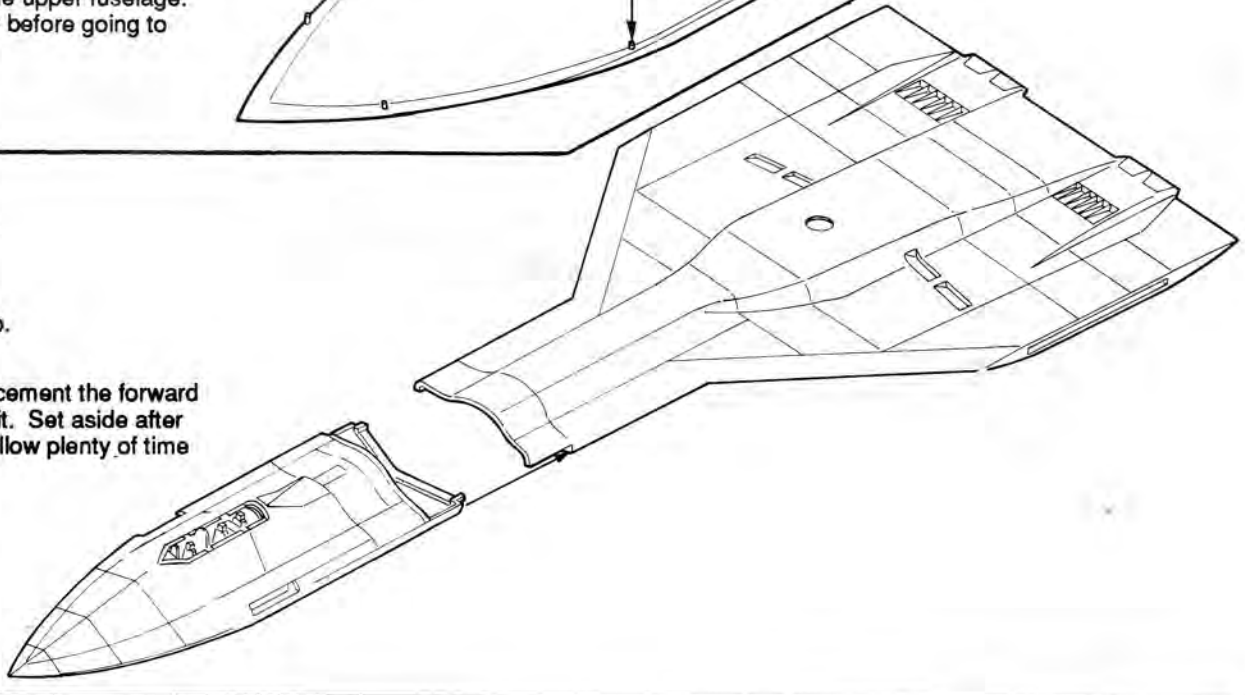
6 CENTER UNIT

Preliminary Painting

None required in this Step.

Assembly

1. Carefully and neatly cement the forward fuselage unit to the aft unit. Set aside after checking alignment and allow plenty of time to dry. Overnight is best.



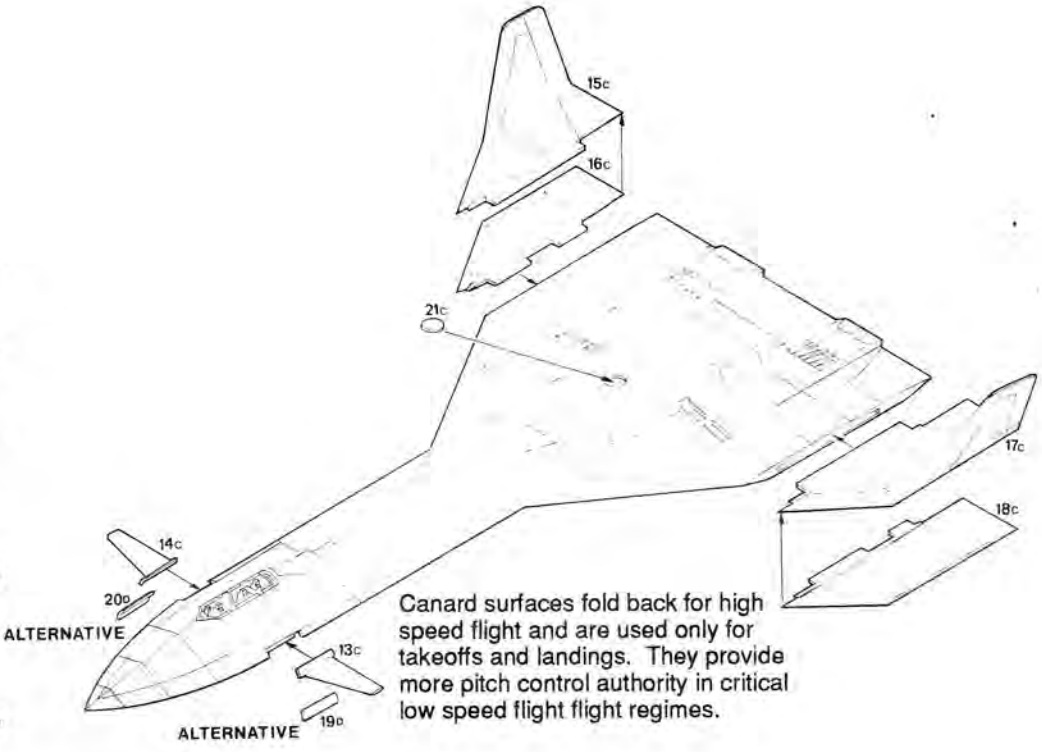
7 BASIC AIRPLANE

Preliminary Painting

None required in this Step.

Assembly

1. Cement Left Lower Outer Wing, **18C**, to Left Winglet, **17C**. Do the same for Right Lower Wing, **16C**, and Right Winglet, **15C**. Now cement the tip units to the wings as shown.
2. Cement Pylon Connector Fairing Plug, **21C**, to the fuselage taking care to see that it fits well and smoothly with top.
3. Determine whether you want to show your model in a configuration with the forward canard lifting surfaces in an open or retracted position. Normally the canards are extended when the SR-75 is on the ground. If extended, cement the Left Canard, **13C**, and the Right Canard, **14C**, into place as shown.
4. If building without the canards extended, cement the Canard Fairings, **19D** and **20D**, into place where the Canard surfaces would have gone.



Canard surfaces fold back for high speed flight and are used only for takeoffs and landings. They provide more pitch control authority in critical low speed flight flight regimes.

COLOR KEY

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Technical Note

The SR-75 has a crew of three - one more than the Lockheed SR-71. The third crewman is the Launch Control Officer(LCO). Facing rearward, the LCO communicates with the pilot in the XR-7 and can determine if everything is okay prior to the launch of the XR-7 from the back of the SR-75. The LCO is very important to the coordination and safety of launches.

8 COCKPIT AREA

Preliminary Painting

Paint the parts as shown after determining if you are going to build the gray/black test aircraft or the all-black operational SR-75.

Assembly

1. Cement the Panel Fairings, **36D**, **34D** and **35D**, into place as shown. If you are building your model with the Canopy Hatches, **39E**, **38E** and **37E**, closed then carefully cement them into place as shown in **Figure A**. Now cement the Windscreen, **40E**, into place.
2. If building with the Canopy Hatches in the open position cement the Windscreen into place first. Then carefully cement the canopies and Actuator Cylinders, **41D** and **42D**(2), into place as shown in **Figure B**. Work very carefully and neatly and check parts for alignment while the cement is drying.

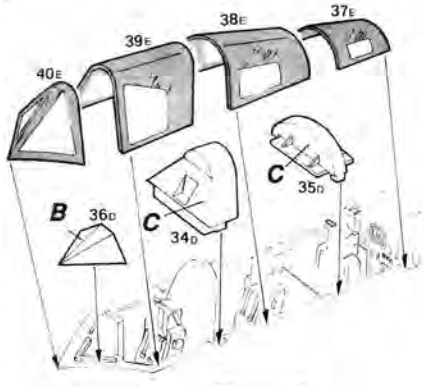


Figure A

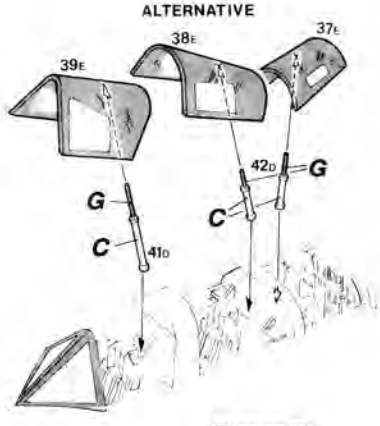


Figure B

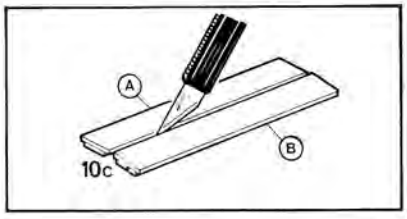
9 NOSE GEAR

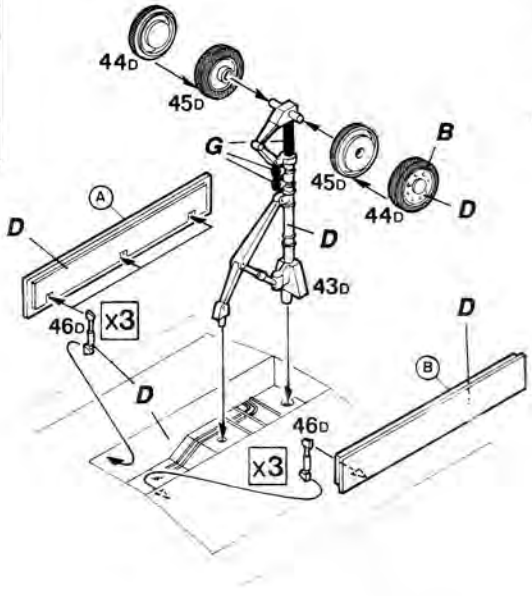
Preliminary Painting

Paint the various landing gear parts and doors as indicated. Be neat.

Assembly

1. Cement the Inner Nose Wheel Halves, **45D**, to the Outer Nose Wheel Halves, **44D**. Now cement these wheel and tire units to the axles of the Nose Gear Strut, **43D**. Next, cement the strut into place in the Nose Gear Box as shown.
2. Cut the Nose Gear Door Unit, **10C**, as shown. (If you are building your model with the landing gear up and the model is to be hung from a ceiling then do not build the landing gear and simply cement the Door Unit, **10C**, into the fuselage.)
3. Cement the Door Hinge Links, **46D** (6 of them) to the doors as shown. Now cement both doors into place. Carefully check for alignment and neatness.





10 MAIN LANDING GEAR

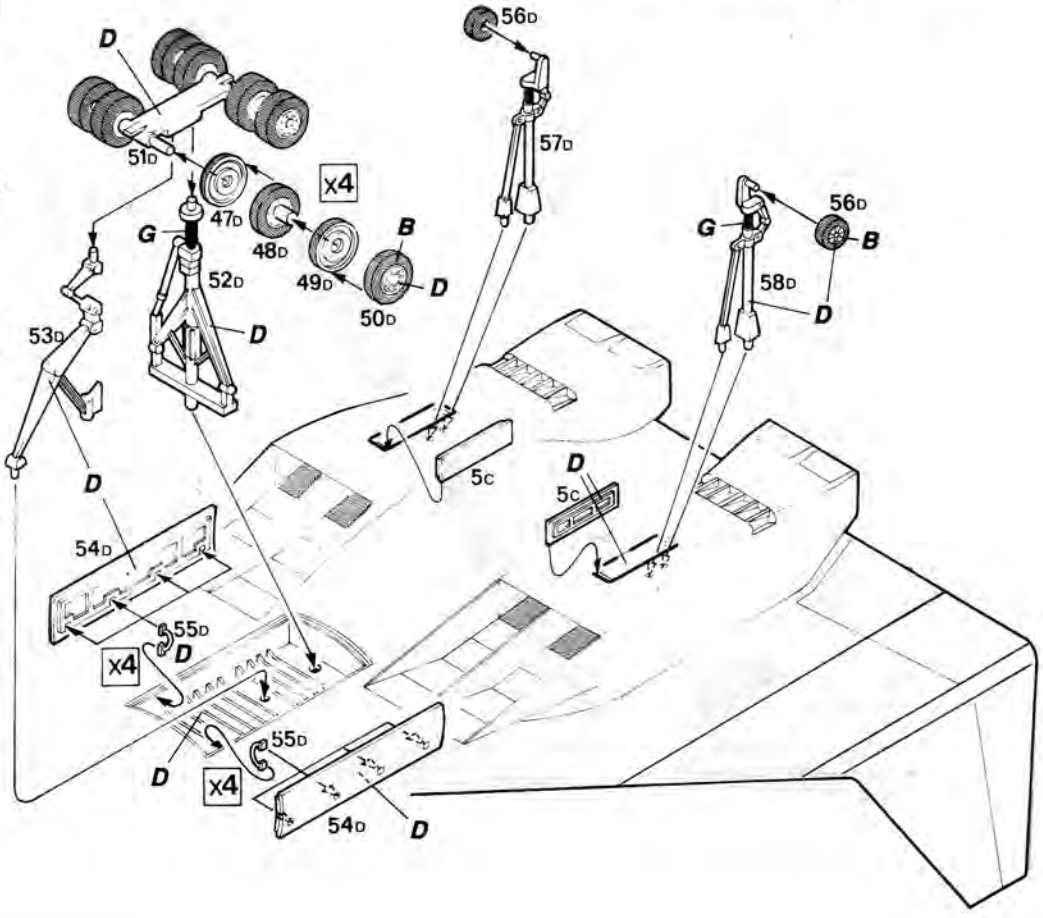
Building Reference Note: This is a very critical Step. Take your time and allow time for the cement to set. All the weight of your model will be resting on these parts so work carefully and slowly. When we suggest that you allow the cement to dry we mean it. Be patient! If you plan on building the model in flight configuration then you can now cement the Main Gear Doors, **54D**, and the Outboard Gear Doors, **5C**, into place and in the closed positions.

Preliminary Painting

For the Landing Gear Down configuration paint the detail parts as shown in the lettered callouts while referencing the **Color Key**.

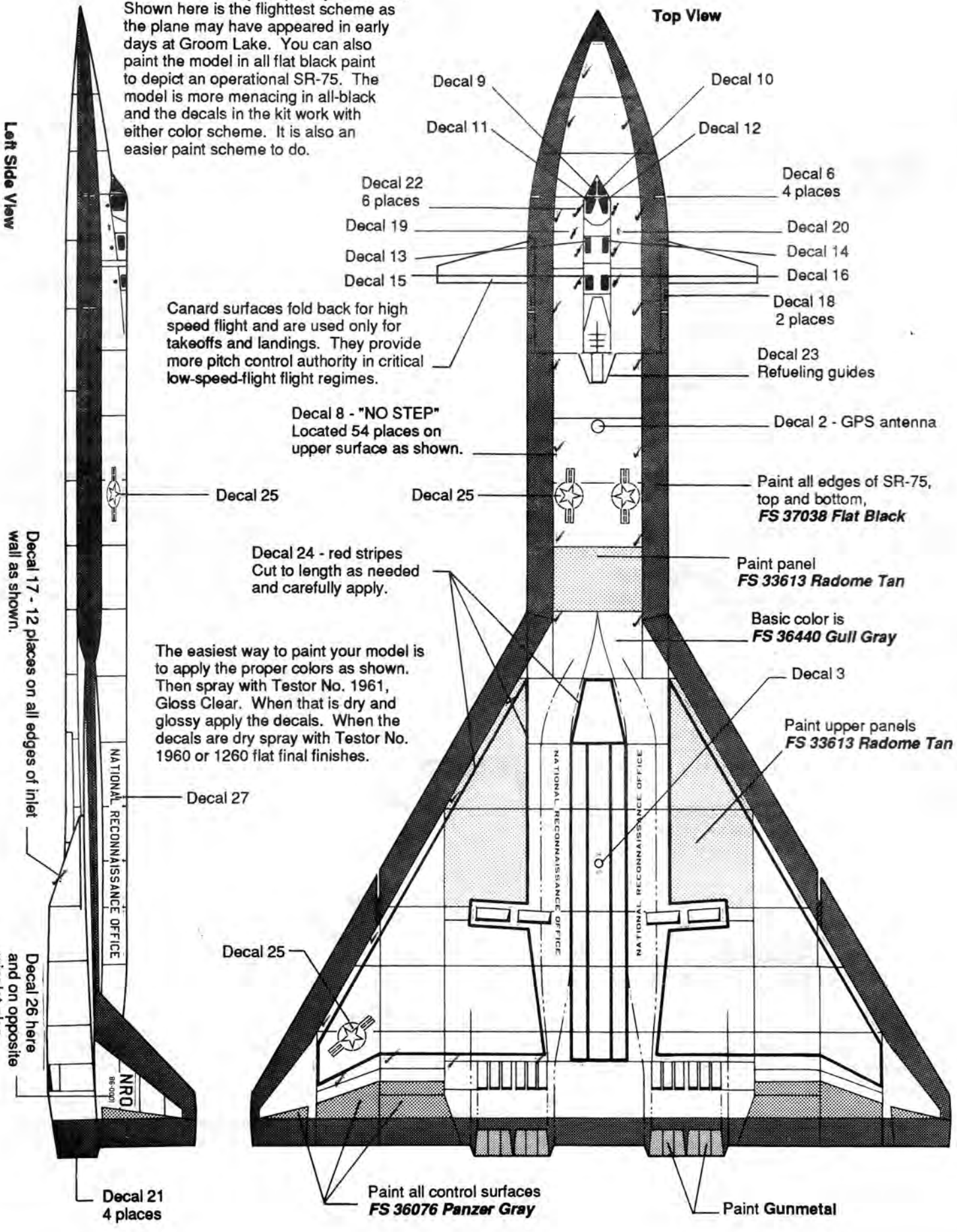
Assembly

1. Cement the Retract Link, **53D**, to the Main Gear Strut, **52D**, as shown. Allow 10 minutes for the cement to set a little. Now cement the Main Gear Bogey, **51D**, to the strut. Carefully check alignment and set aside to dry.
2. Cement the Outboard Strut Wheels, **56D**, to the Outboard Struts, **57D** and **58D**. Now cement the Outboard Strut units into place as shown. Next cement the Outboard Strut Cover Doors, **5C**, into place.
3. Assemble 4 Inboard Main Wheel Units using parts **47D** and **48D**. Next assemble 4 Outboard Main Wheel Units using parts **49D** and **50D**. Allow all the units to dry.
4. Cement 4 Main Gear Door Hinge Links, **55D**, to each of the 2 Main Gear Doors, **54D**. Check alignment and allow to dry.
5. Now cement the Inboard Main Wheel Units to the Bogey axles. Align carefully. Set aside to dry.
6. Now cement the Main Gear Doors to the door opening in the fuselage. Line up carefully.
7. Cement the Main Gear Door Strut and Retract Link unit into the main gear box as shown. The Main Gear Box glue joint to the fuselage **must be** absolutely dry and secure!! Now cement the Outboard Main Wheel Units to the Bogey Inboard Wheel Unit axle stubs. Allow to dry overnight before placing the weight of the model on the main gear.



SR-75 type craft reported seen over Southern California in 1991.

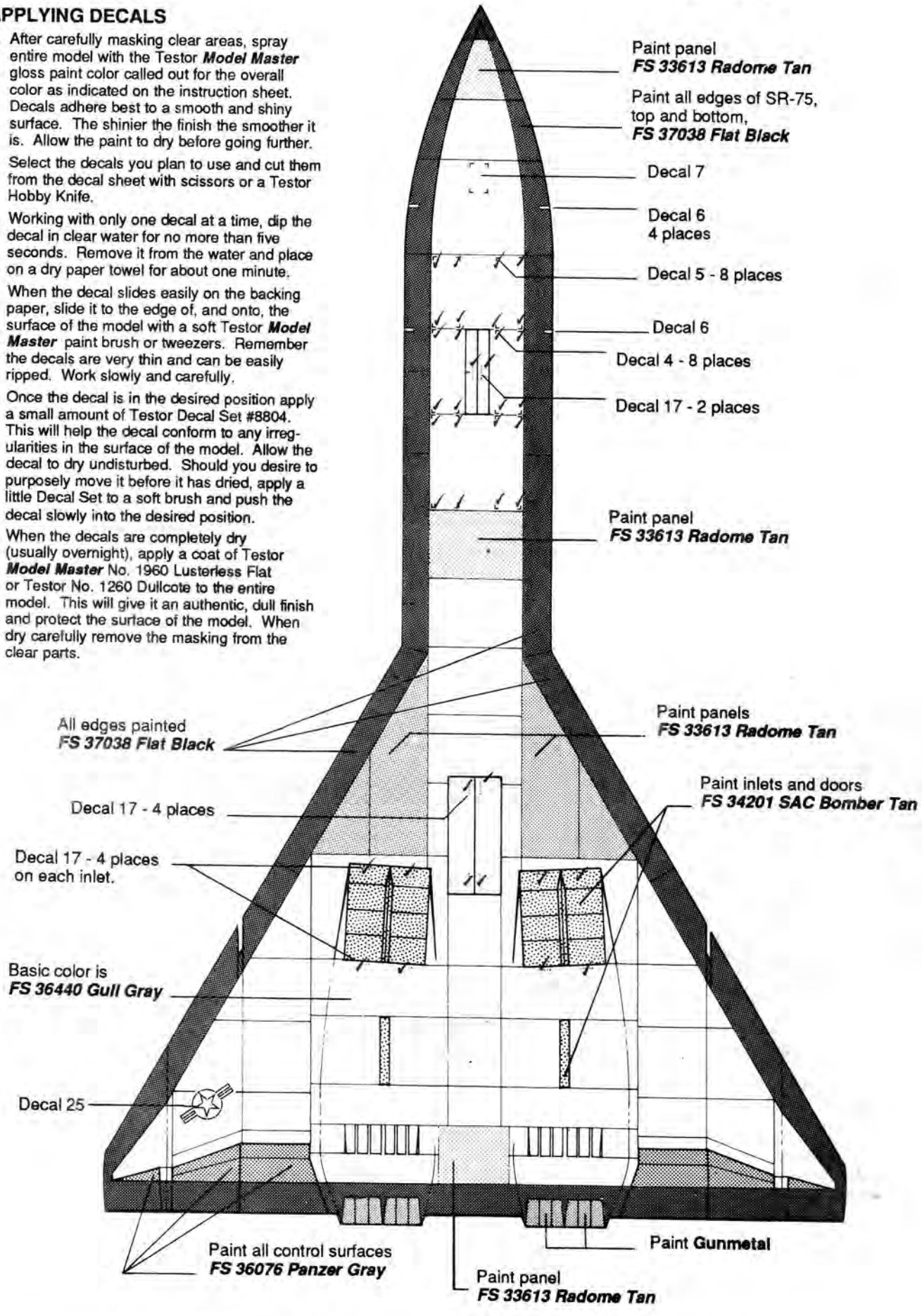
There are two ways to paint your SR-75. Shown here is the flighttest scheme as the plane may have appeared in early days at Groom Lake. You can also paint the model in all flat black paint to depict an operational SR-75. The model is more menacing in all-black and the decals in the kit work with either color scheme. It is also an easier paint scheme to do.



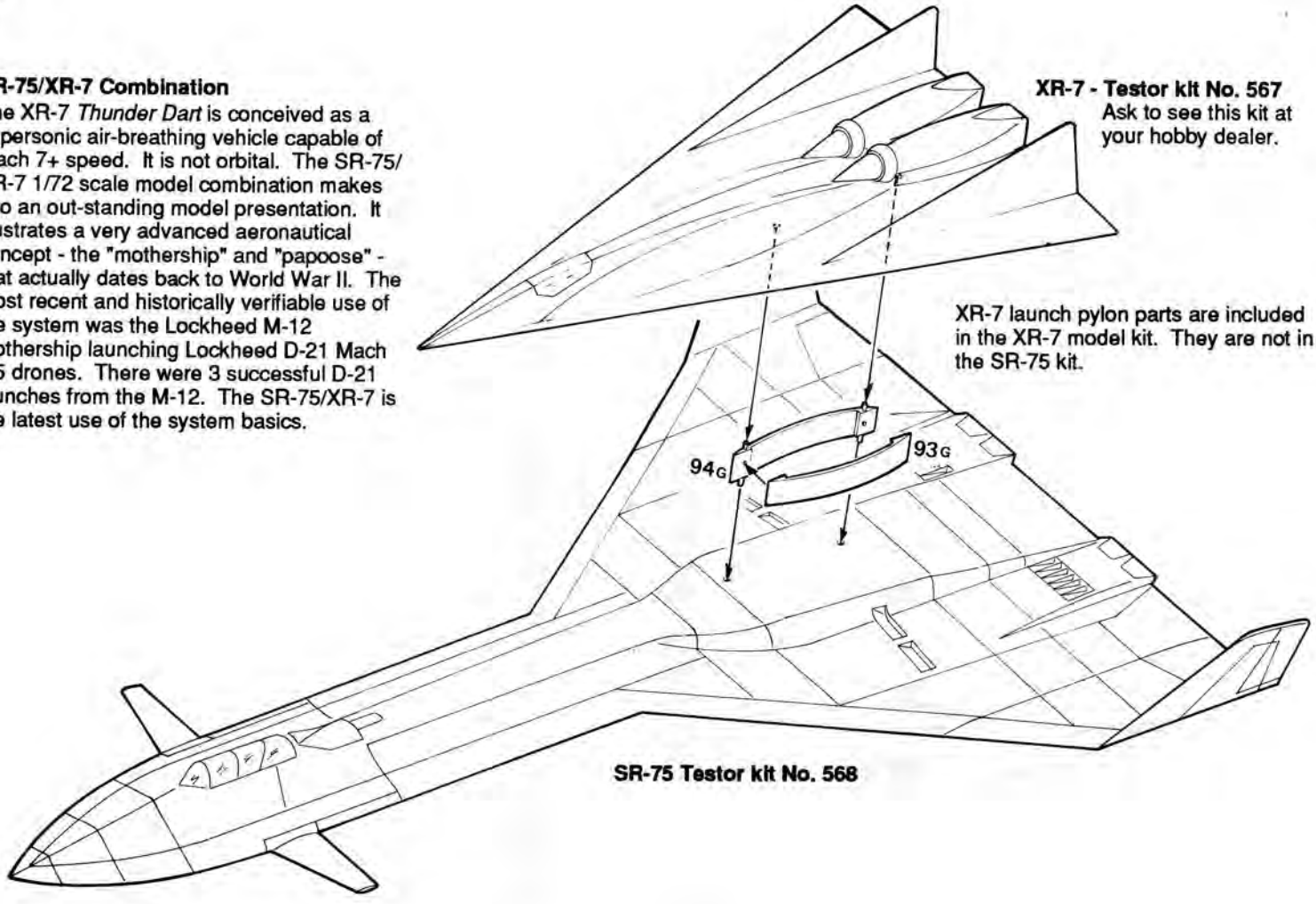
APPLYING DECALS

1. After carefully masking clear areas, spray entire model with the Testor ***Model Master*** gloss paint color called out for the overall color as indicated on the instruction sheet. Decals adhere best to a smooth and shiny surface. The shinier the finish the smoother it is. Allow the paint to dry before going further.
2. Select the decals you plan to use and cut them from the decal sheet with scissors or a Testor Hobby Knife.
3. Working with only one decal at a time, dip the decal in clear water for no more than five seconds. Remove it from the water and place on a dry paper towel for about one minute.
4. When the decal slides easily on the backing paper, slide it to the edge of, and onto, the surface of the model with a soft Testor ***Model Master*** paint brush or tweezers. Remember the decals are very thin and can be easily ripped. Work slowly and carefully.
5. Once the decal is in the desired position apply a small amount of Testor Decal Set #8804. This will help the decal conform to any irregularities in the surface of the model. Allow the decal to dry undisturbed. Should you desire to purposely move it before it has dried, apply a little Decal Set to a soft brush and push the decal slowly into the desired position.
6. When the decals are completely dry (usually overnight), apply a coat of Testor ***Model Master*** No. 1960 Lusterless Flat or Testor No. 1260 Dullcote to the entire model. This will give it an authentic, dull finish and protect the surface of the model. When dry carefully remove the masking from the clear parts.

Bottom View



SR-75/XR-7 Combination
The XR-7 *Thunder Dart* is conceived as a hypersonic air-breathing vehicle capable of Mach 7+ speed. It is not orbital. The SR-75/ XR-7 1/72 scale model combination makes into an out-standing model presentation. It illustrates a very advanced aeronautical concept - the "mothership" and "papoose" - that actually dates back to World War II. The most recent and historically verifiable use of the system was the Lockheed M-12 mothership launching Lockheed D-21 Mach 3.5 drones. There were 3 successful D-21 launches from the M-12. The SR-75/XR-7 is the latest use of the system basics.



XR-7 - Testor kit No. 567
Ask to see this kit at your hobby dealer.

XR-7 launch pylon parts are included in the XR-7 model kit. They are not in the SR-75 kit.

SR-75 Testor kit No. 568

Further background
It is not unusual for the United States government to not admit to the existence of advanced new aircraft flying in the skies. This was done back in the 1950's when the Central Intelligence Agency needed the ability to overfly the Soviet Union. The Lockheed U-2 was developed for that mission and performed for many years in a spy function. And to this very day later and larger versions of the U-2, now designated U-2R, still fly highly secret reconnaissance flights into or around the borders of nations considered potential war enemies of the United States.

In the early days it was sufficient to merely take photographs during the day. Much work was also done to develop better maps of foreign lands so that in the case of war our Air Force, Navy, and ground forces would have good information. In addition the development of long range missiles required precise targeting information so the missiles would know where to go and could do it very precisely. Later requirements made ELINT or electronic intelligence gathering - radio and radar signals and transmitter locations - a very important need.

Satellites came on line to do some of the missions formerly handled by the aircraft. Satellites provide strategic intelligence but have a number of drawbacks. They orbit on a predictable flight path so the enemy knows when they are coming and stops his secret activities or brings the equipment inside. We do this at Groom Lake and at other test installations ourselves. Manned airplanes or reconnaissance drones do not have that limitation. By their nature, if the launch spot is not known, the enemy doesn't even know where to begin looking. The launch of an XR-7 type vehicle from the back of an SR-75 type mothership would be a means to keep the precise launch point a secret. One of the other problems with satellites is their optics can be blinded with high-power LASER devices aimed and fired from the ground.

To intercept a hypersonic vehicle requires an interception system that can detect and do extremely rapid mathematical calculations in order to place an intercepting set of devices *where the recon plane is going to be.* And this while that machine is moving at Mach 7+ airspeeds! Few nations can afford such systems and even fewer can build them.

Today's world also requires the ability to remotely detect the location of nuclear materials and weapons. This is very difficult to do. Yet it was at one time difficult to detect infrared emissions as well. That problem was solved. *Gamma* energy from radioactive materials are the most energetic and easiest to detect. One must also remember that radioactive materials produce other effects on gases and materials around them which might be easier to detect - those effects become clues so to speak. These sensors may be more effective at detection than even would-be *gamma* detectors.

It would be a very foolish nation that did not attempt to maintain nuclear surveillance in today's politically fractured world.

Launching a hypersonic vehicle from the back of another craft makes practical and operational sense. Much fuel is used in getting an aircraft from ground level to an operational altitude. That fuel can be saved with an air launch. Lockheed demonstrated this with the D-21 ramjet powered drones 25 years ago. Why not again but this time higher and faster? Watch the skies!!!

The Groom Lake, Nevada, test facility is also known as Area 51 or Dreamland. Located 94 miles NNW of Las Vegas, it is rich in aviation history. First built and used for the flight test of Lockheed U-2 spyplanes and the training of Central Intelligence Agency pilots to fly them, it began its secret days in 1955. The base has *never* been out of public view from hikeable ground locations while the military counted on the remote location of the facility to provide a major part of the security. You simply cannot see the base from any highway in the area. The CIA precursors to the SR-71, the A-11 and A-12, first flew from Groom. They were followed by the F-117 stealth fighter and numerous first flights *yet to be revealed*. Rumors persist that even extraterrestrial UFOs have been worked on in the Groom area. Many people labored long and hard in total secrecy to test and fly remarkable machines. Perhaps, with the Cold War now over, they can finally tell their families where they disappeared to for weeks at a time. We salute these dedicated people. Bravo!

Clearly shown is runway 14-32(magnetic). This facility is where the CIA U-2, CIA A-11, USAF F-117 Stealth Fighter and what is now known as *Aurora* first flew. Note the B-52 on the ground at top center. The scale of the photo at right is very close to 1 inch equaling 3,290 feet.

To see how the base looked 20 years later in 1988, see the instruction sheet of the Testor kit No. 567 Thunder Dart. The 1968 photo here and the Russian 1988 photo are the same scale and when placed side by side clearly show the changes in this once very secret base. You will see how the runway was lengthened and changes in the base housing structures. No true secrets are revealed in either of these screened photographic reproductions.

The photograph at right was purchased in 1984 from the National Cartographic Information Center of 345 Middlefield Road, Menlo Park, CA 94025. This is a U.S. government agency and office.

The photo shows the test facility at Groom Lake, NV, as it appeared on 28 August 1968. The photo is frame 2-147 from roll GS-X-VBSL. You can order this photograph from the above office.

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