

WSAM=100%

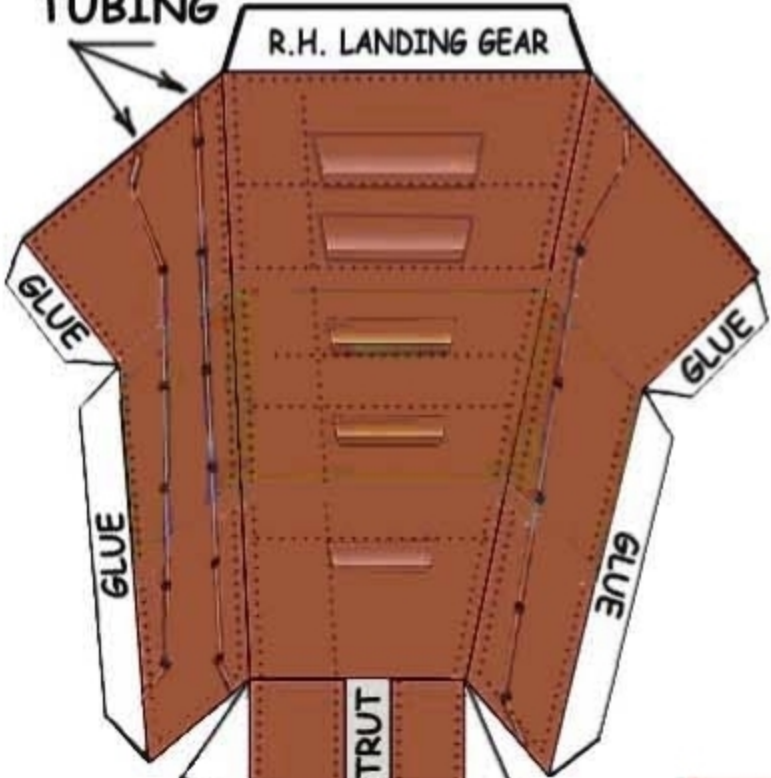
SIKORSKY S-64 CH-54 TARHE

Design by
S. Tahmasebi/2002

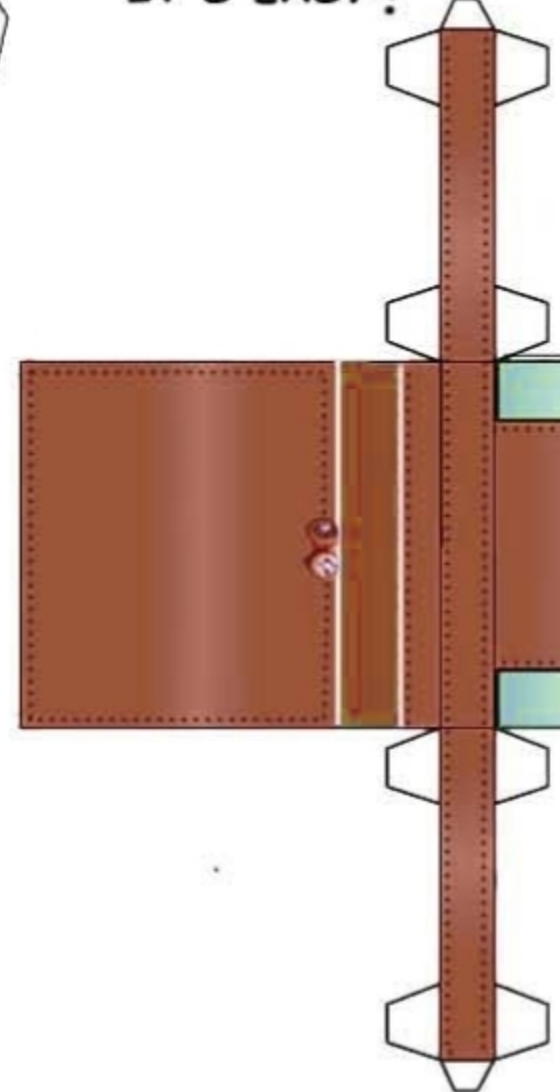


USE
PHONE
WIRE
FOR
EXTERIOR
TUBING

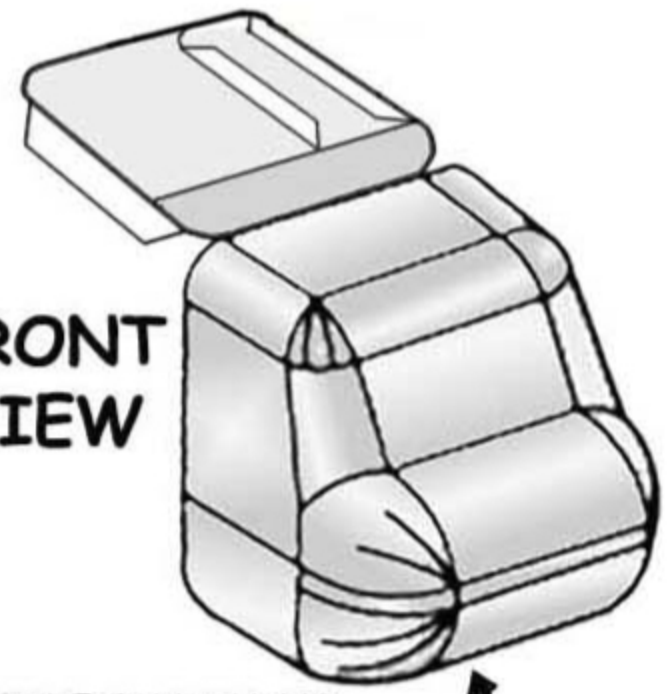
LANDING GEAR
(GLUE OVER TOOTHPICK
OR SKEWER STICK)



TAKE YOUR TIME
FORMING THE
SKY CRANE
CABIN
...AFTER THAT,
IT'S EASY!



FRONT
VIEW

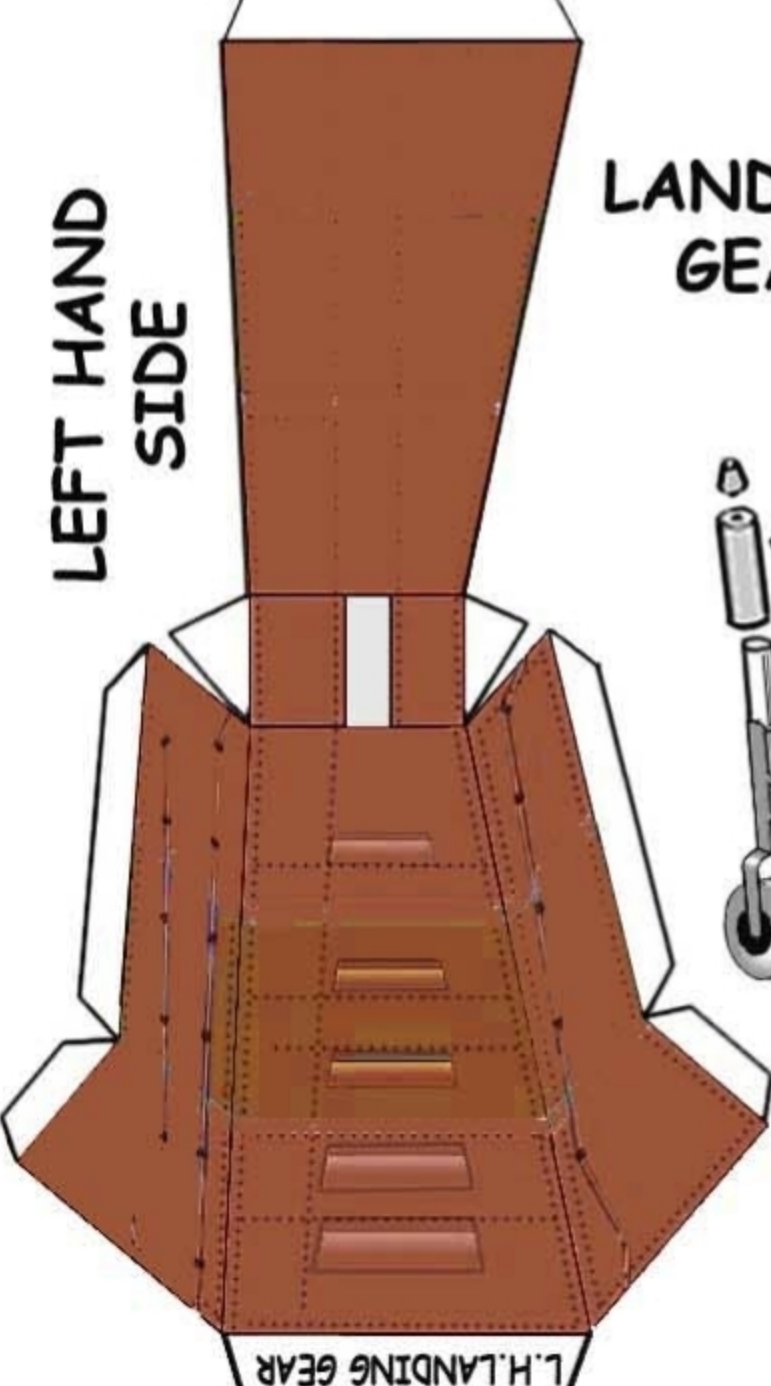


BEFORE FINISHING..
ADD A COUPLE PEBBLES
FOR BALLAST

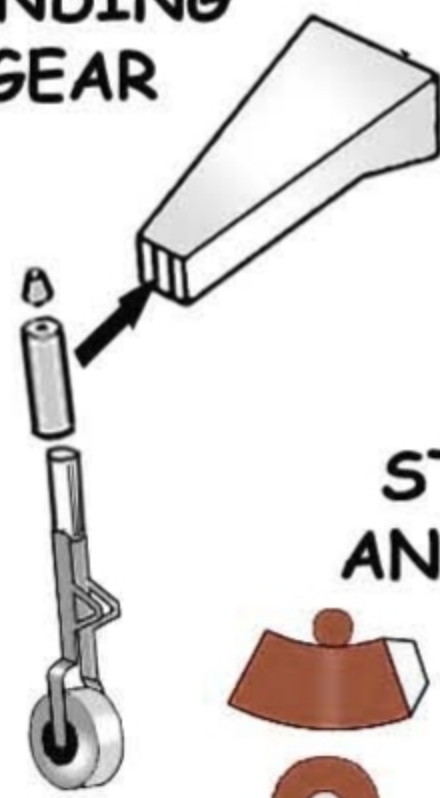


RIGHT HAND
SIDE

LEFT HAND
SIDE

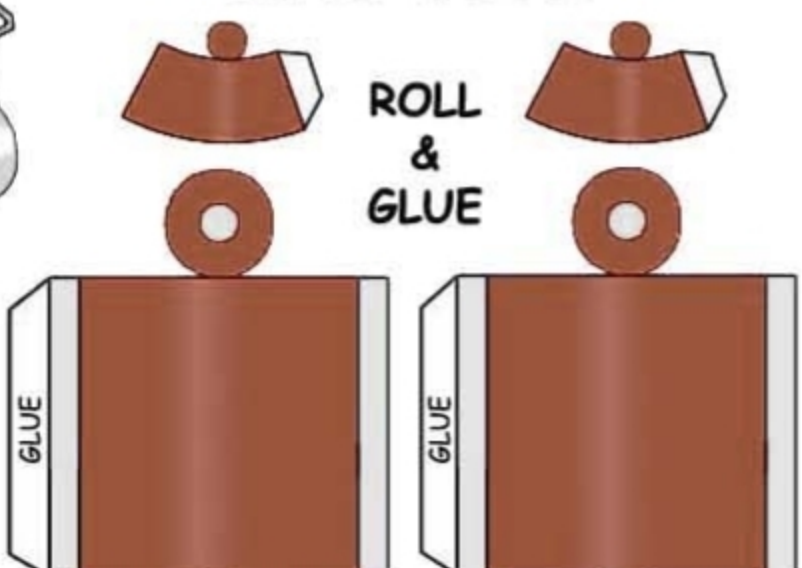


LANDING
GEAR

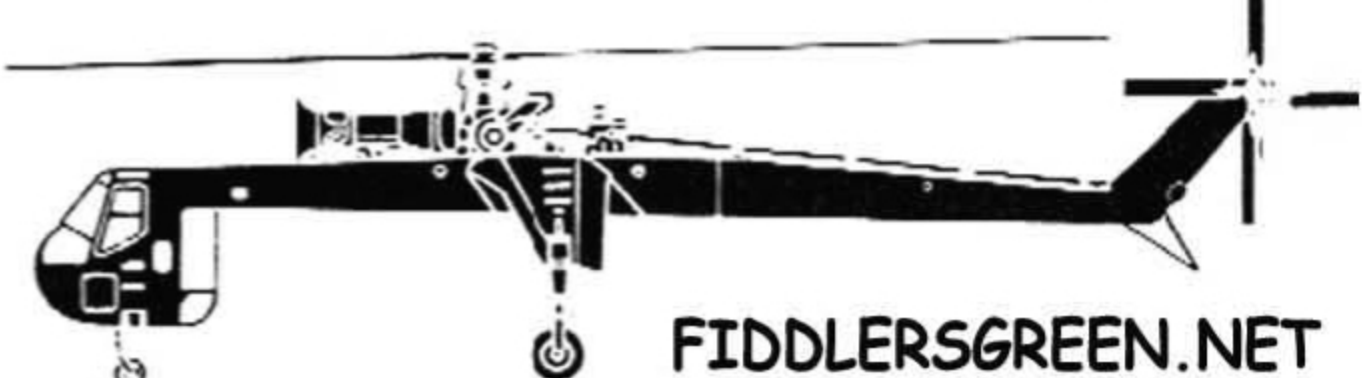
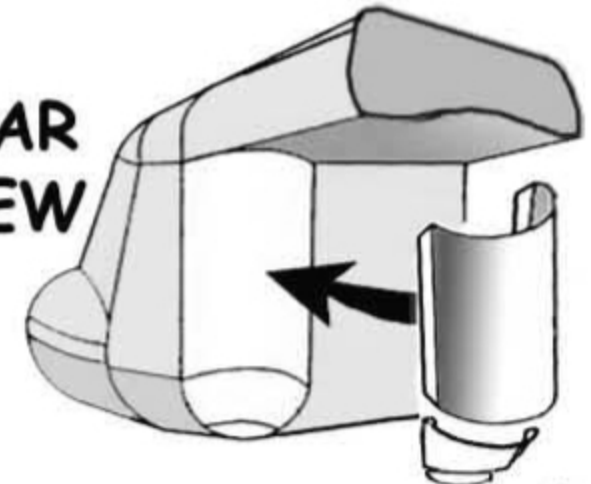


STRUTS
AND TOPS

ROLL
&
GLUE



REAR
VIEW



SKY CRANE

SHEET TWO

BUY A PACKAGE OF SKEWER STICKS AT THE GROCERY STORE AND GLUE THE 'DRIVE SHAFT' GRAPHIC OVER THE STICK

USE SMALL NAIL TO PIN ROTOR TO GEAR BOX

ROTOR HEAD DETAILS

DRIVE SHAFT

GEARBOX #2 & SPACER

MIDDLE FUSELAGE

MAIN GEARBOX

ENGINE MOUNTS

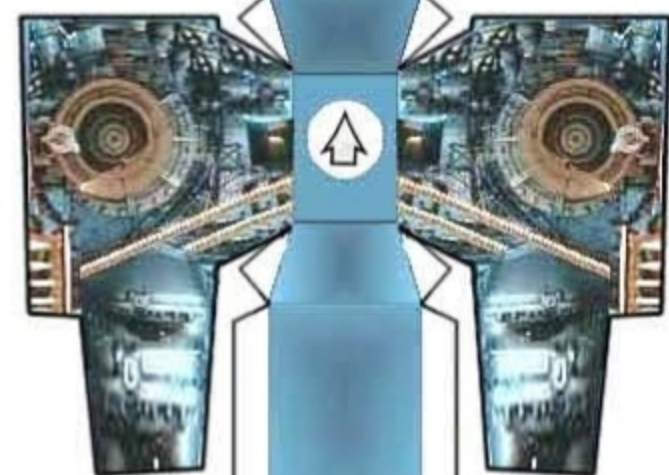
FORWARD FUSELAGE
(GLUE TO CABIN)

NOTES:

AFIX ENGINES INTO ENGINE MOUNTS BEFORE MOUNTING THEM ON FUSELAGE

GLUE BITS OF WIRE AND THIN SOLDER TO THE ENGINES FOR EFFECT

MAIN GEAR BOX & COLLAR



DESIGNED BY:
S-TAHMASEBI / 2002



GEARBOX #2 AND COLLAR

WWW.FIDDLERSGREEN.NET

MIDDLE FUSELAGE

DRIVE SHAFT

LEFT LANDING GEAR HERE

GLUE MAIN GEAR BOX HERE

RIGHT LANDING GEAR HERE

REAR GEAR BOX

UNITED STATES ARMY
18436

UNITED STATES ARMY
18436

WWW.FIDDLERSGREEN.NET

SKY CRANE

SHEET THREE

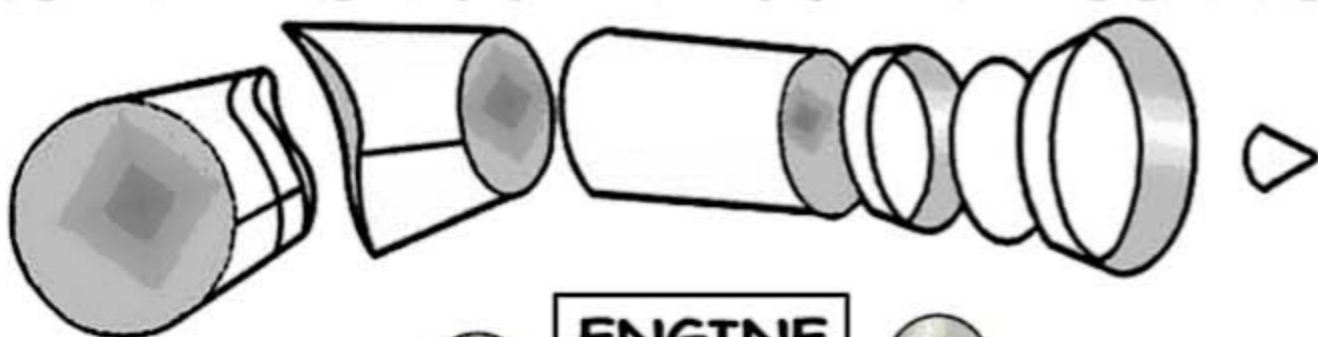
FOLD & GLUE

ENGINE MOUNTS
MOUNT ENGINES FIRST!

then...

BEND TABS UP AND
GLUE TO TOP OF
FUSELAGE

TAKE YOUR TIME AND DO A GOOD JOB ON THE ENGINES

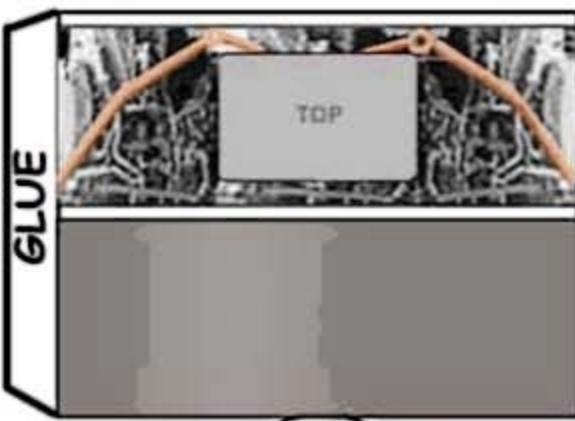


ENGINE
INTAKE
PARTS

(FORM AROUND
THE TIP OF PEN
OR PENCIL)



OUTER
RINGS



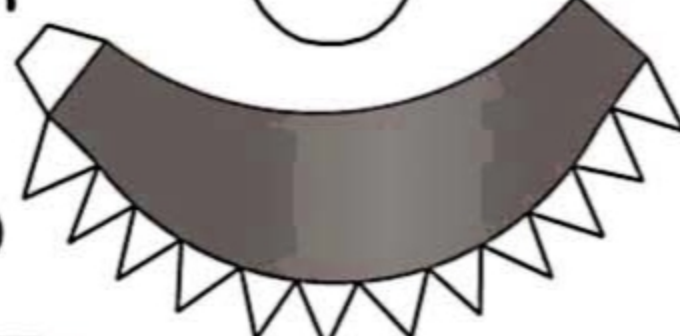
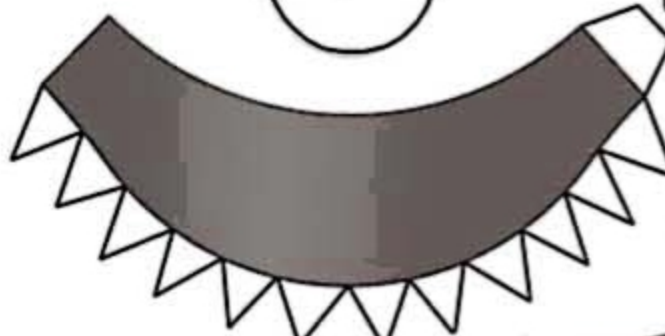
ENGINE
MAIN
SECTIONS



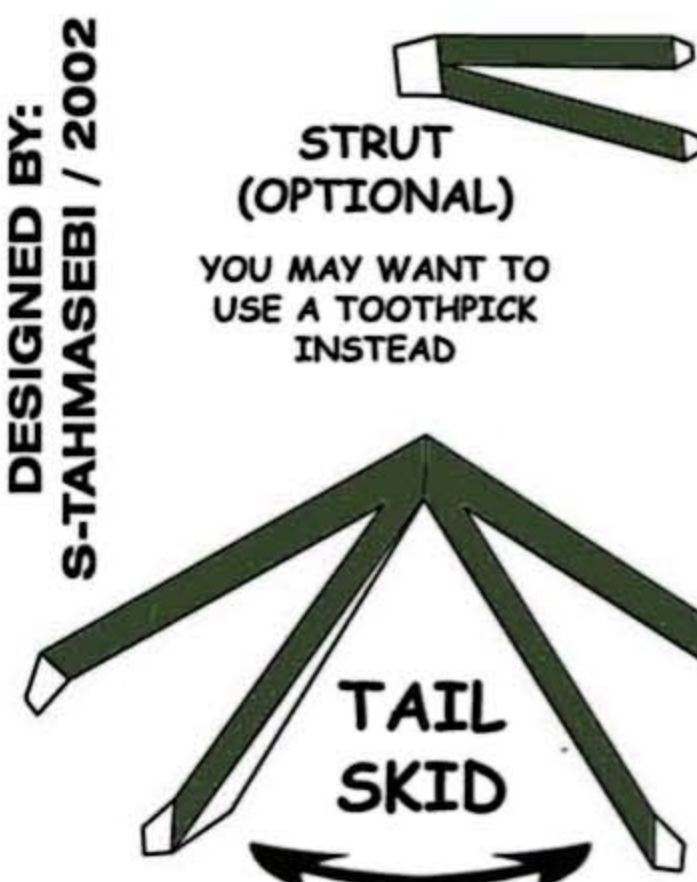
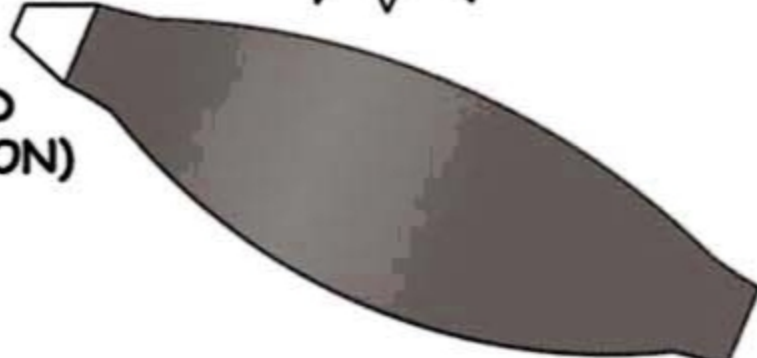
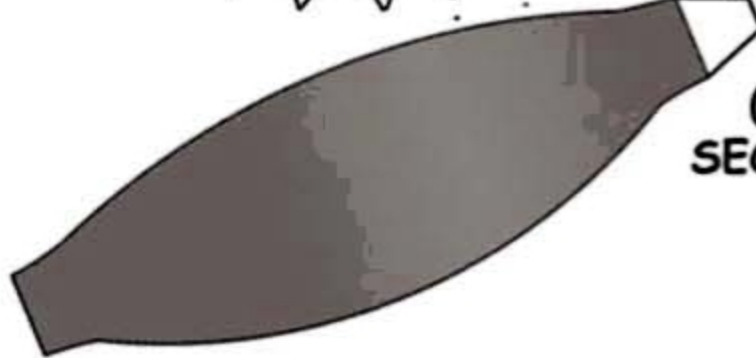
AFT

AFT

EXHAUST
PIPES
(MIDDLE
SECTION)



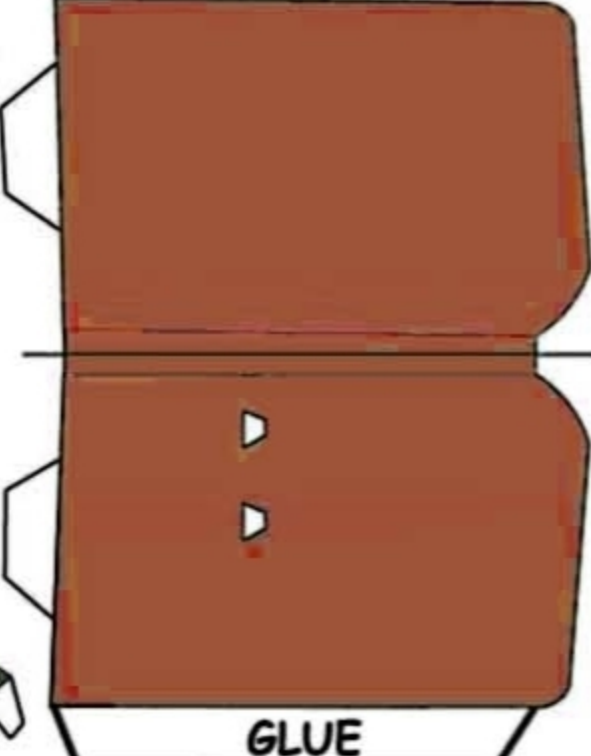
(END
SECTION)



STRUT
(OPTIONAL)

YOU MAY WANT TO
USE A TOOTHPICK
INSTEAD

TAIL
SKID

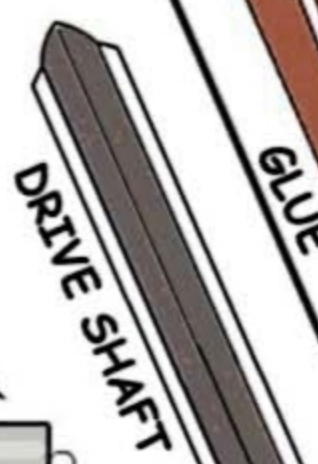
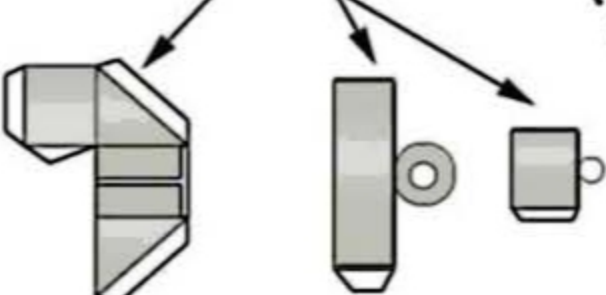


GLUE

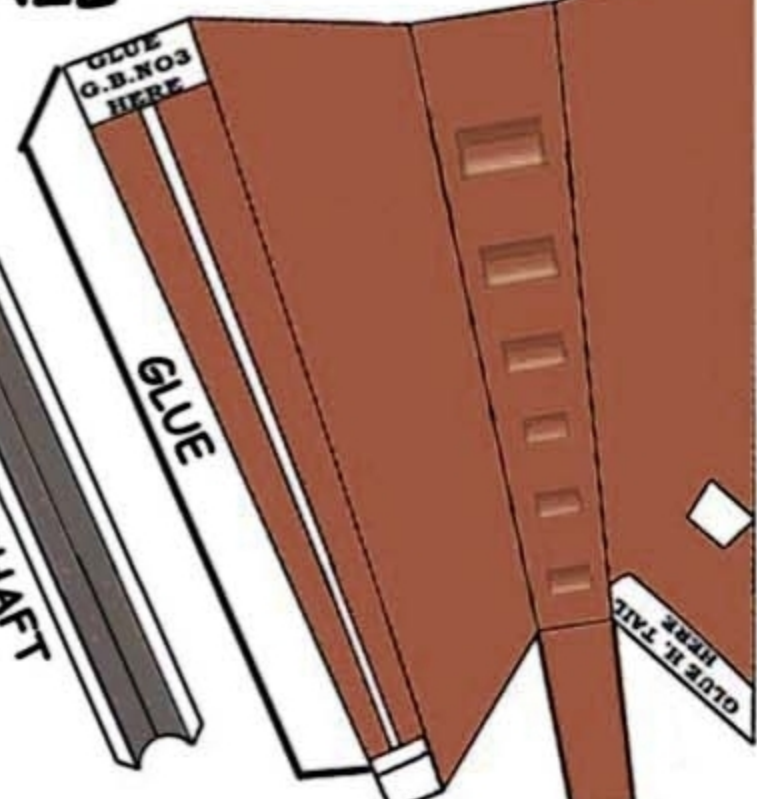
STABILIZER

FOLD (BUT DON'T SCORE)

GEAR BOXES
3 AND 4
(OPTIONAL)



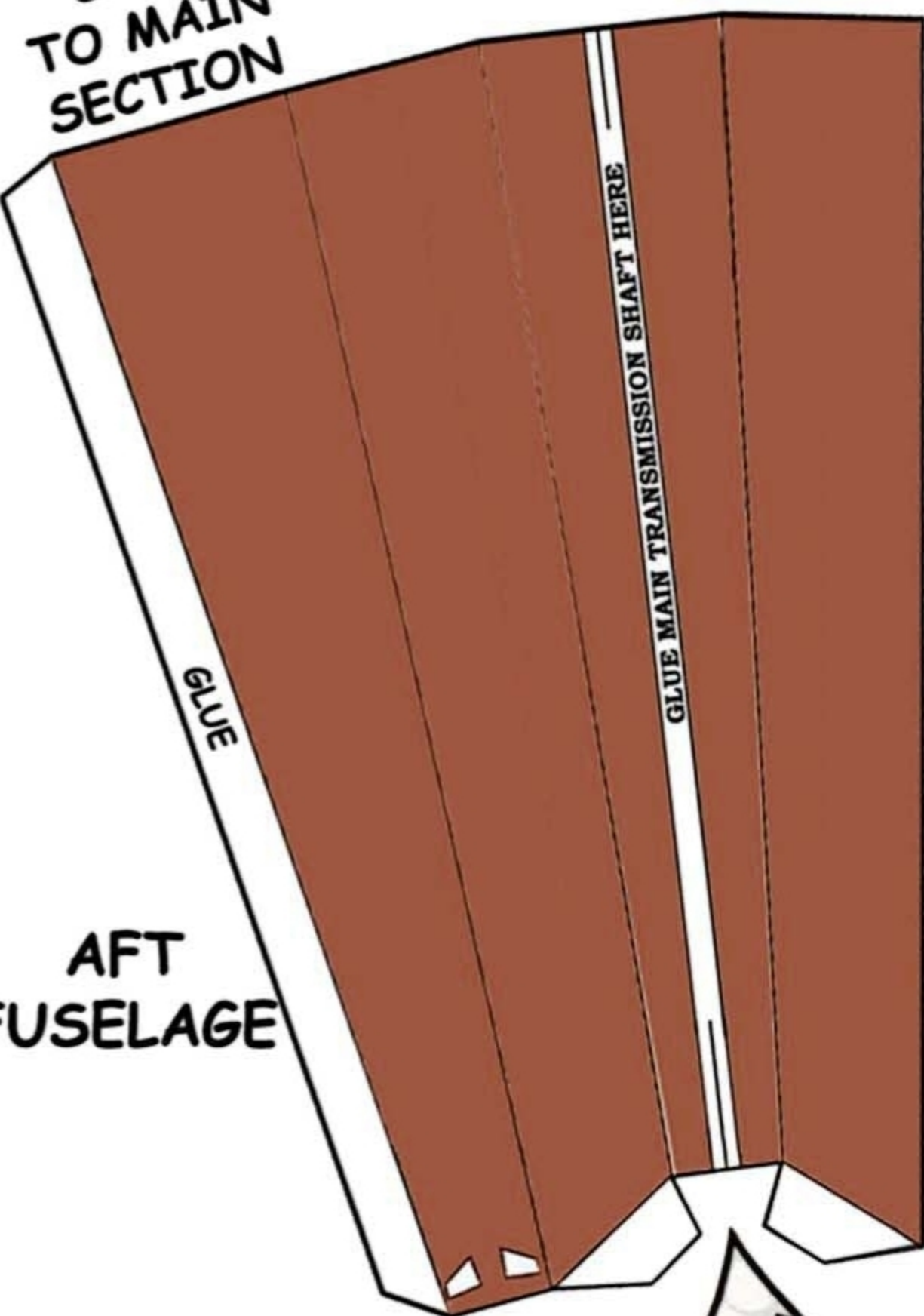
DRIVE SHAFT



TAIL

AFT
FUSELAGE

GLUE
TO MAIN
SECTION



GLUE

GLUE MAIN TRANSMISSION SHAFT HERE

TAIL
DETAILS

REAR
ROTOR
ASSEMBLY

GEARBOX #4

STABILIZER

SUPPORT

DRIVE SHAFT

GEAR BOX #3

SKID

AFT
FUSELAGE

TAIL

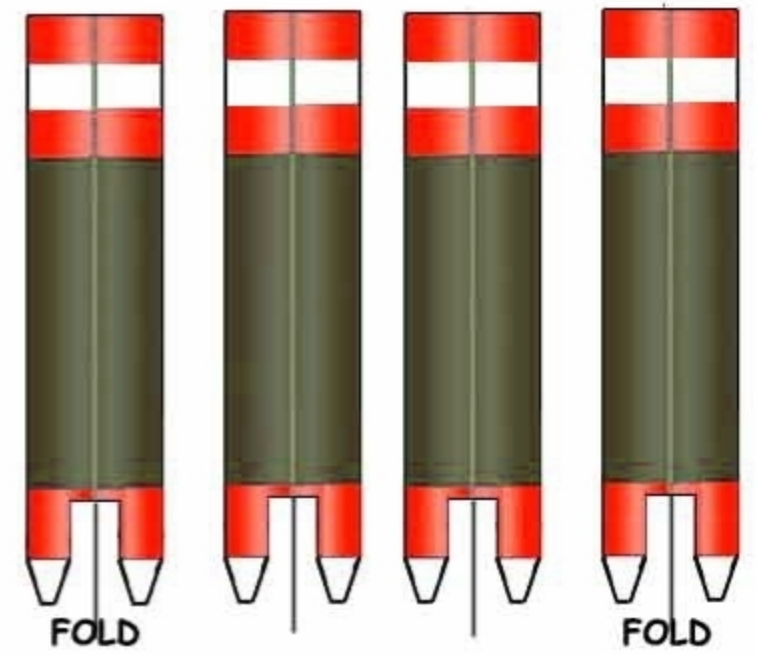
SKY CRANE

SHEET FOUR



TAIL
ROTOR
HEAD

USE STRAIGHT PIN
FOR ATTACHMENT

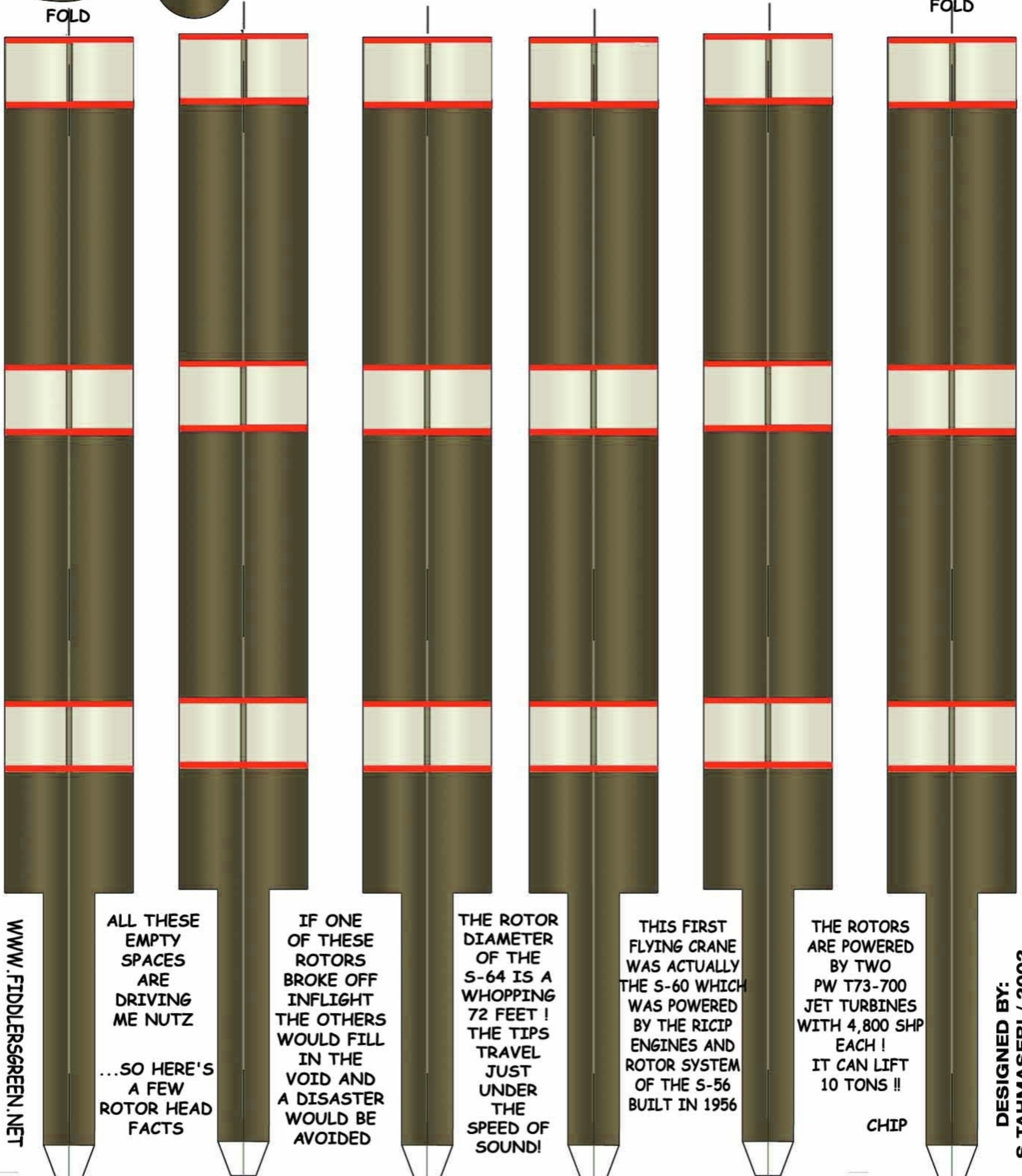


TAIL ROTOR BLADES
(FOLD AND GLUE)
STIFFENERS NOT NEEDED



ROTOR HEAD
AND CAP

USE SKEWER STICKS AS
STIFFENERS FOR THE BLADES



WWW.FIDDLERSGREEN.NET

ALL THESE
EMPTY
SPACES
ARE
DRIVING
ME NUTZ

...SO HERE'S
A FEW
ROTOR HEAD
FACTS

IF ONE
OF THESE
ROTORS
BROKE OFF
INFLIGHT
THE OTHERS
WOULD FILL
IN THE
VOID AND
A DISASTER
WOULD BE
AVOIDED

THE ROTOR
DIAMETER
OF THE
S-64 IS A
WHOPPING
72 FEET !
THE TIPS
TRAVEL
JUST
UNDER
THE
SPEED OF
SOUND!

THIS FIRST
FLYING CRANE
WAS ACTUALLY
THE S-60 WHICH
WAS POWERED
BY THE RICIP
ENGINES AND
ROTOR SYSTEM
OF THE S-56
BUILT IN 1956

THE ROTORS
ARE POWERED
BY TWO
PW T73-700
JET TURBINES
WITH 4,800 SHP
EACH !
IT CAN LIFT
10 TONS !!

CHIP

DESIGNED BY:
S-TAHMASEBI / 2002

SIKORSKY S-64

SKY CRANE

The S-64 was built to provide a minimum 'backbone' airframe beneath which a close-fitting or suspended heavy payload could be supported.

The requirement for a heavy lift helicopter was growing in the late 1950s, as it became clear that improving technology concerned with the design of rotary-wing dynamic systems, combined with lightweight highpowered turboshaft engines, should make it possible to build aircraft in this category with entirely new standards of performance. It was at about this same time that development of the Boeing Vertol Model 115 (CH-47 Chinook) began, and Sikorsky initiated its own design for a 'flying crane' that was very different in conception.

Weight:

Maximum gross weight:.....42000 lbs
Empty weight:....20450 lbs
Useful load:..... 20550 lbs
Useful load with full fuel:.....18000 lbs
Maximum external load:.....20000 lbs

Fuel capacity:....1338 gal

Standard seating : 3

Speed:

Maximum air speed:.....114 kts
Cruise speed:.....100 kts

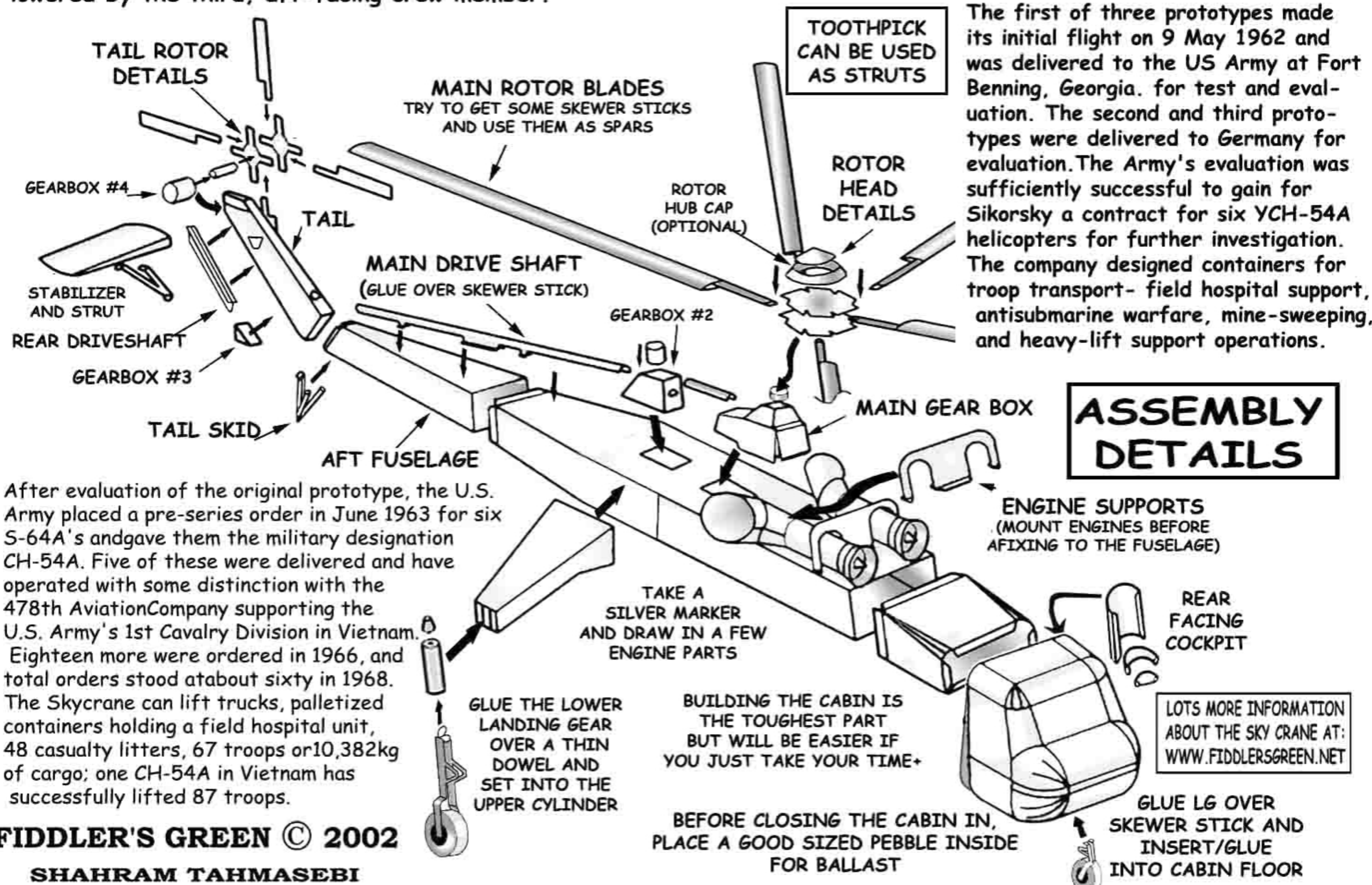
Range:

Maximum fuel range:.....219 nm
Endurance(No reserve):...2.5 hrs

Engine:

Maker:..... Pratt & Whitney
Number of engines:.....2
Type of engines:.....JFTD-12A-2A

It consisted of a basic prime mover comprising a long fuselage beam. At the forward end was suspended a cab to accommodate a crew of three, plus jump seats for two loaders/technicians; at the aft end was a tail with the anti-torque rotor on the left. Above the fuselage two turboshaft engines, main and intermediate gear boxes, main rotor and drive shafts were mounted, leaving the undersurface clear. The tricycle landing gear consisted of a nosewheel beneath the cab, and main legs on outriggers to allow the fuselage to straddle a bulky load. A cargo hook could be lowered by the third, aft-facing crew member.



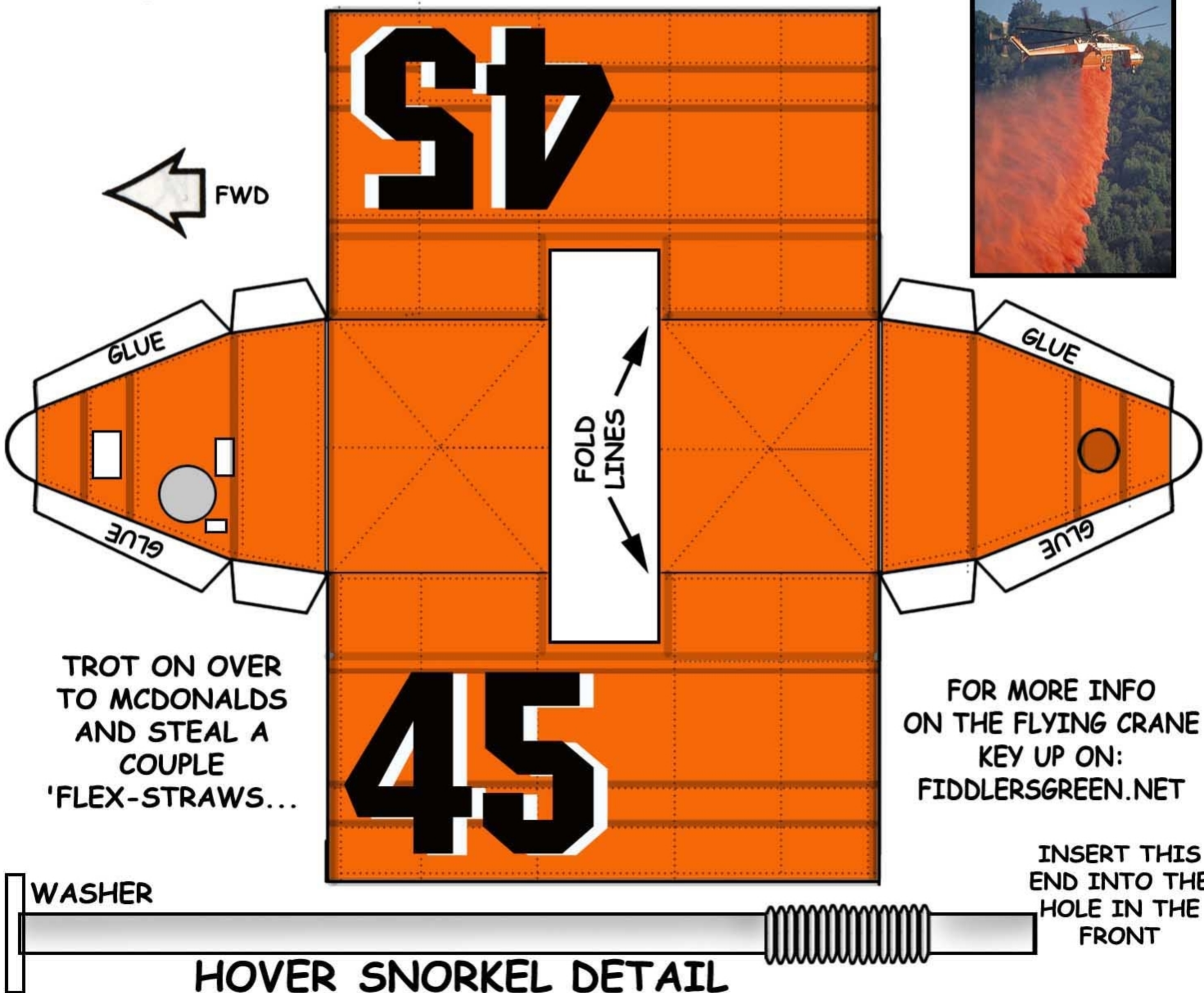
The first of three prototypes made its initial flight on 9 May 1962 and was delivered to the US Army at Fort Benning, Georgia, for test and evaluation. The second and third prototypes were delivered to Germany for evaluation. The Army's evaluation was sufficiently successful to gain for Sikorsky a contract for six YCH-54A helicopters for further investigation. The company designed containers for troop transport- field hospital support, antisubmarine warfare, mine-sweeping, and heavy-lift support operations.

After evaluation of the original prototype, the U.S. Army placed a pre-series order in June 1963 for six S-64A's and gave them the military designation CH-54A. Five of these were delivered and have operated with some distinction with the 478th Aviation Company supporting the U.S. Army's 1st Cavalry Division in Vietnam. Eighteen more were ordered in 1966, and total orders stood at about sixty in 1968. The Sky Crane can lift trucks, palletized containers holding a field hospital unit, 48 casualty litters, 67 troops or 10,382 kg of cargo; one CH-54A in Vietnam has successfully lifted 87 troops.

ERICKSON S-64 HELITANKER



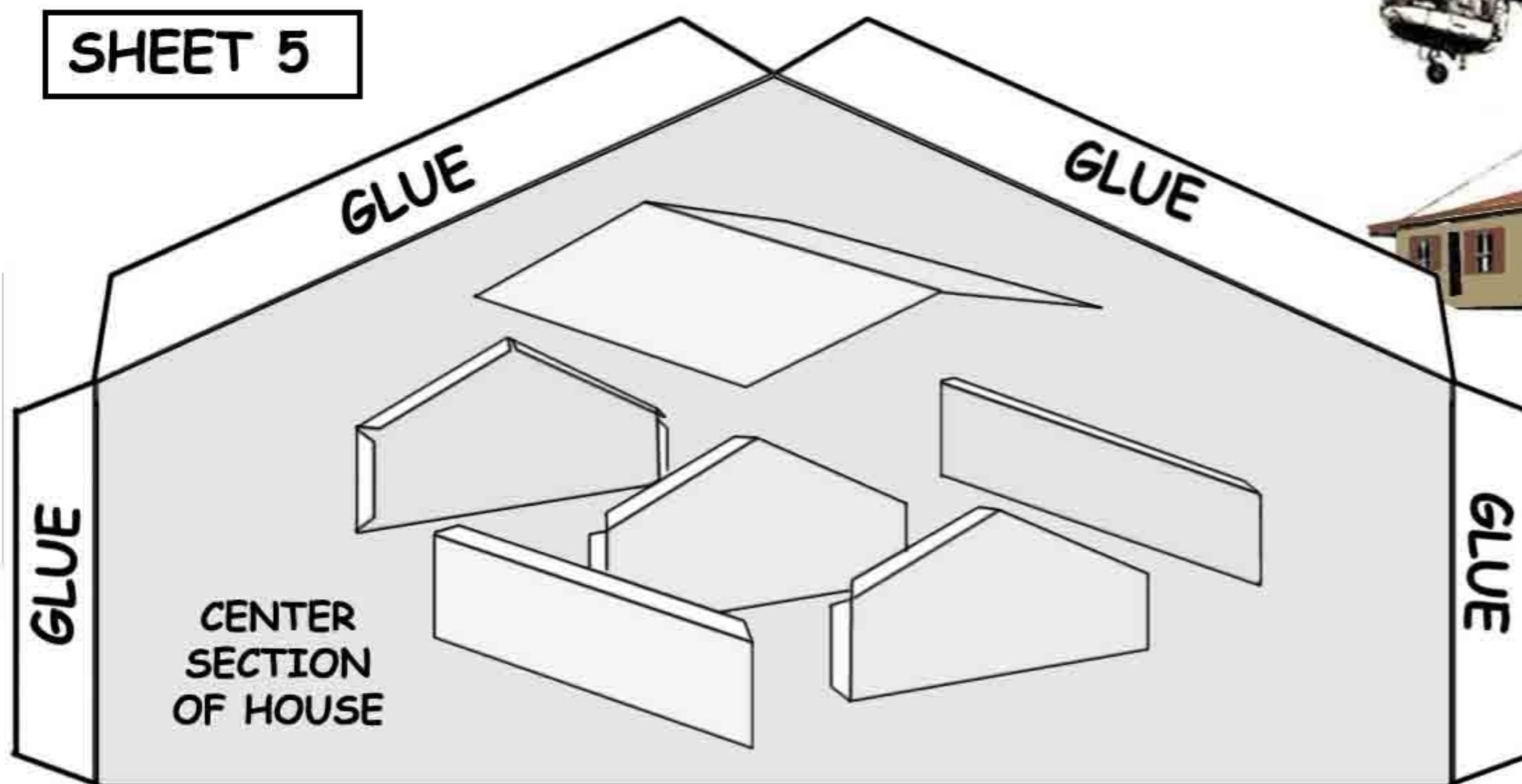
The Erickson S-64 Aircrane Helitanker is built by attaching a 2,600 gallon (9,800 litre) firefighting tank system to the fuselage of the S-64 Aircrane. The tank system consists of a high volume "Hover Snorkel" that can fill the tank in 18 inches (45 cm) of water within 45 seconds. A special "Sea Snorkel", designed for the tank, augments the freshwater hover fill capabilities of the hover snorkel by allowing for 45 second refill in nearby saltwater sources. The doors of the tank are controlled by a microprocessor that adjusts for the groundspeed of the helicopter to deliver 8 different coverage levels of water, foam mix, or retardant. The pilot selects a coverage level from 1 gallon per 100 square feet to 8 gallons per 100 square feet. (~4 liters per 10 sq meters - ~30 liters per 10 sq meters) If required, the pilot can dump a salvo of the entire 2,500+ gallon (9,500+ liter) load in less than 3 seconds.



SIKORSKY S-64 SKY CRANE

"CARGO"

SHEET 5



ONE OF THE CLEVER MARKETING GIMICKS USED TO SELL THE S-64 WAS TO SHOW IT CARRYING AN ENTIRE HOUSE...

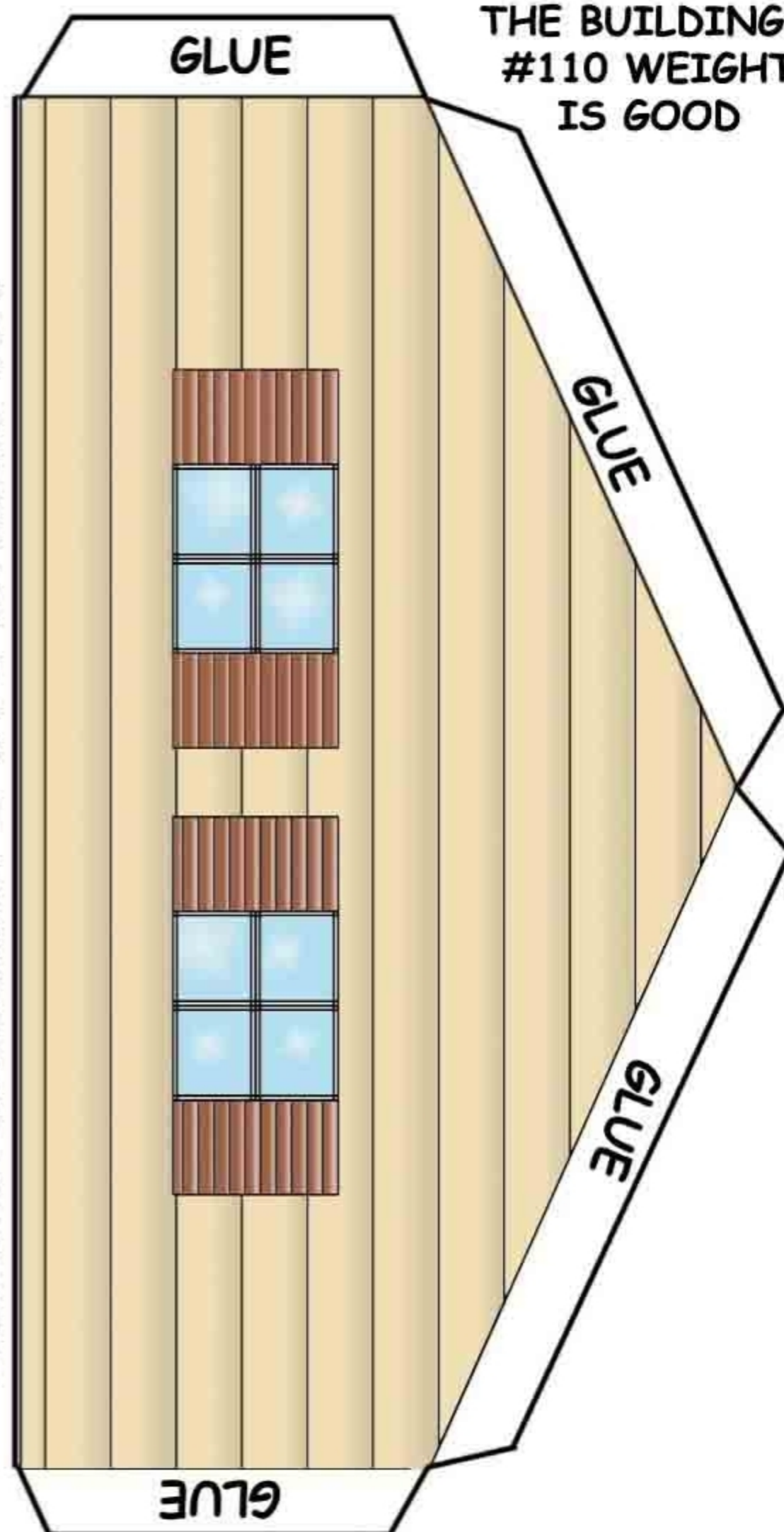
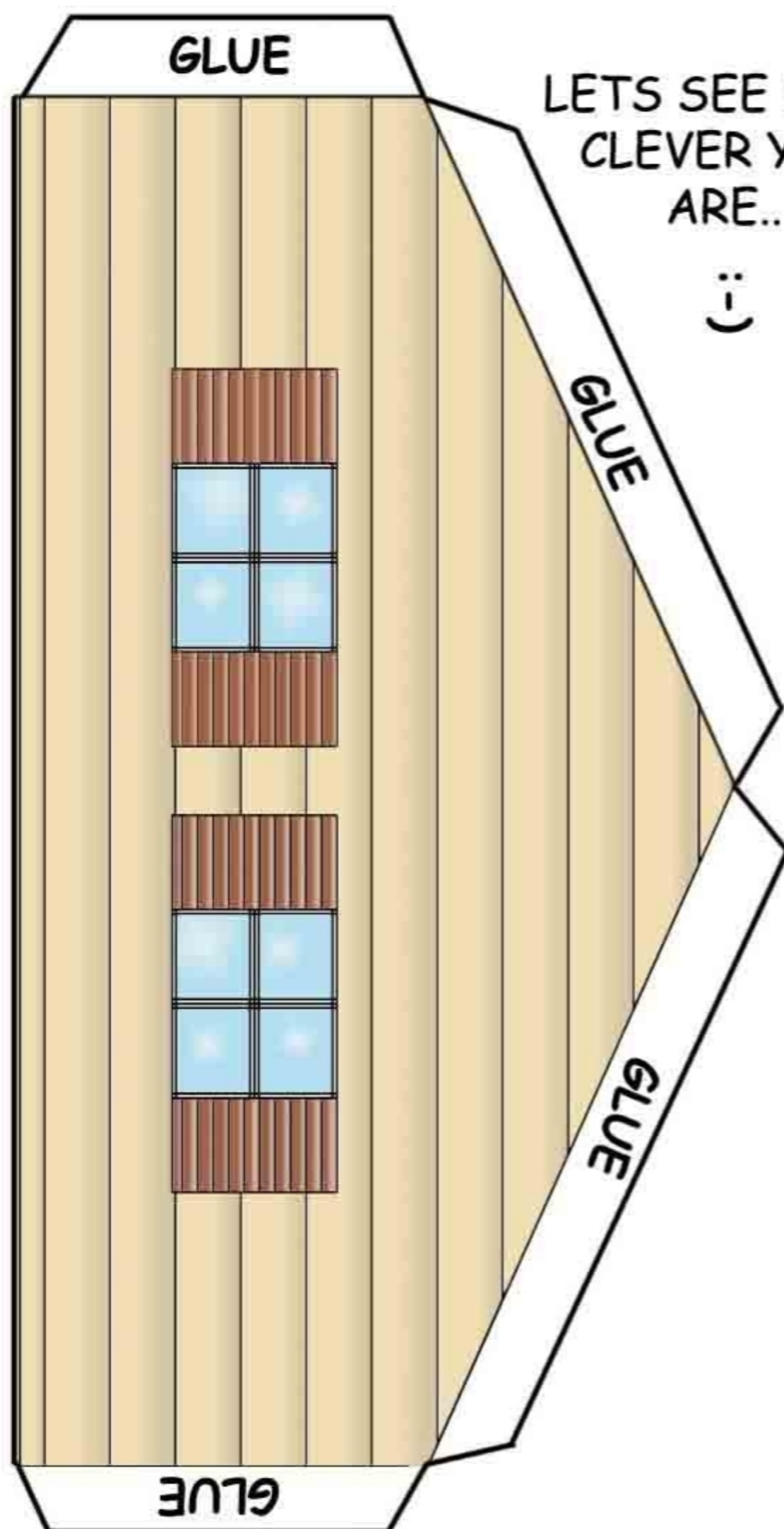
THIS IS A 'RIG YOUR OWN' PROJECT..

USE HEAVIER CARDSTOCK FOR THE BUILDING.. #110 WEIGHT IS GOOD

LETS SEE HOW CLEVER YOU ARE..

:-)

MORE ON THE SKY CRANE AT: WWW.FIDDLERSGREEN.NET



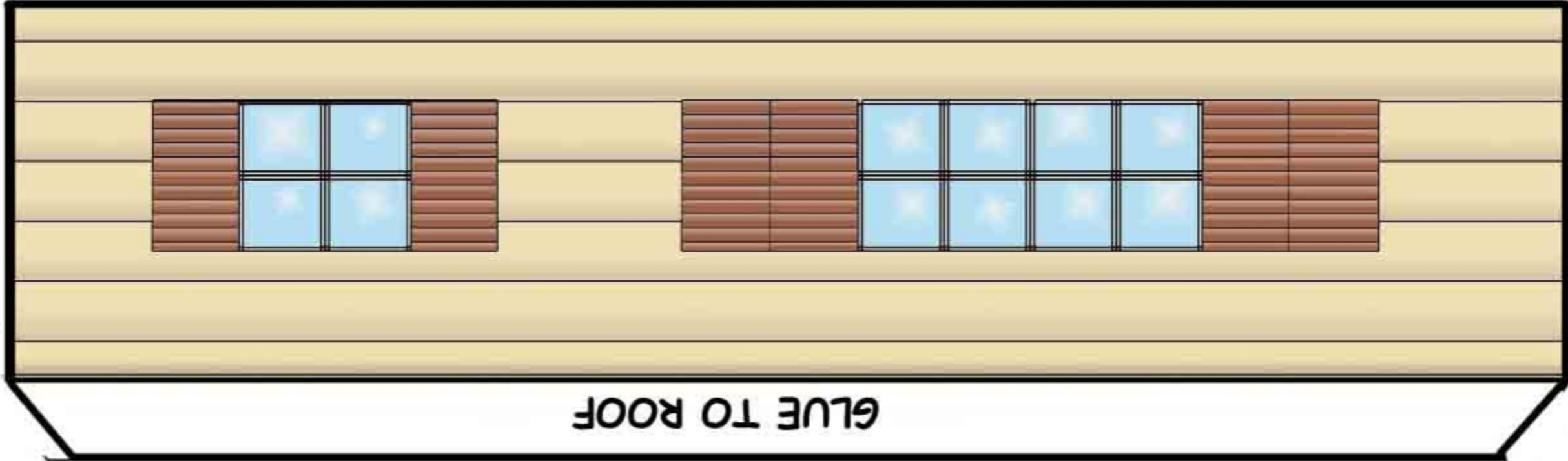
YOU CAN MAKE A MODEL OF, PERHAPS, AN F-86 SABRE JET TO HANG UNDER THE SKY CRANE OR.. IT CAN BE HAULING AN EMPTY BEER CAN.. SEND US A PHOTO OF FUNNY CARGO...

NOTE: ONE WONDERS HOW MUCH OF A "HOUSE" THIS WAS...I WORKED ON THIS HELICOPTER (ENGINEERING) IN THE EARLY 60s AND SEEM TO REMEMBER SEEING THE "HOUSE" STASHED OUTSIDE THE FACTORY.

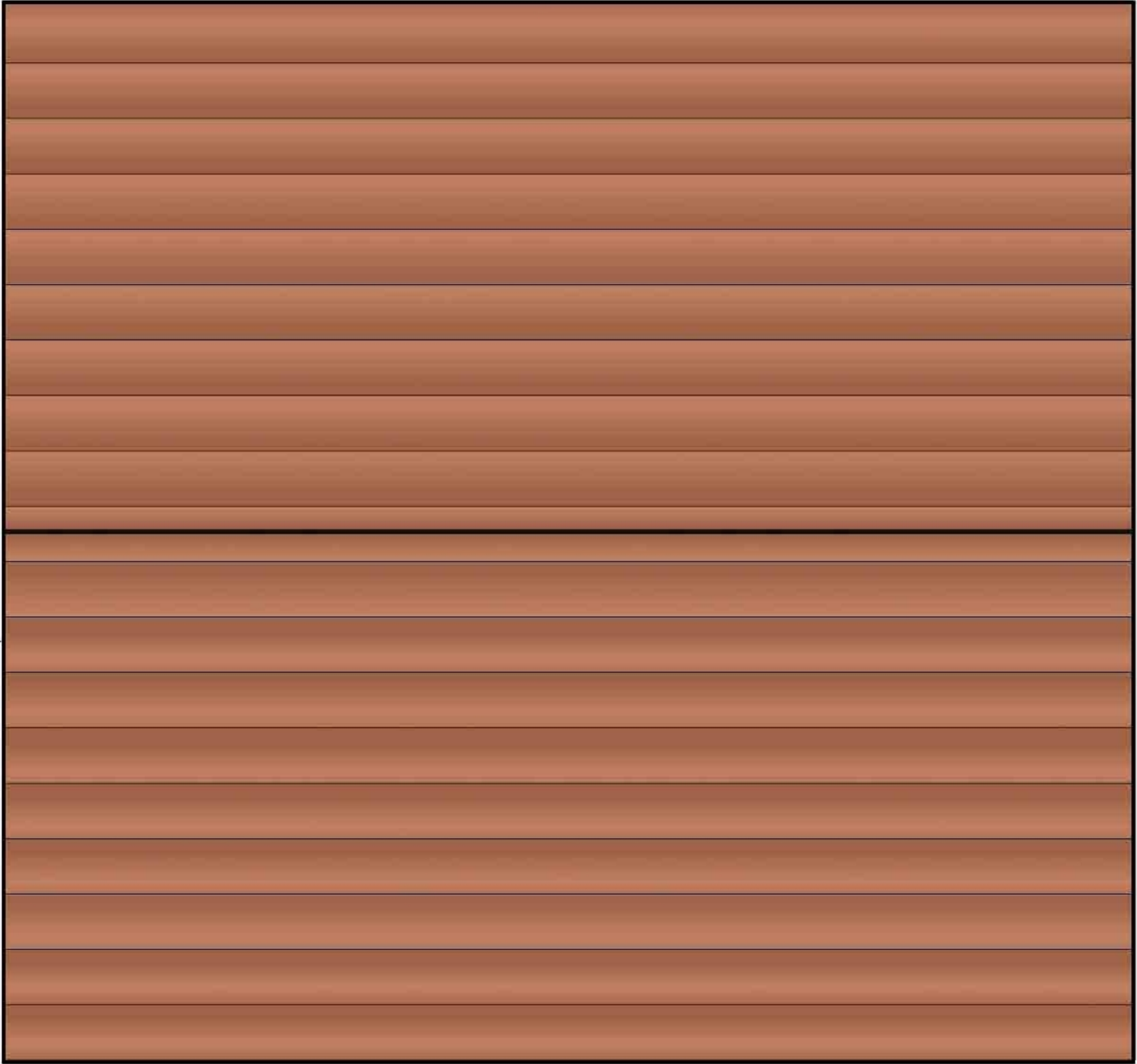
SIKORSKY S-64
SKY CRANE

SHEET 5

"CARGO"



SCORE AND BEND



SIKORSKY S-64 SKY CRANE

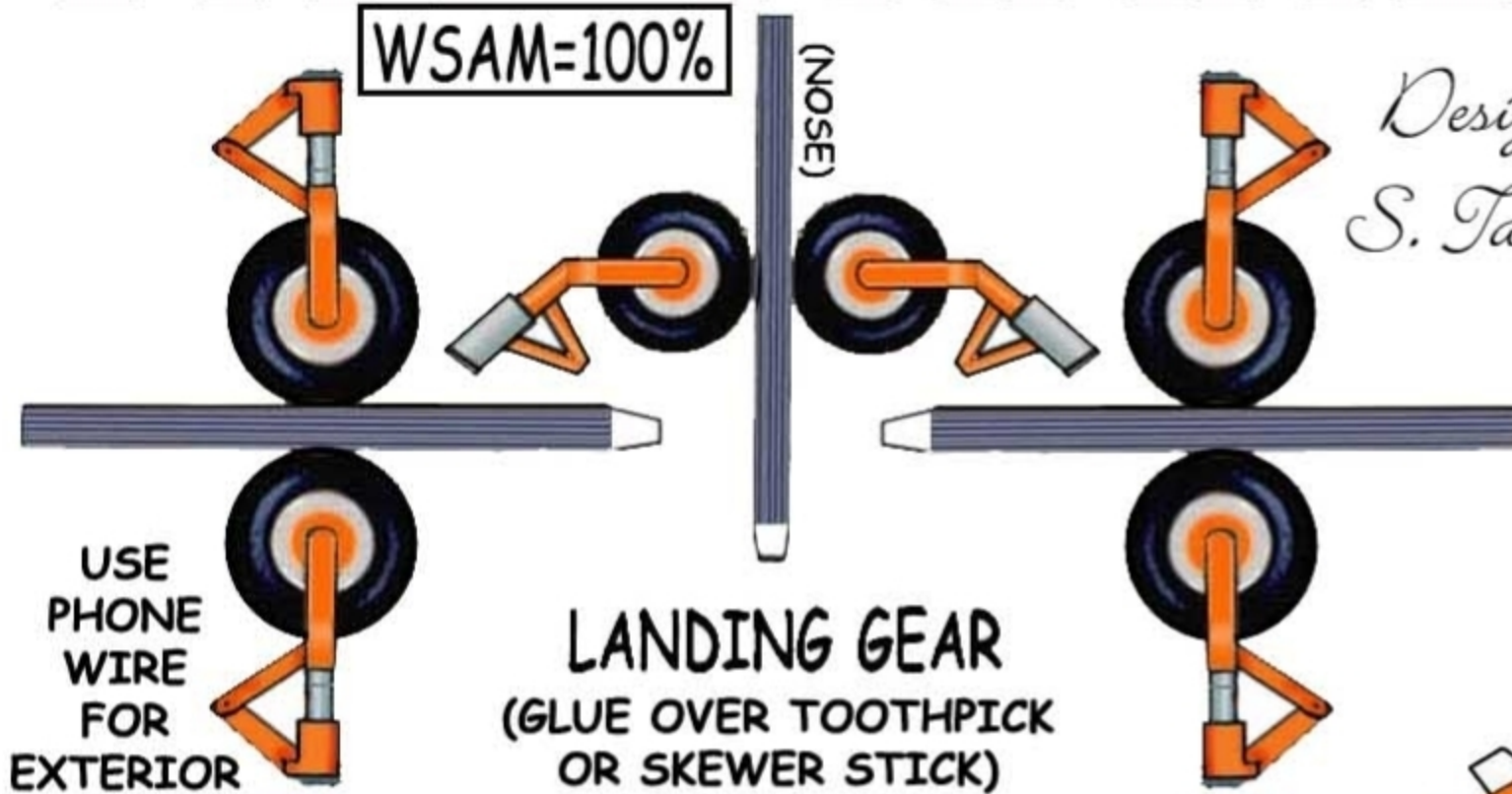
1962



Design by
S. Tahmasebi / 2002

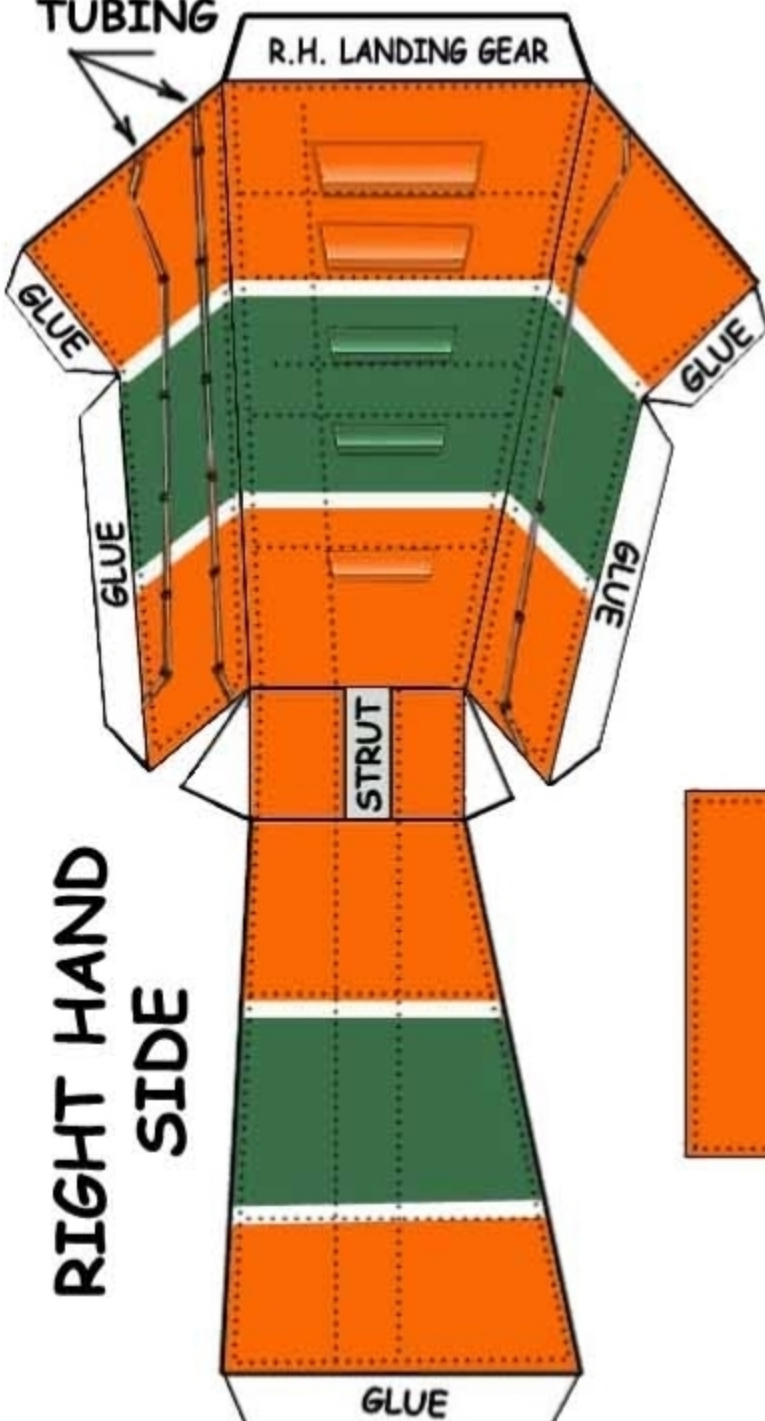
WSAM=100%

(NOSE)



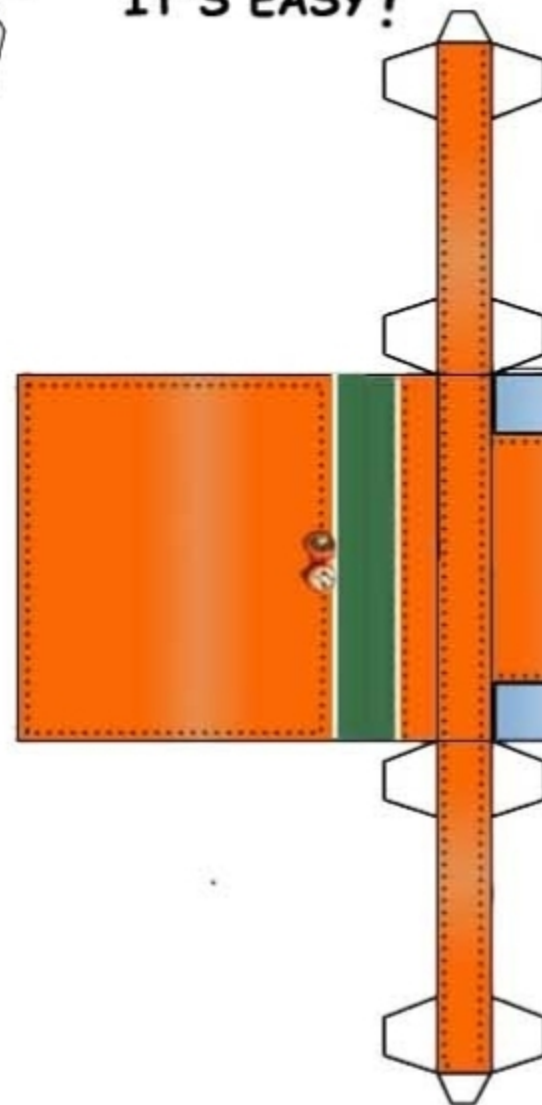
LANDING GEAR
(GLUE OVER TOOTHPICK
OR SKEWER STICK)

USE
PHONE
WIRE
FOR
EXTERIOR
TUBING

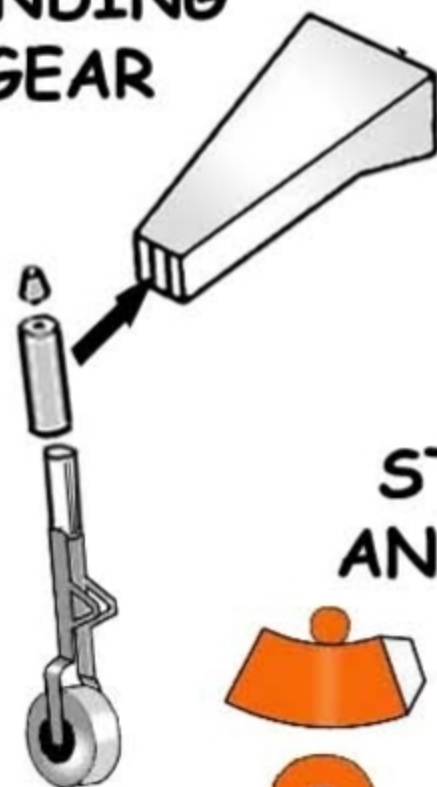


RIGHT HAND
SIDE

TAKE YOUR TIME
FORMING THE
SKY CRANE
CABIN
...AFTER THAT,
IT'S EASY!

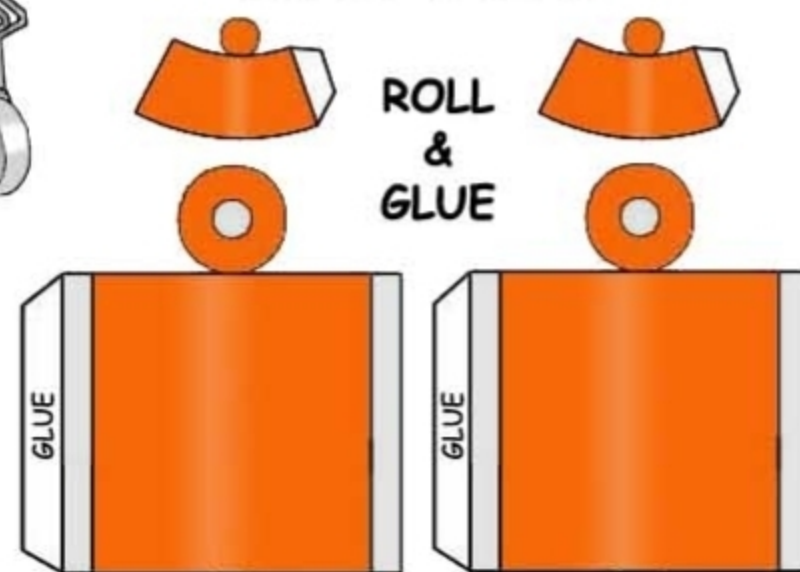


LANDING
GEAR

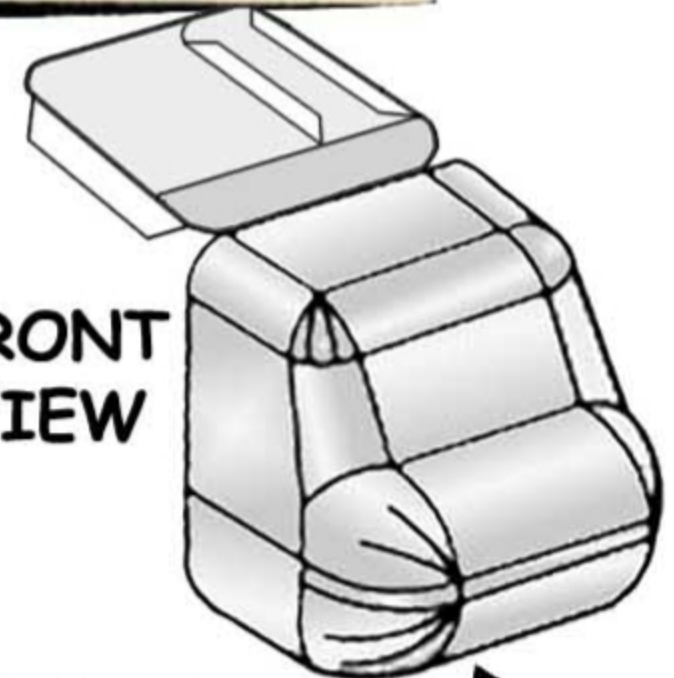


STRUTS
AND TOPS

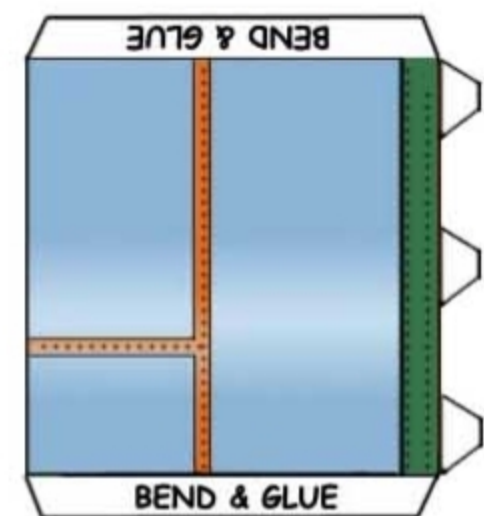
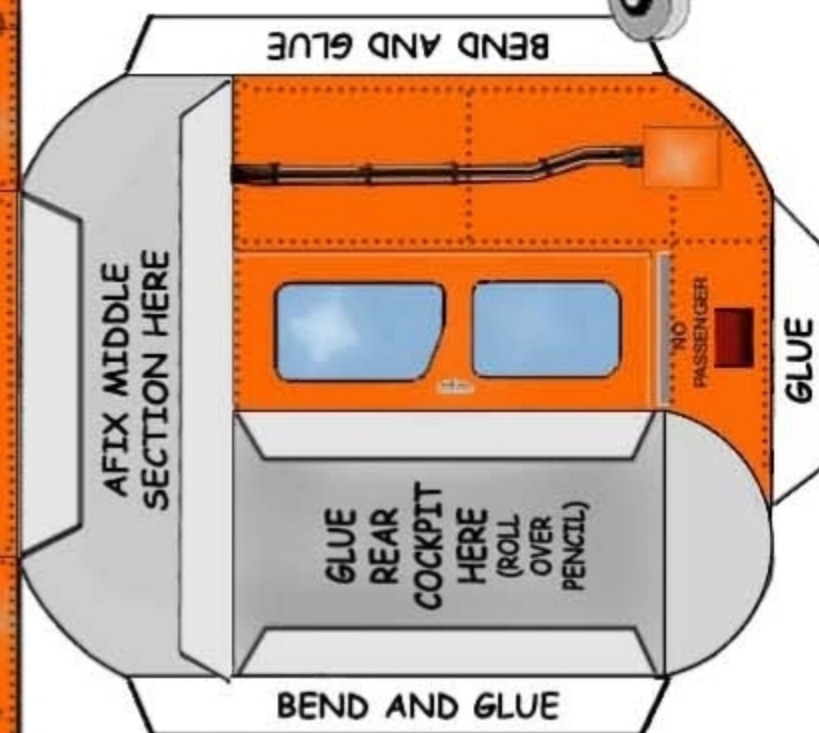
ROLL
&
GLUE



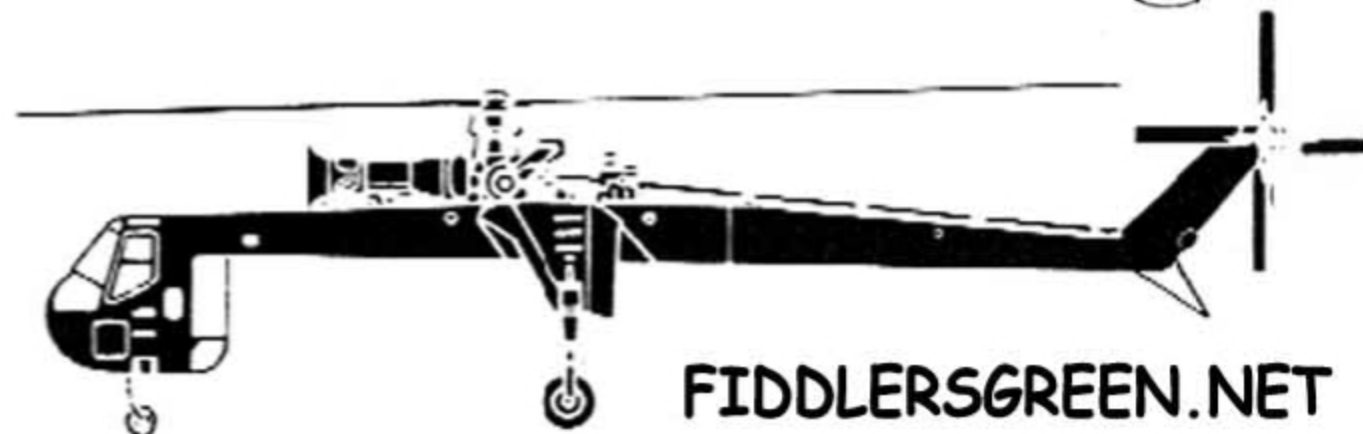
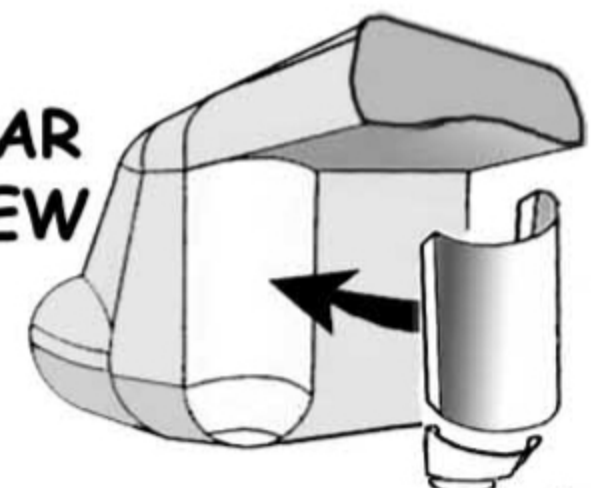
FRONT
VIEW



BEFORE FINISHING..
ADD A COUPLE PEBBLES
FOR BALLAST

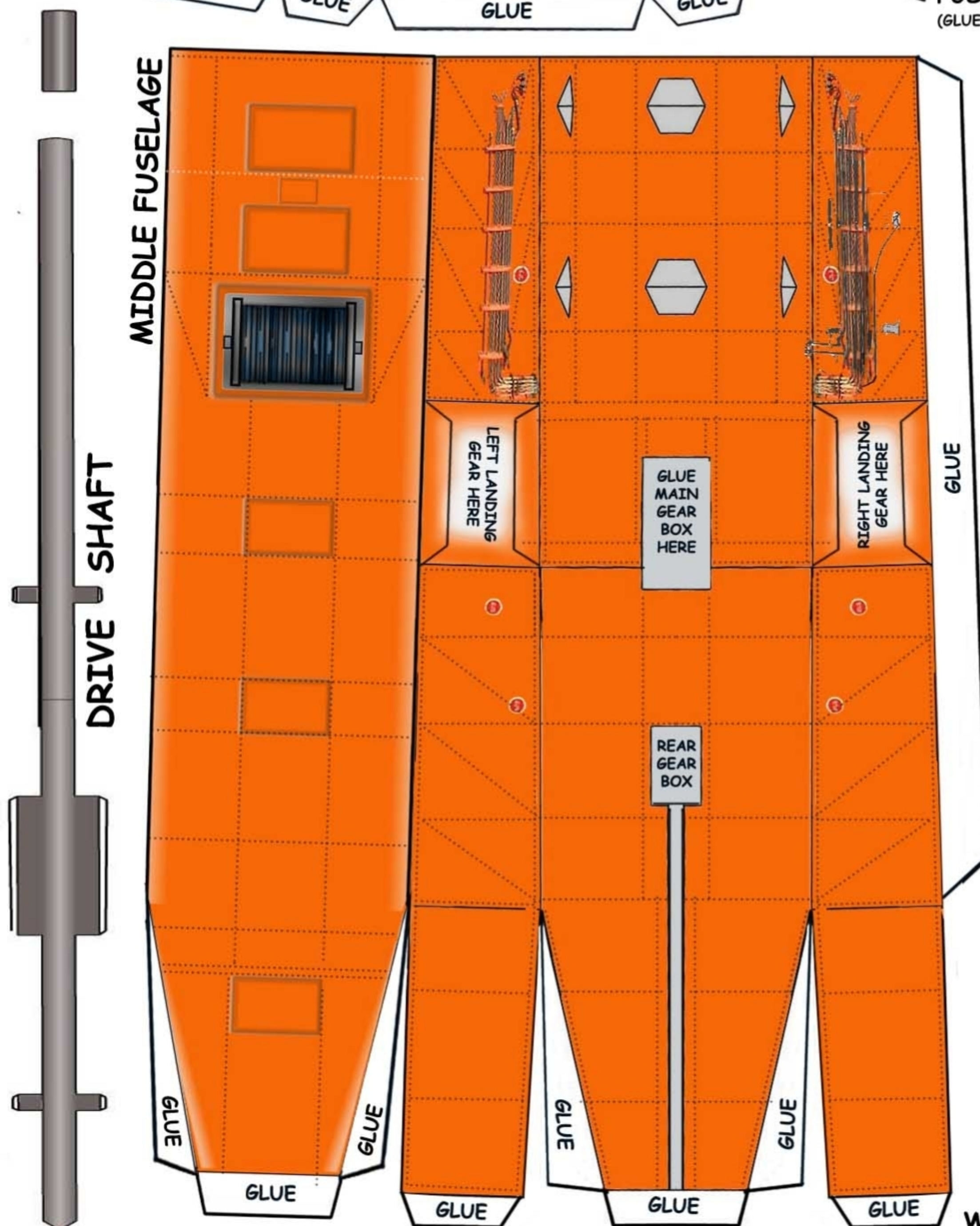
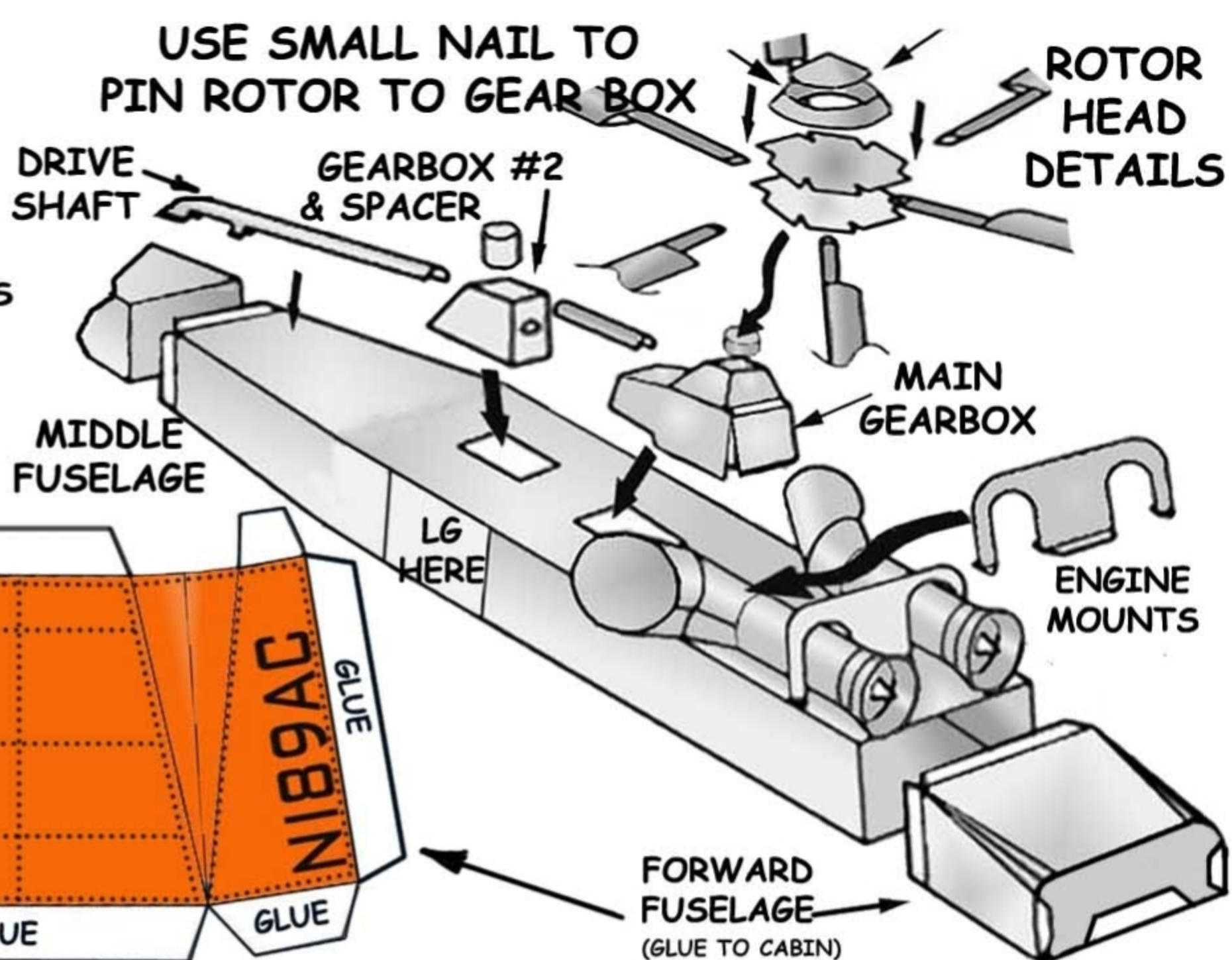


REAR
VIEW



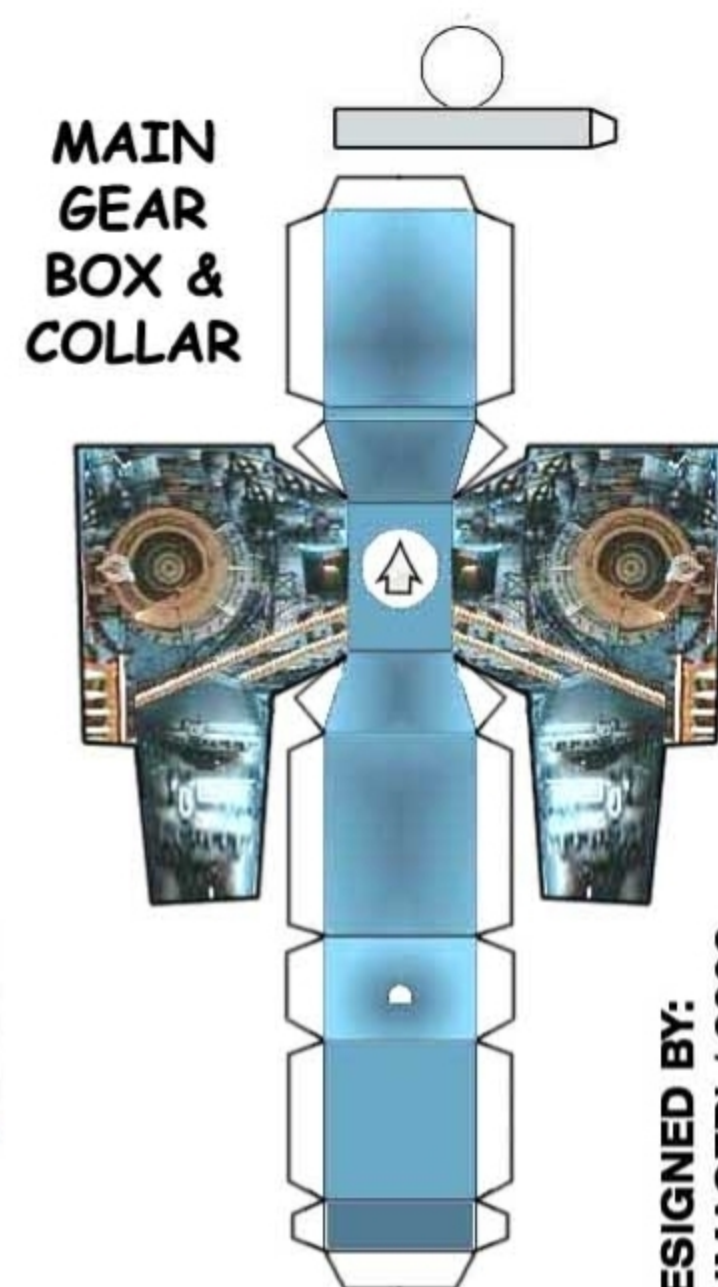
FIDDLERSGREEN.NET

**BUY A PACKAGE OF SKEWER STICKS
AT THE GROCERY STORE
AND GLUE THE 'DRIVE SHAFT'
GRAPHIC OVER THE STICK**



**AFIX ENGINES INTO
ENGINE MOUNTS
BEFORE MOUNTING
THEM ON FUSELAGE**

GLUE BITS OF WIRE
AND THIN SOLDER
TO THE ENGINES FOR
EFFECT



**DESIGNED BY:
S-TAHMASEBI / 2002**



SKY CRANE

SHEET THREE

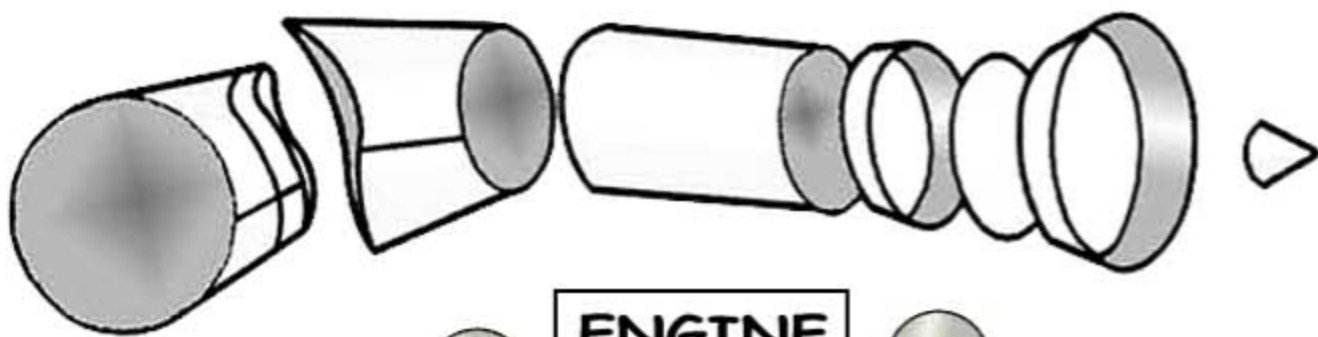
FOLD & GLUE

ENGINE MOUNTS
MOUNT ENGINES FIRST!

then...

BEND TABS UP AND
GLUE TO TOP OF
FUSELAGE

TAKE YOUR TIME AND DO A GOOD JOB ON THE ENGINES



ENGINE
INTAKE
PARTS

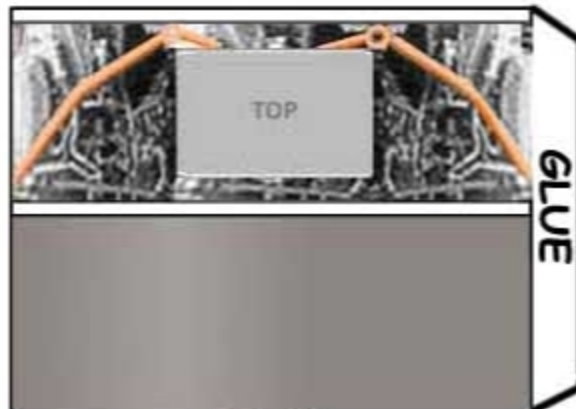
(FORM AROUND
THE TIP OF PEN
OR PENCIL)



OUTER
RINGS

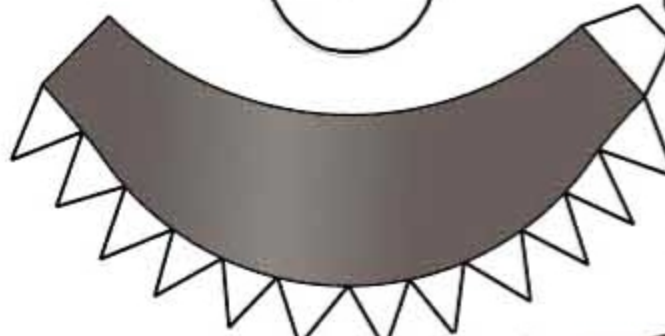


ENGINE
MAIN
SECTIONS

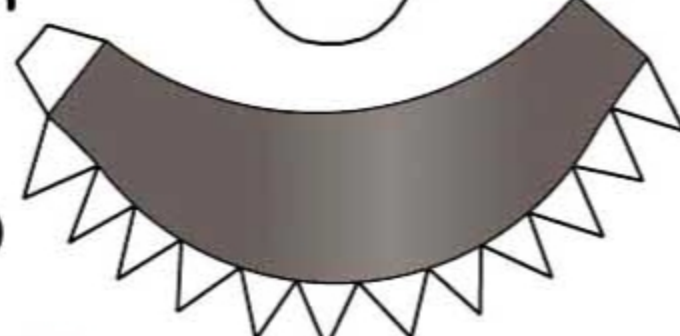


AFT

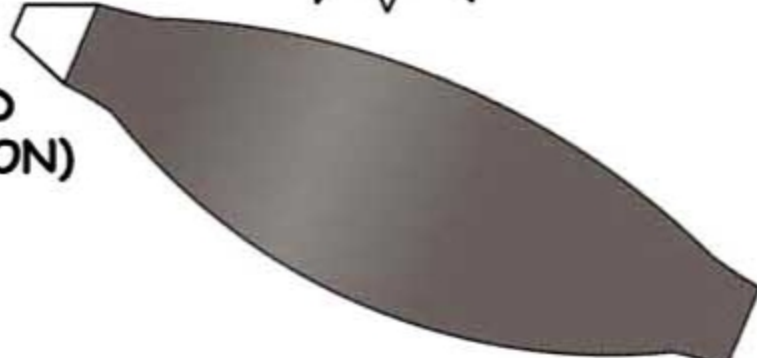
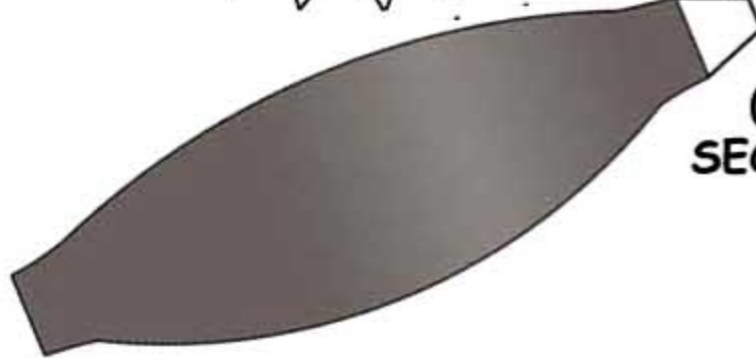
EXHAUST
PIPES
(MIDDLE
SECTION)



AFT



(END
SECTION)



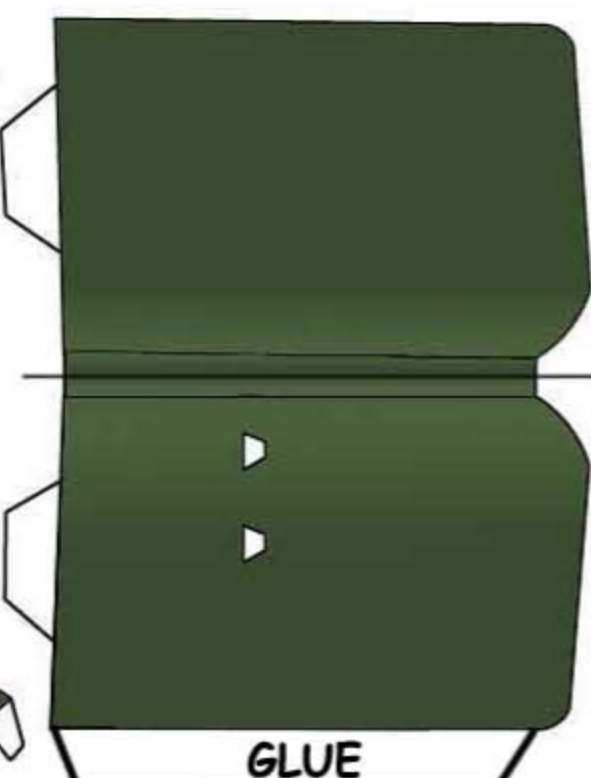
DESIGNED BY:
S-TAHMASEBI / 2002

STRUT
(OPTIONAL)

YOU MAY WANT TO
USE A TOOTHPICK
INSTEAD

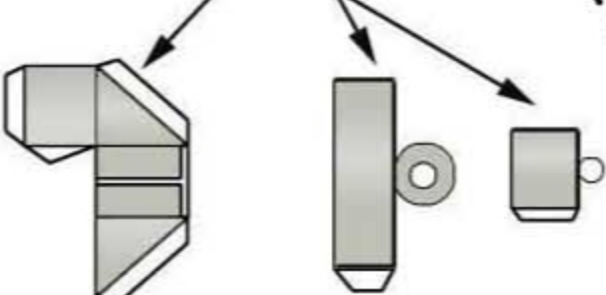


TAIL
SKID

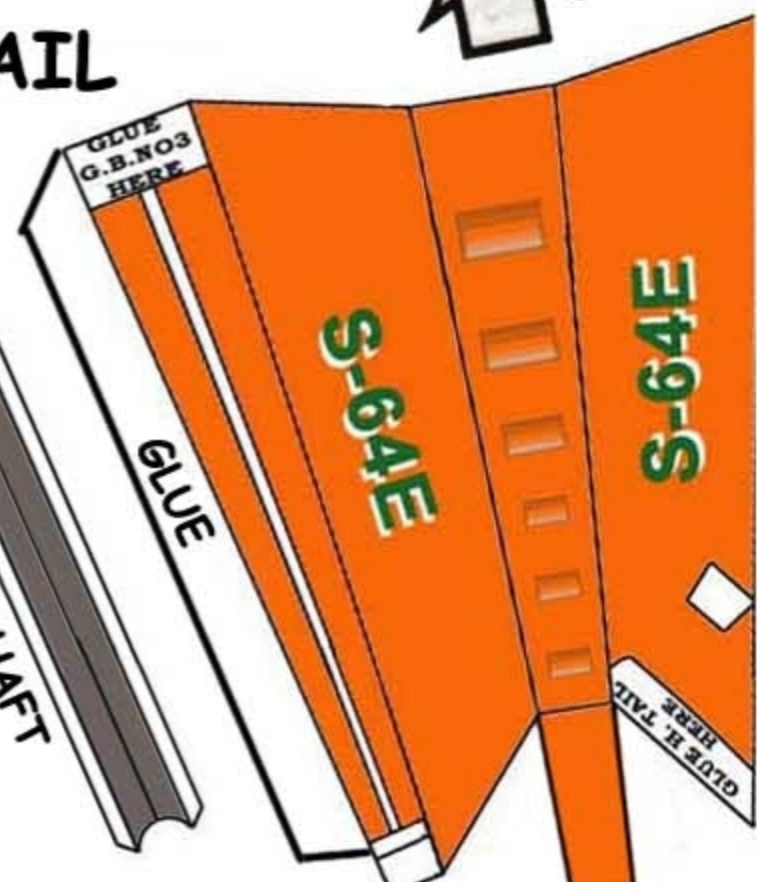


GLUE
STABILIZER
FOLD (BUT DON'T SCORE)

GEAR BOXES
3 AND 4
(OPTIONAL)



DRIVE SHAFT



S-64E

S-64E

TAIL
DETAILS

REAR
ROTOR
ASSEMBLY

GEARBOX #4

STABILIZER

SUPPORT

DRIVE SHAFT

GEAR BOX #3

SKID

TAIL

AFT
FUSELAGE

GLUE
TO MAIN
SECTION

AFT
FUSELAGE

TAIL

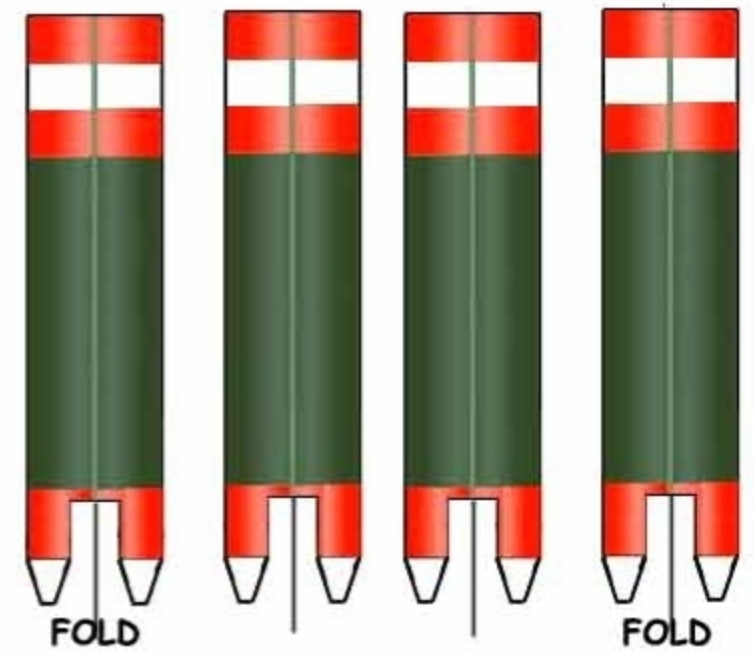
SKY CRANE

SHEET FOUR



TAIL
ROTOR
HEAD

USE STRAIGHT PIN
FOR ATTACHMENT

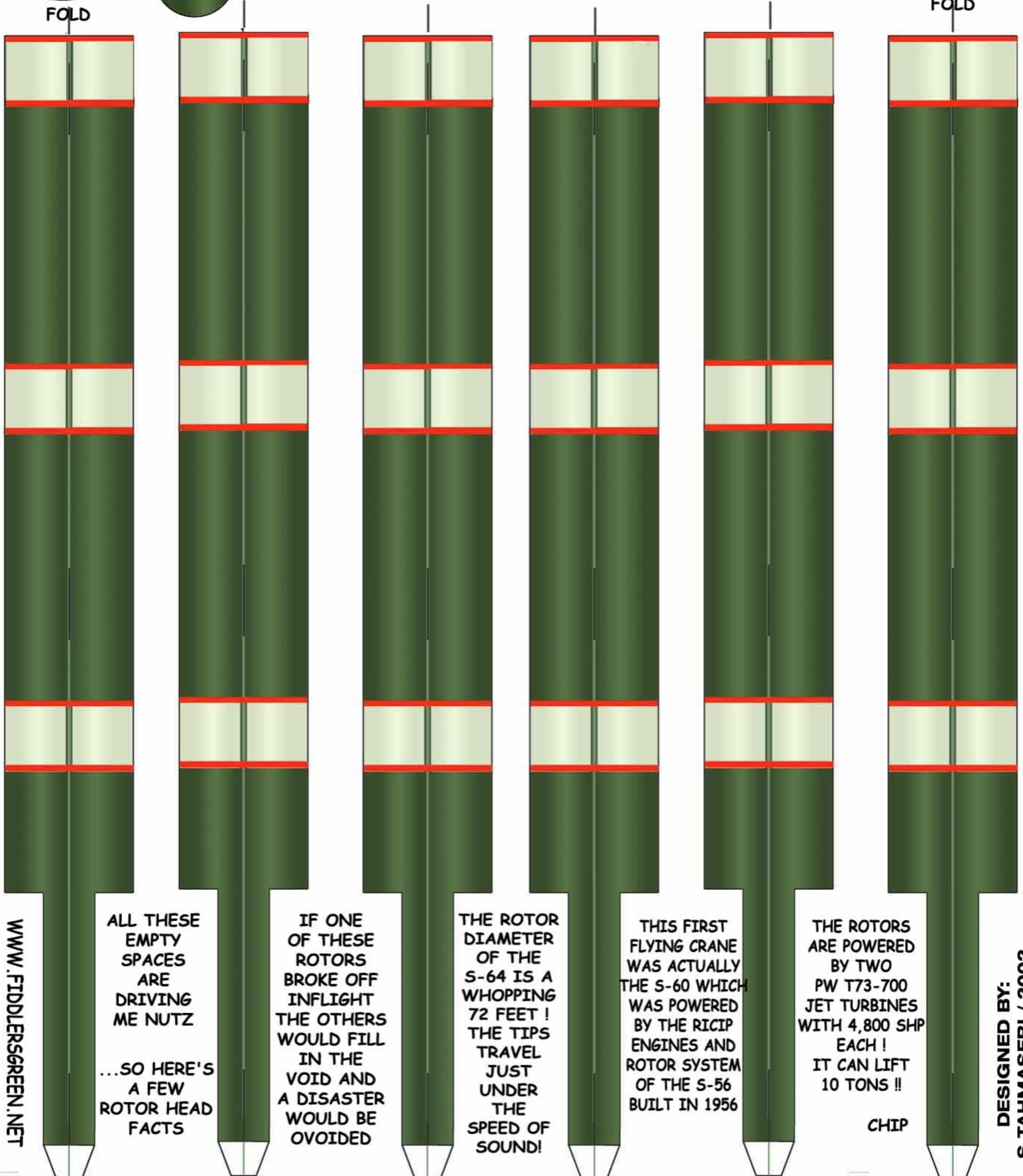


TAIL ROTOR BLADES
(FOLD AND GLUE)
STIFFENERS NOT NEEDED



ROTOR HEAD
AND CAP

USE SKEWER STICKS AS
STIFFENERS FOR THE BLADES



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ROTORS
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WITH 4,800 SHP
EACH !
IT CAN LIFT
10 TONS !!

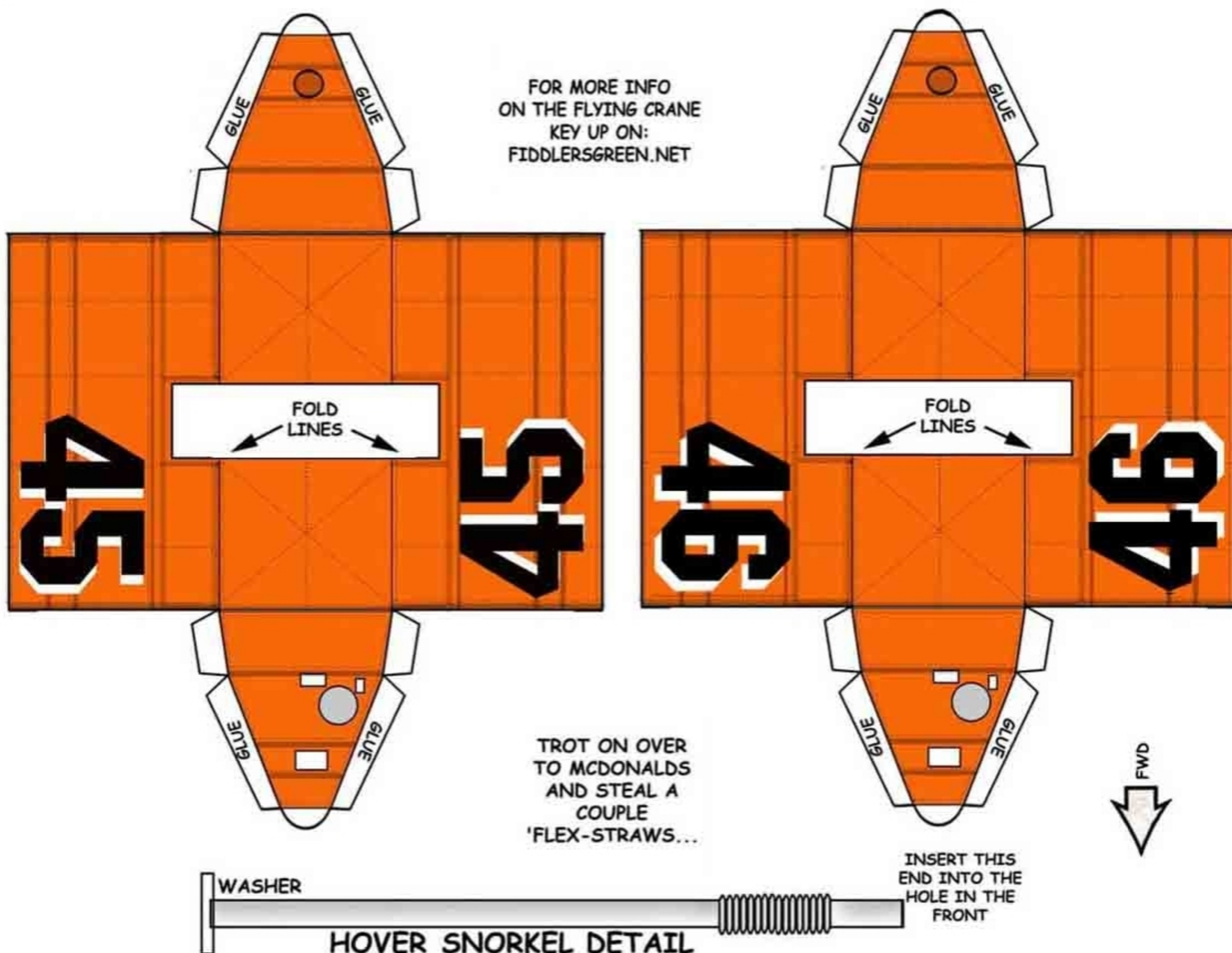
CHIP

DESIGNED BY:
S-TAHMASEBI / 2002

ERICKSON S-64 HELITANKER



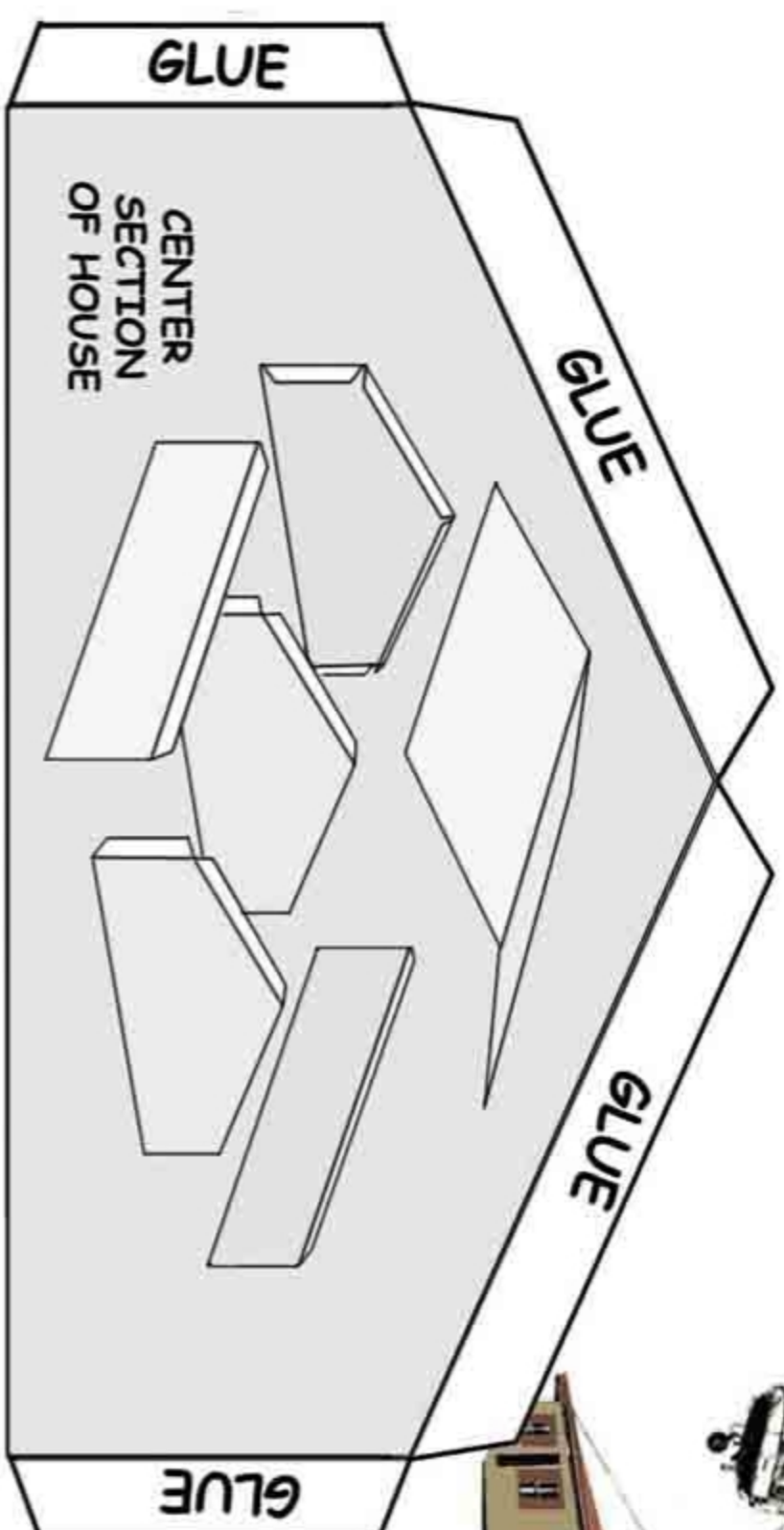
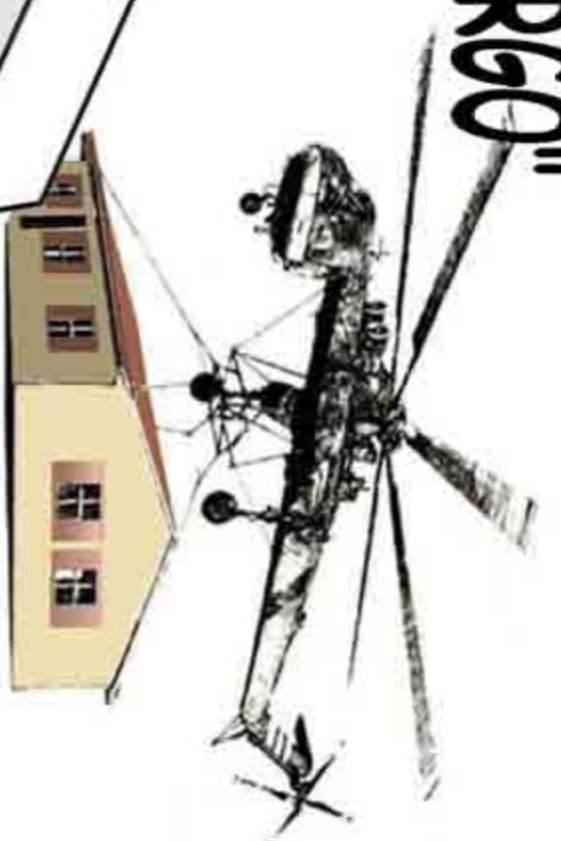
The Erickson S-64 Airplane Helitanker is built by attaching a 2,600 gallon (9,800 litre) firefighting tank system to the fuselage of the S-64 Airplane. The tank system consists of a high volume "Hover Snorkel" that can fill the tank in 18 inches (45 cm) of water within 45 seconds. A special "Sea Snorkel", designed for the tank, augments the freshwater hover fill capabilities of the hover snorkel by allowing for 45 second refill in nearby saltwater sources. The doors of the tank are controlled by a microprocessor that adjusts for the groundspeed of the helicopter to deliver 8 different coverage levels of water, foam mix, or retardant. The pilot selects a coverage level from 1 gallon per 100 square feet to 8 gallons per 100 square feet. (~4 liters per 10 sq meters - ~30 liters per 10 sq meters) If required, the pilot can dump a salvo of the entire 2,500+ gallon (9,500+ liter) load in less than 3 seconds.



FOR THE REGULAR SIZED VERSION

SIKORSKY S-64 SKY CRANE

"CARGO"



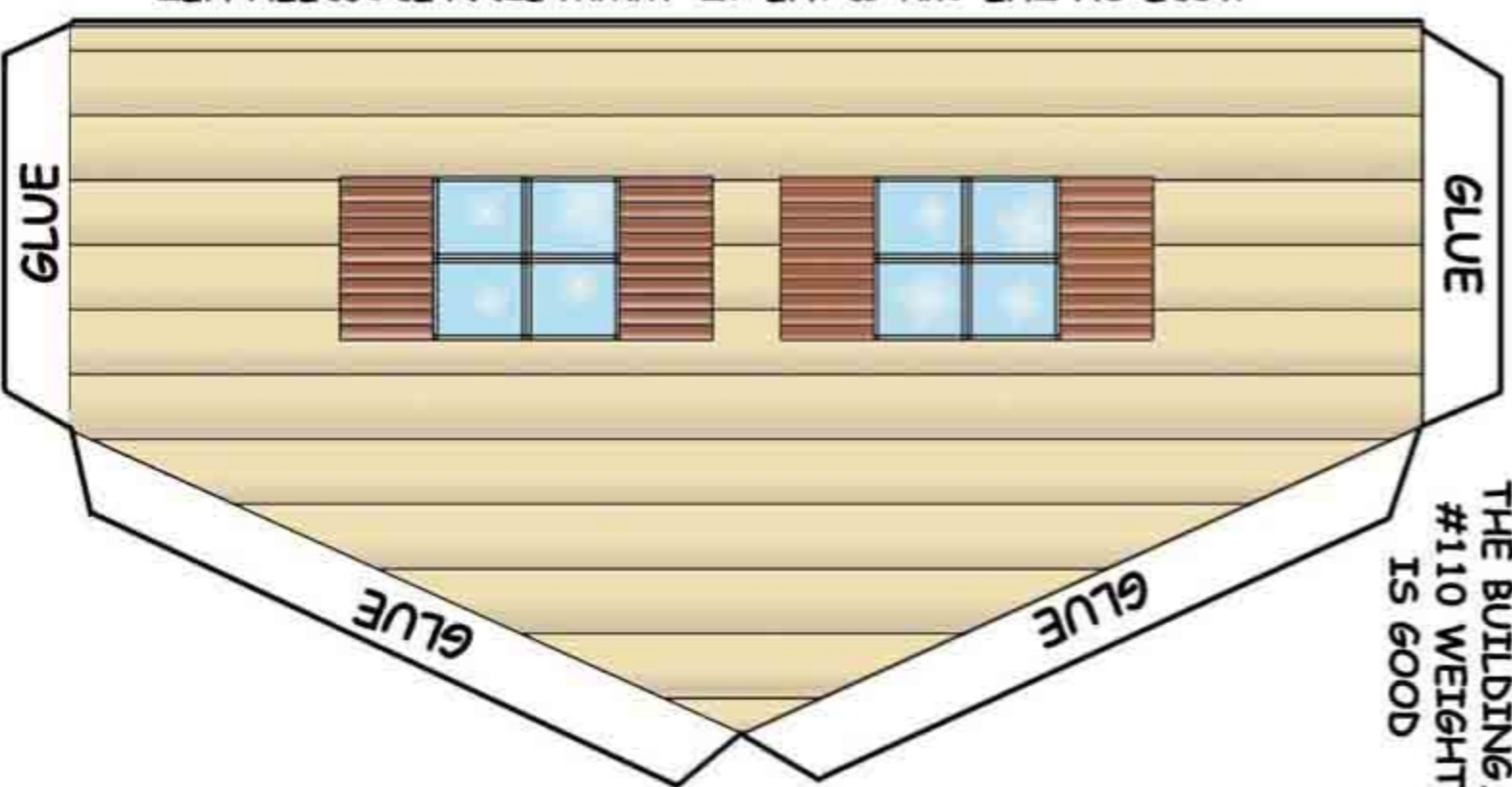
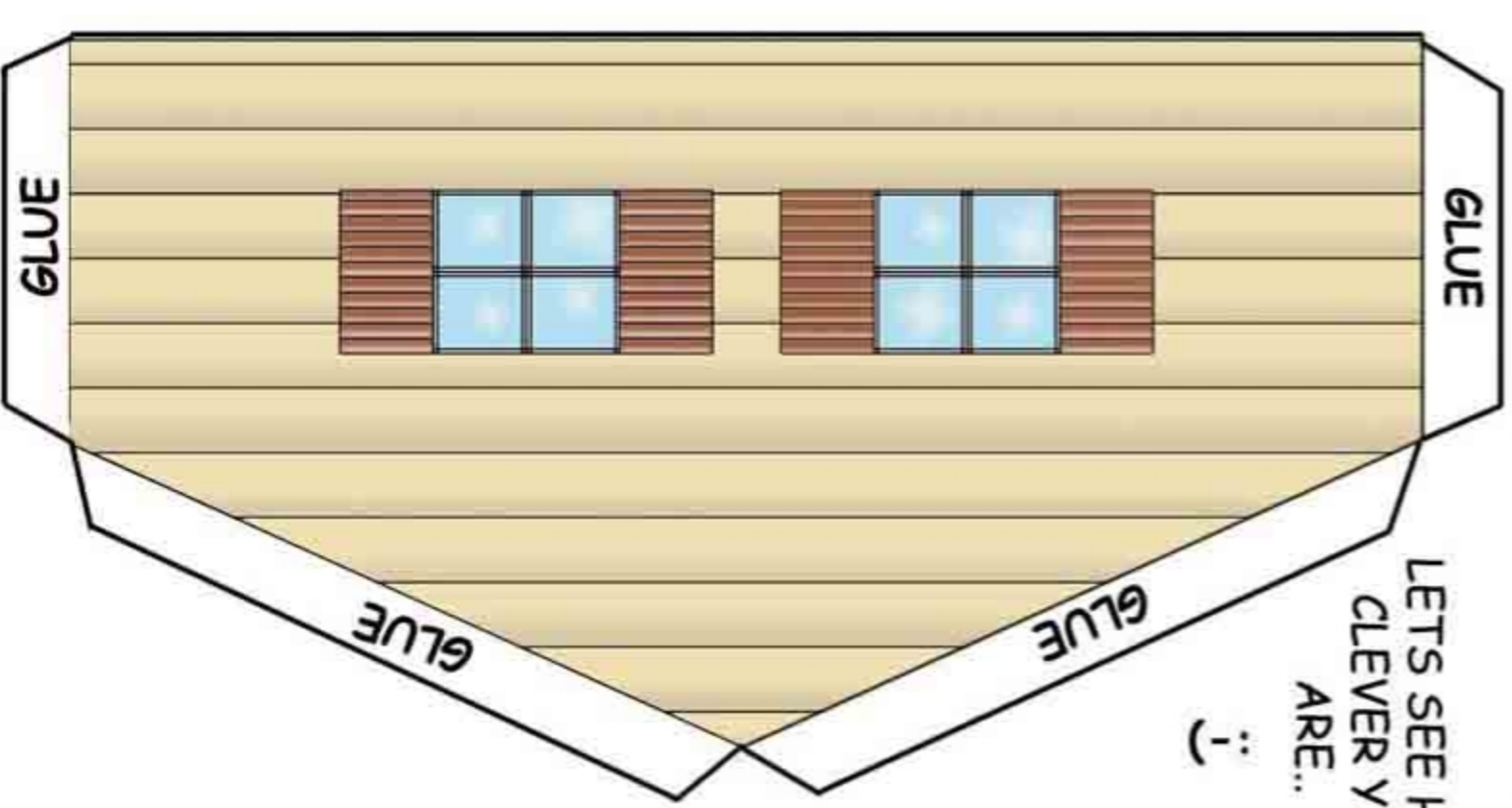
ONE OF THE CLEVER MARKETING GIMICKS USED TO SELL THE S-64 WAS TO SHOW IT CARRYING AN ENTIRE HOUSE...

USE HEAVIER CARDSTOCK FOR THE BUILDING.. #110 WEIGHT IS GOOD

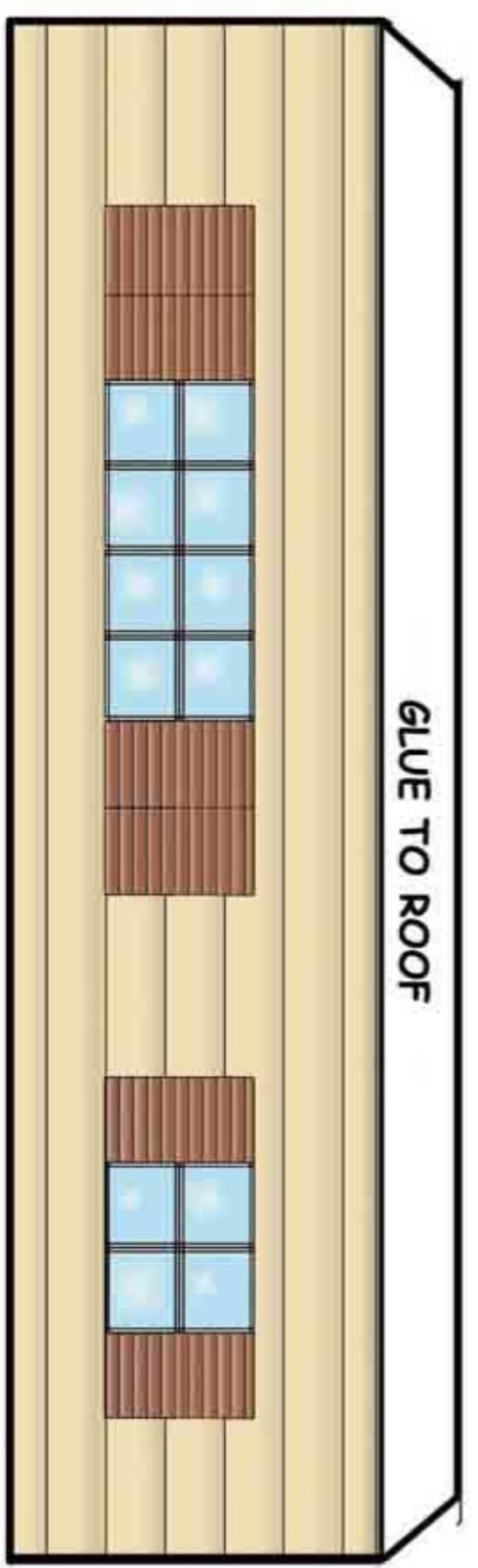
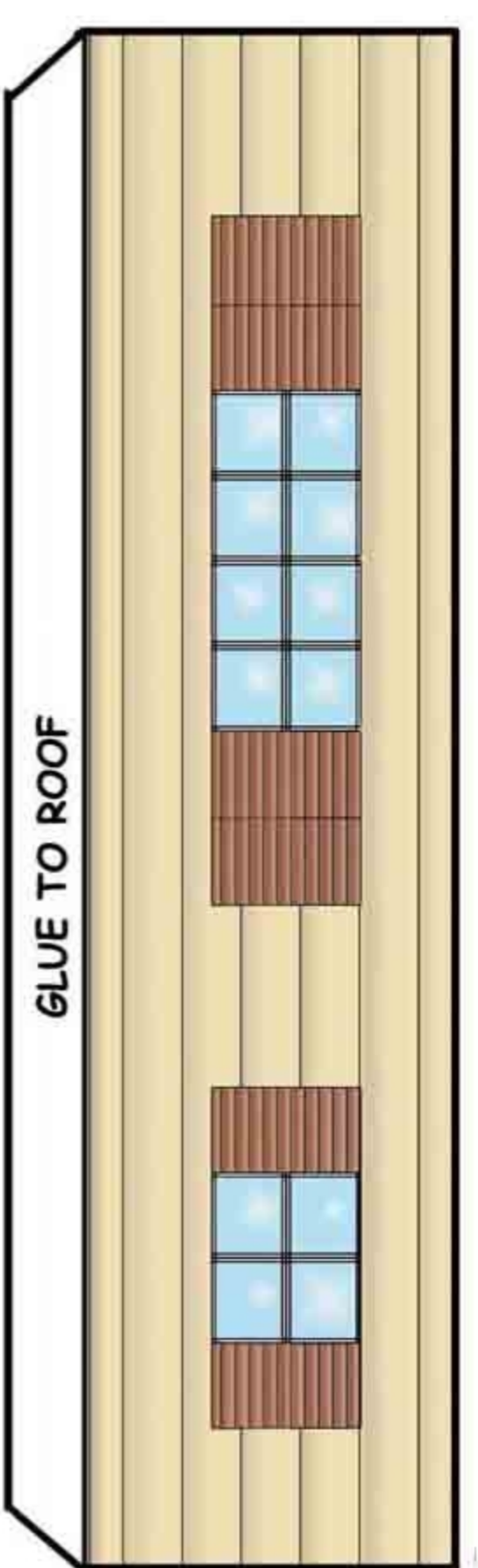
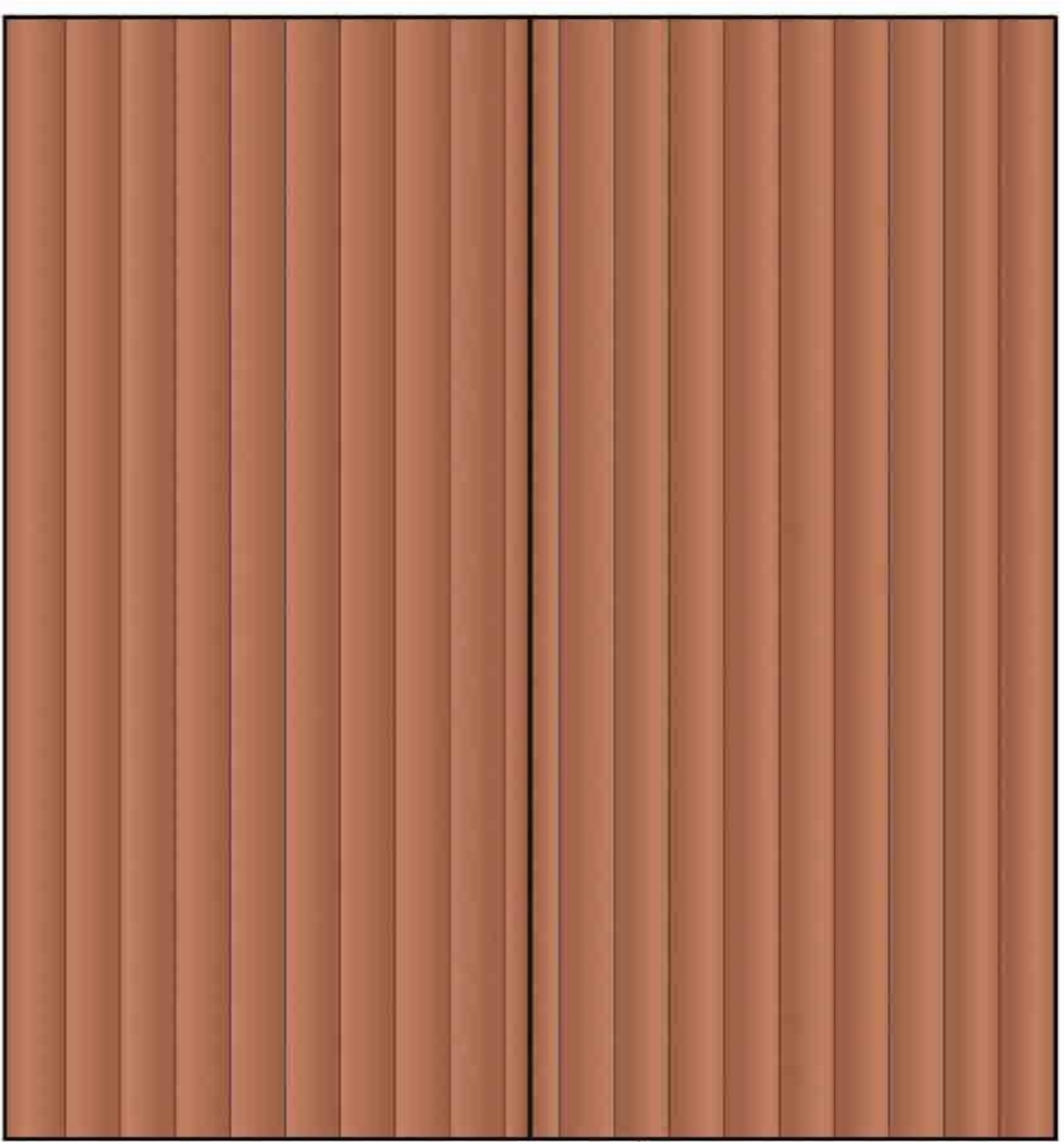
THIS IS A 'RIG YOUR OWN' PROJECT..

LETS SEE HOW CLEVER YOU ARE.. :-)

YOU CAN MAKE A MODEL OF, PERHAPS, AN F-86 SABRE JET TO HANG UNDER THE SKY CRANE OR.. IT CAN BE HAULING AN EMPTY BEER CAN.. .SEND US A PHOTO OF FUNNY CARGO...



MORE ON THE SKY CRANE AT: WWW.FIDDLERSGREEN.NET

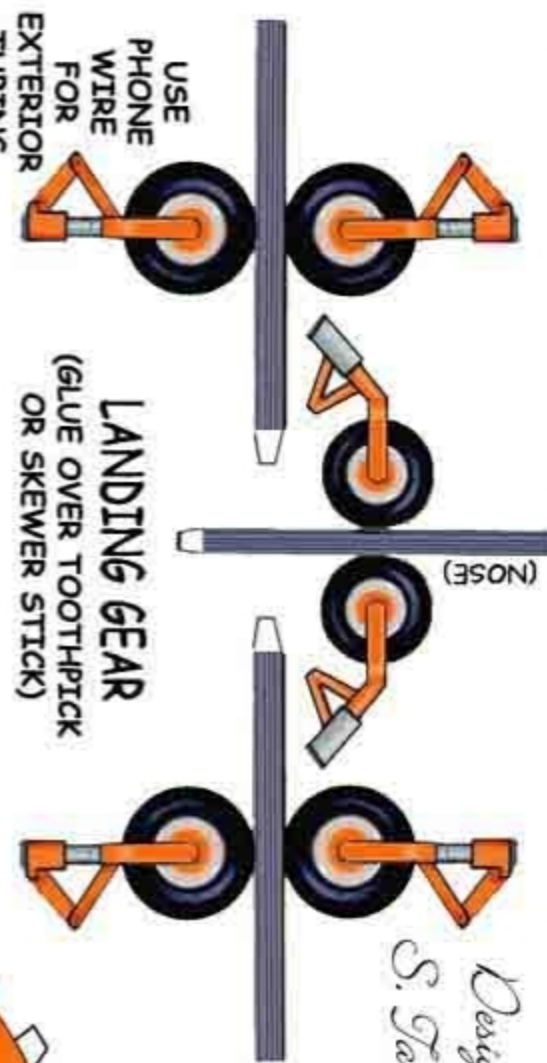


NOTE: ONE WONDERS HOW MUCH OF A "HOUSE" THIS WAS...I WORKED ON THIS HELICOPTER (ENGINEERING) IN THE EARLY 60s AND SEEM TO REMEMBER SEEING THE "HOUSE" STASHED OUTSIDE THE FACTORY.

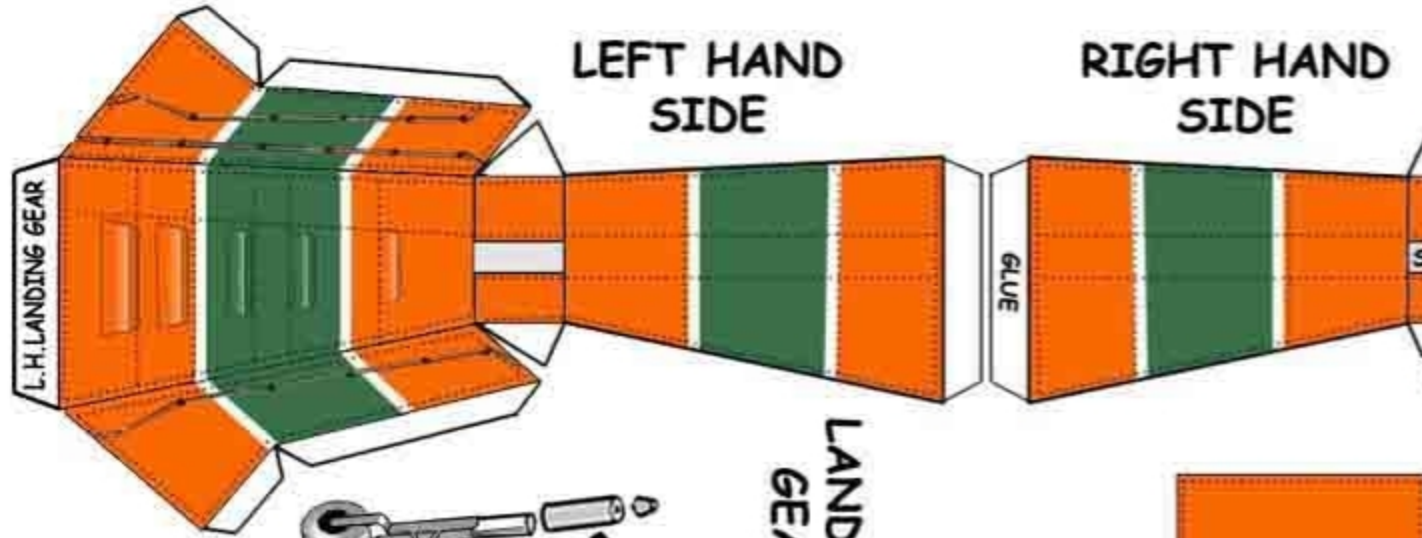
SIKORSKY S-64 SKY CRANE

1962

Design by
S. Tahmasebi / 2002

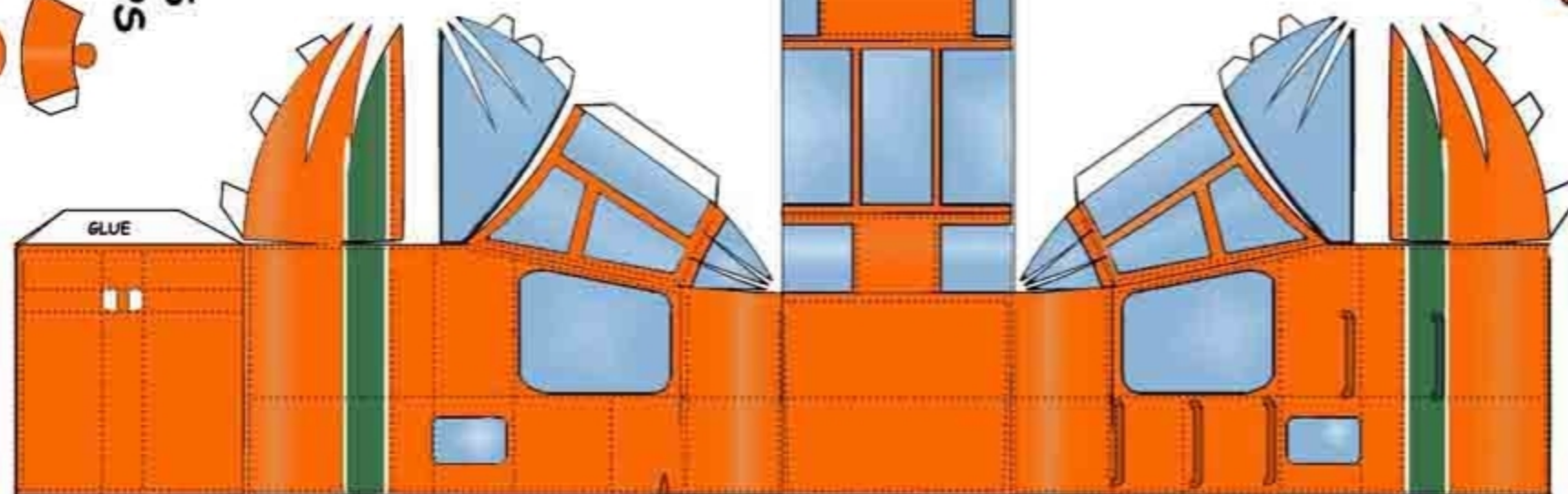


TAKE YOUR TIME FORMING THE SKY CRANE CABIN
.. AFTER THAT, IT'S EASY!



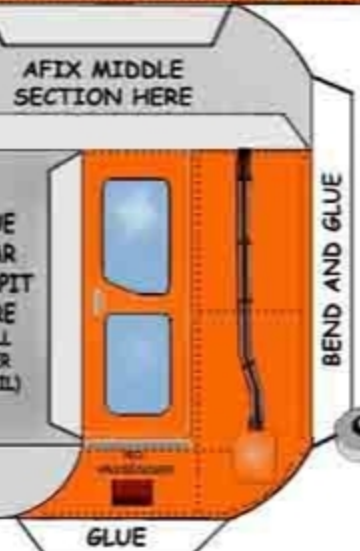
LANDING GEAR

STRUTS AND TOPS
ROLL & GLUE

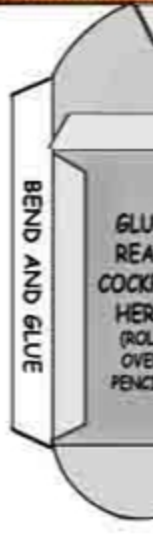


FRONT VIEW

BEFORE FINISHING.. ADD A COUPLE PEBBLES FOR BALLAST

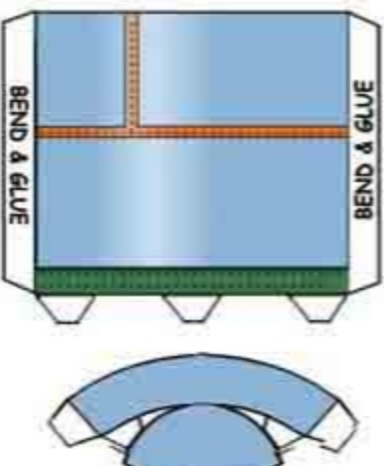


AFIX MIDDLE SECTION HERE

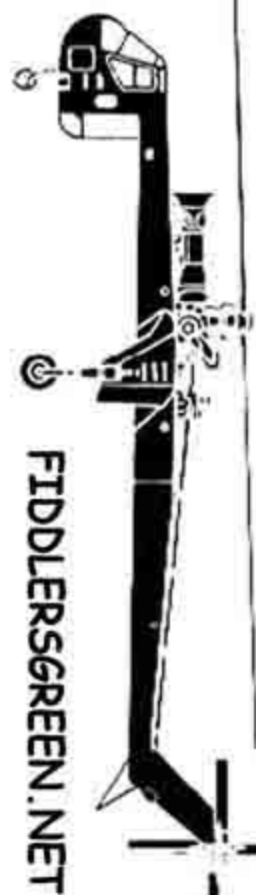


BEND AND GLUE

BEND AND GLUE



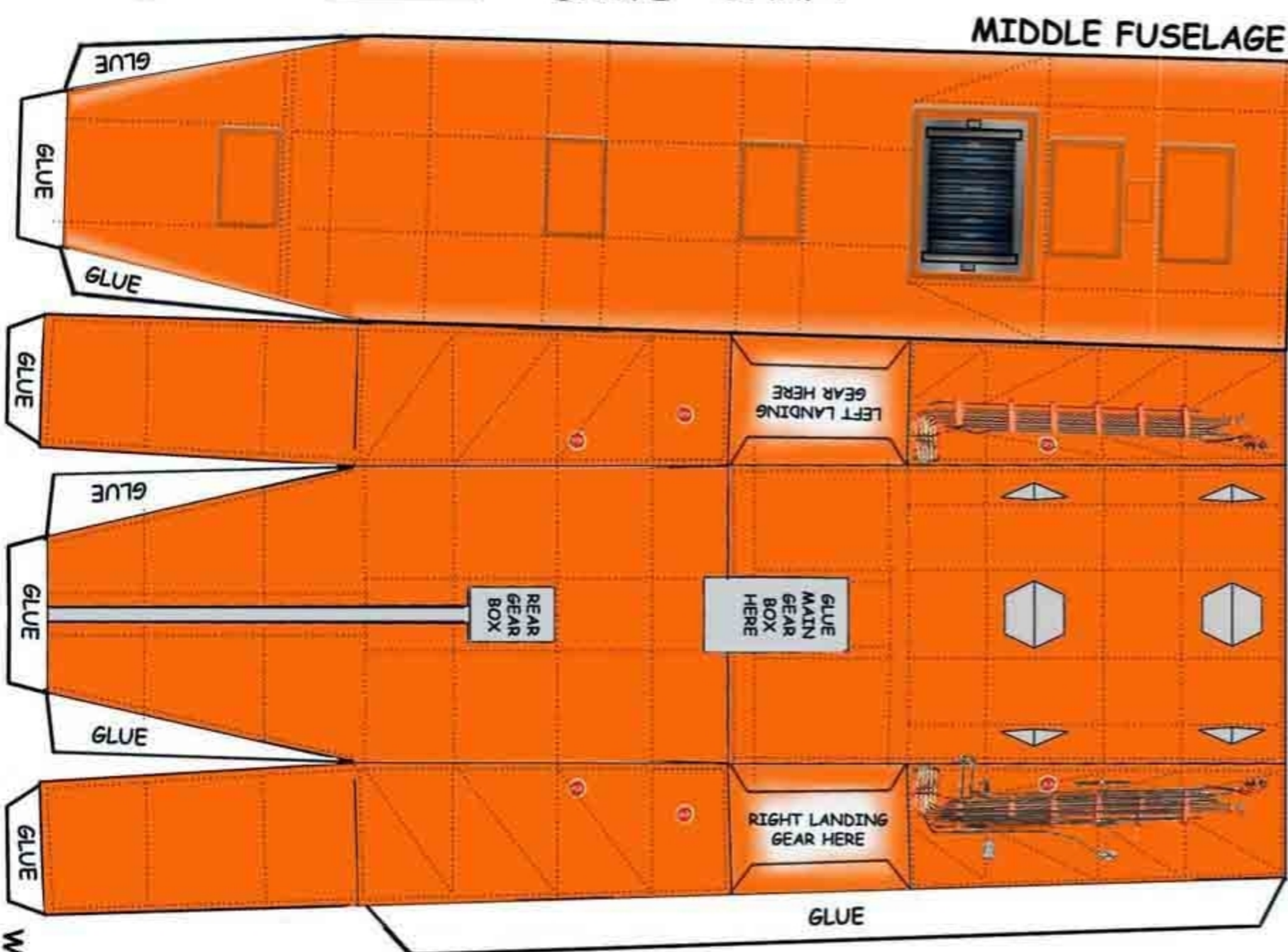
REAR VIEW



FIDDLERSGREEN.NET

DRIVE SHAFT

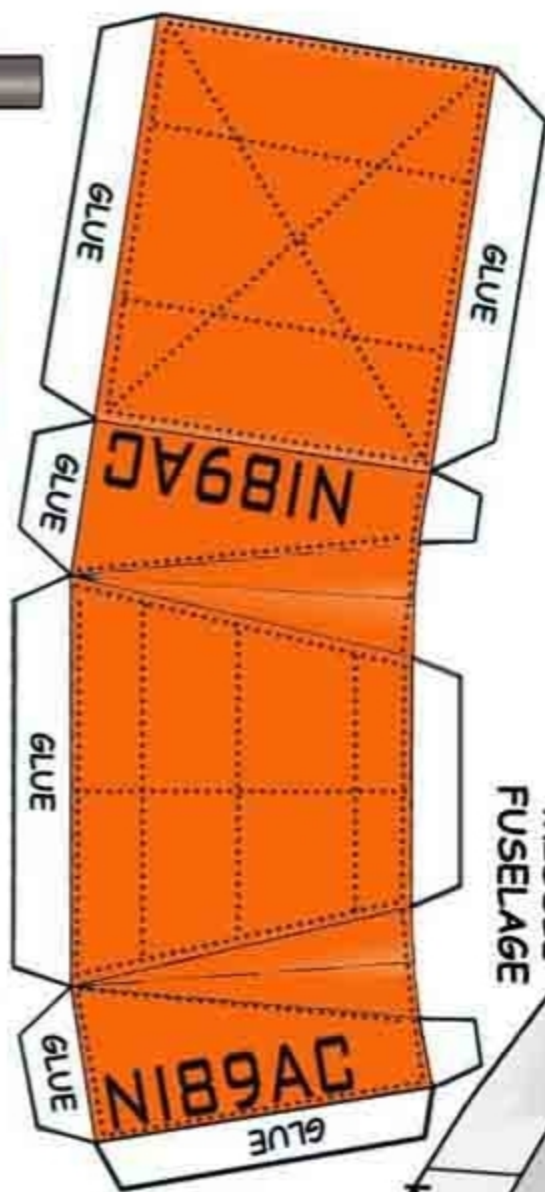
MIDDLE FUSELAGE



BUY A PACKAGE OF SKEWER STICKS AT THE GROCERY STORE AND GLUE THE 'DRIVE SHAFT' GRAPHIC OVER THE STICK

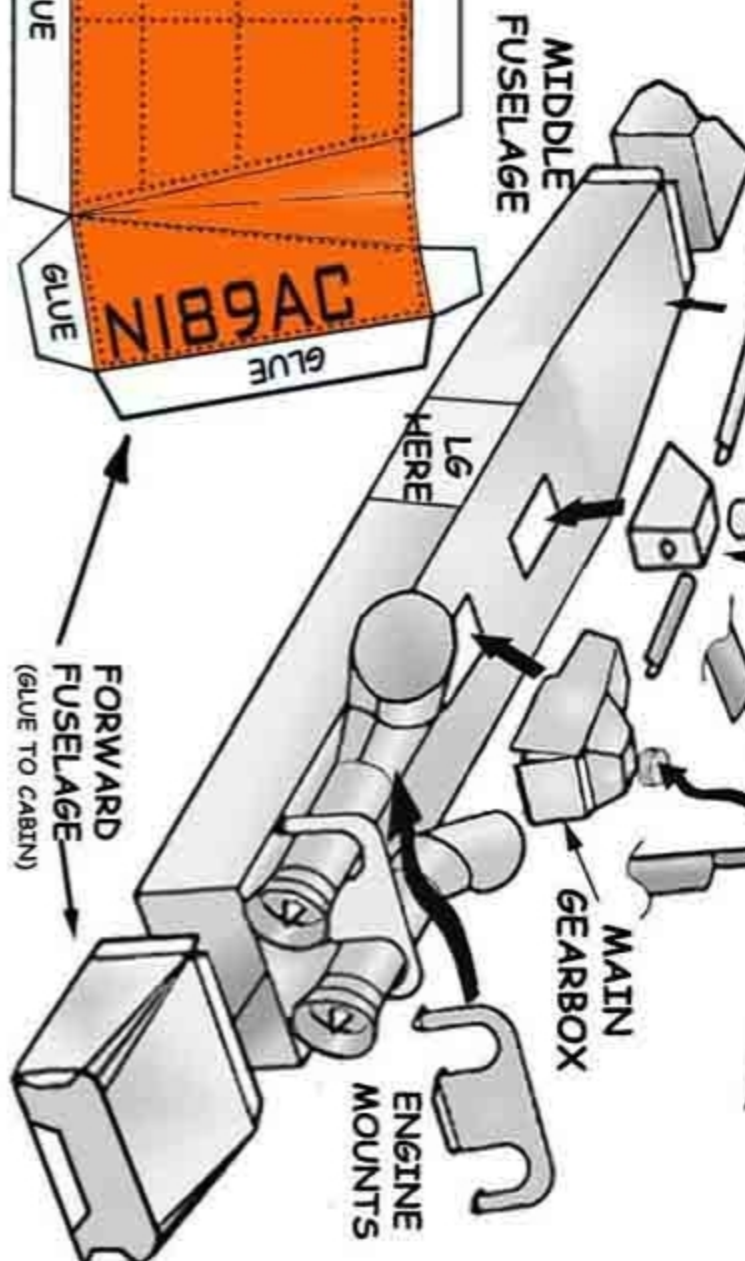
USE SMALL NAIL TO PIN ROTOR TO GEAR BOX

GEARBOX #2
SHAFT & SPACER



MIDDLE FUSELAGE

FORWARD FUSELAGE (GLUE TO CABIN)



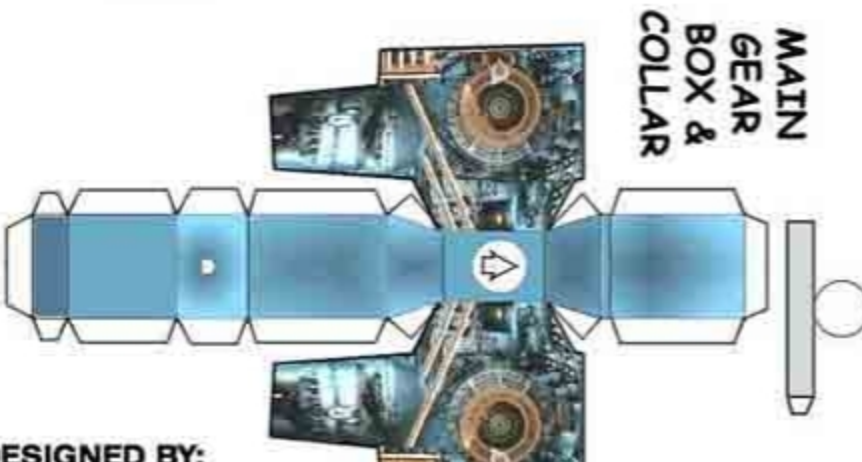
ROTOR HEAD DETAILS

MAIN GEARBOX

ENGINE MOUNTS

NOTES:
AFIX ENGINES INTO ENGINE MOUNTS BEFORE MOUNTING THEM ON FUSELAGE
GLUE BITS OF WIRE AND THIN SOLDER TO THE ENGINES FOR EFFECT

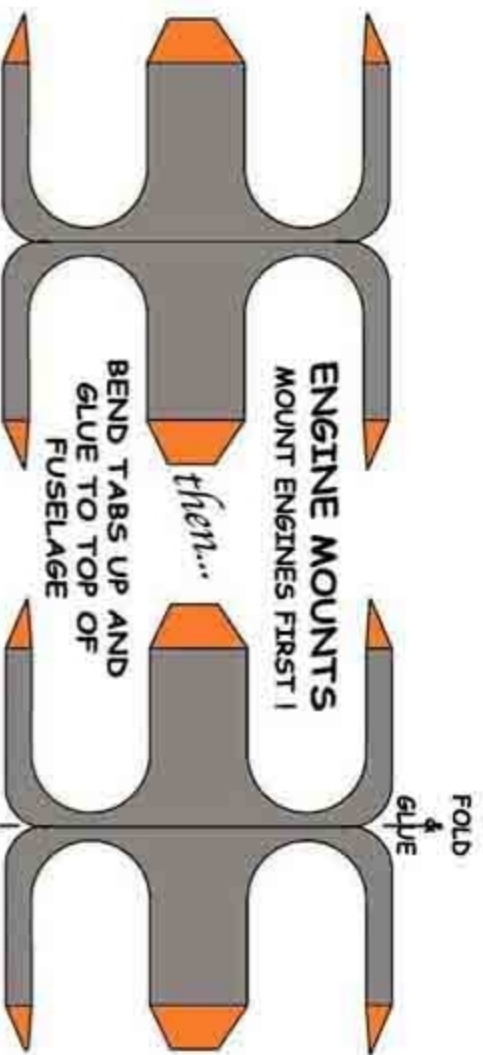
MAIN GEAR BOX & COLLAR



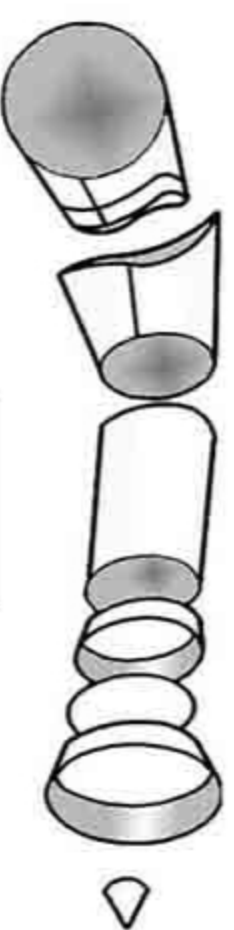
DESIGNED BY:
S-TAHMASEBI / 2002



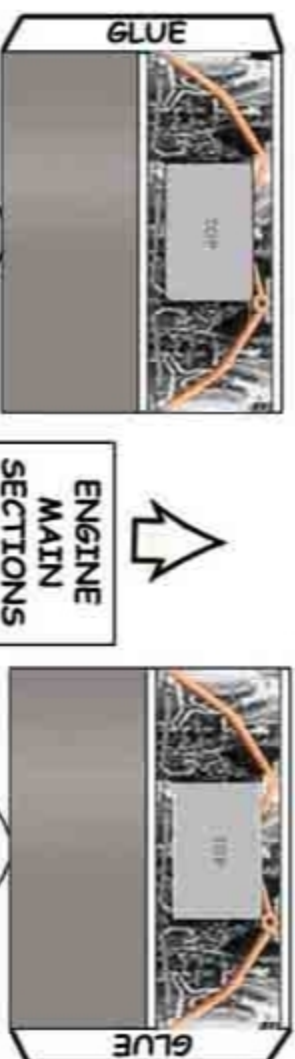
WWW.FIDDLERSGREEN.NET



TAKE YOUR TIME AND DO A GOOD JOB ON THE ENGINES



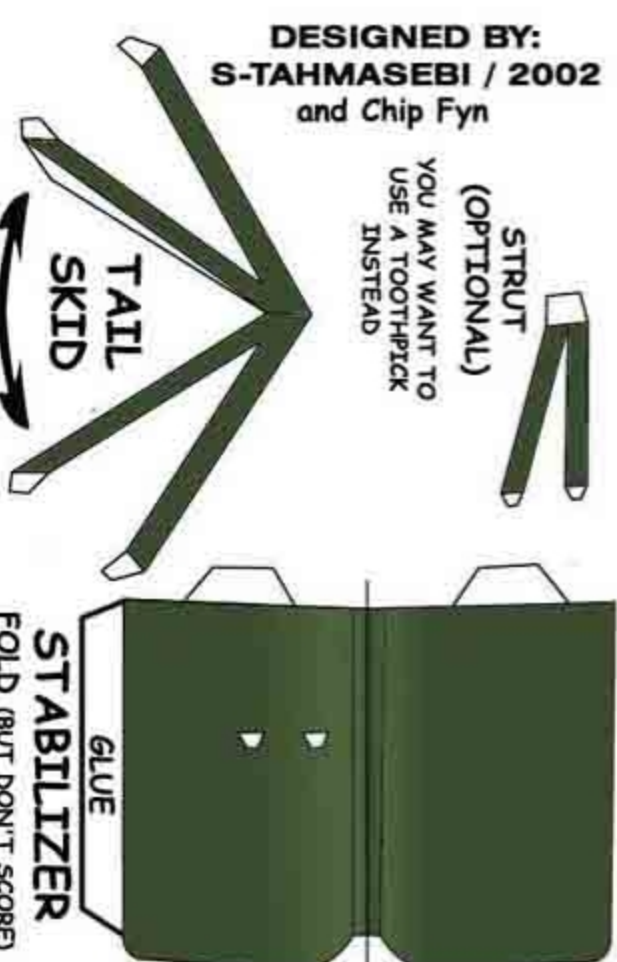
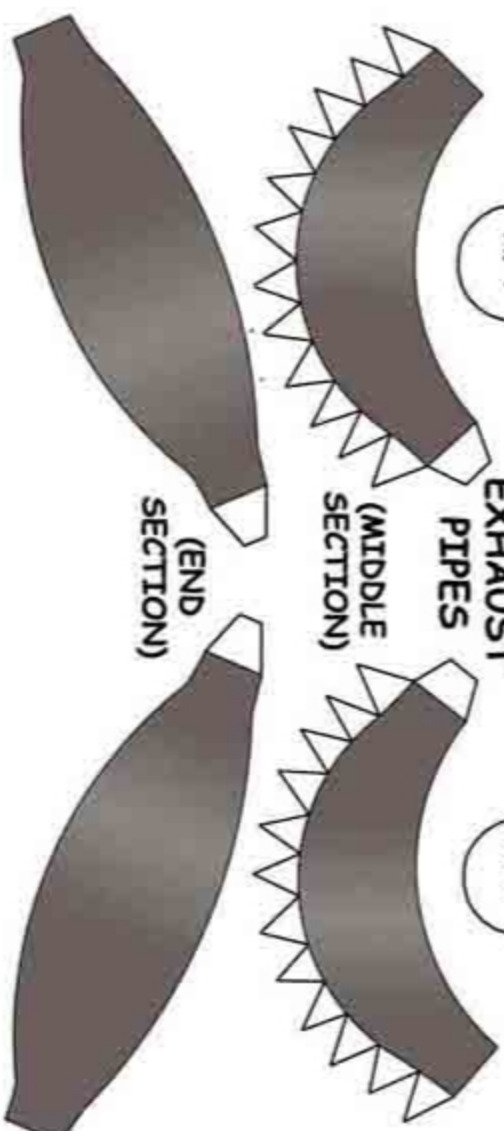
OUTER RINGS



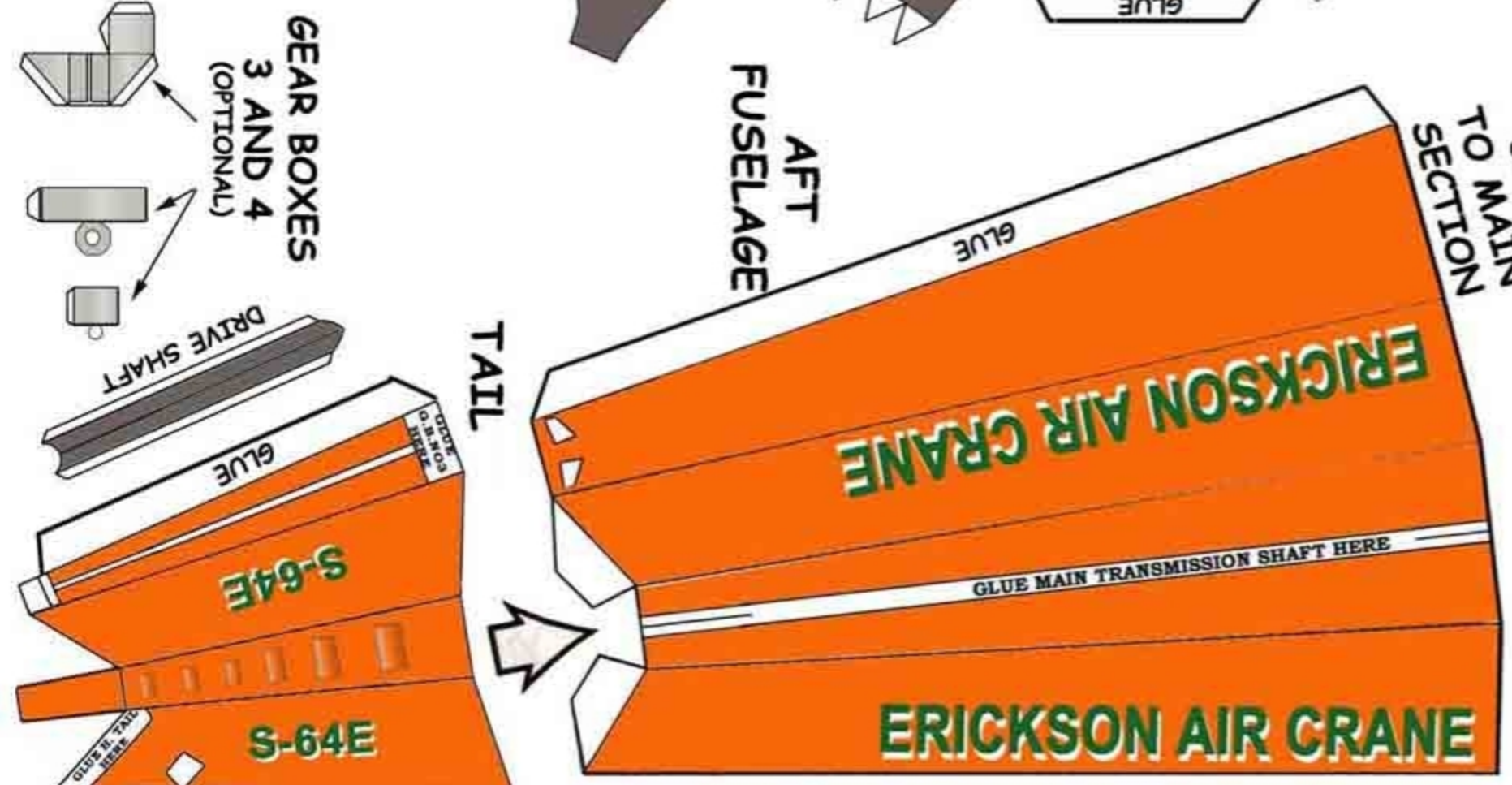
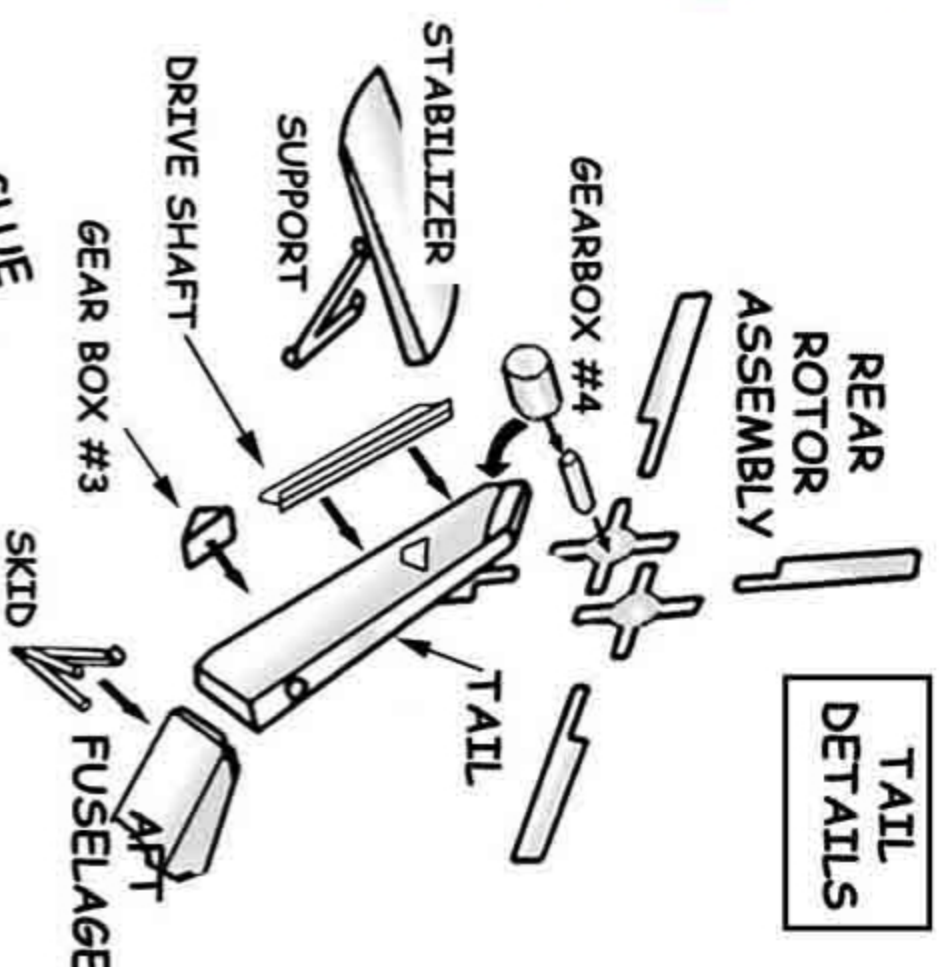
EXHAUST PIPES

(MIDDLE SECTION)

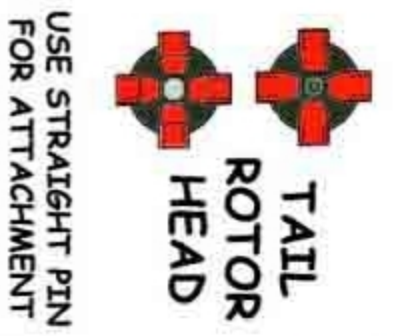
(END SECTION)



TAIL DETAILS



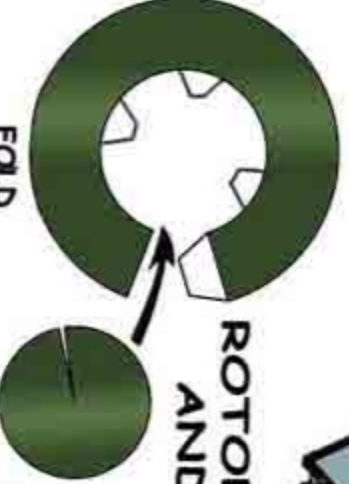
SIKORSKY S-64
SKY CRANE



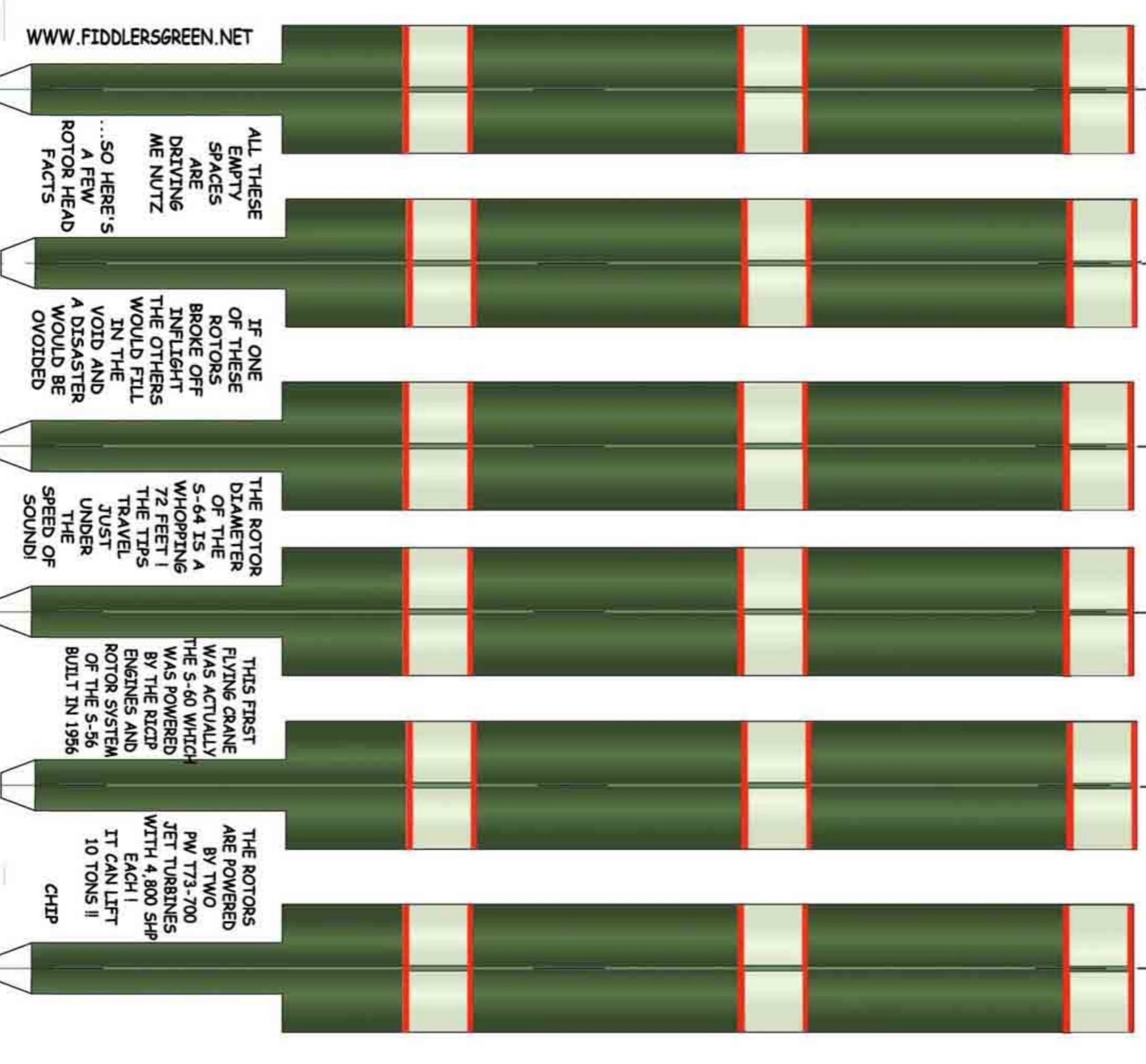
USE STRAIGHT PIN FOR ATTACHMENT

USE SKEWER STICKS AS STIFFENERS FOR THE BLADES

TAIL ROTOR BLADES (FOLD AND GLUE) STIFFENERS NOT NEEDED



FOLD



WWW.FIDDLERSGREEN.NET

ALL THESE EMPTY SPACES ARE DRIVING ME NUTZ ... SO HERE'S A FEW Rotor Head Facts

IF ONE OF THESE ROTORS BROKE OFF IN FLIGHT THE OTHERS WOULD FALL IN THE VOID AND A DISASTER WOULD BE AVOIDED

THE ROTOR DIAMETER OF THE S-64 IS A WHOPPING 72 FEET! THE TIPS TRAVEL JUST UNDER THE SPEED OF SOUND!

THIS FIRST FLYING CRANE WAS ACTUALLY THE S-60 WHICH WAS POWERED BY THE RICP ENGINES AND ROTOR SYSTEM OF THE S-56 BUILT IN 1956

THE ROTORS ARE POWERED BY TWO PW T73-700 JET TURBINES WITH 4,800 SHP EACH! IT CAN LIFT 10 TONS !!

CHIP