Nanchang Q/A-5 Nato Reporting name «Fantan»

Even though it is often mislabeled as "a Chinese copy of the MiG-19", the Nanchang Q-5 should be credited as the first indigenous chinese jet combat aircraft.

The chinese license version of the MiG-19, the Shenyang J-6 (Jian-6 also known as F-6), was extremely popular with the People's Liberation Army Air Force, so when Air Force leaders called for a new ground attack aircraft for close air support, it was a logical choice for the young chinese aircraft industry to base the design on the proven J-6.

Even though the Q-5 still bears a strong resemblance to the J-6, aside from its nose and intake sections, most of the plane is redesigned, except for the rear section of the fuselage with the same engines and horizontal stabilizers as the J-6. The rest of the fuselage has been redesigned to allow better control at transonic speeds, and the wings and tail were completely redesigned, with reduced sweep angle on the wings. The Q-5 design also included a internal weapons bay and the installation of a radar in the Nose. The weapons bay was only used as such in the early operational versions, and is now used to store additional fuel, raising the fuel capacity by 70%. The nose was not actually fitted with a radar except for the navy versions.

Even though the Q-5's first prototype had been finished by 1960, the project was officially cancelled in 1961. The project was secretly kept alive, and was revived in 1963, leading to the successful maiden flight on June 4th 1965. Production began four years later in Nanchang City, with the production place doubling as name of the production company. The first Q-5's were delivered to operational squadrons in 1970. The Aircraft received a number of upgrades over the years. In the 1980's, the export versions, called A-5 – The chinese Q for Qiang (attack) had been replaced by an international A for Attack – came out and were sold to the Air Forces of Pakistan, Bangladesh, North Korea and Myanmar. Both Q-5's and A-5's are also known under the NATO reporting name "Fantan", inspired by a chinese game similar to Roulette.

Even though the Q-5's main mission in chinese operation is close air support, it has been modified to fill a number of roles. A small number of Q-5's were modified to carry a single nuclear bomb under their belly. All of them have been retired and one is on display in the Chinese Aviation Museum in Beijing. Another version was the torpedo bomber version. It featured a modified nose for improved downward vision, similar to that of the MiG-27, which housed a fire-control radar and could carry two torpedoes under the main wing pylons. Even though this version proved highly satisfying during its evaluation, it entered service in only small numbers and was retired early, since the use of torpedoes in modern naval warfare was considered to be pointless. It was replaced by a navy version, which retained a radar in the nose and had the capability to carry air-to-ship missiles. This navy version shared its predecessors fate.

To upgrade the Q-5's abilities, the remaining aircraft were retrofitted with GPS systems and a laser guidance system, allowing the usage of Laser Guided bombs. Since the Laser guided bombs had to be carried under the main wing pylons, a conformal fuel tank was fitted on the belly to compensate the unavailability of wing pylons to carry drop tanks. The latest version of the Q-5 is the two-seater, which can be used as a Trainer with double control or as a forward air controller with a observer/ weapon controller in the backseat.

If you want to build the A-5 without landing gear, jump to 5.

1. make holes in the lower stabilizer part
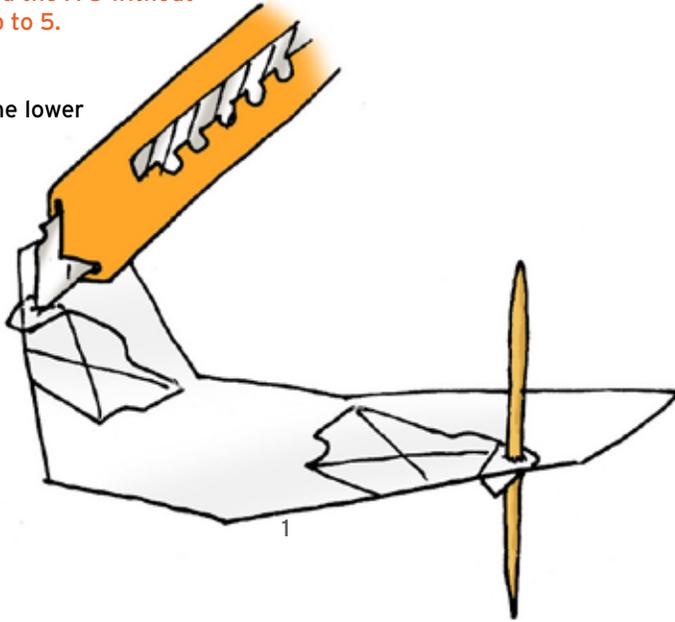
2. glue the landing gear walls and ceiling into it
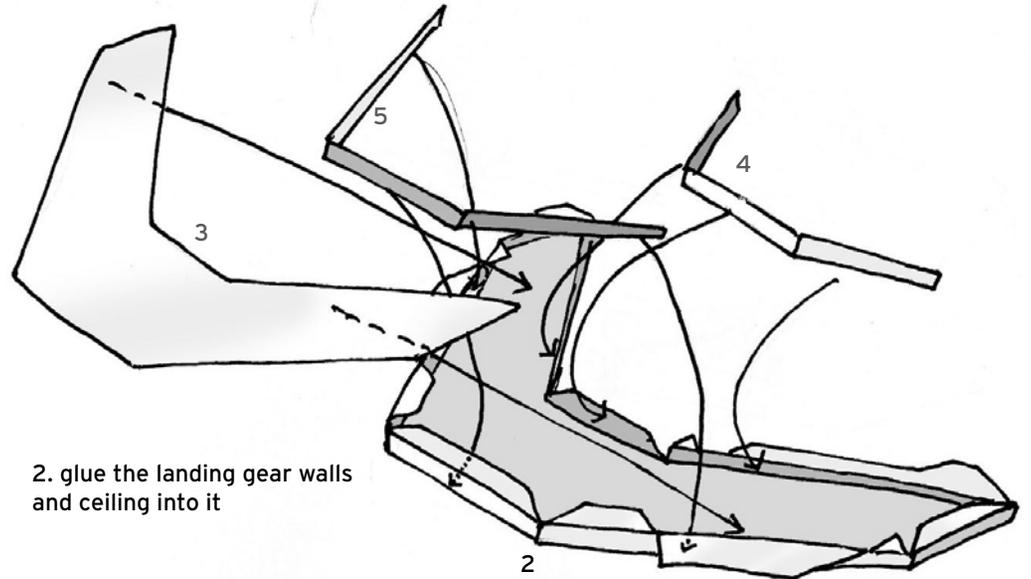
3. glue the stabilizer together
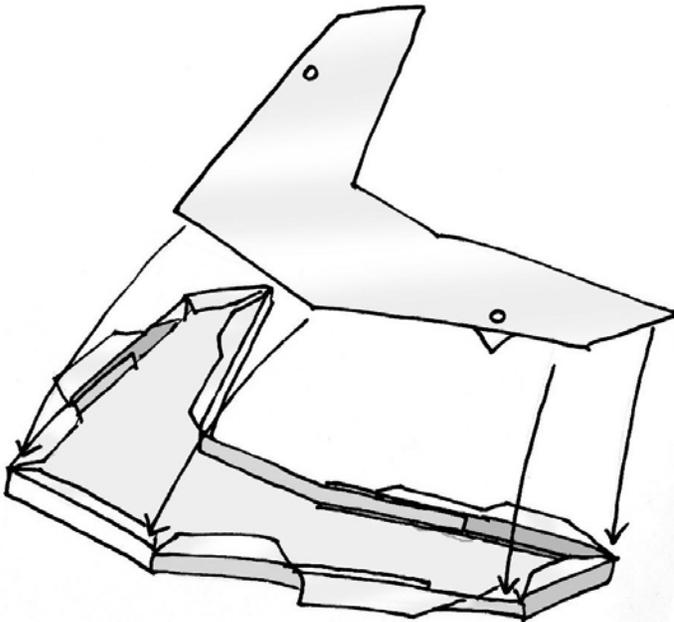
4. cut away the marked opening for the landing gear
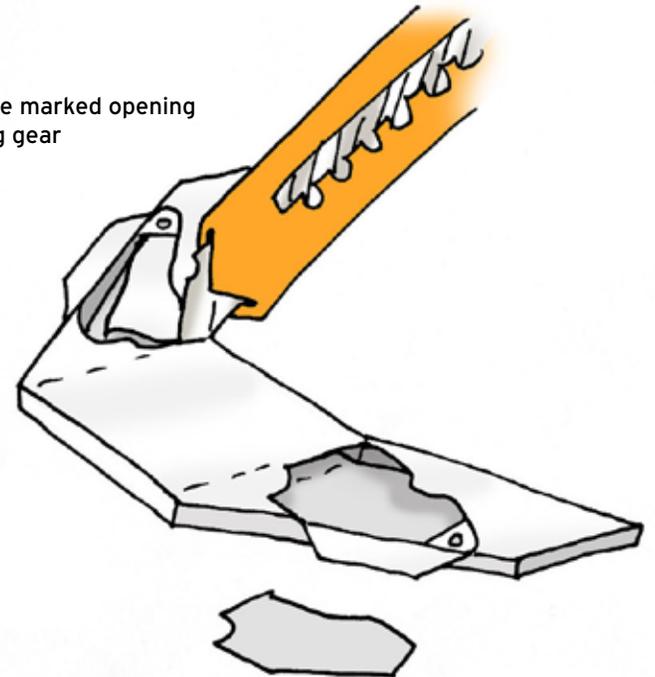
If you are building the A-5 with landing gear, jump to 6 (below)

5. Glue together the two stabilizer parts

1

The upper glue tabs can be cut as one in this case

2
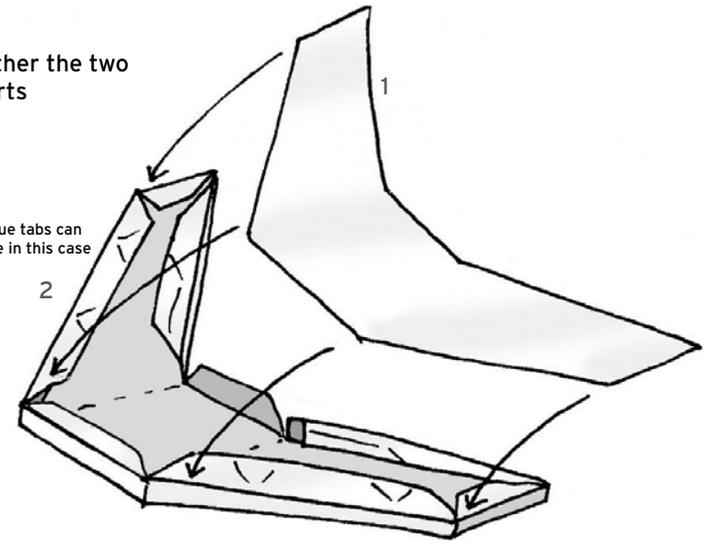
6. glue the middle fuselage parts together, with the stabilizer between them.

The fuselage shape should be oval at the front, and round at the back.

6

7
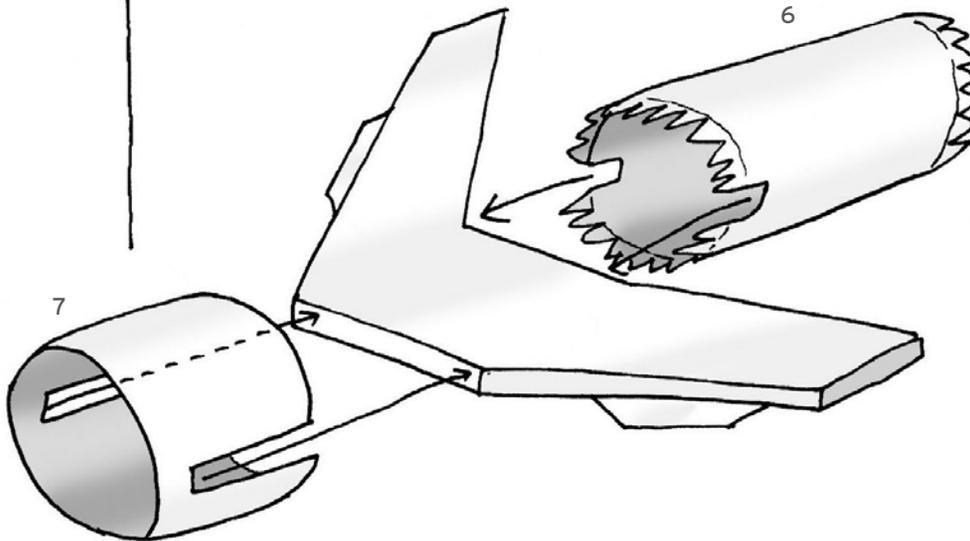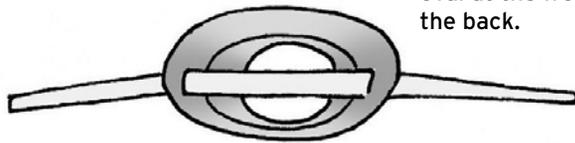
7. glue together the forward fuselage parts, make sure to make a rounded squared shape, like in the section drawn below

15

14

section:

8. Use a knife to cut open the landing gear doors.
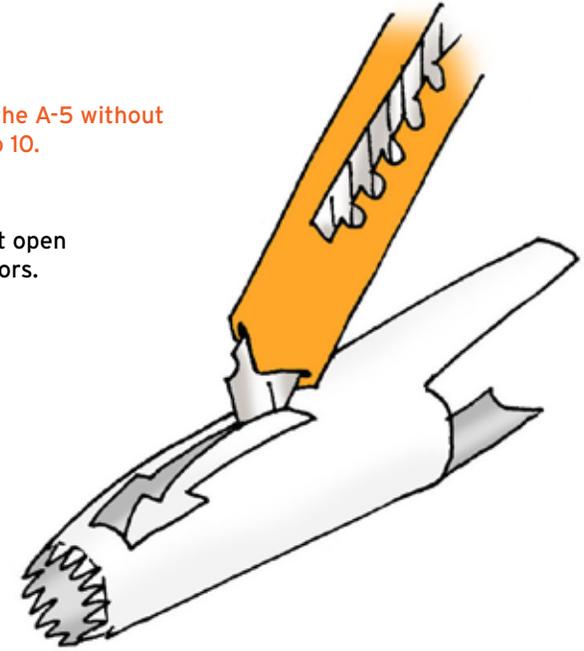
9. Assemble the wheel well; glue the tabs to the outside at the corners and make a hole in the marked position, then glue it into the fuselage.

make a hole

16

Glue to outside

Glue to outside
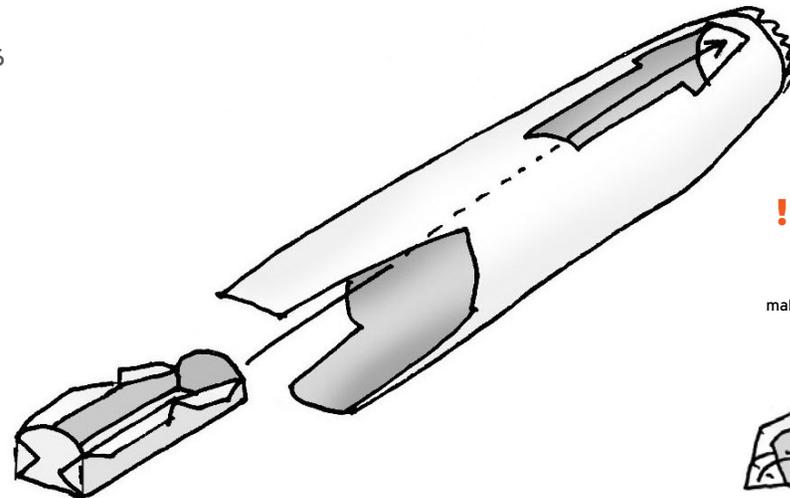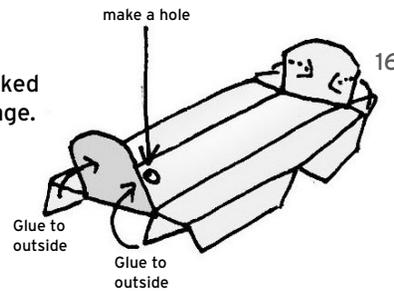
! The Torpedo-Bomber has a slightly different wheel well, but it's installed the same way

make a hole

16

Glue to outside
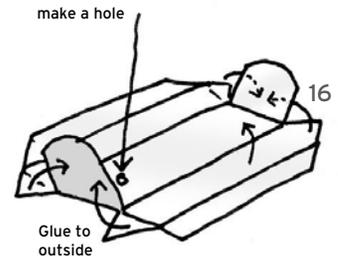
10. Glue together the engine divider. Make sure only the middle and the pointed ends are together, but top and bottom bend outward.

11. Glue the divider on the engine plate in the marked position
Build the exhaust rings from outer and inner parts and glue them onto the engine plate

9a

9a

9b

10

engine plate

11

12
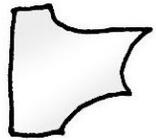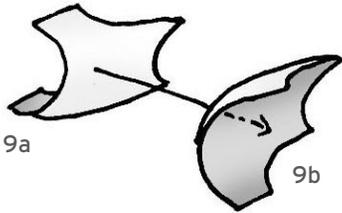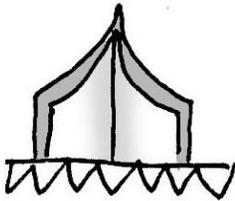
bottom view
CORRECT

top view
CORRECT

FALSE!

13

make sure that it is round and not pushed down.
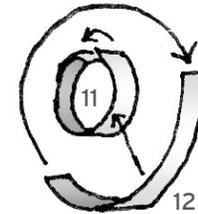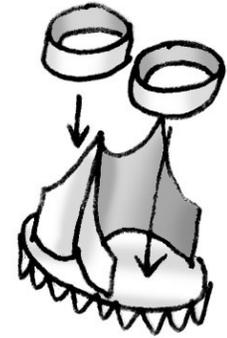
12. Glue this assembly into the fuselage end part. Shape the fuselage part to fit with the engine plate in the back, shape it to be circular in the front.
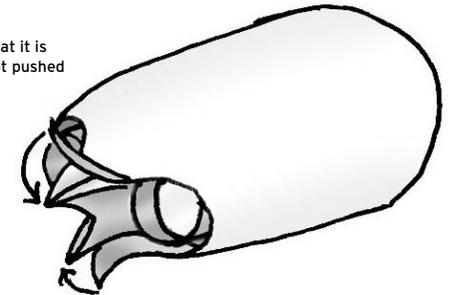
13. wrap the protruding ends around the divider

15. Build the weapons bay, glueing the tabs to the outside at the corners.

Glue to
outside 8

Glue to
outside

14. Cut out the weapon bay doors.

Keep the part you cut out in a safe place.

Keep this part
in a safe place!

16. Cut away the rear end of the forward fuselage.

Keep the part you cut away in a safe place.

Keep this part
in a safe place!
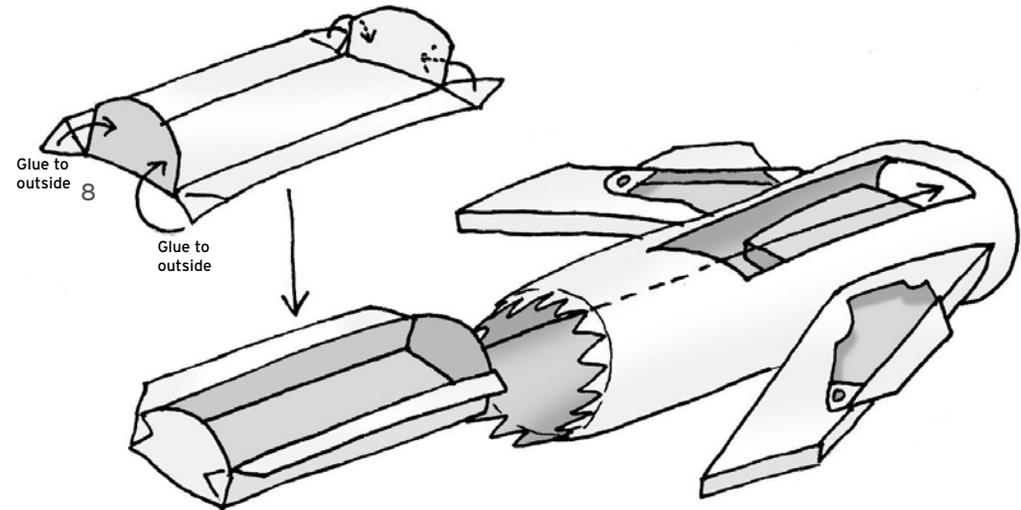
17. Glue together the fuselage

If you are building
the Nuclear Strike variant,
see 17a-c

! If you want to build open speedbrakes, ignore the
rear fuselage assembly and jump to 18.
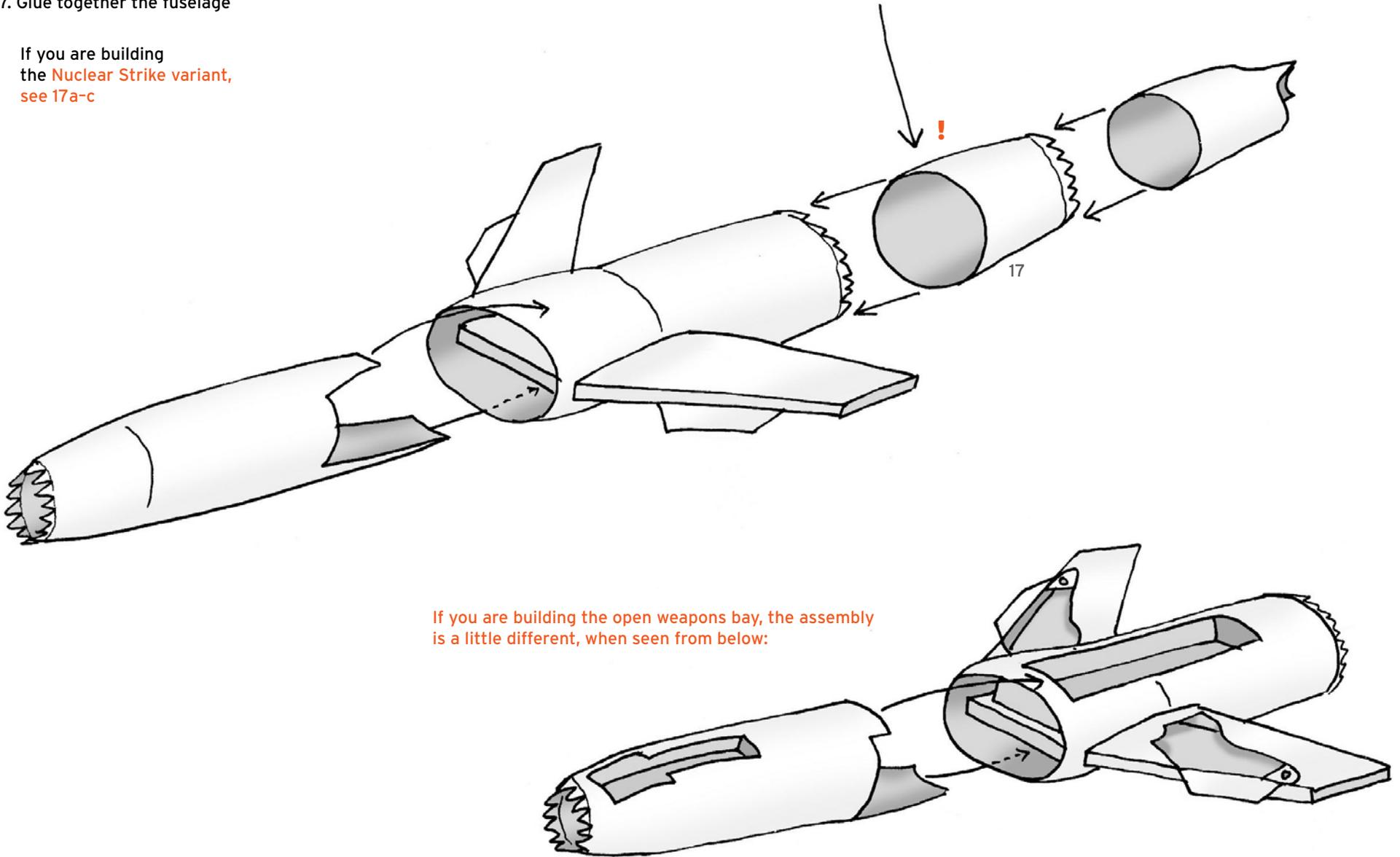
!

17

If you are building the open weapons bay, the assembly
is a little different, when seen from below:

17a. First glue only the front fuselage together
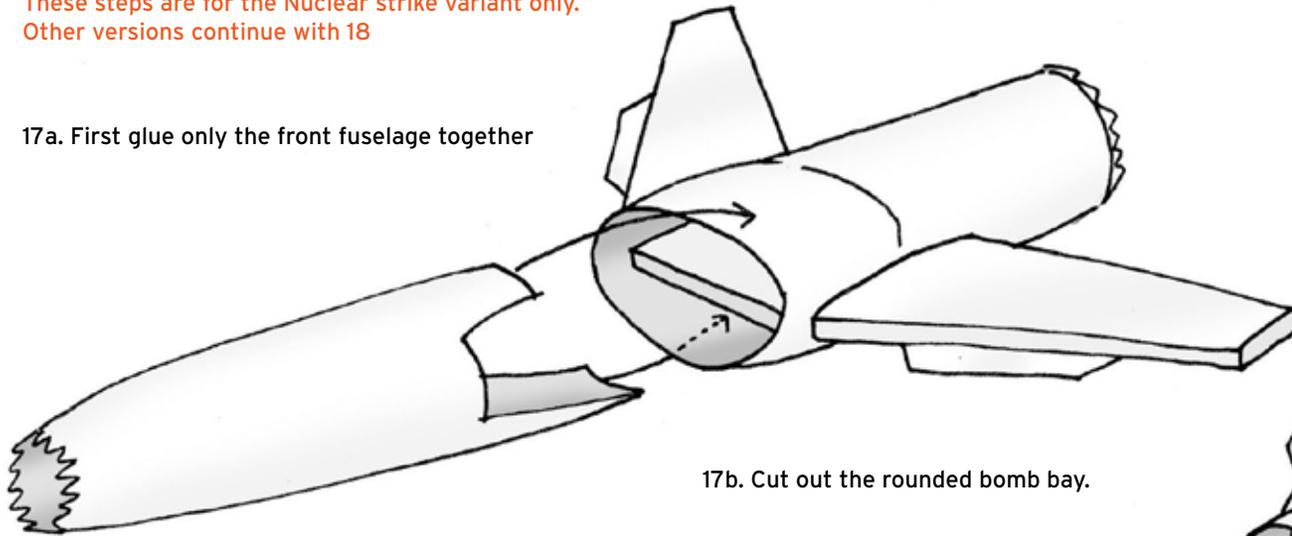
17b. Cut out the rounded bomb bay.
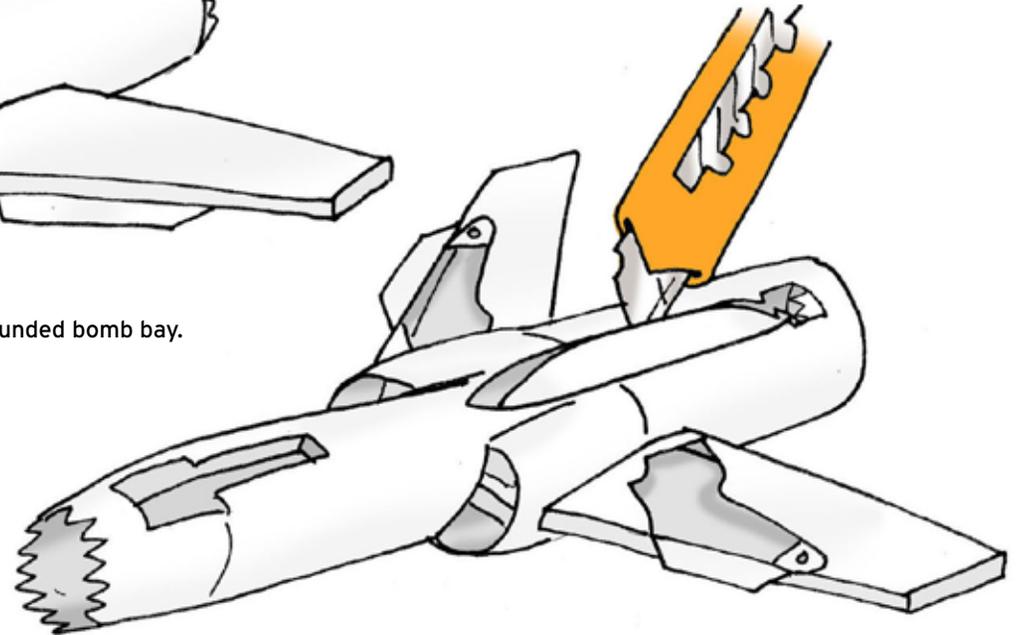
17c. Install the hardpoint into the weapons bay and install the weapons bay into the fuselage

8a

8

18. Glue part 17 to the fuselage
and cut out the speedbrakes.
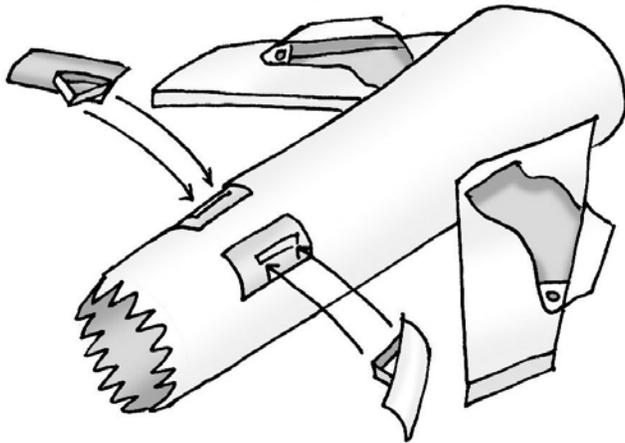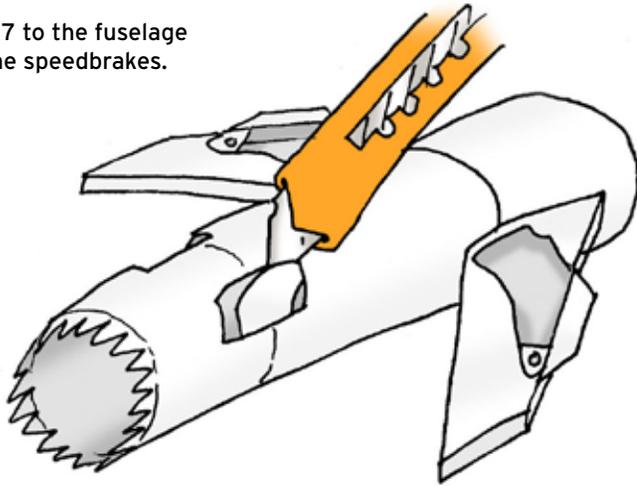
19. Glue the speedbrakes' inner
part into the holes.

18

take care of the right
direction
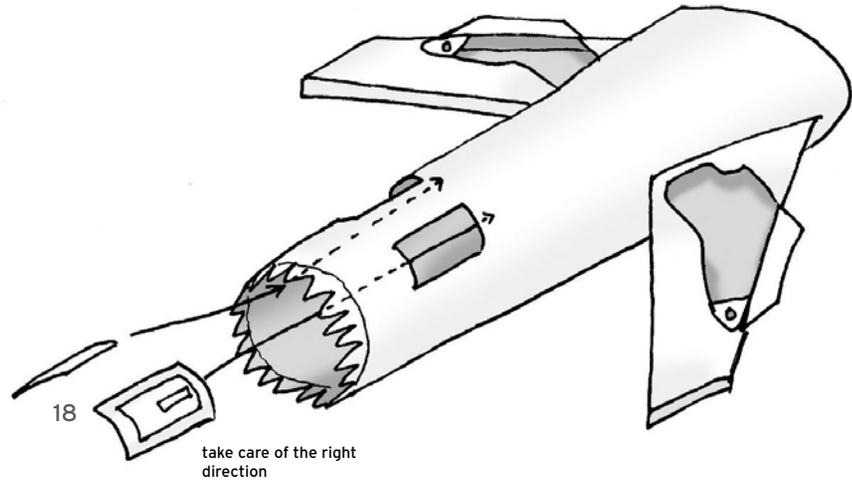
20. Build the speedbrake

You can attach it later, to avoid it
from getting damaged during
further works.

21

20

19
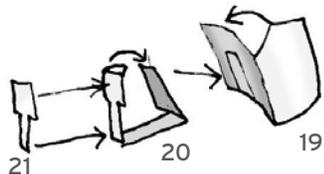
21. Glue the engine
section to the fuselage
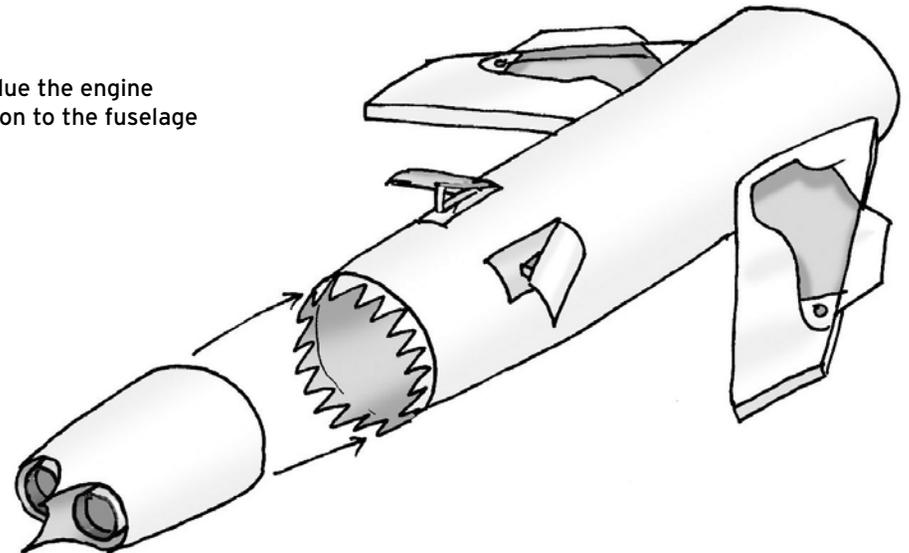
! For the version
with landing gear,
install about 2g weight,
a small screw will do.

!

22R, 23R, 24RL
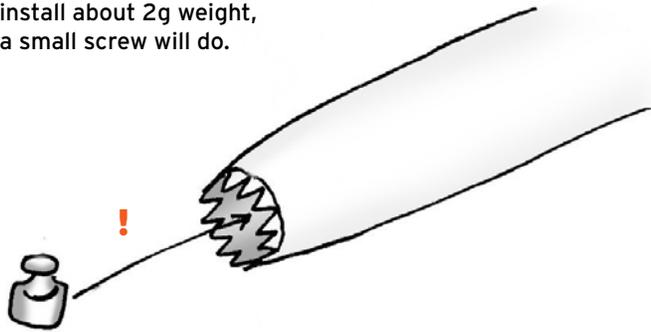
22. Attach the nose
section and the intakes.
The glue tabs on the
inlet plate are bend
inwards.

air divider

bend tabs inward

24L

23L

22L

25

26
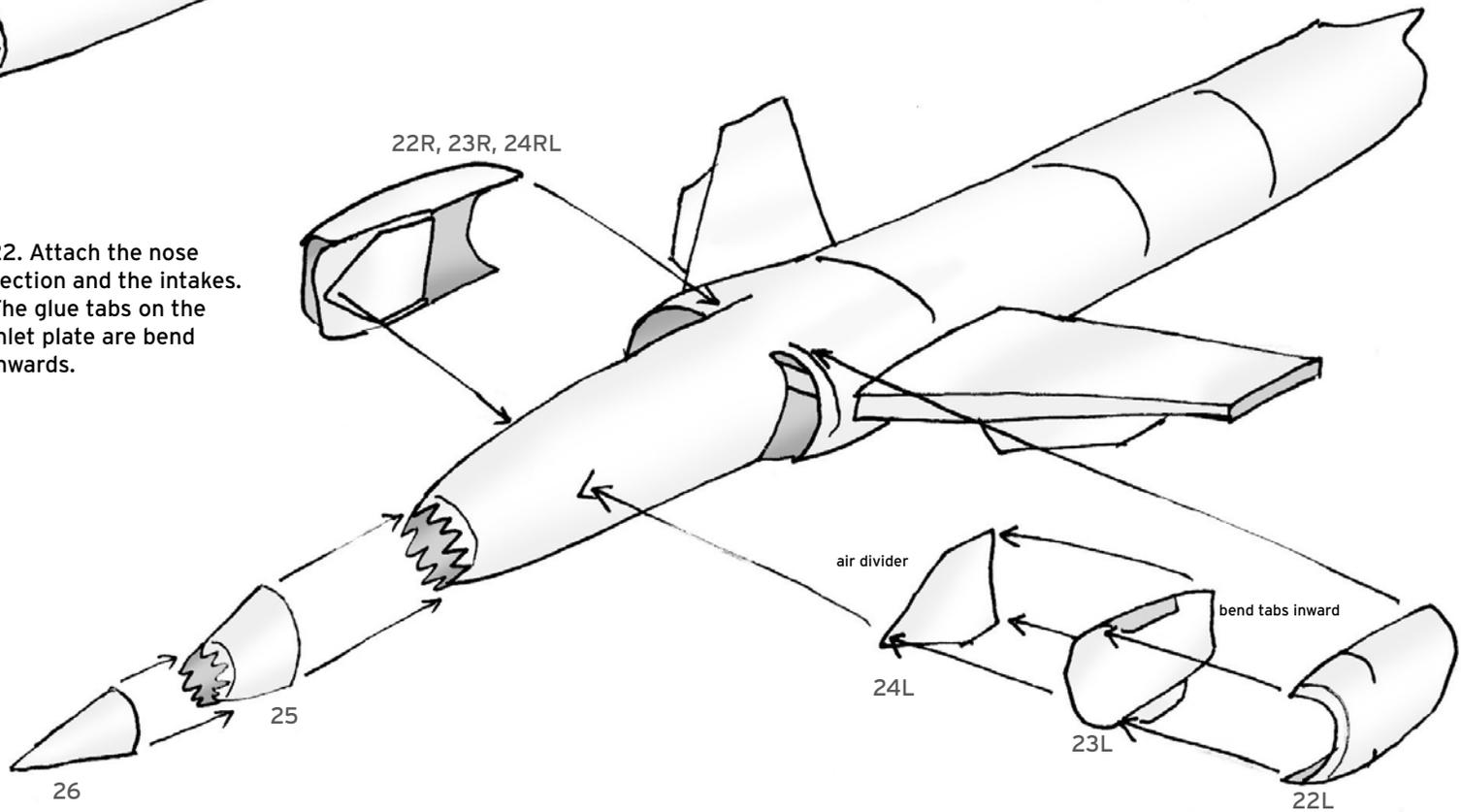
For the Torpedo Bomber's nose,
see 24.

Shape the intakes after
this section:

23. Glue together the tail, horizontal stabilizers and canopy,
then glue them to the fuselage. Make a airfoil on tail and horizontal stabilizers

The Two-seater features a taller tail than other versions, but it is build the same. For its canopy, see 26

For the Torpedo Bomber's canopy, see 25

30

29

rounden the tail

28

make sure to get the direction right, see arrow.

32

canopy

27

When installing Part 28, these lines need to be aligned.

rounden the horizontal stabilizers

31
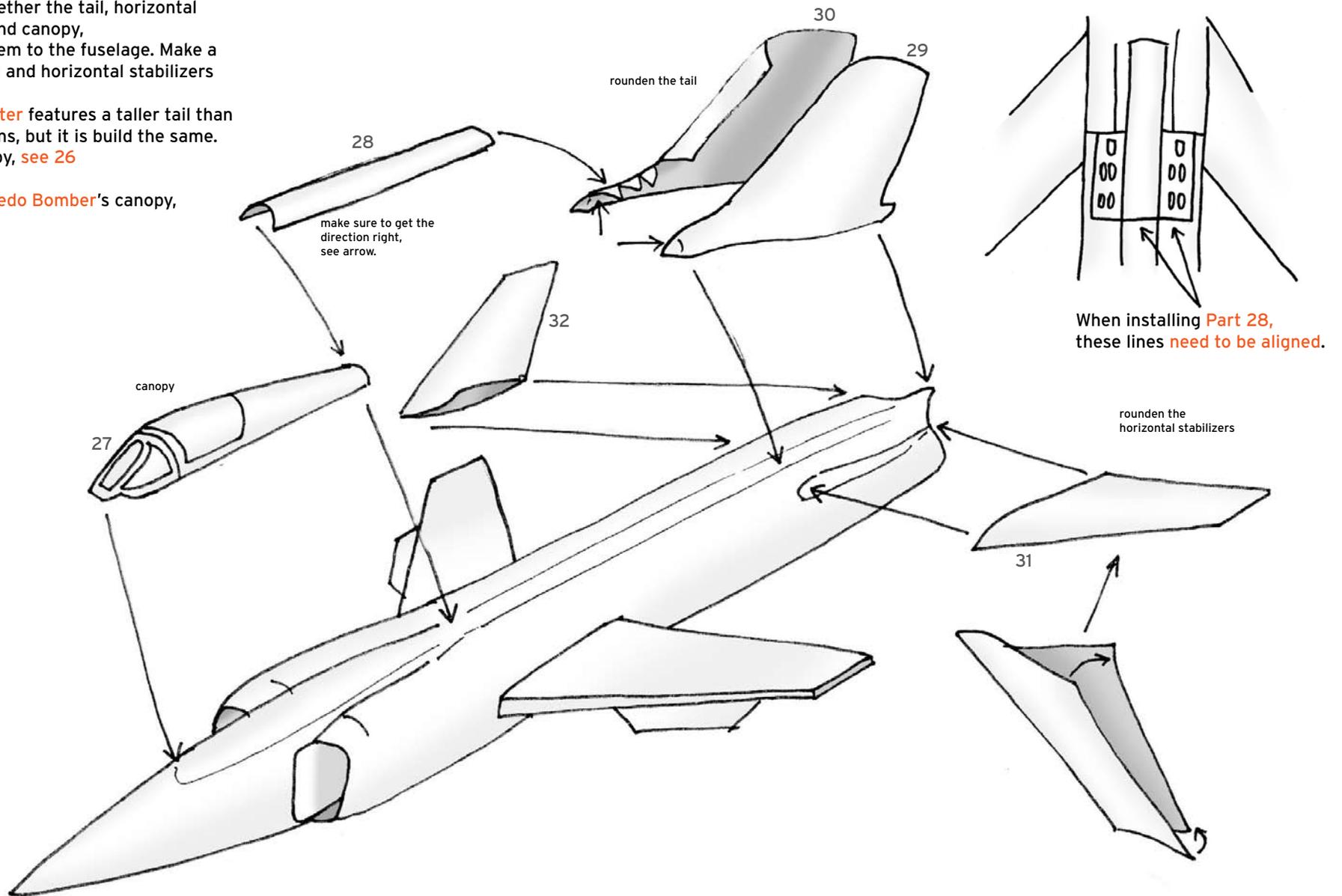
24. Duck Nose
(Torpedo bomber version only)

25

26

26a
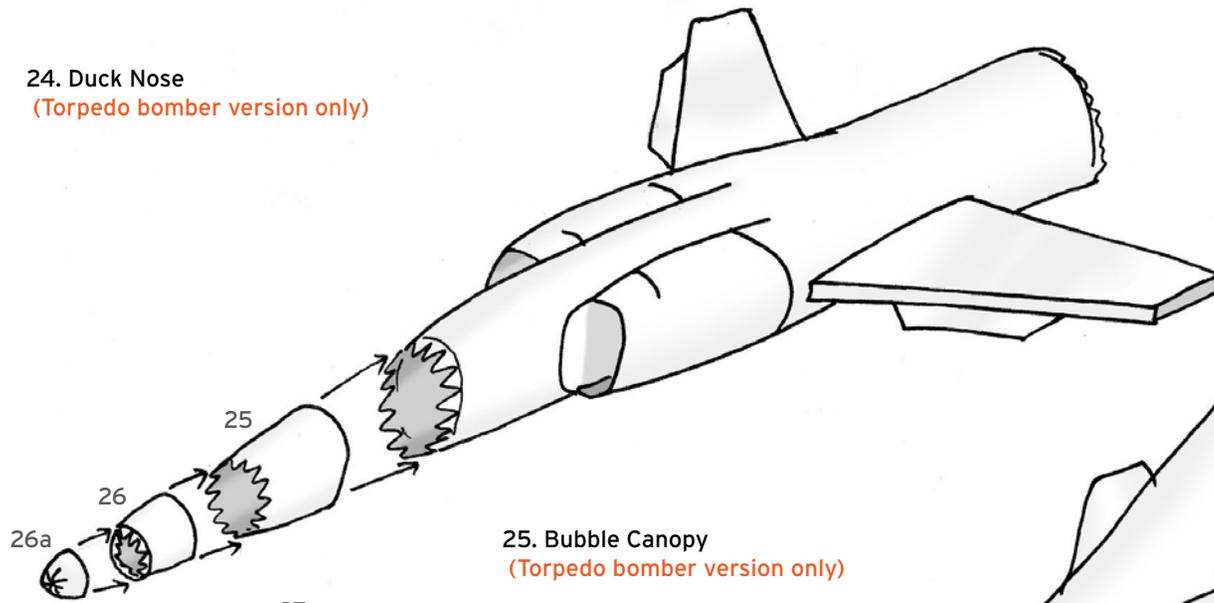
25. Bubble Canopy
(Torpedo bomber version only)

27

27a
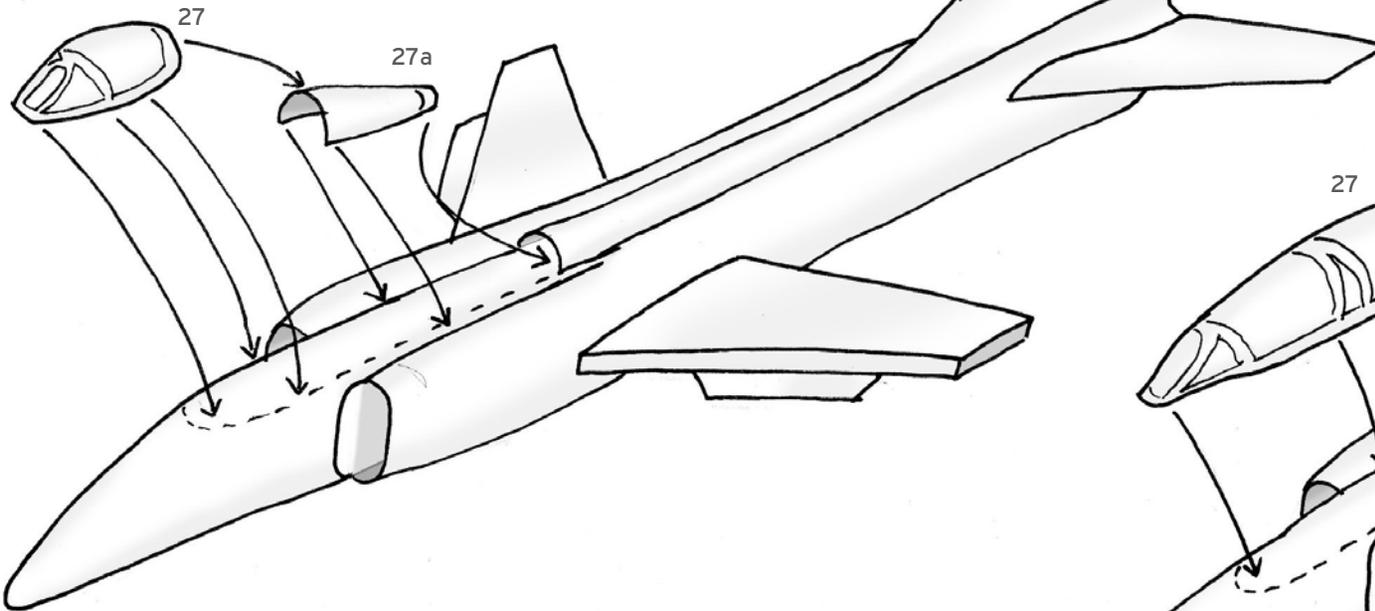
26. Bigger Canopy
(Two-Seater version only)
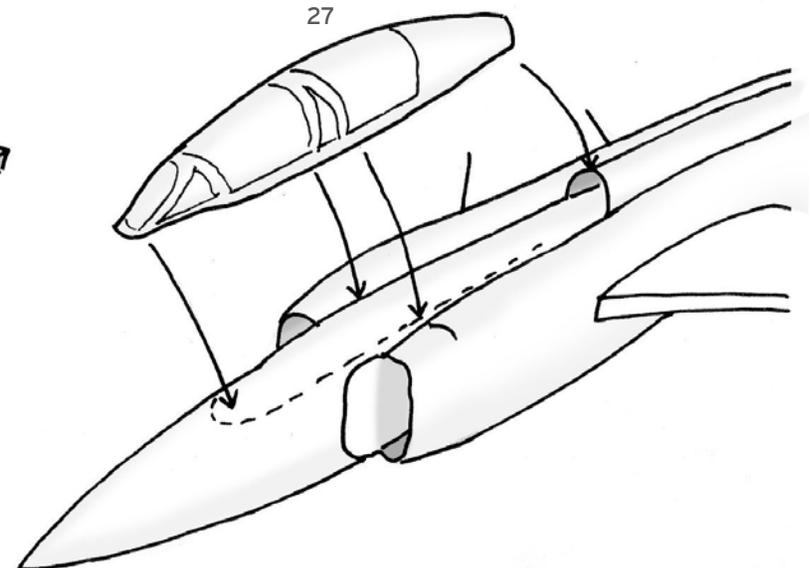
27

27. Cut out the landing gear doors. follow the image on the right

2x

33
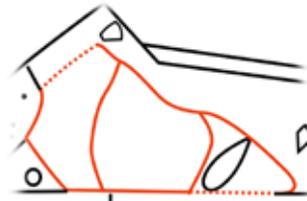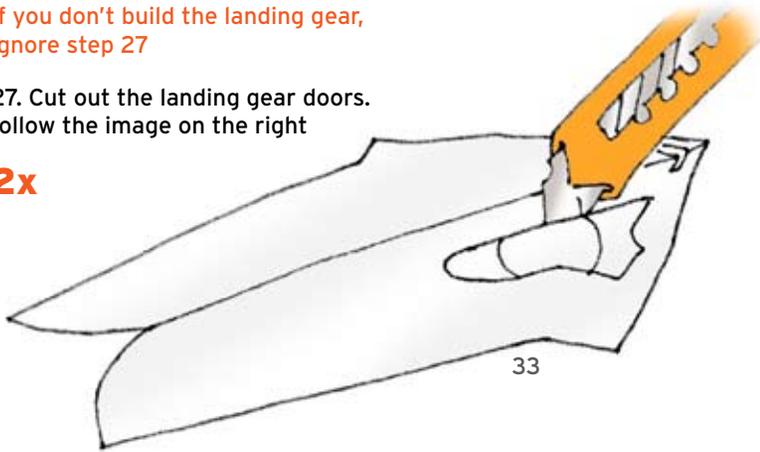
score red dotted lines, cut red lines

28. Glue together the wings
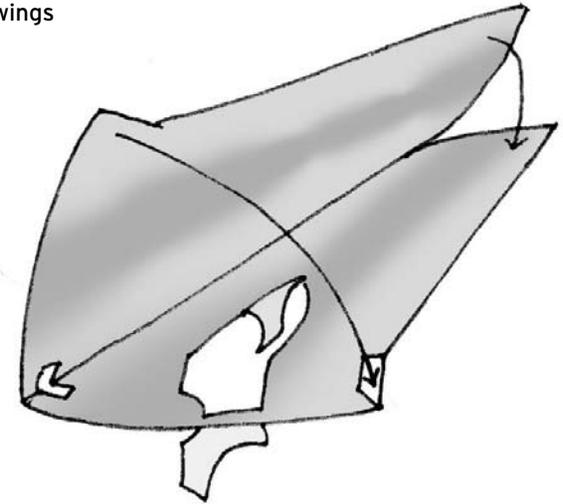
Keep the middle part in a safe place

29. Glue the wings to the fuselage.
If you are building the landing gears, make sure to align the two holes correctly.

34

33
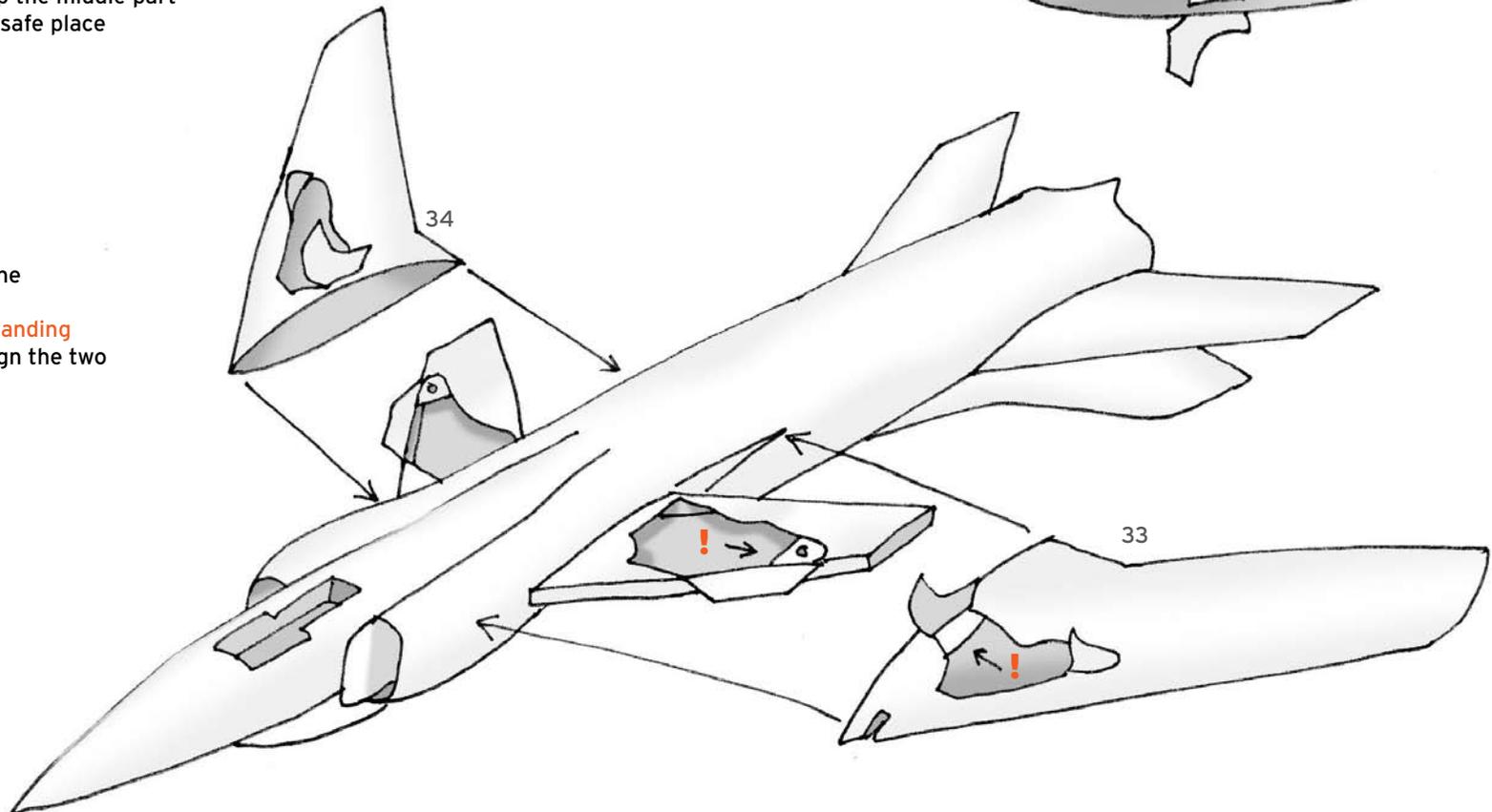
30. There are optional spikes for the tips of the horizontal stabilizers (35 or 36) and optional wing roots (41 or 42)

Whichever you chose, the position is like this:

36 **?**

simplified spike

wing fence

43R

wing fence

43L

41 **?**

38

39

39

37

braking parachute

40

40

42

38

?

36
simplified spike

42
wing root

?

41

35
detailed spike

44 cannon

45
antenna
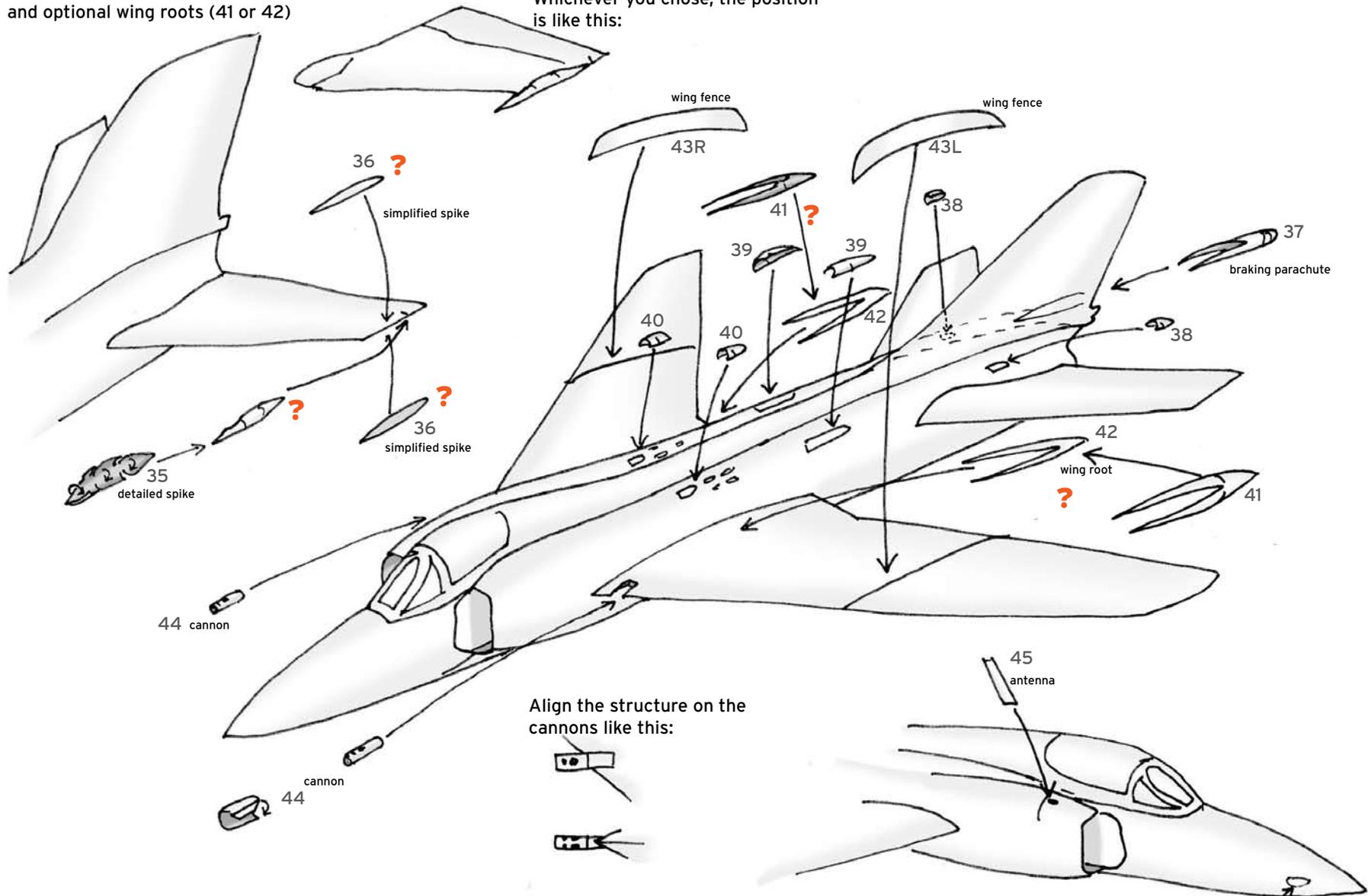
Align the structure on the cannons like this:

cannon
44

46
camera
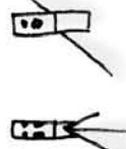
The camera is included 2 times, in case one gets lost or broken

31. Upper details

32. Lower details

if you are building the Precision Strike variant or the Torpedo-Bomber, please ignore all hardpoints (51–53) until later.

53R outer wing hardpoint (optional) **?**

52R inner wing hardpoint (optional)

The Nuclear strike variant doesn't use the inner and outer wing hardpoints (52, 53)

main wing hardpoint (optional) **51R**

48

49

50

52L

fin **47R**

fin **47L**

48

inner wing hardpoint (optional)

46

49

main wing hardpoint (optional)

51L

50

53L

? outer wing hardpoint (optional)

55

cut away parts from before

54a

bomb assembly

54

54b
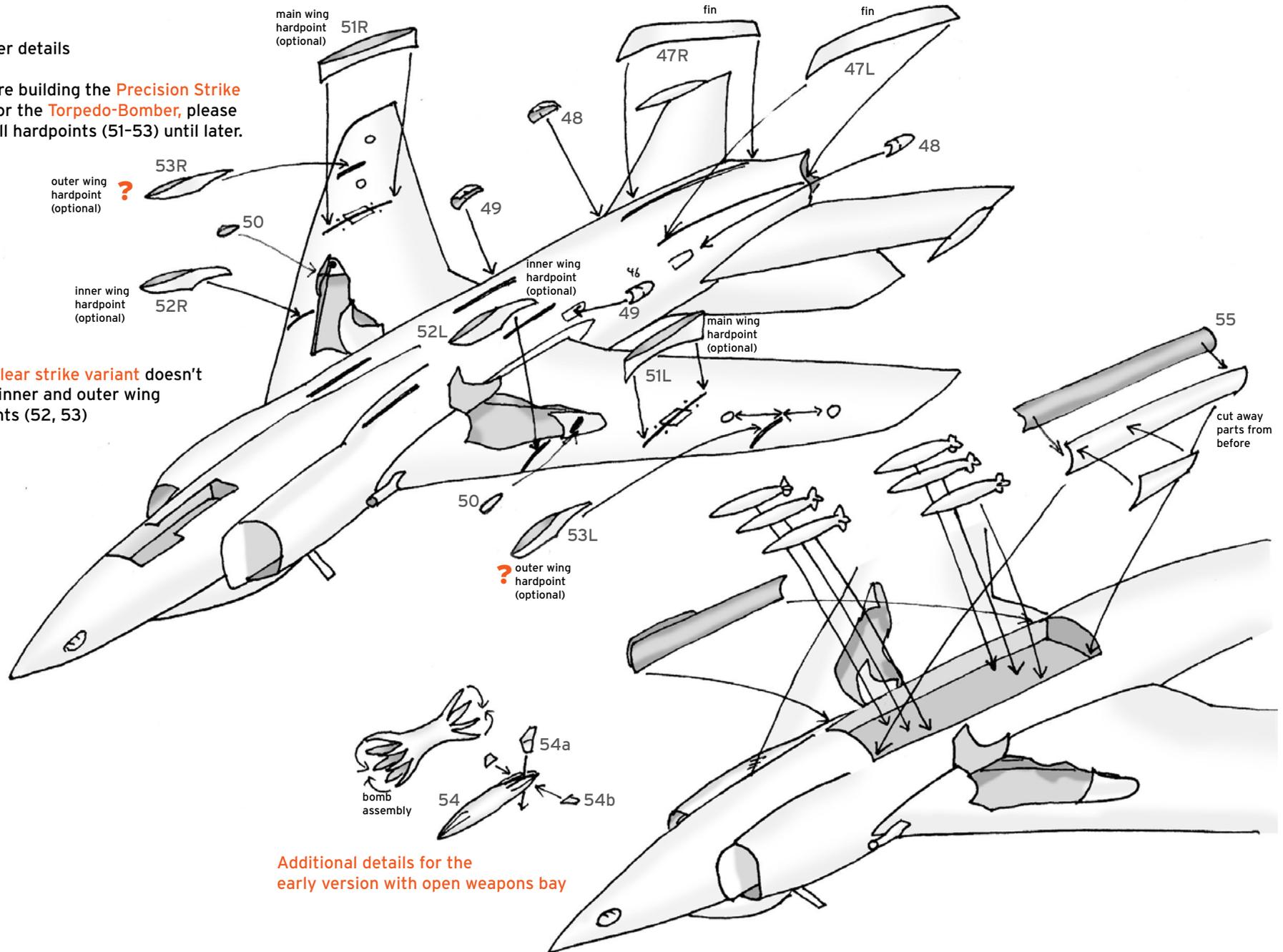
Additional details for the early version with open weapons bay

33. Landing gears. Use toothpicks or wire to stiffen them.

toothpick lengths:
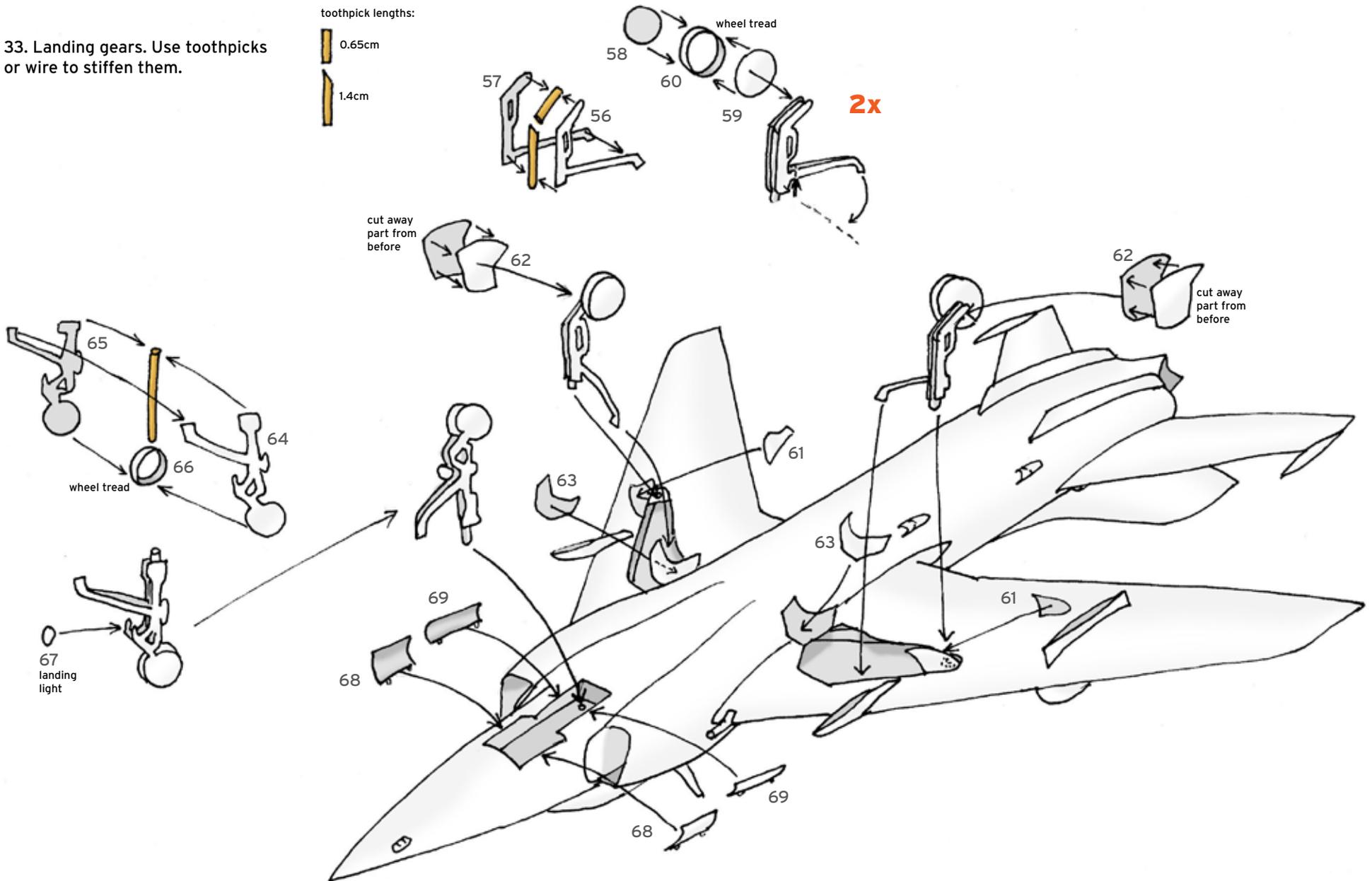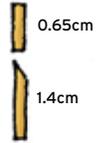
0.65cm

1.4cm

wheel tread

57

56

58

60

59

2x

cut away part from before

62

62

cut away part from before

65

66

wheel tread

64

61

63

63

61

67
landing
light

69

68

69

68

73

74

extra struts

74

72

71

glue the hardpoint on
the marked position

70
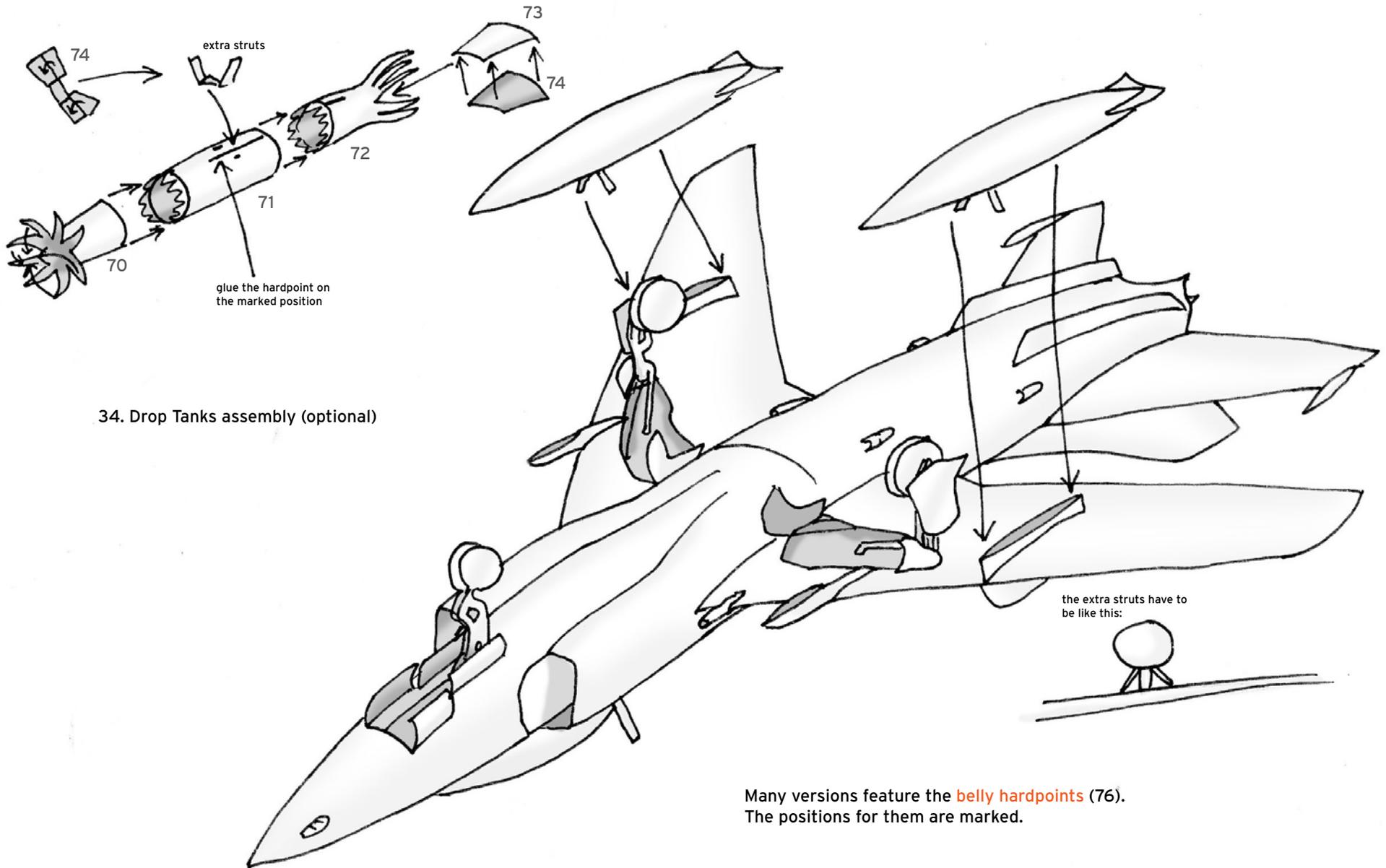
34. Drop Tanks assembly (optional)

the extra struts have to
be like this:

Many versions feature the belly hardpoints (76).
The positions for them are marked.

35. Nuclear strike variant weapons installation

The Nuclear strike variant doesn't use the inner
and outer wing hardpoints (52, 53)

73

75

extra struts

74

72

71

70

glue the hardpoint on
the marked position

狂飙一号 KuangBiao-1 Hydrogen Bomb

76

77

78

78

79

76
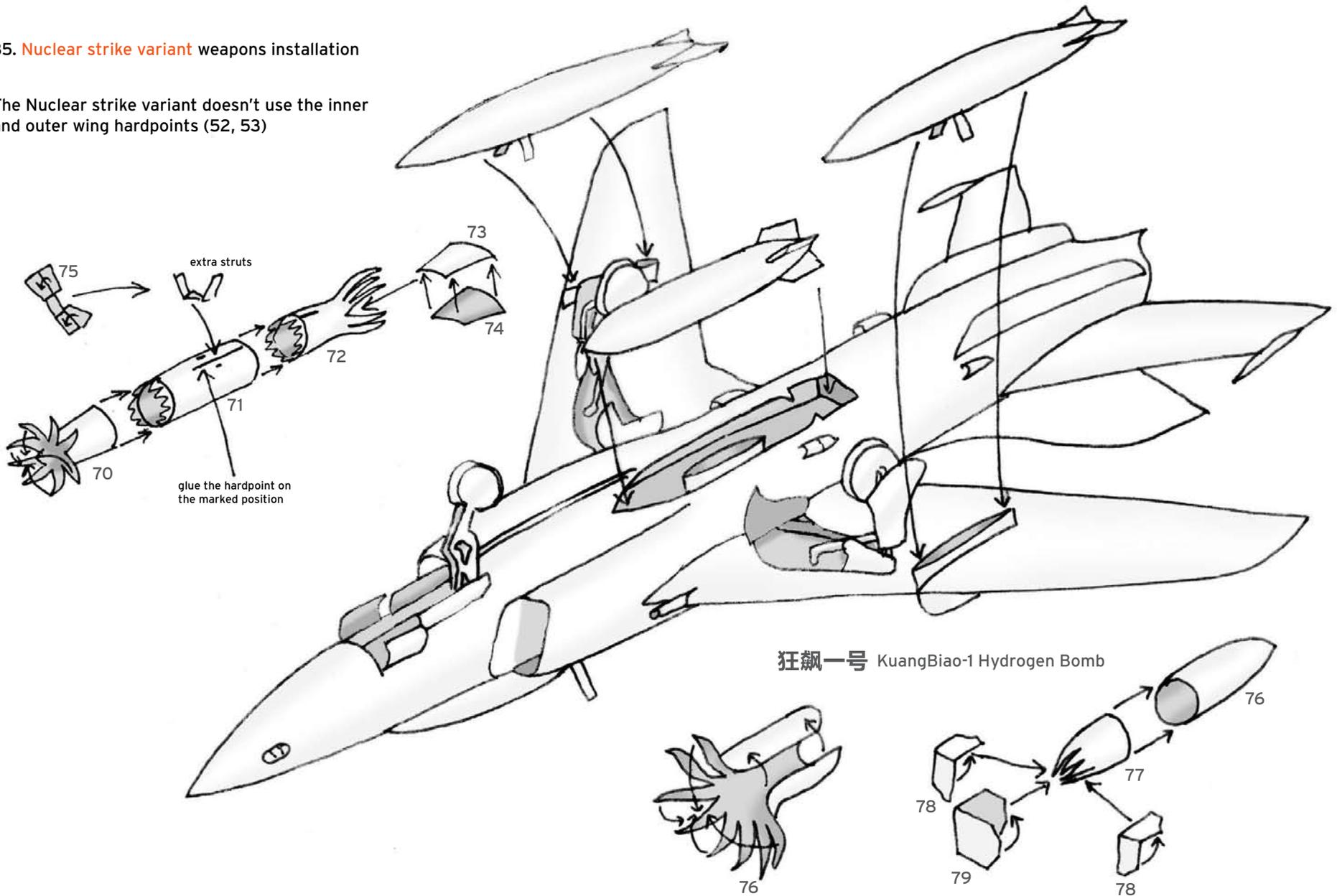
36. Torpedo Bomber weapons installation

94R

93R

Rocket pod
2x

90
89
88
87

93L

94L

The Torpedo fins
are parallel and
perpendicular to
the hardpoint

85
84
85
86

Torpedo
2x

Outer wing Drop Tank
2x

82
81
80
79

83
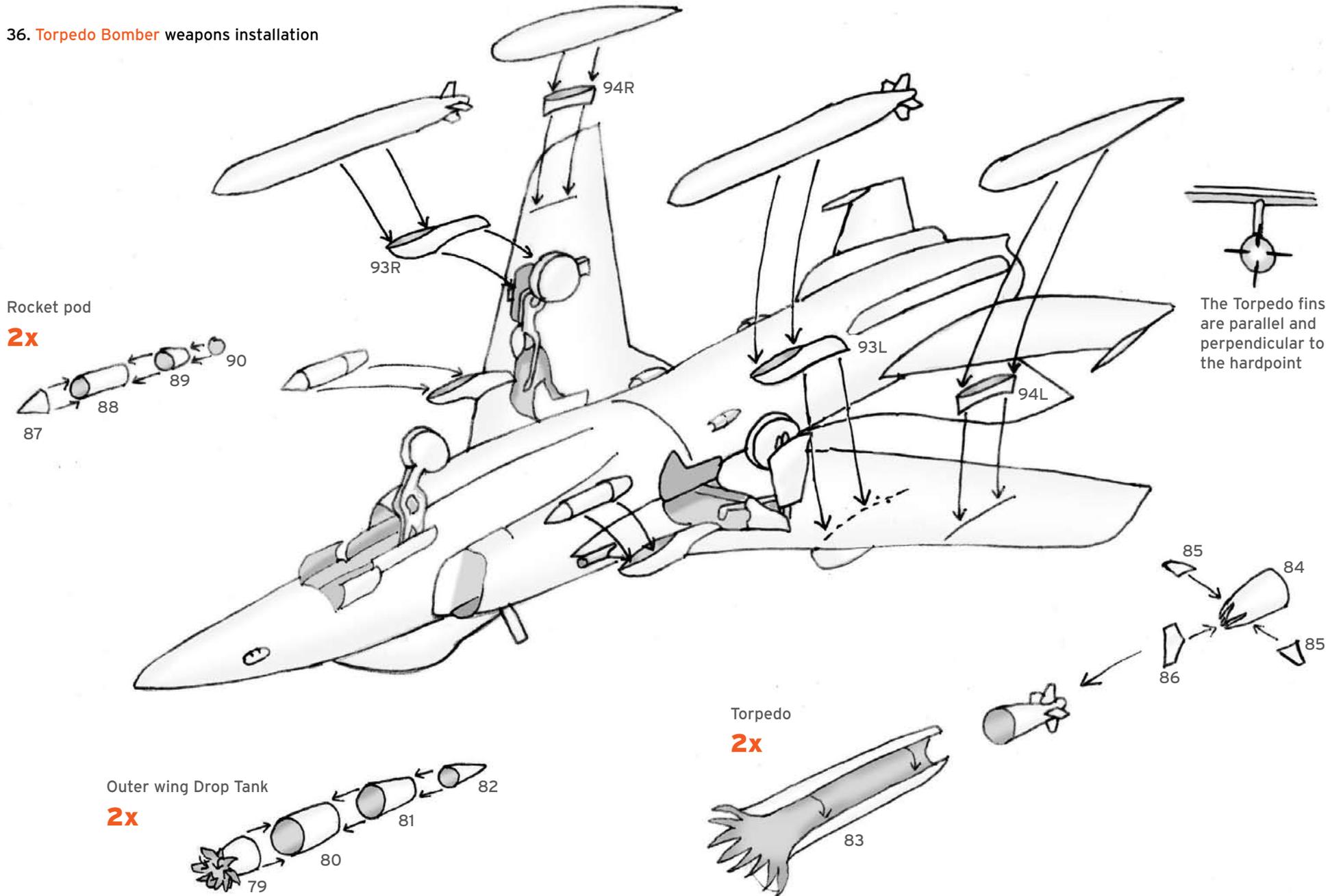
37. Precision strike variant wing load assembly

Outer wing Drop Tank

2x

82

81

80

79
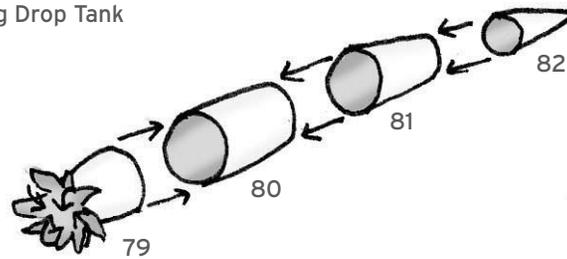
Laser Guided Bombs (LGB's)

2x

Push the ring distancer through
the guidance unit part and glue.

83

84
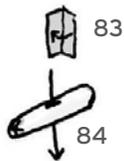
Then glue the ring on it.

85
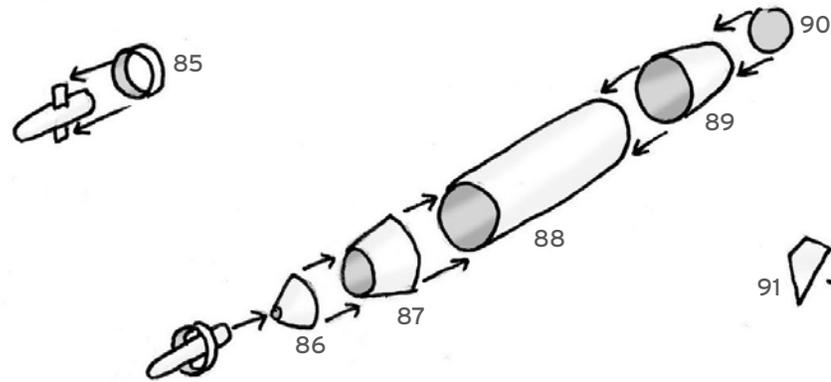
Glue the fuselage together

90

89

88

87

86

Attach the wings

92

92

91

92

91

92

91

91

38. Precision strike variant weapons installation

Drop Tank

94R

LGB

LGB

Drop Tank

93R

Conformal Fuel Tank

95

93L
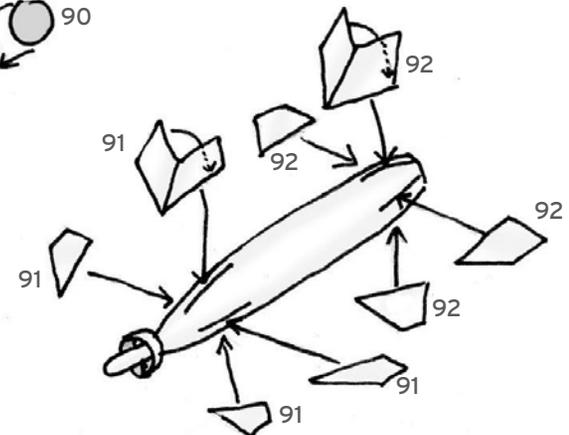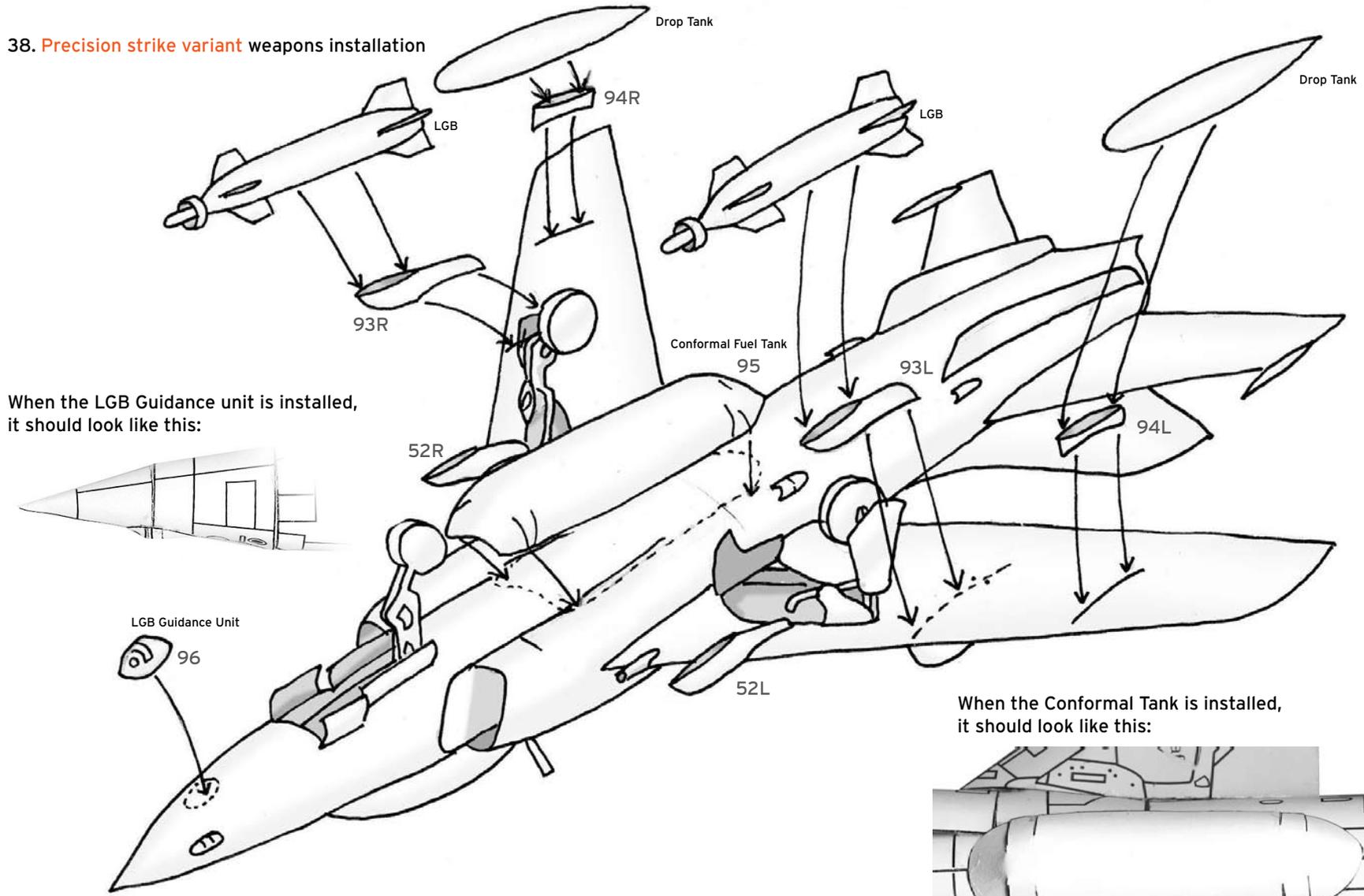
When the LGB Guidance unit is installed,
it should look like this:

52R

94L

LGB Guidance Unit

96

52L

When the Conformal Tank is installed,
it should look like this: