



TRANSPORT WINGS

1:72 Mixed-media conversion pack

*For use with the Transport Wings 747-100/200
and any 1:72 shuttle kit*



SHUTTLE CARRIER AIRCRAFT (SCA)

**History, Notes and
Instructions**

Introduction

TRANSPORT WINGS kits are model kits of large aircraft. They are suitable for the experienced modeller, who can now own 1:72 models of many of the world's largest airliners and their military transport variants. This conversion pack adds one more version to the possible models of the 'Queen of the Skies' - the Boeing 747.

History

NASA uses two modified Boeing 747 jetliners, originally manufactured for commercial use, as Space Shuttle Carrier Aircraft (SCA). One (905) is a 747-100 model, while the other (911) is a 747-100SR (short range). The two aircraft are identical in appearance and in their performance as Shuttle Carrier Aircraft.

The 747 series of aircraft are four-engine intercontinental-range, swept-wing "jumbo jets" that entered commercial service in 1969.

The SCAs are used to ferry space shuttle orbiters from landing sites back to the launch complex at the Kennedy Space Centre and also to and from other locations too distant for the orbiters to be delivered by ground transportation. The orbiters are placed atop the SCAs by Mate-Demate Devices, large gantry-like structures that hoist the orbiters off the ground for post-flight servicing and then mate them with the SCAs for ferry flights.

The modifications consist of:

- Three struts on the top of the fuselage (two aft, one forward), which carry the shuttle.
- Two additional vertical stabilizers (end plate fins), one on each end of the standard horizontal stabilizer, to improve directional stability.

Specification

Wingspan	195 ft. 8 in.
Length	231 ft. 10 in.
Height:	To top of vertical stabilizer 63 ft. 5 in.
	To top of cockpit area 32 ft. 1 in.
Weight:	Basic weight: NASA 905 318,053 lbs.
	NASA 911 323,034 lbs.
Maximum gross taxi weight	713,000 lbs
Maximum gross brake release weight	710,000 lbs
Maximum gross landing weight	600,000 lbs

There are excellent reference reference photographs at the NASA web site - <http://www.nasa.gov/centers/dryden/multimedia/imagegallery/STS-Ferry/index.html>

PARTS LIST

Cast Metal Parts Vacuum Formed Parts

Endplate fin (left)	2 off	Engine compressor disc	2 off
Endplate fin (right)	2 off	Underwing refuelling pod propeller	2 off
Drag strut	2 off		
Endplate brace	2 off	Decals	
Main strut (left)	1 off	NASA logos, registrations	
Main strut (right)	1 off	and door markings	1 sheet
Nose support	1 off		
Side plate	2 off		
Side brace	2 off		


GENERAL

- WARNINGS**
- 1 - THIS KIT CONTAINS SMALL AND/OR SHARP PARTS. KEEP THE CONTENTS OF THE KIT AWAY FROM CHILDREN.**
 - 2 - THIS KIT CAN CONTAIN PRECUT PARTS WITH SHARP EDGES OR CORNERS. BE CAREFUL WHEN YOU HANDLE THESE PARTS BECAUSE THEY CAN CAUSE CUTS OR OTHER INJURIES.**
 - 3 - USE ALL SOLVENTS, PAINTS, FILLERS AND OTHER MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION. OBEY ALL SAFETY WARNINGS.**

1 CONSTRUCTION OF THE 747 AND SHUTTLE KITS

- Assemble the Transport Wings kit of the 747-100. Do not paint the model at this time.
- Assemble the Space Shuttle kit in accordance with the instructions in this kit. Use reference photographs to define the required configuration of your models (the landing gear may be up or down). Do not paint the model yet.

3 INSTALL THE SUPPORT STRUCTURE ON THE MODEL 747

- Drill 2mm (0.079 inch) diameter holes at each location shown thus  on Figure 1 overleaf.
- Assemble each main support strut structure as shown in the sketch above. Again check photographic references as the side plates were not always installed.
- Carefully spread the legs of the nose support structure and clip the two locating pins into the locating holes in the upper forward fuselage. Align the structure so that it is vertical and glue it in place.
- Cut off both tips of the horizontal stabilizers (the cuts to be parallel to the aircraft centreline). Assemble the two endplate fins (each inboard half has an engraved line which shows the position of the horizontal stabilizer) and attach them to the tips of the horizontal stabilizer. Make sure they are equi-distant about the chord of the stabilizer and are vertical, then attach the endplate braces.

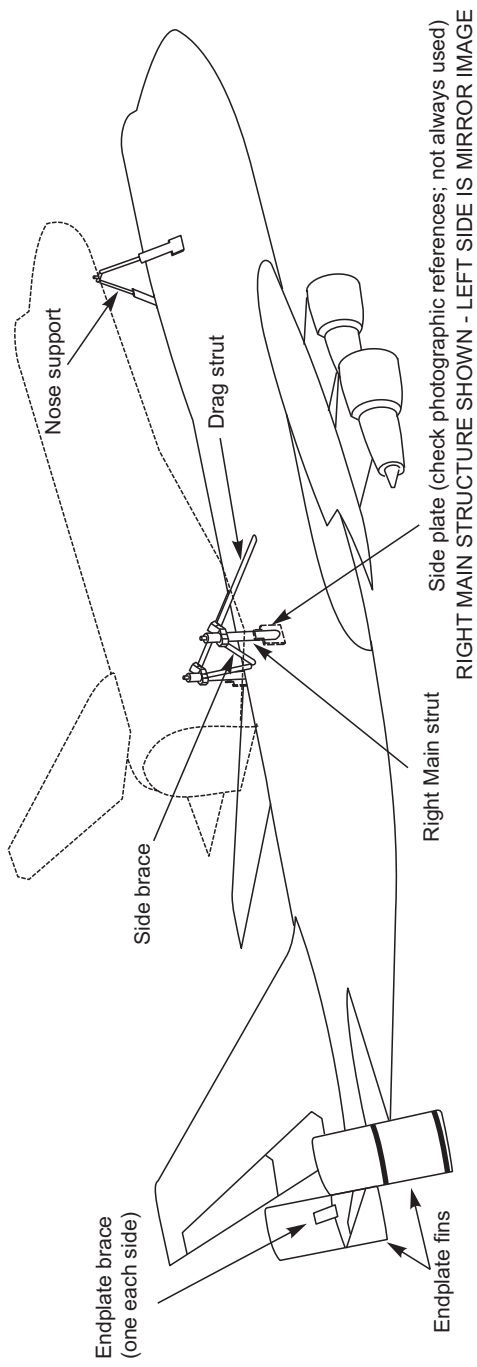
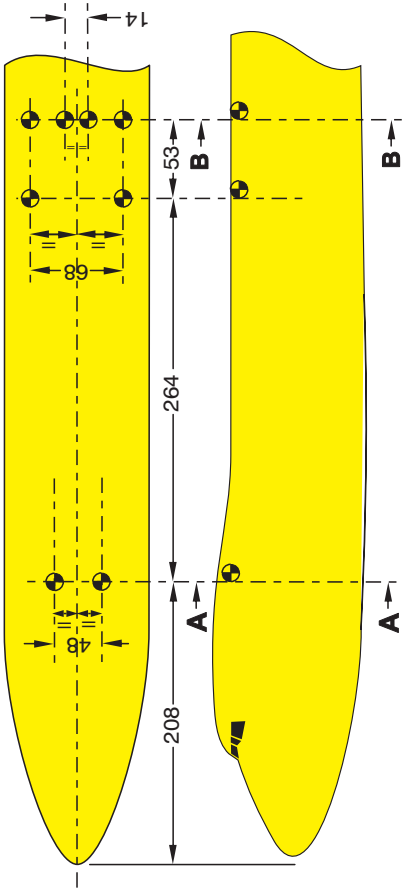
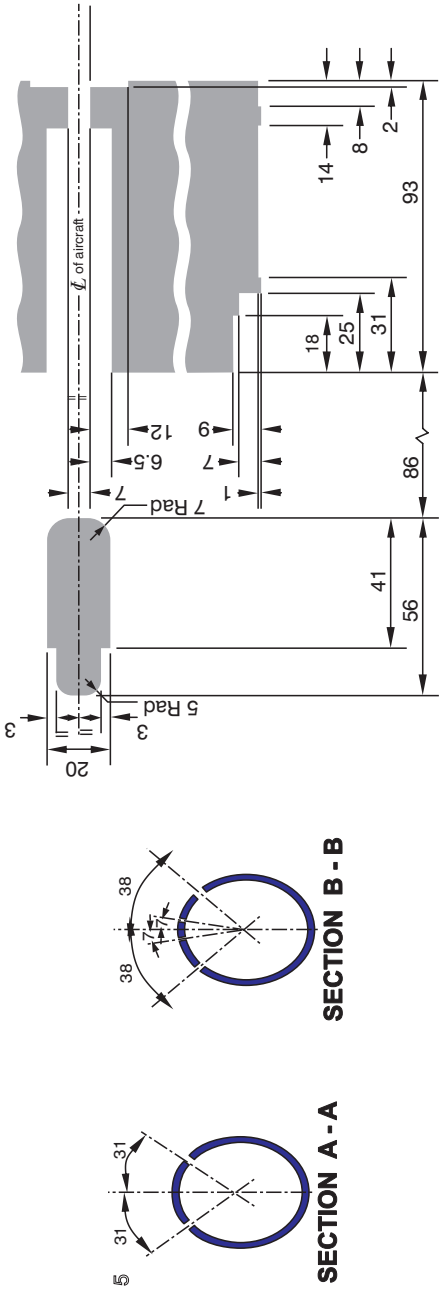


Figure 1



NOTES

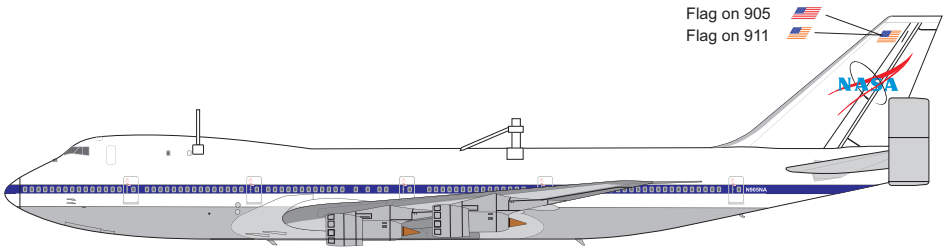
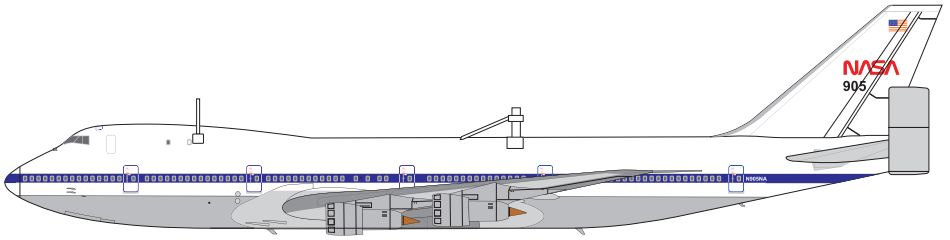
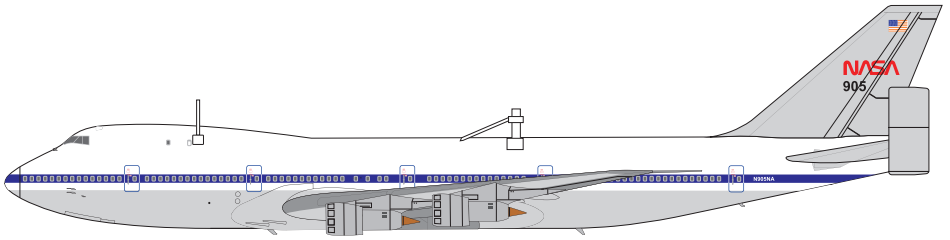
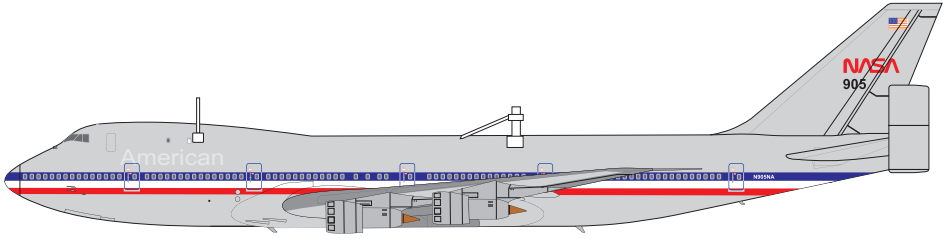
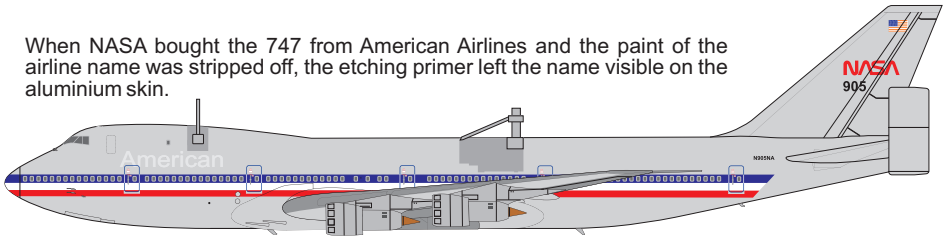
- 1 All dimensions given in millimeters.
- 2 Drill 2 mm diameter hole on centreline of shuttle, 59 mm back from tip of nose. Use position of pins on top of installed main supports to find correct position of two remaining holes in wings of shuttle.
- 3 $\varnothing = 2\text{mm}$ ($.079\text{ in.}$) dia. hole
When NASA bought the 747 from American Airlines and the paint of the airline name was stripped off, the etching primer left the name visible on the aluminium. Original scheme shown. Fuselage top later painted white down to bottom of previous red stripe position.
- 4 No grey panels on fuselage. Blue stripe extended to wrap around rear fuselage. Lower fuselage painted grey.



DETAIL C

Figure 2

When NASA bought the 747 from American Airlines and the paint of the airline name was stripped off, the etching primer left the name visible on the aluminium skin.



Evolution of the Shuttle Carrier Aircraft colour scheme

Figure 4

NOTES

IF THESE INSTRUCTIONS ARE UPDATED, THEY CAN BE DOWNLOADED
FROM OUR WEBSITE - www.aim72.co.uk

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The manufacturers reserve the right to alter parts; add to, or delete parts without
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This kit is manufactured in the United Kingdom by

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