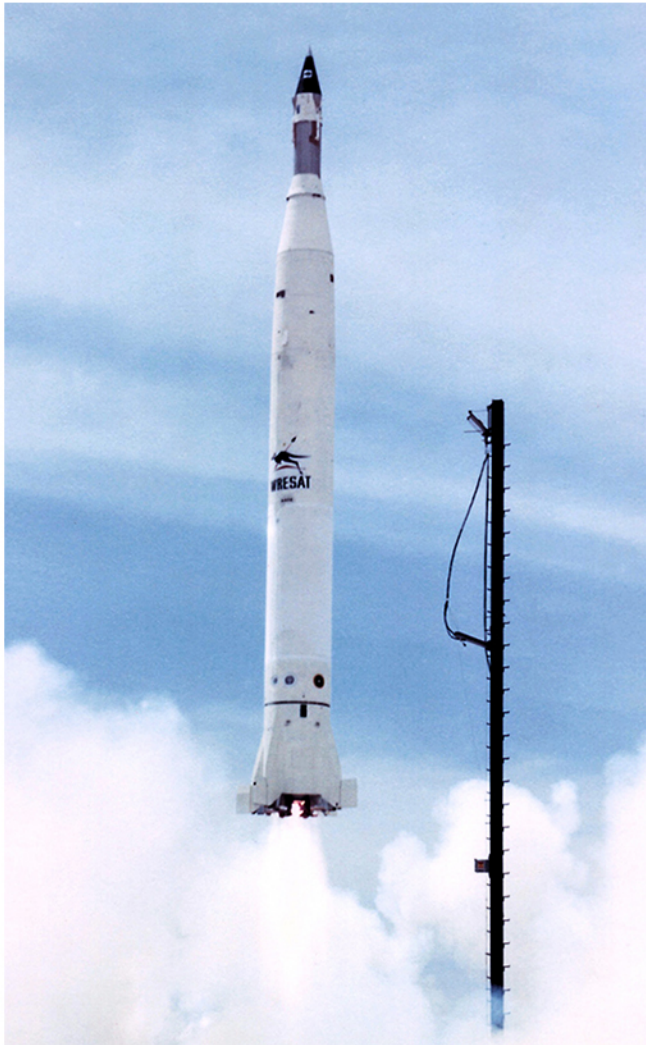


Sparta - WreSat launch vehicle



The Sparta was a three-stage rocket that launched Australia's first Earth satellite, WRESAT, on 29 November 1967.

Sparta used a surplus American Redstone as its first stage, an Antares-2 as a second stage, and a BE-3 as a third stage. Several Spartas were launched from 1966–67 from Woomera Test Range in Woomera, South Australia as part of a joint United States–United Kingdom–Australian research program aimed at understanding re-entry phenomena, and the U.S. donated a spare for the scientific satellite launch into polar orbit.

The first stage was recovered from the Simpson Desert in 1990.

Function Sounding rocket Launch system

Manufacturer ABMA/Chrysler

Country of origin United States

Size

Height 21.8 metres (72 ft)

Diameter 1.78 metres (5 ft 10 in)

Mass 30,000 kilograms (66,000 lb)

Stages 3

Capacity

Payload to LEO 45 kilograms (99 lb)

Associated rockets

Family Redstone

Comparable Jupiter-C, Juno I

Launch history

Status Retired

Launch sites Woomera Test Range LA-8

Total launches 10

Successes 9

Failures 1

First flight 28 November 1966

Last flight 29 November 1967

Notable payloads WRESAT

First stage – Redstone

Engines 1 A-7

Thrust 416 kilonewtons (94,000 lbf)

Specific impulse 265 sec

Burn time 155 seconds

Fuel LOX/Hydyne

Second stage – Antares-2

Engines 1 X-259

Thrust 93 kilonewtons (21,000 lbf)

Specific impulse 293 sec

Burn time 36 seconds

Fuel Solid

Third stage – BE-3

Engines 1 solid

Thrust 34

Burn time 9 seconds

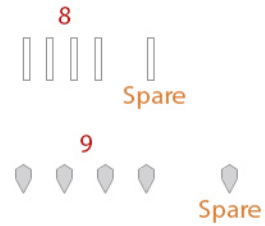
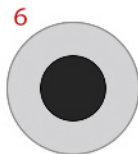
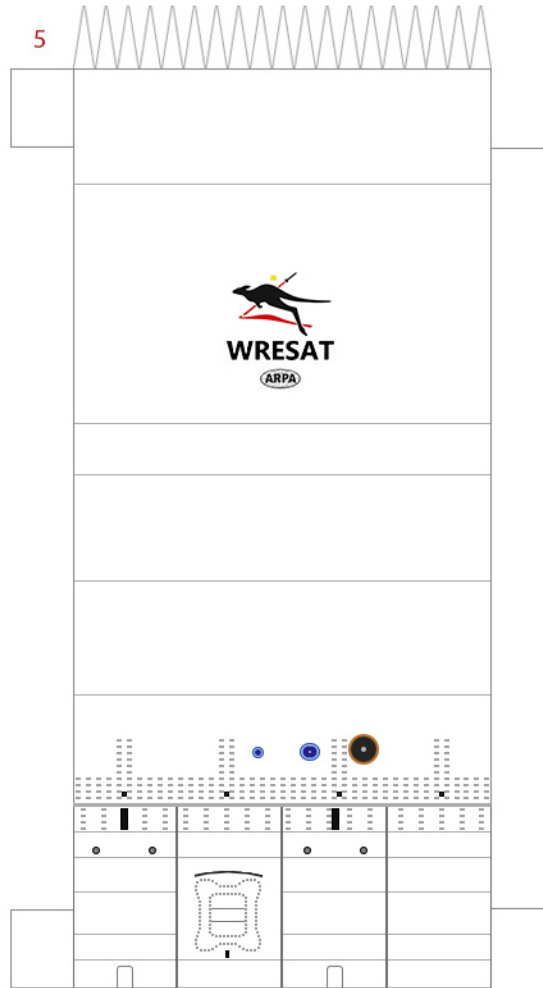
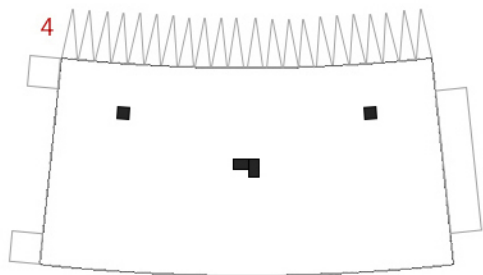
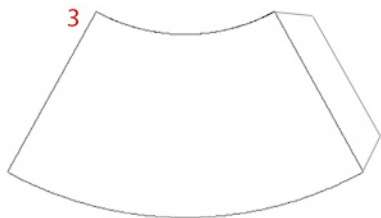
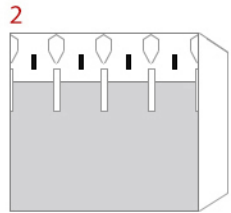
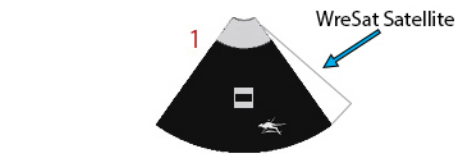
Fuel Solid

Zach's

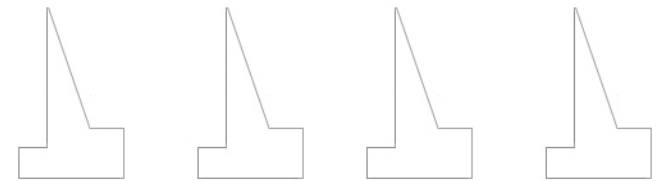
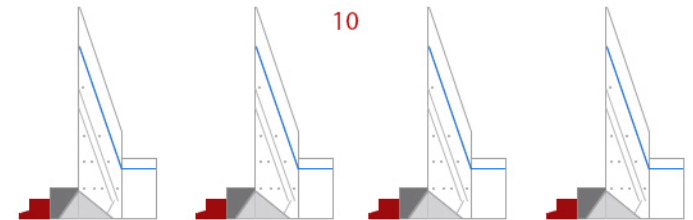


PaperSat Designs
Spacecraft Paper Models

Sparta - WreSat launch vehicle



Score - fold at the BLUE lines on parts 10 and 11



Glue these to cardstock, then glue to the backside of the parts above (parts 10), then glue parts 11 below to the backside.

