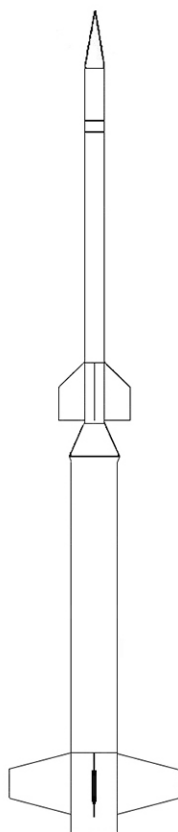


Nike Apache Sounding Rocket



The Nike Apache was a two-stage sounding rocket used by NASA to loft instruments into the upper atmosphere. The Nike Apache was launched 636 times between 1961 and 1978. It was a popular rocket due to its low cost (US\$6000) and ability to be fired from many locales.

The Nike Apache was used to carry a variety of payloads to study a wide range of topics including radio astronomy, meteorology, aeronomy, atmospheric conditions, plasma physics, and solar physics. NASA flew them from Brazil, Canada, India, Norway, Pakistan, Spain, Suriname, Sweden, all across the US, and off the USS Croatan (CVE-25). The maximum payload weight was 80 lb (36 kg) and the maximum altitude about 125 miles (200 km).

On November 21, 1963, ISRO (Indian Space Research Organization) Launched the American Nike-Apache rocket, the first rocket to be launched from Indian soil In Thumba.

The village of Thumba near Trivandrum in Kerala which is on the magnetic equator was selected to establish the sounding rocket station called Thumba Equatorial Rocket Launching Station (TERLS).

The Nike-Apache configuration was also used by one variation of the MQR-13 BMTS target rocket.

Specifications

Length: 27.25 ft (8.31 m)

Diameter: 1 ft 4.5 in (0.42 m)

Launch mass: 1602.5 lb (728 kg)

Engine

First stage: 1× solid-propellant rocket

Thrust: 48,700 lbf (217 kN)

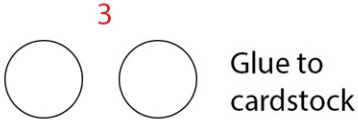
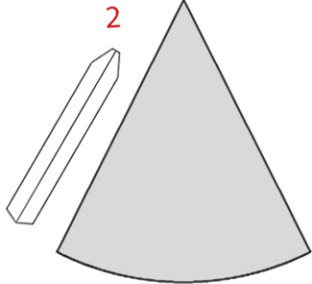
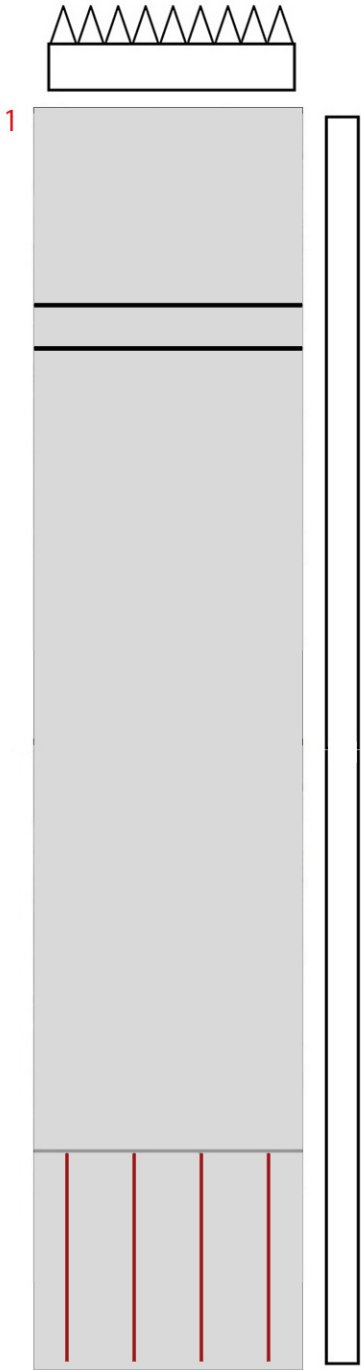
Second stage: 1× solid-propellant rocket

Thrust: 4,750 lbf (21,140 N)

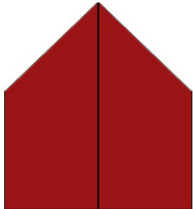
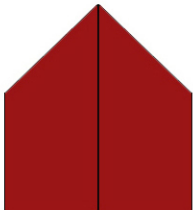
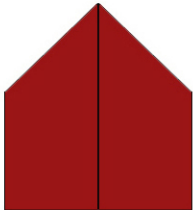
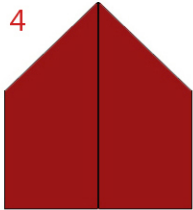


2016

Nike Apache Sounding Rocket



1st to 2nd stage
cone connector

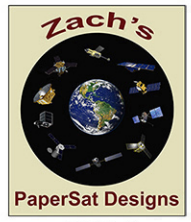
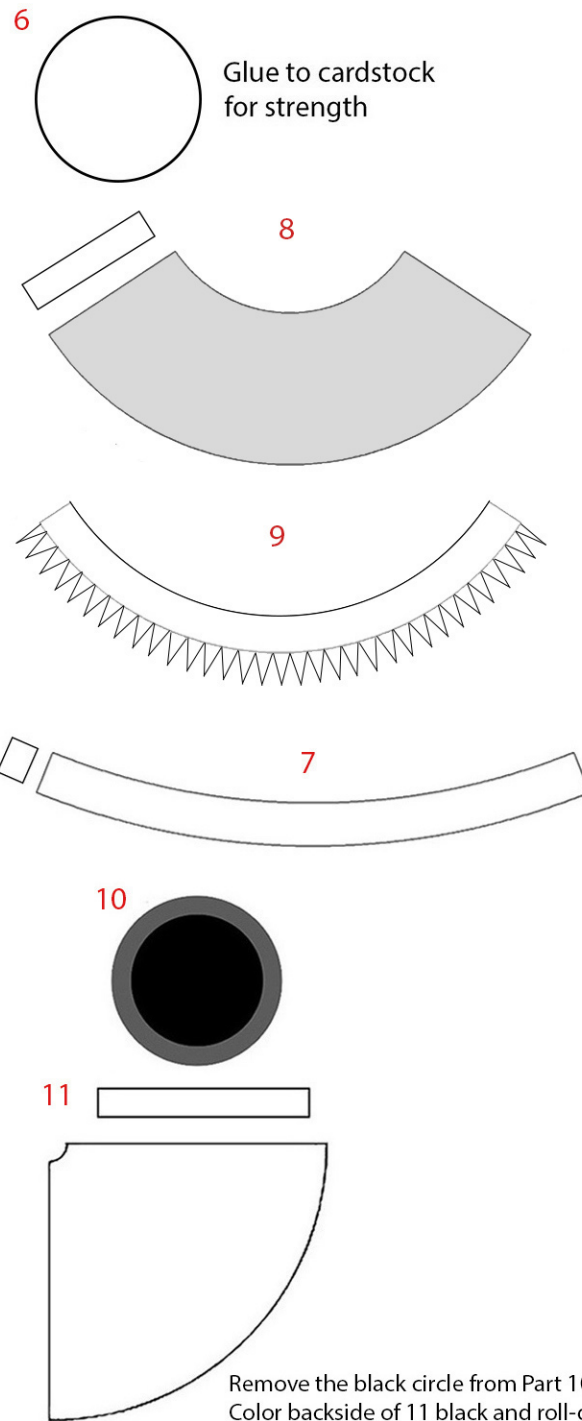
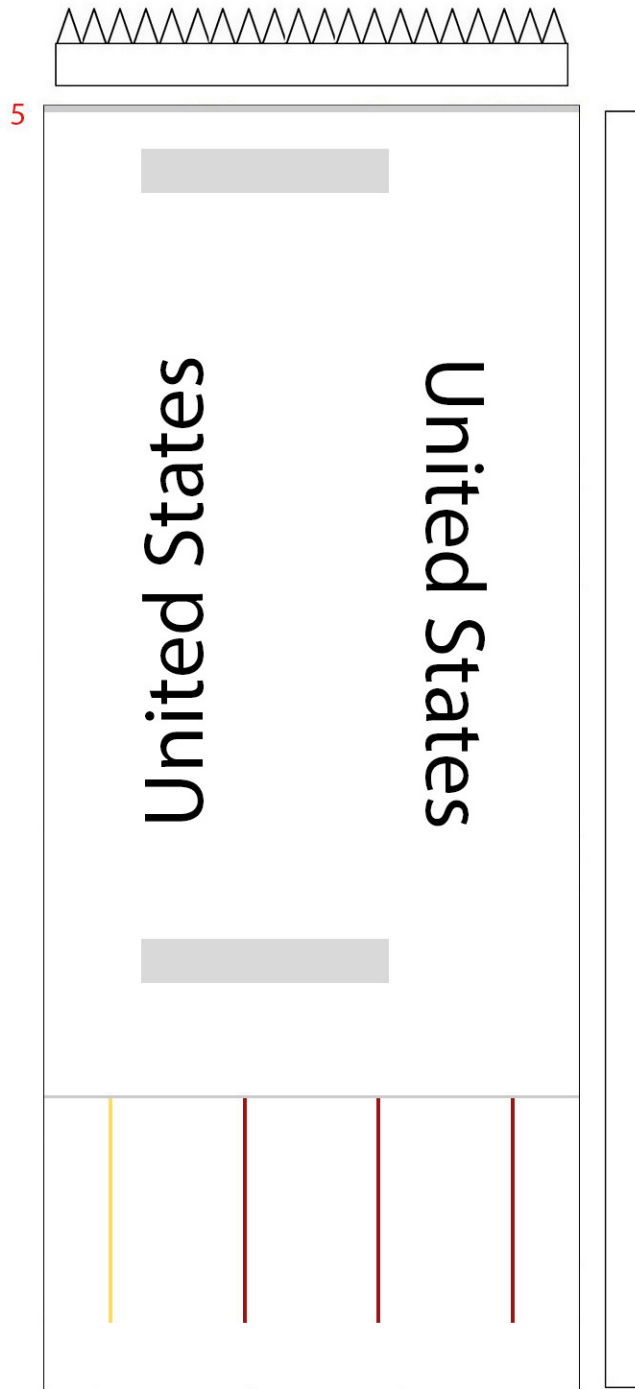


Score and fold the fins
in half.



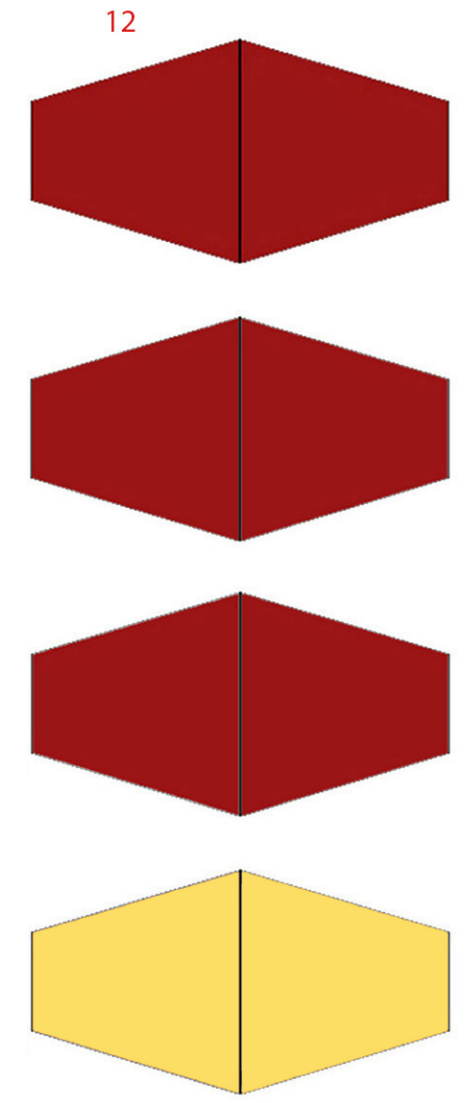
2016

Nike Apache Sounding Rocket



2016

Score and fold these fins in half.



Remove the black circle from Part 10.
Color backside of 11 black and roll-glue to a cone.
Glue 11 to backside of 10 for embedded nozzle.