

Ariane 5 booster roars into life

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An Ariane 5 solid-propellant booster was test-fired on 24 May 2012 at Europe's Spaceport in French Guiana to help improve the reliability of Europe's heavy launcher. The firing was performed in the booster engine stand, specifically designed for the vertical testing of motors at the site. This firing is part of the Ariane 5 Research and Technology Accompaniment (ARTA) programme, designed to validate modifications for the next production batch of boosters to be flown. Credits: ESA-CNES-Arianespace/Optique vidéo du CSG

An Ariane 5 solid-propellant booster was test-fired yesterday at Europe's Spaceport in French Guiana to help improve the reliability of Europe's heavy launcher.

The firing was performed in the [booster](#) engine stand, specifically designed for the vertical testing of motors at the site.

The motor burned for about 135 seconds, simulating the firing time during an [Ariane 5](#) flight, and delivered a mean thrust of 700 t.

One of the goals was to prove new, thinner thermal protection on the inside of the motor's casing. The reduced pressure oscillations will lower the stress on the vehicle and its valuable passengers.

The nozzle tested a new composite material that is more resistant to combustion, and the motor also used an improved igniter.



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The detailed analysis will last about six months, but preliminary results

on the motor's behaviour will be available within ten days.

This firing is part of the Ariane 5 Research and Technology Accompaniment (ARTA) programme, designed to validate modifications for the next production batch of boosters to be flown.

These changes improve the vehicle's performance, modify elements that are now obsolete and reduce manufacturing costs. The programme also confirms that Ariane 5 remains reliable and ensures [Europe's](#) independent access to space.

This was the fifth test of Ariane 5's booster as part of ARTA – the next is expected in about three years.

More information: Watch Ariane 5 booster firing [here](#).

Provided by European Space Agency

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