

Kerbal Space Program - Bug #28450

The Advanced nosecone has more drag than the Aerodynamic nosecone

08/22/2021 01:24 PM - Jonassoe

Status:	New	Start date:	08/22/2021
Severity:	Low	% Done:	0%
Assignee:			
Category:	Aerodynamics		
Target version:			
Version:	1.12.2	Language:	English (US)
Platform:	Windows	Mod Related:	No
Expansion:	Core Game		
Description			
<p>The Advanced nosecone has more drag than the Aerodynamic nosecone, despite the fact that it is more expensive, comes later in the tech tree, and in its part description states that it has "less drag due to pointy shape." Since it is also heavier, there is absolutely no reason to use it, other than for aesthetic purposes.</p> <p>I consider this a bug, because a part that is more expensive and is unlocked later should be more useful than a similar part that is cheaper and unlocked earlier.</p> <p>In the attached video, note that the Aerodynamic cone's drag tops out at 1.26, while the Advanced cone's drag reaches 1.56. The RCS fuel tank is for balancing purpose, so the two rockets have the same mass.</p> <p>https://i.imgur.com/RHQaekw.mp4</p>			

History

#1 - 08/27/2021 06:39 AM - Krazy1

Furthermore, Advanced nosecone has a lower temperature rating. I confirmed drag is consistently higher with a different rocket, even up to Mach 4.7.

#2 - 09/11/2021 08:48 PM - jukkamuhonen@hotmail.com

It have, but it really should have more drag, pointy is worse than ball shaped for drag, i have understood, thats why water droppled is best shape for lowest drag, and now it kind of works how it would in real life, if you make ship with pointy and round nose cone it should drop round side first.

#3 - 09/22/2021 05:39 AM - Krazy1

jukkamuhonen@hotmail.com wrote:

It have, but it really should have more drag, pointy is worse than ball shaped for drag, i have understood, thats why water droppled is best shape for lowest drag, and now it kind of works how it would in real life, if you make ship with pointy and round nose cone it should drop round side first.

Pointy has less drag. Look at real rockets. They have a pointy shape, not round/ spherical nosecone. Especially at supersonic speeds, pointy has much less drag. https://en.wikipedia.org/wiki/Nose_cone_design

Files

Nosecones.mp4	2.91 MB	08/22/2021	Jonassoe
---------------	---------	------------	----------