

Kerbal Space Program - Feedback #297

Drag Values Scale with mass

03/06/2013 02:56 PM - purpletarget

Status: Closed	
Severity: Normal	
Assignee:	
Category: Physics	
Target version:	
Version: 0.18.4	Language: English (US)
Platform: Win32	Mod Related: No
Expansion:	
Description	
<p>Air drag value scales with instantaneous mass. This causes issues with terminal velocity of parts that disobey basic principles of IRL physics.</p> <p>Effects and recreation of the bug can be done with some detail in following video: http://www.youtube.com/watch?v=Pgu_FRiXJ8g</p> <p>Time 13:25 - 22:15</p> <p>Specifically:</p> <ul style="list-style-type: none">• Same design parts with different masses fall at same speed.• Same combined components with a fixed lower drag value and higher scaling drag values result in "lighter" assembly falling faster than the "heavy" one. <p>Recommended fix: Whatever drag values that need to be assigned to a part, should remain constant through flight. If limitations of systems preclude using surface area and shape constants based on cross sections, then it should be indexed off the dry mass only of any particular part, and not change as it loses mass due to fuel expenditure, etc.</p> <p>Notes: Understand drag model is due for overhaul in next couple versions. Listing as bug to document the specific phenomena that should be tested against in new model.</p>	

History

#1 - 03/12/2013 06:28 PM - Yargnit

- Tracker changed from Bug to Feature
- Status changed from New to Planned
- % Done changed from 0 to 10

To be addressed in update down the road. - No current ETA

#2 - 08/16/2013 11:33 AM - Ted

- Category set to Physics
- Version set to 0.18.4
- Platform Windows added

#3 - 04/28/2015 01:55 AM - RexKramer

- Tracker changed from Feature to Feedback
- Status changed from Planned to Resolved
- % Done changed from 10 to 100

The new aero model in 1.0 corrects this effect, I believe.

Had to change to 'Feedback' to set status to resolved.

#4 - 07/27/2015 05:55 PM - Squelch

- Platform Win32 added

- Platform deleted (Windows)

#5 - 07/17/2016 09:17 AM - TriggerAu

- Status changed from Resolved to Closed