

Kerbal Space Program - Feedback #5180

Impossible to aerobrake in Jool atmosphere

06/25/2015 07:10 PM - Kasuha

Status:	Needs Clarification		
Severity:	Normal		
Assignee:			
Category:	Physics		
Target version:			
Version:	1.0.4	Language:	English (US)
Platform:	Any	Mod Related:	No
Expansion:			

Description

I noticed some complaints about Jool atmosphere being deadlier than before so I tried it out.

I set up a ship on 210 km apoapsis and 190 km periapsis with orbital speed about 5664 m/s. I believe that cannot be considered steep entry.

At 197 km there were already strong reentry effects and half of the ablator was gone.

At 195 km all the ablator was gone and the ship exploded. Speed at that moment was 23 m/s lower than at 197 km.

There is great disproportion between energy lost by the ship (25 m/s) and energy applied to heat up parts of the ship (800 units of ablator spent).

This also seems to rule out any attempts to aerobrake in Jool atmosphere because any ship entering at interplanetary transfer speeds (~8000 m/s) is going to explode before it loses any substantial velocity regardless of how shallow its dive into the atmosphere is.

History

#1 - 07/17/2016 09:30 AM - TriggerAu

- Status changed from New to Needs Clarification

Files

quicksave.sfs	46.4 KB	06/25/2015	Kasuha
screenshot0.png	734 KB	06/25/2015	Kasuha
screenshot1.png	800 KB	06/25/2015	Kasuha