

Kerbal Space Program - Feedback #7017

Game should justify differences in safe parachute deployment speeds to players

02/18/2016 10:25 AM - Kasuha

Status:	Needs Clarification		
Severity:	Low		
Assignee:			
Category:	Physics		
Target version:			
Version:	1.0.5	Language:	English (US)
Platform:	Windows	Mod Related:	No
Expansion:			

Description

It was a great surprise to me to realize that safe deployment speeds on Duna are lower than on Kerbin - particularly they are around 400 m/s for drogues, and 200 m/s on main chutes. Intuitively I would expect these speeds to be higher thanks to much thinner atmosphere on Duna.

After some study I found that it is probably justified as rather than atmosphere density, speed of sound seems to be the important measure for parachute deployment. And for example on Mars, speed of sound is lower than on Earth.

http://davidaroffman.com/rich_text_7.html

Assuming the game actually uses mach number or something close to it to determine safety of parachute deployment, it would be probably nice to provide that information to the player:

- add "ASL Mach 1 speed" parameter to the planetary info list available in map mode and in tracking station (or add two values, "ASL Mach 1" and "Mach 1 at 0.02 atm" for measure)
- add "safe deployment mach number" parameter instead of "max safe deploy speed at home" parameter to the chute info box in VAB/SPH

History

#1 - 07/17/2016 09:44 AM - TriggerAu

- Status changed from New to Needs Clarification