

Kerbal Space Program - Bug #27275

High velocity collisions are not detected.

02/13/2021 07:48 AM - jukkamuhonen@hotmail.com

Status:	New	Start date:	02/13/2021
Severity:	Low	% Done:	0%
Assignee:			
Category:	Physics		
Target version:			
Version:	1.11.1	Language:	English (US)
Platform:	Windows	Mod Related:	No
Expansion:	Core Game		

Description

When flying very fast through other rockets, game doesn't calculate collisions between frames which leads rockets just to go through without collisions.

Ideas for this:

1) Stretch collision box on velocity direction with velocity multiplier which takes on account of current velocity and fps.

2) Other idea is to have detect vector to do same than at 1) without stretching collision boxes.

On My opinion these vectors or stretches should be pointed to retrograde direction so collision doesn't happen too soon. If ship has same vehicle collision system that should be taken on account when programming this.

History

#1 - 02/13/2021 12:37 PM - kewyn.ryan@gmail.com

In time warp you can even go through planets with high speeds and a warp of 10k-100k

#2 - 02/15/2021 02:23 PM - jukkamuhonen@hotmail.com

Not sure why someone would down vote something like this.

#3 - 02/15/2021 08:47 PM - Anth12

I haven't really had issues with this.

Only 'bug' I know of is that a craft in space will phase through another when timewarp is on.

#4 - 02/18/2021 02:50 PM - jukkamuhonen@hotmail.com

I have issue on this when I am trying to do high velocity (over 3000m/second intercept) missiles to hit targets. That feeling when you get intercept to show in millimeters and then it just phases through. Happens over 800m/s speeds, if you calculate 800/your fps you get distance which your ship warps through, for me it's over 5 meters jumps if running 144fps. So if you know length of your missile and radius of your target you have to calculate maximum speed you can approach to get 100% kill.

#5 - 02/18/2021 03:24 PM - jukkamuhonen@hotmail.com

- File 9MM INTERCEPT.sfs added

- File GOING IN.sfs added

#6 - 02/18/2021 03:27 PM - jukkamuhonen@hotmail.com

Did upload couple intercept quicksaves, both are from same game. 1800m/second velocity difference but very big target so it might, or might hit, depending on CPU, fps, craft orientation and luck.

Files

9MM INTERCEPT.sfs	2.61 MB	02/18/2021	jukkamuhonen@hotmail.com
GOING IN.sfs	2.61 MB	02/18/2021	jukkamuhonen@hotmail.com