

## Kerbal Space Program - Bug #27283

### Target velocity incorrectly frozen at zero when drifting away from target and decelerating and leaving loading distance.

02/15/2021 08:53 AM - Dunbaratu

<b>Status:</b>	Confirmed	<b>Start date:</b>	02/15/2021
<b>Severity:</b>	Low	<b>% Done:</b>	10%
<b>Assignee:</b>			
<b>Category:</b>	Physics		
<b>Target version:</b>			
<b>Version:</b>	1.11.1	<b>Language:</b>	English (US)
<b>Platform:</b>	Windows	<b>Mod Related:</b>	No
<b>Expansion:</b>	Core Game		

#### Description

There is a condition in which the target-relative velocity incorrectly shows as being stuck as zero if you do the following:

- Overshoot your target you are trying to rendezvous with, so you fly within 2.5 km of it but then zoom past it.
- As you are drifting away from your target, try to decelerate to a stop.
- Fail to come to a stop before you leave the 2.5 km loading range, so you are now accelerating toward the target as you leave the bubble.

SO far the above steps are the same as for this bug: <https://bugs.kerbalspaceprogram.com/issues/27025>, however, you also must meet the following condition too, to trigger this bug:

- At the moment you leave the 2.5km bubble around your target, be going slowly. If you leave it too quickly this bug does not occur. In other words you need to "almost" succeed at having stopped before leaving the bubble, but not **quite**. In trying to recreate the problem, I couldn't get it to happen except when my target velocity was less than about 15 m/s at the moment I left the bubble.

While there's a chance this is caused by the same bug as <https://bugs.kerbalspaceprogram.com/issues/27025>, it has a few key important differences - one being that it happens **even when bug 27025 does NOT manifest**. I was able to get this to occur even when the target vessel didn't also experience the problem described in 27025.

I have a video demonstrating the problem here:

<https://www.youtube.com/watch?v=EASOQA9MMGY>

I am uploading a save file taken just before the problem occurs so you can try it yourself. Take control of vessel "mover".

#### History

##### #1 - 02/15/2021 02:03 PM - jukkamuhonen@hotmail.com

I have had this couple times, didn't know what causes it. It can really mess your gameplay if you don't expect it.

##### #2 - 02/15/2021 02:19 PM - Portablejim

This can be triggered from the "Man Orbit" scenario.

1. Transfer at least 1 kerbal to lander
2. Undock
3. Burn anti target from the main craft using the lander until about 1.5km separation.
4. Wait until there is 2km of separation
5. Burn target at 1/3 thrust until more than 2.5km of separation.
6. Burn back at full thrust.

##### #5 - 02/24/2021 12:05 AM - David.Wineinger

- Status changed from New to Confirmed

- % Done changed from 0 to 10

**Files**

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Before approach Mk3-non-root-target.sfs

385 KB

02/15/2021

Dunbaratu