Kerbal Space Program - Bug #9460

Counteracting elevon orientation due to faulty angle dependency

04/24/2016 08:48 AM - Anonymous

Status:	Duplicate	**Start date:**	04/24/2016
Severity:	Normal	**% Done:**	100%
Assignee:			
Category:	Controls and UI		
Target version:			
Version:	1.1.0	**Language:**	English (US)
Platform:	Windows	**Mod Related:**	No
Expansion:			

Description

This is a follow-up to the issue here:

http://bugs.kerbalspaceprogram.com/issues/9407#change-42881

I now know what causes the elevons to counteract on wings:

Depending on how they are rotated with regard to the crafts long axis some are steering up and some are steering down.

The CoM has nothing to do with it. This was probably a mechanic introduced to solve this issue here:

http://bugs.kerbalspaceprogram.com/issues/5172

You still might want to think about my other suggestion in the original thread, namely that not the position of the pivot axis should be dicisive how to steer, this would avoid some borderline cases. And possibly the option to remove CoM dependency for some elevons to allow for full manual override.

History

#1 - 04/24/2016 08:49 AM - Anonymous

Minor edit: Of course the elevons on the Furion craft were rotated by less than 90Â °.

#2 - 04/24/2016 10:12 AM - Anonymous

- File -A- before CoM.jpg added

- File -A- behind CoM - CoL closer to CoM 1.jpg added

- File -A- behind CoM - CoL closer to CoM 2.jpg added

- File -A- behind CoM - CoL farther from CoM 1.jpg added

- File -A- behind CoM - CoL farther from CoM 2.jpg added

- File -B- before CoM 1.jpg added

- File -B- behind CoM - CoL closer to CoM 1.jpg added

- File -B- behind CoM - CoL closer to CoM 2.jpg added

- File -B- behind CoM - CoL farther from CoM 1.jpg added

- File -B- behind CoM - CoL farther from CoM 2.jpg added

An update on the CoM dependency:

This issue occurs especially for large wing constructs and indeed it seems to be related to **flying wing designs**.

Notice for the two example crafts how the bug shows up, when the CoL is **behind** the CoM, **but** relatively **close**, even when the **affected** elevons **are behind** the CoM.

(I used the offset tools, so maybe it is related to that.)

#3 - 04/24/2016 05:28 PM - sal_vager

- Status changed from New to Duplicate

- % Done changed from 0 to 100

This is a duplicate of issue #9407

#4 - 04/24/2016 08:34 PM - Anonymous

Imho it's not a duplicate, but it's your call.

Files

Furion.craft	268 KB	04/24/2016	Anonymous
Spirit [Strategic].craft	158 KB	04/24/2016	Anonymous
Furion - rotated.jpg	292 KB	04/24/2016	Anonymous
Spirit - original.jpg	246 KB	04/24/2016	Anonymous
Furion - orignal.jpg	309 KB	04/24/2016	Anonymous
Spirit - rotated.jpg	244 KB	04/24/2016	Anonymous
-A- before CoM.jpg	261 KB	04/24/2016	Anonymous
-A- behind CoM - CoL closer to CoM 1.jpg	256 KB	04/24/2016	Anonymous
-A- behind CoM - CoL closer to CoM 2.jpg	387 KB	04/24/2016	Anonymous
-A- behind CoM - CoL farther from CoM 1.jpg	368 KB	04/24/2016	Anonymous
-A- behind CoM - CoL farther from CoM 2.jpg	243 KB	04/24/2016	Anonymous
-B- before CoM 1.jpg	268 KB	04/24/2016	Anonymous
-B- behind CoM - CoL closer to CoM 1.jpg	271 KB	04/24/2016	Anonymous
-B- behind CoM - CoL closer to CoM 2.jpg	385 KB	04/24/2016	Anonymous
-B- behind CoM - CoL farther from CoM 1.jpg	260 KB	04/24/2016	Anonymous
-B- behind CoM - CoL farther from CoM 2.jpg	384 KB	04/24/2016	Anonymous