

## Kerbal Space Program - Bug #6022

### Cargo bay aero occlusion issue on F9 reload

12/14/2015 10:27 AM - dasvaldez

<b>Status:</b>	Needs Clarification	<b>Start date:</b>	12/14/2015
<b>Severity:</b>	High	<b>% Done:</b>	0%
<b>Assignee:</b>			
<b>Category:</b>	Physics		
<b>Target version:</b>			
<b>Version:</b>	1.0.5	<b>Language:</b>	English (US)
<b>Platform:</b>	Windows	<b>Mod Related:</b>	No
<b>Expansion:</b>			
<b>Description</b>			
v1.0.5.1028			
Encountered an issue where only one wing of a craft was generating lift. Wings were place with mirror symmetry in SPH.			
Wing with issue seemed to be "occluded" by cargo bay. Cracking cargo bay open and immediately closing again resolved issue... even when bay was re-closed, wing continued to generate lift.			
Craft ONLY experienced issue when quick save was reloaded with F9 during low (<20km) atmospheric flight.			
Craft did NOT experience issue when flight scene was not left during mission, ie never switched away to another out of range craft or went back to the KSC. Also NO issue observed if craft was reloaded (F9 or scene change) while out of atmo.			
Perhaps an issue with load order... IE aero forces are applied to wing, pushing it slightly into bay, and then occlusion is calculated? Bit of a stretch, as wing root is barely clipped into cargo bay side normally.			
<b>Craft download:</b> <a href="http://kerbalx.com/KSpaceAcademy/KSA-KISShuttle">http://kerbalx.com/KSpaceAcademy/KSA-KISShuttle</a>			
<b>Img gallery with screenshots showing issue:</b> <a href="http://imgur.com/a/hj1sf">http://imgur.com/a/hj1sf</a>			

#### History

##### #1 - 12/20/2015 12:52 PM - Geschosskopf

- File 04-08 No Lift.jpg added
- Status changed from New to Confirmed
- % Done changed from 0 to 10

I have just had this same issue happen to me twice in a row with different planes. In both cases, the plane never left Kerbin's atmosphere. The planes had the long Mk2 cargo bay. In both cases, they flew from KSC to some point out in the boonies and landed just fine. While on the ground, they opened their cargo bays to run science experiments, then closed up. Upon takeoff, both planes had sections of wing on one side of the cargo bay refuse to create any lift, resulting in severe rolling towards the side with the "dead" wing sections. However, the scene-changing and loading of the planes happened differently, as follows:

**1st time:** I landed the plane, opened the bay, did science, EVA'd 2 Kerbals, planted a flag, and switched between the Kerbals, the plane, and the flag several times using the ] and [ keys. With the Kerbals still on EVA and the cargo bay now closed, I saved and quit the game. Upon restarting the game the next day, I put the Kerbals back in the plane and took off. The plane had a dead wing at this point.

**2nd time:** I landed the plane, opened the bay, did science, and EVA'd 1 Kerbal. The Kerbal walked around the plane collecting data, took a surface sample, and reboarded without planting a flag. I did not switch between Kerbal and plane while the Kerbal was on EVA. I closed the bay and tried to take off, and had a dead wing.

In both cases, it was the right wing that died. In the SPH, I always am "holding" the left wing so the right wing is the clone created by symmetry.

I've attached a pic of the 2nd plane shortly after takeoff with the F12 overlay turned on. This shows the 2 dead wing panels on the right side, adjacent to the cargo bay, marked in red.

Kuzzter also had a dead wing. He was using Mk3 parts and it was the left wing that died on him. I believe in his case it happened after several hops and uses of the cargo bay. He wrote it up in Misison Reports in this thread:

[[  
<http://forum.kerbalspaceprogram.com/index.php?/topic/110096-duna-ore-bust-a-ksp-graphic-novel-complete/&do=findComment&comment=2026994>]]

#3 - 07/17/2016 09:41 AM - TriggerAu

- Status changed from Confirmed to Needs Clarification
- % Done changed from 10 to 0

Files

04-08 No Lift.jpg	116 KB	12/20/2015	Geschosskopf
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