

## Kerbal Space Program - Bug #15156

### Probe cannot communicate through relay Sats when a probe is build in a specific way

05/06/2017 08:52 PM - Paul\_G

<b>Status:</b>	New	<b>Start date:</b>	05/06/2017
<b>Severity:</b>	Normal	<b>% Done:</b>	0%
<b>Assignee:</b>			
<b>Category:</b>	Gameplay		
<b>Target version:</b>			
<b>Version:</b>	1.2.2	<b>Language:</b>	English (US)
<b>Platform:</b>	OSX, Windows	<b>Mod Related:</b>	No
<b>Expansion:</b>			

#### Description

**What Happens:** A probe (with core, power and comms) cannot access CommNet even if a suitable relay sat is within range of both the probe and Kerbin or another relay sat. I discovered this problem by building a rocket with enough delta V that allowed me to orbit Eve, and once I had the rocket designed with enough delta V, I tried adding a landing probe on top of this rocket, with the expectation that I could add some relay dishes such as some RA-2's, and then add a landing probe on top of the rocket that I had already built. The landing probe would separate from the stage in orbit around Eve and immediately loose contact with CommNet and be uncontrollable, despite both landing probe and stage with relay dishes both having cores, power and suitable coms.

#### How to Reproduce

- Build a rocket, starting with a core at the top, and work down a rocket that contains power, relay comms, and sufficient Delta V to escape Kerbin and far enough away that a probe core with relatively short range comms equipment cannot directly communicate with Kerbin.
- On top of the rocket you have just built - on top of the core if this is the very top of the rocket - add a small stage separator such as the TR-2V, and build a probe that you would expect to be able to land on Eve - my probe consists of heat shields, batteries, a core, some science, and a Communotron 16 intended to allow control during descent, and an HG-5 to transmit science. Unlike the rest of the rocket, the probe is built up from the stage separator (e.g. an Ant engine, fuel tank, and then the probe structure).
- Once in orbit around Eve, or anywhere else that is far enough away from Kerbin where the internal transmitter of the probe core, or the Communotron 16 cannot reach Kerbin directly activate the stage that separates the probe from the remaining stage.
- The probe immediately loses all communications, even though the probe is within range of the relay dishes on the stage that you have just separated from.
- The probe cannot communicate with any other relay sat in range, the problem doesn't just affect the stage that you have just separated from.

#### Notes

- You can avoid this by building your entire rocket from the landing probe down, rather than adding the probe to an existing rocket.
- The attached saved game (Development Sandbox.zip) shows two relay sats, and a probe that has just separated from a stage, and the probe is not controllable, as it is not connected to CommNet.
- A screen shot of the probe and the stage with relay dishes close by is attached

Thanks

Paul

#### History

##### #1 - 05/07/2017 12:05 AM - Paul\_G

If using the saved game file, the vehicle that launched this probe was 'Inner Systems Comms 2'

##### #2 - 05/29/2017 08:58 AM - swjr-swis

- File Development Sandbox 2.zip added

- Platform Windows added

1.3.0.1804 Win x64

I tested the uploaded savegame. I can confirm the small probe 'Why Can't I Communicate' has no connection. However, this is not a bug:

- The probe only has an HG-5 and a Communotron 16 on board, neither of which have sufficient range to connect to Kerbin directly.
- The stage within visual range only has HG-55 direct antenna which have enough range for direct connection to Kerbin, but they are not relay-capable.

So it is not a surprise that the probe has no signal for control. There is no relay within range of its small antennae.

I then created a probe with an RA-15 relay antenna that would be able to relay back to Kerbin, and cheated it right next to the probe. The probe now does get a connection and has control, because it can use the RA-15 relay antenna of the cheated probe.

I upload a second version of the save file with the cheated relay probe to show the difference.

Unless the problem you experience has another reproduction, this is not a bug.

## Files

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Probe cant phone home.png	4.3 MB	05/06/2017	Paul_G
Deveopment Sandbox.zip	202 KB	05/06/2017	Paul_G
Deveopment Sandbox 2.zip	257 KB	05/29/2017	swjr-swis