# Helicopter Load Release Incident

## CAGC SAFETY ALERT

Published 11 – 2013

**Canadian Association of Geophysical Contractors**
1045, 1015 - 4th Street SW
Calgary, Alberta
T2R 1J4
Phone: 403 265 0045
Fax: 403 265 0025
E-mail: info@cagc.ca

**Safety Alert**

**11-13**

# HELICOPTER LOAD RELEASE INCIDENT

==========

***** Please communicate the following information to your field personnel *****

Subject: **Potentially Hazardous Cockpit Configurations**

==========

Recently a Bell 205 on a seismic job in Northern BC had an inadvertent load release. The following is from the synopsis of the report:

The pilot had just done a sloop run (carrying fuel and chemicals to all the drills and compressors) and was heading back to the main staging (Stage 1) with the empty sloop. Approximately half way back to Stage 1 the pilot noticed the rotor rpm (RRPM) was high and decided to adjust it with the use of the governor “beep” switch. He had his hand on the top of the collective lever and slid it down to make some fine RRPM adjustments. He brushed his thumb over the switch that operates the remote hook release on his way to the governor beep switch and as he did so he felt a “shudder” in the airframe as the hook released.

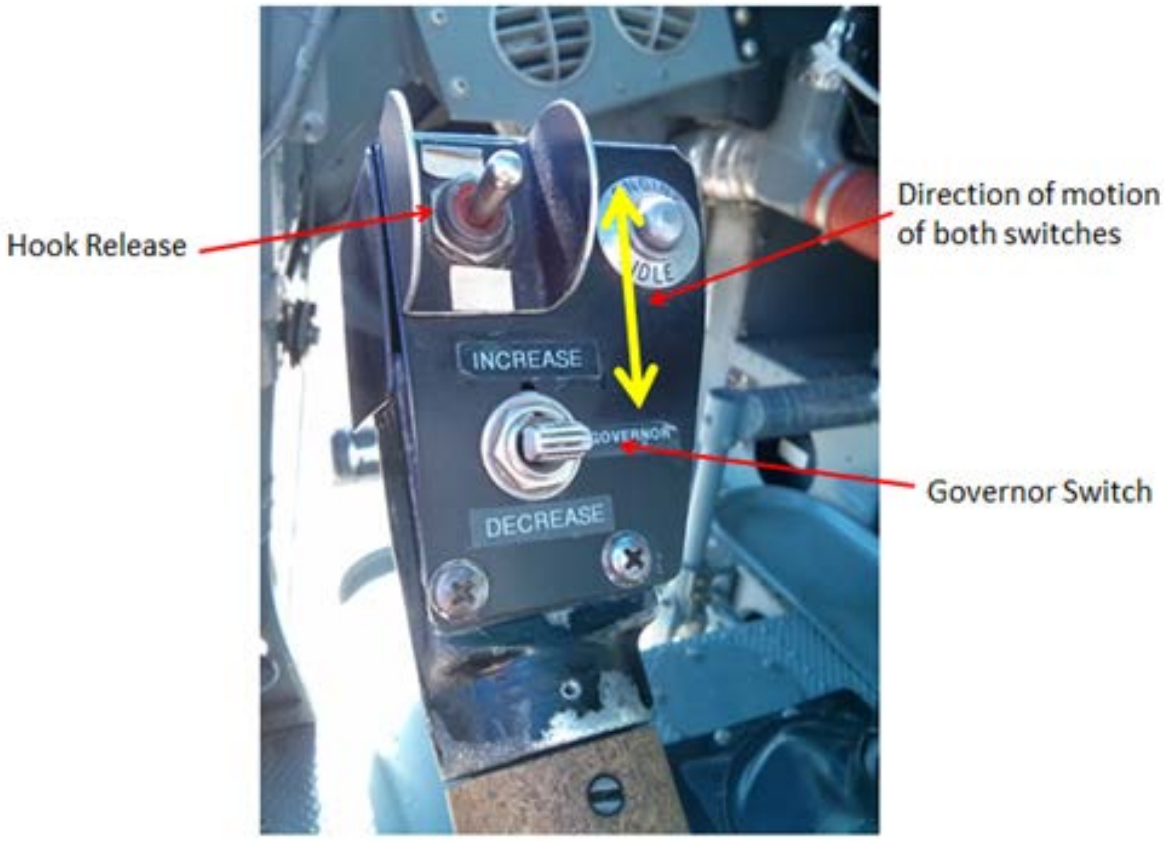
The pilot reported that the hook release switch had a “hair trigger” and subsequently it was confirmed that a very light touch was all it took to release. Since switches sometimes do fail and many switches have critical functions, it is really important for pilots to use cockpit discipline to prevent inadvertent switch activation.

A rule of thumb is that a pilot must never touch a switch he or she does not intend to activate. Generally pilots never touch the fuel valve switch, even though it’s guarded, because the last thing a pilot would want is that switch to activate inadvertently (unless the aircraft is on fire!). Hook release toggles and many other switches are in this same category.

The other aspect of this incident is how the switches came to be located so close together, with a similar activating motion, yet such different functions. If switches are next to each other that can activate in a similar fashion, sooner or later the wrong one will be triggered at some point.

The next page shows the time of the incident:

# HELICOPTER LOAD RELEASE INCIDENT




With these switches so close together, and activating in the same direction, this incident was almost inevitable given enough time. If not to this pilot on September 7th, then to another pilot at some later date, inadvertent activation would occur.

How can this type of thing be prevented from happening? Cockpit discipline: not ever touching switches that are not intended to be activated. A safer and longer term way to way to address the concern, is by identifying potentially hazardous switch arrangements.

It is recommended that cockpit configurations ought to be standardized as much as reasonably possible. This is not an easy thing to accomplish, especially with larger fleets of aircraft, where many of them leased from owners that aren't too keen to change up their cockpits at their own expense. In the meantime, pilots are asked to be vigilant about these types of things and please let your employer know of any concerns in this regard. The aircraft from the incident now looks like this image on the next page:

**Safety Alert**

**11-13**

# HELICOPTER LOAD RELEASE INCIDENT


Just the spinning of the release guard 90 degrees may have prevented this incident from occurring, but spinning the guard and changing the switch to a push button almost assuredly will prevent recurrence. It is important to identify such arrangements that are in service in the field to make such inadvertent activations impossible.

Although this alert depicts a helicopter, the principle can be applied to any equipment panel where the controls are close together and activate in the same direction, with significantly different and possibly dangerous outcomes if the wrong one is activated.

Within the standard context of hazard control in safety programs, this alert can now be summarized:

| **HAZARD:** | **INADVERTANT CONTROL SWITCH ACTIVATION** |
|---|---|
| 1. ELIMINATION: | - Not possible, as the controls need to be there |
| 2. SUBSTITUTION: | - Possible to replace the up/down toggle switch with a push button |
| 3. ENGINEERING: | - Rotate the guard on the release toggle switch 90 degrees |
| 4. ADMINISTRATION: | - Issue safety alert to broadcast concert and begin searching for similar configurations |
| 5. BEHAVIOURAL: | - Highlight the importance of operator discipline to eliminate handling of controls that don't need to be activated |
| 6. PPE: | - Not applicable |