



SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SUBJ: AUTO FLIGHT - Autopilot

SAIB: CE-16-09

Date: November 23, 2015

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin advises you of an airworthiness concern, specifically that certain Honeywell/Bendix King autopilots (AP) can experience inadvertent disengagement without clear annunciation to the pilot and may also fail to engage with conflicting annunciation to the pilot. These failure conditions are the result of a resistor that can fail open in the autopilot computer.

At this time, the airworthiness concern is not an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

This SAIB is the result of an open resistor (R259) found in the KCP 220 AP computer causing improper AP operation and annunciation to the pilot. Honeywell has determined that AP computers KC 190/191/192/193 will have the same failure effects as the KCP 220. These autopilot computers are associated with the KAP 100, KAP 150, KAP 150H, KFC 150, KFC, 275, and KFC 325 autopilot systems. The following describes the potential effects when the resistor (R259) in any of the respective AP computers fails open:

- If AP is not engaged with an opened resistor (R259)
 - ✓ No Effect
- If resistor (R259) fails open while the AP is engaged
 - ✓ Pitch and Roll servos will disengage.
 - ✓ AP Annunciator on the control panel will continue to illuminate and to indicate AP is engaged.
 - ✓ If installed, AP Annunciator on the optional remote Annunciator Panel or EFIS EADI will continue to illuminate and to indicate AP is engaged.
 - ✓ Aural Disengage Warnings will activate.
- If the pilot engages the AP with resistor (R259) already failed open
 - ✓ Pitch and roll servos will not engage.
 - ✓ AP Annunciator on the control panel will continue to illuminate and to indicate AP is engaged.
 - ✓ If installed, AP Annunciator on the optional remote Annunciator Panel or EFIS EADI will continue to illuminate and to indicate AP is engaged.
 - ✓ Aural Disengage Warning will not activate.
 - ✓ Flight Director commands will indicate a deviation if the aircraft drifts away from the selected mode targets (lateral and/or vertical).
 - ✓ Effects of open resistor R259 can be felt by pilot during preflight test. Pilot (s) will not feel any friction or resistance on the Yoke/Control Wheel.

Honeywell revealed the excessive failure rate of the resistor (R259) manufactured by “OHMITE” prior to year 2000. The affected AP computers are listed below:

Model	Part Number	Serial Number
KC 190	065-00055-0002	2076 and below
KC 190	065-00055-0003	10412 and below
KC 191	065-00054-0002	21594 and below
KC 191	065-00054-0003	32189 and below
KC 191	065-00054-0012	40028 and below
KC 192	065-00042-0002	41566 and below
KC 192	065-00042-0003	54321 and below
KC 192	065-00042-0012	1021 and below
KC 193	065-00144-0000	1177 and below
KC 193	065-00144-0001	1177 and below
KC 193	065-00144-0002	1177 and below
KCP 220	065-00064-0000	2053 and below
KCP 220	065-00064-0001	2053 and below
KCP 220	065-00064-0005	2053 and below
KCP 220	065-00064-0006	2053 and below
KCP 220	065-00064-0007	2053 and below
KCP 220	065-00064-0008	2053 and below
KCP 220	065-00064-0009	2053 and below
KCP 220	065-00064-0012	2053 and below
KCP 220	065-00064-0015	2053 and below
KCP 220	065-00064-0017	2053 and below
KCP 220	065-00064-0020	2053 and below

Honeywell has issued alert service bulletins to inspect and modify the KC 190/191/192/193 and KCP 220 AP computer. These bulletins are identified as follows:

For KC 190/191/192: Honeywell Bendix King Service Bulletin KC 190/191/192-22-A0019

For KC 193: Honeywell Bendix King Service Bulletin KC 193-22-A0005

For KCP 220: Honeywell Bendix King Service Bulletin KCP 220-22-A0017

Recommendations

The FAA recommends that owners, operators, and maintenance personnel of the airplanes installed with the affected AP computer incorporate the appropriate Honeywell Bendix King Service Bulletin.

For Further Information Contact

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For Related Service Information Contact

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