

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CIRRUS DESIGN CORPORATION,
Petitioner,

v.

HOYT AUGUSTUS FLEMING,
Patent Owner.

IPR2020-00762
Patent RE47,474 E

Before JOSIAH C. COCKS, SCOTT C. MOORE, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

COCKS, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. Background

Cirrus Design Corporation (“Petitioner” or “Cirrus”) filed a Petition (Paper 2, “Pet.”) to institute an *inter partes* review of claims 95–131 (“the challenged claims”) of U.S. Patent No. RE47,474 E (Ex. 1001, “the ’474 patent”).¹ See 35 U.S.C. § 311. We instituted trial to determine whether the challenged claims were unpatentable as follows:

Claims Challenged	35 U.S.C. §	References/Basis
95–131	103 ²	POH, ³ James, ⁴ Hoffmann ⁵

Paper 19 (“Dec. on Inst.”).

Hoyt Augustus Fleming (“Patent Owner”) timely filed a Patent Owner Response (Paper 21, “PO Resp.”).⁶ Petitioner filed a Reply to Patent Owner

¹ The ’474 patent is a reissue of U.S. Patent No. 8,100,365 B2. See Ex. 1001, code (64).

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103, effective March 16, 2013. Because the application from which the ’474 patent issued was filed before this date, the pre-AIA version of § 103 applies.

³ Cirrus Design, Pilot’s Operation Handbook, SR22, Revision A7 dated Oct. 10, 2003 (Ex. 1007, “POH”).

⁴ U.S. Patent No. 6,460,810 B2 issued Oct. 8, 2002 (Ex. 1005, “James”).

⁵ U.S. Patent No. 7,584,928 B2 issued Sep. 8, 2009 (Ex. 1006, “Hoffmann”).

⁶ In its Patent Owner Response, Patent Owner states that “Patent Owner recently filed a Disclaimer with the Patent Office that disclaims claim 125. Ex. 2005.” PO Resp. 2. We discern that Exhibit 2005 is a “Disclaimer in Patent Under 37 CFR 1.321(a)” and indicates that claim 125 has been disclaimed. Accordingly, that claim is no longer regarded as part of the ’474 patent and is no longer involved in this proceeding. See 35 U.S.C. § 253 (2018) (disclaimer of claims considered effective as if part of original patent); 37 C.F.R. § 42.107(e) (“No *inter partes* review will be instituted on

Response (Paper 24, “Pet. Reply”). Patent Owner filed a Sur-Reply (Paper 26, “PO Sur-Reply”). Oral argument was conducted on June 29, 2021. A transcript of the oral argument appears in the record. Paper 30.

For the reasons set forth below, we determine that Petitioner has shown, by a preponderance of the evidence, that all of the remaining challenged claims are unpatentable. *See* 35 U.S.C. § 316(e).

B. Related Matter

The parties identify *Cirrus Design Corporation v. Fleming*, No. 0:19-cv-01286 (D. Minn.) as a related matter under 37 C.F.R. § 42.8(b)(2).

Pet. 1; Paper 5, 2. The parties also reference IPR2019-01566 (“the ’1566 IPR”), in which Petitioner challenged claims 2, 3, 8, 10, 15, 132 and 135–139 of the ’474 patent, and U.S. Patent Application Nos. 16/422,357 and 16/422,440, which are said to be continuations of the ’474 patent. Pet. 1; Paper 5, 2.⁷

C. The ’474 Patent

The ’474 patent is titled “Intelligent Ballistic Parachute System that Performs Pre-Activation and/or Post-Activation Actions.” Ex. 1001, code (54). The ’474 patent characterizes its disclosure as relating generally “to whole aircraft parachute systems.” *Id.* at 1:22. The Abstract of the ’474 patent is reproduced below:

disclaimed claims.”). Thus, claims 95–124 and 126–131 are the remaining challenged claims.

⁷ In a Final Written Decision in the ’1566 IPR, we determined that Petitioner had shown by a preponderance of the evidence that claims 137–139 of the ’474 patent were unpatentable based on the combined teachings of POH and James. *See* Ex. 1054.

An aircraft, the aircraft including a whole-aircraft ballistic parachute that is coupled to the aircraft. The aircraft determines if a pre-activation action needs to be performed before activation of the whole-aircraft ballistic parachute. The aircraft also receives a whole-aircraft ballistic parachute activation request. The aircraft then issues a command to perform the pre-activation action and then activates the deployment of the whole-aircraft ballistic parachute. The aircraft then issues a command to perform a post-activation action.

Id. at code (57).

Figure 14 of the '474 patent is reproduced below:

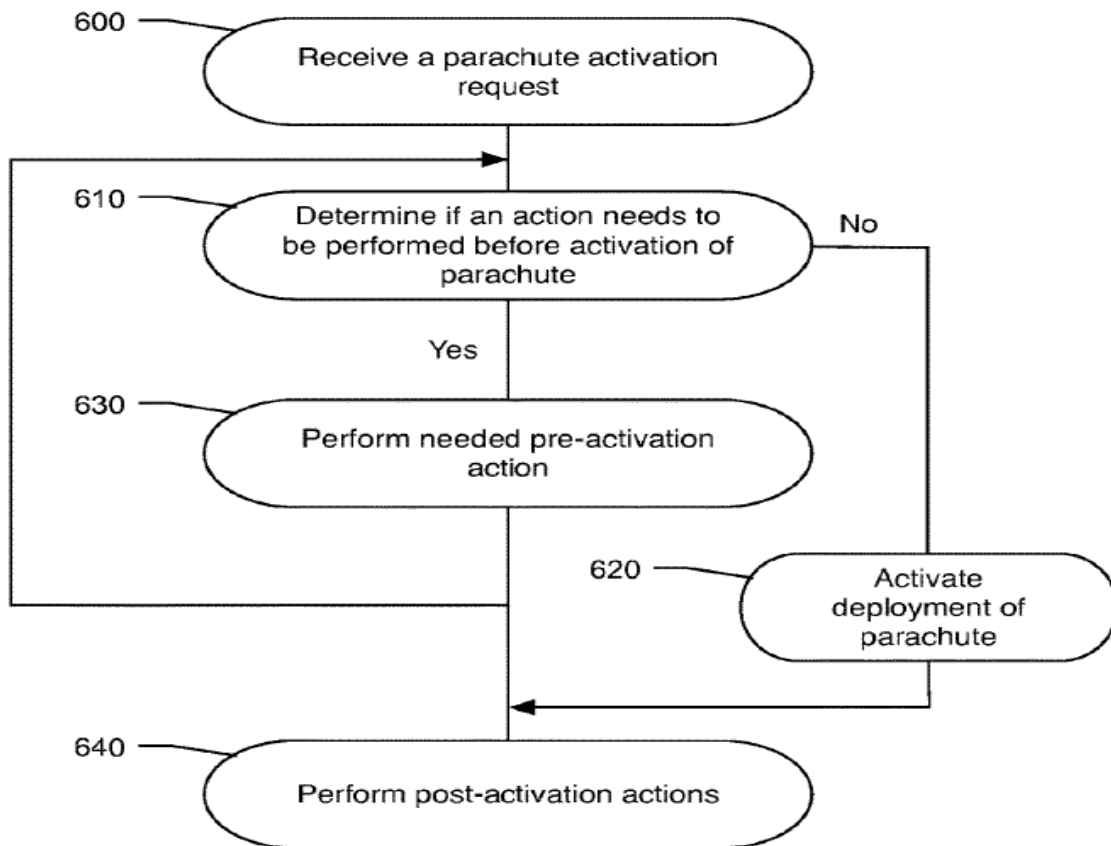


Figure 14

Figure 14 above is characterized as a flowchart of a method performed by “a system for increasing the safety of aircraft occupants.” *Id.* at 2:14–15.

D. Illustrative Claim

Of the challenged claims, claims 95, 101, 107, 113, 119, 125–128, 130, and 131 are independent claims. Claims 96–100, 102–106, 108–112, 114–118, 120–124, and 129 ultimately depend from one of those dependent claims.

Claim 95 is illustrative and is reproduced below.

95. An aircraft, the aircraft including:
a fuselage,
a whole-aircraft ballistic parachute, which includes a rocket, that is coupled to the fuselage of the aircraft,
an activation interface,
an airspeed sensor,
an altitude sensor,
a roll sensor,
an autopilot,
an aircraft engine,
one or more memories having machine-readable instructions stored thereon, and
one or more processors, each of the one or more processors configured to read and execute a portion of the machine-readable instructions;
wherein at least one of the one or more processors is coupled to the activation interface, at least one of the one or more processors is coupled to the airspeed sensor, at least one of the one or more processors is coupled to the altitude sensor, at least one of the one or more processors is coupled to the roll sensor, at least one of the one or more processors is coupled to the autopilot, at least one of the one or more processors is coupled to the aircraft engine, at least one of the one or more processors is coupled to the rocket, at least one of the one or more processors is coupled to the one or more memories;

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