UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

D.F., a minor, by and through his Guardian Ad Litem, TASHINA AMADOR, individually and as successor in interest in Alexis Fontalvo, deceased; and TANIKA LONG, a minor, by and through her Guardian Ad Litem, TASHINA AMADOR,

Plaintiffs,

v.

SIKORSKY AIRCRAFT CORPORATION; SIKORSKY SUPPORT SERVICES, INC.; UNITED TECHNOLOGIES CORPORATION; DUPONT AEROSPACE CO.; E.I. DUPONT DE NEMOURS AND COMPANY; AND DOES 1 through 100, Inclusive,

Defendants.

Case No.: 3:13-cv-00331-GPC-KSC

ORDER ON MOTIONS FOR SUMMARY JUDGMENT, MOTION TO EXCLUDE, AND MOTION TO STRIKE

[ECF Nos. 146, 160, 164, and 196-3]

(Redacted version filed publicly)

Before the Court are four motions. There are two motions for summary judgment, one filed by Defendant E.I. du Pont de Nemours and Co. ("DuPont") (ECF No. 160), and the other filed by Defendants Sikorsky Aircraft Corp., Sikorsky Support Services, Inc.

("SSSI"), and United Technologies Corp. (collectively, "Sikorsky") (ECF No. 164). Both motions are fully briefed. With respect to Sikorsky's motion, Plaintiffs filed an opposition on July 6, 2017 (ECF No. 173), and Sikorsky filed a reply on July 21, 2017 (ECF No. 190). With respect to DuPont's motion for summary judgment, Plaintiffs and Sikorsky filed separate oppositions on July 7, 2017. (ECF Nos. 176 (Plaintiffs), 179 (Sikorsky).) DuPont filed separate replies to each opposition on July 21, 2017. (ECF Nos. 194 (Plaintiffs), 196 (Sikorsky).)

Along with its reply to Sikorsky's opposition, DuPont filed an "objection and motion to strike," in which it asks the Court to disallow Sikorsky's opposition to DuPont's summary judgment motion. (ECF No. 196-3.) That motion is fully briefed. Sikorsky filed an opposition to DuPont's objection and motion to strike on July 28, 2017 (ECF No. 204), and DuPont filed a reply on August 1, 2017 (ECF No. 206).

The fourth motion before the Court is Sikorsky's motion to exclude two of Plaintiffs' experts, Arthur Lee Coffman and John Bloomfield. (ECF No. 146.) That motion is also fully briefed. Plaintiffs filed an opposition on June 23, 2017 (ECF No. 168), and Sikorsky filed a reply on July 21, 2017 (ECF No. 192).

On October 19, 2017, the Court issued a tentative ruling on these motions. (ECF No. 212.) The Court heard argument from the parties the following day. (ECF No. 214.) The Court now issues its final order on the motions. Based upon a review of the moving papers, the applicable law, and for the foregoing reasons, the Court hereby **GRANTS** DuPont's motion for summary judgment (ECF No. 160), **DENIES** DuPont's objection and motion to strike (ECF No. 196-3), **DENIES** Sikorsky's motion to exclude Plaintiffs' experts (ECF No. 146), and **GRANTS in part and DENIES in part** Sikorsky's motion for summary judgment (ECF No. 164).

I. Introduction

This case arises from a tragic and fatal accident that occurred at the Miramar Marine Corps Air Station on March 17, 2011. That day, U.S. Marine Corps Sergeant Alexis Fontalvo ("Fontalvo") was serving as an aerial observer for a CH-53E Super

Stallion helicopter that was being used for a training flight. Fontalvo's role included the responsibility of removing chocks and safety pins from the helicopter prior to flight. One of these safety pins was set in the left landing gear and served as a mechanical lock that prevented the landing gear from retracting. To remove this pin, Fontalvo got under the aircraft's left sponson. Under normal circumstances, the pin should come out of its slot easily. When Fontalvo attempted to remove pin, however, it resisted.

Without removing the left landing gear pin, Fontalvo moved to the left auxiliary fuel tank and removed a different safety pin. He then returned to the left landing gear, got under the left sponson again, and tried, for a second time, to remove the pin. This time Fontalvo was successful. But as soon as he removed the pin, the left landing gear retracted and the helicopter fell on top of Fontalvo. He died immediately.

Plaintiff D.F. is Fontalvo's son. Plaintiff T.L. is the daughter of Tashina Amador,[1] who was in a relationship with Fontalvo at the time of the accident. Amador and T.L. began living with Fontalvo around December 2007. (ECF No. 173-24 at ¶ 7.) On October 9, 2014, D.F. and T.L.—through Amador, as their guardian ad litem—filed the operative Second Amended Complaint ("SAC") in which they assert claims of strict product liability (as to design and manufacturing defects), negligent product liability (as to design and manufacturing defects), and negligence against Sikorsky and DuPont[2] relating to the companies' involvement in the design and manufacture of the CH-53E helicopter that killed Fontalvo.[3] (ECF No. 71.) Generally, the SAC alleges that Sikorsky is liable as the designer and manufacturer of the CH-53E helicopter, and that DuPont is

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[1] The parties' filings indicate that Tashina's last name at some point during the relevant period was Peshlakai. For purposes of consistency, the Court refers to her as "Amador."

[2] The SAC also asserts claims against G.E. Aviation Systems, LLC ("GE"), and PKL Services, Inc. ("PKL"). On June 20, 2016, the Court granted a joint motion to dismiss Plaintiffs' claims against G.E. (ECF No. 129), and on May 23, 2017, the Court granted summary judgment in favor of PKL (ECF No. 144).

[3] The SAC also asserts as a separate cause of action a survivor action by D.F. under Cal. Civ. Code § 377.11 et seq.

liable as the manufacturer of "Kapton" wiring insulation that was used in the landing gear system.

II. Relevant Evidence

A. CH-53E Design and Development

The CH-53E is a successor version of the CH-53A, CH-53D, and RH-53D Navy helicopters. (ECF No. 164-11 at 3 ¶ 4.) In the late 1960s and early 1970s, the Navy began to develop what would become the CH-53E when they sought to build a heavy-lift helicopter "in order to increase tactical mobility and provide much greater payload capacity." (Id.) A Navy Development Plan issued in 1972 stated that the CH-53E should "retain maximum commonality with the existing CH-53D helicopter." (ECF No. 164–12, Ex. 2, at 12.)

NAVAIR—the Navy authority that handles the design, development, and production of Navy and Marine Corps aircrafts—awarded Sikorsky several contracts to design and produce prototypes of the CH-53E. (ECF No. 164-11 at 4–6 ¶¶ 6–7.) In developing the CH-53E, "NAVAIR officials and engineers held hundreds of meetings with Sikorsky engineers and program management personnel on all aspects of the design specification, including items that would be changed from the CH/RH-53D." (Id. at 6 ¶ 8.) NAVAIR "reviewed all the engineering drawings, test plans and test reports in detail," including "technical interchange meetings" to ensure compliance with NAVAIR's specifications. (Id.)

In 1978, the Navy and Sikorsky began signing production contracts, under which Sikorsky would build the helicopters according to NAVAIR's master design instructions called "detail specifications." (Id. at 7–8 ¶ 13.) Sikorsky eventually produced 229 helicopters in total, separated into 21 production "lots." (Id.)

The helicopter involved in Fontalvo's accident—referred to as "BUNO 163077"—was part of Lot 12, and was manufactured according to the designs set forth in Detail Specification SD-552-3-9. (Id. at 8 ¶ 14; see ECF Nos. 155-19, 155-20.) SD-552-3-9 incorporated MIL-W-5088F, the specification for wiring in military aerospace vehicles.

(ECF No. 164-11 at 8 ¶ 14; see ECF No. 155-21, Ex. 11 (copy of MIL-W-5088F.) [redacted] (ECF No. 155-18 at SIK006938.)

The Navy closely monitored Sikorsky's production process by reviewing and approving all pre-production drawings and flight tests, conducting quality inspections, reviewing the "build file," ensuring compliance with the detail specifications, and stationing on-site personnel who inspected and tested the completed aircrafts. (ECF No. 164-11 at 8–9 ¶ 16.) On September 30, 1990, NAVAIR accepted BUNO 163077 into its fleet. (Id. at 9 ¶ 18.)

i. BUNO 163077's Landing Gear System

The CH-53E landing gear system—which operates a front gear and two side gears—includes five "interlocks" designed to prevent inadvertent gear retraction: two in the cockpit (a landing gear control handle and a mechanical lock), two independent "weight-on-wheels" switches (one on the left and right landing gears, which prevent gear retraction if they sense the weight of the aircraft), and a series of "separate mechanical landing gear safety pins, one for each landing gear." (Id. at 3–4 ¶ 5; see also ECF No. 173-8 at 3–5 ¶¶ 10–12.) Wiring runs from the cockpit's landing gear control system to the gear's hydraulic utility module, which, when activated with a power source of 28VDC, retracts the gear. (ECF No. 173-8 at 5–6 ¶ 15.) The mechanical landing gear safety pins are "downstream" of the other interlocks. In other words, once the utility module is activated electronically, the only interlock that can prevent gear retraction is the landing gear safety pin. (Id.)

According to Manning Stelzer—Sikorsky's engineering investigator—when the utility module for the BUNO 163077 was fabricated, there were short segments of wire already connected to the module's plug connectors. (ECF No. 173-12 at 118–19.) Stelzer refers to these pieces of wire as "pigtails." (Id. at 119.) The pigtails connected to BUNO 163077's utility module are made of "Spec-55" wire. (ECF No. 173-9 at 2.) At

the opposite end of the pigtail, the wire is spliced into "Kapton" wire, the common name for polyimide-insulated wire manufactured by DuPont. (ECF No. 183-8 at 6.) Kapton wire then runs from its splice with Spec-55 through the aircraft, into a relay point on an electronics bay referred to "J677," and into the landing gear control panel in the cockpit. (See ECF No. 183-1.) Thus, the wire that runs from "P494"—the point of connection to the utility module for the up-command wire—to the landing gear control consists of 70 inches of Spec-55 and 367 inches of Kapton. (ECF No. 155-26 at 2; ECF No. 173-10 at MIL073203 (indicating that P494 connects to the "Up Landing Gear Control Valve").)

Kapton wire is identifiable as an "amber" color, and Spec-55 wire is white. (See ECF No. 173-14 at 38–39 (photos of Spec-55), 44 (photo of Kapton); ECF No. 183-8 at 6.) Spec-55 contains no Kapton. (ECF No. 173-12 at 254.)

ii. Development of the Landing Gear System

According to Navy representative Leslie Leigh, as Sikorsky developed its design for the CH-53E, it would provide NAVAIR with all wiring schematics, which NAVAIR would in turn review and, if needed, demand changes. (ECF No. 164-5 at 98–100.)

According to John Wakefield—Sikorsky's "CH/MH-53E Program Manager" between 1988 and 2000—NAVAIR and Sikorsky conducted hundreds of hours of flight tests, during which "all aspects of the helicopters were tested, including sub-system evaluations." (ECF No. 164-11 at 2 ¶ 1, 7 ¶ 10.) In Wakefield's deposition, however, he conceded that he did not observe any correspondence between NAVAIR "concerning the development of the interlock system of the landing gear of the CH-53E." (ECF No. 173-6 at 82.) Wakefield also admitted that he had no documentary evidence that (1) NAVAIR reviewed or approved "any detail of the landing gear wiring harness of the CH-53E"; (2) that "Sikorsky ever provided engineering data to the Navy with respect to the risk of an inadvertent landing gear retraction in the event of a short circuit"; (3) that the "Navy's test pilots or aerospace engineers ever contributed to the development of the landing gear wiring harness"; or (4) that the Navy flight test center ever provided deficiencies "relating to the landing gear or its wiring harness." (Id. at 136–41.)

a. Kapton Wiring

Wakefield states that, in the mid-to-late 1970s, NAVAIR altered its Detail Specification for the CH-53E by requiring that Kapton wire be incorporated into all CH-53E electrical harnesses. (ECF No. 164-11 at 7 ¶ 12.) To demonstrate that NAVAIR prompted this switch to Kapton, Wakefield points to a "Production Helicopter Sub-System Design Report" prepared by Sikorsky on September 9, 1977, which is labeled "SER-13300." (ECF No. 155-16.) The report's introductory section explains that the document contains a summary of the "system differences" from Sikorsky's previously-proposed CH-53E prototype that had been "agreed to by NAVAIR and Sikorsky Aircraft personnel," and that it also "presents a brief description of those options that may be procured." (Id. at SIK013513.) Wakefield points to a section—which appears to be in the portion describing changes agreed to by NAVAIR—stating that all electrical wiring should be replaced with Kapton wire in accordance with MIL-W-81381. (Id. at SIK013611.) MIL-W-81381 is the military specification for polyimide insulation. (See ECF No. 183-8 at Appendix C.) Plaintiffs dispute the assertion that NAVAIR requested the switch to Kapton, and point out that the report, which was prepared by Sikorsky, demonstrates at most that Sikorsky proposed these changes. (ECF No. 173-1 at 16 ¶ 24.)

Regardless of who first proposed the switch to Kapton, it is undisputed that SD-552-3-9 required that BUNO 163077 contain Kapton wiring. (ECF No. 155-20 at SIK007125 ¶ 3.16.5.)

b. Wiring Configuration

According to Wakefield, the landing gear control system in the CH-53E is the "same design" as the CH-53A, CH-53D, and RH-53D because the cockpit and weight-on-wheels interlocks are "wired into the same electronic wiring system" and there are separate mechanical safety pins. (ECF No. 164-11 at 4 ¶ 5.) Wakefield concedes, however, that there are "minor differences due to the size of the aircraft and use of Kapton wire and a hydraulic utility module in the CH-53E." (Id.)

According to Sikorsky's expert James M. Knox, the "basic design" of the CH-

53E's landing gear control system between is "virtually identical from a systems standpoint" to the CH-53D's. (ECF No. 164-9 at 3 ¶ 8.) Knox states that the "wire routing, bundling, and securement of the landing gear control wires is substantially identical in the CH-53D and CH-53E with minor differences due to the different size of the helicopters and not the routing or securement of the electrical wire bundles." (Id. at 4 ¶ 12.) One difference Knox notes is that while the CH-53E's utility module is a "single assembly," the CH-53D "had these components but separated and mounted to a panel, rather than a single module." (Id. at 3 ¶ 9.) Whereas the CH-53E module "is one big unit," Knox explains, the CH-53D "has several subsections, all mounted more or less together, but [it wasn't] one unit." (ECF No. 173-7 at 50.) As a result, in the CH-53D landing gear harness the wires were "spread out more because they're different pieces of this module." (Id. at 51.) Knox noted, however, that the landing gear "up and down valve" was still one "sub-assembly" in the CH-53D. (Id. at 52.) In sum, according to Knox, the main difference in the CH-53E was that "a number of different hydraulic systems or hydraulic valves" were placed into a single module. (Id. at 52–53.)

Plaintiffs dispute that the CH-53E's landing gear design is the same as its predecessors' designs. They offer a declaration by John Bloomfield, who identifies a difference beyond what Knox described above. According to Bloomfield, whereas the CH-53D and RH-53D had both up- and down-command landing gear controls connected to the utility manifold "via a single plug, designated 'P499,'" the CH-35E has its up- and down-command wires connected to the utility manifold "via separate plugs, designated 'P494' and 'P495.'" (ECF No. 173-4 at 2 ¶ 5.)[4] Bloomfield asserts that the CH-53E's "unique" wiring configuration is what caused the accident, "because the wire strands leading to plugs P494 and P495 became denuded due to friction and charging, permitting

[4] Bloomfield depicts this difference by attaching copies of the wiring schematics for the CH-53D and RH-53D (ECF No. 183-2) and the CH-53E (ECF No. 183-3). In each, the utility manifold is highlighted in yellow. The CH/RH-53D vehicles' single-plug is depicted in pink (see ECF No. 183-2), whereas the CH-53E's double-plug is depicted in green and pink (see ECF No. 183-3).

a short-circuit." (Id. at 3 ¶ 6.) Plaintiffs also offer the declaration of former Marine Corps Colonel William Lawrence, who asserts that there are "discernible" differences between the schematics of the landing gear systems wiring in the CH-53D and CH-53E. (ECF No. 173-3 at 4 ¶ 11.) The only specific differences Lawrence identifies, however, is the one noted by Knox; that is, the consolidation of the "hydraulic manifold components into a single unified 'module.'" (Id. at 4 ¶ 10.)

More generally, Lawrence notes that the CH-53E has one more engine than the CH-53D (the CH-53D had two engines; the CH-53E has three), and as a result there must have been a "significant overhaul of the physical and functional configurations of both the wiring and hydraulic systems." (Id. at 4 ¶ 9.) He asserts that NAVAIR had no input into "how any these changes would be accommodated"; rather, "the design and implementation of these substantial changes was specifically left entirely to the discretion of Sikorsky." (Id.) But the only specific change Lawrence points to in his declaration is the shift to a unified module, discussed above. (Id. at 4 ¶ 10.)

Sikorsky asserts that any departures from the design of the CH-53D was "reviewed and approved by NAVAIR." (Def.'s SOF, ECF No. 164-2 at 11–12 ¶ 32.) In support of that assertion, Sikorsky points to Wakefield's description of the interactive process between NAVAIR and Sikorsky on all issues of design, during which "[r]esolution and design decisions were always made by NAVAIR." (ECF No. 164-11 at 7 ¶ 10.) As with the switch to Kapton, Sikorsky also points to SER-13300 (Sikorsky's report to NAVAIR discussed above), which states that Sikorsky would "study" ways to reduce the airframe weight. (ECF No. 155-16 at SIK013664.) Sikorsky also points to a statement in SER-13300, in which Sikorsky asserts that it will provide NAVAIR with approximately 90 "wiring installation drawings to show clamping, routing and mounting." (Id. at SIK013611.)

Plaintiffs dispute Sikorsky's assertion that NAVAIR reviewed and approved the new design of the CH-53E's landing gear wiring, and point out that neither Wakefield's description of the development process nor SER-13300 actually prove that NAVAIR

spent any significant amount of time reviewing Sikorsky's design decisions. (ECF No. 173-1 at 21–22 ¶ 32.) In fact, Lawrence asserts in his declaration that after reviewing Sikorsky's "documentary productions," he could "confidently say that there is no evidence there was any back-and-forth deliberative process between the Navy and Sikorsky in which the government exercised any design decisions regarding how the landing gear control system would be configured and implemented in the CH-53E, or, for that matter, in the CH-53D." (ECF No. 173-3 at 3 ¶ 6.) According to Lawrence, there was no Navy discretion "regarding the placement or routing of the wiring harness, the schematics of the landing gear control system, the interconnections with the hydraulic utility module, [or] the safety interlock system." (Id.) Lawrence points specifically to the absence of a signature in the block reserved for a "government" official on the CH-53E's landing gear schematic discussed in Bloomfield's declaration (see note 4, supra) as evidence that NAVAIR was not involved in developing the wiring harness. (ECF No. 173-3 at 5 ¶¶ 13–14; see ECF No. 183-1).

iii. Wiring in BUNO 163077

According to Wakefield, Navy personnel inspected and confirmed that BUNO 163077 met all of SD-552-3-9's requirements. (ECF No. 164-11 at 9 ¶ 17.) Plaintiffs dispute this assertion. They contend that the wiring in the landing gear did not conform to MIL-W-5088F's requirement [redacted] (ECF No. 155-21 at MIL210472.)

In support of their contention that BUNO 163077 did not conform to SD-552-3-9, Plaintiffs point to three pieces of evidence. First, the Navy Air Mishap Board's report,

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[5] [redacted]

which states that [redacted] (ECF No. 183-4 at MIL073523 ¶ 50.) Next, they point to the report of Staff Sargeant Robert Wuthrich—who was asked to troubleshoot and identify potential issues in the aircraft (ECF No. 183-8 at 8)—in which he notes that "the wires on the Down Control were tight and without proper strain relief." (ECF No. 173-10 at 1.) Finally, Plaintiffs point to Bloomfield's deposition, in which he states that in his view Sikorsky did not comply with MIL-W-5088F because the wires in the harness were not "supported properly" in order to avoid chafing.[6] (ECF No. 173-22 at 192.)

iv. Issues with Kapton

While Kapton was "widely hailed for its insulating properties" when first developed by DuPont, it turns out "that Kapton insulation suffers substantial degradation when subjected to abuse, moisture, heat, and acidic environmental contaminants." (ECF No. 173-14 at 26–27.) Soon after the Navy began operating CH-53Es—but prior to BUNO 163077's production—it became clear that Kapton degradation was causing widespread electrical interconnection issues in military aircrafts. (ECF No. 164-11 at 9 ¶ 22.) A 1981 NAVAIR letter noted that "[t]he maintainability and durability aspects of our current aircraft wiring systems have been compromised by the use of polyimide type wire." (ECF No. 155-21 at MIL259031.) In December 1981 and November 1986, Sikorsky issued requests to NAVAIR that Sikorsky be permitted to propose a plan to replace Kapton wiring with Spec-55 wire. (Id. at MIL259030–32, MIL247341–42.) The Navy declined these requests because replacement would be too costly. (ECF No. 164-11 at 9–10 ¶ 22.) In November 1998, Sikorsky again proposed replacing the wiring in all aircrafts; in response, the Navy decided to further explore the issue. (ECF No. 155-22 at

[6] As a fourth piece of evidence, Plaintiffs cite a report prepared by their expert Arthur Lee Coffman. But the cited portion of Coffman's report just repeats Wuthrich's conclusion that the wires exhibited improper strain relief. (See ECF No. 173-9 at 3.)

MIL127080.)

In 1989, the Navy issued a new detail specification, SD-552-3-10, which prohibited the use of Kapton wire. (ECF No. 155-22 at SIK018366–67.) This meant that all CH-53Es produced in Lots 13 and above would not have Kapton. (ECF No. 164-11 at 10 ¶ 23.) BUNO 163077, however, was part of Lot 12, and thus was still subject to SD-552-3-9's requirement that Kapton be used. (Id.) At the time it issued its new SD-552-3-10, the Navy did not approve any program to replace the Kapton wiring in existing aircrafts from Lots 1 through 12. (Id. at 10 ¶ 24.)

On February 6, 1989, the Navy issued a memorandum calling for the use of non-Kapton wiring in "repair[s], modification[s], engineering changes and replacements" of existing aircrafts. (ECF No. 155-22 at MIL000006 ¶ 2.) The memorandum also stated that it was acceptable to mix wire types in the same "bundle, cable, or harness." (Id. ¶ 4.) Sikorsky relies on the February 1989 memorandum to suggest that the portion of Spec-55 in BUNO 163077 that was involved in Fontalvo's accident was the result of Navy maintenance performed after Sikorsky delivered the aircraft. In response, Plaintiffs insist that the Spec-55 portion was part of the original aircraft as a pigtail. They point to the Mishap Board's report, which states [redacted]

[redacted]

(ECF No. 183-4 at MIL073523 ¶ 45.)

According to Wakefield, even if Spec-55 wire was part of BUNO 163077's original production, the Navy approved this variance from the Kapton requirement because at the time there was a shortage of Kapton wiring. (ECF No. 164-11 at 11 ¶ 25; see ECF No. 155-22 at SIK003880–82 (Navy approval).) Plaintiffs dispute that assertion, pointing to Stelzer's deposition in which he states that Kapton-Spec-55 splice was "specified that way by the designers." (ECF No. 173-12 at 118–19.)

The Navy later initiated a Kapton Replacement Program, but insufficient funding has delayed the project. (ECF No. 164-6 at 78.) The replacement plan includes three phases; the CH-53E's wiring harness is in the third phase. (ECF No. 155-24 at

MIL073016 ¶¶ 70–73.) The current target date for full replacement is fiscal year 2017. (Id. at ¶ 71; ECF No. 164-6 at 102.)

In 2009, the Navy issued a report documenting the history of Kapton-related problems. (ECF No. 155-28.) The report described issues such as [redacted] (Id. at MIL230432.) The report author found 54 incidences attributable to Kapton wiring. (Id. at MIL230430.) Most notable of those incidence was an accident in 2005 when a Kapton-wiring malfunction caused a CH-53E to inadvertently retract its landing gear while the helicopter was taxiing. (Id. at MIL230435–36.) Despite the report's determination that Kapton-related risks were "serious" and its explicit warning that Kapton could cause "an inadvertent landing gear retraction while the aircraft is on the ground," Navy leadership responded to the report by "accepting" these risks. (Id. at MIL230430–31, MIL230434.).

B. Accident Investigations

The parties appear to agree that the landing gear's retraction was the result of an inadvertent energization of a degraded portion of the up-command control wire. (See ECF No. 190-1 at 12 ¶ 38 (Sikorsky not disputing this assertion in its responsive statement of facts).) How that occurred, however, is the primary dispute in this case. Seeking to capitalize on the military's insistence on the usage of Kapton—so as to utilize the military contractor defense—Sikorsky argues that it was Kapton wire that inadvertently energized the up-command wire. Plaintiffs contend there is at least a genuine dispute as to whether that was the case.

i. Military Investigations

The Navy's Air Mishap Board investigated Fontalvo's accident and issued a Safety

Investigation Report (the "SIR"). (ECF No. 183-4.) The Marine Corps issued a "Command Investigation" with findings of fact and opinions as to the cause of the accident.[7] (ECF No. 155-24.) NAVAIR also issued an "EI Final Report" on September 29, 2011." (ECF No. 183-10.)

The SIR offers five relevant findings: [redacted]

The Command Investigation report author noted that Fontalvo's accident appeared to be similar to the 2005 incident. (ECF No. 155-24 at 11 ¶ 66 (relying on ECF No. 155-25 at MIL073216–266).) The report author found that there was degradation on "both sections of the length wire in question." (Id. at 11 ¶ 63.) [redacted]

The Command Investigation relied on a narrative prepared by Staff Sergeant Wuthrich. (ECF No. 173-10.) Wuthrich noted that "the tension of the wires on the

[7] [redacted]

Down Control were tight and without proper strain relief and pin A of 495 had two wear through spots w[h]ere the wires came in contact with the Up Landing Gear Control Valve Cannon Plug." (Id. at 1.)

ii. Parties' Experts and Other Non-Military Reports

After the military inspected BUNO 163077, it removed the damaged wires and repaired the aircraft. (ECF No. 173-14 at 27–28.) The military permitted the parties' experts to examine the repaired aircraft and damaged wiring. (Id. at 27–28, 35.)

a. Plaintiffs' Experts and Related Evidence

Plaintiffs offer the opinions of two experts in support of their position that Kapton was not responsible for Fontalvo's accident: Arthur Lee Coffman and John Bloomfield. Coffman suggests in his report that the damage to the Kapton wire, which was "consistent with scraping and tearing due to being removed from the helicopter after the accident," did not exist at the time of the accident. (ECF No. 173-9 at 2.) In fact, Coffman reports, the Kapton wiring "exhibited a very low degree of age related deterioration as compared to the wire sections inspected during the 2005 [Kapton-related] accident." (Id.) By contrast, the Spec-55 pigtails at pins P494 (the "up" landing gear valve) and P495 (the "down" valve) "exhibit[ed] signatures consistent with chaffing" because "[t]he damaged wire coating of the Spec-55 wire ha[d] smooth appearing edges with a lack of tearing and ripping signatures." (Id. at 3.) Coffman notes that "[t]he chaffed areas were worn through the coating exposing the bare wires," which in turn exhibited signatures "consistent with chaffing and some areas of electrical arcing." (Id.) Such "arcing would have created an intermittent unpredictable electrical signal being sent to the main landing gear hydraulic retraction system." (Id.)

Coffman also asserts that the "installation of the main landing gear hydraulic wiring" did not comply with MIL-W-5088F ¶ 3.11.7 (Id.) That provision requires [redacted] (ECF No. 155-21 at MIL210477.) Thus, "[t]o a reasonable degree

of probability," Coffman opines, "the non-compliant installation and damage to the subject Spec-55 wires, due to chaffing, caused an intermittent fatal short, arcing, and uncommanded activation of the main landing gear retraction system." (ECF No. 173-9 at 3–4.)

Bloomfield offers a similar opinion. In his report, Bloomfield states that "the only sections of wire showing damage sufficient to allow a short like the one that occurred[] were segments of non-Kapton wire leading immediately to the plugs energizing the 'up' and 'down' solenoids." (ECF No. 173-8 at ¶ 16.) He explains that the "up" and "down" solenoids

> are immediately adjacent to each other, and the wire terminus for each is simply a loose strand of isolated wire, meaning that the loose wires intended to energize the 'up' and 'down' solenoids are permitted, by virtue of the design of the wiring harness and utility module, to come in direct contact with the metal features of the utility module, as well as with each other.

(Id. at ¶ 17.) This configuration, according to Bloomfield, "allowed stray 28VDC electrical power to pass directly from the 'down' wire path into and to energize the 'up' wire to the 'up' solenoid in the hydraulic utility module."[8] (Id. at ¶ 18.)

Plaintiffs also point to the report of Joseph R. Reynolds, a principal forensic engineer hired by DuPont. Reynolds asserts that [redacted] and [redacted]

[8] With respect to the wire bundling in the CH53E, Bloomfield states that "[i]t is foreseeable to the point of inevitability that any single wire path will become compromised during the lifespan of an aircraft, due to the normal vibration and chafing that occur during normal aircraft operation," (id. at ¶ 22), and that "the wires energizing the 'up' and 'down' valves of the hydraulic utility module should have been physically separated, especially considering that both wire paths use the same voltage (28 VDC) and command opposite functions" (id. at ¶ 23). He also suggests that Sikorsky could have connected a radio altimeter to the landing gear to prevent inadvertent retraction when the aircraft was below a certain altitude (id. at ¶ 24), and, to avoid what happened to Fontalvo, configuring the safety pins to have a longer cable so that the servicemember would not have to come under the aircraft in order to remove the safety pin (id. at ¶ 25).

[redacted] (ECF No. 183-8 at 16–17 ¶¶ 8, 9.) In contrast to Sikorsky's assertions that Kapton wire was involved in arcing, [redacted] (Id. at 15; see id. at 12–15.)

In a Materials Engineering Report dated May 13, 2011, a Sikorsky representative indicated that, except for specific sites, the Kapton wiring in BUNO 163077 was "in very good general condition." (ECF No. 155-25, "Enclosure 41," at 3.) "Notably," the report states, "none of the radial cracking associated with aging" found in the helicopter involved in the 2005 accident was found. (Id.) The report author did, however, note specific instances where the Kapton wiring was damaged, and that a few of these damaged portions demonstrated evidence of arcing. (Id. at 3–8.) The author concluded that, in such damaged areas, "a path may [have] be[en] created for conductive moisture between the conductor of a powered wire and that of another wire where power would ordinarily not be present." (Id. at 8–9.)

b. Sikorsky's Expert and Related Evidence

In Knox's Rule 26 report, he notes that there were "several small nicks" in the Spec-55 wire connected to P494-A, two of which "were visibly damaged into the conductive strands." (ECF No. 173-14 at 37.) He also notes that along the Kapton segment of the up-command wire there were sections where the outer insulation had deteriorated and the inner insulation had been "delaminated, with clear signs of intrusion by foreign liquids," and two areas where the insulation was missing entirely. (Id. at 42–

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[9] [redacted]

43.) As for those two areas, however, Knox cannot say whether they were the remains of a "previous splice to another circuit, or a chafed portion." (Id. at 43.) Knox examined the wires under a Scanning Electron Microscope, which permitted an Energy Dispersive S-Ray Analysis ("EDX"). (Id. at 48.) He concludes that "while several areas may or may not have been representative of arcing, none were confirmed by the EDX." (Id. at 52.) Knox also put the larger wire segments through a "leakage test," in which he immersed the wire in water and measured any penetration of the water to the surface of the conductive material, which indicates "reduced resistance." (Id. at 52.) The Spec-55 wires connected to P494 and P495 and the Kapton portion of the up-command wire tested positive for leakage. (Id.)

Knox offers three possibilities of how the inadvertent energization of the up-command wire could have occurred. The first option is direct contact between a bare spot on the up-command wire and "another conductor, either a contact pin or a bare spot on another adjacent wire, which was energized (either correctly or incorrectly)." (Id.) Knox notes that while the Spec-55 wire connected to P494-A had no arc marks or material transfer, direct contact with the "interior strands of another wire would not be expected to produce such signs, unless such contact were repeatedly made, or under much higher power than is required to activate the [utility module]." (Id.) Because the military investigators could not determine whether the bare wire spots "could be forced to come into contact with any energized wires at the time of the accident," Knox "reasonably exclude[s]" that possibility. (Id.) The second option is arcing "through a normal or compromised insulation [such as air] if the potential is high enough or the insulating material is poor enough." (Id. at 55.) While it is unlikely that a "free air arc" occurred because the electrical system is only 28 volts, Knox explains, other conductors could have caused arcing. (Id.) Knox points specifically to the possibility of a "flashover" caused by salt spray, mist, fog, and high humidity. (Id.) Third, Knox suggests that leakage could have caused an electrical current or, in the case of hydraulic fluids leakage, an inadvertent mechanical retraction. (Id. at 56–58.) As an aside, Knox

states that there is a possibility that a three-wire connection was made in which an energized wire came into contact with a second, previously-non-energized wire, which then connected to the up-command wire. (Id. at 59.)

Knox also offers an opinion on "whether the relevant insulation damage was more likely to be in the Kapton or the Spec-55 wire." (Id. at 59.) Because both sections of wire were damaged, Knox states he can offer only probabilities as to which section was responsible. (Id.) Knox finds Spec-55 to be an unlikely culprit because a "cam limit switch" would have prevented electricity from running through the down-command wire while the helicopter was resting on the ground with the gear was down and locked. (Id. at 59–60; see also ECF No. 164-9 at 4–5 ¶ 13 (Knox further explaining the function of the cam limit switch and citing the government's CH-53E manual, which states "[w]hen all gears are down and locked, each associated cam lock limit switch . . . deenergizes [and] establish[es] a hydraulic lock for the landing gear in the down position").) Knox then reiterates Kapton's long history of deterioration and causing accidents. (ECF No. 173-14 at 59.) "Given the history of the Kapton wiring," Knox concludes, "and given that there is much more Kapton insulated wiring in the suspect circuitry than there is Spec-55 . . . , it is more likely than not that the piece of damaged wiring which allowed energy into the P494-A circuit was insulated with Kapton." (Id.)

C. Fontalvo's Training

Fontalvo was an Airframe Collateral Duty Quality Assurance Representative. This qualification required "significant exposure and a working mechanical knowledge of the landing gear system." (ECF No. 155-24 at 7 ¶ 30.) Fontalvo was trained, at least in part, by CH-53 crew chief division instructor Jeremiah Wilcox when the two servicemen were stationed in Okinawa. (ECF No. 164-4, Ex. B, at 15–17.) According to Wilcox, he instructed Fontalvo during training that if a landing gear safety pin in a CH-53E helicopter offers resistance, "you should not try to force it out or pull it out." (Id. at 17–18; see also id. at 35–36, 56.)

According to the Command Investigation, however, [redacted]

[redacted] Moreover, according to the NCIS report, [redacted] While the crew chief [redacted] The Command Investigation author nonetheless concluded that [redacted]

Plaintiffs deposed many of Fontalvo's peers who were on active duty at the time of the accident. All indicated that, at the time of the accident, they were never instructed about the danger of a resisting landing gear safety pin. (See ECF No. 173-15 (Captain Micah Hamilton) (stating that he "would have kept pulling" on a resisting pin and would not have notified a crew chief); ECF No. 173-16 (Lance Corporal Charles William Coffin) (testifying that he was never "taught or trained on what to do" if the safety pin resisted); ECF No. 173-17 (Sergeant Christopher A. Danley) (same); ECF No. 173-18 at 117 (Sergeant and crew chief Evan Reid Shelton) (discussing a time he forced out a safety pin); ECF No. 173-19 (Captain Justin Brown) (indicating he was never taught what to do with a resisting pin).)

D. T.L.'s Relationship to Fontalvo

On November 10, 2000, Tashina Amador gave birth to T.L. (ECF No. 164-6, Ex. H, at 43.) T.L.'s biological father is Delvin Long. (Id.) Amador and T.L. began living with Fontalvo around December 2007. (ECF No. 173-24 at ¶ 7.) In her 2010 federal tax

return, Amador indicated that she was the head of her household and that T.L. was her qualified dependent. (ECF No. 164-6, Ex. H, at 138–39.) When asked at her deposition to estimate the percentage of T.L.'s support that Fontalvo provided, Amador answered "about 60 percent." (Id. at 81; see also id. at 141 (Amador indicating that she paid about 40 percent of T.L.'s support in 2010).) In 2010, Fontalvo made $30,046.30 (ECF No. 173-27 at DF-000693), and Amador made $28,766 (ECF No. 173-28).

Sikorksy contends that T.L. was not dependent upon Fontalvo for 50% or more of her support in the 180 days prior to Fontalvo's death. (ECF No. 164-2 at 21 ¶ 63.) It points to three pieces of evidence. First, it cites Amador's deposition, in which she says that Delvin Long did not support T.L. financially before 2006 or after August 2006. (ECF No. 164-6, Ex. H, at 45–46.) Second, Sikorsky points to the deposition of David Todd Fractor, Ph.D., in which Fractor states that he "believed"—without looking at Amador's "earnings and housing allowance in relation to what she spent on" T.L.—that if Amador was not in a relationship with Fontalvo, she would have been able to provide for T.L.'s support. (ECF No. 164-6, Ex. K, at 65–66.) Third, Sikorsky cites Amador's 2010 tax return, described above.

E. Plaintiffs' Complaint

Plaintiffs allege that Sikorsky defectively designed and manufactured the landing gear system by configuring it such that "the wiring harness and wire path leading from the landing gear controls to the landing gear assembly, which juxtaposed a crucial wire bundle and pin 494 . . . in a position downstream of any and all interlocks and failsafes capable of preventing gear retraction in the event of unplanned energization." (Id. at 6 ¶ 13, 9–10 ¶¶ 25–27, 13–14 ¶ 37, 16 ¶ 43, 18–19 ¶ 50.) They also allege that DuPont defectively designed and manufactured the Kapton wiring insulation used in the CH-53E in light of "its susceptibility to corrosion, degradation, deterioration, wear, alteration upon contact with water, carbonization upon exposure to heat, and disintegration," which "rendered the wiring leading from the landing gear controls prone to arcing events, arc tracking, flashover, deflagration, and other unplanned conduction and energizing events."

(Id. at 6–7 ¶ 14, 10–11 ¶¶ 28–29, 14 ¶ 38, 16–17 ¶ 44.) Plaintiffs pursue theories of strict products liability with respect to design and manufacturing, negligent products liability with respect to design and manufacturing, and general negligence.

III. DuPont's Motion for Summary Judgment

A. Plaintiffs' Non-Opposition Entitles DuPont to Summary Judgment

DuPont moves for summary judgment on the grounds that (1) DuPont's actions did not cause Fontalvo's death because it was degradation in the Spec-55 wire—not Kapton wire—that caused the inadvertent landing gear retraction, and DuPont did not manufacture Spec-55; (2) even if there is a dispute as to whether DuPont-made wiring caused the accident, the military contractor defense shields DuPont from liability; and (3) T.L. lacks standing to assert a wrongful death claim in this case because she cannot satisfy Cal. Civ. Code § 377.60(c)'s requirement that she depended on Fontalvo for one-half or more of her support. (ECF No. 160-1.)

In their response brief, Plaintiffs state the following: "Plaintiffs take no position on [DuPont's causation argument] for purposes of the Motion, and submit this Opposition as to" DuPont's military contractor defense and § 377.60(c) arguments only. (ECF No. 176 at 1.) In other words, Plaintiffs offer no opposition to DuPont's assertion that it is entitled to summary judgment on the ground that DuPont's actions did not cause Fontalvo's death.

In light of Plaintiffs' non-opposition, DuPont is entitled to summary judgment. There is no longer a dispute between Plaintiffs and DuPont over the issue of whether DuPont's actions caused Fontalvo's death. Causation is an essential element of Plaintiffs' tort actions against DuPont. See, e.g., Whiteley v. Philip Morris Inc., 11 Cal. Rptr. 3d 807, 858 (Cal. Ct. App. 2004) ("In the context of products liability actions, the plaintiff must prove that the defective products supplied by the defendant were a substantial factor in bringing about his or her injury."). Because "there is no genuine dispute as to [the] material fact [of causation] and [DuPont] is entitled to judgment as a matter of law," this Court "shall grant summary judgment." Fed. R. Civ. P. 56(a).

B. Sikorsky Cannot Prevent Summary Judgment to DuPont

Sikorsky objects to DuPont's summary judgment. In an opposition to DuPont's motion, Sikorsky contends that the Court should not grant DuPont summary judgment because there is a genuine factual dispute as to whether DuPont's Kapton wire caused the accident that killed Fontalvo. (ECF No. 179) According to Sikorsky, regardless of whether Plaintiffs oppose DuPont's motion, if a reasonable jury could disagree with DuPont's contention that Kapton did not cause Fontalvo's death, the Court cannot grant summary judgment. DuPont, in response, argues that Sikorsky lacks "standing" to object to DuPont's summary judgment motion because Sikorsky is not an adverse party to DuPont. (ECF No. 196-3.)

This issue—whether the opposing-co-defendant[10] can prevent the Court from granting summary judgment to the moving-co-defendant on the plaintiff's claims when the plaintiff offers no opposition—has arisen in many district courts[11] by now, and the outcomes are split. Courts that have concluded that the opposing-co-defendant cannot prevent summary judgment have relied on the idea that forcing a plaintiff to prosecute a trial, against that plaintiff's wishes, is "contrary to the principle of Rule 56 that trials (or

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[10] For ease of discussion, the Court refers to the party in Sikorsky's position (that is, a co-defendant who has not filed a crossclaim against another co-defendant but opposes that co-defendant's motion for summary judgment on the plaintiff's claims) as the "opposing-co-defendant," and the party in DuPont's position (that is, the co-defendant that has filed a motion for summary judgment on the plaintiff's claims and the plaintiff does not opposed that motion) as the "moving-co-defendant."

[11] It appears that no federal court of appeals has addressed this issue. The closest opinion this Court is able to find is Hoover v. Switlik Parachute Co., 663 F.2d 964 (9th Cir. 1981). There, the Ninth Circuit held that an opposing-co-defendant had standing to appeal a district court's grant of summary judgment to a moving-co-defendant. But in Hoover, the opposing-co-defendant had asserted a crossclaim against the moving-co-defendant, and the district court had made an explicit determination that the moving-co-defendant had not manufactured the defective product at issue. Id. at 966. Moreover, after granting the moving-co-defendant summary judgment, the district court dismissed with prejudice the opposing-co-defendant's crossclaim against the moving-co-defendant. Id. Because the district court's decisions clearly "aggrieved" the opposing-co-defendant, the court concluded the opposing-co-defendant had standing to appeal. This case differs from Hoover because (1) Sikorsky has not asserted a crossclaim against DuPont, (2) there is no indication in Hoover that the plaintiff did not oppose summary judgment, and (3) here, as discussed below, granting summary judgment in light of Plaintiffs' non-opposition will not serve as a legal determination that Kapton wiring was not a cause of the accident.

portions thereof) should be avoided when appropriate." Blonder v. Casco Inn Care, Inc., No. Civ. 99-274-P-C, 2000 WL 761895, at *1 (D. Me. May 4, 2000); accord Hawes v. Blast-Tek, Inc., Civ. No. 09-365 (RKH/AJB), 2010 WL 2680778, at *2–3 (D. Minn. July 2, 2010); Eckert v. City of Sacramento, No. 2:07-cv-00825-GEB-GGH, 2009 WL 3211278, at *3 (E.D. Cal. Sept. 30, 2009). These courts have also noted that, in light of the absence of any crossclaim between the co-defendants, the opposing-co-defendant has no "standing" to prevent summary judgment in this scenario. Rosenbaum v. Freight, Lime & Sand Hauling, Inc., No. 2:10-cv-287, 2012 WL 4832248, at *2–3 (N.D. Ind. Oct. 10, 2012); Eckert, 2009 WL 3211278, at *3; Brewer v. Dodson Aviation, No. C04-2189Z, 2006 WL 3231974, at *4 n.5 (W.D. Wash. Nov. 7, 2006); C.F. Bean Corp. v. Clayton Indus., Ltd., No. Civ. A. No. 95-0161, 1996 WL 470644, at *1 (E.D. La. Aug. 19, 1996).

By contrast, the courts that have concluded that the opposing-co-defendants may prevent summary judgment to the moving-co-defendant have focused on the opposing-co-defendant's interest in keeping the moving-co-defendant in the case. The best example appears in Stone v. Marten Transport, LLC, No. 3:12-cv-0396, 2014 WL 1666420, at *3–5 (M.D. Tenn. April 25, 2014), where the plaintiff and the moving-co-defendant stipulated that the moving-co-defendant was "0% liable." On that basis, the moving-co-defendant sought summary judgment, which the plaintiff did not oppose. The court ruled that the opposing-co-defendants could prevent summary judgment because not permitting them to do so "could have adverse consequences for [the opposing-co-defendants], who might be forced to shoulder any blame that might otherwise be assigned to [the moving-co-defendant]." Id. at *4. Because the opposing-co-defendants "certainly 'have a dog in this fight,'" the court explained, they "have standing to challenge the [summary judgment] motion." Id. The Stone court explicitly rejected the argument that the absence of a crossclaim between the co-defendants meant that the opposing-co-defendants lacked standing to oppose the summary judgment motion. It explained that because Tennessee law had adopted a comparative negligence regime, the opposing-co-defendants could never have asserted a crossclaim against the moving-co-defendant in

the first place. Id. at *5. "It would make little sense," the court said, "to penalize [the opposing-co-defendants] for 'failing' to assert cross-claims that they never held and did not need to assert to vindicate their right under Tennessee law to be liable to [the plaintiff] only for their proportionate fault." Id. Other courts have reasoned similarly. E.g., Wood v. Millar, No. CIV 13-0923 RB/CG, 2015 WL 12661926, at *4 (D.N.M. Feb. 19, 2015) ("[T]he better rule allows defendants to opposed motions for summary judgment if they could be aggrieved by the outcome of the decision.").

This Court concludes that, under the circumstances of this case, Sikorsky cannot prevent DuPont from receiving summary judgment. By choosing not to oppose DuPont's summary judgment motion, Plaintiffs have consented to DuPont's dismissal from the case. "[T]he present situation is no different than if [Plaintiffs] had stipulated to the dismissal of [DuPont] under Federal Rule of Civil Procedure 41; or had moved to amend [their] Complaint to drop [their] claims against [DuPont] under Rule 15; or had requested that [DuPont] be dropped as Defendants under Rule 21." Hawes, 2010 WL 2680778, at *2. It would be unfair—and perhaps unwise—to force Plaintiffs to prosecute a trial against DuPont in the face of Plaintiffs' wishes not to do so. Caterpillar Inc. v. Williams, 482 U.S. 386, 389–99 (1987) (explaining that if courts allowed a defendant to turn a state-law claim into a federal question, it would transform the plaintiff from "the master of the complaint" into "the master of nothing").

Most importantly, unlike the situation in Stone, the Court can find no reason to believe that dismissing DuPont would impact Sikorsky's ability to limit its liability to the proportion of its own fault. Under California law, joint tortfeasors' liability for non-economic damages is "several only," Cal. Civ. Code § 1431.2, meaning that Plaintiffs may only recover from Sikorsky the proportion of their non-economic damages for which Sikorsky is responsible, regardless of whether DuPont is a part of the case. As for economic damages, while tortfeasors are jointly and severally liable, "a defendant may pursue a comparative equitable indemnity claim against other tortfeasors either (1) by filing a cross-complaint in the original tort action or (2) by filing a separate indemnity

action after paying more than its proportionate share of the damages." Evangelatos v. Superior Ct., 753 P.2d 585, 119–98 (Cal. 1988); see also Cal. Civ. Code § 1431. If Sikorsky is held liable to Plaintiffs after trial, it may seek contribution from DuPont.[12] In other words, granting summary judgment to DuPont as a result of Plaintiffs' non-opposition has no effect on the merits of this case. In fact, even Sikorsky asserts in its brief that DuPont's dismissal will not alter Sikorsky's ability to defend its position: in its opposition to DuPont's summary judgment motion, it states, "[i]t is Sikorsky's position that even if Du[P]ont prevailed on this argument, it would not preclude the trier of fact from allocating a percentage of liability to Du[P]ont, the U.S. Government, Navy and Marine Corps." (ECF No. 179 at 5.) The Court agrees. See Dailey v. J.B. Call & Co., Inc., No. 04-4114-RDR, 2006 WL 616634, at *2 (D. Kan. March 9, 2006) (explaining that, if the court "did limit the arguments and evidence on summary judgment to plaintiff and [the moving-co-defendant], we could not apply any finding made in our decision against" the opposing-co-defendant).

DuPont also argues that Sikorsky lacks constitutional standing to oppose DuPont's summary judgment in the face of Plaintiffs' non-opposition. But the issue of Article III standing has no application here. That analysis determines whether a federal court possesses the jurisdiction necessary to resolve a legal action brought by a particular party. See, e.g., Lujan v. Defenders of Wildlife, 504 U.S. 555, 559–62 (1992). Because Sikorsky is not pursuing a claim against DuPont, the doctrine of Article III standing is irrelevant to this analysis.[13] The Court notes, however, that it would provoke a different jurisdictional

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[12] To the extent Sikorsky is prejudiced by having to pay full damages to Plaintiffs before it seeks contribution or indemnity from DuPont, that is the result of Sikorsky's choice not to file a crossclaim against DuPont.

[13] Because DuPont asserts that Sikorsky lacks standing to oppose DuPont's motion, DuPont "objects" to and ask the Court to strike Sikorsky's opposition. (ECF No. 196-3.) The Court finds this unnecessary. Despite Sikorsky's inability to prevent DuPont from being dismissed from this case, Sikorsky does have the ability—particularly, as a party in this case—to file briefing on a particular issue if it feels another party's actions will affect its interests. The Court therefore DENIES DuPont's objection and motion to strike.

problem by requiring Plaintiffs to litigate their claims against DuPont despite Plaintiffs' wish not to: the result would be a trial over claims for which there is no existing legal dispute between the claimant and defendant. Cf. Steffel v. Thompson, 415 U.S. 452, 459 n.10 (1974) ("The rule in federal cases is that an actual controversy must be extant at all stages of review, not merely at the time the complaint is filed."). This even further supports the Court's conclusion that Sikorsky cannot prevent summary judgment to DuPont under these circumstances.

In sum, Plaintiffs' non-opposition to DuPont's summary judgment motion entitles DuPont to dismissal from this action. **The Court emphasizes, however, that the dismissal of DuPont from this case does not amount to a finding of fact or a legal determination as to the merits of Plaintiffs' claims**. The Court's decision on this issue is strictly procedural: by choosing not to oppose DuPont's motion for summary judgment, Plaintiffs have forfeited their right to assert their claims against DuPont, and DuPont is entitled to exit this litigation. At trial, Sikorsky will be free to argue that DuPont-manufactured Kapton insulation caused the accident, and Plaintiffs may not rely on today's decision to make any factual assertion to the contrary.

For the foregoing reasons, the Court **GRANTS** DuPont's motion for summary judgment.

IV. Sikorsky's Motion to Exclude Plaintiffs' Experts

Sikorsky asks the Court to exclude Plaintiffs' experts Arthur Lee Coffman and John Bloomfield. (ECF No. 146.) For the reasons stated below, the Court **DENIES** the motion to exclude.

A. Coffman's Compliance with Rule 26

Sikorsky first argues that Coffman's report does not comply with Federal Rule of Civil Procedure 26(a)(2)(B)(i)'s requirement that a report include "a complete statement of all opinions the witness will express and basis and reasons for them." In Coffman's report, he sets forth his analysis and opinions as to the issues in this case, but concludes with the following statement:

> I reserve the right to make changes as new information is obtained. Although these are the main categories of my opinions, there are related opinions and sub-opinions which opposing counsel will be able to obtain during my deposition. Further, I expect to have counter-opinions to defense experts' opinions once those opinions are fully disclosed. Again, I believe defense counsel will have an opportunity to inquire as to these counter-opinions at the time of my deposition.

(ECF No. 173-9 at 4.) Sikorsky argues that this statement violates Rule 26 because it suggests that Coffman is omitting opinions that should have been disclosed. (Def.'s Mem., ECF No. 146-1 at 5.) It therefore asks the Court to exclude any opinions offered by Coffman not included in his Rule 26 report.

To the extent that Coffman has withheld any material opinions, Sikorsky is correct that they should be excluded. See Fed. R. Civ. P. 37(c)(1) ("If a party fails to provide information . . . as required by Rule 26(a) . . . the party is not allowed to use that information . . . to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless."). But Sikorsky has not identified for the Court any opinion not included in Coffman's Rule 26 report that Plaintiffs seek to use in opposing Sikorsky's summary judgment. In other words, there is nothing to exclude. As a result, the Court **DENIES** this portion of Sikorsky's motion.

Without suggesting how the Court would rule on such a motion, the Court notes that this ruling would not affect Sikorsky's ability to enforce Rule 26's requirements at some point later in this litigation. If, for example, Plaintiffs attempt to offer at trial an opinion by Coffman that was not disclosed in his Rule 26 report, Sikorsky may at that time seek exclusion under Rule 37(c)(1).

B. Coffman's Qualifications and Opinions

Sikorsky also argues that Coffman is unqualified to offer his opinions, and that his opinions are unreliable and should be excluded.[14] The Court disagrees.

[14] Sikorsky argues that Coffman's and Bloomfield's opinions should be excluded "under Daubert." But other than naming Daubert at the beginning and end of the respective sections of its memorandum,

First, Coffman's qualifications are sufficient to enable him to opine on the cause of a wiring failure in an aircraft. Federal Rule of Evidence 702 "contemplates a broad conception of expert qualifications." *Thomas v. Newton Int'l Enters.*, 42 F.3d 1266, 1269 (9th Cir. 1994). So long as the expert's testimony remains "within the reasonable confines of his subject area," it is admissible. Avila v. Willits Envtl. Remediation Trust, 633 F.3d 828, 839 (9th Cir. 2011) (quoting Ralston v. Smith & Nephew Richards, Inc., 275 F.3d 965, 969–70 (10th Cir. 2001) (examining precedent that states "[a]s long as an expert stays within the reasonable confines of his subject area, our case law establishes a lack of specialization does not affect the admissibility of [the expert] opinion, but only its weight")). Even if a purported expert admits that she lacks specialized knowledge on the exact scenario being investigated, she may serve as an expert so long as she has experience in that general area. For example, in United States v. Garcia, 7 F.3d 885, 889–90 (9th Cir. 1993), the court held that despite an expert's admission that she was "not an expert on the trauma a child would face from testifying in court or testifying on a two-way closed circuit TV," she was still qualified to opine on that issue in light of her experience working as a counselor for a Native American tribe and counseling children who had been sexually abused. As the court explained, a "lack of particularized expertise goes to the weight accorded her testimony, not to the admissibility of her opinion as an expert." Id. at 890 (emphasis added).

Coffman is a "certified airframe and powerplant mechanic" and has "been extensively educated, trained, and ha[s] experience installing, inspecting, repairing, and troubleshooting aircraft wiring systems and issues with landing gear." (ECF No. 168-10 at 2 ¶ 4.) This makes Coffman's qualifications more suitable for expert opinion on the CH-53E's landing gear wiring than the experts at issue in the cases cited by Sikorsky. (See Def.'s Mem., ECF No. 146-1 at 8.) In Avila, the court held that it was not an abuse

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Sikorsky offers no explanation for why either expert's methodology fails to satisfy any of the Daubert factors.

of discretion when the district court excluded the opinions of a "physician/ scientist/attorney" with expertise in "cancer immunology and biology, basic and clinical immunology, and medical toxicology" from testifying on whether a particular type of metal work created dioxins. 633 F.3d at 839. There, the expert's expertise was completely outside of the field of the opinion offered: the expert was a doctor attempting to opine on the kind of waste a particular chrome-plating method would cause. The same beyond-the-field-of-expertise standard was applied in Samuels v. Holland Am. Line-USA, Inc., 656 F.3d 948, 953 (9th Cir. 2011), where the court held that it was not an abuse of discretion for the district court to exclude an expert who had experience in the "travel industry for over 30 years," from opining on the dangerousness of a particular area of water. Avila and Samuels suggest the unremarkable proposition that an expert must have expertise in the general area of the subject matter upon which she is testifying.

Sikorsky also cites Bunker v. Ford Motor Co., 640 Fed. App'x 661, 662 (9th Cir. 2016), which presents a closer case, but is nonetheless distinguishable. There, the court held that it was not an abuse of discretion for the district court to exclude an expert who lacked "experience with brake shift interlock systems" from opining on whether a "truck's brake shift interlock system allowed the transmission to be shifted out of park without someone applying pressure to the brake pedal." Id. The court explained that the expert admitted at his deposition that "he did not know the history of such systems"; had testified on transmission issues only a few times before; and had never testified on matters of brake shift interlock systems. Id. The court concluded that the expert "had virtually no familiarity with brake shift interlock systems." Id. As an initial matter, Bunker is an unreported decision and is not controlling on this court. Ninth Cir. Rule 36-3(a). But even if it were controlling, the Court would still find Coffman's qualifications suitable for expert opinion on the wiring of the CH-53E's landing gear and a hypothesis as to how the accident occurred because Coffman, unlike the expert in Bunker, has actual experience with the subject of his inquiry, i.e., the installation and inspection of aircraft wiring systems.

Sikorsky specifically attacks Coffman's opinions as to the cause of the accident. It asserts that Coffman fails to identify the wire that provided the inadvertent energy to the up-command wire, and fails to cite "any manual, publication, schematic, diagram or test result that demonstrates or supports his causation theory." (Def.'s Mem. at 8.) As a result, Sikorsky argues, Coffman's opinion is unreliable and should be excluded. The Court disagrees. Coffman explains in his report that it was most likely the down-command wire that provided the inadvertent energy because of the chaffing and arc signatures found on the Spec-55 portions of the down- and up-command wires. While Sikorsky can offer evidence tending to discredit Coffman's theory by suggesting, for example, that the down-command wire was not energized at the moment of the accident, that is a matter of the weight of Coffman's opinion, not its admissibility. See, e.g., Humetrix, Inc. v. Gemplus S.C.A., 268 F.3d 910, 919 (9th Cir. 2001) ("To the extent Gemplus sought to challenge the correctness of Humetrix's experts' testimony, its recourse is not exclusion of the testimony, but, rather, refutation of it by cross-examination and by the testimony of its own expert witnesses.").

The same analysis applies to Sikorsky's challenge to Coffman's opinion as to whether Sikorsky complied with MIL-W-5088F when it manufactured BUNO 163077's landing gear wiring. Coffman has experience in installing and inspecting wiring in aircrafts, and he relied on military investigation reports to conclude that the excess slack and improper strain relief was the result of defective manufacturing. Sikorsky also argues that Coffman's opinion is unreliable because it is more plausible that military maintenance is to blame for BUNO 163077's wiring issues rather than its own manufacturing in the 1980s. Again, that is a matter of the weight of Coffman's opinion, not its admissibility.

C. Bloomfield's Qualifications and Opinions

Sikorsky offers similar arguments in its attack against Bloomfield's opinions. It first contends that Bloomfield's qualifications are inadequate because he has never designed or installed wiring in a landing gear system. Bloomfield is an expert in robotics

and engineering, and his experience includes designing (1) accelerometers that determined whether an aircraft had made a hard "heavy landing" so that the appropriate maintenance could be determined and (2) sensors inside aircrafts that monitor real-time total electrical consumption. (ECF No. 168-9 at 65–68.) This work involved drawing the electrical schematics of "14,000 parts." (Id. at 69.) This experience is sufficiently relevant to enable Bloomfield to offer opinions on the wiring configuration of the CH-53E. Cf. United States v. Laurienti, 611 F.3d 530, 548 (9th Cir. 2010) (holding that it was an abuse of discretion to exclude a stock market expert who had experience of the industry, but not the particular type of stocks at issue in the case); see also 4-702 Jack B. Weinstein & Margaret A. Berger, *Weinstein's* Federal Evidence, § 702.04(1)(a) (2017) ("[I]t is an abuse of discretion for a trial court to exclude expert testimony solely on the ground that the witness is not qualified to render an opinion because the witness lacks expertise in specialized areas that are directly pertinent to the issues in question, if the witness has educational and experiential qualifications in a general field related to the subject matter of the issue in question.").

In its challenge to the reliability of Bloomfield's opinions, Sikorsky first argues that Bloomfield cannot opine on the cause of the inadvertent energization of the up-command wire because he "did not have the opportunity to inspect" the wires "as installed," but instead examined the wiring after it was removed by military inspectors. (Def.'s Mem. at 12.) But that cannot be a basis for excluding Bloomfield's opinions—if it were, all the non-military experts in this case (including Sikorsky's own expert) would have to be excluded. Sikorksy also points to Bloomfield's admission that he could not "match" the wires or their bare spots to determine exactly where the inadvertent connection may have occurred, as well as his assumptions that the down-command wire must have provided the energy and that the cam limit switch must have accordingly malfunctioned. (Id. at 12–15.) It also criticize various proposals that Bloomfield offers at the end of his report of mechanisms that Sikorsky could have placed in the CH-53E to prevent an accident like Fontalvo's (see note 8, supra) as being unfeasible. (Def.'s Mem.

at 15–19.) As with above, however, these arguments serve only as criticisms of the veracity of Bloomfield's opinions. No one who investigated the accident was able to determine the exact source of the energy. Just as Sikorsky's own expert does in his report, Bloomfield is offering his best explanation as to what occurred, and what could have prevented the accident.

In sum, Sikorsky's challenges to Coffman and Bloomfield as experts offer reasons to disbelieve their opinions, but not to prevent them from offering those opinions. As a result, the motion to exclude is **DENIED**.

V. Sikorsky' Motion for Summary Judgment

A. Legal Standard

Summary judgment is appropriate when "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). "An issue of material fact is genuine if there is sufficient evidence for a reasonable jury to return a verdict for the non-moving party." Reed v. Lieurance, 863 F.3d 1196, 1204 (9th Cir. 2017) (quoting Cortez v. Skol, 776 F.3d 1046, 1050 (9th Cir. 2015)). "The deciding court must view the evidence, including all reasonable inferences, in favor of the non-moving party." Id.

B. Plaintiffs' Non-Opposition to Summary Judgment for SSSI

Plaintiffs do not contest Sikorsky's assertion that SSSI was not involved in the design, manufacture, marketing, or sale of the CH-53E. (See ECF No. 173-1 at 41 ¶ 70.) Because there is no dispute that SSSI's actions did not cause Fontalvo's accident, SSSI is entitled to summary judgment. Whiteley, 11 Cal. Rptr. 3d at 858.

C. Remaining Summary Judgment Issues

1. Military Contractor Defense

Sikorsky's primary argument is that the military contractor defense shields Sikorsky from liability resulting from its development and production of BUNO 163077. Under the military contractor defense, "[l]iability for design defects in military equipment cannot be imposed pursuant to state law, when (1) the United States approved reasonably

precise specification; (2) the equipment conformed to those specifications; and (3) the supplier warned the United States about the dangers in the use of the equipment that were known to the supplier but not to the United States." Boyle v. United Techs. Corp., 487 U.S. 500, 512 (1988). The purpose of this federal common law defense is to protect the military's discretion in selecting "the appropriate design for military equipment," which requires "the balancing of many technical, military, and even social considerations, including specifically the trade-off between greater safety and greater combat effectiveness." Id. at 511. By shielding the contractor from liability in this scenario, the doctrine ensures that the military does not face increased costs as a result of a contractor's liability stemming from the design choices of the military. See id. at 512 ("It makes little sense to insulate the Government against financial liability for the judgment that . . . equipment is necessary when the Government produces the equipment itself, but not when it contracts for the production.").

Sikorsky contends that it is protected by the military contractor defense because the military insisted on using and keeping Kapton wire in BUNO 163077. But Plaintiffs offer sufficient evidence to create genuine issues of fact that preclude summary judgment on this basis: (1) whether Spec-55 wire—not Kapton wire—was responsible for the accident, (2) whether the military used its discretion in approving the designs of the non-Kapton-related portions of the landing gear wiring configuration, and (3) whether Sikorsky complied with MIL-W-5088F when it produced BUNO 163077.

a. Genuine disputes of fact preclude a determination that, as a matter of law, Fontalvo's accident was the result of a military-specified design.

Sikorsky's primary theory is as follows: the military has known of the risks of Kapton deterioration since before BUNO 163077 was produced, and nonetheless not only insisted that Sikorsky fit BUNO 163077 with Kapton, but also refused to replace the Kapton with less dangerous wire insulation when the dangers became even more apparent. As a result, Sikorsky argues, Sikorsky cannot be held liable for BUNO

163077's Kapton-caused accident. Plaintiffs do not dispute that the military chose to use Kapton for BUNO 163077 despite knowing that wire degradation was likely. Nor do they dispute that Sikorksy had no choice but to continue using Kapton as a result of NAVAIR's specifications. Thus, if there is no genuine dispute that Kapton caused Fontalvo's accident, Sikorsky is entitled to summary judgment under the military contractor defense. See Getz v. Boeing Co., 654 F.3d 852, 862 (9th Cir. 2011) (holding that the military contractor defense shielded defendant from liability for failing to include a continuous ignition relight function in an aircraft when "the government was well aware of the availability" of such a function "but chose to forego that technology").

But that is not the case. There is sufficient evidence to support a reasonable jury's determination that Spec-55 wire alone caused the accident.[15] And because there is also sufficient evidence enabling a reasonable conclusion that the Navy merely "rubber stamped" the design of the relevant portion of the utility module beyond the Kapton requirement, the Sikorsky is not entitled to summary judgment on the basis of the military contract defense.

i. A jury could reasonably determine that Kapton wire did not cause the inadvertent energization of the up-command wire.

Several pieces of evidence in the record would enable a reasonable jury to conclude that Kapton was not responsible for Fontalvo's accident. The SIR found that the "non-Kapton wire" connected to the "up" solenoid connection pin had multiple points

[15] In its reply brief, Sikorsky accuses Plaintiffs of improperly altering their theory of liability from what is alleged in the operative Second Amended Complaint ("SAC"). (See Def.'s Reply, ECF No. 190 at 1.) The Court disagrees. Sikorsky argues that the SAC "explicitly blames Kapton" (id.) and cites Paragraph 28, which alleges that DuPont is liable as a result of its production of defective Kapton (SAC, ECF No. 71 at 10–11 ¶ 28.) But Paragraphs 26 and 27—which allege that Sikorsky is liable as a result of its design of the landing gear wiring configuration—are silent as to the type of wire that may have caused the accident. (Id. at 9–10 ¶¶ 26, 27.) In other words, the SAC raises alternative theories of liability: (1) in the event that Kapton is responsible, DuPont and Sikorsky are liable; and (2) in the event that Kapton is not responsible, Sikorsky is liable.

of exposed wire approximately a foot from the pin, and that "excessive slack" on the wire "allowed the points of exposed wire to come in contact with the utility hydraulic module mount frame." (ECF No. 183-4 at MIL073523 ¶¶ 48, 50.) The SIR also noted that "hydraulic fluid and water from a recent aircraft wash left significant water and hydraulic fluid moisture on and around the utility hydraulic module." (Id. at ¶ 51.) In light of Knox's discussion of the possibility of inadvertent energization caused by electrical leakage (see ECF No. 173-14 at 56), a jury could reasonably conclude that either physical contact or hydraulic fluid facilitated an inadvertent connection between an energized area of the utility module and a bare spot on the Spec-55 wire connected to the P494 pin.

Staff Sergeant Wuthrich's report also supports a reasonable conclusion that Spec-55 wire caused the accident. He found improper tension in the down-command wires and "wear through spots" on P495-A where "the wires came in contact" with the up-command cannon plug. (ECF No. 173-10 at MIL073203.) Based on these findings, particularly in connection with the hydraulic fluid and water found in the area, a jury could reasonably conclude that bare spots in Spec-55 portions of the down-command wire inadvertently energized the up-command wire.

Moreover, Plaintiffs' and DuPont's expert reports enable a reasonable conclusion that Spec-55 wire caused the accident. Coffman noted chaffing on the Spec-55 sections of both the up-command and down-command wires, and signatures of electrical arcing. (ECF No. 173-9 at 3.) Bloomfield also concludes that, in light of the proximity of the up- and down-solenoids, the wiring could come in direct contact with "the metal features of the utility module" and each other. (ECF No. 173-8 at ¶ 17.) Reynolds concluded that arcing damage appeared only on the Spec-55 wire connected to pin P494-A. (ECF No. 183-8 at 16 ¶ 8.) These analyses could lead to a reasonable conclusion that Kapton wire degradation was not involved in the inadvertent retraction of BUNO 163077's landing gear. See, e.g., Thomas, 42 F.3d at 1270 ("Expert opinion evidence is itself sufficient to create a genuine issue of disputed fact sufficient to defeat a summary judgment motion.").

Sikorsky relies heavily on the function of the "cam limit switch" to suggest that no reasonable juror could conclude that Kapton wiring was not involved in Fontalvo's accident. As discussed above, the cam limit switch is a mechanism that terminates the power to the down-command wire once the landing gear is fully down and locked. (See ECF No. 164-9 at 4–5 ¶ 13.) If the cam limit switch was functioning properly at the time of the accident, Sikorsky argues, the down-command wire could not have been the source of the inadvertent energization of the up-command wire. This fact has the potential to refute Plaintiffs' theory that bare spots on the Spec-55 portion of the down-command wire energized the Spec-55 portion of the up-command wire (or the P494 pin itself). But the role of the cam limit switch does not render a conclusion that Spec-55 caused the accident unreasonable. First, the evidence involving the cam limit switch does not preclude the conclusion that another part within the relevant area of the utility module was energized at the time of the accident. Sikorsky's own expert also suggests the possibility that an "indirect" three-way connection occurred. Based on that possibility, a jury could reasonably infer that an energy source inadvertently connected to the down-command wire, which then connected to the up-command wire. (ECF No. 173-14 at 59.) Second, if the cam limit switch was functioning properly at the time of the accident, that fact also would refute Sikorsky's theory that the Kapton portion of the down-command wire caused the inadvertent retraction. If that is the case, the Court is left with no evidence that might suggest the source of the electricity that caused the retraction. Because Sikorsky is seeking summary judgment on the basis of an affirmative defense, it is Sikorsky's burden to prove that Kapton wire caused the accident. See, e.g., Adobe Sys Inc. v. Christenson, 809 F.3d 1071, 1078 (9th Cir. 2015) ("The burden of proof for an affirmative defense to a civil claim generally falls on the party asserting the defense."). In sum, there is a genuine dispute as to whether Kapton wire caused Fontalvo's accident.

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ii. A jury could reasonably determine that the Navy merely "rubber-stamped" Sikorsky's design of the CH-53E's landing gear wire configuration.

Even if Kapton was not responsible for Fontalvo's accident, Sikorsky could still be entitled to summary judgment on the basis of the military contractor defense if it can show that there is no genuine dispute that the military used its discretion in developing the CH-53E's landing gear wiring configuration design.

The first element of the military contractor defense requires that the military "approve reasonably precise specifications" for a particular piece of equipment. Boyle, 487 U.S. at 512. Government approval "requires more than a rubber stamp." Snell v. Bell Helicopter Textron, Inc., 107 F.3d 744, 748 (9th Cir. 1997) (quoting Trevino v. General Dynamics Corp., 865 F.2d 1474, 1480 (5th Cir. 1989)). "Rather, approval must result from a 'continuous exchange' and 'back and forth dialogue' between the contractor and the government." Getz, 654 F.3d at 861 (quoting Butler v. Ingalls Shipbuilding, Inc., 89 F.3d 582, 585 (9th Cir. 1996)). "When the government engages in a thorough review of the allegedly defective design and takes an active role in testing and implementing that design, Boyle's first element is met." Id.; see also id. at 863 (requiring that "the United States make[] 'a significant policy judgment' in approving the design"). In other words, to meet this element, Sikorsky must prove that "the government exercised its discretion with respect to the design feature in question"—in this case, the way the landing gear wiring in the CH-53E was configured. Snell, 107 F.3d at 748.

Plaintiffs allege that Sikorsky defectively designed and manufactured the "landing gear system and appurtenant apparatus, including the wiring harness and wire path leading from the landing gear controls to the landing gear assembly, which juxtaposed a crucial wire bundle and pin 494 . . . in a position downstream of any and all interlocks and failsafes capable of preventing gear retraction in the event of unplanned energization." (ECF No. 71 at 6 ¶ 13.) In response, Sikorsky contends that the military was heavily involved in developing all specifications for the wiring configuration of the

CH-53E.[16] But the military specifications Sikorsky points to are not specific enough to trigger summary judgment on this issue. As the Ninth Circuit has explained, "[w]hen only minimal or very general requirements are set for the contractor by the United States[,] the [contractor defense] rule is inapplicable." *McKay v. Rockwell Int'l Corp.*, 704 F.2d 444, 450 (9th Cir. 1983). That is the case here.

Sikorsky points first to various provisions of SD-552-3-9 and MIL-W-2008F in support of its assertion that the military used its discretion in developing the design of the landing gear's wiring configuration. But those provisions do not establish, as a matter of law, that the military was involved in the configuration's design.

As an initial matter, the fact that the NAVAIR required Sikorsky to adhere to its Detail Specifications cannot itself satisfy Boyle element. The Detail Specification is the master reference for the CH-53E's design. It does not demonstrate, however, the extent of NAVAIR's involvement in the development of its contents.

But even assuming that a detail specification contains solely discretionary decisions by the military, the SD-552-3-9 provisions that Sikorsky cite offer, at best, vague guidance as to how the wiring in the landing gear system should have been configured. Paragraph 3.15.1 sets forth how the hydraulic system should operate, but the only mention of wiring is the statement [redacted] (See ECF No. 155-20 at SIK007116–20.) Paragraph 3.8.2 sets forth the landing gear design, but includes no direction about how the landing gear should be wired. (See ECF No. 155-19 at SIK007081–82.) Paragraph 3.16.5 discusses "wiring," but the only relevant statement in this section is that the "[w]iring shall be in accordance

[16] Sikorsky chastises Plaintiffs for their word choice, stating: "[n]otably, there is no 'landing gear wiring harness' as stated by Plaintiffs in their opposition. Thus, it remains unclear what part of the CH-53E electrical interconnect system Plaintiffs allege is defective." (Def.'s Reply, ECF No. 190, at 3 n.1.) While it may be true that there is no such thing as a landing gear "harness," it is clear that Plaintiffs are referring generally to the placement of (1) wires running from the landing gear control panel to the utility module and (2) the points of connection between those wires and the utility module.

with MIL-W-5088F," and that Kapton wiring shall be used. (See ECF No. 155-20 at SIK007125.) As for MIL-W-5088F, Sikorsky first cites Paragraph 3.8.8, but that paragraph states only [redacted] (ECF No. 155-21, Ex. 11 at MIL210466.) Next, while Paragraph 3.8.3.3 discusses the "bundling" of wires, it only provides guidance as to the total amount of current that can be carried in a bundle. (Id.) Paragraph 3.10.1, dealing with arrangement of wire, instructs only that wire should be [redacted] (Id. at MIL210471.) Finally, Paragraph 3.10.2 provides no more configuration guidance other [redacted] (Id.) Other than citing these paragraphs, Sikorsky offers no explanation for how these instructions approved the specific design of the CH-53E's landing gear wiring configuration.

The ambiguity of the relevant provisions of the Detail Specification make this case much like Snell. There, the defendant also pointed to the detail specifications in an effort to prove that the military used discretion in developing how the drive shaft should be mounted. The detail specification stated "[t]he transmission shall be mounted on a suitable vibration isolator. A lift link shall be attached to the structure to carry rotor thrust loads," and "[a] transmission input drive installation shall be provided. This installation shall consist of a shaft assembly to carry rotor thrust loads." Snell, 107 F.3d at 748. The court held that these specifications were too vague to invoke the military contractor defense because they "left the design and placement of the drive shaft and its components to" the defendant. Id. Particularly in light of testimony by an employee of the defendant that there were "no discussions with the government about the design of the critical isolation mounts," the court held that a "trier of fact could find that the government did not exercise judgment with respect to the design feature in question." Id.

Here, not only are the relevant portions of SD-552-3-9 vague as to how the landing

gear wiring should be configured, but also there is no evidence of back-and-forth discussions about the landing gear wire configuration design. The best evidence Sikorsky offers is Wakefield's assertions that NAVAIR officials held "hundreds of meetings" with Sikorsky during the CH-53E's development. (ECF No. 164-11 at 6–7 ¶¶ 8–12.) But as mentioned above, Wakefield admitted in his deposition that he had no evidence that NAVAIR reviewed or approved details of the landing gear wiring configuration. (See ECF No. 173-6 at 136–41.) In light of Lawrence's statement that he could find no evidence of any "back-and-forth deliberative process" between the government and Sikorsky regarding the landing gear configuration (ECF No. 173-3 at 3 ¶ 6), the record in this case closely resembles that in Snell.

Sikorsky next argues that the fact that NAVAIR continued to order the CH-53E for decades without ordering any change to the landing gear wiring configuration satisfies the first Boyle element. Sikorsky cites cases in which the Second, Fourth, and Eleventh Circuits have held that it is relevant to the first Boyle element that, after production of particular equipment begins, the government continued to purchase that equipment knowing that it had a serious defect. See Ramey v. Martin-Baker Aircraft Co., Ltd., 874 F.2d 946, 950 (4th Cir. 1989); Lewis v. Babcock Indus., Inc., 985 F.2d 83, 89 (2d Cir. 1993); Brinson v. Raytheon Co., 571 F.3d 1348, 1354 (11th Cir. 2009). While such holdings likely get the law correct—continued purchases by the military in this context demonstrate a discretionary decision to accept certain risks—they do not apply to this case. As stated above, if Kapton was responsible for Fontalvo's accident, the Navy's insistence that Kapton be used in the CH-53E while knowing of its dangerous propensities would undoubtedly protect Sikorsky. But there is sufficient evidence to permit a jury to conclude reasonably that Kapton was not responsible for the accident, and Sikorsky offers no evidence that NAVAIR was aware of any similar risk with Spec-55 or other wire used in the CH-53E.

Finally, Sikorsky relies heavily on the fact that the Navy instructed Sikorsky to design the CH-53E so as to retain "maximum commonality" with the CH-53D and RH-

53D. This fact, however, does not satisfy the first Boyle element for two reasons. First, the Navy's instruction to maintain "maximum commonality" suffers from the same vagueness problem that exist with the cited portions of the Detail Specification: it does not show that the landing gear wiring configuration was the result of NAVAIR discretion. If, for example, NAVAIR instructed Sikorsky to design the CH-53E such that the landing gear wiring configuration remained exactly the same in the CH-53D, that would weigh in support of Sikorsky's argument. But a vague instruction to maintain maximum uniformity among CH-53 helicopters does not demonstrate any type of "careful deliberation" by the military as to the design of any particular piece of equipment. Getz, 654 F.3d at 862.

Second, there is evidence that the landing gear wire configuration in the CH-53E is not the same as that in the CH-53D. Bloomfield opines that the switch from a single-plug system to a double-plug system "led to the mishap in this case, because the wire strands leading to plugs P494 and P495 became denuded due to friction and chafing, permitting short-circuit." (ECF No. 173-4 at 3 ¶ 6.) To the extent that a jury could conclude that this alteration contributed to the accident, the lack of any evidence that NAVAIR carefully deliberated on this alteration prevents Sikorsky from relying on the "maximum commonality" instruction as a means of satisfying Boyle's first element.

In sum, Sikorsky is not entitled to summary judgment on the basis of the military contractor defense because there are genuine disputes over (1) whether it was Spec-55 or Kapton wire that caused the inadvertent energization of the up-command wire, and (2) whether NAVAIR exercised discretion in approving the design of the CH-53E's landing gear wiring configuration.

b. A genuine dispute also exists as to whether BUNO 163077 conformed to the military's specifications.

Even if Sikorsky has demonstrated that there is no genuine dispute that NAVAIR approved reasonably precise specifications for the landing gear's wiring configuration, it is not entitled to summary judgment because there is also genuine dispute as to whether

Sikorsky conformed to those specifications when manufacturing BUNO 163077.

The second element of the military contractor defense requires a showing that the equipment at issue conformed to the specifications approved by the military. Boyle, 487 U.S. at 512. "[T]he operative test for conformity with reasonably precise specifications turns on whether 'the alleged defect . . . exist[ed] independently of the design itself.'" Getz, 654 F.3d at 864 (quoting Miller v. Diamond Shamrock Co., 275 F.3d 414, 421 (5th Cir. 2001)). This is "just another way of saying that it was defectively manufactured." Id. (quoting Harduvel v. Gen. Dynamics Corp., 878 F.2d 1311, 1231 (11th Cir. 1989)).

MIL-W-5088F requires that wiring [redacted] There is evidence in the record enabling a reasonable conclusion that Sikorsky did not adhere to these provisions when it manufactured BUNO 163077. For example, the SIR indicates that "excessive slack existed in the wire that allowed the points of exposed wire to come in contact with" the utility module, in violation of MIL-W-5088F ¶¶ 3.10.7 and 3.11.4. (ECF No. 183-4 at MIL073523 ¶ 50.) And Wuthrich's report states that the down-command wire was tight and lacked "proper strain relief," and that it appeared to have come in contact with the up-command cannon plug, in violation of ¶¶ 3.10.6, 3.11, and 3.11.4. (ECF No. 173-10 at 1.)

Sikorsky responds by offering evidence that the Navy inspected BUNO 163077 prior to accepting it into the military fleet and found that it conformed to the detail specifications. (See, e.g., ECF No. 164-11 at 8–9 ¶¶ 16–17.) But this evidence only produces a factual dispute as to what condition the landing gear wiring was in after Sikorsky completed production. Sikorsky also argues that it is "not plausible" that the excessive slack and improper strain relief, found 21 years after Sikorsky manufactured BUNO 163077, existed at the time production was completed. Rather, Sikorsky suggests

that Marine Corps maintenance must be responsible for any wiring issues.[17] (Def.'s Reply at 8–9.) Again, this only signals that there is a genuine dispute of material fact. While it would be reasonable to agree with Sikorsky on this fact, it would not be unreasonable to infer that these defects existed when BUNO 163077 was produced.

Because there is also a genuine dispute as to whether Sikorsky can meet Boyle's second element, Sikorsky is not entitled to summary judgment on the basis of the military contractor defense.

2. Political Question Doctrine

Sikorsky asserts that it is entitled to summary judgment also because Plaintiffs' claims present nonjusticiable political questions. In short, Sikorsky argues that this Court should not place itself in the position of adjudicating the wisdom of the military's decision not to replace Kapton in light of funding limitations.

This argument, however, walks in lockstep with Sikorsky's military contractor defense theory. In the context of this case, the concerns animating the military contractor defense would be the exact same concerns that animate the relevant aspects of the political question doctrine; that is, respecting another branch's discretionary decisions. See Boyle, 487 U.S. at 511–12. But the Court will be forced to decide a question in that area only if it is presented with a situation in which the military has actually used its discretion. Sikorsky's argument is therefore just a mirror image of the military contractor defense: it arises only if the military actually engaged in a discretionary choice about the equipment that caused Fontalvo's accident. If the military contractor defense applies, the case might present a political question; if the military contractor defense does not apply, no political question concern exists.

As with the military contractor defense, Sikorsky's political question doctrine

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[17] Sikorsky cites the deposition of Keith Sparks to suggest that the Spec-55 wire portions were replaced during Phase I of the wire replacement program. (See ECF No. 179-3, Ex. I, at 54–56.) But Sikorsky offers no evidence providing information about Mr. Sparks, what relationship he had to the wire replacement program, or when the replacement occurred.

argument relies on the assumption that Kapton was responsible for Fontalvo's accident. (See Def.'s Reply at 18–19 (quoting a NAVAIR program manager's statement that the military could not obtain sufficient funding for Kapton replacement)). And as discussed at length above, there is a genuine dispute as to whether Kapton was involved in the accident at all. Because the Court cannot say that, as a matter of law, Sikorsky is protected by the military contractor defense, it also cannot say at this point that this case is nonjusticiable.

3. Superseding Cause

Next, Sikorsky argues that the military's decision not to replace Kapton in the CH-53E is a superseding cause of Fontalvo's accident that absolves Sikorsky from liability. Sikorsky argues that the military's refusal to replace the Kapton, in the face of its own reports warning that accidents like Fontalvo's were likely to occur, was unforeseeable and thus broke the chain of causation between Sikorsky's acts and Fontalvo's death. (Def.'s Reply at 19–20.) See, e.g., Perez v. VAS S.P.A., 115 Cal. Rptr. 3d 590, 681 (Cal. Ct. App. 2010) ("[T]hird party negligence which is the immediate cause of an injury may be viewed as a superseding cause when it is so highly extraordinary as to be unforeseeable." (quoting Torres v. Xomox Corp., 56 Cal. Rptr. 2d 455, 467 (Cal. Ct. App. 1996)). But this argument again relies on the assumption that Kapton caused Fontalvo's accident. If Kapton had no role in Fontalvo's accident, the military's choice to use Kapton in the CH-53E was not even a cause-in-fact of Fontalvo's accident. As explained above, there is a genuine dispute as to whether Kapton caused the accident. As a result, summary judgment on this ground is inappropriate.

4. Sophisticated User Defense

Sikorsky argues that, to the extent that Plaintiffs' claims assert liability on the basis of failure to warn, Sikorsky is entitled to summary judgment on the ground that Fontalvo was a "sophisticated user." (Def.'s Reply at 20–21.) The Court agrees.

Under California law, manufacturers are liable for "their failure to warn of known or reasonably scientifically knowable risks." Johnson v. Am. Std., Inc., 179 P.3d 905,

910 (Cal. 2008). A manufacturer has an affirmative defense to this liability, however, if the plaintiff pursuing a failure to warn claim was a "sophisticated user." To be a sophisticated user, the plaintiff must have "already [been] aware of should [have been] aware" of the risk. Id. "Because these sophisticated users are charged with knowing the particular product's dangers, the failure to warn about those dangers is not the legal cause of any harm that product may cause." Id. at 911.

Here, there is no genuine dispute that, prior to his accident, Fontalvo had been instructed not to pull on a landing gear safety pin if it resists. Jeremiah Wilcox testified unambiguously that he instructed Fontalvo that if a pin resists removal, "you should not try to force it out or pull it out." (ECF No. 164-4, Ex. B, at 17–18.) Plaintiffs offer evidence suggesting that someone in Fontalvo's position likely would not have been trained on this fact, but none of the evidence creates a genuine dispute that Fontalvo actually knew that it was dangerous to pull a resisting pin. Plaintiffs cite evidence that there was no such instruction in any manual; that aircrewman or airframes mechanics were not "formally taught" not to pull a resisting pin; and that a large group of Fontalvo's peers were never taught not to do so until after Fontalvo's death. (See Pl.'s Response to Def.'s SOF, ECF No. 173-1 at 3–4 ¶ 5.) None of that evidence refutes the assertion that Fontalvo actually knew that he should never pull out a resisting safety pin because Wilcox told him so. Because there is no genuine dispute as to this fact, Sikorsky is entitled to summary judgment to the extent that Plaintiffs assert theories of failure to warn against Sikorsky.

5. T.L.'s Standing to Assert a Wrongful Death Action

Finally, Sikorsky argues that T.L. lacks "standing"[18] to assert a wrongful death

[18] Sikorsky appears to place its "standing" argument within the doctrine of Article III standing. (See Def.'s Mem. at 21–22.) It is clear, however, that T.L. has Article III standing to pursue her claims. It is undisputed that Fontalvo supported T.L. to some extent, and Fontalvo's death resulted in an economic harm to T.L. Because she has experienced a concrete and particularized harm, T.L. has Article III standing to sue a defendant that caused that harm. See *Jones v. Prince George's Cty.*, 348 F.3d 1014, 1018 (D.C. Cir. 2003) (holding that a daughter of a shooting victim had Article III standing to pursue a

claim under Cal. Code Civ. Proc. § 377.60(c). That provision states: "[a] cause of action for the death of a person caused by the wrongful act or neglect of another may be asserted by . . . [a] minor, . . . if, at the time of the decedent's death, the minor resided for the previous 180 days in the decedent's household and was dependent on the decedent for one-half or more of the minor's support." It is undisputed that T.L. lived with Fontalvo during the 180 days prior to Fontalvo's death. Sikorsky contends, however, that T.L. was not "dependent" on Fontalvo during that time for at least one half of her support.

Sikorsky first points to the fact that in Amador's 2010 tax return, she indicated that she was the "head of her household" and listed T.L. as a qualifying dependent. Sikorsky surmises that this filing suggests that Amador paid for more than half of T.L.'s support because "[t]he filing status of 'Head of Household' requires that the filer have paid more than half the cost of the support for the qualifying dependent." (Def.'s Mem. at 23.) To prove that assertion, Sikorsky offers a copy of page 7 of the Internal Revenue Service's Publication 501. (See ECF No. 164-6, Ex. J.) However, Publication 501 does not support this claim. Instead, page 7 states that in order to claim "head of household" status, a filer must (1) be "unmarried or 'considered unmarried' on the last day of the year"; (2) have "paid more than half the cost of keeping up a home for the year"; and (3) have lived with a "qualifying person" for more than half the year. (Id.) Sikorsky provides no authority or analysis to establish that "half the cost of keeping up a home" under the tax laws is the equivalent of "one-half or more of minor's support" under § 377.60(c).

The Court finds that this evidence does not make the conclusion that T.L. relied on Fontalvo for at least half of her support during the relevant period unreasonable. As an initial matter, whereas Amador's 2010 tax return is based on her financial status during

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wrongful death claim because "the shooting deprived [her] of her father's financial and emotional support, the shooting indisputably caused her loss, and a favorable decision would remedy this injury"). The closer question, rather, is if there is a genuine dispute as to whether T.L. satisfies the statutory prerequisites to bring a wrongful death claim under California law.

the entire year of 2010, the period relevant to T.L.'s standing begins in September 2010. The tax return therefore carries limited weight; the majority of the period covered by the tax return is irrelevant to whether T.L. has standing to pursue her claim.

Amador's claim of "head of household" status offers, at best, circumstantial evidence that T.L. relied on Amador for more than half of her support. However, it does not foreclose a trier of fact from concluding that Fontalvo provided one-half of T.L.'s support based upon Amador's testimony and Fontalvo's greater earnings. Sikorsky's argument is conclusory and provides little in the way of factual or legal analysis. See Paysinger v. Beverly Hills Unified Sch. Dist., No. CV 14-5509 PSG (RZX), 2014 WL 7076290, at *12 (C.D. Cal. Dec. 12, 2014) ("Hall provides very limited support for his [legal] arguments absent referring to the statutes generally and the Court will not make Hall's arguments for him.").

Sikorsky also offers a copy of a notarized document labeled "Dependency Statement – Child Born out of Wedlock," which Fontalvo completed with information about D.F. (ECF No. 164-6, Ex. I.) The document is dated October 27, 2010. (Id. at 4.) In the document, Fontalvo lists various household expenses "for all persons living in the home," and also the total amount Fontalvo contributed to the child's support. Fontalvo stated that he contributed $1,500.00 to D.F.'s support in each of September and October 2010. (Id. at 3.) It also lists monthly expenses for D.F. totaling $1,300. (Id.) While this information offers the trier of fact an indication that Fontalvo spent a large portion of his salary on D.F.'s support, it does not establish, as a matter of law, that T.L. did not rely on Fontalvo for half of her support. The document does not indicate, for example, what T.L.'s expenses were, what Amador's contributions to the family expenses were, or, perhaps most importantly, how Amador and Fontalvo split their household expenses. The absence of such information leaves a genuine dispute as to whether T.L. relied on Fontalvo for at least half of her support during the relevant period.

Sikorsky also argues that even if Fontalvo provided at least half of T.L.'s financial support during the relevant period, there is no evidence to demonstrate T.L. was

dependent upon that support. It appears that the only case interpreting the meaning of "dependent" in § 377.60(c) is Soto v. BorgWarner Morse TEC Inc., 191 Cal. Rptr. 3d 263 (Cal. Ct. App. 2015). There, family members of the decedent—including the decedent's great-grandchild (the "minor")—brought a wrongful death action against a manufacturer of asbestos-laden products. Id. at 268. Three years before the decedent's death, the minor and his parents moved into the decedent's mobile home. Id. at 273. The move was not the result of financial necessity; rather, it was simply to keep the decedent company. Id. The minor's parents both worked and could cover their own expenses. Id. During the 180 days prior to his death, the decedent paid for rent and utilities except for the satellite television bill; often purchased food for the family and clothes, toys, and books for the minor; often watched the minor and picked him up from pre-preschool; and sometimes paid for the minor's pre-preschool tuition. Id. at 273–74. After the decedent passed away, the minor's parents bought a house and had a second child. Id. Without the decedent's help, the parents would not have been able to purchase the house or continue the minor's private education. Id.

The Court of Appeal affirmed judgment as a matter of law against the minor because there was insufficient evidence at trial suggesting that the minor was "dependent" upon the decedent for at least half of his support 180 days prior to the decedent's death. The court relied on case law interpreting subsections 377.60(a) and (b), in which those courts held that "dependent" means "actually dependent, to some extent, upon the decedent for the necessaries of life," and not just "financial support . . . which merely makes . . . available . . . some of the niceties of life they might not otherwise be able to afford." Id. at 281 (internal quotation marks omitted). In other words, dependence means reliance on an individual for "obtaining the things, such as shelter, clothing, food and medical treatment, which one cannot and should not do without." Id.

Turning to the facts of the case in Soto, the Court of Appeal held that the minor was not dependent on the decedent for at least half of his support. Id. at 282. The court explained that, except perhaps his pre-preschool tuition, the minor did not "rel[y] on [the

decedent] for the necessaries of life." Id. (emphasis in original). Instead, the decedent's contributions to the minor's family "enabled them to enjoy some of the niceties of life they might not otherwise be able to afford," such as television and the ability to save for a house and future tuition. Id. (internal quotation marks omitted). The court found it particularly important that there was no testimony that the minor's parents "could not afford to pay rent, buy groceries, provide clothes," or otherwise make ends meet, and that the decedent's contributions only enabled the minor to live a "more comfortable existence." Id. The decedent's "largesse toward [the minor] and his parents was laudable and improved their station in life," the court concluded, "but it did not render [the minor] financially dependent upon him." Id.

The Court finds that the record here, in contrast to Soto, permits a reasonable inference that T.L. was dependent upon Fontalvo for at least half of her support. Amador testified that Fontalvo paid for about 60 percent of T.L.'s financial support. (ECF No. 173-23 at 81; compare ECF Nos. 173-27, 173-28.) This included food, clothing, braces, and a washer and dryer, all of which would fall within Soto's description of life's necessities. (ECF No. 173-23 at 79–80, 158–60.) Fontalvo's salary in 2010 was approximately $30,000, and Amador's was approximately $29,000. (See ECF Nos. 173-27, 173-28.) Unlike in Soto, where it was undisputed financial need was not the reason the great-grandson's parents moved in with the decedent, a jury could reasonably infer that Amador moved in with Fontalvo as a result of financial necessity. With that inference, a jury could conclude that T.L. relied upon Fontalvo not only for the "niceties" of life, but also her basic necessities.

Sikorsky suggests that Soto established a rule that if a surviving source of support for a dependent is able to provide fully for the dependent after the decedent's death, the decedent did not provide "support" for the dependent for purposes of Cal. Code Civ. Proc. § 377.60(c). It then points to the fact that Amador was able to provide fully for T.L. prior to moving in with Fontalvo, and there is no evidence that Amador's financial

situation changed while cohabitating with Fontalvo.[19] As a result, Sikorksy argues, T.L. was never "dependent" upon Fontalvo because Amador was always able to support T.L. Soto, however, creates no such brightline rule. Instead, it reiterated that standing under § 377.60(c) will depend on the totality of the circumstances presented in each case. Soto, 239 Cal. App. 4th at 282 ("Whether there is financial dependence is a question of fact that is assessed on a case-by-case basis. The extent of any financial dependence likewise presents a question of fact." (citation omitted)). Here, the evidence differs from the facts of Soto sufficiently to enable a jury to reasonably conclude that during the 180 days prior to Fontalvo's death, T.L. was dependent on Fontalvo for one-half or more of the her support. Summary judgment on this basis is therefore inappropriate.

VI. Conclusion

For the reasons stated above, the Court issues the following orders:

1. DuPont's motion for summary judgment (ECF No. 160) is **GRANTED**;
2. DuPont's objection and motion to strike (ECF No. 196-3) is **DENIED**;
3. Sikorsky's motion to exclude (ECF No. 146) is **DENIED**;
4. Sikorsky's motion for summary judgment (ECF No. 164) is **GRANTED in part and DENIED in part**. Summary judgment is granted only as to (1) Plaintiffs' claims against SSSI, and (2) Plaintiffs' claims to the extent that they pursue a theory of failure to warn.

Dated: October 27, 2017

Hon. Gonzalo P. Curiel
United States District Judge

[19] Sikorsky also offers the deposition testimony of Dr. Fractor, an economist, in which he explains his conclusion that Amador had the "resources" to support T.L. (ECF No. 164-6, Ex. K, at 65–66.) But Fractor concedes that he had not "looked at [Amador's] earnings and household allowance in relation to what she spent" on T.L.