# NATIONAL TRANSPORTATION SAFETY BOARD Office of Aviation Safety Washington, D.C. 20594

July 8, 2010

Addendum 3 to:

## **Airworthiness Group Chairman's Factual Report**

Of September 10, 2009

## NTSB ID No.: LAX08PA259

### A. ACCIDENT:

Location:	Weaverville, California
Date:	August 05, 2008
Time:	About 7:41 PM Pacific Daylight Time (PDT)
Aircraft:	Sikorsky S-61N Helicopter

#### **B. SUMMARY:**

On June 8, 2010, the Airworthiness group convened at Plain Parts, Inc. located in Pleasant Grove, CA, to re-examine the wreckage with the purpose of locating the two airframe fuel filters.

## C. DETAILS OF THE INVESTIGATION:

The helicopter contains two independent airframe fuel filters (one for each engine), which are secured to the lower fuselage fuel controls in the compartment immediately aft of the forward fuel tank. Both airframe fuel filters were located within storage bags containing the helicopter wreckage (Figure 1). Because both filter assemblies were thermally damaged, the Airworthiness group could not accurately determine their respective tank. For the purpose of this report, one filter was identified as filter "A" and the other filter was identified as filter "B".

Figure 1 Storage bags containing some of the helicopter wreckage



# C.1 Examination of filter "A":

The filter assembly identified as filter "A" was found resting on top and within a storage bag containing a portion of the helicopter wreckage (Figure 2). As found, a visual examination of the filter assembly revealed that its filter housing sustained thermal and structural damage to the extent that its respective filter element was exposed. The filter assembly was removed from the bag and its filter element was removed. Visual inspection of the filter element revealed that it had a metal mesh screen indicating that the filter was rated at 40 microns (Figure 3).



Figure 2 View of the fuel filter assembly identified as filter "A" as found within the storage bag.

Figure 3 View of the fuel filter assembly identified as filter "A" showing the filter element removed from the filter housing



# C.2 Examination of filter "B":

The filter assembly identified as filter "B" was found within the debris and wreckage contained within a storage bag separate from the bag that contained filter "A" (Figure 4). Visual examination of the filter assembly revealed that its filter housing sustained thermal and structural damage to the extent that its respective filter element was exposed (Figure 5). The filter element was removed and placed next to an exemplar 40 micron fuel filter for comparison. Visual inspection of the filter element revealed that it had a metal mesh screen indicating that the filter was rated at 40 microns (Figure 6 and Figure 7).

Figure 4 View of the fuel filter assembly identified as filter "B" as found within the wreckage.



Figure 5 View of filter assembly "B" showing the fracture surface and thermal damage to the filter housing



# Figure 6View of filter assembly "B" showing a comparison of the accident filter assembly to a new 40 micron filter element.



Figure 7 Close up view of the filter element "B" after being removed from the filter housing



Mike Hauf Airworthiness Group Chairman