Sikorsky S76B, G-UKLM

AAIB Bulletin No: 3/97 Ref: EW/G97/01/07 Category: 2.2

Aircraft Type and Registration:	Sikorsky S76B, G-UKLM
No & Type of Engines:	2 Pratt & Whitney PT6B-36A turboshaft engines
Year of Manufacture:	1987
Date & Time (UTC):	9 January 1997 at 0931 hrs
Location:	Nr Clipper
Type of Flight:	Public Transport
Persons on Board:	Crew - 2 - Passengers - 9
Injuries:	Crew - None - Passengers - None
Nature of Damage:	None
Commander's Licence:	Airline Transport Pilot's Licence
Commander's Age:	30 years
Commander's Flying Experience:	2,900 hours (of which 540 were on type)
	Last 90 days - 99 hours
	Last 28 days - 33 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The helicopter was en route from Norwich Airport to the 'Schooner'platform with 2 crew and 9 passengers on board. The weatherconditions at the time were visibility 10 km, broken cloud at1,300 feet, surface wind of $085^{\circ}/20$ kt and a temperature of $+1^{\circ}$ C.

During the descent from 3,000 to 1,000 feet the Fire Warning onNo 2 engine illuminated for one second. The emergency checklistwas not initiated but the engine instruments were monitored andshowed no sign of any abnormality. Three minutes later the warningre-occurred, again for one second and again all engine indicationswere normal. The crew then discussed the options should the warningbe repeated and decided that, if that were to happen, they woulddivert to the 'Clipper' platform, 14 miles downwind from their current position.

The Fire Warning for No 2 engine then flashed on and off repeatedlywith a reducing interval between each warning and an increasing duration of warning light illumination until the warning was continuous. Both pilots thought that they could smell burning and so a turntowards the

'Clipper' was initiated, the No 2 engine was shutdown, the emergency checklist initiated and a 'MAYDAY' transmitted, at 0931 hrs, to Anglia Radar. The radar controller alerted theDistress and Diversion (D and D) cell at the London Air TrafficControl Centre (LATCC) and HM Coastguard as well as vectoring two other helicopters in the local area towards the 'Clipper'to assist if necessary.

The crew fired both extinguisher bottles into the No 2 enginebut the fire warning continued. By now the helicopter was 10to 12 miles from the Clipper heading towards a surface vessel. The crew, however, decided to continue towards the Clipper tocarryout a single engine landing in preference to a ditching. The 'Clipper' was contacted by the crew, made aware of the situation, and were asked to observe the No 2 engine during their arrival. No fire was reported by the deck crew, landing clearance wasobtained, and a successful landing, at 0941 hrs, was carried out.

Two licensed engineers from the operator were flown to the platformwhere they inspected the helicopter. The two fire extinguisherbottles were replaced. The lower No 2 Flame Detector was found to be unserviceable and both the lower and upper Flame Detectorswere replaced. The system was then tested, found to be serviceableand the aircraft was released for flight.