AIR COMM CORPORATION
BOULDER MUNICIPAL AIRPORT
3300 AIRPORT ROAD
BOULDER, CO 80301

SIKORSKY *
MODELS S-76A, S-76B & S-76C

FLIGHT MANUAL SUPPLEMENT
FOR
BLEED AIR CABIN HEATER

S76H-100

FAA APPROVED

The information contained in this document is FAA approved material, which must be carried in the basic Flight Manual after the rotorcraft has been modified by installation of the cabin heater system in accordance with Air Comm Corporation, STC No. SH4-57NM.

The information in this document supplements or supersedes the basic manual only in the items contained herein. For limitations, procedures, and performance data not contained in this supplement, consult the basic Flight Manual.

*Includes S-76A modified by installation of Arriel engine (see Sikorsky STC SH568NE).

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FAA APPROVED 10/04/89

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SUPPLEMENT

MODEL S-76A, S-76B & S-76C
FLIGHT MANUAL

Bleed Air Cabin Heater

LOG OF PAGES

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1-10	N/C		

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MODEL S-76A, S-76B & S-76C
FLIGHT MANUAL

Bleed Air Cabin Heater

LOG OF REVISIONS

No.	Rev Date	Pgs Revised	FAA Appl
0	10/04/89	Original Issue	
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4	12/16/94	All Pages	

Note: Revision are indicated by a black vertical line.

Bleed Air Cabin Heater

Introduction

The S-76H-100 cabin heating system is a bleed air type which consists of a bleed air plumbing system, a manually operated heater control valve and a system of heater ejectors. The system also includes a windshield defroster system. The system general arrangement is shown by Figure 1.

The system is available as a flight deck heater and windshield defroster system. An optional cabin heater system is also available.

The system is approved for installation as a supplement to the existing bleed air heater or ECU, or with the existing system removed. If the factory installed heater system is removed, the bleed air shut-off valves must be retained. In addition, the heater "low bleed air pressure" system is retained. This system includes the engine bleed low pressure switch, the heater shutoff valves, and the engine bleed air advisory light system. This system automatically shuts the heater system off, in case of low engine bleed pressure, or loss of engine power.

In addition, the cabin ventilation blower, inlet flapper valve, and overhead ducting system is also retained.

Bleed air flows from the engine compressors through the heater ON-OFF valves, the bleed air plumbing, and the heater control valves to the heater ejectors. The heater ejector mix cabin air with the bleed air and exhaust the warm air to the cabin and across the windshield. The air is circulated by the pumping action of the ejectors.

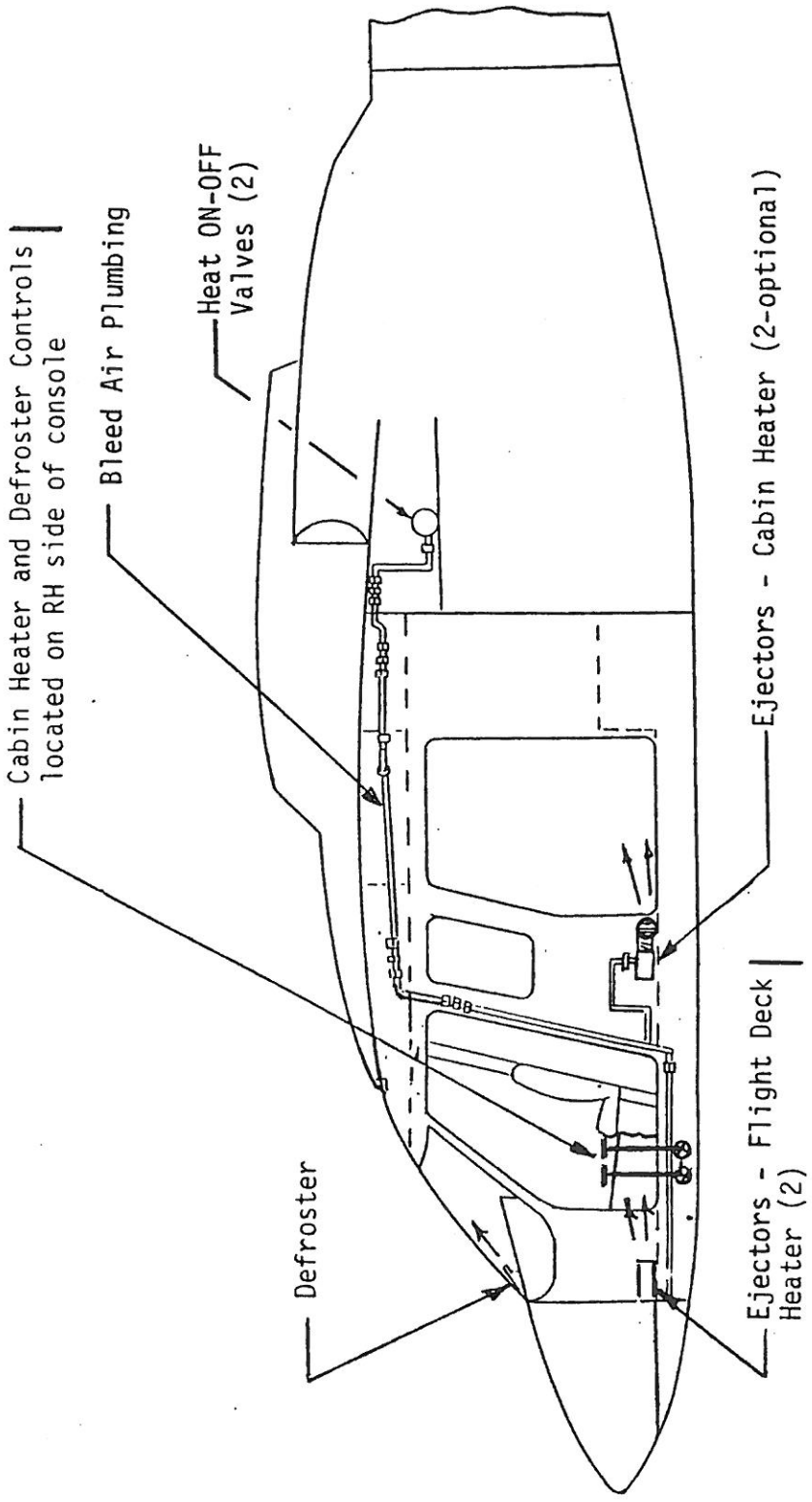

Figure 1, General Arrangement - S-76 Cabin Heater System

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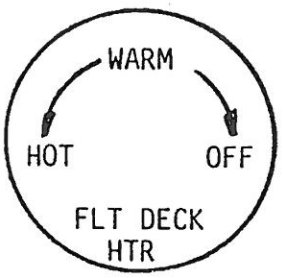
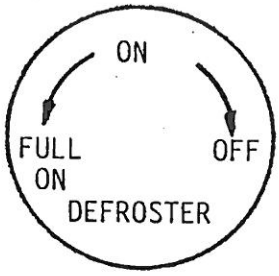
FLIGHT MANUAL

Bleed Air Cabin Heater

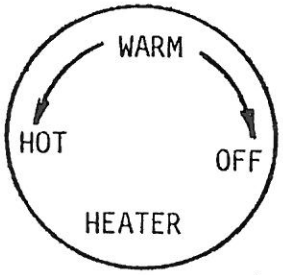
Section I Operating Limitations

Placards and Markings:





Locate on heater control knobs.



Alternate heater placard if optional cabin heater is installed

DO NOT BLOCK HEATER VENT

If optional cabin heater is installed: locate on LH & RH side panels directly above heater inlets and outlets (4 total).

Bleed Air Cabin Heater

Section I — Operating Limitations

Placards and Markings

CABIN HEATER
OPERATING INSTRUCTIONS
1. Turn Bleed Air Switch ON.
2. Turn Heater or defroster On as Desired.

NOTICE
* Max Defroster output is achieved with both original and ACC Heater On.

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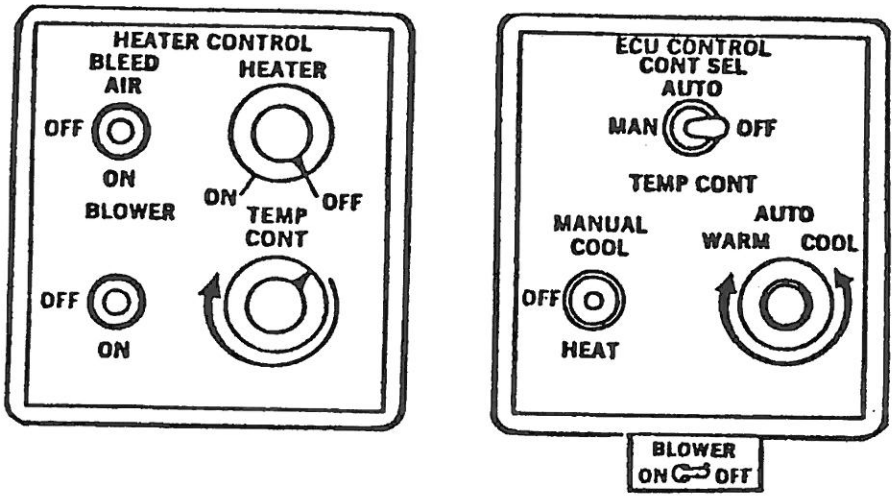
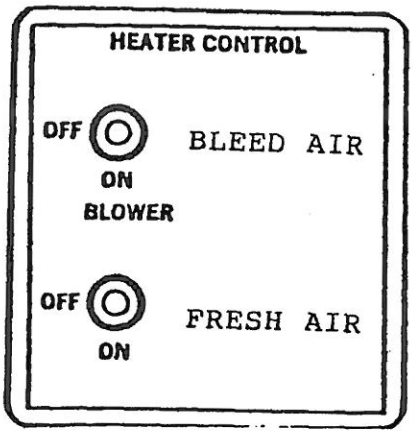
Locate on center console adjacent to Heater & Defroster controls.



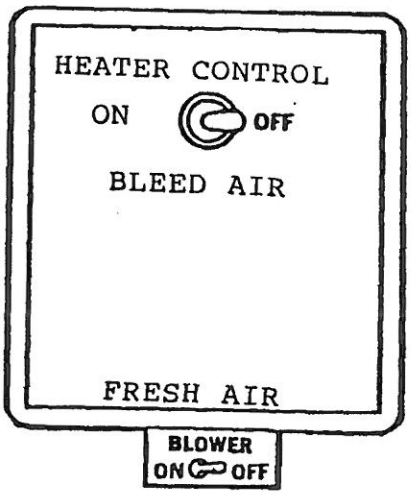
Existing Heater or ECU Control Panels if system is retained

Bleed Air Cabin Heater

Section I (cont'd) Operating Limitation



Overhead control panel if factory heater has been removed.



Overhead control panel if factory ECU has been removed.

Section II Normal Procedures

Engine Prestart check

Heater control bleed air switch OFF.
Cabin heater valve OFF.
Defroster valve OFF.

Before take-off

Heater control bleed air switch OFF.
Cabin heater valve OFF.
Defroster valve OFF.

In-flight Operations

Heater control bleed air switch ON.
Cabin Heater Valve ON as desired.
Operate factor installed bleed air heater of ECU as desired (if system has not been removed).

NOTE

The electrically operated bleed air valves, which are located at each engine, will automatically close if power is lost on either engine.

Decent and Landing

Heater control bleed air switch OFF.
Cabin heater valve OFF.
Defroster valve OFF.

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Section III Emergency Procedures

Operate the heater control bleed air switch and the cabin heater and defroster valves to OFF for any of the following emergencies:

Engine failure.
Engine over-temperature.
Insufficient power.
Onboard fire.

Section IV Malfunction Procedures

No change.

Section V

No change in performance with heater OFF. Basic Flight Manual performance cannot be achieved with heater and/or defroster on.