FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT

For

Found Aircraft Canada, Inc.

FBA-2C1
FBA-2C2

Equipped With

Airglas LH4000F Wheeled Ski

Document No. AT-FND-SKI-AFMS

Registration No. _____

Serial No. _____

This Supplement must be attached to the Found Aircraft Canada, Inc. Pilot's Operating Handbook for the FBA-2C1 or FBA-2C2 airplane when Airglas Model LH4000F skis are installed in accordance with Supplemental Type Certificate (STC) No. SA02304AK-D.

The information contained herein supplements or supersedes the information of the basic Pilot's Operating Handbook and FAA Approved Flight Manual only in those areas listed herein. For limitations, procedures, and performance information not contained in this Supplement, consult the basic Pilot's Operating Handbook and FAA Approved Flight Manual.

FAA Approved:_____

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Page	Rev	Date
1	2	2/22/08
2	2	2/22/08
3	2	2/22/08
4	2	2/22/08
5	2	2/22/08
6	2	2/22/08
7	2	2/22/08
8	2	2/22/08
9	2	2/22/08
10	2	2/22/08
11	2	2/22/08
12	2	2/22/08
13	2	2/22/08

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Date: _____

TABLE OF CONTENTS

SECTION 1
GENERAL

INTRODUCTION

This Aircraft Flight Manual Supplement (AFMS) is applicable to LH4000F ski equipped FBA-2C2 airplanes or LH4000F ski equipped FBA-2C1 airplanes with Mod 1043 installed. Mod 1043 replaces the plain flap system on the model FBA-2C1 airplane with a slotted Fowler-type flap system. Therefore where 2C2 is used in this manual it is acceptable to read 2C1 with Mod 1043 installed.

The aircraft may optionally have a Burl's Aircraft Magnum I penetration tail ski installed.

This supplement provides information and limitations not included in the Airplane Flight Manual (P/N FAC2-M400).

DESCRIPTIVE DATA

Maximum Certificated Weights

Maximum Operational Weight:	
Takeoff:	3500 lbs
Landing:	3500 lbs

Specific Loadings

Wing Loading:	19.4 lbs/sq.ft.
Power Loading:	11.7 lbs/hp.

SECTION 2
LIMITATIONS

INTRODUCTION

The limitations included in this section are applicable to the FBA-2C2 Bush Hawk-XP equipped with the Airglas LH4000F skis, and have been approved by the Federal Aviation Administration (FAA). Observance of these operating limitations is required by Federal Aviation Regulations. Only limitations that are changed due to this modification are presented. If there is no change to the limitations as specified in the airplanes original flight manual then nothing is presented in this section.

The aircraft is to be operated under the "NORMAL CATEGORY" only.

AIRSPEED LIMITATIONS

	SPEED	KCAS	KIAS	REMARKS
V_{NE}	Never Exceed Speed	135	136	Do not exceed this speed in any operation
V_{LO}	Maximum Landing Gear Operating Speed	124	125	Do not extend or retract skis above this speed.

WEIGHT LIMITS

Maximum Takeoff Weight:	3500 lbs.
Maximum Landing Weight:	3500 lbs.
Maximum Weight in Baggage Compartment:	250 lbs.

CENTER OF GRAVITY LIMITS

Center of Gravity Range:

Forward:	17.0 inches aft of datum at 2750 lbs or less. 20.5 inches aft of datum at 3500 lbs. maximum gross weight with linear variation with weight in between.
Aft:	23.5 inches aft of datum at all weights.
Reference Datum:	Main wheel axle.

PLACARDS

The following information is displayed in the form of composite or individual placards.

1. Located on the instrument panel in clear view of the pilot.

DO NOT EXTEND OR RETRACT SKIS AT SPEEDS ABOVE 125 KIAS DO NOT EXTEND OR RETRACT SKIS WHILE IN MOTION ON THE GROUND

DO NOT EXCEED 136 KIAS WITH AIRGLAS LH4000F SKIS INSTALLED

SECTION 3
EMERGENCY PROCEDURES

Emergency procedures are largely unchanged from those specified in the Airplane Flight Manual P/N FAC2-M400, except for procedures regarding the failure of the electric hydraulic pump for extending and retracting the skis in flight.

ELECTRIC HYDRAULIC PUMP FAILURE IN FLIGHT (If Installed)

1. Gear Motor Circuit Breaker – VERIFY ENGAGED, only reset once.
2. If electric pump is still failed –
    a. Gear Motor Circuit Breaker – PULL
    b. Hand Pump Selector – AS DESIRED (SKIS or WHEELS)
    c. Hand pump – PUMP (Approximately 80 strokes)
    d. Ski Position – CONFIRM VISUALLY
    e. Hand Pump Selector – NEUTRAL

SECTION 4
NORMAL PROCEDURES

The normal procedures given here supplement those found in the basic Airplane Flight Manual P/N FAC2-M400. The procedures in that Manual must be followed except as noted here.

AIRSPEEDS FOR NORMAL OPERATION

Airspeeds for normal operation of the skiplane are the same as the FBA-2C2 Bush Hawk-XP landplane. Refer to speeds in section 4 of the Airplane Flight Manual P/N FAC2-M400.

NORMAL PROCEDURES CHECKLISTS

PREFLIGHT INSPECTION

1. Skiplane Approved Flight Manual Supplement should be available in the aircraft.
2. Ski Hydraulic Pump – PUMP skis to desired position
   a) For Wheel Operations – WHEEL
   b) For Ski Operations – SKI
3. Skis – Check for condition and to ascertain that they are not frozen to the surface.
   a) Check Ski Axle Retaining Strap and retaining bolt for FREEDOM OF MOVEMENT AND SECURITY. The strap should have enough free play to allow the strap to rotate on the axle without disengaging.
   b) Inspect Main Ski Tail Bracket for excessive wear, loose wheels and/or looseness of wheel bearings.
   c) Inspect all rigging for fraying, chafing, kinking, and security of hardware, tabs and fittings.
4. Hydraulic System – INSPECT system for fluid quantity and leakage.
5. Weight and Balance Data – CHECK and load the skiplane to maintain the CG within the prescribed limits.

WARNING

THE AIRCRAFT SHALL NOT BE OPERATED WITHOUT THE SKI AXLE RETAINING STRAP (AIRGLAS P/N LH3600-10) INSTALLED PROPERLY ON THE SKIS.

WARNING

A SIGNIFICANT FORWARD SHIFT IN CG IS CAUSED BY THE INSTALLATION OF SKIS OR RETRACTION OF THE SKIS TO THE FORWARD POSITION. BALLAST MAY BE REQUIRED UNDER CERTAIN LOADING CONDITIONS.

BEFORE TAKEOFF

1. Skis – CHECK against desired stop.
2. Hand Pump Selector Valve – NEUTRAL

AFTER TAKEOFF / CRUISE

1. Skis – SKI (Extended)

BEFORE LANDING

1. Ski Hydraulic Pump – PUMP skis to desired position
   a) For Wheel Landing – WHEEL
   b) For Ski Landing – SKI
2. Hand Pump Selector Valve – NEUTRAL
3. Ski Position – CONFIRM VISUALLY

AMPLIFIED NORMAL PROCEDURES

TAXIING

Normal ski plane taxiing techniques are used. Due to the characteristics of tail ski steering, the minimum turning radius is increased as compared to landplane taxiing with the use of brakes.

WARNING

DO NOT EXTEND OR RETRACT SKIS WHILE IN MOTION ON THE GROUND. LANDING GEAR DRAG, CAUSED BY ONE SKI PRECEDING THE OTHER DURING THE RETRACTION OR EXTENSION CYCLE, WILL RESULT IN A GROUND LOOPING TENDENCY.

ENROUTE CLIMB

Ski plane airspeeds and techniques used during climb are identical to those used for the landplane. Extend skis for best climb performance.

LANDING

The landing speeds and stalling speeds for the ski plane are identical to those of the landplane.

SECTION 5
PERFORMANCE

HEIGHT LOSS IN STALLS
A height loss of up to 100 feet may occur in stalls.

AIRSPEED CALIBRATION
Airspeed calibrations are unchanged from the landplane. Refer to airspeed calibration presented in section 5 of the Aircraft Flight Manual P/N FAC2-M400 for the landplane.

STALL SPEEDS
Stall speeds are essentially unchanged from the landplane. Refer to stall speeds presented in section 5 of the Airplane Flight Manual P/N FAC2-M400.

TAKEOFF PERFORMANCE
Under the most favorable condition of smooth packed snow at temperatures approximately 0°C, skiplane takeoff distance is approximately 10% greater than the distance for the landplane. Caution should be exercised in that other temperatures of snow conditions may increase this distance.

CLIMB AND CRUISE PERFORMANCE
The best climb and cruise performance is obtained with the skis in the extended position (SKIS selected) and the performance data in this supplement is based on this ski position. Climb performance of the skiplane may be reduced by as much as 15% from the landplane climb performance shown in section 5 of the Airplane Flight Manual P/N FAC2-M400.

LANDING PERFORMANCE
Under the most favorable conditions of smooth packed snow at temperatures of approximately 0°C, the skiplane landing distance is approximately 20% greater than that shown for the landplane. Caution should be exercised in that other temperatures or other snow conditions may either increase or decrease this distance.

SECTION 6
WEIGHT AND BALANCE

The Airglas LH400F equipped Bush Hawk-XP must be loaded in accordance with the limitations in Section 2. These are shown as an aircraft weight versus c.g. locations chart on the following page.

WARNING
IT IS THE RESPONSIBILITY OF THE AIRPLANE OWNER AND PILOT TO INSURE THAT THE AIRPLANE IS LOADED PROPERLY.

SKIPLANE REFERENCE DATUM
Unchanged from the landplane (main wheel axle), see Airplane Flight Manual P/N FAC2-M400.

WEIGHT PROCEDURES
Unchanged from the landplane, see Airplane Flight Manual P/N FAC2-M400.

WEIGHT AND BALANCE PROCEDURES
Unchanged from the landplane, see Airplane Flight Manual P/N FAC2-M400.

ADDITIONAL EQUIPMENT LIST
Airglas LH4000F skis were not installed when your airplane was initially licensed at the factory, and therefore, it will be necessary to refer to revised weight and balance records to obtain the basic empty weight and moment of your airplane with skis installed. These revised records are carried in your ski plane, and should account for the entire ski installation, which in some cases includes a ballast weight in the tail, and for some models, replacement of main wheels and tires with the 8.50-6 tires.

The following table provides the weights and centers of gravity of each component in the ski installation. Check to be sure that this data is included in the aircraft's empty weight and balance before doing the weight and balance calculation for your flight.

Item	Weight (lbs)	CG (in)*	Comments
Right Ski	73.0	-20	Ski Deployed CG
Left Ski	73.0	-20	Ski Deployed CG
Hand Pump	2.5	20	
Right Axle / Flange	5.0	0	
Left Axle / Flange	5.0	0	
Electro Hydraulic Pump	8.4	133	(1/2 full reservoir)
Total	166.9	-10.5	

- Caution: The CG will move forward when the wheel are deployed or skis retracted.
- Ski weights include the weight of the hydraulic fluid in the cylinders

SECTION 7
AIRPLANE & SYSTEMS DESCRIPTION

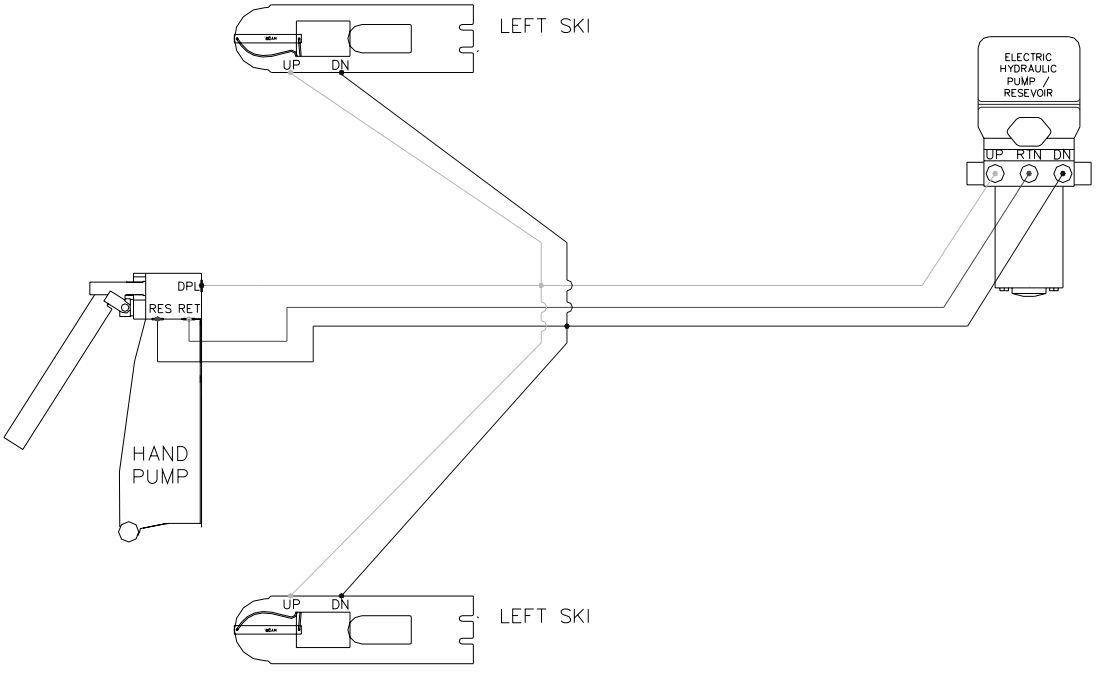
This section contains a description of the modifications and equipment associated specifically with the installation of Airglas LH4000F skis on the FBA-2C2 Bush Hawk-XP.

The skiplane is identical to the landplane with the following modifications:

1. The airplane is fitted with retractable main wheel skis and a tail wheel ski.
2. A ski axle assembly for each main gear.
3. Shock chords and limit cables to support the ski installation.
4. Hydraulic system to support the retractable main wheel skis.
5. Electrical system to support the electro-hydraulic pump for operating the retractable main wheel skis.
6. Skiplane placard.

RETRACTABLE MAIN WHEEL SKIS

The main wheel skis are attached to a special ski axle and axle back plate fitting by means of a link. This allows the skis to be moved up and down (extended). A plate on the skis moves back under the wheel when the skis are extended, and forward in front of the wheel when the skis are retracted, allowing the wheels to protrude below the bottom of the ski for bare surface operation.



Hydraulic Schematic with Electro-Hydraulic Pump Installed