

SOLOY, LLC  
450 Pat Kennedy Way SW  
Olympia, WA 98501

# PILOT'S OPERATING HANDBOOK SUPPLEMENT

AND

AIRPLANE FLIGHT MANUAL

FOR

CESSNA T206H/206H/TU206G/U206G

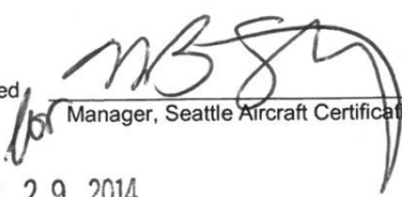
SERIAL NO.: \_\_\_\_\_

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This Supplement must be attached to the Pilot's Operating Handbook (POH) when a Soloy, LLC camera mount is installed on the wing in accordance with S.T.C. SA02748AT.

Information contained herein supplements or supersedes the basic POH only in those areas listed herein. For limitations, procedures and performance information not contained in this Supplement, consult the basic POH.

F.A.A. Approved

  
\_\_\_\_\_  
Manager, Seattle Aircraft Certification Office

Date: \_\_\_\_\_

SEP 29 2014

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**SOLOY WING CAMERA MOUNT  
POHS CESSNA T206H/206H/TU206G/U206G**

**LOG OF EFFECTIVE PAGES**

This handbook supplement will be kept current with revisions distributed to the last known owner of each airplane equipped with a Soloy Wing Camera Mount.

It is the responsibility of the owner to maintain this handbook in current status when it is being used for operational purposes.


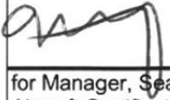
Owners should contact the Soloy Product Support Department whenever the revision status of their handbook is in question.

A revision bar will extend the full length of new or revised text and/or illustrations added on new or presently existing pages. This bar will be located adjacent to the applicable revised area on the outer margin of the page.

<b>LOG OF EFFECTIVE PAGES</b>			
Dates of issue for original and revised pages are:			
Original	7-14-04		
Revision 1	8-24-11		
Revision 2	9-29-14		
<b>Page</b>	<b>Revision</b>	<b>Page</b>	<b>Revision</b>
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NOTE: Revised text is indicated by a revision bar in the margin.			

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**LOG OF REVISIONS**

Revision		Pages Revised	Comments	FAA Approval
No.	Date			
0	7-14-04	Original	Original of Manual.	Eugene L Bollin for Manager, Atlanta Aircraft Certification Office Central Region, ACE-115A College Park, GA 30337-2747 Date: 7-14-04
1	8-24-11	All Pages	Revised to Soloy format with ownership transfer to Soloy LLC.	 for Manager, Seattle Aircraft Certification Office, ANM-100S Renton, WA 98055-4056 Date: 24 Aug 2011
2		All Pages	Deleted all reference to FLIR; replaced with "camera". Revised autopilot limitations.	 for Manager, Seattle Aircraft Certification Office, ANM-100S Renton, WA 98055-4056 Date: 29 SEP 2014

**SOLOY WING CAMERA MOUNT  
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## **SECTION 1**

### **GENERAL**

#### **INTRODUCTION**

This handbook supplement contains nine sections and includes the material required to be furnished to the pilot by 14 CFR Part 23.

The wing mounted camera and its associated controllers and transmitters provide a system to record and transmit real-time video via a downlink system. The camera system is normally operated by an operator seated at a console in the back of the airplane.

The camera, mounted under the left wing at wing station 110, just outboard of the wing lift strut, consists of a turret which may contain one or more cameras. Typically, one of the cameras will be an infrared type which is capable of detecting heat source targets and can also zoom in to identify specific features.

The camera system obtains its electrical power from the airplane's main electrical bus. A "MASTER SWITCH" enables the pilot to turn the entire camera electrical system ON or OFF as the airplane flight operations dictate. The electrical circuit is protected by a circuit breaker within easy reach of the pilot.

When not in use and during takeoff and landing the camera turret is rotated to point aft in order to minimize erosion of the lens.

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**SECTION 2**

**LIMITATIONS**

**INTRODUCTION**

This Supplement contains the information required to be furnished to the pilot by 14 CFR Part 23 and must be carried in the airplane during flight operations. It also provides additional information, which will assist in operating the airplane at its maximum efficiency.

Compliance with the limitations section is mandatory.

All other aircraft limitations not listed in this section remain unchanged from the Normal Category Cessna 206. Refer to Section 2 of the POH.

**AIRSPEED LIMITATIONS**

1. The maximum airspeed is 140 KIAS when a camera turret is installed under the wing.

**OTHER LIMITATIONS**

**FLAP LIMITATIONS**

1. The flaps are limited to 20° maximum when a camera turret is installed under the wing.

**CAMERA MOUNT LIMITATIONS**

The following limitations apply to aircraft operations when a camera turret is installed under the wing:

1. The camera is to be pointed in the aft position when not in use.
2. Aileron fixed trim tabs must be set, depending on the weight of the camera turret installed:
  - a. Left: .....0 to 9° Up
  - b. Right: .....0 to 9° Down

**NOTE**

Trim tabs must be returned to 0° when camera turret is removed.

3. Camera Mount Limitations
  - a. Location: .....Left Wing Station 110
  - b. Size: ..... 18.5" Wide, 25" below wing  
(total distance including camera adapter)
  - c. Weight: ..... 100 pounds (total weight)

**AUTOPILOT LIMITATIONS WITH CAMERA INSTALLED**

- a. Day/Night VFR only.
- b. Autopilot maximum airspeed limitation ..... 120 KIAS.  
Autopilot minimum airspeed limitation ..... 90 KIAS.
- c. Maximum fuel imbalance with autopilot engaged ..... 60 LBS.
- d. Maximum flap extension ..... 10°
- e. No flap movement with autopilot ON.

**PLACARDS**

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

1. In full view of the pilot:

MAXIMUM 20° FLAPS WITH CAMERA INSTALLED

MAX AIRSPEED 140 KIAS WITH CAMERA INSTALLED

**AUTOPILOT USE WITH CAMERA INSTALLED IS LIMITED TO:**

- DAY/NIGHT VFR only
- AIRSPEED -- 90 to 120 KIAS
- MAXIMUM FUEL IMBALANCE -- 60 LBS
- MAXIMUM FLAP EXTENSION -- 10°
- NO FLAP MOVEMENT WITH AUTOPILOT ON.



**SECTION 3**

**EMERGENCY PROCEDURES**

**INTRODUCTION**

In the event the camera system causes an abnormally high electrical load, or other electrical malfunctions including fire, the entire camera system installation should be electrically disconnected by the pilot. The camera system MASTER SWITCH is located on the circuit breaker panel just below the pilot's control yoke. It is clearly labeled with the OFF and ON positions.

In the event of an airplane system emergency not related to the camera system, the camera system should be disconnected by use of the MASTER SWITCH until the emergency conditions are under control or the airplane has landed safely.

**EMERGENCY CHECKLISTS**

1. Abnormal High Electrical Load
  - a. Camera system Master Switch ..... OFF  
If the electrical load returns to normal, discontinue camera operations.
  - b. Land ..... AS SOON AS PRACTICABLE  
Obtain camera system corrective action from competent technicians.
2. Electrical Smoke or Fumes in Cockpit
  - a. Option A
    - i. Camera system Master Switch ..... OFF  
If the smoke or fumes dissipate, discontinue camera operations. If the smoke or fumes do not dissipate continue to Option B.
    - ii. Land ..... AS SOON AS PRACTICABLE  
Obtain camera system corrective action from competent technicians.
  - b. Option B
    - i. Camera system Master Switch ..... OFF  
If the smoke or fumes DO NOT dissipate, discontinue camera operations.
    - ii. Land ..... AS SOON AS POSSIBLE
    - iii. Airplane ..... EVACUATE  
Obtain camera system corrective action from competent technicians before further camera operations.

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**EMERGENCY  
PROCEDURES**

3. Electrical Fire in Cockpit
  - a. Option A
    - i. Camera system Master Switch..... OFF  
If the electrical fire extinguishes, discontinue camera operations. If the electrical fire does not extinguish continue to Option B.
    - ii. Land..... AS SOON AS PRACTICABLE  
Obtain camera system corrective action from competent technicians before further camera operations.
  - b. Option B
    - i. Camera system Master Switch..... OFF  
If the electrical fire DOES NOT extinguish, discontinue camera operations.
    - ii. Land..... AS SOON AS POSSIBLE
    - iii. Airplane..... EVACUATE  
Obtain camera system corrective action from competent technicians before further camera operations
4. All Other Aircraft Emergencies  
All other aircraft emergency procedures remain unchanged from the Normal Category Cessna 206. Refer to Section 3 of the POH.
5. AUTOPILOT EMERGENCY PROCEDURES (with camera installed)  
Autopilot emergency procedures remain unchanged from the basic aircraft supplement. Refer to Supplement 15 of the POH.

## **SECTION 4**

### **NORMAL PROCEDURES**

#### **INTRODUCTION**

Section 4 provides checklist and amplified procedures for the conduct of normal operation. Normal procedures associated with optional systems can be found in Section 9.

#### **NORMAL OPERATION**

1. Cruise to and from the target area with the camera facing aft.
2. To operate the camera system, turn the camera system MASTER SWITCH to the ON position.
3. To discontinue operations of the camera system, turn the camera system MASTER SWITCH to the OFF position.
4. All Other Aircraft Normal Procedures
  - a. All other aircraft normal procedures remain unchanged from the Normal Category Cessna 206. Refer to Section 4 of the POH.

#### **NORMAL CHECKLISTS**

##### **Before camera system Flight Operations**

1. Before camera system Flight Operations
  - a. Camera system Circuit Breaker..... IN
  - b. Camera system Master Switch ..... ON
2. To Discontinue camera system Flight Operations
  - a. Camera system Master Switch ..... OFF

#### **NORMAL PROCEDURES – AUTOPILOT (with camera installed)**

- A. No change from basic autopilot supplement except observe new limitations when camera is installed.

##### **NOTE**

Autopilot control of aircraft heading is compromised if the rudder trim is not set to provide a coordinated flight condition. This is indicated by a centered slip ball in the turn coordinator.

##### **CAUTION**

The autopilot must be disengaged before moving the flaps and then re-engaged after the flaps are not in motion (Disengage with A/P DISC/TRIM INT or AP select button).

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**SECTION 5**

**PERFORMANCE**

**ALL OTHER AIRCRAFT PERFORMANCE PARAMETERS**

The effects on the performance of the Cessna 206 by the installation of the camera system are insignificant. Therefore, all other aircraft performance parameters remain unchanged from the Normal Category Cessna 206. Refer to Section 5 of the POH.

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**SOLOY WING CAMERA MOUNT**  
**POHS CESSNA T206H/206H/TU206G/U206G WEIGHT & BALANCE/**  
**EQUIPMENT LIST**

**SECTION 6**

**WEIGHT & BALANCE/EQUIPMENT LIST**

**INTRODUCTION**

This section supplies supplemental information for establishing the basic empty weight and moment of the airplane. Supplemental information for calculating the weight and moments for various operations is also provided.

It should be noted that specific information regarding the weight, arm, moment and installed equipment list for this airplane can only be found in the appropriate weight and balance records carried in the airplane.

**COMPREHENSIVE EQUIPMENT LIST** – Add the Following Changes:

The equipment list description has been revised to install items necessary for this modification. Perform a new aircraft weight and balance by weighing the aircraft after camera system installation or by calculating new weight and balance.

The camera system can be equipped with a number of different options. Measure, record or verify the weight and arm of each item installed. The locations listed below are for reference only.

ITEM NO.	EQUIPMENT LIST DESCRIPTION	WT (LB)	ARM (IN)
<b><u>EQUIPMENT ADDED</u></b>			
<b>23 – Communications</b>			
23-01-A	Monitor Stand		
23-02-A	Video Amplifier		129.40
23-03-A	Video Recorder		129.40
23-04-A	Camera Assembly	Note 1	33.60
23-05-A	Camera MCU		119.20
23-06-A	Turret Hand Controller		
<b>27 – Flight Controls</b>			
27-01-R	Aileron Trim Tabs	0.22	81.00
<b>57 - Wings</b>			
57-01-R	Camera Mount	8.02	33.60

Note 1: Camera turrets installed at left wing station 110 are limited to 100 lb or less.

**SOLOY WING CAMERA MOUNT  
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EQUIPMENT LIST**

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# SOLOY WING CAMERA MOUNT

POHS CESSNA T206H/206H/TU206G/U206G

AIRPLANE &  
SYSTEMS DESCRIPTIONS

## SECTION 7

### AIRPLANE & SYSTEMS DESCRIPTIONS

#### INTRODUCTION

This section provides description and operation of the airplane and its systems. The Soloy Wing Camera Mount is a flexible system that facilitates the installation of a number of electronics combinations.

For a description of the various optional camera related electronics installed on the Cessna 206, refer to the individual manufacturers Operating Handbook.

All other airplane & systems descriptions not described in this section remain unchanged from the Normal Category Cessna 206. Refer to Section 7 of the POH.

#### AIRFRAME

There are several changes to the airframe due to the wing camera mount installation:

1. A dovetail type camera mount is added which includes:
  - a. An intercostal web
  - b. The spar and intercostal blocks are attached to the webs
  - c. The dovetail is bolted to the spar and intercostal blocks on the underside of the left wing
2. An electronics box is added to the baggage shelf at the rear of the aircraft.
3. Aileron fixed trim tabs are added to the ailerons.

#### ELECTRICAL SYSTEM

There are several changes to the electrical system associated with the Microwave Downlink Antenna installation. Most changes are equipment specific, but a MASTER SWITCH installed on the circuit breaker panel allows all camera related equipment to be turned off with one switch.

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## **SECTION 8**

### **HANDLING, SERVICE & MAINTENANCE**

#### **INTRODUCTION**

This section contains recommended procedures for proper ground handling, routine care and servicing of your Soloy wing camera mount equipped Cessna. It also identifies certain inspection and maintenance requirements, which must be followed to maintain the airworthiness of your aircraft. It is recommended that a planned schedule of preventive maintenance based on climate and flying conditions encountered in your locality.

Refer to the Soloy Camera Mount Maintenance Manual Supplement for installation/removal instructions and flight settings for the Soloy Camera Mount.

All other handling, servicing and maintenance details of the Cessna 206 airplane and its systems are unchanged from the Normal Category Cessna 206. Refer to Section 8 of the POH.

#### **CESSNA OWNER ADVISORIES** – Add the Following Changes:

In addition to the Cessna system, Soloy LLC offers a support system consisting of technical publications and service information.

##### **PUBLICATIONS** – Add the Following Changes:

In addition to the Cessna publications, Soloy LLC furnishes various publications with the Soloy camera mount kit at the time of delivery. These items are listed below:

1. Pilot's Operating Handbook Supplement.
2. Soloy Wing Camera Mount Maintenance Manual Supplement.
3. Soloy Wing Camera Mount Parts Catalog Supplement.
4. Service Letters and Bulletins.
5. Service Instructions applicable to accessory kits installed or ordered.

#### **AIRPLANE INSPECTION PERIODS** – No Change

#### **ALTERATIONS OR REPAIRS** – No Change

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**SECTION 9**

**SUPPLEMENTS**

**LIST OF SUPPLEMENTS**

Some supplements covering installations or procedures not used for the Soloy Wing Camera Mount may be withdrawn from this manual.

<b>Soloy Supplement Number</b>	<b>Supplement Name</b>	<b>Revision Level</b>	<b>Equipment Installed</b>
1	Microwave Downlink Antenna	1	_____

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