

**FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT**

to

**PILOT'S OPERATING HANDBOOK AND
FAA APPROVED AIRPLANE FLIGHT MANUAL**

for

**Cessna Aircraft Corporation
(Manual P/Ns)**

**Skyhawk Models: 172R (P/N 172RPHUS09 & 172R180PHUSXX)
172S (P/N 172SPHUS05)**

**Skylane Models: 182S (P/N 182SPHUSXX)
182T (182TPHUS01 & 182TPHAUS-01 NAV III)
T182T (P/N T182TPHAUS-00 & T182TPHUS02 NAV III)**

**Stationair Models: 206H (P/N 206HPHUS06)
T206H (P/N T206HPHUS06)**

Aircraft Reg. No. _____ Aircraft S/N: _____

This supplement must be attached to the FAA-approved Cessna Aircraft Models 172R, 172S, 182S, 182T, T182T, 206H, and T206H associated Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when the Airplane is modified by the installation of AMSAFE Aviation Inflatable Restraint (AAIR[®]) System, V23 Version in accordance with STC No. SA01700LA.

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

FAA APPROVED _____

**Manager, Flight Test Branch, ANM-160L
Federal Aviation Administration
Los Angeles Aircraft Certification Office
Transport Airplane Directorate**

Date November 24, 2004

AMSAFE, Inc.
 Inflatable Restraints Division
 1043 N. 47th Avenue
 Phoenix, AZ, 85043
 Document No.: E508810
 Revision: B

AFM Supplement for
 AMSAFE Aviation Inflatable Restraint
 On Cessna 172, 182, and 206
 STC SA01700LA

LOG OF REVISIONS

REV NO	EFFECTED PAGES	DATE	DESCRIPTION	FAA APPROVAL
IR	Title (1) Log Page (2) 3 4	11-24-04 11-24-04 11-24-04 11-24-04	Initial Release	<u>Original signed P. Power</u> Manager, Flight Test Branch, ANM-160L Federal Aviation Administration Los Angeles Aircraft Certification Office Transport Airplane Directorate Date: <u>November 24, 2004</u>
A	Log Page (2) 3 4	12-21-04 12-21-04 12-21-04	Added information in SECTION 1 and a limitation in SECTION 2. Corrected Moment Arm for system installations in all models.	<u>Original signed by P. Power</u> Manager, Flight Test Branch, ANM-160L Federal Aviation Administration Los Angeles Aircraft Certification Office Transport Airplane Directorate Date: <u>December 21, 2004</u>
B	Log Page (2) 4		Added weight and balance information summary for Models 172, 182, and 206 without rear bench seat AAIR Systems.	<u>Patrick Power</u> Manager, Flight Test Branch, ANM-160L Federal Aviation Administration Los Angeles Aircraft Certification Office Transport Airplane Directorate Date: <u>April 14, 2005</u>

SECTION 1 GENERAL

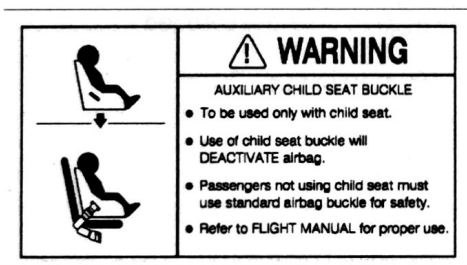
The AAIR V23 is a self-contained, modular, three-point restraint system that improves protection from serious head-impact injury during a survivable aircraft crash by inclusion of an inflatable airbag to the lapbelt portion of the three-point restraint. An unbuckled restraint airbag will not inflate.

SECTION 2 LIMITATIONS

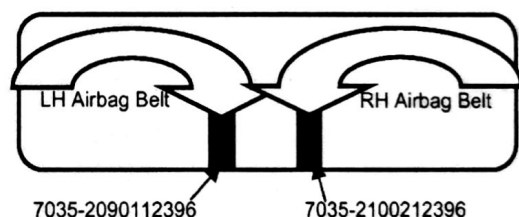
A child safety seat shall not be used with the V23 AAIR System in the front seat (co-pilot). A child safety seat may be used in the rear seat positions only by attaching the child seat with an auxiliary child seat buckle. The standard inflatable restraint buckle cannot be used to secure a child safety seat.

The Auxiliary Child Seat Buckle adapter (P/N 7035-2090112396 (LH) and 7035-2100212396 (RH)) secures a Child Safety Seat to either left or right positions of the Rear Seat for all models (see warning label below). It is typically stored under the cushion and is found in the center of the seat adjacent to the standard AAIR End-Release Buckle Assembly, identifiable by part number (above) and attaches to the Airbag Belt portion of the Seatbelt Airbag Assembly (see diagram).

The restraint in an empty co-pilot or passenger seat must not be buckled so as to prevent inflation of the lapbelt airbag in the unoccupied seat.



Rear Bench Seat for Models 172, 182, and 206



SECTION 3 EMERGENCY PROCEDURES

No Change

SECTION 4 NORMAL PROCEDURES

To activate the system, join (buckle) the three-point restraint in the same manner as any other three-point seatbelt. An empty co-pilot or passenger seat restraint must not be buckled.

SECTION 5 PERFORMANCE

No Change

SECTION 6 WEIGHT AND BALANCE/EQUIPMENT LIST

For complete information of the AAIR V23 System effect on weight and balance loading to the aircraft, please refer to AMSAFE Aviation's, Weight and Balance Information Report, Document No. E508952. Below is a summary useful for loading and Center of Gravity calculations:

Models 172R, 172S – with optional rear seat bench AAIR System

Empty Weight	Arm	Moment	
7.638	57.928	442.454	AAIR System Difference Added
1692.5 lbs		1701.138 lbs	New Empty Weight

Models 172R, 172S – without optional rear seat bench AAIR System

Empty Weight	Arm	Moment	
3.848	45.397	174.686	AAIR System Difference Added
1692.5 lbs		1696.348 lbs	New Empty Weight

Models 182S, 182T, T182T – with rear seat bench AAIR System

Empty Weight	Arm	Moment	
7.638	57.682	440.578	AAIR System Difference Added
2029 lbs		2036.638 lbs	New Empty Weight

Models 182S, 182T, T182T – without rear seat bench AAIR System

Empty Weight	Arm	Moment	
3.848	41.798	160.838	AAIR System Difference Added
2029 lbs		2032.848 lbs	New Empty Weight

Models 206H, T206H – with optional rear seat bench AAIR System

Empty Weight	Arm	Moment	
11.54	69.782	805.284	AAIR System Difference Added
2210 lbs		2221.54 lbs	New Empty Weight

Models 206H, T206H – without optional rear seat bench AAIR System

Empty Weight	Arm	Moment	
7.75	53.852	417.350	AAIR System Difference Added
2210 lbs		2217.75 lbs	New Empty Weight

For all models, the change is less than 1% of the CG range at gross weight, which is insignificant and will cause no CG issues. Refer to the above report for the exact details.