

**BY ORDER OF THE COMMANDER
908TH AIRLIFT WING**

**908TH AIRLIFT WING
INSTRUCTION 21-102**



23 AUGUST 2010
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Maintenance

**SERVICING, MAINTENANCE AND
STORAGE OF PATIENT THERAPEUTIC
LIQUID OXYGEN (PTLOX) AND MA-1
PORTABLE BREATHING OXYGEN
CYLINDERS**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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(Col Kerry Kohler)

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This publication implements Air Force Policy Directive (AFPD) 21-1, Air and Space Maintenance, Air Force Instructions (AFI) 11-2C-130, Vol. 3, C-130 Operations Procedures, AFI 21-101, Aircraft and Equipment Maintenance, Management Air Force Technical Order (T.O.) 15X-2-8-1, Operational and Maintenance Instructions for Liquid Oxygen Converters, T.O. 15X6-4-3-1, Type MA-1 Portable Breathing Oxygen Cylinder and Regulator and provides guidance, establishes procedures, and assigns responsibilities for servicing, maintenance and storage of Patient Therapeutic Liquid Oxygen (PTLOX) units and Portable Breathing Oxygen Cylinders (MA-1 bottles). This publication applies to all members assigned to the 908th Airlift Wing (AW). Refer recommended changes and questions about this publication to 908 MXG/MXG using the AF IMT 847, Recommendation for Change of Publication; route AF IMT 847s from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, Management of Records, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://www.my.af.mil/gcss-af61/afrims/afrims>

SUMMARY OF CHANGES

This revision changes the following : adds “(MOF)” (paragraph 1.), changes “coordinator” to “controller”, changes contact of the deficient equipment” to and deletes an unnecessary “the” (paragraph 2.1.7.), adds, “IAW AFI 10-2009” and deletes “members of (paragraph 2.2.3.), changes “serviced” to “calibrated” (paragraph 2.2.6), changes “coordinator” to “controller” (paragraph 2.2.8.), changes “coordinator” to “controller” (paragraph 2.2.9.), and adds Attachment 1. A margin bar (|) indicates newly revised material.

1. Responsibilities: This instruction applies to personnel assigned to of the 908th Maintenance Squadron (MXS), 908th Aircraft Maintenance Squadron (AMXS), 908th Maintenance Operation Flight (MOF), 357th Airlift Squadron (AS), and the 908th Aeromedical Evacuation Squadron (AES).

2. Procedures:

2.1. 908 AMXS and 908 MXS will:

2.1.1. Store PTLOX units in the 908 MXS Liquid Oxygen (LOX) storage area.

2.1.2. Ensure MA-1 bottles are stored in special built containers provided.

2.1.2.1. These containers will be located in the 908 MXS LOX storage area.

2.1.3. Electro-Environmental is primarily responsible for maintenance of PTLOX units.

2.1.4. Electro-Environmental personnel will perform required maintenance and minor repair of PTLOX Converter in accordance with instructions in T.O. 15X-2-8-1.

2.1.5. Flightline personnel will ensure PTLOX units and MA-1 bottles are serviced prior to Aeromedical Evacuation (AE) missions IAW AFI 11-2AE, Vol. 3, paragraph 6.26.1.5 and AFI 11-2AE, Vol. 3, paragraph 6.26.1.5 and AFI 11-2C-130, Vol. 3, Para 20.18.6.1.

2.1.6. Flightline personnel will provide maintenance and minor repair/replacement of MA-1 bottles as required in accordance with instructions in T.O. 15X6-4-3-1 and AFI 11-2C-130, Vol. 3.

2.1.7. Electro-Environmental/Flightline personnel will notify the Maintenance Controller at the 908 MOF Maintenance Operation Center (MOC), who in turn will notify the 908 AES point of contact of the deficient equipment.

2.1.8. Flightline personnel will check MA-1 bottles once a week and perform maintenance actions as required.

2.2. 908th AES will:

2.2.1. Coordinate with the 357 AS Current Operations Officer (DOO) to ensure AE mission requiring PTLOX units and MA-1 bottles are printed on the weekly flying schedule. For pop-up/short notice missions, notify Flightline supervisor as soon as requirement becomes known. 2.2.2. Prior to an AE mission, a member from the AE crew

or supporting mission launch team will pickup PTLOX units and MA-1 bottles from storage area and will deliver to aircraft in preparation for AE mission.

2.2.2. A member of the primary AE crew will inspect PTLOX units IAW AFI 10-2909 and MA-1 bottles according to pre-flight procedures contained in AFI 11-2AE, Vol 3.

2.2.3. AE crew will advise the AES to notify the MOC, who in turn will notify Electro-Environmental/Flightline personnel of any defective or non-operable PTLOX units or MA-1 bottles immediately after each AE mission.

2.2.4. The 908 AES Air Reserve Technician (ART) or designated representative will perform monthly user-level maintenance on PTLOX units using the "General Inspections" criteria IAW T.O. 15X-2-8-1.

2.2.5. The 908 AES ART or designated representative will ensure that PTLOX units are properly calibrated by qualified Biomedical Equipment (BMET) maintenance personnel through the 42nd Medical Group (MDG)/MERC IAW T.O. 15X-2-8-1.

2.2.6. AE crew will return PTLOX units to storage area immediately after AE mission.

2.2.7. Primary AE crew will refill PTLOX/MA-1 bottles after each AE mission. Primary AE crew shall document and tag all broken PTLOX with AFTO 244, Industrial/Support Equipment Tag, MA-1 bottles with a AFTO 350, Repairable Item Processing Tag and report findings to the Maintenance Controller who will notify Electro-Environmental/Flightline personnel prior to mission departure.

2.2.8. The 908 AES ART or designated representative will check PTLOX containers twice a week for proper servicing or maintenance actions and report discrepancies to the Maintenance Controller.

2.2.9. The 908 AES ART or designated representative is responsible for coordinating the applicable maintenance actions of the PTLOX with Essex Cryogenics and 42 MDG/MERC for calibration if the appropriate test equipment is not available or repair cannot be accomplished by Electro-Environmental.

3. Funding:

3.1. The 908 AES shall fund all purchases and replacement costs of PTLOX Converters.

3.2. The 908 MXS shall fund all purchases and replacement costs of MA-1 bottles.

4. Security: Only personnel with a Flightline access badge will be granted access to the 908 MXS LOX storage area.

BRETT J. CLARK, Colonel, USAFR
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 10-2909, Aeromedical Evacuation Equipment Standards, 19 May 2008

AFI 11-2C-130, Vol. 3, C-130 Operations Procedures, 14 March 2006

AFI 21-101, Aircraft and Equipment Maintenance Management, 29 Jun 2006

T.O. 15X-2-8-1, Operational and Maintenance Instructions for Liquid Oxygen Converters, 15 Apr 2004

T.O. 15X6-4-3-1, Type MA-1 Portable Breathing Oxygen Cylinder and Regulator, 1 Aug 2007

Abbreviations and Acronyms

AE—Aeromedical Evacuation

AES—Aeromedical Evacuation Squadron

AFI—Air Force Instruction

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AMXS—Aircraft Maintenance Squadron

AS—Airlift Squadron

AW—Airlift Wing

BMET—Biomedical Equipment

DOO—Current Operations Officer

IAW—In accordance with

LOX—Liquid Oxygen

MA—1 Bottle—Portable Breathing Oxygen Cylinders

MDG—Medical Group

MOC—Maintenance Operation Center

MOF—Maintenance Operations Flight

MXG—Maintenance Group

MXS—Maintenance Squadron

PTLOX—Patient Therapeutic Liquid Oxygen

T.O.—Air Force Technical Order

Terms

ART—Air reserve technicians, commonly referred to as ARTs, are full-time civil service employees that provide management continuity, equipment maintenance and training support to help keep their units combat ready. Air reserve technicians carry dual status, working as full-time federal civil service employees for the Air Force Reserve and as military members in the same Air Force Reserve Command (AFRC) units where they work as civilians and performing the same job. In their civilian role, air reserve technicians provide full-time support throughout the month for their units. In the AFRC, air reserve technicians participate with other reservists on weekends and annual active-duty tours.

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