



DEPARTMENT OF THE AIR FORCE
USAFSAM/FEH (AFMC)
HYPERBARIC MEDICINE DIVISION
BROOKS AIR FORCE BASE, TEXAS 78235-5252

24 Aug 02

MEMORANDUM FOR USAF Flight Surgeons Offices

FROM: USAFSAM/FEH (210 536-3281 DSN 240-)

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SUBJECT: Cheaper Ambulance Oxygen Adapter for CRU-60 and CRU-94 Compatible Masks

1. For the past 40 years it has been standard treatment protocol in cases of Decompression Sickness (DCS) to provide the aviator with 100% Oxygen by 'tight fitting aviators mask' in the ER and during transportation. An old Air Force Technical Order provided a method to accomplish this task, however the parts to construct the mechanism were expensive, bulky, and have become very difficult to locate. This letter is published to provide a current solution (thanks to TSgt Roy Cano) to an old problem.
2. Follows is a photo of the five parts needed to build an adapter that will fit 99% of today's oxygen fittings commonly found in ERs and ambulances. It provides a very light positive pressure of about 1 cm of water, and will fit any CRU-60 or CRU-94 compatible aviators mask. In the tanker-transport-bomber environment, you can use a smoke mask, or for any pilot who has a fitted helmet or mask, they can use their own equipment.



3. A list of part descriptions and NSNs (where applicable) follows:

National Stock Number	Supplier	Part Description	Key#
NSN 1660-01-008-8107	B# 3260024	CRU-79 Pressure Regulator	1
Mfg # N40XY72FNN-SNN	A# OL-06	Low Pressure Oxygen Hose	2
Mfg # 2105	A# OG-0802	Male Quick Connect Fitting	3
NSN 1660-00-348-2162 LS	MS 22058-1	Connector Assembly	4
NSN 4720-00-913-9942 BO	MS22055H8	Hose, Oxygen Breathing	5

“A” Life Assist Inc
 11277 Sunrise Park Dr
 Rancho Cordova, CA
 Zip = 95742
 1-800-824-6016
 “B” Litton

4. When assembled and hose connections secured with hose clamps or Tie-Wraps, the finished product is shown below (the short hose #5 shown below is shorter than the one listed in the NSN).



BENTON P. ZWART, COL, USAF, MC, CFS
 Chief, Clinical Hyperbaric Medicine

Enter the Cheapsters! In an ever widening quest for more bang for the buck, Maj Mike Cantrell in an attempt to be named "Worlds Cheapest Major", and his junior Os have developed a low cost alternative to the DCS ambulance adaptor kit for aviators mask found above. It uses a standard, off-the-shelf demand valve, medical oxygen regulator (LSP, \$225.00, currently used in many ambulances portable oxygen delivery system) instead of the current \$2000.00, CRU-79 regulator in the original design. In addition, they attached a regular aviator mask hose to the regulator. The green oxygen hose with the ambulance oxygen hook up is the same as the current adaptor.

Maj Cantrell checked it out in their ambulance and it works, the only caution would be that the button on the top of the regulator delivers a significant positive flow of oxygen, and said button should therefore be avoided.

A list of part descriptions and NSNs (where applicable) follows:

National Stock Number	Supplier	Part Description	Key#
	A# OD-063RLH	Demand Pressure Regulator	1
Mfg # N40XY72FNN-SNN	A# OL-06	Low Pressure Oxygen Hose	2
Mfg # 2105	A# OG-0802	Male Quick Connect Fitting	3
NSN 1660-00-348-2162 LS	MS 22058-1	Connector Assembly	4
NSN 4720-01-114-9117LS		MBU 12P Mask Hose	5

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 11277 Sunrise Park Dr
 Rancho Cordova, CA
 Zip = 95742
 1-800-824-6016
<http://www.life-assist.com/frames/frindex.html>



This lash-up replaces the \$2000 CRU 79 regulator with a \$225 functional replacement by Life Assist. In addition, it uses the standard MPU 12P Mask Hose which can be had for a paltry \$13.97. Great Job – Phairchild Physiology!

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