



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS OKLAHOMA CITY AIR LOGISTICS CENTER (AFMC)  
TINKER AIR FORCE BASE OKLAHOMA

APR 22 2009

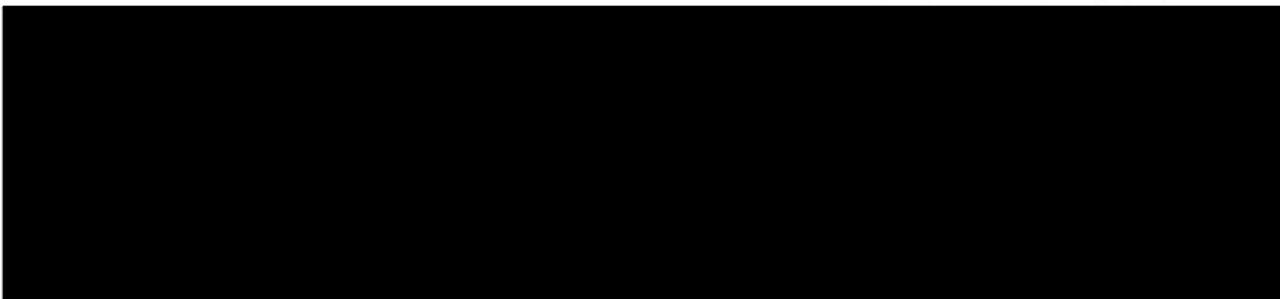
MEMORANDUM FOR 77 AESG/CC  
7980 LINDBERGH LANDING  
BROOKS AFB TX 78235-5119

FROM: 727 ACSG/EN  
3001 Staff Drive Ste 1AG1104A  
Tinker AFB OK 73145-3019

SUBJECT: KC-10 and C-21 Safe-To-Fly (STF) Approval for the Essex Cryogenics of Missouri, Inc. Backpack Medical Oxygen System (BMOS)

References: Memorandum from 77 AESG/CC dated 16 Mar 09  
Test Report No. FY08.009 for Subject Equipment

1. The KC-10 & C-21 System Program Offices have reviewed the test results for the Essex Cryogenics of Missouri, Inc. Backpack Medical Oxygen System (BMOS) and approve the use of subject equipment for all phases of flight on the KC-10 and C-21 aircraft. This approval is based on satisfactory results from the performance baseline, vibration, humidity, altitude, rapid decompression, explosive atmosphere, and acceleration tests.
2. The BMOS is acceptable for use as a source of supplemental oxygen for a single patient during in-flight emergencies (IFEs) at or below cabin pressure altitudes of 18500ft where oxygen is required. The BMOS DISS 1240 Accessory Port must not be used to supply oxygen to a second patient during these IFEs.
3. We also recommend that the specific part number and specifications be incorporated into the current Aeromedical Evacuation command guidance.



Cc:  
HQ-AMC/SG  
HQ-AMC/A3V  
HQ-AMC/A4MK  
HQ-AMC/A5RT

**STAFF SUMMARY SHEET**

	TO	ACTION	SIGNATURE (Surname), GRADE AND DATE		TO	ACTION	SIGNATURE (Surname), GRADE AND DATE
1	KC-10 Engineer	Coord		6			
2	C-21 Engineer	Coord		7			
3	544ACSS/ GFEA	Coord		8			
4	727ACSG/ EN	Sign		9			
5				10			

SURNAME OF ACTION OFFICER AND GRADE 	SYMBOL 544 ACSS/GFEA	PHONE 	TYPIST'S INITIALS 	SUSPENSE DATE 20090415
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SUBJECT KC-10 & C-21 Safe to Fly Approval for the Essex Cryogenics of Missouri, Inc. Backpack Medical Oxygen System (BMOS)	DATE 20090402
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**SUMMARY**

- The purpose of this package is to coordinate the "Safe to Fly" (STF) Approval Letter for the Essex Cryogenics of Missouri, Inc. Backpack Medical Oxygen System (BMOS). This equipment will be utilized in direct support of Aeromedical Evacuation missions conducted by the KC-10 & C-21 aircraft.
- The slides at Tab 1 are the KC-10 & C-21 Assessment of the BMOS including a detailed hazards analysis and an engineering review of the technical data provided by the 77 AESG.
- The letter at Tab 2 is the STF recommendation from the Aeromedical Systems Group Commander. It is supported by the analysis performed by the Aeromedical Test Branch and recorded in the Technical Report at Tab 3.
- RECOMMENDATION:** All addressees concur and the 727 ACSG Chief Engineer sign the Memo at Tab 4.


Four Tabs:  
 1. KC-10 & C-21 Assessment Slides  
 2. 77 AESG/CC Letter  
 3. Test Report FY08.009  
 4. Proposed Letter