Moog Flight Simulation Field Service Bulletin (FSB)

Level: Mandatory

FSB Title: Pentium4 computer and OS obsolescence

Number: MTB53160

Effected System Model Number: GSeat systems

Affected Component(s):

CLC03069;

CLC03069-303

Issue Date: 30-09-2017

Effective Date: 30-09-2017

Moog Contact: Customer Support

+31(0) 252 462051

support-flight-simulation@moog.com



Revision History

Rev	Pages	Description			Status *1)	Initials	Date
1.00	All	Initial release			FF	TP	29-09-2017
*1)	Document S	Status description: FA:		For Appr	roval,		
FI:	For Information,		FF:	For Final, Final Issue			
FR:	For Review,	Comments requested, no hold point	FC:	For Cons	struction		

Table of Contents

1.	Table 1 – Model / Serial Number List Requiring Verification	. 3
	Obsolescence statement	
	Product migration	
	Required Activity	
	Safety Precautions and Special Instructions	

1. Table 1 - Model / Serial Number List Requiring Verification

Model	Description	Start Serial Number	End Serial Number
CLC03069	Pentium4 RT Computer 2U 19" rack mount	007	
CLC03069-303	Pentium4 RT Computer 2U 19" rack mount		205

2. Obsolescence statement

Over the years 2005 until 2013, Moog has delivered GSeat Systems with a real-time computer within the CLC03069 to CLC03069-303 range. This type of computer contains a PCA-6186 main board that holds a Pentium4 processor. This mainboard assembly is out of production for several years and Moog has been able to provide spare part and repair capability up until now.

With the publication of this FSB, Moog announces the end of life for this computer platform.

With this computer platform, Control Loading application were provided that were based on the Moog Jetset software architecture and running on the VxWorks Operating System.

The Jetset software architecture has reached end of maintenance and support of the VxWorks OS is ended.

An upgrade is possible to mitigate this obsolescence as described in the next section.

3. Product migration

The legacy computer has an ethernet interface to the gseat servo drives an runs a proprietary protocol for communication. This interface is not affected by the obsolescence as the alternative product runs an application that allows identical communication to the servo drive.

The Host communication is also based over Ethernet and uses UDP protocol for communication. The application will be based on the same protocol with data words that are in identical order as the original application (so no Host programming needed for UDP protocol). The only difference can be found in the values attached to the status words. Besides this, a legacy Host computer application will be able to communicate with the new motion application. A verification on the buffer lay-out will be conducted by Moog prior to the upgrade.

Since the software is of the Middleware generation, structure of the software and configuration files will change however cueing performance is not affected as same control algorithms are used. Parameter naming is subject to change resulting in some conversion of legacy configuration files present in the real time computer. Moog will support this conversion when a backup of the exisiting legacy software is provided.

With the new software, the customer gets access to the latest generation web-based User Interface (Moog Simulation Software) which is on long term support.

<u>Important:</u> the legacy application was based on the VxWorks OS. This is replaced by the Linux OS (with real-time extensions). As a consequence the application was ported to the middleware architecture that is used for this Linux OS.

4. Required Activity

For the gseat application, the only item to replace is the computer. The new computer CLC03069-308 has the same form factor as the legacy computer and fits in a 19" rack. With this computer, the following life cycle issues:

- · Limited amount of repair parts present
- Support of VxWorks and corresponding application software is limited.
- Switch software to latest and maintained developments.

During the upgrade session the following will be done:

- Verification of the application and conversion of the configuration files
- Dismount the RT Computer
- Install new RT Computer
- Run functional test as per ATG
- Wrap-up

The following documentation will be provided:

- Acceptance Test Procedures for Upgrade
- Moog Simulation Software GUI User Manual, CDS45333
- Installation manual, the Linux OS comes with different installation procedures

5. Safety Precautions and Special Instructions

The conversion procedure described in this bulletin must be performed by Moog service personnel. Installation of the new RT computer and functional testing can be done by customer maintenance personnel.

Replenishing the spare part stock with the replaced spare part afterwards is necessary.

TAKE A CLOSER LOOK

Solutions for motion control are available around the world. For more information, visit our Web site or contact one of the locations below.

Argentina +5411 4326 5916 info.argentina@moog.com

Australia +61 3 9561 6044 info.australia@moog.com

Austria +43 664 144 65 80 info.austria@moog.com

Brazil +55 11 5523 8011 info.brazil@moog.com

China +86.21.5854.1411 info.china@moog.com

Finland +358 9 251 7 27 30 info finland@moog.com

France +33 1 4560 7000 info.france@moog.com

Germany +49 7031 6220 Info.germany@moog.com

Hong Keng +852 2 635 3200 info.hongkong@moog.com

India +918041208799 Info.india@moog.com Ireland +353 21 451 9000 info ireland@moog.com

Italy +39 0332 421 111 info.italy@moog.com

Japan +B1 43655 3767 info japan@moog.com

Korea +82317646711 info.korea@moog.com

Luxembourg +352 40 46 401 info luxembourg@moog.com

Netherlands +31 252 462 000 info netherlands@moog.com

Norway +47 224 32927 info.norway@mcog.com

Russia +7317131811 info.russia@moog.com

Singapore +65 677 36238 info singapore@moog.com

South Africa +27 11 655 7030 Info southafrica@moog.com Spain +34 902 133 240 info spain@moog.com

Sweden +45 31 680 060 info.sweden@moog.com

Switzerland +41713945010 info.switzerland@moog.com

United Kingdom +44 1564 784 777 info.uk@maag.com

USA +17166522000 nfo.usa@moog.com

www.moog.com/industrial

#2000Moog. H

All trainments as indicated for all are the property of Mang, but

LIN/FU