



Pilatus Business Aircraft Ltd.
Broomfield, Colorado

SERVICE BULLETIN

PC-12/47E

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APPROVAL RECORD

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Initial Release	03-30-16	Signatures for initial issue (Revision -) see front page			
A	06-21-16	<i>lwd</i>	<i>Oliver</i>	<i>Oliver</i>	Updated eConnect SW Version; Editorial changes as indicated with change bars; added deletion procedure for update files post modification;

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1 PLANNING INFORMATION

A. Effectivity

Pilatus PC-12/47E aircraft (MSN 1435 to 1635) with EMTEQ eConnect In-Flight Entertainment system installed per FAA STC SA04153AT or EASA STC 10049872 or any FAA STC derived, national validation.

B. Concurrent Requirements

N/A

C. Reason

(1) Problem

There have been several improvements and enhancements to the graphical user interface including corrections of erroneous moving map indications/flight plan indications as well as increased browser/portable electronic device compatibility and increased general handling capabilities.

(2) Cause

The current graphical user interface software version within the eConnect In-Flight Entertainment (IFE) system contains several issues requiring improved user interface capabilities.

(3) Solution

Upgrade the current software version with the new software version 3.0

D. Description

This service bulletin provides the information required to upgrade the current eConnect IFE software version to software version 3.0.

Section 3.G is optional and only required for compatibility issues if the eConnect IFE system XM portion is used with a Microsoft Windows laptop computer. Contact Pilatus for tools availability and/or further instructions

E. Compliance

OPTIONAL

F. Approval

The graphical user interface software is not part of the configuration controlled under the STC Certification and therefore does not require specific certification approval.

PILATUS advises Operators/Owners to check with their designated Airworthiness Authority for any changes, local regulations or sanctions that may affect the embodiment of this Service Bulletin.

G. Copyright

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H. Manpower

	CWR450-2000-0X Non-XM Version MSN (all)	CWR450-5000-0X XM Radio Version MSN 1458 through 1588	CWR450-5000-0X XM Radio Version MSN 1588 through 1635
Preparation	0.10	1.00	0.10
Programming/Configuration	1.50	1.50	1.50
Testing	0.30	0.30	0.30
Close-Up	0.10	1.00	0.10
Total Man-Hours	2.00	3.80	2.00

I. Weight and Balance

Modification has no impact on the weight and balance of the aircraft.

J. Electrical Load Data

Modification has no impact on the electrical load of the aircraft.

K. Software

EMTEQ eConnect graphical user interface software version 3.0

L. References

Pilatus PC-12/47E Aircraft Maintenance Manual (AMM), document number 02300.

Instruction for Continued Airworthiness, eConnect IFE, Document Number 2-125214-802

M. Publications Affected

N/A

N. Interchangeability of Parts

N/A

2 MATERIAL INFORMATION

A. Material – Price and Availability

Operators should send orders for the upgrade software drive to:

PILATUS BUSINESS AIRCRAFT, LTD.,
PART SALES DEPARTMENT
11755 AIRPORT WAY
BROOMFIELD, CO 80021
UNITED STATES OF AMERICA

Tel: 303 465 9099
Fax: 303 465 6040
Email: partsales@pilbal.com

PILATUS AIRCRAFT LTD
CUSTOMER SUPPORT MANAGER
CH-6371 STANS
SWITZERLAND

General Aviation
Tel: +41 41 619 3333
Fax: +41 41 619 7311
eMail: SupportPC12@pilatus-aircraft.com

B. Material Necessary for Each Aircraft

(1) Material to be Procured

Item	New Part No.	Description	Old Part No.	QTY	Disp. Code	Fig	Item
1	USB-3.0-xxxx ¹	Programmed USB Thumb Drive	N/A	1	NE	N/A	N/A

Table 2-1 - Material to be Procured

¹ Where XXXX denotes the serial number of the aircraft to be modified

(2) Additional Material to be Procured

N/A

(3) Operator Supplied Materials

N/A

(4) Material Necessary for Each Spare

N/A

(5) Re-Identified Parts

N/A

C. Tooling

Item	Part No.	Description	QTY	Remarks
1	2E-1301-22-0006	eConnect Maint Harness	1	Used to interface to eConnect
2	2E-1301-22-0007	eConnect XM Harness	(1)	Consult section 3.G for need
3	N/A	Laptop computer	1	Used to verify/configure installation; Wi-Fi capability required
4	N/A	Google Chrome Browser	1	Used to verify eConnect graphical user interface
5	N/A	SSH Client (i.e. PuTTY)	1	Used for eConnect configuration (obtain from: http://www.putty.org/)
6	N/A	FTP Client (i.e. FileZilla)	1	Used to delete update files (obtain from : https://filezilla-project.org/)

Table 2-2 - Required Tooling

3 ACCOMPLISHMENT INSTRUCTIONS - AIRCRAFT

For the purpose of this Service Bulletin, the following definitions and conventions apply:

Typographical	
CAPITALS	Words written entirely in capitals are used to identify actions to be performed by the operator, a discrete status or to identify acronyms.
BOLD	Words written entirely in bold lettering are used to identify cautionary actions.

A. Task Applicability Matrix

Table 3-1 below shows the relations between the different eConnect versions and connected options in relation to work task being accomplished as part of this SB. TASK #1 has to be carried out for EVERY INSTALLATION, TASK #2 SUBSEQUENTLY for A SPECIFIC CONFIGURATION:

	TASK #1	TASK #2 (SELECT ONLY ONE COLUMN BASED ON AIRCRFT SPECIFIC CONFIGURATION)		
	All Versions	No IFC	Aviator 200	ATG-Series
CWR450-2000-01	(3.B) / (3.C) / (3.H) / (3.I)	(3.D)	(3.E)	(3.F)
CWR450-2000-02	(3.B) / (3.C) / (3.H) / (3.I)	(3.D)	(3.E)	(3.F)
CWR450-5000-01 MSN 1458 – 1588	(3.B) / (3.C) / (3.0) / (3.H) / (3.I)	(3.D)	(3.E)	(3.F)
CWR450-5000-01 MSN 1589 – 1635	(3.B) / (3.C) / (3.H) / (3.I)	(3.D)	(3.E)	(3.F)
CWR450-5000-02 MSN 1458 – 1588	(3.B) / (3.C) / (3.0) / (3.H) / (3.I)	(3.D)	(3.E)	(3.F)
CWR450-5000-02 MSN 1589 – 1635	(3.B) / (3.C) / (3.H) / (3.I)	(3.D)	(3.E)	(3.F)

Table 3-1 - eConnect SB Tasks / Installation correlation

B. Preparation

- (1) POWER UP the eConnect System for normal operation and CONNECT to the eConnect Wi-Fi network
- (2) SELECT the MAINTENANCE PAGE on the Graphical User Interface (GUI) and VERIFY IF the SW Versions tab (Figure 3-1) appears or not, showing revisions (OR LATER) stated below:

VERSIONS	
ECONNECT	0.55
DATABASE	20160503
WEB	20160527.0
FPGA	14/5/29.1
IO BOARD	0.0
OS ROOTFS	201502261114
OS BOOTFS	201501141852
AVIOIP	6.0.0

Figure 3-1 GUI Maintenance Page SW/HW Versions

- (3) IF Figure 3-1 (or similar) does NOT appear, continue below, otherwise this SB is completed and continue to section 3.H.
- (4) POWER DOWN the eConnect system and CABIN BUS
- (5) OBEY the safety precautions for Electrical Power Maintenance Practices given in AMM 12-B-24-00-00-00A-901A-A.
- (6) OBEY safety precautions for Electronic Discharge (ESD) protection i.a.w. AMM DMC-12-B-20-00-00-00A-901A-A.
- (7) DE-ENERGIZE the aircraft electrical system, Reference AMM 12-B-24-00-00-00A-901A-A.
- (8) LOCATE and REMOVE panel 21QZ (Maintenance Interface, RH Rear Lower Cockpit Sidewall) given in AMM 12-B-06-20-00-00A-040B-A
- (9) CONNECT the eConnect Maintenance Harness (Item 1 in Table 2-2) to the AVIONICS connector (P 158). See Figure 3-2.

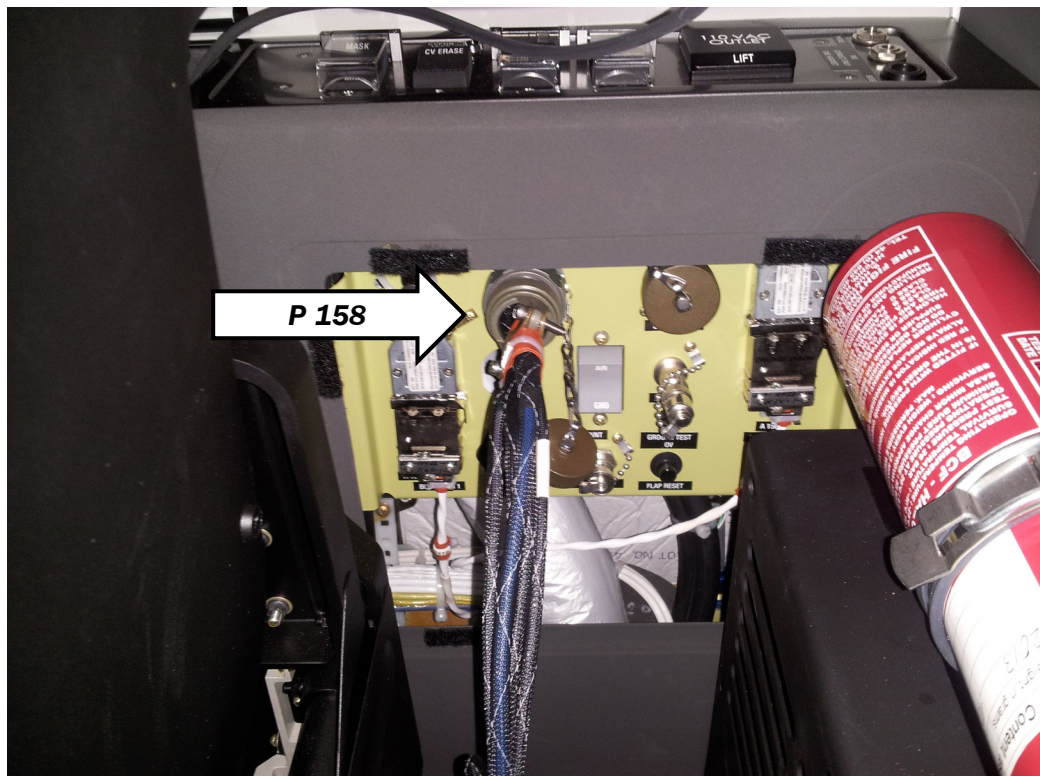


Figure 3-2 eConnect Maintenance Harness Connected

- (10) OPEN circuit breaker CB_RW3 (CABIN IFE) and (IF INSTALLED) CB_RX3 (XM AUDIO) on the RH AFT CB PNL.
- (11) INSERT the pre-programmed USB thumb drive (Item 1 in Table 2-1) into the matching USB receptacle on the maintenance harness (Item 1 in Table 2-2).
- (12) Connect the Maintenance Harness (Item 1 in Table 2-2) RJ 45 Ethernet connector to the Ethernet port of the maintenance laptop
- (13) For parts of the procedures where GPS and/or XM signal is required, install a capable signal repeater or have the aircraft outside of any structural building obstructing line of sight to GPS/XM satellite constellations.

C. Upgrading the eConnect IFE System



NOTE

TO ASSURE CORRECT UPDATE FUNCTION, CONNECT THE AIRCRAFT TO A STABLE POWER SOURCE (I.E. GPU) CAPABLE OF CONTINUOUSLY PROVIDING STABLE POWER TO THE CABIN BUS!

- (1) ENERGIZE the aircraft electrical system. Reference AMM 12-B-24-00-00-00A-901A-A.
- (2) ENERGIZE the CABIN BUS on the overhead control panel.
- (3) CLOSE circuit breaker CB_RW3 (CABIN IFE) and VERIFY that the activity LED (IF fitted) on the thumb drive ILLUMINATES INTERMITTENTLY to indicate that the eConnect system is reading the drive.
- (4) READING the software package will take approximately 10 minutes. After the activity LED shows no more reading activity (may be indicated by continuous, low frequency blinking of the activity LED) **WAIT** at least 10 minutes or 15 minutes total IF no indication LED is fitted on the USB drive.
- (5) REMOVE power from CABIN BUS on the overhead control panel.
- (6) REMOVE the USB drive from maintenance harness and WAIT 30 seconds, RESTORE power to CABIN BUS.
- (7) The eConnect will power up again and install the copied files. The system will AUTOMATICALLY REBOOT during this process (this may take 20-30 minutes to be completed).
- (8) LOG onto the eConnect Wi-Fi SSID or through the connected Ethernet cable
- (9) OPEN the “PuTTY” software tool [> putty.exe] (Item 5 in Table 2-2) on the maintenance laptop
- (10) ENTER the host IP address “10.0.9.1” ,or “10.0.9.2” if no connection can be established in the first IP, and PRESS open (Figure 3-6)

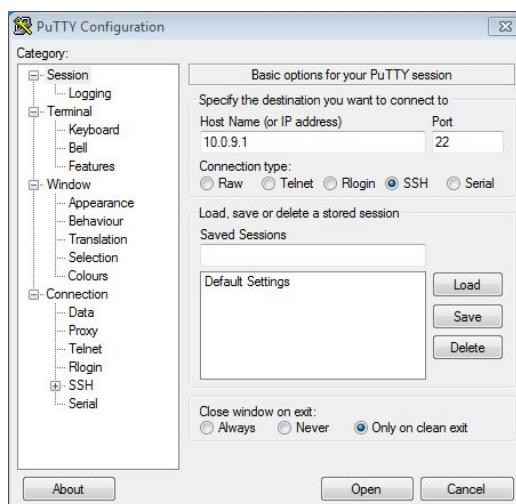
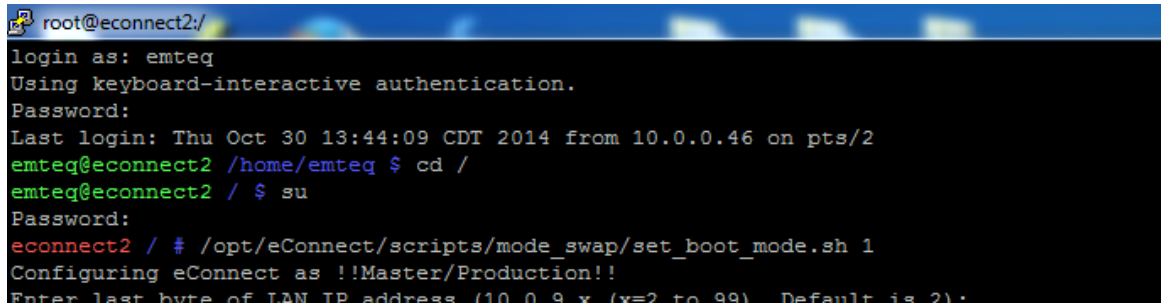


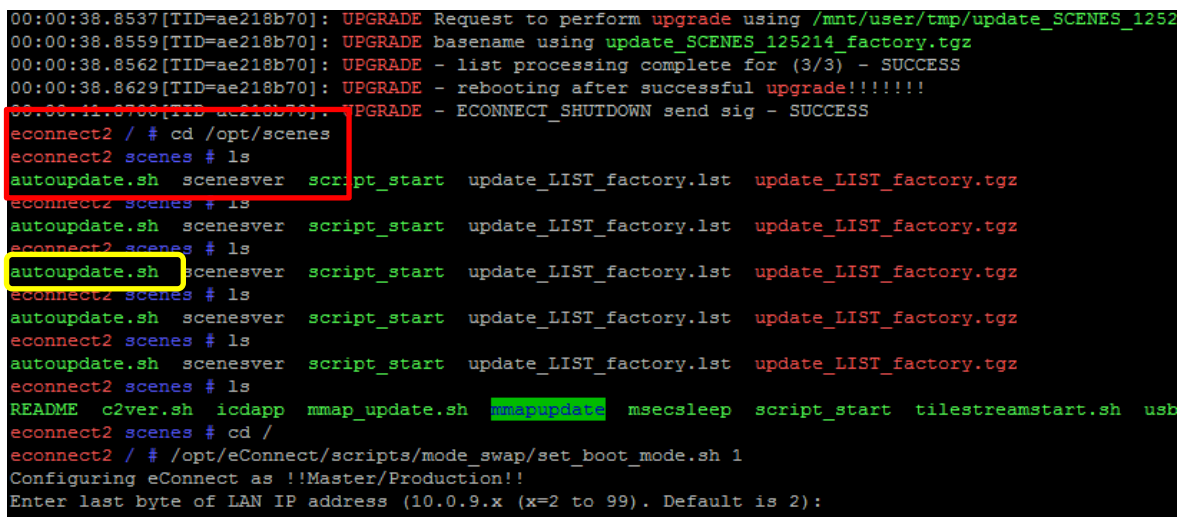
Figure 3-3 PuTTY SSH Login Configuration



```
root@econnect2:/  
login as: emteq  
Using keyboard-interactive authentication.  
Password:  
Last login: Thu Oct 30 13:44:09 CDT 2014 from 10.0.0.46 on pts/2  
emteq@econnect2 /home/emteq $ cd /  
emteq@econnect2 / $ su  
Password:  
econnect2 / # /opt/eConnect/scripts/mode_swap/set_boot_mode.sh 1  
Configuring eConnect as !!Master/Production!!  
Enter last byte of LAN IP address (10.0.9.x (x=2 to 99). Default is 2):
```

Figure 3-4 PuTTY SSH Command Prompt

- (11) At the command prompt (Figure 3-4) ENTER the following login credentials (all entries are case sensitive):
 - (a) Login as: **emteq** [ENTER]
 - (b) Password: **Q3tm36170** (password will not display/press [ENTER] after entry)
- (12) At the command prompt (Figure 3-5) EXECUTE the following commands:
 - (a) **cd /** [ENTER]
 - (b) **su** [ENTER]
 - (c) (Password:) **root** [ENTER]
 - (d) **cd /opt/scenes** [ENTER]
 - (e) **ls** [ENTER]
- (13) The “ls” (LIST) command prompt lists the content of the previously selected (“CD, CHANGE DIRECTORY”) “scenes” directory; VERIFY if a file “autoupdate.sh” (shown in yellow box) is LISTED in this directory as shown in Figure 3-5 below



```
00:00:38.8537[TID=ae218b70]: UPGRADE Request to perform upgrade using /mnt/user/tmp/update_SCENES_1252  
00:00:38.8559[TID=ae218b70]: UPGRADE basename using update_SCENES_125214_factory.tgz  
00:00:38.8562[TID=ae218b70]: UPGRADE - list processing complete for (3/3) - SUCCESS  
00:00:38.8629[TID=ae218b70]: UPGRADE - rebooting after successful upgrade!!!!!!  
00:00:41.8700[TID=ae218b70]: UPGRADE - ECONNECT_SHUTDOWN send sig - SUCCESS  
econnect2 / # cd /opt/scenes  
econnect2 scenes # ls  
autoupdate.sh  scenesver  script_start  update_LIST_factory.lst  update_LIST_factory.tgz  
econnect2 scenes # ls  
autoupdate.sh  scenesver  script_start  update_LIST_factory.lst  update_LIST_factory.tgz  
econnect2 scenes # ls  
autoupdate.sh  scenesver  script_start  update_LIST_factory.lst  update_LIST_factory.tgz  
econnect2 scenes # ls  
autoupdate.sh  scenesver  script_start  update_LIST_factory.lst  update_LIST_factory.tgz  
econnect2 scenes # ls  
autoupdate.sh  scenesver  script_start  update_LIST_factory.lst  update_LIST_factory.tgz  
econnect2 scenes # ls  
README  c2ver.sh  icdapp  mmap_update.sh  mmapupdate  msecsleep  script_start  tilestreamstart.sh  usb  
econnect2 scenes # cd /  
econnect2 / # /opt/eConnect/scripts/mode_swap/set_boot_mode.sh 1  
Configuring eConnect as !!Master/Production!!  
Enter last byte of LAN IP address (10.0.9.x (x=2 to 99). Default is 2):
```

Figure 3-5 PuTTY SSH Command Prompt List Command

- (14) REPEAT previous step (3.C.(12)(e)) execute the “ls” → [ENTER] (LIST) command prompt to REFRESH listing UNTIL “autoupdate.sh” is NO LONGER LISTED in the directory

- (15) Once verified that the “autoupdate.sh” file (Step (14)/Figure 3-5) has CLEARED, continue to next sections depending on system configuration



NOTE

IF THIS ECONNECT IS CONNECTED TO A SWIFT BROAD BAND OR GOGO ATG SYSTEM DO NOT EXECUTE BELOW PROCEDURE STEPS. PROCEED DIRECTLY TO SECTION 3.E (AVIATOR 200) OR SECTION 3.F (ATG SERIES) CONFIGURATION!

D. eConnect Configuration – Basic and XM Version eConnect (No IFC)



NOTE

IF THIS ECONNECT IS CONNECTED TO A SWIFT BROAD BAND OR GOGO ATG SYSTEM DO NOT EXECUTE BELOW PROCEDURE STEPS. PROCEED DIRECTLY TO SECTION 3.E (AVIATOR 200) OR SECTION 3.F (ATG SERIES) CONFIGURATION!

- (1) CONNECT to the “econnect” SSID with your device
- (2) OPEN the “PuTTY” software tool [> putty.exe] (Item 5 in Table 2-2) on the maintenance laptop
- (3) ENTER the host IP address “10.0.9.1” and PRESS open (Figure 3-6)

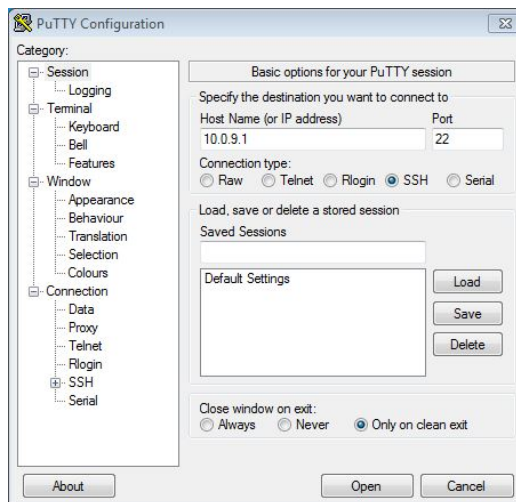


Figure 3-6 PuTTY SSH Login Configuration

- (4) At the command prompt (Figure 3-7) ENTER the following login credentials (all entries are case sensitive):
 - (a) Login as: **emteq** [ENTER]
 - (b) Password: **Q3tm36170** (password will not display/press [ENTER] after entry)
- (5) At the command prompt (Figure 3-7) EXECUTE the following commands:
 - (a) **cd /** [ENTER]
 - (b) **su** [ENTER]
 - (c) (Password:) **root** [ENTER]
 - (d) **/opt/eConnect/scripts/mode_swap/set_boot_mode.sh 1** [ENTER]

```

root@econnect2:/
login as: emteg
Using keyboard-interactive authentication.
Password:
Last login: Thu Oct 30 13:44:09 CDT 2014 from 10.0.0.46 on pts/2
emteg@econnect2 /home/emteg $ cd /
emteg@econnect2 / $ su
Password:
econnect2 / # /opt/eConnect/scripts/mode_swap/set_boot_mode.sh 1
Configuring eConnect as !!Master/Production!!
Enter last byte of LAN IP address (10.0.9.x (x=2 to 99). Default is 2):

```

Figure 3-7 PuTTY SSH Command Prompt

(6) ENTER the configuration values into the command prompt (Figure 3-8) by FOLLOWING the steps (Table 3-2) below; CONFIRM each prompt with [ENTER] for DEFAULT value or ENTER specific value followed by [ENTER] to CONFIRM

CONFIRM default setting for the eConnect server IP address	DEFAULT (10.0.9.2)
ENTER the new network SSID by ENTERING econnect[tail #] or econnect[MSN #]	SSID: _____
CONFIRM default setting for SSID; CONFIRM with [ENTER]	DEFAULT (YES)
CONFIRM default HW MODE 802.11N OPTION 2; CONFIRM with [ENTER]	DEFAULT (802.11n)
CONFIRM default setting for COUNTRY CODE; CONFIRM with [ENTER]	DEFAULT (U.S.)
CONFIRM default setting for WI-FI CHANNEL; CONFIRM with [ENTER]	DEFAULT (CHN.1)
CONFIRM default setting for BANDWIDTH; CONFIRM with [ENTER]	DEFAULT (40MHz)
CONFIRM default setting for WPA ENCRYPTION; CONFIRM with [ENTER]	DEFAULT (OFF)
CONFIRM default setting for WAN PORT; CONFIRM with [ENTER]	DEFAULT (NONE)
CONFIRM default setting for MASTER CAPTIVE PORTAL with [ENTER]	DEFAULT (NONE)

Table 3-2 - eConnect Configuration Values


```
==== using following settings ====
SSID: econnectHB1524
SSID Broadcast: Y
WiFi Country Code: US
WiFi Channel: 1
WiFi Secondary Channel: 5
Hardware Mode: 2.4GHz n(+g+b)
WPA Encryption: Off
  WPA Passphrase:
WAN Port: None
Host Name: econnect2
LAN IP Address: 10.0.9.2
LAN Subnet Mask: 255.0.0.0
LAN Gateway Address:
root=LABEL=ssd-rootfs video=vesafb:mtrr:3,yrap vga=792 acpi_
 * Stopping mysql ...
 * Stopping mysqld (0)
econnect2 / #
Broadcast message from root@econnect2 (pts/0) (Wed Nov  5 10
The system is going down for reboot NOW!
```

Figure 3-8 PuTTY SSH Command Prompt Configuration Table

- (7) The eConnect will AUTOMATICALLY REBOOT TWICE. ALLOW about 10 minutes for the system to fully reconfigure (IF system does not reboot after this time, cycle CABIN BUS power for 30sec. to force reboot)
- (8) CONNECT your device to the new eConnect SSID (Table 3-2)
- (9) OPEN the browser on the DEVICE and ENTER http://10.0.9.1 IP address to access the eConnect GUI
- (10) VERIFY the following functions are available and correct:
 - (a) Landing page is DISPLAYED and alternate languages can be SELECTED
 - (b) (IF LOADED) Media page audio and movies files can be PLAYED
 - (c) (IF INSTALLED) Media page XM radio can be PLAYED (see PREPARATIONS step 3.B.(13))
 - (d) Moving Map page SHOWS correct airplane orientation and FMS values (see PREPARATIONS step 3.B.(13))
 - (e) Maintenance page metric/imperial selection CHANGES the FMS values
 - (f) Maintenance page should now show software / hardware version as shown (OR LATER) in Figure 3-9 below

VERSIONS

ECONNECT	0.55
DATABASE	20160503
WEB	20160527.0
FPGA	14/5/29.1
IO BOARD	0.0
OS ROOTFS	201502261114
OS BOOTFS	201501141852
AVIOIP	6.0.0

Figure 3-9 GUI Maintenance Page SW/HW Versions

E. eConnect Configuration – Aviator 200/SBB connected Version eConnect



NOTE

THE FOLLOWING PROCEDURE ONLY APPLIES TO ECONNECT SYSTEMS CONNECTED TO A SWIFT BROAD BAND UNIT (AVIATOR 200)!

- (1) CONNECT to the eConnect SSID with your device
- (2) OPEN the “PuTTY” software tool [> putty.exe] (Item 5 in Table 2-2) on the maintenance laptop
- (3) ENTER the host IP address “http://10.0.9.1” and PRESS open (Figure 3-6)
- (4) In the command prompt (Figure 3-7) ENTER the following login credentials:
 - (a) Login as: **emteq** [ENTER]
 - (b) Password: **Q3tm36170** (password will not display/press [ENTER] after entry)
- (5) In the command prompt (Figure 3-7) EXECUTE the following commands:
 - (a) **cd /** [ENTER]
 - (b) **su** [ENTER]
 - (c) (Password:) **root** [ENTER]
 - (d) **/opt/eConnect/scripts/mode_swap/set_boot_mode.sh 5** [ENTER]
- (6) CONFIRM the default setting in the command prompt (Figure 3-10)

```
root@econnect2:/
login as: emteq
Using keyboard-interactive authentication.
Password:
Last login: Mon Nov 10 12:17:00 CST 2014 from connect011 on ssh
emteq@econnect2 /home/emteq $ cd /
emteq@econnect2 / $ su
Password:
econnect2 / # /opt/eConnect/scripts/mode_swap/set_boot_mode.sh 5
Setting eConnect for !!SATCOM1 Production!!
Do you want setup the eConnect with SATCOM1 default settings? Enter Yes to continue, No to exit:
Enter Yes or No
Do you want setup the eConnect with SATCOM1 default settings? Enter Yes to continue, No to exit: y
===== using following settings =====
```

```
===== using following settings =====
SSID: econnect
SSID Broadcast: Y
WiFi Country Code: US
WiFi Channel: 1
WiFi Secondary Channel: 5
Hardware Mode: 2.4GHz n(+g+b)
WPA Encryption: Off
  WPA Passphrase:
WAN Port: P1
  WAN IP Address: 192.168.0.2
  WAN Subnet Mask: 255.255.255.0
  WAN Gateway Address:
  WAN DNS Server 1:
  WAN DNS Server 2:
Host Name: econnect2
LAN IP Address: 10.0.9.2
LAN Subnet Mask: 255.0.0.0
LAN Gateway Address:
root=LABEL=ssd-rootfs video=vesafb:mtrr:3,yrap vga=792 acpi_enforce_resources=lax pci=cbmem
* Stopping mysql ...
* Stopping mysqld (0)
econnect2 / #
Broadcast message from root@econnect2 (pts/0) (Wed Nov 12 04:39:44 2014):

The system is going down for reboot NOW!
```

Figure 3-10 PuTTY SSH Command Prompt

- (7) The eConnect will AUTOMATICALLY REBOOT TWICE. ALLOW about 10 minutes for the system to fully reconfigure
- (8) CONNECT to the “eConnect” SSID with your device
- (9) OPEN your web browser and CONNECT to http://10.0.9.1
- (10) The eConnect graphical user interface should LOAD
- (11) VERIFY the following functions are available and correct:
 - (a) Landing page is DISPLAYED and alternate languages can be SELECTED
 - (b) (IF LOADED) Media page audio and movies files can be PLAYED
 - (c) (IF INSTALLED) Media page XM radio can be PLAYED (see PREPARATIONS step 3.B.(13))
 - (d) Moving Map page SHOWS correct airplane orientation and FMS values (see PREPARATIONS step 3.B.(13))
 - (e) Maintenance page metric/imperial selection CHANGES the FMS values
 - (f) Maintenance page should now show software / hardware version as shown (OR LATER) in Figure 3-11 below

VERSIONS	
ECONNECT	0.55
DATABASE	20160503
WEB	20160527.0

FPGA	14/5/29.1
IO BOARD	0.0
OS ROOTFS	201502261114
OS BOOTFS	201501141852
AVIOIP	6.0.0

Figure 3-11 GUI Maintenance Page SW/HW Versions



NOTE

THE FOLLOWING STEPS HAVE TO BE CARRIED OUT WITH THE AIRCRAFT OUTSIDE THE HANGAR FOR CLEAR INMARSAT SIGNAL RECEPTION!

- (12) SWITCH ON the SBU USING the SATCOM ON/OFF switch on the LH Outer Cross Bar panel
- (13) OPEN your web browser and CONNECT to http://10.0.9.1:8000 to OPEN the AvioIP tool
- (14) In the top RH corner SELECT “Advanced” Level of Detail (Figure 3-12).
- (15) VERIFY Connection Options is “econnect WAN (or similar)” (Figure 3-12).
- (16) VERIFY Channel Status is CONNECTED (GREEN Bullet) (Figure 3-12).

AvioIP Choose your Level of Detail: **Advanced**

STATUS FEATURES CONFIGURE ABOUT

Advanced Status

System and Connection Status

System Status: Ready SwiftBroadband

Connection Status: **Connected**

Connection Options: eConnect WAN

Disconnect

Detailed System and Connection Status

eConnect WAN Link			
Channel Name	Channel Type	Channel Status	Action
Primary	Standard IP	Connected - 27s	Disconnect

Figure 3-12 AvioIP Connection Status

- (17) CLOSE your browser and DISCONNECT from the eConnect SSID
- (18) TURN OFF the SBU using the SATCOM ON/OFF switch.

F. eConnect Configuration – ATG Series System connected Version eConnect



NOTE

THE FOLLOWING PROCEDURE ONLY APPLIES TO ECONNECT SYSTEMS CONNECTED TO A GOGO ATG SERIES SYSTEM

- (1) CONNECT to the eConnect SSID with your device
- (2) OPEN the “PuTTY” software tool [> putty.exe] (Item 5 in Table 2-2) on the maintenance laptop
- (3) ENTER the host IP address “http://10.0.9.1” and PRESS open (Figure 3-6)
- (4) In the command prompt (Figure 3-7) ENTER the following login credentials:
 - (a) Login as: **emteq** [ENTER]
 - (b) Password: **Q3tm36170** (password will not display/press [ENTER] after entry)
- (5) In the command prompt (Figure 3-7) EXECUTE the following commands:
 - (a) **cd /** [ENTER]
 - (b) **su** [ENTER]
 - (c) (Password:) **root** [ENTER]
 - (d) **/opt/eConnect/scripts/mode_swap/set_boot_mode.sh 2** [ENTER]

```
PuTTY (inactive)
econnect2 emteq # /opt/eConnect/scripts/mode_swap/set_boot_mode.sh 2
Setting eConnect as !!Master Client!!
Enter last byte of LAN IP address (10.0.9.x (x=2 to 99). Default is 2):
Do you want to configure WAN IP settings? Enter Yes (configure WAN IP) or No (use DHCP): yes
Enter WAN IP address (dot format): 192.168.1.1
Enter WAN Subnet Mask (dot format): 255.255.255.0
Enter WAN Gateway Address (dot format): 192.168.1.15
Enter WAN DNS Server 1 Address (dot format): 192.168.1.15
Enter WAN DNS Server 2 Address (dot format): 192.168.1.15
Do you want to enable Wireless Access Point (WAP)? Enter Yes or No: yes
Enter SSID Name (default is econnect): econnectTEST
Enter SSID Broadcast (Yes/No, default is Yes):
Select Hardware Mode [ 1) 2.4GHz g(+b), 2) 2.4GHz n(+g+b), 3) 5GHz n. Default is 2]:
Enter WiFi Country Code (2 letters, default is US):
Enter WiFi Channel (default is 1):
Select WiFi channel bandwidth [ 1) 40MHz, 2) 20MHz, Default is 40MHz]:
Enter WPA Encryption (On/Off, default is Off):
```

Figure 3-13 - Run Mode 5 (ATG) Configuration Settings

- (6) ENTER the required configuration parameters into the command prompt (Figure 3-13) as shown. Blank Prompts are DEFAULT settings.

- (7) The eConnect will AUTOMATICALLY REBOOT TWICE. ALLOW about 10 minutes for the system to fully reconfigure (IF system does not reboot after this time, cycle CABIN BUS power for 30sec. to force reboot)
- (8) CONNECT your device to the new eConnect SSID (Table 3-2)
- (9) VERIFY that the ATG Series system is fully powered up and running
- (10) OPEN your web browser and CONNECT to http://192.168.1.1
- (11) The eConnect graphical user interface should LOAD
- (12) VERIFY the following functions are available and correct:
 - (a) Landing page is DISPLAYED and alternate languages can be SELECTED
 - (b) (IF LOADED) Media page audio and movies files can be PLAYED
 - (c) (IF INSTALLED) Media page XM radio can be PLAYED (see PREPARATIONS step 3.B.(13))
 - (d) Moving Map page SHOWS correct airplane orientation and FMS values (see PREPARATIONS step 3.B.(13))
 - (e) Maintenance page metric/imperial selection CHANGES the FMS values
 - (f) Maintenance page should now show software / hardware version as shown (OR LATER) in Figure 3-14 below

VERSIONS	
ECONNECT	0.55
DATABASE	20160503
WEB	20160527.0
FPGA	14/5/29.1
IO BOARD	0.0
OS ROOTFS	201502261114
OS BOOTFS	201501141852
AVIOIP	6.0.0

Figure 3-14 GUI Maintenance Page SW/HW Versions

G. eConnect Upgrade to XM Streaming Board



NOTE

THE FOLLOWING PROCEDURE IS ONLY REQUIRED IF THE ECONNECT GUI (XM PORTION ONLY) IS USED WITH A WINDOWS BASED LAPTOP COMPUTER AND PREVIOUS COMPATIBILITY ISSUES HAVE BEEN NOTICED. OTHERWISE, THIS SECTION MAY BE DISREGARDED.



NOTE

PRIOR TO CARRY OUT THIS STEP, CONTACT PILATUS FOR PARTS/TOOLS AVAILABILITY AND/OR FURTHER INSTRUCTIONS.

- (1) DE-ENERGIZE the aircraft electrical system, Reference AMM 12-B-24-00-00-00A-901A-A.
- (2) OPEN circuit breaker CB_RW3 (CABIN IFE) and (IF INSTALLED) CB_RX3 (XM AUDIO) on the RH AFT CB PNL.
- (3) REMOVE the RH STORAGE CABINET i.a.w. AMM 12-B-25-21-06-00A-920A-A
- (4) DO NOT DISCONNECT eConnect Harnesses as the system is required to POWER UP
- (5) REMOVE connector A 196P6 (see Figure 3-15 (P6 shown in yellow box) (Short Ethernet Patch Cable on eConnect)

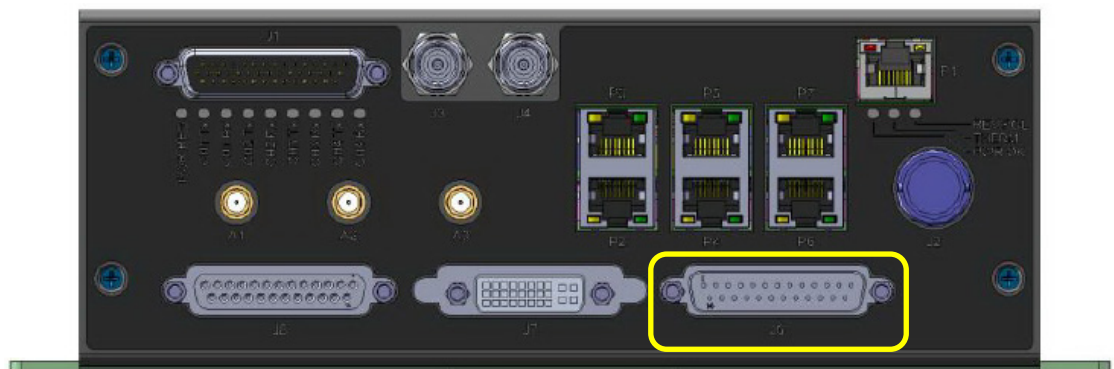


Figure 3-15 - CWR450-5000-0X eConnect (XM Version) Front Panel Layout

- (6) CONNECT supplied USB Adapter Cable (Item 2 in Table 2-2), USB connector to the configuration laptop
- (7) CONNECT supplied USB Adapter Cable (Item 2 in Table 2-2), SUB-D connector to eConnect port J6

- (8) CLOSE circuit breaker CB_RW3 (CABIN IFE) and (IF INSTALLED) CB_RX3 (XM AUDIO) on the RH AFT CB PNL and allow for the eConnect system to boot up
- (9) SELECT the UPDATE ENCODER BOARD Option (Opt. xxx on the configuration laptop)
- (10) Follow the onscreen prompts to update the encoder board
- (11) VERIFY the update successful prompt
- (12) Once COMPLETED, REMOVE the USB cable (Item 2 in Table 2-2) from the configuration laptop
- (13) OPEN circuit breaker CB_RW3 (CABIN IFE) and (IF INSTALLED) CB_RX3 (XM AUDIO) on the RH AFT CB PNL.
- (14) REMOVE the USB Adapter Cable (Item 2 in Table 2-2) from eConnect connector A 196P6 port
- (15) RECONNECT connector A 196P6 (see Figure 3-15 (P6 shown in yellow box) (Short Ethernet Patch Cable on eConnect)
- (16) VERIFY all connections to the eConnect are made correctly and connectors are fully secured and stowed in place
- (17) RE-INSTALL the RH STORAGE CABINET i.a.w. AMM 12-B-25-21-06-00A-920A-A
- (18) CLOSE circuit breaker CB_RW3 (CABIN IFE) and (IF INSTALLED) CB_RX3 (XM AUDIO) on the RH AFT CB PNL and allow for the eConnect system to boot up
- (19) The “eConnect” SSID should appear in the available Wi-Fi networks
- (20) CONNECT to the “eConnect” SSID with your device
- (21) OPEN your web browser and CONNECT to <http://10.0.9.1>
- (22) The eConnect graphical user interface should appear
- (23) VERIFY the following functions are available and correct:
 - (a) Landing page is DISPLAYED and alternate languages can be SELECTED
 - (b) (IF LOADED) Media page audio and movies files can be PLAYED
 - (c) (IF INSTALLED) Media page XM radio can be PLAYED (see PREPARATIONS step 3.B.(13)
 - (d) Moving Map page SHOWS correct airplane orientation and FMS values (see PREPARATIONS step 3.B.(13)
 - (e) Maintenance page metric/imperial selection CHANGES the FMS values
 - (f) Maintenance page should now show software / hardware version as shown (OR LATER) in Figure 3-16 below

VERSIONS	
ECONNECT	0.55
DATABASE	20160503
WEB	20160527.0
FPGA	14/5/29.1
IO BOARD	0.0
OS ROOTFS	201502261114
OS BOOTFS	201501141852
AVIOIP	6.0.0

Figure 3-16 GUI Maintenance Page SW/HW Versions

H. Close-up

- (1) CONNECT to the eConnect SSID with your device
- (2) Using an FTP Client tool connect to the eConnect FTP server using the following credentials:
 - a. Host: sftp://10.0.9.1
 - b. Username: user
 - c. Password: user
 - d. Port: 22



Figure 3-17 FTP Client Log-In

- (3) Locate the media file directory called “/mnt/user/upload” on the FTP server
- (4) Locate any files with the “*.tgz” and “*.lst” file extensions
- (5) DELETE all located files

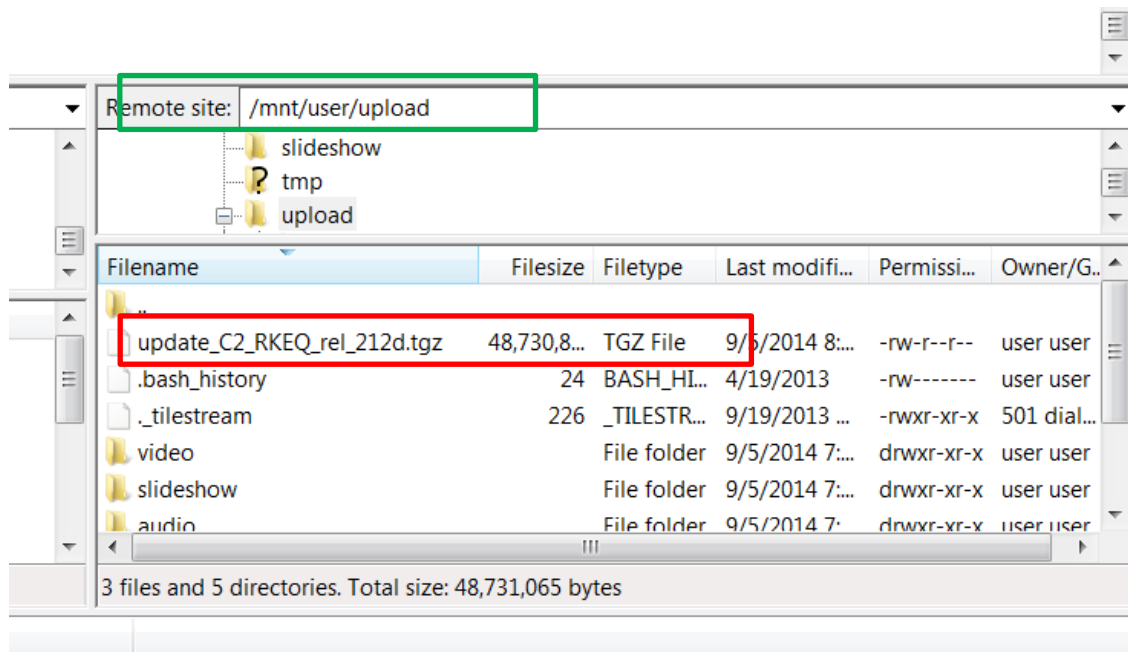


Figure 3-18 FTP Client Tool

- (6) OPEN your web browser and CONNECT to <http://10.0.9.1>
- (7) The eConnect graphical user interface should appear and select the MAINTENANCE page
- (8) VERIFY the “UPDATE SOFTWARE” pull-down menu does no longer list any updates
- (9) Disconnect from the eConnect aircraft SSID
- (10) DE-ENERGIZE the aircraft electrical system, Reference AMM 12-B-24-00-00-00A-901A-A.
- (11) REMOVE the eConnect Maintenance Harness (Item 1 in Table 2-2) from the AVIONICS connector (P 158). See Figure 3-2.
- (12) CLOSE panel 21QZ (Maintenance Interface) given in AMM 12-B-06-20-00-00A-040B-A

I. Documentation

- (1) MAKE an entry in the Aircraft Logbook that this Service Bulletin has been incorporated.
- (2) COMPLETE and RETURN the Feedback sheet to Pilatus.

The purpose of this Feedback Form is to allow you, the customer, to comment on this Service Bulletin. Your comments will be used to further improve our Service Bulletin program. It also provides Pilatus Aircraft with current information on each individual aircraft.

FEEDBACK SHEET FOR ACCOMPLISHMENT OF
SB No: _____ Ref No: _____

Aircraft MSN		Aircraft Registration		Total Airframe Hours	
Owner				Total Landings	
Operator					
Service Center					
<input type="checkbox"/> We have embodied/accomplished this SB <input type="checkbox"/> Fully					
<input type="checkbox"/> We will not embody/accomplish this SB <input type="checkbox"/> Partially					
The undersigned confirms the accomplishment of this Service Bulletin					
Date of accomplishment	Name	Signature			
Comments (procedure, kit quality, suggested improvements etc.)					
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>					

Important Note: If a parts replacement are involved, please provide the applicable work card including the component details (part number(s) and serial number(s)) together with the feedback sheet.

Please forward this form to:

PILATUS BUSINESS AIRCRAFT LTD,
 CUSTOMER SUPPORT DEPARTMENT
 11755 AIRPORT WAY
 Fax: 303 465 6040
 Email: productsupport@pilbal.com