### TROUBLE SHOOTING MANUAL

#### **HIGHLIGHTS**

REVISION NO. 54 May 01/08

Pages which Revision	have been re	evised are outlined	below, together	with the Highlights	of the
CH/SE/SU C PAGES		REASON FOR CHANGI	<u> </u>	EFFECTIVITY	

#### CHAPTER 46

L.E.P. 1- 1 REVISED TO REFLECT THIS REVISION INDICATING NEW, REVISED, AND/OR DELETED PAGES

#### TROUBLE SHOOTING MANUAL

#### CHAPTER 46

#### INFORMATION SYSTEMS

#### LIST OF EFFECTIVE PAGES

N, R or D indicates pages which are New, Revised or Deleted respectively Remove and insert the affected pages and complete the Record of Revisions and the Record of Temporary Revisions as necessary

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	С	PAGE	DATE	CH/SE/SU	С	PAGE	DATE
RECORD				46-21-00		225	Feb01/08	46-21-00		267	Feb01/08
OF TEMP.				46-21-00			Feb01/08	46-21-00			Feb01/08
REVISION				46-21-00			Feb01/08	46-21-00			Feb01/08
KEVIOION				46-21-00			Feb01/08	46-21-00			Feb01/08
L.E.P.	R	1- 1	May01/08	46-21-00			Feb01/08	46-21-00			Feb01/08
T. of C.			Feb01/08	46-21-00			Feb01/08	46-21-00			Feb01/08
T. of C.			Feb01/08	46-21-00			Feb01/08	46-21-00			Feb01/08
T. of C.			Feb01/08	46-21-00			Feb01/08	46-21-00			Feb01/08
				46-21-00			Feb01/08	46-21-00			Feb01/08
46-ECAM		101	Feb01/08	46-21-00			Feb01/08	46-21-00			Feb01/08
				46-21-00			Feb01/08	46-21-00		277	Feb01/08
46-0BSV		101	Feb01/08	46-21-00			Feb01/08	46-21-00			Feb01/08
46-0BSV		102	Feb01/08	46-21-00			Feb01/08	46-21-00		279	Feb01/08
46-0BSV		103	Feb01/08	46-21-00		238	Feb01/08	46-21-00			Feb01/08
				46-21-00			Feb01/08	46-21-00			Feb01/08
46-CFDS		101	Feb01/07	46-21-00		240	Feb01/08	46-21-00		282	Feb01/08
46-CFDS		102	Feb01/08	46-21-00		241	Feb01/08	46-21-00		283	Feb01/08
				46-21-00		242	Feb01/08	46-21-00		284	Feb01/08
46-21-00		201	Feb01/08	46-21-00		243	Feb01/08				
46-21-00		202	Feb01/08	46-21-00		244	Feb01/08				
46-21-00		203	Feb01/08	46-21-00		245	Feb01/08				
46-21-00		204	Feb01/08	46-21-00		246	Feb01/08				
46-21-00		205	Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00			Feb01/08	46-21-00			Feb01/08				
46-21-00		224	Feb01/08	46-21-00		266	Feb01/08				

46-L.E.P. Page 1 May 01/08

### TROUBLE SHOOTING MANUAL

### CHAPTER 46

#### **INFORMATION SYSTEMS**

#### TABLE OF CONTENTS

SUBJECT FAULT SYMPTOMS	CH/SE/SU 46-ECAM 46-OBSV	<u>C</u>	101	EFFECTIVITY ALL 247-275,	_
	46-CFDS		101	481-499, ! 551-599,	
AIR TRAFFIC AND INFORMATION MANAGEMENT SYSTEM (ATIMS) - COMPONENTS AND INTERFACES	46-21-00				
FAULT ISOLATION PROCEDURES			201	247-275, 4 481-499, 5 551-599,	
Failure of the ATSU			201	247-275, 4 481-499, 5	
Failure of the AOC Application			204	551-599, 247-275, 481-499,	
Invalid Pin Programming of the ATSU			206	551-599, 247-275, 481-499,	
Loss of the Clock Data Detected by the ATSU			208	551-599, 247-275, 481-499,	
Loss of the FMGC1 FM ACARS Input Signal			210	551-599, 247-275, 481-499,	
Loss of the FMGC2 FM ACARS Input Signal			212	551-599, 247-275, 481-499,	
Invalid Configuration of the ATSU			214	551-599, 247-275, 481-499,	
Loss of the MCDU1 Data Detected by the ATSU			217	551-599, 247-275, 481-499,	
Loss of the MCDU2 Data Detected by the ATSU			219	551-599, 247-275, 481-499,	429-475
Loss of the MCDU3 Data Detected by the ATSU			221	551-599,	429-475
Loss of the Printer Data Detected			222	551-599, 247-275,	429-475
by the ATSU  Loss of the VDR3 Data Detected by			224	481-499, 551-599, 247-275, 4	
2000 C. Che Tries pace percented by				CONTENTS	Page 1

Feb 01/08

### TROUBLE SHOOTING MANUAL

### CHAPTER 46

#### **INFORMATION SYSTEMS**

#### TABLE OF CONTENTS

SUBJECT		CH/SE/SU	С	PAGE	EFFECTIVI <sup>3</sup>	ΤΥ
the ATSU			_		481-499,	503-549
					551-599,	
Loss of the	SDU1 Data Detected by			227	247-275,	429-475
the ATSU	ŕ				481-499,	503-549
					551-599,	
Loss of the	CFDIU Data Detected by			230	247-275,	429-475
the ATSU	,				481-499,	
					551-599,	
Loss of the	CPMU data by the ATSU			232	247-275,	429-475
	•				481-499,	503-549
					551-599,	
Loss of the	DIU data by the ATSU			234	247-275,	429-475
	•				481-499,	
					551-599,	
Loss of the	DMC 1 Input Signal			236	247-275,	429-475
Detected by					481-499,	
,					551-599,	
Loss of the	DMC 2 Input Signal			238	-	
Detected by					481-499,	
,					551-599,	
Loss of the	DMU Data Detected by			240	247-275,	
the ATSU	, , , , , , , , , , , , , , , ,				481-499,	
					551-599,	
Loss of Gro	und Data Reception by			242	247-275,	
the ATSU					481-499,	
					551-599,	
Loss of the	ATSU Data Transmission			244	•	
					481-499,	
					551-599,	
Loss of the	FWC1 Input Signal			246	-	
Detected by					481-499,	
,					551-599,	
Loss of the	Frequency Control by			248	-	
the ATSU on				_	481-499,	
					551-599,	
Loss of the	FWC2 Input Signal			250	247-275,	
Detected by					481-499,	
,					551-599,	
Loss of the	Frequency Control by			252	247-275,	
the ATSU on					481-499,	
					551-599,	
Loss of the	Data Loader Signal			254	247-275,	
Detected by					481-499,	
					551-599,	
Loss of the	Frequency Control by			256	247-275,	
the ATSU on					481-499,	
	· -				/	<b>-</b>
				46-	-CONTENTS	Page 2

### TROUBLE SHOOTING MANUAL

### CHAPTER 46

#### **INFORMATION SYSTEMS**

#### TABLE OF CONTENTS

SUBJECT	CH/SE/SU	<u>C</u> <u>PAG</u>	EFFECTIVITY 551-599,
Loss of the Frequency Control by the ATSU		258	•
Loss of the SDAC1 Input Signal Detected by the ATSU		26	247-275, 429-475 481-499, 503-549 551-599,
Loss of the SDAC2 Input Signal Detected by the ATSU		267	2 247-275, 429-475 481-499, 503-549 551-599,
Switching of the VDR3 to DATA Mode not Possible		26	-
No DATA mode set through the RMPs		26	5 247-275, 429-475 481-499, 503-549 551-599,
No VOICE mode set through the RMPs		26	3 247-275, 429-475 481-499, 503-549
Datalink Communication Inoperative		270	481-499, 503-549
Loss of the Datalink Communication		277	551-599, 2 247-275, 429-475 481-499, 503-549 551-599,
Loss of the HFDR1 Data Detected by the ATSU		27	481-499, 503-549 551-599,
ATSU Software Failure		27	247-275, 429-475 481-499, 503-549 551-599,
Loss of GPS Data Detected by the ATSU		279	247-275, 429-475 481-499, 503-549 551-599,
Loss of the ATC1 Data Detected by the ATSU		28	
Loss of the ATC2 Data Detected by the ATSU		28:	-

### TROUBLE SHOOTING MANUAL

#### INFORMATION SYSTEMS - FAULT SYMPTOMS

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION
WARNINGS/ MALI ONC I TONS	SOURCE	MESSAGE	ATA	С	PROCEDURE

### Upper ECAM DU Warnings

DATALINK ATSU FAULT	ATSU	ATSU1(1TX1)	462134	1	462100 P 201 T 810 801
DATALINK ATSU FAULT	ATSU	INVALID ATSU CONFIG /ATSU1(1TX1)	462134	1	462100 P 214 T 810 809
DATALINK ATSU FAULT	ATSU	WRG:PIN PROG/ATSU1(1TX1)	462100	1	462100 P 206 T 810 805
DATALINK ATSU FAULT	CFDS	NO ATSU DATA	462134	2	313200 PB208
	IDENT: E	ECAM 1, ECAM 2	<b>-</b>		Т 810 941
DATALINK ATSU FAULT	ECAM 1	FWC1: NO DATA FROM ATSU	462134	1	315300 PA242 T 810 944
DATALINK ATSU FAULT	ECAM 1	FWC2: NO DATA FROM ATSU	462134	1	315300 PA244 T 810 945
DATALINK ATSU FAULT	ECAM 2	FWC1: NO DATA FROM ATSU	462134	1	315300 PA242 T 810 944
DATALINK ATSU FAULT	ECAM 2	FWC2: NO DATA FROM ATSU	462134	1	315300 PA244 T 810 945
DATALINK ATSU FAULT ATSU INIT FAULT	ATSU	INVALID ATSU CONFIG /ATSU1(1TX1)	462134	1	462100 P 214 T 810 809
DATALINK COMPANY FAULT associated with COM VHF3 DATA FAULT	ATSU	VDR3(1RC3)/ATSU1(1TX1)	231233	1	462100 P 224 T 810 815

EFF: ALL

**46-ECAM** 

Page 101 Feb 01/08

### TROUBLE SHOOTING MANUAL

#### INFORMATION SYSTEMS - FAULT SYMPTOMS

WARNINGS/MALFUNCTIONS	[   		FAULT - ISOLATION		
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!!
DATALINK - ACARS does not appear in the ACTIVE display of the RMP					462100 P 266 T 810 841
DATALINK - ACARS stays in the ACTIVE display of the RMP					462100 P 268 T 810 842
DATALINK - Access to ATSU menu not possible on the MCDU MENU page	ACARSMU	MCDU1(3CA1)/ATSU1(1TX1)	228212	1	462100 P 217 T 810 810
DATALINK - Access to ATSU menu not possible on the MCDU MENU page	ACARSMU	MCDU2(3CA2)/ATSU1(1TX1)	228212	1	462100 P 219 T 810 811
DATALINK - Access to ATSU menu not possible on the MCDU MENU page	ACARSMU	MCDU3(3CA3)/ATSU1(1TX1)	228212	1	462100 P 221 T 810 812
DATALINK - Access to ATSU menu not possible on the MCDU MENU page	ATSU	MCDU1(3CA1)/ATSU1(1TX1)	228212	1	462100 P 217 T 810 810
DATALINK - Access to ATSU menu not possible on the MCDU MENU page	ATSU	MCDU2(3CA2)/ATSU1(1TX1)	228212	1	462100 P 219 T 810 811
DATALINK - Access to ATSU menu not possible on the MCDU MENU page	ATSU	MCDU3(3CA3)/ATSU1(1TX1)	228212	1	462100 P 221 T 810 812
DATALINK - Access to PRINT function not possible on the MCDU	ACARSMU	PRINTER(4TW)/ATSU1(1TX1)	313522	1	462100 P 222 T 810 814
DATALINK - Access to PRINT function not possible on the MCDU	ATSU	PRINTER(4TW)/ATSU1(1TX1)	313522	1	462100 P 222 T 810 814
DATALINK - Communication not possible or ACARS function inoperative					462100 P 270 T 810 843

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

SROS

**46-OBSV** 

Page 101 Feb 01/08

### TROUBLE SHOOTING MANUAL

LIADNINGS / MALEUNCTIONS	CFDS FAULT MESSAGES				FAULT - ISOLATION	
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!	
DATALINK - ECAM Memo - COMPANY DATALINK STBY				   	462100 P 272 T 810 844	
DATALINK - Loss of Datalink Communication in Receive Mode					462100 P 242 T 810 828	
DATALINK - Loss of Datalink Communication in Transmit Mode					462100 P 244 T 810 829	
DATALINK - Loss of the Frequency Control on RMP1					462100 P 248 T 810 831	
DATALINK - Loss of the Frequency Control on RMP2					462100 P 252 T 810 833	
DATALINK - Loss of the Frequency Control on RMP3					462100 Р 256 Т 810 835	
DATALINK - Loss of the Frequency Control on All the RMPs					462100 P 258 T 810 836	
DATALINK - MCDU - Access to AOC menu not possible	ACARSMU	AOC RAOC/ATSU1(1TX1)	462134	1	462100 P 204 T 810 802	
DATALINK - MCDU - Access to AOC menu not possible	ATSU	AOC RAOC/ATSU1(1TX1)	462134	1	462100 P 204 T 810 802	
DATALINK - MCDU - Access to AOC menu not possible	ATSU	AOC RAOC/ATSU1(1TX1)	462134	3	462100 P 204 T 810 802	
DATALINK - The clock does not operate anymore	ACARSMU	CLOCK(2FS)/ATSU1(1TX1)	312121	1	462100 P 208 T 810 806	
DATALINK - The clock does not operate anymore	ATSU	CLOCK(2FS)/ATSU1(1TX1)	312121	1	462100 P 208 T 810 806	
DATALINK - The memo ACARS STBY is displayed in the upper ECAM DU.					462100 P 272 T 810 844	

247-275, 429-475, 481-499, 503-549, EFF : 551-599,

Page 102 Feb 01/08

**46-OBSV** 

### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARNINGS/ MALFORETIONS	SOURCE	MESSAGE	ATA	С	
DATALINK - The memo ACARS STBY is displayed in the upper ECAM DU.	ATSU	INVALID ATSU CONFIG /ATSU1(1TX1)	462134	1	462100 P 214 T 810 809
DATALINK - VHF3 cannot Switch to DATA Mode					462100 P 264 T 810 840

, | 4

**46-OBSV** 

# **@A319/A320/A321**

### TROUBLE SHOOTING MANUAL

#### INFORMATION SYSTEMS - FAULT SYMPTOMS

LIADNINGS /MALEUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION	
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!	
	ACARSMU	AOC RAOC/ATSU1(1TX1)	462134	1	462100 P 204 T 810 802	
	ACARSMU	AOC RAOC/ATSU1(1TX1)	462134	2	462100 P 204 T 810 802	
	ACARSMU	AOC RAOC/ATSU1(1TX1)	462134	3	462100 P 204 T 810 802	
	ACARSMU	ATSU1(1TX1)	462134	1	462100 P 201 T 810 801	
	ACARSMU	ATSU1(1TX1)	462134	2	462100 P 201 T 810 801	
	ACARSMU	ATSU1(1TX1)	462134	3	462100 P 277 T 810 847	
	ACARSMU	INVALID ATSU CONFIG /ATSU1(1TX1)	462134	1	462100 P 214 T 810 809	
	ACARSMU	WRG:PIN PROG/ATSU1(1TX1)	462134	1	462100 P 206 T 810 805	
	ATSU	AOC RAOC/ATSU1(1TX1)	462134	1	462100 P 204 T 810 802	
	ATSU	AOC RAOC/ATSU1(1TX1)	462134	2	462100 P 204 T 810 802	
	ATSU	AOC RAOC/ATSU1(1TX1)	462134	3	462100 P 204 T 810 802	
	ATSU	ATSU1(1TX1)	462134	1	462100 P 201 T 810 801	
	ATSU	ATSU1(1TX1)	462134	2	462100 P 201 T 810 801	
	ATSU	ATSU1(1TX1)	462134	3	462100 P 277 T 810 847	
	ATSU	INVALID ATSU CONFIG /ATSU1(1TX1)	462134	1	462100 P 214 T 810 809	

EFF: ALL
SROS

Printed in France

46-CFDS

Page 101 Feb 01/07

# **@A319/A320/A321**

### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS			FAULT ISOLATION		
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
	ATSU	WRG:PIN PROG/ATSU1(1TX1)	462100	1	462100 P 206 T 810 805
	CFDS	NO ATSU DATA	462134	2	313200 PA298 T 810 937
	ECAM 1	FWC1: NO DATA FROM ATSU	462134	1	315300 PA242 T 810 944
	ECAM 1	FWC2 : NO DATA FROM ATSU	462134	1	315300 PA244 T 810 945
	ECAM 1	FWC2: NO DATA FROM ATSU	462134	1	315300 PA244 T 810 945
	ECAM 2	FWC1 : NO DATA FROM ATSU	462134	1	315300 PA242 T 810 944
	ECAM 2	FWC1: NO DATA FROM ATSU	462134	1	315300 PA242 T 810 944
	ECAM 2	FWC2: NO DATA FROM ATSU	462134	1	315300 PA244 T 810 945
	MDDU	ATSU(1TX1)/MDDU(1TD)	462134	3	313800 P 228 T 810 820
	SDU	ATSU1(1TX1)/ SDU1(105RV1)	462134	3	232800 P 239 T 810 825

EFF: ALL SROS Printed in France

R

46-CFDS

Page 102

#### TROUBLE SHOOTING MANUAL

# AIR TRAFFIC AND INFORMATION MANAGEMENT SYSTEM (ATIMS) - COMPONENTS AND INTERFACES - FAULT ISOLATION PROCEDURES

TASK 46-21-00-810-801

Failure of the ATSU

- 1. Possible Causes
  - ATSU (1TX1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
АММ	46-21-00-610-001	Uploading of the ATSU Software with the Multipurpose
AMM	46-21-00-610-001	Disk Drive Unit (MDDU)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-00-860-001	Initialization Procedure of the ATSU Router
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>

#### 3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

#### A. Test

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 201 Feb 01/08

## 

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

- 4. Fault Isolation
- R \*\*ON A/C 247-253, 429-450, 481-499, 551-551, 559-599,

Post SB 46-1005 For A/C 551-551,

- A. If the test gives the maintenance message ATSU1(1TX1):
  - (1) Do a check of the ATSU software configuration:
    - Make sure that the reference of the ATSU A/C Interface software loaded in the ATSU is the same as the reference read on the disk (Ref. AMM TASK 46-21-00-610-001).
    - (a) If they are different, do the related uploading procedure.
    - (b) If the two references are the same:
      - do the initialization procedure of the ATSU router (Ref. AMM TASK 46-21-00-860-001).
      - If the fault continues:
        - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 553-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 553-557,

R Post SB 46-1013 For A/C 247-253,429-450,481-499,503-549,553-599,

- A. If the test gives the maintenance message ATSU1(1TX1):
  - (1) Do a check of the ATSU software configuration:
    - Make sure that the references of the ATSU A/C Interface, the ATSU CONFIGURATION and the ATSU ROUTER PARAMETERS software loaded in the ATSU are respectively the same as the references read on the disks (Ref. AMM TASK 46-21-00-610-001).
    - (a) If they are different, do the related uploading procedure.
    - (b) If the two references are the same:
      - do the initialization procedure of the ATSU router (Ref. AMM TASK 46-21-00-860-001).
      - 1 If the fault continues:
        - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).

247-275, 429-475, 481-499, 503-549, EFF: 551-599,

46-21-00

Page 202 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 203 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-802

Failure of the AOC Application

- 1. Possible Causes
  - ATSU (1TX1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	46-21-00-610-001	Uploading of the ATSU Software with the Multipurpose Disk Drive Unit (MDDU)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>

#### 3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

#### A. Test

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 204 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

#### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message AOC RAOC/ATSU1(1TX1) or if the AOC prompt is not shown on the ATSU DATALINK page on the MCDU:
  - load an AOC database with a Part Number that is different to the one applicable to this aircraft (Ref. AMM TASK 46-21-00-610-001).
  - start the ATSU again
  - then load the AOC database with the Part Number applicable to this aircraft.
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
- B. Do the test given in Para. 3.

247-275, 429-475, 481-499, 503-549, EFF: 551-599,

**SROS** 

46-21-00

Page 205 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-805

Invalid Pin Programming of the ATSU

- 1. Possible Causes
  - ATSU (1TX1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 46-21-00-740-001 AMM 46-21-34-000-001 AMM 46-21-34-400-001 ASM 46-21/07	BITE Test of the ATIMS Removal of the Air Traffic Service Unit (ATSU) (1TX1) Installation of the Air Traffic Service Unit (ATSU) (1TX1)	
3. Fault Confirmation		
**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,		
Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,		

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 206 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

#### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message WRG: PIN PROG/ATSU1(1TX1):
   replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
  - (1) If the fault continues:
    - do a check and repair the wiring from pins AB/15A, 15B, 15C, 15D, 15E, 15F, 15G, 15H, 15J, 15K, 14J, 14K of the ATSU to the first terminal block (Ref. ASM 46-21/07).
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 207 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-806

Loss of the Clock Data Detected by the ATSU

- 1. Possible Causes
  - CLOCK (2FS)
  - ATSU (1TX1)
  - wiring of the ATA 31 CLOCK INPUT BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	31-21-21-000-001	Removal of the Clock (2FS)	
AMM	31-21-21-400-001	Installation of the Clock (2FS)	
AMM	46-21-00-740-001	BITE Test of the ATIMS	
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)	
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>	
ASM	46-21/05		
_	ault Confirmation	5, 481-499, 503-549, 551-599,	
	N/ 0 E41 E13/ 4E7 413	,, 401 477, 303 547, 351 377,	
	SB 46-1001 For A/C SB 46-1005 For A/C	,	

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 208 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

#### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message CLOCK(2FS)/ATSU1(1TX1):
  - replace the CLOCK (2FS) (Ref. AMM TASK 31-21-21-000-001) and (Ref. AMM TASK 31-21-21-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the clock and the ATSU
      - do a check and repair the wiring of the ATA 31 CLOCK INPUT BUS: between pins A/W,X of the clock and pins AA/5J,5K of the ATSU (Ref. ASM 46-21/05)
      - install the clock and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

**7 46-21-00** 

Page 209 Feb 01/08

SROS

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-807

Loss of the FMGC1 FM ACARS Input Signal

- 1. Possible Causes
  - FMGC-1 (1CA1)
  - ATSU (1TX1)
  - wiring of the PRINTER ACARS & ATSU DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	22-83-34-000-001	Removal of the FMGC (1CA1,1CA2)	
AMM	22-83-34-400-001	Installation of the FMGC (1CA1,1CA2)	
AMM	46-21-00-740-001	BITE Test of the ATIMS	
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)	
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>	
ASM	46-21/05		
3. <u>F</u>	ault Confirmation		
**0N	A/C 247-275, 429-475	5, 481-499, 503-549, 551-599,	
	SB 46-1001 For A/C SB 46-1005 For A/C	·	

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 210 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

#### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message : FMGC1(1CA1) BUS FM ACARS/ATSU1(1TX1):
  - replace the FMGC-1 (1CA1) (Ref. AMM TASK 22-83-34-000-001) and (Ref. AMM TASK 22-83-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the FMGC 1 and the ATSU
      - do a check and repair the wiring of the PRINTER ACARS & ATSU DATA BUS: between pins AB/12F,12G of the FMGC 1 and pins AA/7C,7D of the ATSU (Ref. ASM 46-21/05)
      - install the FMGC 1 and the ATSU.
- B. Do the test given in Para. 3.

247-275, 429-475, 481-499, 503-549, EFF: 551-599,

SROS

46-21-00

Page 211 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-808

Loss of the FMGC2 FM ACARS Input Signal

- 1. Possible Causes
  - FMGC-2 (1CA2)
  - ATSU (1TX1)
  - wiring of the PRINTER ACARS & ATSU DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM 22-83-34-000 AMM 22-83-34-400 AMM 46-21-00-740 AMM 46-21-34-000	)-001 )-001 )-001	Removal of the FMGC (1CA1,1CA2) Installation of the FMGC (1CA1,1CA2) BITE Test of the ATIMS Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM 46-21-34-400 ASM 46-21/05	0-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
3. <u>Fault Confirma</u>		. 481-499, 503-549, 551-599,
Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,		

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 212 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

#### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message :
   FMGC2(1CA2) BUS FM ACARS/ATSU1(1TX1):
  - replace the FMGC-2 (1CA2) (Ref. AMM TASK 22-83-34-000-001) and (Ref. AMM TASK 22-83-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the FMGC 2 and the ATSU
      - do a check and repair the wiring of the PRINTER ACARS & ATSU DATA BUS: between pins AB/12F,12G of the FMGC 2 and pins AB/7C,7D of the ATSU (Ref. ASM 46-21/05)
      - install the FMGC 2 and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 213 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-809

Invalid Configuration of the ATSU

- 1. Possible Causes
  - ATSU (1TX1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
АММ	46-21-00-610-001	Uploading of the ATSU Software with the Multipurpose
AMM	46-21-00-610-001	Disk Drive Unit (MDDU)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-00-860-001	Initialization Procedure of the ATSU Router
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>

#### 3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

#### A. Test

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 214 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

- 4. Fault Isolation
- R \*\*ON A/C 247-253, 429-450, 481-499, 551-551, 559-599,

Post SB 46-1005 For A/C 551-551,

- A. If the test gives the maintenance message INVALID ATSU CONFIG/ATSU1(1TX1):
  - (1) Do a check of the ATSU software configuration:
    - Make sure that the reference of the ATSU A/C Interface software loaded in the ATSU is the same as the reference read on the disk (Ref. AMM TASK 46-21-00-610-001).
    - (a) If they are different, do the related uploading procedure.
    - (b) If the two references are the same:
      - do the initialization procedure of the ATSU (Ref. AMM TASK 46-21-00-860-001).
      - 1 If the fault continues:
        - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 553-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 553-557,

R

Post SB 46-1013 For A/C 247-253,429-450,481-499,503-549,553-599,

- A. If the test gives the maintenance message INVALID ATSU CONFIG/ATSU1(1TX1):
  - (1) Do a check of the ATSU software configuration:
    - Make sure that the references of the ATSU A/C Interface, the ATSU CONFIGURATION and the ATSU ROUTER PARAMETERS software loaded in the ATSU are respectively the same as the references read on the disks (Ref. AMM TASK 46-21-00-610-001).
    - (a) If they are different, do the related uploading procedure.
    - (b) If the two references are the same:
      - do the initialization procedure of the ATSU (Ref. AMM TASK 46-21-00-860-001).
      - 1 If the fault continues:
        - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 215 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 216 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-810

Loss of the MCDU1 Data Detected by the ATSU

- 1. Possible Causes
  - MCDU-1 (3CA1)
  - ATSU (1TX1)
  - wiring of the MCDU TRANSMITTER BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	22-82-12-000-001	Removal of the MCDU (3CA1,3CA2,3CA3)
AMM	22-82-12-400-002	Installation of the MCDU (3CA1,3CA2,3CA3)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	
3. <u>F</u>	ault Confirmation	
**0N	A/C 247-275, 429-475	5, 481-499, 503-549, 551-599,
	SB 46-1001 For A/C SB 46-1005 For A/C	•

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 217 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

#### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message MCDU1(3CA1)/ATSU1(1TX1): - replace the MCDU-1 (3CA1) (Ref. AMM TASK 22-82-12-000-001) and (Ref. AMM TASK 22-82-12-400-002).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the MCDU 1 and the ATSU
      - do a check and repair the wiring of the MCDU TRANSMITTER BUS:
         between pins A/27,28 of the MCDU 1 and pins AA/7E,7F of the
         ATSU (Ref. ASM 46-21/05)
      - install the MCDU 1 and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 218 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-811

Loss of the MCDU2 Data Detected by the ATSU

- 1. Possible Causes
  - MCDU-2 (3CA2)
  - ATSU (1TX1)
  - wiring of the MCDU TRANSMITTER BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 22-82-12-000-001 AMM 22-82-12-400-002 AMM 46-21-00-740-001 AMM 46-21-34-000-001 AMM 46-21-34-400-001 ASM 46-21/05	Removal of the MCDU (3CA1,3CA2,3CA3) Installation of the MCDU (3CA1,3CA2,3CA3) BITE Test of the ATIMS Removal of the Air Traffic Service Unit (ATSU) (1TX1) Installation of the Air Traffic Service Unit (ATSU) (1TX1)	
3. Fault Confirmation		
**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,		
Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,		

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 219 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

- 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message MCDU2(3CA2)/ATSU1(1TX1): - replace the MCDU-2 (3CA2) (Ref. AMM TASK 22-82-12-000-001) and (Ref. AMM TASK 22-82-12-400-002).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the MCDU 2 and the ATSU
      - do a check and repair the wiring of the MCDU TRANSMITTER BUS: between pins A/27,28 of the MCDU 2 and pins AB/7E,7F of the ATSU (Ref. ASM 46-21/05)
      - install the MCDU 2 and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 220 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-812

Loss of the MCDU3 Data Detected by the ATSU

- 1. Possible Causes
- 2. Job Set-up Information
  - A. Referenced Information

\_\_\_\_\_

REFERENCE

#### **DESIGNATION**

AMM 46-21-00-740-001

BITE Test of the ATIMS

3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

A. Test

- (1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
  - 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message MCDU3(3CA3)/ATSU1(1TX1):no maintenance action is required because it is a spurious message.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

**SROS** 

46-21-00

Page 221 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-814

Loss of the Printer Data Detected by the ATSU

- 1. Possible Causes
  - PRINTER (4TW)
  - ATSU (1TX1)
  - wiring of the PRINTER DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 31-35-22-000-001 AMM 31-35-22-400-001 AMM 46-21-00-740-001	Removal of the Printer (4TW) Installation of the Printer (4TW) BITE Test of the ATIMS	
AMM 46-21-34-000-001 AMM 46-21-34-400-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1) Installation of the Air Traffic Service Unit (ATSU) (1TX1)	
ASM 46-21/05		
3. Fault Confirmation		
**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,		
Post SB 46-1001 For A Post SB 46-1005 For A	·	

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 222 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

- 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message PRINTER(4TW)/ATSU1(1TX1): - replace the PRINTER (4TW) (Ref. AMM TASK 31-35-22-000-001) and (Ref. AMM TASK 31-35-22-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the printer and the ATSU
      - do a check and repair the wiring of the PRINTER DATA BUS: between pins A/E,F of the printer and pins AA/5G,5H of the ATSU (Ref. ASM 46-21/05)
      - install the printer and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 223 Feb 01/08

#### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-815

Loss of the VDR3 Data Detected by the ATSU

- 1. Possible Causes
  - XCVR-VHF, 3 (1RC3)
  - ATSU (1TX1)
  - wiring of the VHF3 DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	23-12-33-000-001	Removal of the VHF Transceiver (1RC1, 1RC2, 1RC3)
AMM	23-12-33-400-001	<pre>Installation of the VHF Transceiver (1RC1, 1RC2, 1RC3)</pre>
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	

#### 3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

121VU COM NAV/VHF/3 2RC3 LO5

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-555, 559-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-555,

R

121VU ATSU 1 3TX1 L16

R EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 224 Feb 01/08

#### TROUBLE SHOOTING MANUAL

PANEL DESIGNATION IDENT. LOCATION

121VU ATSU 1/SWTG

5TX1 L15

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- B. Test
  - (1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
  - 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

**SROS** 

- A. If the test gives the maintenance message VDR3(1RC3)/ATSU1(1TX1):
  - (1) make sure that the circuit breakers 2RC3, 3TX1 and 5TX1 are closed.
    - (a) If the fault continues:
      - open and close the circuit breaker 2RC3 to reset the VHF3.
      - 1 If the fault continues:
        - open and close the circuit breakers 3TX1 and 5TX1 to reset the ATSU (wait one minute approximately).
  - (2) If the fault continues:
    - replace the XCVR-VHF, 3 (1RC3) (Ref. AMM TASK 23-12-33-000-001) and (Ref. AMM TASK 23-12-33-400-001).
    - (a) If the fault continues:
      - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
      - 1 If the fault continues:
        - remove the VDR 3 (VHF3 transceiver) and the ATSU
        - do a check and repair the wiring of the VHF3 DATA BUS: between pins AB/10C,10D of the VDR 3 (VHF3 transceiver) and pins AA/4J,4K of the ATSU (Ref. ASM 46-21/05)
        - install the VDR 3 (VHF3 transceiver) and the ATSU.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 225 Feb 01/08

### TROUBLE SHOOTING MANUAL

B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 226 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-816

Loss of the SDU1 Data Detected by the ATSU

- 1. Possible Causes
  - SATELLITE DATA UNIT (5RV1)
  - ATSU (1TX1)
  - wiring of the SATCOM DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 23-28-34-000-001 AMM 23-28-34-400-001 AMM 46-21-00-740-001 AMM 46-21-34-000-001 AMM 46-21-34-400-001 ASM 46-21/05	Removal of the Satellite Data Unit (SDU) 105RV1 Installation of the Satellite Data Unit (SDU) 105RV1 BITE Test of the ATIMS Removal of the Air Traffic Service Unit (ATSU) (1TX1) Installation of the Air Traffic Service Unit (ATSU) (1TX1)
3. Fault Confirmation	

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-555, 559-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-555,

R

121VU ATSU 1 121VU ATSU 1/SWTG 3TX1 L16 5TX1 L15

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 227 Feb 01/08

#### TROUBLE SHOOTING MANUAL

-----

\_\_\_\_\_\_

PANEL DESIGNATION

IDENT. LOCATION

R \*\*ON A/C 551-599,

R Post SB 23-1143 For A/C 551-557,

121VU SATCOM

102RV1 K01

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- B. Test
  - (1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
  - 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message SDU1(5RV1)/ATSU1(1TX1):
  - (1) make sure that the circuit breakers 1RV, 2RV, 3TX1 and 5TX1 are closed.
    - (a) If the fault continues:
      - open and close the circuit breakers 1RV and 2RV to reset the Satcom.
      - 1 If the fault continues:
        - open and close the circuit breakers 3TX1 and 5TX1 to reset the ATSU.
  - (2) If the fault continues:
    - replace the SATELLITE DATA UNIT (5RV1) (Ref. AMM TASK 23-28-34-000-001) and (Ref. AMM TASK 23-28-34-400-001).
    - (a) If the fault continues:
      - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 228 Feb 01/08

### TROUBLE SHOOTING MANUAL

- 1 If the fault continues:
  - remove the SATCOM SDU and the ATSU
  - do a check and repair the wiring of the SATCOM DATA BUS: between pins AB/1J,1K of the SATCOM SDU and pins AA/4C,4D of the ATSU (Ref. ASM 46-21/05)
  - install the SATCOM SDU and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 229 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-817

Loss of the CFDIU Data Detected by the ATSU

- 1. Possible Causes
  - CFDIU (1TW)
  - ATSU (1TX1)
  - wiring of the CFDIU DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM AMM		Removal of the CFDIU (1TW) Installation of the CFDIU (1TW)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	
3. <u>F</u>	3. Fault Confirmation	
**0N	**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,	
Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,		

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 230 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message CFDIU(1TW)/ATSU1(1TX1):
  - replace the CFDIU (1TW) (Ref. AMM TASK 31-32-34-000-001) and (Ref. AMM TASK 31-32-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the CFDIU and the ATSU
      - do a check and repair the wiring of the CFDIU DATA BUS: between pins AB/11D,11E of the CFDIU and pins AA/8A,8B of the ATSU (Ref. ASM 46-21/05)
      - install the CFDIU and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 231 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-818

Loss of the CPMU data by the ATSU

- 1. Possible Causes
  - CABIN MANAGEMENT INTERFACE UNIT (2RF)
  - ATSU (1TX1)
  - wiring of the Cabin Terminal 1 DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	23-74-31-000-001	Removal of the Cabin Management Terminal
AMM	23-74-31-400-001	Installation of the Cabin Management Terminal
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	
3. <u>F</u>	ault Confirmation	
**0N	**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,	
	SB 46-1001 For A/C SB 46-1005 For A/C	·

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 232 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message CT1(2RF)/ATSU1(1TX1):
  - replace the CABIN MANAGEMENT INTERFACE UNIT (2RF) (Ref. AMM TASK 23-74-31-000-001) and (Ref. AMM TASK 23-74-31-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the Cabin Management Interface Unit and the ATSU
      - do a check and repair the wiring of the Cabin Terminal 1 DATA BUS: between the ATSU and the Cabin Management Interface Unit (Ref. ASM 46-21/05).
      - install the Cabin Management Interface Unit and the ATSU
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 233 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-819

Loss of the DIU data by the ATSU

- 1. Possible Causes
  - DIGITAL INTERFACE UNIT (DIU) (190MH)
  - ATSU (1TX1)
  - wiring of the Cabin Terminal 2 DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM AMM	23-34-34-000-001 23-34-34-400-001	Removal of the Digital Interface Unit (DIU) (190MH) Installation of the Digital Interface Unit (DIU)
AMM AMM AMM	46-21-00-740-001 46-21-34-000-001 46-21-34-400-001	(190MH) BITE Test of the ATIMS Removal of the Air Traffic Service Unit (ATSU) (1TX1) Installation of the Air Traffic Service Unit (ATSU)
ASM	46-21/05	(1TX1)
3. <u>F</u>	ault Confirmation	

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

```
Post SB 46-1001 For A/C 503-549,
Post SB 46-1005 For A/C 551-557,
```

R

#### A. Test

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 234 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message CT2(190MH)/ATSU1(1TX1):
  - replace the DIGITAL INTERFACE UNIT (DIU) (190MH) (Ref. AMM TASK 23-34-34-000-001) and (Ref. AMM TASK 23-34-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the DIU and the ATSU
      - do a check and repair the wiring of the Cabin Terminal 2 DATA BUS: between the ATSU and the DIU (Ref. ASM 46-21/05).
      - install the DIU and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 235 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-820

Loss of the DMC 1 Input Signal Detected by the ATSU

- 1. Possible Causes
  - DMC-1 (1WT1)
  - ATSU (1TX1)
  - wiring of the DMC 1 DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	31-63-34-000-001	Removal of the DMC (1WT1,1WT2,1WT3)
AMM	31-63-34-400-001	Installation of the DMC (1WT1,1WT2,1WT3)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	
_	ault Confirmation  A/C 247-275, 429-47	5, 481-499, 503-549, 551-599,
	SB 46-1001 For A/C SB 46-1005 For A/C	

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 236 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message DMC1(1WT1)/ATSU1(1TX1):
  - replace the DMC-1 (1WT1) (Ref. AMM TASK 31-63-34-000-001) and (Ref. AMM TASK 31-63-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the DMC 1 and the ATSU
      - do a check and repair the wiring of the DMC 1 DATA BUS: between pins AB/1E,1F of the DMC 1 and pins AA/5A,5B of the ATSU (Ref. ASM 46-21/05)
      - install the DMC 1 and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

SROS

46-21-00

Page 237 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-821

Loss of the DMC 2 Input Signal Detected by the ATSU

- 1. Possible Causes
  - DMC-2 (1WT2)
  - ATSU (1TX1)
  - wiring of the DMC 2 DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	31-63-34-000-001	Removal of the DMC (1WT1,1WT2,1WT3)
AMM	31-63-34-400-001	Installation of the DMC (1WT1,1WT2,1WT3)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	
3. <u>F</u>	ault Confirmation	
**0N	A/C 247-275, 429-47	5, 481-499, 503-549, 551-599,
	SB 46-1001 For A/C SB 46-1005 For A/C	•

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 238 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message DMC2(1WT2)/ATSU1(1TX1):
  - replace the DMC-2 (1WT2) (Ref. AMM TASK 31-63-34-000-001) and (Ref. AMM TASK 31-63-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the DMC 2 and the ATSU
      - do a check and repair the wiring of the DMC 2 DATA BUS: between pins AB/1E,1F of the DMC 1 and pins AB/5A,5B of the ATSU (Ref. ASM 46-21/05)
      - install the DMC 2 and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

SROS

46-21-00

Page 239 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-823

Loss of the DMU Data Detected by the ATSU

- 1. Possible Causes
  - DMU (1TV)
  - ATSU (1TX1)
  - wiring of the AIDS DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	31-36-34-000-001	Removal of the Data Management Unit (DMU) (1TV)
AMM	31-36-34-400-001	Installation of the Data Management Unit (DMU) (1TV)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	
3. <u>F</u>	ault Confirmation	
**0N	**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,	
	SB 46-1001 For A/C SB 46-1005 For A/C	·

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 240 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message DMU(1TV)/ATSU1(1TX1):
  - replace the DMU (1TV) (Ref. AMM TASK 31-36-34-000-001) and (Ref. AMM TASK 31-36-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the DMU and the ATSU
      - do a check and repair the wiring of the AIDS DATA BUS: between pins AB/11J,11K of the DMU and pins AB/8A,8B of the ATSU (Ref. ASM 46-21/05)
      - install the DMU and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

SROS

46-21-00

Page 241 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-828

Loss of Ground Data Reception by the ATSU

- 1. Possible Causes
  - ATSU (1TX1)
  - XCVR-VHF, 3 (1RC3)
  - wiring of the VDR/3 INPUT BUS
- 2. Job Set-up Information
  - A. Referenced Information

Post SB 46-1005 For A/C 551-557,

REFE	RENCE	DESIGNATION
AMM	23-12-33-000-001	Removal of the VHF Transceiver (1RC1, 1RC2, 1RC3)
AMM	23-12-33-400-001	Installation of the VHF Transceiver (1RC1, 1RC2,
		1RC3)
AMM	46-21-00-710-002	VHF 3 Link Test of the ATSU
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	Installation of the Air Traffic Service Unit (ATSU)
		(1TX1)
ASM	46-21/05	
3. Fault Confirmation		
**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,		
Post	Post SB 46-1001 For A/C 503-549,	

#### A. Test

R

(1) Do the VHF3 Link Test (Ref. AMM TASK 46-21-00-710-002).

NOTE: Set the frequency of the ground station.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 242 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the FAILED indication:
  - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
  - (1) If the fault continues:
    - replace the XCVR-VHF, 3 (1RC3) (Ref. AMM TASK 23-12-33-000-001) and (Ref. AMM TASK 23-12-33-400-001).
    - (a) If the fault continues:
      - do a check and repair the wiring of the VDR/3 INPUT BUS from the VDR3 (1RC3) pins AB/10C,10D to the ATSU (1TX1) pins AA/4J,4K (Ref. ASM 46-21/05).
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

SROS

46-21-00

Page 243 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-829

Loss of the ATSU Data Transmission

- 1. Possible Causes
  - ATSU (1TX1)
  - XCVR-VHF, 3 (1RC3)
  - wiring of the ATSU COM-2 OUTPUT BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	23-12-33-000-001	Removal of the VHF Transceiver (1RC1, 1RC2, 1RC3)
AMM	23-12-33-400-001	<pre>Installation of the VHF Transceiver (1RC1, 1RC2, 1RC3)</pre>
AMM	46-21-00-710-002	VHF 3 Link Test of the ATSU
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/06	
3. <u>F</u>	ault Confirmation	
**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,		
	SB 46-1001 For A/C SB 46-1005 For A/C	

#### A. Test

R

(1) Do the VHF3 Link Test (Ref. AMM TASK 46-21-00-710-002).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 244 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the FAILED indication:
  - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
  - (1) If the fault continues:
    - replace the XCVR-VHF, 3 (1RC3) (Ref. AMM TASK 23-12-33-000-001) and (Ref. AMM TASK 23-12-33-400-001).
    - (a) If the fault continues:
      - do a check and repair the wiring of the ATSU COM-2 OUTPUT BUS from the ATSU (1TX1) pins AB/1G,1H to the VDR3 (1RC3) pins AB/12A,12B (Ref. ASM 46-21/06).
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

SROS

46-21-00

Page 245 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-830

Loss of the FWC1 Input Signal Detected by the ATSU

- 1. Possible Causes
  - FWC-1 (1WW1)
  - ATSU (1TX1)
  - wiring of the FWC DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	31-53-34-000-001	Removal of the Flight Warning Computer (FWC) (1WW1,1WW2)
AMM	31-53-34-400-001	<pre>Installation of the Flight Warning Computer (FWC) (1WW1,1WW2)</pre>
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	
3. <u>F</u>	ault Confirmation	
**0N	A/C 247-275, 429-47	5, 481-499, 503-549, 551-599,
	SB 46-1001 For A/C SB 46-1005 For A/C	•

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 246 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message FWC1(1WW1)/ATSU1(1TX1):
  - replace the FWC-1 (1WW1) (Ref. AMM TASK 31-53-34-000-001) and (Ref. AMM TASK 31-53-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the FWC 1 and the ATSU
      - do a check and repair the wiring of the FWC DATA BUS: between pins AB/12J,12K of the FWC 1 and pins AA/6C,6D of the ATSU (Ref. ASM 46-21/05)
      - install the FWC 1 and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

SROS

46-21-00

Page 247 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-831

Loss of the Frequency Control by the ATSU on the RMP1

- 1. Possible Causes
  - RMP-COM/NAV FREQ SEL, 1 (1RG1)
  - wiring of the DFS PORT SELECT DISCRETE
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 23-13-13-000-001	Removal of the Radio Management Panel (RMP) (1RG1, 1RG2, 1RG3)	
AMM 46-21-00-710-001 ASM 46-21/04	Operational Test of the ATSU	
3. Fault Confirmation		
**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,		
Post SB 46-1001 For A/C Post SB 46-1005 For A/C	•	

A. Test

R

R

(1) Do the fifth part of the operational test of the ATSU (Ref. AMM TASK 46-21-00-710-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 248 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If during the operational test, the ATSU cannot control the VHF3 frequency through the RMP1 only:
  - replace the RMP-COM/NAV FREQ SEL, 1 (1RG1) (Ref. AMM TASK 23-13-13-000-001) and (Ref. AMM TASK 23-13-13-000-001).
  - (1) If the fault continues:
    - repair the wiring of the DFS PORT SELECT DISCRETE from the RMP1 (1RG1) pin A/F to the first terminal block (Ref. ASM 46-21/04).
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 249 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-832

Loss of the FWC2 Input Signal Detected by the ATSU

- 1. Possible Causes
  - FWC-2 (1WW2)
  - ATSU (1TX1)
  - wiring of the FWC DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	31-53-34-000-001	Removal of the Flight Warning Computer (FWC) (1WW1,1WW2)
AMM	31-53-34-400-001	Installation of the Flight Warning Computer (FWC) (1WW1,1WW2)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	
3. <u>F</u>	ault Confirmation	
**0N	**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,	
	SB 46-1001 For A/C SB 46-1005 For A/C	•

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 250 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message FWC2(1WW2)/ATSU1(1TX1):
  - replace the FWC-2 (1WW2) (Ref. AMM TASK 31-53-34-000-001) and (Ref. AMM TASK 31-53-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the FWC 2 and the ATSU
      - do a check and repair the wiring of the FWC DATA BUS: between pins AB/12J,12K of the FWC 2 and pins AB/6C,6D of the ATSU (Ref. ASM 46-21/05)
      - install the FWC 2 and the ATSU.
- B. Do the test given in Para. 3.

247-275, 429-475, 481-499, 503-549, EFF: 551-599,

46-21-00

Page 251 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-833

Loss of the Frequency Control by the ATSU on the RMP2

- 1. Possible Causes
  - RMP-COM/NAV FREQ SEL, 2 (1RG2)
  - wiring of the DFS PORT SELECT DISCRETE
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 23-13-13-000-001	Removal of the Radio Management Panel (RMP) (1RG1, 1RG2, 1RG3)
AMM 23-13-13-400-001	Installation of the Radio Management Panel (RMP) (1RG1, 1RG2, 1RG3)
AMM 46-21-00-710-001 ASM 46-21/04	Operational Test of the ATSU
3. Fault Confirmation	
**ON A/C 247-275, 429-475	5, 481-499, 503-549, 551-599,
Post SB 46-1001 For A/C Post SB 46-1005 For A/C	•

### A. Test

R

R

(1) Do the fifth part of the operational test of the ATSU (Ref. AMM TASK 46-21-00-710-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 252 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If during the operational test, the ATSU cannot control the VHF3 frequency through the RMP2 only:
  - replace the RMP-COM/NAV FREQ SEL, 2 (1RG2) (Ref. AMM TASK 23-13-13-000-001) and (Ref. AMM TASK 23-13-13-400-001).
  - (1) If the fault continues:
    - repair the wiring of the DFS PORT SELECT DISCRETE from RMP2 (1RG2) pin A/F to the first terminal block (Ref. ASM 46-21/04).
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 253 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-834

Loss of the Data Loader Signal Detected by the ATSU

- 1. Possible Causes
  - MDDU (1TD)
  - ATSU (1TX1)
  - wiring of the DATA LOADER INPUT BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-38-22-000-001 AMM 31-38-22-400-001 AMM 46-21-00-740-001 AMM 46-21-34-000-001 AMM 46-21-34-400-001	Removal of the MDDU (1TD) Installation of the MDDU (1TD) BITE Test of the ATIMS Removal of the Air Traffic Service Unit (ATSU) (1TX1) Installation of the Air Traffic Service Unit (ATSU)
ASM 46-21/05  3. Fault Confirmation	(1TX1)
**ON A/C 247-275, 429-475	5, 481-499, 503-549, 551-599,
Post SB 46-1001 For A/C Post SB 46-1005 For A/C	·

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 254 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

- 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message DATA LOADER(1TD)/ATSU1(1TX1): - replace the MDDU (1TD) (Ref. AMM TASK 31-38-22-000-001) and (Ref. AMM TASK 31-38-22-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the MDDU and the ATSU
      - do a check and repair the wiring of the DATA LOADER INPUT BUS: between pins A/24,25 of the MDDU and pins AA/8J,8K of the ATSU (Ref. ASM 46-21/05)
      - install the MDDU and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 255 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-835

Loss of the Frequency Control by the ATSU on the RMP3

- 1. Possible Causes
  - RMP-COM FREQ SEL, 3 (1RG3)
  - wiring of the DFS PORT SELECT DISCRETE
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 23-13-13-000-001	Removal of the Radio Management Panel (RMP) (1RG1, 1RG2, 1RG3)
AMM 23-13-13-400-001	Installation of the Radio Management Panel (RMP) (1RG1, 1RG2, 1RG3)
AMM 46-21-00-710-001 ASM 46-21/04	Operational Test of the ATSU
3. Fault Confirmation	
**ON A/C 247-275, 429-475	, 481-499, 503-549, 551-599,
Post SB 46-1001 For A/C Post SB 46-1005 For A/C	•

### A. Test

R

R

(1) Do the fifth part of the operational test of the ATSU (Ref. AMM TASK 46-21-00-710-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

Printed in France

46-21-00

Page 256 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If, during the operational test, the ATSU cannot control the VHF3 frequency through the RMP3 only:
  - replace the RMP-COM FREQ SEL, 3 (1RG3) (Ref. AMM TASK 23-13-13-000-001) and (Ref. AMM TASK 23-13-13-400-001).
  - (1) If the fault continues:
    - repair the wiring of the DFS PORT SELECT DISCRETE from the RMP3 (1RG3) pin A/F to the first terminal block (Ref. ASM 46-21/04).
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 257 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-836

Loss of the Frequency Control by the ATSU

- 1. Possible Causes
  - ATSU (1TX1)
  - XCVR-VHF, 3 (1RC3)
  - wiring of the DFS PORT SELECT DISCRETE
  - wiring of ATSU SYS5 OUTPUT BUS
- 2. Job Set-up Information
  - A. Referenced Information

Post SB 46-1005 For A/C 551-557,

REFE	RENCE	DESIGNATION
A M M	23-12-33-000-001	Demoval of the VHE Transcrives (1801 1802 1807)
AMM AMM		Removal of the VHF Transceiver (1RC1, 1RC2, 1RC3) Installation of the VHF Transceiver (1RC1, 1RC2, 1RC3)
AMM	46-21-00-710-001	Operational Test of the ATSU
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/04	
ASM	46-21/06	
3. <u>F</u>	ault Confirmation	
**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,		
Post	SB 46-1001 For A/C	503-549,

### A. Test

R

R

(1) Do the fifth part of the operational test of the ATSU (Ref. AMM TASK 46-21-00-710-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 258 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If, during the operational test, the ATSU cannot control the VHF3 frequency through one RMP:
  - do a check for a ground signal at pin AA/12B of the ATSU (1TX1) (Ref. ASM 46-21/04).
  - (1) If there is no ground signal:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If there is a ground signal:
      - replace the XCVR-VHF, 3 (1RC3) (Ref. AMM TASK 23-12-33-000-001) and (Ref. AMM TASK 23-12-33-400-001).
    - (b) If the fault continues:
      - do a check and repair the wiring of the DFS PORT SELECT DISCRETE from the ATSU (1TX1) pin AA/12B to the VDR3 (1RC3) pin AB/11D (Ref. ASM 46-21/04).
      - 1 If the fault continues:
        - do a check and repair the wiring of ATSU SYS5 OUTPUT BUS from the ATSU (1TX1) pins AA/1E,1F to the VDR3 (1RC3) pins AB/11A,11B (Ref. ASM 46-21/06).
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

**SROS** 

46-21-00

Page 259 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-837

Loss of the SDAC1 Input Signal Detected by the ATSU

- 1. Possible Causes
  - SDAC-1 (1WV1)
  - ATSU (1TX1)
  - wiring of the SDAC 1 DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM	31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	
_	ault Confirmation  A/C 247-275, 429-47	5, 481-499, 503-549, 551-599,
	SB 46-1001 For A/C SB 46-1005 For A/C	·

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 260 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message SDAC1(1WV1)/ATSU1(1TX1): - replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the SDAC 1 and the ATSU
      - do a check and repair the wiring of the SDAC 1 DATA BUS: between pins AB/8J,8K of the SDAC 1 and pins AA/6G,6H of the ATSU (Ref. ASM 46-21/05)
      - install the SDAC 1 and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 261 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-839

Loss of the SDAC2 Input Signal Detected by the ATSU

- 1. Possible Causes
  - SDAC-2 (1WV2)
  - ATSU (1TX1)
  - wiring of the SDAC 2 DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM AMM		Removal of the SDAC (1WV1,1WV2) Installation of the SDAC (1WV1,1WV2)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	
3. <u>F</u>	ault Confirmation	
**ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,		
Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,		

A. Test

R

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 262 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message SDAC2(1WV2)/ATSU1(1TX1): - replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the SDAC 2 and the ATSU
      - do a check and repair the wiring of the SDAC 2 DATA BUS: between pins AB/8J,8K of the SDAC 2 and pins AB/6G,6H of the ATSU (Ref. ASM 46-21/05)
      - install the SDAC 2 and the ATSU.
- B. Do the test given in Para. 3.

247-275, 429-475, 481-499, 503-549, EFF: 551-599, SROS

46-21-00

Page 263

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-840

Switching of the VDR3 to DATA Mode not Possible

- 1. Possible Causes
  - ATSU (1TX1)
  - XCVR-VHF, 3 (1RC3)
  - wiring of the VOICE/DATA SELECT discrete
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
АММ	23-12-33-000-001	Removal of the VHF Transceiver (1RC1, 1RC2, 1RC3)
	23-12-33-400-001	Installation of the VHF Transceiver (1RC1, 1RC2, 1RC3)
AMM	46-21-00-710-001	Operational Test of the ATSU
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/04	

### 3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

```
Post SB 46-1001 For A/C 503-549,
Post SB 46-1005 For A/C 551-557,
```

`

## A. Test

(1) Do the third part of the operational test of the ATSU (Ref. AMM TASK 46-21-00-710-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 264 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the VHF3 cannot operate in DATA mode during the operational test of the ATSU:
  - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
  - (1) If the fault continues:
    - replace the XCVR-VHF, 3 (1RC3) (Ref. AMM TASK 23-12-33-000-001) and (Ref. AMM TASK 23-12-33-400-001).
    - (a) If the fault continues:
      - do a check and repair the wiring of the VOICE/DATA SELECT discrete from the ATSU (1TX1) pin AA/12A to the VDR3 (1RC3) pin AB/7C (Ref. ASM 46-21/04).
- B. Do the test given in Para. 3.

247-275, 429-475, 481-499, 503-549, EFF: 551-599,

SROS

46-21-00

Page 265 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-841

No DATA mode set through the RMPs

### 1. Possible Causes

- RMP-COM/NAV FREQ SEL, 1 (1RG1)
- RMP-COM/NAV FREQ SEL, 2 (1RG2)
- RMP-COM FREQ SEL, 3 (1RG3)
- ATSU (1TX1)
- wiring of the VOICE/DATA SELECT OUTPUT
- wiring of the VOICE/DATA MONITOR INPUT
- wiring of the REMOTE VOICE/DATA SELECT
- wiring of the PORT SELECT DISCRETE

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	23-13-13-000-001	Removal of the Radio Management Panel (RMP) (1RG1, 1RG2, 1RG3)
AMM	23-13-13-400-001	<pre>Installation of the Radio Management Panel (RMP) (1RG1, 1RG2, 1RG3)</pre>
AMM	46-21-00-710-001	Operational Test of the ATSU
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	

### 3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

A. Test

R

(1) Do the operational test of the ATSU (Ref. AMM TASK 46-21-00-710-001) from the step 35.
Do it again for each RMP.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 266 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If you cannot select the Data mode from one RMP, do the fault isolation procedure that follows:
  - (1) If you can correctly set the DATA mode on the two other RMPs
    - (a) Replace the RMP-COM/NAV FREQ SEL, 1 (1RG1), RMP-COM/NAV FREQ SEL, 2 (1RG2) or RMP-COM FREQ SEL, 3 (1RG3) on which it was not possible to set the DATA mode (Ref. AMM TASK 23-13-13-000-001) and (Ref. AMM TASK 23-13-13-400-001).
    - (b) If the fault continues:
      - remove the same RMP
      - do a check and repair if necessary the wiring of the VOICE/DATA SELECT OUTPUT from the pin A/G of the RMP to the RMP derivation terminal block (Ref. ASM 46-21/05)
    - (c) If the fault continues:
      - do a check and repair if necessary the wiring of the VOICE/DATA MONITOR INPUT from the RMP derivation terminal block to pin A/F of the RMP (Ref. ASM 46-21/05)
      - install the RMP that you removed.
  - (2) If you cannot set the DATA mode on the two other RMPs:
    - (a) Remove the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001)
      - do a check and repair if necessary the wiring of the REMOTE VOICE/DATA SELECT from pin AA/15A of the ATSU to the RMP derivation terminal block (Ref. ASM 46-21/05)
    - (b) If the fault continues:
      - do a check and repair if necessary the wiring of the PORT SELECT DISCRETE from AA/12B of the ATSU to the RMP derivation terminal block (Ref. ASM 46-21/05).
    - (c) If the fault stops:
      - install the ATSU (Ref. AMM TASK 46-21-34-400-001)
    - (d) If the fault continues:
      - install a new ATSU (Ref. AMM TASK 46-21-34-400-001).
- B. Do the test given in Para. 3.A.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 267 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-842

No VOICE mode set through the RMPs

### 1. Possible Causes

- RMP-COM/NAV FREQ SEL, 1 (1RG1)
- RMP-COM/NAV FREQ SEL, 2 (1RG2)
- RMP-COM FREQ SEL, 3 (1RG3)
- ATSU (1TX1)
- wiring of the VOICE/DATA SELECT OUTPUT
- wiring of the VOICE/DATA MONITOR INPUT
- wiring of the REMOTE VOICE/DATA SELECT
- wiring of the PORT SELECT DISCRETE

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	23-13-13-000-001	Removal of the Radio Management Panel (RMP) (1RG1, 1RG2, 1RG3)
AMM	23-13-13-400-001	<pre>Installation of the Radio Management Panel (RMP) (1RG1, 1RG2, 1RG3)</pre>
AMM	46-21-00-710-001	Operational Test of the ATSU
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	

### 3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

A. Test

R

(1) Do the operational test of the ATSU (Ref. AMM TASK 46-21-00-710-001) from the step 35.
Do it again for each RMP.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 268 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If you cannot select the VOICE mode from one RMP, do the fault isolation procedure that follows:
  - (1) If you can correctly set the VOICE mode on the two other RMPs
    - (a) Replace the RMP-COM/NAV FREQ SEL, 1 (1RG1), RMP-COM/NAV FREQ SEL, 2 (1RG2) or RMP-COM FREQ SEL, 3 (1RG3) on which it was not possible to set the VOICE mode (Ref. AMM TASK 23-13-13-000-001) and (Ref. AMM TASK 23-13-13-400-001).
    - (b) If the fault continues:
      - remove the same RMP
      - do a check and repair if necessary the wiring of the VOICE/DATA SELECT OUTPUT from the pin A/G of the RMP to the RMP derivation terminal block (Ref. ASM 46-21/05)
    - (c) If the fault continues:
      - do a check and repair if necessary the wiring of the VOICE/DATA MONITOR INPUT from the RMP derivation terminal block to pin A/F of the RMP (Ref. ASM 46-21/05)
      - install the RMP that you removed.
  - (2) If you cannot set the VOICE mode on the two other RMPs:
    - (a) Remove the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001)
      - do a check and repair if necessary the wiring of the REMOTE VOICE/DATA SELECT from pin AA/15A of the ATSU to the RMP derivation terminal block (Ref. ASM 46-21/05)
    - (b) If the fault continues:
      - do a check and repair if necessary the wiring of the PORT SELECT DISCRETE from AA/12B of the ATSU to the RMP derivation terminal block (Ref. ASM 46-21/05).
    - (c) If the fault stops:
      - install the ATSU (Ref. AMM TASK 46-21-34-400-001)
    - (d) If the fault continues:
      - install a new ATSU (Ref. AMM TASK 46-21-34-400-001).
- B. Do the test given in Para. 3.A.

EFF: 551-599, 46-21-00

Page 269 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-843

Datalink Communication Inoperative

- 1. Possible Causes
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION

46-21-00-810-844 Loss of the Datalink Communication AMM 23-12-00-740-001 AMM 46-21-00-740-001 BITE Test of the VHF System

BITE Test of the ATIMS

AMM 46-21-00-860-001 Initialization Procedure of the ATSU Router

3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. No message or no warning is shown but the datalink applications are inoperative.
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
  - 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

```
Post SB 46-1001 For A/C 503-549,
Post SB 46-1005 For A/C 551-557,
```

R

- A. Make sure that the ACARS STBY or DATALINK STBY right memo is shown on the upper ECAM DU.
  - (1) If it is shown, do this following trouble shooting procedure (Ref. TASK 46-21-00-810-844).

247-275, 429-475, 481-499, 503-549, EFF: 551-599, **SROS** 

46-21-00

Page 270 Feb 01/08

### TROUBLE SHOOTING MANUAL

- (2) If it is not shown, get access to the COMM INIT page on the MCDU as shown in the initialization procedure of the ATSU router (Ref. AMM TASK 46-21-00-860-001).
  - On this page, make sure that the mandatory parameters are correct:
  - the airline identification codes (codes with two and three digits)
  - the aircraft registration number
  - the VHF3 scan mask.
  - (a) If they are not correct:
    - enter the correct parameters as shown in the initialization procedure of the ATSU router.
  - (b) If they are correct:
    - do the BITE test of the VDR3 (Ref. AMM TASK 23-12-00-740-001) and of the ATSU (Ref. AMM TASK 46-21-00-740-001).
    - If the two tests are OK, the cause of the fault is external to the aircraft (saturated network, VHF reception unsatisfactory, etc.) and no other maintenance action is necessary.
    - If the two tests are not OK, do the trouble shooting procedure related to the maintenance message(s).

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-844

Loss of the Datalink Communication

- 1. Possible Causes
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION	

Loss of the VDR3 Data Detected by the ATSU

AMM 23-12-00-740-001 BITE Test of the VHF System

AMM 46-21-00-740-001 BITE Test of the ATIMS

AMM 46-21-00-860-001 Initialization Procedure of the ATSU Router

3. Fault Confirmation

46-21-00-810-815

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

R

A. Test

Make sure that the ACARS STBY or DATALINK STBY right memo is shown on the upper ECAM DU.

- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
  - 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

A. On the MCDU, get access to the COMM INIT page as shown in the initialization procedure of the ATSU router (Ref. AMM TASK 46-21-00-860-001).

On this page, make sure that the mandatory parameters are correct:

- the airline identification codes (codes with two and three digits)
- the A/C registration number
- the VHF3 scan mask.

247-275, 429-475, 481-499, 503-549, EFF: 551-599, **SROS** 

46-21-00

Page 272 Feb 01/08

### TROUBLE SHOOTING MANUAL

- (1) If they are not correct:
  - enter the correct parameters as shown in the initialization procedure of the ATSU router.
- (2) If they are correct:
  - get the COMM STATUS page
  - on this page, make sure that the VDR3 is "operational" (VHF3 OP indication).
  - (a) If the indication is VHF3 INOP:
    - do this trouble shooting procedure (Ref. TASK 46-21-00-810-815).
  - (b) If the indication is VHF3 OP:
    - get the VHF3 DATA MODE page
    - make sure that the frequency and the name of the Datalink Service Provider (DSP) shown on this page are those of a DSP available in the area.
    - 1 If the DSP and the frequency are available in the area:
      - on the MCDU, push the line key adjacent to the related DSP (this causes the ATSU to tune on the frequency of this service provider).

The ATSU will do automatic link tests with the ground to try to make the aircraft-ground link.

- a If the ATSU makes the link:
  - the ACARS STBY or DATALINK STBY right memo goes out of view and no other maintenance action is necessary.
- <u>b</u> If the ATSU does not make the link and no other ECAM memo/warning is shown:
  - do a BITE test of the ATSU (Ref. AMM TASK 46-21-00-740-001) and of the VDR3 (Ref. AMM TASK 23-12-00-740-001).
    - . If the two tests are OK, the cause of the fault is external to the aircraft (saturated network, VHF reception unsatisfactory, etc.) and no other maintenance action is necessary.
    - . If the two tests are not OK:
    - .. do the trouble shooting procedure related to the maintenance message(s).
- 2 If the ATSU uses a DSP/frequency for which the airline is not a subscriber:
  - enter a new scan mask. Then, set a new DSP for which the airline is a subscriber as shown in the initialization procedure of the ATSU router.
  - If the new DSP is not available in this area:
     the ACARS STBY or DATALINK STBY right memo will be shown
    - . the ACARS STBY or DATALINK STBY right memo will be show again on the upper ECAM DU.

46-21-00

EFF: 247-275, 429-475, 481-499, 503-549,

19,

Page 273 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-845

Loss of the HFDR1 Data Detected by the ATSU

- 1. Possible Causes
  - XCVR-HF, 1 (3RE1)
  - ATSU (1TX1)
  - wiring of the HF1 OUTPUT BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	23-11-33-000-001	Removal of the HF Transceiver (3RE1, 3RE2)
AMM	23-11-33-400-001	Installation of the HF Transceiver (3RE1, 3RE2)
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	

### TROUBLE SHOOTING MANUAL

```
3. Fault Confirmation
```

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

\*\*ON A/C 251-251, 254-275,

49VU COM/HF1

1RE1 HA14

R \*\*ON A/C 451-451, 503-549, 564-599,

R Post SB 23-1024 For A/C 503-549,564-599, Post SB 23-1049 For A/C 564-599, Post SB 23-1202 For A/C 564-599,

49VU COM HF1 1RE1 HA14

\*\*ON A/C 555-555,

121VU COM NAV/HF1

1RE1

3TX1

5TX1

L10

L 16

L15

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-555, 559-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-555,

R

121VU ATSU 1/SWTG

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

B. Test

121VU ATSU 1

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 275 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

### 4. Fault Isolation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message HFDR1(3RE1)/ATSU1(1TX1):
  - (1) Make sure that the circuit breakers 1RE1, 3TX1 and 5TX1 are closed.
    - (a) If the fault continues:
      - open and close the circuit breaker 1RE1 to reset the HFDR1.
      - 1 If the fault continues:
        - open and close the circuit breakers 3TX1 and 5TX1 to reset the ATSU.
  - (2) If the fault continues:
    - replace the XCVR-HF, 1 (3RE1) (Ref. AMM TASK 23-11-33-000-001) and (Ref. AMM TASK 23-11-33-400-001).
    - (a) If the fault continues:
      - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
      - 1 If the fault continues:
        - remove the HFDR1 and the ATSU
        - do a check and repair the wiring of the HF1 OUTPUT BUS:
           between pins AA/9C,9D of the HFDR1 and pins AA/4E,4F of the ATSU (Ref. ASM 46-21/05)
        - install the HFDR1 and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

**SROS** 

46-21-00

Page 276 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-847

ATSU Software Failure

- 1. Possible Causes
- 2. Job Set-up Information
  - A. Referenced Information

DEFENSE DESCRIPTION

REFERENCE

### **DESIGNATION**

-----

AMM 46-21-00-740-001

BITE Test of the ATIMS

3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

A. Test

- (1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
  - 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message ATSU1(1TX1):
  - (1) Open and close the circuit breakers 3TX1 and 5TX1 to reset the ATSU (wait one minute approximately).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 277 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

## 5. Close-up

R

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

A. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 278 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-848

Loss of GPS Data Detected by the ATSU

- 1. Possible Causes
  - MMR-2 (40RT2)
  - ATSU (1TX1)
  - wiring of the MMR2 DATA BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM AMM	34-36-31-000-002 34-36-31-400-002	Removal of the Multi Mode Receiver (40RT1, 40RT2) Installation of the Multi Mode Receiver (40RT1,
AMM	46-21-00-740-001	40RT2) BITE Test of the ATIMS
AMM AMM	46-21-34-000-001 46-21-34-400-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1) Installation of the Air Traffic Service Unit (ATSU)
		(1TX1)

## 3. Fault Confirmation

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

```
Post SB 46-1001 For A/C 503-549,
Post SB 46-1005 For A/C 551-557,
```

## A. Test

R

(1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 279 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

- 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-557,

R

- A. If the test gives the maintenance message GPSSU2(1SN2)/ATSU1(1TX1): - replace the MMR-2 (40RT2) (Ref. AMM TASK 34-36-31-000-002) and (Ref. AMM TASK 34-36-31-400-002).
  - (1) If the fault continues:
    - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
    - (a) If the fault continues:
      - remove the MMR2 and the ATSU
      - do a check and repair the wiring of the MMR2 DATA BUS
      - install the MMR2 and the ATSU.
- B. Do the test given in Para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 280 Feb 01/08

### TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-850

Loss of the ATC1 Data Detected by the ATSU

- 1. Possible Causes
  - XPDR-ATC/MODE S, 1 (1SH1)
  - ATSU (1TX1)
  - wiring of the XPDR-ATC/MODE S, 1 INPUT BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	34-52-33-000-001	Removal of the ATC/Mode S Transponder (1SH1, 1SH2)
AMM	34-52-33-400-001	<pre>Installation of the ATC/Mode S Transponder (1SH1,1SH2)</pre>
AMM	46-21-00-740-001	BITE Test of the ATIMS
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>
ASM	46-21/05	

- 3. Fault Confirmation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
- R Post SB 46-1027 For A/C 247-275,429-475,481-499,503-549,551-599,
  - A. Test
    - (1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 281 Feb 01/08

## TROUBLE SHOOTING MANUAL

- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
  - 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
- R Post SB 46-1027 For A/C 247-275,429-475,481-499,503-549,551-599,
  - A. If the test gives the maintenance message XPDR1(1SH1)/ATSU1(1TX1):
     replace the XPDR-ATC/MODE S, 1 (1SH1) (Ref. AMM TASK 34-52-33-000-001)
    and (Ref. AMM TASK 34-52-33-400-001).
    - (1) If the fault continues:
      - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
      - (a) If the fault continues:
        - remove the XPDR-ATC/MODE S, 1 and the ATSU
        - do a check and repair the wiring of the XPDR-ATC/MODE S, 1 INPUT BUS: from pins AA/5G,5H of the XPDR-ATC/MODE S, 1 to pins AA/4A,4B of the ATSU (Ref. ASM 46-21/05)
        - install the XPDR-ATC/MODE S, 1 and the ATSU.
  - B. Do the test given in para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 282 Feb 01/08

## TROUBLE SHOOTING MANUAL

R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,

TASK 46-21-00-810-851

Loss of the ATC2 Data Detected by the ATSU

- 1. Possible Causes
  - XPDR-ATC/MODE S, 2 (1SH2)
  - ATSU (1TX1)
  - wiring of the XPDR-ATC/MODE S, 2 INPUT BUS
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	34-52-33-000-001	Removal of the ATC/Mode S Transponder (1SH1, 1SH2)	
AMM	34-52-33-400-001	<pre>Installation of the ATC/Mode S Transponder (1SH1,1SH2)</pre>	
AMM	46-21-00-740-001	BITE Test of the ATIMS	
AMM	46-21-34-000-001	Removal of the Air Traffic Service Unit (ATSU) (1TX1)	
AMM	46-21-34-400-001	<pre>Installation of the Air Traffic Service Unit (ATSU) (1TX1)</pre>	
ASM	46-21/05		

- 3. Fault Confirmation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
- R Post SB 46-1027 For A/C 247-275,429-475,481-499,503-549,551-599,
  - A. Test
    - (1) Do the BITE test of the ATIMS (Ref. AMM TASK 46-21-00-740-001).

EFF: 247-275, 429-475, 481-499, 503-549, 551-599, SROS

46-21-00

Page 283 Feb 01/08

## TROUBLE SHOOTING MANUAL

- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
  - 4. Fault Isolation
- R \*\*ON A/C 247-275, 429-475, 481-499, 503-549, 551-599,
- R Post SB 46-1027 For A/C 247-275,429-475,481-499,503-549,551-599,
  - A. If the test gives the maintenance message XPDR2(1SH2)/ATSU1(1TX1):
     replace the XPDR-ATC/MODE S, 2 (1SH2) (Ref. AMM TASK 34-52-33-000-001)
     and (Ref. AMM TASK 34-52-33-400-001).
    - (1) If the fault continues:
      - replace the ATSU (1TX1) (Ref. AMM TASK 46-21-34-000-001) and (Ref. AMM TASK 46-21-34-400-001).
      - (a) If the fault continues:
        - remove the XPDR-ATC/MODE S, 2 and the ATSU
        - do a check and repair the wiring of the XPDR-ATC/MODE S, 2 INPUT BUS: from pins AA/5G,5H of the XPDR-ATC/MODE S, 2 to pins AB/4A,4B of the ATSU (Ref. ASM 46-21/05)
        - install the XPDR-ATC/MODE S, 2 and the ATSU.
  - B. Do the test given in para. 3.

EFF: 247-275, 429-475, 481-499, 503-549, 551-599,

46-21-00

Page 284 Feb 01/08