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NO. 1 ATCRBS TRANSPONDER TEST RECORD					
MAKE	MODEL	TYPE	S/N		
ITEM	TEST PROCE	EDURES USING IFR-6000	TEST SET	PASS FAIL	
1.	Original TSOTSO Class (Note: If TSO is not C74b or C				
2.	Set up IFR 6000 test for gener Set up antenna cable for corre Set up RF port for direct conne Set up test distance. Set up power limit to Far 43 tra	orrect gain.			
3.	XPDR – A/C decoder and sic	de lobe suppression test			
	Decoder Inner Low A =_ Decoder Inner High A =_ Decoder Outer Low A =_ Decoder Outer High A =_	C C	= = =		
	SLS 0 dB Mode A A =_ SLS 9 dB Mode A A =_	C C	=		
	A code =_	C Alt	=ft		
4.	F2 Width A = F1 - F2 A = Reply Delay A = Reply Jitter A = Reply Ratio A = -81 dBm Reply Ratio A = ATCRBS ALL-CALL A = Pulse Amp Var. A = E	μsec μsec μsec μsec μsec - %	C =µsec C =µsec C =µsec C =µsec C =µsec C =µsec C =% C =% C =% C =% C =%		
5	XPDR – POWER / FREQ TX Freq =	Mhz			
		ntenna Bottom Antenr	Instant Antenna (Direct connect)		

NAME	SIGN & APPROVAL	DATE



NAME

FAR Part 91.413 A.T.C. Transponder Test Test Set: IFR-6000

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*NOTE: THE DATA IN THE FOLLOWING ATTACHMENTS IS FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE ENGINEER TO REVIEW ALL DATA FROM RELEVANT REFERENCES BEFORE CARRYING OUT THIS TASK.

NO. 2 ATCRBS TRANSPONDER TEST RECORD						
MAKE	MODEL	TYP	E	S/N		
ITEM	TEST PROCEI	DURES USING IFR-60	000 TEST SET		PASS	FAIL
1.	Original TSOTSO Class (Note: If TSO is not C74b or C7		nfo			
2.	Set up IFR 6000 test for generic Set up antenna cable for correct Set up RF port for direct connect Set up test distance. Set up power limit to Far 43tran					
3.	XPDR – A/C decoder and side	e lobe suppression to	est.			
	Decoder Inner Low A = Decoder Inner High A = Decoder Outer Low A = Decoder Outer High A =	C	= = = = =			
	SLS 0 dB Mode A A = SLS 9 dB Mode A A =	C C	=	_		
	A code =	C	Alt =	_ft		
4.	F2 Width A =_ F1 - F2 A =_ Reply Delay A =_ Reply Jitter A =_ Reply Ratio A =_	usec usec usec usec usec % %	C = C = C =	µsec µsec µsec		
5	XPDR – POWER / FREQ					
	TX Freq =		tenna (Direct c			

SIGN & APPROVAL

DATE



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NO. 1 ATCRBS TRANSPONDER TEST RECORD						
M	ODEL	TYPE		S/N		
TEST	PROCEDURES	USING IFR 6000 T	EST SET		PASS	FAIL
Set up antenna cable Set up RF port for dire Set up test distance. Set up power limit to F Blank None transmitti	for correct loss a ect connect or An	nd antenna for corr tenna. r ant.	· ·	est.		
A/C DECDR / SLS						
Decoder Inner High Decoder Outer Low	A = A =	C C	= = = = =			
SLS 0 dB Mode A SLS 9 dB Mode A	A = A =	C C	=			
A code	=	C Alt	=ft			
A/C F1 /F2 SPACE / V F1 Width A F2 Width A F1 – F2 A	= <u> </u>	µsec C	: = <u></u>	_μsec		
Reply Jitter A Reply Ratio A -81 dBm Reply Ratio	= = A =	µsec C % C % C	= C = C =	_μsec		
POWER / FREQ						
TX Freq =		_Mhz				
Measured Via = MTL (dBm) = ATCRBS = A - C Diff = ALL CALL = Mode S ERP (dBm) =	Top Antenna	Bottom Antenna				
	TEST Set up IFR 6000 test if Set up antenna cable Set up RF port for dire Set up test distance. Set up test distance. Set up power limit to Relank None transmitting A/C DECDR / SLS Decoder Inner Low Decoder Inner High Decoder Outer Low Decoder Outer High Decoder Outer High SLS 0 dB Mode A SLS 9 dB Mode A SLS 9 dB Mode A A code A/C F1 /F2 SPACE / VE F1 Width A F2 Width A F2 Width A F1 - F2 A Reply Delay A Reply Jitter A Reply Ratio A TCRBS ALL—CALL Pulse Amp Var A POWER / FREQ TX Freq = Measured Via MTL (dBm) = ATCRBS = A - C Diff = ALL CALL Mode S	TEST PROCEDURES Set up IFR 6000 test for generic Made Set up antenna cable for correct loss a Set up RF port for direct connect or An Set up test distance. Set up power limit to Far 43transponde Blank None transmitting Antenna indivi A/C DECDR / SLS Decoder Inner Low A =	TEST PROCEDURES USING IFR 6000 TO Set up IFR 6000 test for generic Made S auto test. Set up antenna cable for correct loss and antenna for correct up RF port for direct connect or Antenna. Set up test distance. Set up power limit to Far 43transponder ant. Blank None transmitting Antenna individually during Diver A/C DECDR / SLS Decoder Inner Low A =	TEST PROCEDURES USING IFR 6000 TEST SET Set up IFR 6000 test for generic Made S auto test. Set up antenna cable for correct loss and antenna for correct gain. Set up RF port for direct connect or Antenna. Set up test distance. Set up power limit to Far 43transponder ant. Blank None transmitting Antenna individually during Diversity Power / Freq teats and the set of the s	TEST PROCEDURES USING IFR 6000 TEST SET	TYPE



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ITEM	TEST PROCEDURES USING IFR 6000 TEST SET	PASS	FAIL
5.	S ALL-CALL ITM Reply Delay A = μsec C = μsec Jitter A = μsec C = μsec Address A = C = % Ratio A = % C = % -81 dBm A = % C = % Mode S All - Call = C = - Address = C = - Tail = C = - Country = C = -		
6.	S REPLY TIMING Reply Delay = μsec Reply Jitter = μsec Pulse Width = = Pulse Spacing = =		
7.	S REPLY Pulse Amp VAR Shrt = dB LNG = dB SLS ON = S OFF = = S SQTR DF 11 period = S SQTR DF 17 detected = S Reply Ratio = % S S Reply Ratio = % Invalid AA = S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S S <td></td> <td></td>		
8.	UF 0 NO REPLY DF =		
9.	UF 4 NO REPLY DF = FS = DR = UM =IDS =IIS = RI = AC =ft Mode C Alt Compare = AA = DF 11 Address compare =		



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ITEM	TEST PROCEDURES USING IFR 6000 TEST SET	PASS	FAIL
10.	DF = FS = DR = UM =IDS = _IIS = ID =		
	Mode A ID Compare = AA = DF 11 Address compare =		
11.	DF =		
12.	DF =		
13.13	UF 20 NO REPLY DF =		
14.14	UF 21 NO REPLY DF = FS = DR = UM = IDS = IIS = ID = AA = DF 11 Address compare =		



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PAGE	ס	UF	

ITEM		TEST DROCEDURE	S USING IFR 6000 TE	ST SET	PASS	FAIL
11 E IVI 15.	UF 24			JI JEI	FASS	FAIL
15.	Reservation	NOT COMPA	NI IBLE			
		IIS =	IDS =	AA =		
	0	115.04				
	Segments DF =		ND =	TAS =		
	Di		ND	170 -		
	Close Out					
	DF =		IDS =	AA =		
16.1	ELEMENTE		1.17			
6	BDS =	<u>1,0</u> Subnet wor	K Version = <u> </u>			
•			ervice Cap = _			
		ÜELM	Capability = _			
		DELM	Capability = _			
		Aircraft II	Capability = _ Ident Cap =			
			GiCB Rep = _			
		001111111 000	DTE = _			
			Cont Flag = _			
			Squitter = _			
		RY SURV 2 REFER TO A	TTACHED PAGE FOR	READOUTS		
17.			· · · · · · · · · · · · · · · · · · ·			
17.	BDS					
	BDS					
	BDS	=				
	BDS	=				
		BDS = BDS =	Flight ID = ARA =	RAC =		
		PD2 -	ARA	RAC = RAT =		
18.	ENHANCE	SURV NOT C	 OMPATIBLE		_	
10.	BDS4, 0	MCP / FCU Sel Alt				
		Baro press Sel	= _			
	Ddo E O	Doll Anglo	_			
	Bds 5, 0	Roll Angle True Track Angle	= _			
		Ground Speed	= _			
		Track Angle Rate	= _			
		True Air Speed	= _			
	BDS 6, 0	Magnectic Heading	=			
	,	Ind Airspeed	= _			
		Mach No.	= _			
		Inert Vert Vel	= _			
		Baro Alt Rate	= _			

NAME	SIGN & APPROVAL	DATE



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NO. 2 ATCRBS TRANSPONDER TEST RECORD									
MAKE		МОГ	DEL	ТҮРІ	E		S/N		
ITEM	1	EST P	ROCEDURES	USING IFR 60	000 TEST	SET		PASS	FAIL
1.	Set up IFR 6000 Set up antenna of Set up RF port for Set up test distart Set up power lim Blank None trans	test for cable for or direct nce. it to Far smitting	generic Made correct loss a connect or An	S auto test. and antenna for atenna. er ant.	correct ga	ain.	est.		
2.	A/C DECDR / SL Decoder Inner L Decoder Outer Decoder Outer SLS 0 dB Mode SLS -9 dB Mode A code	Low / High / Low / High /	A = A =	c c c	= = = =				
3.	A/C F1 /F2 SPAC F1 Width A F2 Width A F1 – F2 A Reply Delay A Reply Jitter A Reply Ratio A -81 dBm Reply ATCRBS ALL—C Pulse Amp Var	Ratio / CALL A A	= = = = A =	µsec µsec µsec	C =_ C =_ C =_ C =_		_µsec _µsec _µsec _µsec _%		
4.	Measured Via MTL (dBm) ATCRBS A - C Diff ALL CALL Mode S ERP (dBm)	= <u></u>	op Antenna	_Mhz Bottom Anto	enna	Instant Anto			



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ITEM	TEST PROCEDURES USING IFR 6000 TEST SET	PASS	FAIL
5.	S ALL-CALL ITM Reply Delay A = μsec C = μsec Jitter A = μsec C = μsec Address A = C = % Ratio A = % C = % -81 dBm A = % C = % Mode S All - Call = C = C = Address = C = C = Tail = C = C = Country = C = C =		
6.	S REPLY TIMING Reply Delay = μsec Reply Jitter = μsec Pulse Width = = Pulse Spacing = =		
7.	S REPLY Pulse Amp VAR Shrt = dB LNG = dB SLS ON = SF OFF = SF SQTR DF 11 period = SF SQTR DF 17 detected = SF SQTR DF 17 detected = SF SQTR DF 17 detected = SQTR DF 17 detected = ST SQTR DF 17 detected = SQTR DF 17 detected		
8.	DF =		
9.	DF =		



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ITEM	TEST PROCEDURES USING IFR 6000 TEST SET	PASS	FAIL
10.	DF = FS = DR = UM =IDS = _IIS = ID =		
	Mode A ID Compare = AA = DF 11 Address compare =		
11.	DF =		
12.	DF =		
13.13	DF =		
14.14	DF =		



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ITEM	TEST PROCEDURES USING IFR 6000 TEST SET PASS			FAIL
15.	UF 24 Reservation UF 4 DF = IIS =			
	Segments UF 24 DF = KE =	ND = TAS =		
	Close Out UF 4 DF = IIS =			
16.1 6	BDS = Subnet work Version = _ ENH Prot IND = _ Spec Service Cap = _ UELM Capability = _ DELM Capability = _ Aircraft ID capability = _ Surv Ident Cap = _ Comm Use GiCB Rep = _ DTE = _ Cont Flag = _ Squitter = _			
	ELEMENTRY SURV 2 BDS =			
17.	BDS = BDS = BDS = Flight ID = RAC = RAT =			
18.	BDS4, 0 MCP / FCU Baro pro	Sel Alt = _ ess Sel = _		
	Bds 5, 0 Rol True Track Ground Track Ang True Air	Speed = _ le Rate = _		
	BDS 6, 0 Magnectic Heading = _ Ind Airspeed = _ Mach No. = _ Inert Vert Vel = _ Baro Alt Rate = _			
NAME		SIGN & APPROVAL DATE		



NOTE

- 1. AN ALTITUDE REPORTING SYSTEM TEST MUST BE PERFORMED AFTER ANY ADJUSTMENTS OR INSTALLATION IS MADE WHICH MAY AFFECT THE ALTITUDE REPORTING SYSTEM. PERFORM ALTITUDE REPORTING SYSTEM TEST IF IT IS DUE AND REQUESTED BY THE CUSTOMER.
- 2. FOR AIRCRAFT HAVING MODE S ADDRESSES WITHIN THE BLOCK OF ADDRESSED ASSIGNED TO CIVILIAN US AIRCRAFT, THE REGISTRATION NUMBER OF THE AIRCRAFT WILL BE DISPLAYED.
- 3. FOR NON US REGISTERED AND MILITARY AIRCRAFT THE MODE S ADDRESS WILL APPEAR AS AT HEXADECIMAL CODE. REFER TO AIRCRAFT LOG BOOK FOR MODE S TRANSPONDER ADDRESS STRAPPING (OR AIRCRAFT SPECIFIC WIRING DIAGRAM). ALL REGISTRATION IS PROCEEDED BY THE LETTER N.
- 4. IF A HEXADECIMAL CODE IS DISPLAYED BY A US CIVIL REGISTERED AIRCRAFT, THIS IS AN INDICATION OF INCORRECTLY STRAPPED MODE S TRANSPONDER.
- 5. TXPDR ELEMENTARY SURV 2 COMMON USAGE GROUND INITIATED COMM B SERVICES.(GICB).

BDS	Description
0.5	Ext Squitter Airborne Position
0.6	Ext Squitter Surface Position
0.7	Ext Squitter Status
0.8	Ext Squitter Type and Identification
0.9	Ext Squitter Airborne velocity information
0.A	Ext Squitter event driven information
1.0	Data link capability report
1.7	Common usage GICB capability report
2.0	Aircraft Identification (flight ID)
2.1	Aircraft Registration number
3.0	ACAS resolution Advisory
4.0	Aircraft Vertical Intention
4.1	Next waypoint identifier
4.2	Next waypoint position
4.3	Next waypoint Information
4.4	Meteorological Routine report
4.5	Meteorological Hazard report
4.8	VHF channel report
5.0	Track and Turn report
5.1	Position Course
5.2	Position Fine
5.3	Air Reference state Vector
5.4	Waypoint 1
5.5	Waypoint 2
5.6	Waypoint 3
5.F	Quasi-static Parameter Monitoring
6.0	Heading and speed report