FEDERAL AVIATION ADMINISTRATION

A8SW Revision 21 Fairchild Aircraft SA226-TC SA227-AC (C-26A) SA227-PC SA227-BC (C-26A) February 6, 1997

TYPE CERTIFICATE DATA SHEET A8SW

This data sheet, which is part of Type Certificate No. A8SW, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder Fairchild Aircraft, Inc.

San Antonio, Texas 78279-0490

<u>I - Model SA226-TC, 22 PCLM, Normal Category, Approved June 11, 1970, Restricted Category Approved February 10, 1978, SFAR 41 Approval September 25, 1980 (See Note 8).</u>

(See note 7 for Restricted Category Operation at 14,000 lbs. gross weight)

Engines 2 Garrett (AiResearch) TPE331-3U-303G or 304G Turboprop

or 2 Garrett (AiResearch) TPE 331-3UW-303G or -304G Turboprop

Fuel AVJET A, A-1, and B. JP-1, JP-4, and JP-5 fuels conforming to AiResearch

Report No. PE-5064-R. (Fuels shall conform to the specification as listed or to

subsequent revisions thereof.) (See Note 3.)

Oil MIL-L-23699A conforming to Garrett Turbine Engine Company (AiResearch)

Report No. PE-5065-R. (Oil shall conform to the specification as listed or subsequent

revisions thereof.)

Engine Limits <u>Static Sea Level Ratings</u>

(See Note 4A)

	Shaft Horse Power (S.H.P.)	Gas Gen. Speed (R.P.M.)	Prop Shaft Speed (R.P.M.)	Max. Perm. Turbine Interstage Temp. (°C)
Take-off (5 min.) Dry-Static	840	41730	2000	923
Take-off (5 min.) Wet	940	41730	2000	944
Max. Continuous	840	41730	2000	923
Starting Limit (1 sec.)				1149
(Below 50%)				

Oil Temps Minus 40°C to 110°C (normal operations)

Minus 40°C to 127°C (ground idle only)

Propeller and 2 Hartzell HC-B3TN-5()/T10282HB or T10282B.

Propeller Limits Diameter 102 inches. No reduction permitted.

Pitch at 30 in. station.

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<u>I - Model SA226-TC, 22 PCLM, Normal Category, Approved June 11, 1970, Restricted Category Approved February 10, 1978, SFAR 41 Approval September 25. 1980 (See Note 8).</u> (Cont'd)

<u>bruary 10, 1978, SFAR 41 Appr</u>	oval September 25. 198	<u> 80 (See Note 8).</u> (Cont'd)			
Airspeed Limits				<u>Category</u>		
(Knots CAS)			Normal	Restricted	l Normal (SFAR 41)*	
	Max. Operating Speed	đ	248	238	248	
	Decrease maximum o		240	236	240	
			17,000 ft	10 000 ft	17 000 ft	
	5 knots per 1000 ft. al	oove:	17,000 ft.	19,000 ft.		
	Maneuvering		194	152	200	
	Flaps Full Extended		153	153	163	
	1/2 Extended		180	180	180	
	1/4 Extended		215	215	215	
	Landing Gear Extende	ed	176	176	176	
	Landing Gear Operati	ng	176	176	176	
	Landing Lights Exten	ded	150	150	150	
	*Serial No. TC-398 th		See Note 8.)			
C.G. Range	260.1 (13.7% MAC) 1	to 277.1 (36% MA	AC) at 14,000 lbs	.*		
Gear Down	259.3 (12.7% MAC) 1	to 277.1 (36% MA	AC) at 13,230 lbs	.***		
(Inches aft of datum)	258.5 (11.6% MAC) 1					
(254.4 (6.2% MAC) to	,				
	254.9 (6.9% MAC) to					
	Straight line variation					
	Strangin fine variation	between points g.	iven.			
	NOTE: Gear retractio	n will not move th	ne c.g. beyond ap	proved limit	s if the airplane is	
	loaded within the gear	r-down envelope.			-	
Empty weight C.G. Range	None					
	Tione					
Maximum Weight (lbs.)			_			
			<u>Category</u>			
		Normal	Normal (SFAF	R 41)***	Restricted	
	Ramp	12,600	13,330		14,100*	
	Take-off	12,500	13,230		14,000	
	Landing	12,500**	12,900*	*	12,500**	
Maximum Operating Altitude	25,000 feet (31,000 fe	et ner AFM Sunn	lement 12 dated	December 1	1976)	
Waximum Operating Printing						
		at 14,000 lbs. ma	x. takeoff weight	in Restricte	d Category only	
	after complying		. 1 1740 1.			
		ng fuel not to exce		per side.		
	*** Serial No. TC-39	% through 1C-418	s. (See Note 8.)			
Minimum Crew	One Pilot except as of	therwise required	by the Airplane I	Flight Manua	al.	
No. of seats	Maximum 22 (Crew a	at +111.0)				
	See loading instructio	ns for passenger lo	oading.			
Maximum Baggage	Rear Compartment: 6	500 lbs. (+473.4)				
and/or Equipment	Nose Compartment:		with nose AWI t	ank installed	d) (+46.7)	
	Local loading on cargo floor: 150 lbs./sq. ft.					
F 10						
Fuel Capacity	652 gal. total (324 gal. usable in each of 2 wing tanks (+281.4)), or 558 gal. total (277 gal. usable in each of two wing tanks (+282.0)).					
	See Note 1(A) for dat	a on unusable fuel	l .			
01.0	165 165	.1.1		0//		
Oil Capacity	16.5 qt. total (5 qt. us	able in each engin	ie oil tank (+205.	U)).		
	(See Note 5.)					
	See Note 1(A) for data	a on unusable oil.				

I - Model SA226-TC (Cont'd)

Control Surface Wing Flaps $36^{\circ} \pm 1^{\circ}$

Main Surface

Stabilizer (mechanical stops):

 $2.40^{\circ} \pm .20^{\circ}$ L.E. up $7.80^{\circ} \pm .20^{\circ}$ L.E. down

(electrical stops):

 $0.2^{\circ} \pm .05^{\circ}$ before mechanical stops

Tabs (Main surface in Neutral)

Aileron $20^{\circ} \pm 2^{\circ}, -1^{\circ} \quad up \qquad 20^{\circ} \pm 2^{\circ}, -1^{\circ} \quad down$ Rudder $25^{\circ} \pm 1.5^{\circ} \quad right \qquad 25^{\circ} \pm 1.5^{\circ} \quad left$

Serial Nos. TC-201 through TC-397, TC-418, TC-419, TC-211E, TC-211EE, TC-211EEE, TC-

211EEEE, Eligible TC-202E, TC-208E, TC-215E, TC-222E, TC-222E, TC-227E, TC-228E, TC-234E, TC-237E, TC-238E, TC-239E, TC-255E, TC-246E, TC-

303E, TC331E, TC-334E

(See Note 8 for Serial No. TC-398 through TC-418.)

Datum Located 274.1 inches forward of wing main (forward) spar centerline.

Leveling Means Lateral: Nose baggage compartment door sill.

Longitudinal: Nose baggage compartment floor.

Certification Basis FAR 23 effective February 1, 1965, through Amendments 23-6; Special Conditions

outlined in FAA letters November 19, 1965, August 22, 1967, February 5, 1968, and April 4, 1968; and SFAR 23. SFAR 27 effective February 1, 1974, and FAR 36 effective January 1, 1980. Exemption No. 1240 dated January 7, 1971. Exemption No. 3256 dated June 17, 1981. Date of TC Application August 2, 1968. (See Note 8 for Serial No. TC-398 through TC-418.) Approved for flight into known icing in accordance

with Rule 34 of SFAR 23.

Production Basis Production Certificate No. 3SW (spares only) expired October 4. 1990.

Current Certificate No. 6SW (spares only).

Equipment The basic required equipment as prescribed in the applicable airworthiness regulations

(see Certification Basis) must be installed in the aircraft for certification. Fairchild Drawing No. 27-10010 "Master Equipment List," contains listing of all additional required equipment as well as optional installations approved by the FAA. See Fairchild Report 2601-R429, "Metro Required Equipment Lists," an FAA approved report, for required systems and equipment for operating in specified environmental

conditions.

(See Note 8 for Serial No. TC-398 through TC-418.)

II - Model SA227-AC (C-26A), 22PCLM. Normal Category. SFAR 41. Approved 8 May 1981 (See Note 10 & 18).

Engines 2 Garrett (AiResearch) TPE331-llU-601G or -611G (with Dowty Rotol propellers) or 2

Garrett (AiResearch) TPE 331-llU-602G or -612G (with McCauley propellers)

Fuel Aviation turbine fuels AiResearch Specification

 Type A
 EMS53111

 Type A-1
 EMS53112

 Class A-JP4 and Class B-Type B
 EMS53113

 Type JP-5
 EM553116

 Type JP-8
 EMS53112

(Fuel shall conform to the specification as listed or to subsequent revisions thereof.)

(See Note 3.)

II - Model SA227-AC (C-26A) (Cont'd)

Oil	MIL-L-23699B conforming to Garrett	Turbine Engine Company (AiResearch)
OII	WHE E 23077B comorning to durett	Turbine Engine Company (Tintescuren)

Specification EMS53110 Type II.

Engine Limits Static Sea Level Ratings

	Shaft	Gas	Prop	Exhaust Gas
	Horse	Gen.	Shaft	Temp. (EGT)
	Power	Speed	Speed	(Single Red Line)
	(S.H.P.)	(R.P.M.)	(R.P.M.)	(°C)
Take-off (5 min.) Dry	1,000	41730*	1591*	650
Take-off (5 min.) Wet	1,100	41730*	1591*	650
Max. Continuous-Dry	1,000	41730*	1591*	650
Starting Limit (1 sec.)	-	-	-	770
*(See Note 4(B))				

Oil Temps Minus 40°C to 110°C (normal operations)

Minus 40°C to 127°C (ground operations only)

Propeller and	Number	2	2	
Propeller Limits	Make	Dowty Rotol	McCauley	
_	Model	(c) R.321/4-82-F/8	4HFR34C652()/()-L106LA-0
	Diameter	106 inches		106 inches
	Pitch At	J-J station*	30 in. station	
	McCauley Prop. Assy. No.	-	D-5928	D-6933
	Start Locks	-30' <u>+</u> 1°	9° ± 0.5°	$6^{\circ} \pm 0.5^{\circ}$
	Flight Idle	7° <u>+</u> 30′	15° ± 0.2°	$15^{\circ} \pm 0.2^{\circ}$
	Feather	84°46' <u>+</u> 20'	88.9° <u>+</u> .5°	88.5° ± .5°
	Reverse	-13°30' <u>+</u> 1°	-5° <u>+</u> 0.5°	$-5^{\circ} \pm 0.5^{\circ}$

^{*}See Note 9 for the location of the J-J station

Airspeed Limits (Knots CAS)		Altitude (ft)	Basic	Increased GW (See Note 11)	Optional (Increase)GW (See Note 14)
	Max. Operating	17,800	248	248	248
	Speed Up to	18,000	247	247	247
		20,000	237	237	237
		23,000	223	223	223
		26,000	209	209	209
		29,000	196	196	196
		31,000	188	188	188
	Maneuvering		174	176	186
	Flaps Full Extended		156	159 or 166**	166
	½ Extended		180	180	180
	¹ / ₄ Extended		215	215	215
	Landing Gear Extended		176	176	176
	Landing Gear Operating	g	176	176	176

^{**159} KCAS with Dowty Rotol propellers and 166 KCAS with McCauley propellers.

C.G. Range Gear Down (Inches aft of datum) 262.3 (15.72% MAC) to 277.0 (36% MAC) at 16,000 lbs. (See Note 14) 260.7 (13.50% MAC) to 277.0 (36% MAC) at 14,500 lbs. (See Note 11)

260.0 (12.54% MAC) to 277.0 (36% MAC) at 14,000 lbs.

258.5 (10.47% MAC) to 277 0 (36% MAC) at 12.500 lbs. (See Note 10)

257.0 (8.4% MAC) to 277.0 (36% MAC) at 11,000 lbs.

257.0 (8.4% MAC) to 277.0 (36% MAC) at 8,225 lbs.

Straight line variation between points given.

Note: Gear retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear-down envelope.

$\underline{\text{II - Model SA227-AC (C-26A), 22PCLM. Normal Category. SFAR 41, Approved 8 May 1981 (See Note 10 \& 18).}}_{\text{(Cont'd)}}$

Empty weight C.G. Range None.

Empty weight C.G. Kange	None.					
Maximum weight (lbs.)			Cat	egory,		
		Normal	Normal	Normal	No	rmal
		(with SFAR	(without	(Incr.GW with	(Optional	Incr. GW
		41)	SFAR 41)	SFAR 41) (See	with SFA	
	D	, in the second second	12 600	Note 11)	1.0	100
	Ramp	14,100	12,600	14,600		,100
	Take-off	14,000	12,500	14,500		,000
	Landing Max 0 Fuel	14,000 13,130**	12,500 13,130**	14,000 13,130**		,500 ,900**
	wax o ruei	13,130***	13,130***	15,150***	13	,900***
	*(See Note 14) **See Note 17					
Maximum Operating Altitude	31,000 feet					
Minimum Crew	One pilot excep	pt as otherwise	required by the	Airplane Flight M	Ianual.	
No. of seats	Maximum 22 (Crew at +111.O) (Maximum of 19 passengers per SFAR 41C) See AFM loading instructions for crew and passenger loading.					
Maximum Baggage	Rear Compartment: 850 lbs. (+473.4)					
and/or Equipment				ose CAWI tank ins	talled) (+46.7)
	Nose Compartment: 800 lbs.(600 lbs. with nose CAWI tank installed) (+46.7) Local loading on cargo floor: 150 lbs./sq. ft.					
Fuel Capacity	652 Gal. total (324 gal. usable in each of 2 wing tanks (+281.4)).					
	See Note 1(B) for data on unusable fuel.					
011.0						
Oil Capacity	14.1 quarts total (3.8 quarts usable in each engine oil tank (+205.0)).					
	See Note 1(B) for data on unusable oil.					
Control Surface	Wing Flap	os	36° =	± 1°		
	Main Surface					
	Aileron		18.5° =	± 1° up	$21.5^{\circ} \pm 1^{\circ}$	down
	Elevator		30° =		15° ± 1°	down
	Rudder		25° :	± 1° right	25° ± 1°	left
	Stabilizer (mec	chanical stops):				
			$2.40^{\circ} \pm .20^{\circ}$	L.E. Up 7.	$80^{\circ} \pm .20^{\circ} \text{ L.I}$	E. down
	(el	ectrical stops);				
	$0.2^{\circ} \pm .05^{\circ}$ before mechanical stops					
	Tabs (Main sur	rface in Neutral)			
	Aileron		20° -	+ 2° up	$20^{\circ} + 2^{\circ}$	down
				- 1°	-1°	
	Rudder		25° ±	1.5° right	25° ± 1.5°	left
Serial Nos.	AC 420 through AC 510 (See Note 10 and 11).					
	AC 514 and Ul	P (See Note 10	and 11).			
				11-413, 415, 416,	418	
	(See note 13).					
ъ.				c 1)	1.	
Datum	Located 274.1	inches forward	of wing main (forward) spar cent	erline.	

Nose baggage compartment door sill.

Nose baggage compartment floor.

Lateral:

Longitudinal:

Leveling Means

II - Model SA227-AC (C-26A) (Cont'd)

Certification Basis (See Note 10) (See Note 12)

FAR 23 effective February 1, 1965, through Amendments 23-6; Special Conditions outlined in FAA letters November 19, 1965, August 22, 1967, February 5, 1968, and April 4, 1968; SFAR 23; SFAR 27 through Amendment 3; and Amendment C of SFAR 41 including paragraph 4(c) and the compartment interior requirements of 25.853 (a), (b), (b-1), (b-2), and (b-3) in effect on September 26, 1978; FAR 23.175(d) of Amendment 23-14; and FAR 36 Appendix F. through Amendment 36-6. Approved for flight into known icing in accordance with Rule 34 of SFAR 23 and SFAR 41.

Production Basis

Production Certificate No. 3SW expired October 4, 1990. Current Certificate No. 6SW. (Spares Only)

Equipment

The basic required equipment, as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the aircraft for certification. Fairchild Drawing No. 27-10026 "Master Equipment List," contains listing of all additional required equipment as well as optional installations approved by the FAA.

III - Model SA227-PC. 22 PCLM, Normal Category. SFAR 41, Approved October 24. 1985.

Engines 2 Pratt & Whitney Aircraft of Canada, Ltd. PT6A-45R

Fuel Per Pratt & Whitney Service Bulletin 3044, including the following:

Fuel Grade	Specification	<u>Remarks</u>
Jet A	ASTM D1655	
Jet A-1	ASTM D1655	
Jet B(JP-4)	MIL-T-5624	Contains icing inhibitor per MIL-I-27686
JP-5	MIL-T-5624	Contains icing inhibitor per MIL-I-27686
JP-8	MIL-T-83133	
100LL Avgas	MIL-G-5572	Emergency use only (See Note 16.)

Fuel shall conform to the listed specifications or to subsequent revisions thereof. Anti-icing additives conforming to specification MIL-I-27686 are the only approved fuel

additives.

Per Pratt & Whitney Service Bulletin 3001, including Aero Shell Turbine Oil 500.

Mobil Jet Oil II, Mobil Jet Oil 254, Stauffer Jet II, Castrol 5000, Esso Turbo Oil 2380,

and Exxon Turbo Oil 2380.

Engine Limits Static Sea Level Ratings

Static State Level 10					
	Shaft	Gas	Prop	Max. Perm.	
	Horse	Generator	Shaft	Turbine	
	Power	Speed	Speed	Interstage	
	(S.H.P.)	(R.P.M.)	(R.P.M.)	Temp.(°C)	
Takeoff (5 min.	1100	38967	1700	845	(Torque is permitted
Max. Continuous)	906	38967	1700	812	to increase as RPM is
	906	38967	1600	812	reduced. 1400 RPM
	906	38967	1500	812	minimum flight
	906	38967	1400	812	propeller speed.)

Oil

2 McCauley 4HFR34C752-()/()-106LA-0

Diameter 106 inches. Pitch at 30.0 in. station.

Feathered	$89.0 \pm 0.5^{\circ}$
Beta rest	24.0 ± 0.5
Flight idle	$17.0 \pm 0.2^{\circ}$
Ground idle	$9.0 \pm 0.5^{\circ}$
Full reverse	$-7.0 \pm 0.5^{\circ}$

(Reverse restricted to ground operation between

90 and approximately 40 KIAS.)

Propeller and **Propeller Limits**

III - Model SA227-PC. 22 PCLM, Normal Category. SFAR 41, Approved October 24. 1985. (Cont'd)

Airspeed Limits Max. operating speed 248

(Knots CAS) Decrease maximum operating

C.G. Range 260.7 (13.5% MAC) to 273.45 (31.1% MAC) at 14,500 lbs. Gear Down 257.0 (8.4% MAC) to 272.13 (29.3% MAC) at 11,000 lbs. (Inches aft 257.0 (8.4% MAC) to 271.38 (28.3% MAC) at 9,000 lbs.

Of datum) Straight line variation between points given.

NOTE: Gear retraction will not move the c.g. beyond approved limits if the airplane is

loaded within the gear down envelope.

Empty Weight C. G. Range None

Maximum weight (lbs.) Ramp 14.600

Takeoff 14,500 Landing 14,000

Max. Zero Fuel 13,130 (See Note 17.)

Maximum Operating Altitude 25,000 ft.

Minimum Crew One pilot except as otherwise required by the Airplane Flight Manual.

No. Seats Maximum 22 (crew at + Ill.0). (Maximum of 19 Passengers per SFAR 41.) See AFM

for loading instructions.

Maximum Baggage Rear Compartment: 850 lbs. (+473.4) and/or Equipment Nose Compartment: 800 lbs. (+46.7)

Local loading on cargo and passenger compartment floor: 150 lbs./sq. ft.

Fuel Capacity 652 U.S. gallons total (324 gal. usable in each of 2 wing tanks (+281.4))

See Note l(C) for unusable fuel

Oil Capacity 18.4 U.S. quarts, total (6.0 quarts usable in each engine (+229.0))

See Note l(C) for unusable oil.

Control Surface Wing Flaps $36^{\circ} \pm 1^{\circ}$ down

Main Surface

 Aileron
 $18.5^{\circ} \pm 1^{\circ}$ up
 $21.5^{\circ} \pm 1^{\circ}$ down

 Elevator
 $30^{\circ} \pm 1^{\circ}$ up
 $15^{\circ} \pm 1^{\circ}$ down

 Rudder
 $25^{\circ} + 0^{\circ}$ right
 $25^{\circ} + 0^{\circ}$ left

 -1° -1°

Stabilizer (mechanical stops):

 $2.1^{\circ} \pm .20^{\circ}$ L.E. up $8.1^{\circ} \pm .20^{\circ}$ L.E. down

(electrical stops):

 $0.2^{\circ} \pm .05^{\circ}$ before mechanical stops

Tabs (Main surface in Neutral)

Aileron $20^{\circ} + 2^{\circ}, -1^{\circ}$ up $20^{\circ} \pm 2^{\circ}, -1^{\circ}$ down Rudder $25^{\circ} \pm 1.5^{\circ}$ right $25^{\circ} \pm 1.5^{\circ}$ left

Serial Nos. PC-436, PC-562 and up.

Datum Located 274.1 inches forward of wing main (forward) spar centerline.

III - Model SA227-PC. 22 PCLM, Normal Category. SFAR 41, Approved October 24. 1985. (Cont'd)

Leveling Means Lateral: Nose baggage compartment door sill.

Longitudinal: Nose baggage compartment floor.

Certification Basis FAR 23 effective February 1, 1965, through Amendment 23-6; Special Conditions No.

23-ACE-6, SFAR 23, FAR 23.175(d) and FAR 23.153 of Amendment 23-14; SFAR 41 through Amendment C and the compartment interior requirements of FAR 25.853(a), (b), (b-1), (b-2), and (b-3) in effect on September 26, 1978: FAR 36 Appendix F through Amendment 36-6: SFAR 27 through Amendment 4. Approved for flight into

known icing in accordance with Rule 34 of SFAR 23 and SFAR 41.

Production Basis Type Certificate only.

Equipment The basic required equipment, as prescribed in the applicable airworthiness regulations

(see Certification Basis) must be installed in the aircraft for certification. Fairchild Drawing No. 32-10003 "Master Equipment List" contains listing of all additional required equipment as well as optional installations approved by the FAA.

IV - Model SA227-BC (Military C-26A) 22 PCLM, Normal Category. SFAR 41. Approved September 25, 1989 (See Notes 18 and 19).

Engines 2 Garre	tt (AiResearch)	TPE331-12UA-701G,
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TPE331-12UAR-701G, TPE331-12UHR-701G

Fuel Aviation turbine fuels AiResearch Specification

 Type A
 EMS53111

 Type A-I
 EMS53112

 Class A-JP4 and Class B-Type B
 EMS53113

 Type JP-5
 EMS53116

 Type JP-8
 EMS53112

(Fuel shall conform to the specification as listed or to subsequent revisions thereof.)

(See Note 3.)

Oil MIL-L-23699B conforming to Garrett Turbine Engine Company (AiResearch)

Specification EMS53110 Type II.

Engine Limits Static Sea Level Ratings

Shaft Gas Prop Exhaust Gas Temp. (EGT) Horse Gen. Shaft Power Speed Speed (Single Red Line) (S.H.P.) (R.P.M.) (R.P.M.) (°C) Take-off (5 min.) Dry 1,000 41730* 1591* 650 Take-off (5 min.) wet 41730* 1591* 650 1,100 Max. Continuous-Dry 1,000 41730* 1591* 650 Starting Limit (1 sec.) 770 *(See Note 4(B))

Oil Temps Minus 40°C to 110°C (normal operations)

Minus 40°C to 127°C (ground operations only)

IV - Model SA227-BC (Military C-26A) 22 PCLM, Normal Category. SFAR 41. Approved September 25, 1989 (See Notes 18 and 19). (Cont'd)

otes 18 and 19). (Cont'd)					_	
Propeller and	Number	Number				
Propeller Limits	Make		McCauley			
	Model		4HFR34C652()/()-Ll06LA-0			
	Diameter 106 inches					
	Pitch At		30 in. station		D (022	
	McCauley Prop. Assy. No.		D-5928		D-6933	
	Start Locks		9° <u>+</u> 0.5° 15° <u>+</u> 0.2°		$6^{\circ} \pm 0.5^{\circ}$ $15^{\circ} \pm 0.2^{\circ}$	
	Flight Idle Feather		88.9° ± 2°		$88.5^{\circ} \pm 0.5^{\circ}$	
	Reverse		$-5^{\circ} \pm 0.5^{\circ}$		$-5^{\circ} \pm 0.5^{\circ}$	
	<u> </u>					
Airspeed Limits			Altitude	Basic	Increased GW	Optional
(Knots CAS)			(ft)		(See Note 11)	(Increase) GW (See Note 14)
	Max. Operating		17,800	248	248	248
	Speed up to		18,000	247	247	247
			20,000	237	237	237
			23,000	223	223	223
			26,000	209	209	209
			29,000	196	196	196
			31,000	188	188	188
	Maneuvering			174	176	183
	Flaps Full Extended			156	166	166
	1/2 Extended			180	180	180
	1/4 Extended			215	215	215
	Landing Gear Ex			176	176	176
	Landing Gear O	perating		176	176	176
(Inches aft of datum)	260.0 (12.54%MAC) to 277.0 (36%MAC) at 14,000 lbs. 258.5 (10.47%MAC) to 277.0 (36%MAC) at 12,500 lbs. (See Note 10) 257.0 (8.4%MAC) to 277.0 (36%MAC) at 11,000 lbs. 257.0 (8.4%MAC) to 277.0 (36%MAC) at 8,225 lbs. Straight line variation between points given. NOTE: Gear retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear down envelope.					
Empty weight C.G. Range	None	e gear down	ir envelope.			
-F-7 3.3. rumg9						
Maximum weight (lbs.)	Category					
*(See Note 14)			rmal		Normal	
		`	GW with	11)	(Optional Incr GW with SFAF	
		SI'AK 41)	(See Note	11)	GW WILLI SI'AI	(41)
	Ramp	Ramp 14,600		16,100		
	Take-off	off 14,500			16,000	
	Landing 14,0				15,500	
	Max. Zero Fuel	14,	,000		14,000	
Maximum Operating Altitude	31,000 feet					
Minimum Crew	One pilot except as otherwise required by the Airplanes Flight Manual.					
No. Seats	Maximum 22 (crew at + 111.0). (Maximum of 19 passengers per SFAR 41C.) See AFM for loading instructions for crew and passenger loading.					

IV - Model SA227-BC (Military C-26A) 22 PCLM, Normal Category. SFAR 41. Approved September 25, 1989 (See

Notes 18 and 19). (Cont'd)

Maximum Baggage Rear Compartment: 850 lbs. (+473.4)

and/or Equipment Nose Compartment: 800 lbs. (600 lbs. with nose CAWI tank installed) (+46.7)

Local loading on cargo and passenger compartment floor: 150 lbs./sq. ft.

Fuel Capacity 652 gal. total (324 gal. usable in each of 2 wing tanks (+281.4))

See Note l(B) for data on unusable fuel.

Oil Capacity 14.1 qt. total (3.8 qt. usable in each engine oil tank (+205.0))

See Note l(B) for data on unusable oil.

Control Surface Wing Flaps $36^{\circ} \pm 1^{\circ}$ down

Main Surface

Stabilizer (mechanical stops):

 $2.40 \pm .20^{\circ}$ L.E. up $7.80^{\circ} \pm .20^{\circ}$ L.E. down

(electrical stops):

 $0.2^{\circ} \pm .05^{\circ}$ before mechanical stops

Tabs (Main surface in Neutral)

Aileron $20^{\circ} \pm 2^{\circ}$, -1° up $20^{\circ} \pm 2^{\circ}$, -1° down Rudder $25^{\circ} \pm 1.5^{\circ}$ right $25^{\circ} \pm 1.5^{\circ}$ left

Serial Nos. BC-420 and up. See Note 19.

Datum Located 274.1 inches forward of wing main (forward) spar centerline.

Leveling Means Lateral: Nose baggage compartment door sill.

Longitudinal: Nose baggage compartment floor.

Certification Basis FAR 23 effective February 1, 1965, through Amendment 23-6: Special Conditions No.

23-ACE-6, SFAR 23, FAR 23.175(d) and FAR 23.153 of Amendment 23-14; SFAR 41 through Amendment C and the compartment interior requirements of FAR 25.853(a), (b), (b-1), (b-2), and (b-3) in effect on September 26, 1978: FAR 36 Appendix F through Amendment 36-6; SFAR 27 through Amendment 4. Approved for flight into known

icing in accordance with Rule 34 of SFAR 23 and SFAR 41.

Production Basis Production Certificate No. 3SW expired October 4, 1990. Current Certificate No. 6SW.

(Spares Only)

Equipment The basic required equipment, as prescribed in the applicable airworthiness regulations

(see Certification Basis) must be installed in the aircraft for certification. Fairchild Drawing No. 27-10043 "Equipment List, Model SA227-BC" contains listing of all additional required equipment as well as optional installations approved by the FAA.

NOTE 1. Current weight and balance report, together with list of equipment included in certificated empty weight,

and loading instructions when necessary, must be provided for each aircraft at the time of original certification. The airplane must be loaded so that the C.G. is within the specified limits at all times.

Empty weight and corresponding center of gravity location must include:

(A) SA226-TC

Unusable Fuel 27 lbs. (+282) Unusable Oil 12 lbs. (+205)

(B) SA227-AC and SA227-BC

Unusable Fuel 27 lbs. (+282) Unusable Oil 12 lb3. (+205)

NOTE 1. (Cont'd)

(C) SA227-PC

Unusable Fuel 30 lbs. (+282) Unusable Oil 12.8 lbs. (+229)

NOTE 2. All placards required in the approved AFM must be installed in the appropriate locations.

NOTE 3. Emergency use of MIL-G-5572D, 80/87, aviation gasoline permitted not to exceed 1,000 gallons per engine for each 100 hours of engine operation. Emergency use of MIL-G-5572D, Grade 100/130 (low lead) aviation gasoline permitted not to exceed 250 gallons per engine for each 100 hours of engine operation with the total use limited to 7,000 gallons during any 3,000-hour period. Jet fuel and aviation gasoline may be mixed in any proportion. If 25% or more aviation gasoline is used, add 1 quart of MIL-L-6082 specification grade 1065 or 1100 piston engine oil per 100 gallons of aviation gasoline to provide fuel pump lubrication.

NOTE

The amount of aviation gasoline used must be recorded in the Engine Log Book. Fuel System Icing Inhibitor MIL-I-27686E fuel additive approved not to exceed 0.15 percent by volume. No fuel system anti-icing credit is allowed.

- NOTE 4. (A) The maximum allowable propeller shaft speed is 2100 RPM (105%) for a transient period not to exceed 5 seconds and 2020 RPM (101%) for 5 minutes. Normal propeller shaft speed is 2000 RPM (100%). Dry static take-off SHP is not to exceed 840 SHP (2206 ft. lbs. torque max.) but may increase to 900 SHP (2363 ft. lbs. torque max.) due to ram for a period not to exceed 5 minutes. See Airplane Flight Manual for alcohol-water injection system operation and limitations.

 (B) For SA227-AC and SA227-BC: The maximum propeller shaft overspeed limit is 1686 RPM (106%) for 5 seconds and 1615 RPM (101.5%) for 5 minutes. 100% is defined as 1591 RPM.
- NOTE 5. For Model SA226-TC, S/N TC-203 and up and earlier serial numbers modified per Swearingen Service Bulletin 79-10-2021 or 79-003, the oil capacity is reduced to 13.7 quarts total (3.6 quarts usable in each oil tank (+205.0)). Unusable oil is unchanged.
- NOTE 6. Model SA226-TC airplanes to be exported to France must comply with the additional equipment requirements listed on Fairchild Drawing 27-13074, Revision A. Model SA227-AC airplanes to be exported to France must comply with the requirements of Drawing 27-13074, Revision B or Drawing 27K14051.
- NOTE 7. Model SA226-TC is eligible for operation in the Restricted Category at 14,000 lbs. maximum take-off gross weight when modified with structural beef-up and special purpose equipment per Drawing 27-13146 and operated in accordance with the basic Airplane Flight Manual and the Flight Manual Supplement applicable to the special purpose of patrol or aerial photography survey missions. Some parts or all of the following FAR 23 sections are inappropriate for the special purpose: 23.1, 23.337, 23.345, 23.397, 23.473.
- NOTE 8. Compliance with SFAR 41 including paragraph 4(b) and the compartment interior requirements of 25.853(a), (b), (b-1), (b-2), and (b-3) in effect on September 26, 1978, has been shown for S/N's TC-398 through TC-418. Exemption No. 3256 dated June 17, 1981, applicable for S/N's TC-398 through TC-418. The following are required equipment for S/N TC-398 through TC-418; 19.5 X 6.75-8 main wheel tires and an instantaneous vertical speed indicator (IVSI), and supplement 26 to FAA approved Airplane Flight Manual at weights above 12,500 lbs. The airworthiness certificate shall be endorsed "This airplane at weights in excess of 5,700 kg does not meet the airworthiness requirements of ICAO, as prescribed by Annex 8 of the Convention on International Civil Aviation."
- NOTE 9. Station J-J is station 36.278 inches on the Dowty Rotol (c) R.321/4-82-F/8 propellers.
- NOTE 10. An "A" designation following the serial number signifies that the airplane is not eligible for SFAR 41 approval of weights greater than 12,500 lbs. Certification basis same as noted herein except omit SFAR 41 approval.
- NOTE 11. The increased ramp and takeoff gross weight applies to aircraft S/N's AC 514 and subsequent. Aircraft with S/N's AC 420 through AC 510 may be operated at the increased ramp and takeoff gross weight noted after modification in accordance with Fairchild Service Bulletin SB 11-001, revised December 11, 1981.

NOTE 20.

Drawing 27-14068.

The Airworthiness Limitations ST-UN-M001 Manual contains overhaul times, replacement times, and NOTE 12. special inspections required for continued airworthiness. NOTE 13. Serial Nos. 398, 399, 401, 402, 404, 406, 408, 409, 411-413, 415, 416, and 418 eligible to be licensed as SA227-AC aircraft when modified in accordance with Fairchild Drawing 27-13451. NOTE 14. Airplanes with a 14,500 lbs. maximum gross takeoff weight can be modified for a 16,000 lb. maximum gross takeoff weight if the modification is performed in accordance with ECP 437 "Compilation of changes 16,000 lb. airplane." After modification, affix a letter "B" at the end of the serial number on the data plate. NOTE 15. Airplanes for which the serial number on the data plate is followed by the letter "B" have ECP 437 changes incorporated and are eligible for a 16,000 lbs. maximum gross takeoff weight. These airplanes can be converted to a 14,500 lbs. maximum gross takeoff weight configuration if performed in accordance with Fairchild Drawing 27-13946 and returned to 16,000 lbs. maximum gross takeoff weight configuration in accordance with Fairchild Drawing 27K13000. NOTE 16. Emergency use of MIL-G-5572 grade 100/130 (low lead) aviation gasoline permitted not to exceed 150 hours use between engine overhauls. NOTE The amount of aviation gasoline used must be recorded in the Engine Log Book. NOTE 17. 13,900 lbs. zero fuel weight approved for airplanes S/N AC, AT, or PC-624 and up and for earlier S/N airplanes with P/N 27-13900-65, -66, -67, and -69 installed per Drawing 27-13900, by ECP 441. by Kit Drawing 27K20004, or by Service Bulletin 227-08-001; 14,000 lbs. for airplanes with additional modifications per Kit Drawing 27K31017. **NOTE 18.** The C-26A is an SA227-AC airplane modified in accordance with ECP 567 or an SA227-BC modified per ECP 592. The FAA Approved Airplane Flight Manual Supplement for the C-26A configuration must be used. **NOTE 19.** SA227-AC airplanes may be converted to SA227-BC airplanes by incorporating ECP 563.

...END...

Model SA227-AC aircraft to be exported to Italy must comply with the requirements noted on Fairchild