

Parameters	Range	Accuracy sensor input to DFDR readout	Sampling interval (per second)	Resolution ⁴ readout
If additional recording capacity is available, recording of the following parameters is recommended. The parameters are listed in order of significance:				
Drift Angle	When available, As installed.	As installed	4	
Wind Speed and Direction	When available, As installed.	As installed	4	
Latitude and Longitude	When available, As installed.	As installed	4	
Brake pressure/Brake pedal position.	As installed	As installed	1	
Additional engine parameters:				
EPR	As installed	As installed	1 (per engine) ..	
N1	As installed	As installed	1 (per engine) ..	
N2	As installed	As installed	1 (per engine) ..	
EGT	As installed	As installed	1 (per engine) ..	
Throttle Lever Position	As installed	As installed	1 (per engine) ..	
Fuel Flow	As installed	As installed	1 (per engine) ..	
TCAS:				
TA	As installed	As installed	1	
RA	As installed	As installed	1	
Sensitivity level (as selected by crew).	As installed	As installed	2	
GPWS (ground proximity warning system).	Discrete	1	
Landing gear or gear selector position.	Discrete	0.25 (1 per 4 seconds).	
DME 1 and 2 Distance	0-200 NM;	As installed	0.25	1 mi.
Nav 1 and 2 Frequency Selection.	Full range	As installed	0.25	

¹ When altitude rate is recorded. Altitude rate must have sufficient resolution and sampling to permit the derivation of altitude to 5 feet.
² Per cent of full range.
³ For airplanes that can demonstrate the capability of deriving either the control input on control movement (one from the other) for all modes of operation and flight regimes, the "or" applies. For airplanes with non-mechanical control systems (fly-by-wire) the "and" applies. In airplanes with split surfaces, suitable combination of inputs is acceptable in lieu of recording each surface separately.
⁴ This column applies to aircraft manufactured after October 11, 1991.

[Doc. No. 25530, 53 FR 26147, July 11, 1988; 53 FR 30906, Aug. 16, 1988]

APPENDIX C TO PART 121—C-46
 NONTRANSPORT CATEGORY AIRPLANES

Cargo Operations

1. *Required engines.* (a) Except as provided in paragraph (b) of this section, the engines specified in subparagraphs (1) or (2) of this section must be installed in C-46 nontransport category airplanes operated at gross weights exceeding 45,000 pounds:

- (1) Pratt and Whitney R2800-51-M1 or R2800-75-M1 engines (engines converted from basic model R2800-51 or R2800-75 engines in accordance with FAA approved data) that—
 - (i) Conform to Engine Specification 5E-8;
 - (ii) Conform to the applicable portions of the operator's manual;
 - (iii) Comply with all the applicable airworthiness directives; and
 - (iv) Are equipped with high capacity oil pump drive gears in accordance with FAA approved data.
- (2) Other engines found acceptable by the FAA Regional Flight Standards Division having type certification responsibility for the C-46 airplane.

(b) Upon application by an operator conducting cargo operations with nontransport category C-46 airplanes between points within the State of Alaska, the appropriate FAA Flight Standards District Office, Alaskan Region, may authorize the operation of such airplanes, between points within the State of Alaska; without compliance with paragraph (a) of this section if the operator shows that, in its area of operation, installation of the modified engines is not necessary to provide adequate cooling for single-engine operations. Such authorization and any conditions or limitations therefor is made a part of the Operations Specifications of the operator.

2. *Minimum acceptable means of complying with the special airworthiness requirements.* Unless otherwise authorized under §121.213, the data set forth in sections 3 through 34 of this appendix, as correlated to the C-46 nontransport category airplane, is the minimum means of compliance with the special airworthiness requirements of §§121.215 through 121.281.

3. *Susceptibility of material to fire.* [Deleted as unnecessary]

4. *Cabin interiors.* C-46 crew compartments must meet all the requirements of §121.215, and, as required in §121.221, the door between the crew compartment and main cabin (cargo) compartment must be flame resistant.

5. *Internal doors.* Internal doors, including the crew to main cabin door, must meet all the requirements of §121.217.

6. *Ventilation.* Standard C-46 crew compartments meet the ventilation requirements of §121.219 if a means of ventilation for controlling the flow of air is available between the crew compartment and main cabin. The ventilation requirement may be met by use of a door between the crew compartment and main cabin. The door need not have louvers installed; however, if louvers are installed, they must be controllable.

7. *Fire precautions.* Compliance is required with all the provisions of §121.221.

(a) In establishing compliance with this section, the C-46 main cabin is considered as a Class A compartment if—

(1) The operator utilizes a standard system of cargo loading and tiedown that allows easy access in flight to all cargo in such compartment, and, such system is included in the appropriate portion of the operator's manual; and

(2) A cargo barrier is installed in the forward end of the main cabin cargo compartment. The barrier must—

(i) Establish the most forward location beyond which cargo cannot be carried;

(ii) Protect the components and systems of the airplane that are essential to its safe operation from cargo damage; and

(iii) Permit easy access, in flight, to cargo in the main cabin cargo compartment.

The barrier may be a cargo net or a network of steel cables or other means acceptable to the Administrator which would provide equivalent protection to that of a cargo net. The barrier need not meet crash load requirements of FAR §25.561; however, it must be attached to the cargo retention fittings and provide the degree of cargo retention that is required by the operators' standard system of cargo loading and tiedown.

(b) C-46 forward and aft baggage compartments must meet, as a minimum, Class B requirements of this section or be placarded in a manner to preclude their use as cargo or baggage compartments.

8. *Proof of compliance.* The demonstration of compliance required by §121.223 is not required for C-46 airplanes in which—

(1) The main cabin conforms to Class A cargo compartment requirements of §121.219; and

(2) Forward and aft baggage compartments conform to Class B requirements of §121.221, or are placarded to preclude their use as cargo or baggage compartments.

9. *Propeller deicing fluid.* No change from the requirements of §121.225. Isopropyl alco-

hol is a combustible fluid within the meaning of this section.

10. *Pressure cross-feed arrangements, location of fuel tanks, and fuel system lines and fittings.* C-46 fuel systems which conform to all applicable Curtiss design specifications and which comply with the FAA type certification requirements are in compliance with the provisions of §§121.227 through 121.231.

11. *Fuel lines and fittings in designated fire zones.* No change from the requirements of §121.233.

12. *Fuel valves.* Compliance is required with all the provisions of §121.235. Compliance can be established by showing that the fuel system conforms to all the applicable Curtiss design specifications, the FAA type certification requirements, and, in addition, has explosion-proof fuel booster pump electrical selector switches installed in lieu of the open contact type used originally.

13. *Oil lines and fittings in designated fire zones.* No change from the requirements of §121.237.

14. *Oil valves.* C-46 oil shutoff valves must conform to the requirements of §121.239. In addition, C-46 airplanes using Hamilton Standard propellers must provide, by use of stand pipes in the engine oil tanks or other approved means, a positive source of oil for feathering each propeller.

15. *Oil system drains.* The standard C-46 "Y" drains installed in the main oil inlet line for each engine meet the requirements of §121.241.

16. *Engine breather line.* The standard C-46 engine breather line installation meets the requirements of §121.243 if the lower breather lines actually extend to the trailing edge of the oil cooler air exit duct.

17. *Firewalls and firewall construction.* Compliance is required with all of the provisions of §§121.245 and 121.247. The following requirements must be met in showing compliance with these sections:

(a) *Engine compartment.* The engine firewalls of the C-46 airplane must—

(1) Conform to type design, and all applicable airworthiness directives;

(2) Be constructed of stainless steel or approved equivalent; and

(3) Have fireproof shields over the fairleads used for the engine control cables that pass through each firewall.

(b) *Combustion heater compartment.* C-46 airplanes must have a combustion heater fire extinguishing system which complies with AD-49-18-1 or an FAA approved equivalent.

18. *Cowling.* Standard C-46 engine cowling (cowling of aluminum construction employing stainless steel exhaust shrouds) which conforms to the type design and cowling configurations which conform to the C-46 transport category requirements meet the requirements of §121.249.

19. *Engine accessory section diaphragm.* C-46 engine nacelles which conform to the C-46

transport category requirements meet the requirements of §121.251. As provided for in that section, a means of equivalent protection which does not require provision of a diaphragm to isolate the engine power section and exhaust system from the engine accessory compartment is the designation of the entire engine compartment forward of and including the firewall as a designated fire zone, and the installation of adequate fire detection and fire extinguishing systems which meet the requirements of §121.263 and §121.273, respectively, in such zone.

20. *Powerplant fire protection.* C-46 engine compartments and combustion heater compartments are considered as designated fire zones within the meaning of §121.253.

21. *Flammable fluids—*

(a) *Engine compartment.* C-46 engine compartments which conform to the type design and which comply with all applicable airworthiness directives meet the requirements of §121.255.

(b) *Combustion heater compartment.* C-46 combustion heater compartments which conform to type design and which meet all the requirements of AD-49-18-1 or an FAA approved equivalent meet the requirements of §121.255.

22. *Shutoff means—*

(a) *Engine compartment.* C-46 engine compartments which comply with AD-62-10-2 or FAA approved equivalent meet the requirements of §121.257 applicable to engine compartments, if, in addition, a means satisfactory to the Administrator is provided to shut off the flow of hydraulic fluid to the cowl flap cylinder in each engine nacelle. The shutoff means must be located aft of the engine firewall. The operator's manual must include, in the emergency portion, adequate instructions for proper operation of the additional shutoff means to assure correct sequential positioning of engine cowl flaps under emergency conditions. In accordance with §121.315, this positioning must also be incorporated in the emergency section of the pilot's checklist.

(b) *Combustion heater compartment.* C-46 heater compartments which comply with paragraph (5) of AD-49-18-1 or FAA approved equivalent meet the requirements of §121.257 applicable to heater compartments if, in addition, a shutoff valve located above the main cabin floor level is installed in the alcohol supply line or lines between the alcohol supply tank and those alcohol pumps located under the main cabin floor. If all of the alcohol pumps are located above the main cabin floor, the alcohol shutoff valve need not be installed. In complying with paragraph (5) of AD-49-18-1, a fail-safe electric fuel shutoff valve may be used in lieu of the manually operated valve.

23. *Lines and fittings—*(a) *Engine compartment.* C-46 engine compartments which comply with all applicable airworthiness direc-

tives, including AD-62-10-2, by using FAA approved fire-resistant lines, hoses, and end fittings, and engine compartments which meet the C-46 transport category requirements, meet the requirements of §121.259.

(b) *Combustion heater compartments.* All lines, hoses, and end fittings, and couplings which carry fuel to the heaters and heater controls, must be of FAA approved fire-resistant construction.

24. *Vent and drain lines—*(a) *Engine compartment.* C-46 engine compartments meet the requirements of §121.261 if—

(1) The compartments conform to type design and comply with all applicable airworthiness directives or FAA approved equivalent; and

(2) Drain lines from supercharger case, engine-driven fuel pump, and engine-driven hydraulic pump reach into the scupper drain located in the lower cowl segment.

(b) *Combustion heater compartment.* C-46 heater compartments meet the requirements of §121.261 if they conform to AD-49-18-1 or FAA approved equivalent.

25. *Fire-extinguishing system.* (a) To meet the requirements of §121.263, C-46 airplanes must have installed fire extinguishing systems to serve all designated fire zones. The fire-extinguishing systems, the quantity of extinguishing agent, and the rate of discharge shall be such as to provide a minimum of one adequate discharge for each designated fire zone. Compliance with this provision requires the installation of a separate fire extinguisher for each engine compartment. Insofar as the engine compartment is concerned, the system shall be capable of protecting the entire compartment against the various types of fires likely to occur in the compartment.

(b) Fire-extinguishing systems which conform to the C-46 transport category requirements meet the requirements set forth in paragraph (a). Furthermore, fire-extinguishing systems for combustion heater compartments which conform to the requirements of AD-49-18-1 or an FAA approved equivalent also meet the requirements in paragraph (a).

In addition, a fire-extinguishing system for C-46 airplanes meets the adequacy requirement of paragraph (a) if it provides the same or equivalent protection to that demonstrated by the CAA in tests conducted in 1941 and 1942, using a CW-20 type engine nacelle (without diaphragm). These tests were conducted at the Bureau of Standards facilities in Washington, DC, and copies of the test reports are available through the FAA Regional Engineering Offices. In this connection, the flow rates and distribution of extinguishing agent substantiated in American Airmotive Report No. 128-52-d, FAA approved February 9, 1953, provides protection equivalent to that demonstrated by the CAA in the CW-20 tests. In evaluating any C-46

fire-extinguishing system with respect to the aforementioned CW-20 tests, the Administration would require data in a narrative form, utilizing drawings or photographs to show at least the following:

Installation of containers; installation and routing of plumbing; type, number, and location of outlets or nozzles; type, total volume, and distribution of extinguishing agent; length of time required for discharging; means for thermal relief, including type and location of discharge indicators; means of discharging, e.g., mechanical cutterheads, electric cartridge, or other method; and whether a one- or two-shot system is used; and if the latter is used, means of cross-feeding or otherwise selecting distribution of extinguishing agent; and types of materials used in makeup of plumbing.

High rate discharge (HRD) systems using agents such as bromotrifluoromethane, dibrodifluoromethane and chlorobromomethane (CB), may also meet the requirements of paragraph (a).

26. *Fire-extinguishing agents, Extinguishing agent container pressure relief, Extinguishing agent container compartment temperatures, and Fire-extinguishing system materials.* No change from the requirements of §§121.265 through 121.271.

27. *Fire-detector system.* Compliance with the requirements of §121.273 requires that C-46 fire detector systems conform to:

(a) AD-62-10-2 or FAA approved equivalent for engine compartments; and

(b) AD-49-18-1 or FAA approved equivalent for combustion heater compartments

28. *Fire detectors.* No change from the requirements of §121.275.

29. *Protection of other airplane components against fire.* To meet the requirements of §121.277, C-46 airplanes must—

(a) Conform to the type design and all applicable airworthiness directives; and

(b) Be modified or have operational procedures established to provide additional fire protection for the wheel well door aft of each engine compartment. Modifications may consist of improvements in sealing of the main landing gear wheel well doors. An operational procedure which is acceptable to the Agency is one requiring the landing gear control to be placed in the up position in case of in-flight engine fire. In accordance with §121.315, such procedure must be set forth in the emergency portion of the operator's emergency checklist pertaining to in-flight engine fire.

30. *Control of engine rotation.* C-46 propeller feathering systems which conform to the type design and all applicable airworthiness directives meet the requirements of §121.279.

31. *Fuel system independence.* C-46 fuel systems which conform to the type design and all applicable airworthiness directives meet the requirements of §121.281.

32. *Induction system ice prevention.* The C-46 carburetor anti-icing system which conforms to the type design and all applicable airworthiness directives meets the requirements of §121.283.

33. *Carriage of cargo in passenger compartments.* Section 121.285 is not applicable to nontransport category C-46 cargo airplanes.

34. *Carriage of cargo in cargo compartments.* A standard cargo loading and tiedown arrangement set forth in the operator's manual and found acceptable to the Administrator must be used in complying with §121.287.

35. *Performance data.* Performance data on Curtiss model C-46 airplane certificated for maximum weight of 45,000 and 48,000 pounds for cargo-only operations.

1. The following performance limitation data, applicable to the Curtiss model C-46 airplane for cargo-only operation, must be used in determining compliance with §§121.199 through 121.205. These data are presented in the tables and figures of this appendix.

TABLE 1—TAKEOFF LIMITATIONS

(a) Curtiss C-46 certificated for maximum weight of 45,000 pounds.

(1) *Effective length* of runway required when effective length is determined in accordance with §121.171 (distance to accelerate to 93 knots TIAS and stop, with zero wind and zero gradient). (Factor=1.00)

[Distance in feet]

Standard altitude in feet	Airplane weight in pounds		
	39,000	42,000	45,000 ¹
S.L	4,110	4,290	4,570
1,000	4,250	4,440	4,720
2,000	4,400	4,600	4,880
3,000	4,650	4,880	5,190
4,000	4,910	5,170	5,500
5,000	5,160	5,450	5,810
6,000	5,420	5,730	6,120
7,000	5,680	6,000	6,440
8,000	5,940	6,280	(¹)

¹Ref. Fig. 1(a)(1) for weight and distance for altitudes above 7,000'.

(2) *Actual length* of runway required when *effective length*, considering obstacles, is not determined (distance to accelerate to 93 knots TIAS and stop, divided by the factor 0.85).

[Distance in feet]

Standard altitude in feet	Airplane weight in pounds		
	39,000	42,000	45,000 ¹
S.L	4,830	5,050	5,370
1,000	5,000	5,230	5,550
2,000	5,170	5,410	5,740
3,000	5,470	5,740	6,100
4,000	5,770	6,080	6,470
5,000	6,070	6,410	6,830
6,000	6,380	6,740	7,200
7,000	6,680	7,070	7,570

[Distance in feet]

Standard altitude in feet	Airplane weight in pounds		
	39,000	42,000	45,000 ¹
8,000	6,990	7,410	(¹)

¹ Ref. Fig. 1(a)(2) for weight and distance for altitudes above 7,000'.

(b) Curtiss C-46 certificated for maximum weight 48,000 pounds.

(1) *Effective length* of runway required when effective length is determined in accordance with §121.171 (distance to accelerate to 93 knots TIAS and stop, with zero wind and zero gradient). (Factor=1.00)

[Distance in feet]

Standard altitude in feet	Airplane weight in pounds			
	39,000	42,000	45,000	48,000 ¹
S.L.	4,110	4,290	4,570	4,950
1,000	4,250	4,440	4,720	5,130
2,000	4,400	4,600	4,880	5,300
3,000	4,650	4,880	5,190	5,670
4,000	4,910	5,170	5,500	6,050
5,000	5,160	5,450	5,810	6,420
6,000	5,420	5,730	6,120	6,800
7,000	5,680	6,000	6,440	(¹)
8,000	5,940	6,280	6,750	(¹)

¹ Ref. Fig. 1(b)(1) for weight and distance for altitudes above 6,000'.

(2) Actual length of runway required when *effective length*, considering obstacles, is not determined (distance to accelerate to 93 knots TIAS and stop, divided by the factor 0.85).

[Distance in feet]

Standard altitude in feet	Airplane weight in pounds			
	39,000	42,000	45,000	48,000 ¹
S.L.	4,830	5,050	5,370	5,830
1,000	5,000	5,230	5,550	6,030
2,000	5,170	5,410	5,740	6,230
3,000	5,470	5,740	6,100	6,670
4,000	5,770	6,080	6,470	7,120
5,000	6,070	6,410	6,830	7,560
6,000	6,380	6,740	7,200	8,010
7,000	6,680	7,070	7,570	(¹)
8,000	6,990	7,410	7,940	(¹)

¹ Ref. Fig. 1(b)(2) for weight and distance for altitudes above 6,000'.

Distance in feet

Standard altitude in feet	Airplane weight in pounds and approach speeds ¹ in knots							
	40,000	V ₅₀	42,000	V ₅₀	44,000	V ₅₀	45,000	V ₅₀
S.L.	4,320	86	4,500	88	4,700	90	4,800	91
1,000	4,440	86	4,620	88	4,830	90	4,930	91
2,000	4,550	86	4,750	88	4,960	90	5,050	91
3,000	4,670	86	4,880	88	5,090	90	5,190	91
4,000	4,800	86	5,000	88	5,220	90	5,320	91
5,000	4,920	86	5,140	88	5,360	90	5,460	91
6,000	5,040	86	5,270	88	5,550	90	5,600	91
7,000	5,170	86	5,410	88	5,650	90	5,750	91
8,000	5,310	86	5,550	88	5,800	90	5,900	91

¹ Steady approach speed through 50-foot height TIAS denoted by symbol V₅₀.

TABLE 2—EN ROUTE LIMITATIONS

(a) Curtiss model C-46 certificated for maximum weight of 45,000 pounds (based on a climb speed of 113 knots (TIAS)).

Weight (pounds)	Terrain clearance (feet) ¹	Blower setting
45,000	6,450	Low.
44,000	7,000	Do.
43,000	7,500	Do.
42,200	8,000	High.
41,000	9,600	Do.
40,000	11,000	Do.
39,000	12,300	Do.

¹ Highest altitude of terrain over which airplanes may be operated in compliance with § 121.201. Ref. Fig. 2(a).

(b) Curtiss model C-46 certificated for maximum weight of 48,000 pounds or with engine installation approved for 2,550 revolutions per minute (1,700 brake horsepower). Maximum continuous power in low blower (based on a climb speed of 113 knots (TIAS)).

Weight (pounds)	Terrain clearance (feet) ¹	Blower setting
48,000	5,850	Low.
47,000	6,300	Do.
46,000	6,700	Do.
45,000	7,200	Do.
44,500	7,450	Do.
44,250	8,000	High.
44,000	8,550	Do.
43,000	10,800	Do.
42,000	12,500	Do.
41,000	13,000	Do.

¹ Highest altitude of terrain over which airplanes may be operated in compliance with § 121.201. Ref. Fig. 2(b).

TABLE 3—LANDING LIMITATIONS

(a) Intended Destination.

Effective length of runway required for intended destination when effective length is determined in accordance with §121.171 with zero wind and zero gradient.

(1) Curtiss model C-46 certificated for maximum weight of 45,000 pounds. (0.60 factor)

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Ref. Fig. 3(a)(1).

(2) Curtiss model C-46 certificated for maximum weight of 48,000 pounds.¹ (0.60 factor.)

Distance in feet

Standard altitude in feet	Airplane weight in pounds and approach speeds ² in knots							
	42,000	V ₅₀	44,000	V ₅₀	46,000	V ₅₀	43,000	V ₅₀
S.L.	3,370	80	3,490	82	3,620	84	3,740	86
1,000	3,460	80	3,580	82	3,710	84	3,830	86
2,000	3,540	80	3,670	82	3,800	84	3,920	86
3,000	3,630	80	3,760	82	3,890	84	4,020	86
4,000	3,720	80	3,850	82	3,980	84	4,110	86
5,000	3,800	80	3,940	82	4,080	84	4,220	86
6,000	3,890	80	4,040	82	4,180	84	4,320	86
7,000	3,980	80	4,140	82	4,280	84	4,440	86
8,000	4,080	80	4,240	82	4,390	84	4,550	86

¹ For use with Curtiss model C-46 airplanes when approved for this weight.

² Steady approach speed through 50 height knots TIAS denoted by symbol V₅₀3.
Ref. Fig. 3(a)(2).

(b) Alternate Airports.
Effective length of runway required when effective length is determined in accordance

with §121.171 with zero wind and zero gradient.

(1) Curtiss model C-46 certificated for maximum weight of 45,000 pounds. (0.70 factor.)

Distance in feet

Standard altitude in feet	Airplane weight in pounds and approach speeds ¹ in knots							
	40,000	V ₅₀	42,000	V ₅₀	44,000	V ₅₀	45,000	V ₅₀
S.L.	3,700	86	3,860	88	4,030	90	4,110	91
1,000	3,800	86	3,960	88	4,140	90	4,220	91
2,000	3,900	86	4,070	88	4,250	90	4,340	91
3,000	4,000	86	4,180	88	4,360	90	4,450	91
4,000	4,110	86	4,290	88	4,470	90	4,560	91
5,000	4,210	86	4,400	88	4,590	90	4,680	91
6,000	4,330	86	4,510	88	4,710	90	4,800	91
7,000	4,430	86	4,630	88	4,840	90	4,930	91
8,000	4,550	86	4,750	88	4,970	90	5,060	91

¹ Steady approach speed through 50 foot-height-knots TIAS denoted by symbol V₅₀.
Ref. Fig. 3(b)(1).

(2) Curtiss model C-46 certificated for maximum weight of 48,000 pounds.¹ (0.70 factor.)

Distance in feet

Standard altitude in feet	Airplane weight in pounds and approach speeds ² in knots							
	42,000	V ₅₀	44,000	V ₅₀	46,000	V ₅₀	48,000	V ₅₀
S.L.	2,890	80	3,000	82	3,110	84	3,220	86
1,000	2,960	80	3,070	82	3,180	84	3,280	86
2,000	3,040	80	3,150	82	3,260	84	3,360	86
3,000	3,110	80	3,220	82	3,340	84	3,440	86
4,000	3,180	80	3,300	82	3,410	84	3,520	86
5,000	3,260	80	3,380	82	3,500	84	3,610	86
6,000	3,330	80	3,460	82	3,580	84	3,700	86
7,000	3,420	80	3,540	82	3,670	84	3,800	86
8,000	3,500	80	3,630	82	3,760	84	3,900	86

¹ For use with Curtiss model C-46 airplanes when approved for this weight.

² Steady approach speed through 50 foot-height-knots TIAS denoted by symbol V₅₀.
Ref. Fig. 3(b)(2).

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(c) Actual length of runway required when effective length, considering obstacles, is not determined in accordance with §121.171. (1) Curtiss model C-46 certificated for maximum weight of 45,000 pounds. (0.55 factor.)

Distance in feet

Standard altitude in feet	Airplane weight in pounds and approach speeds ¹ in knots							
	40,000	V ₅₀	42,000	V ₅₀	44,000	V ₅₀	45,000	V ₅₀
S.L.	4,710	86	4,910	88	5,130	90	5,230	91
1,000	4,840	86	5,050	88	5,270	90	5,370	91
2,000	4,960	86	5,180	88	5,410	90	5,510	91
3,000	5,090	86	5,320	88	5,550	90	5,660	91
4,000	5,230	86	5,460	88	5,700	90	5,810	91
5,000	5,360	86	5,600	88	5,850	90	5,960	91
6,000	5,500	86	5,740	88	6,000	90	6,110	91
7,000	5,640	86	5,900	88	6,170	90	6,280	91
8,000	5,790	86	6,050	88	6,340	90	6,450	91

¹ Steady approach speed through 50 foot-height-knots TIAS denoted by symbol V₅₀.
Ref. Fig. 3(c)(1).

(2) Curtiss C-46 certificated for maximum weight of 48,000 pounds.¹ (0.55 factor.)

Distance in feet

Standard altitude in feet	Airplane weight in pounds and approach speeds ² in knots							
	42,000	V ₅₀	44,000	V ₅₀	46,000	V ₅₀	48,000	V ₅₀
S.L.	3,680	80	3,820	82	3,960	84	4,090	86
1,000	3,770	80	3,910	82	4,050	84	4,180	86
2,000	3,860	80	4,000	82	4,140	84	4,280	86
3,000	3,960	80	4,090	82	4,240	84	4,380	86
4,000	4,050	80	4,190	82	4,340	84	4,490	86
5,000	4,150	80	4,290	82	4,450	84	4,600	86
6,000	4,240	80	4,400	82	4,560	84	4,710	86
7,000	4,350	80	4,510	82	4,670	84	4,840	86
8,000	4,450	80	4,620	82	4,790	84	4,960	86

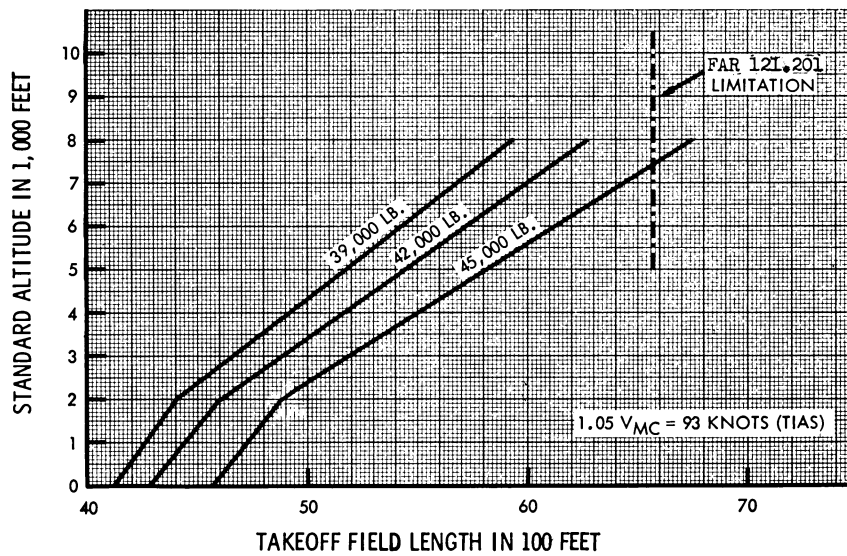
¹ For use with Curtiss model C-46 airplanes when approved for this weight.
² Steady approach speed through 50 foot-height-knots TIAS denoted by symbol V₅₀.
Ref. Fig. 3(c)(2).

CURTISS C-46 MODELS
CERTIFICATED FOR MAX. WEIGHT OF 45,000 LBS.

TAKEOFF LIMITATION.
ZERO WIND AND ZERO GRADIENT.

BASED ON EFFECTIVE TAKEOFF
LENGTH. (1.00 FACTOR)

FAR 121.199



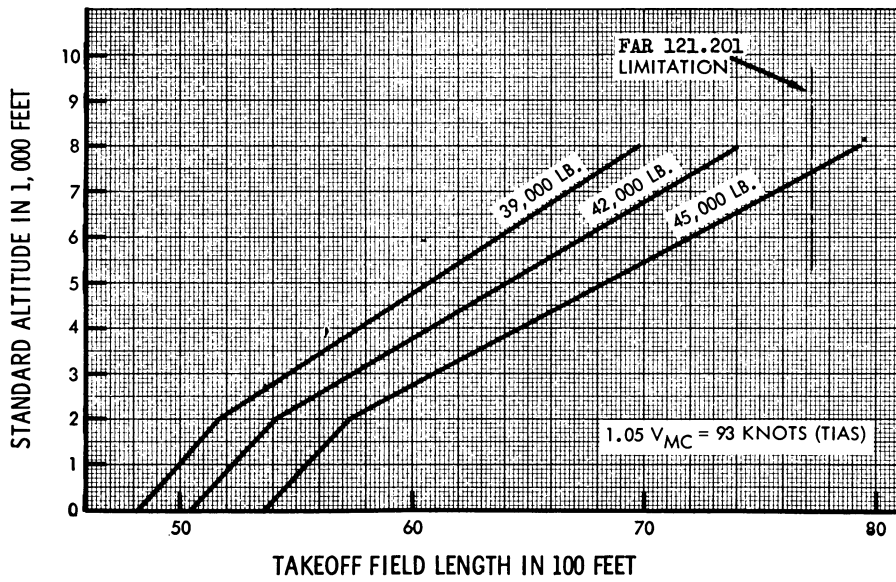
REFERENCE TABLE 1(a) (1)

FIG. 1 (a)(1)

CURTISS C-46 MODELS
CERTIFICATED FOR MAX. WEIGHT OF 45,000 LBS.

TAKEOFF LIMITATION
ZERO WIND AND ZERO GRADIENT

BASED ON ACTUAL TAKEOFF LENGTH
WHEN EFFECTIVE LENGTH IS NOT
DETERMINED. (0.85 FACTOR)



REFERENCE TABLE 1 (a) (2)

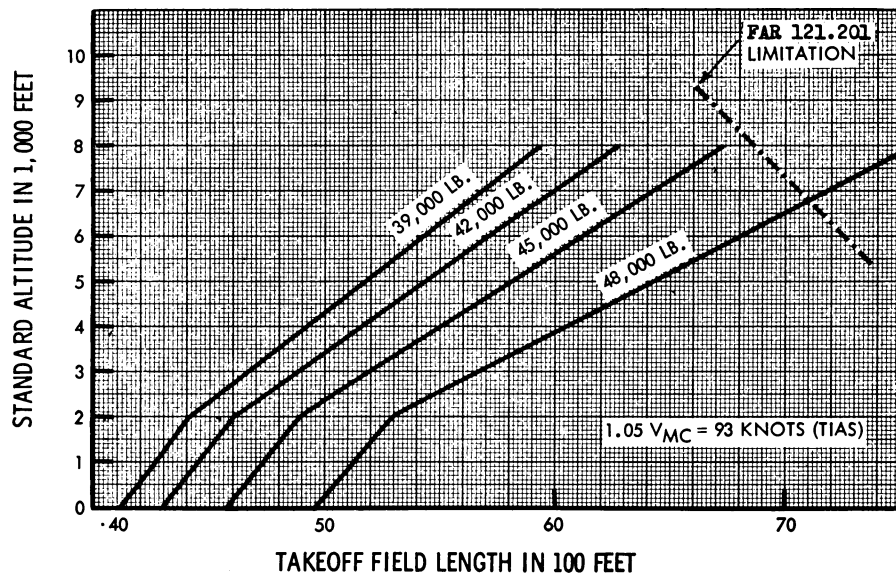
FIG. 1(a) (2)

CURTISS C-46 MODELS
CERTIFICATED FOR MAX. WEIGHT OF 48,000 LBS.

TAKEOFF LIMITATION
ZERO WIND AND ZERO GRADIENT

BASED ON EFFECTIVE TAKEOFF
LENGTH. (1.00 FACTOR)

FAR 121.199



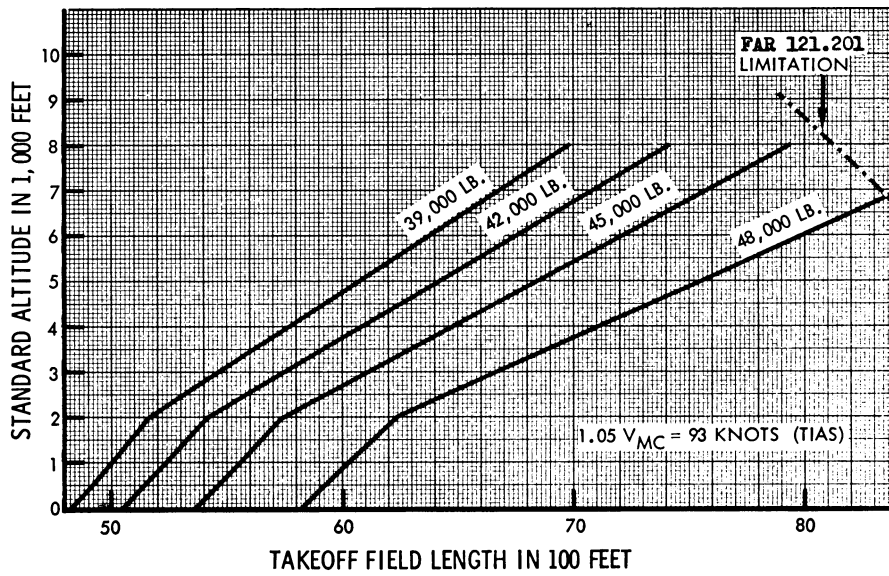
REFERENCE TABLE 1(b) (1)

FIG. 1(b) (1)

CURTISS C-46 MODELS
CERTIFICATED FOR MAX. WEIGHT OF 48,000 LBS.

TAKEOFF LIMITATION
ZERO WIND AND ZERO GRADIENT

BASED ON ACTUAL TAKEOFF LENGTH
WHEN EFFECTIVE LENGTH IS NOT
DETERMINED. (0.85 FACTOR)

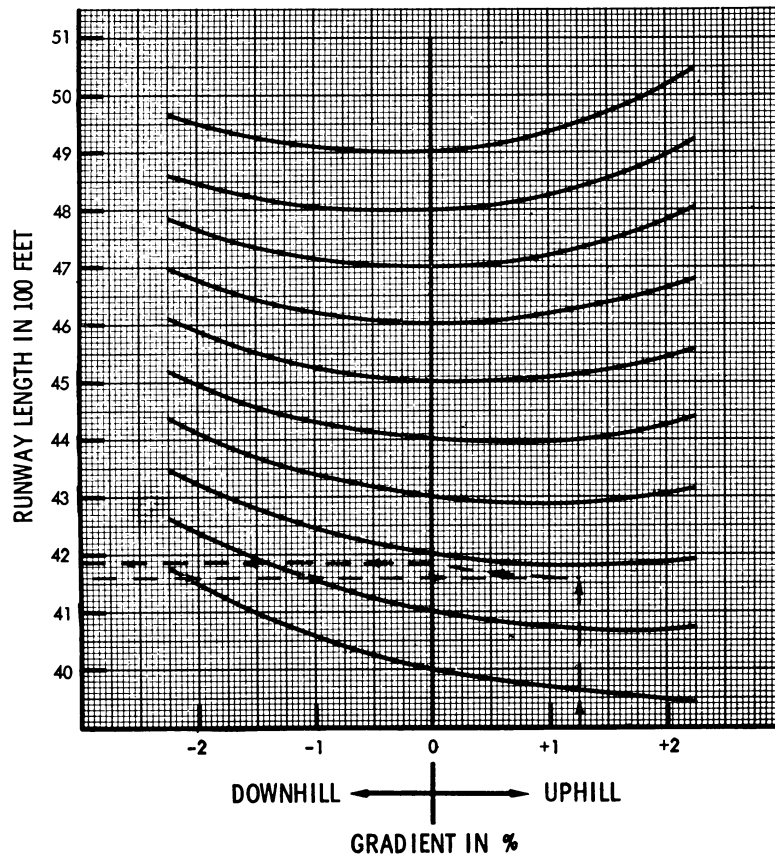


REFERENCE TABLE 1(b) (2)

FIG. 1(b) (2)

RUNWAY GRADIENT CORRECTION
FOR ACCELERATE - STOP DISTANCE

FOR C-46 AIRPLANES UNDER FAR 121.199

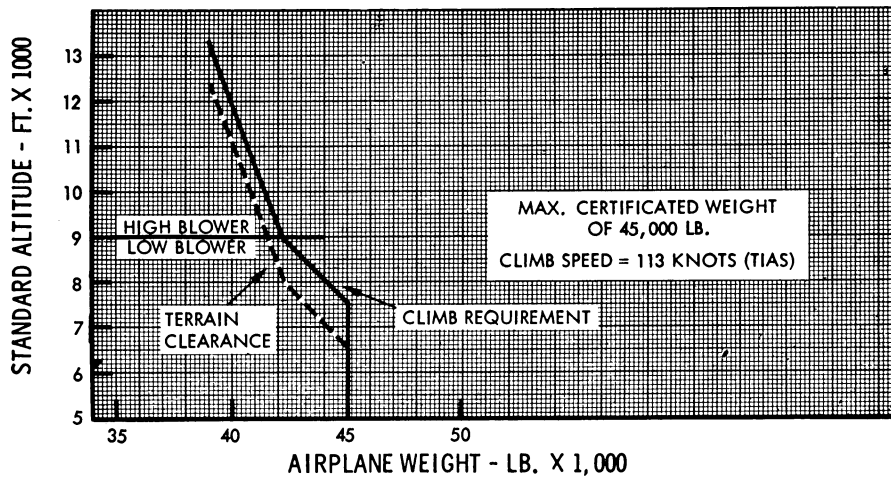


1-27-64

FIG. 1(e)

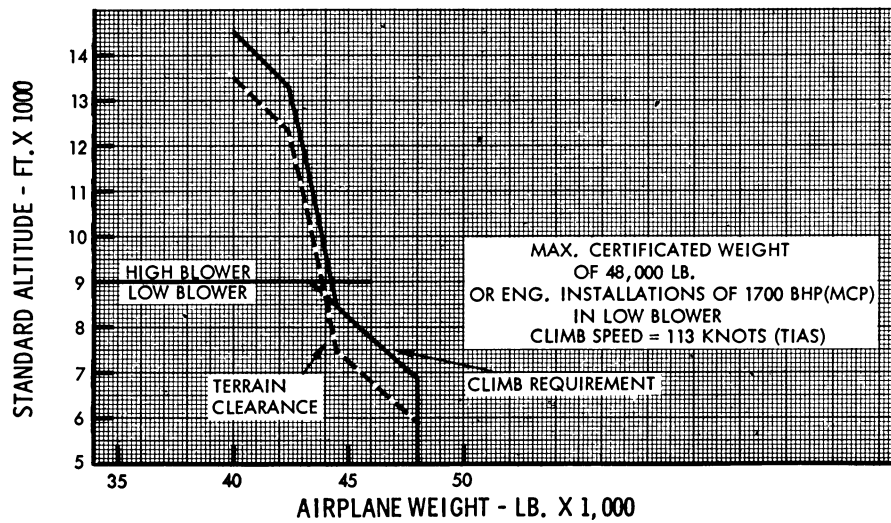
CURTISS C-46 MODELS
ENROUTE LIMITATIONS - ONE ENGINE INOPERATIVE

FAR 121.201



REFERENCE TABLE 2(a)

FIG. 2(a)



REFERENCE TABLE 2(b)

FIG. 2(b)

C-46 MAX. CERTIFICATED WEIGHT 48,000 LB.
 DRIFT-DOWN CHART **FAB 121.201**
 SINGLE ENGINE ENROUTE OPERATION

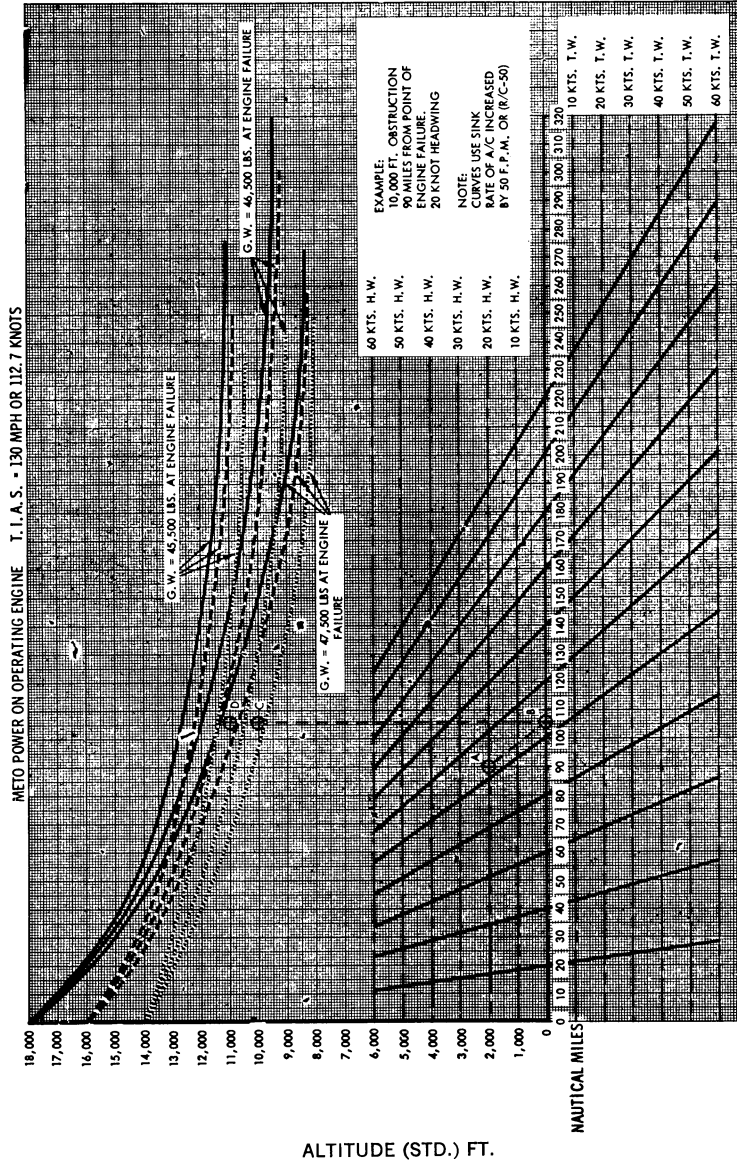


FIG. 260

C-46 MAX. CERTIFICATED WEIGHT 48,000 LBS.
ENROUTE CLIMB SUMMARY

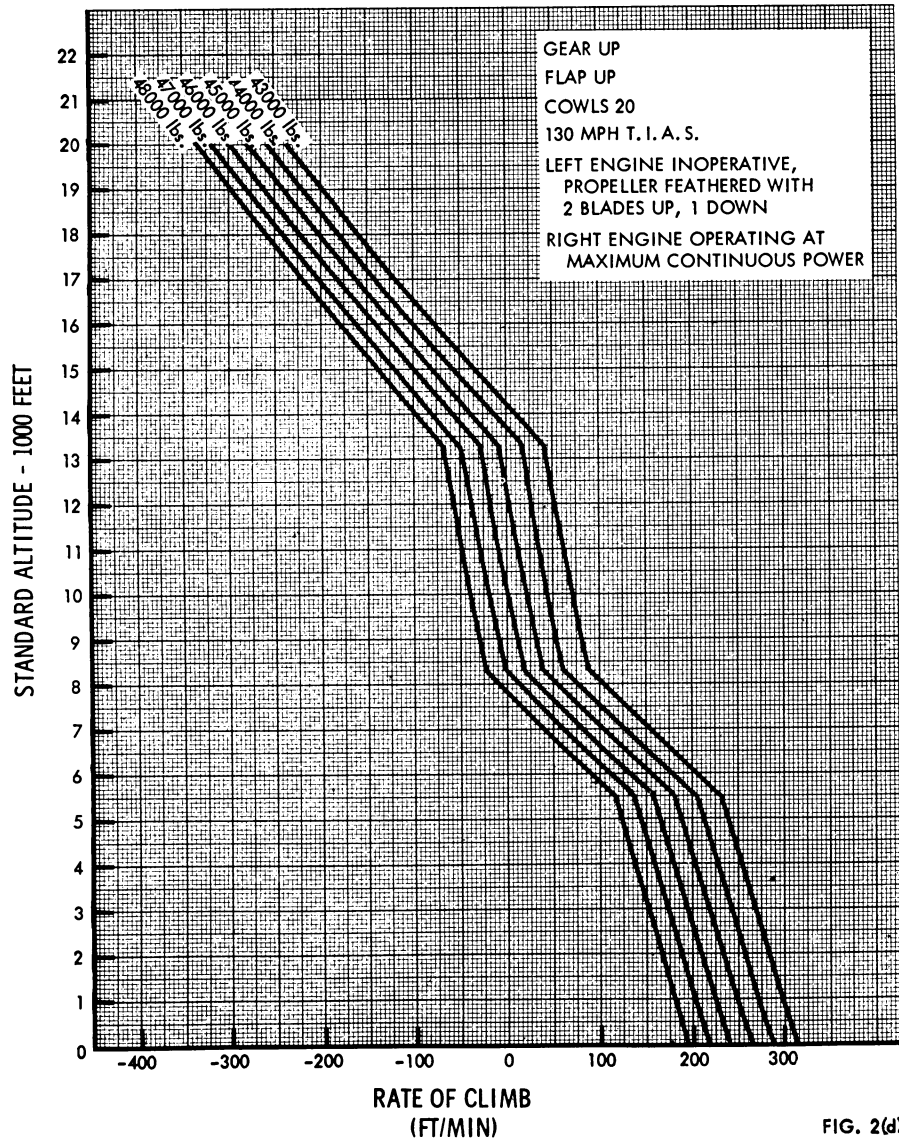


FIG. 2(d)

CURTISS C-46 MODELS
CERTIFICATED FOR MAX. WEIGHT OF 45,000 LBS.

LANDING LIMITATIONS.
ZERO WIND AND ZERO GRADIENT

BASED ON EFFECTIVE LANDING LENGTH
AT INTENDED DESTINATION. (0.60 FACTOR)

FAR 121.203

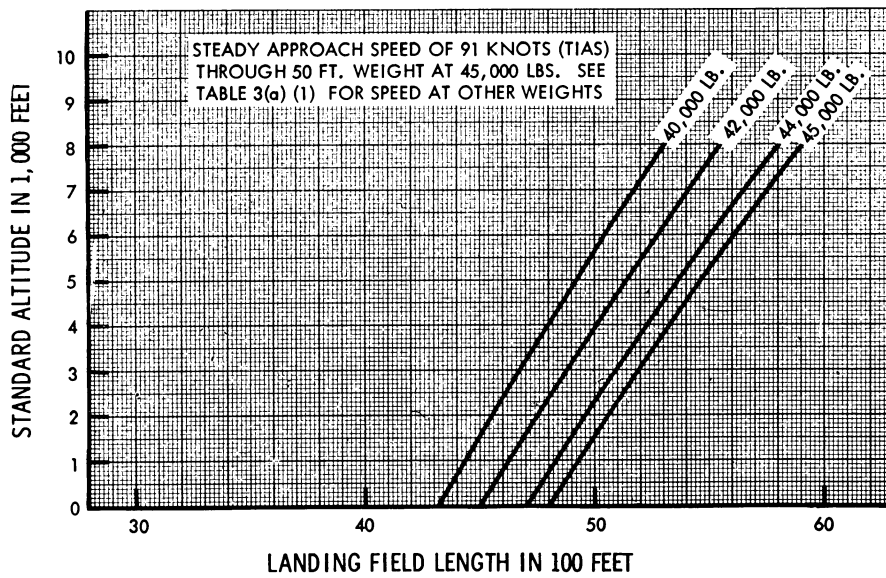


FIG. 3(a) (1)

CURTISS C-46 MODELS
CERTIFICATED FOR MAX. WEIGHT OF 48,000 LBS.

LANDING LIMITATIONS.
ZERO WIND AND ZERO GRADIENT

BASED ON EFFECTIVE LANDING LENGTH
AT INTENDED DESTINATION. (0.60 FACTOR)

FAR 121.203

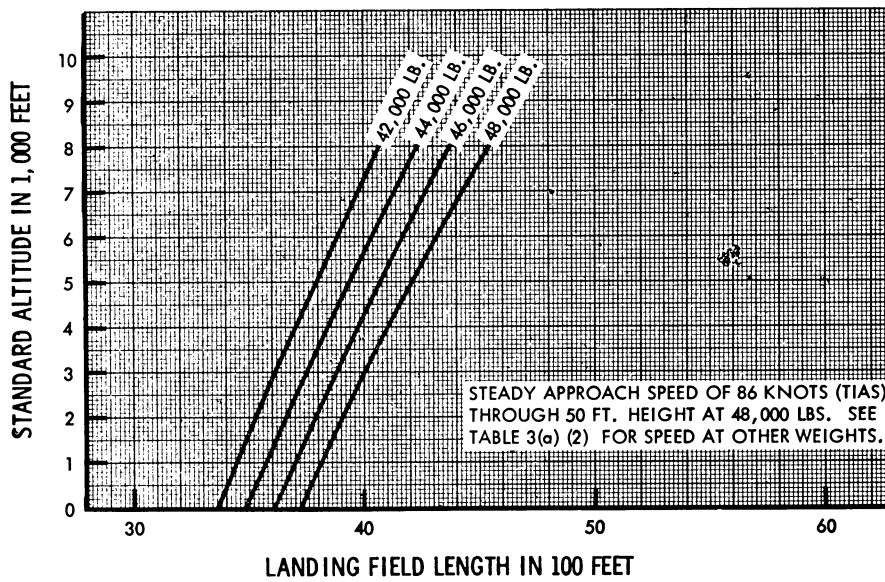


FIG. 3(a) (2)

**CURTISS C-46 MODELS
CERTIFICATED FOR MAX. WEIGHT OF 45,000 LBS.**

LANDING LIMITATIONS.
ZERO WIND AND ZERO GRADIENT

BASED ON EFFECTIVE LANDING LENGTH
AT ALTERNATE AIRPORTS. (0.70 FACTOR).

FAR 121.205

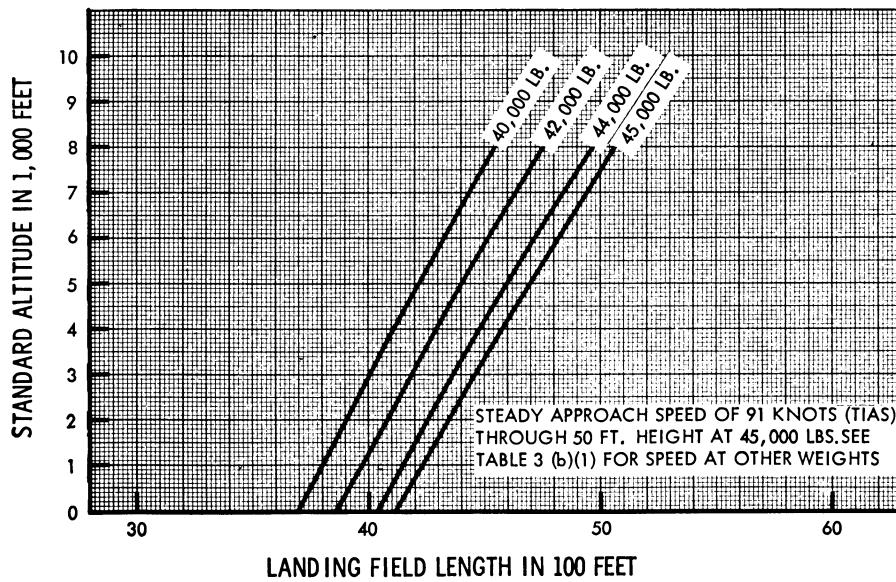


FIG. 3(b) (1)

CURTISS C-46 MODELS
CERTIFICATED FOR MAX. WEIGHT OF 48,000 LBS.

LANDING LIMITATIONS.
ZERO WIND AND ZERO GRADIENT

BASED ON EFFECTIVE LANDING LENGTH
AT ALTERNATE AIRPORTS. (0.70 FACTOR).

FAR 121.205

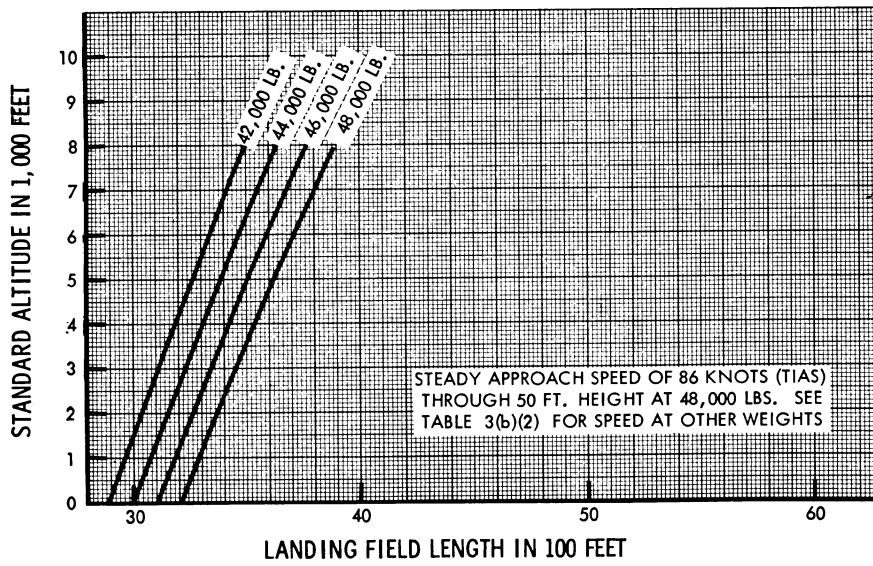


FIG. 3(b) (2)

**CURTISS C-46 MODELS
CERTIFICATED FOR MAX. WEIGHT OF 45,000 LBS.**

**LANDING LIMITATIONS.
ZERO WIND AND ZERO GRADIENT**

**BASED ON ACTUAL LANDING LENGTH
WHEN EFFECTIVE LENGTH IS NOT
DETERMINED. (0.55 FACTOR)**

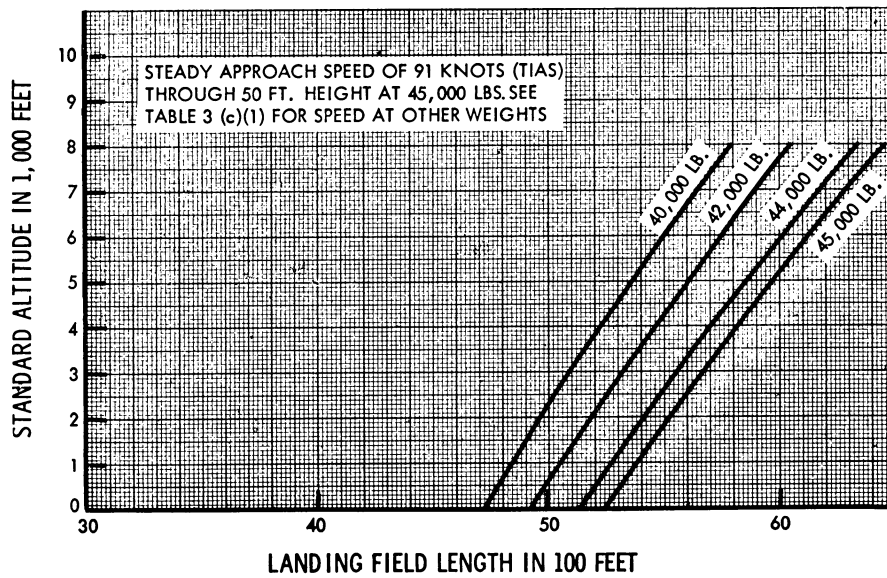


FIG. 3(e) (1)

CURTISS C-46 MODELS
CERTIFICATED FOR MAX. WEIGHT OF 48,000 LBS.

LANDING LIMITATIONS,
ZERO WIND AND ZERO GRADIENT

BASED ON ACTUAL LANDING LENGTH
WHEN EFFECTIVE LENGTH IS NOT
DETERMINED, (0.55 FACTOR)

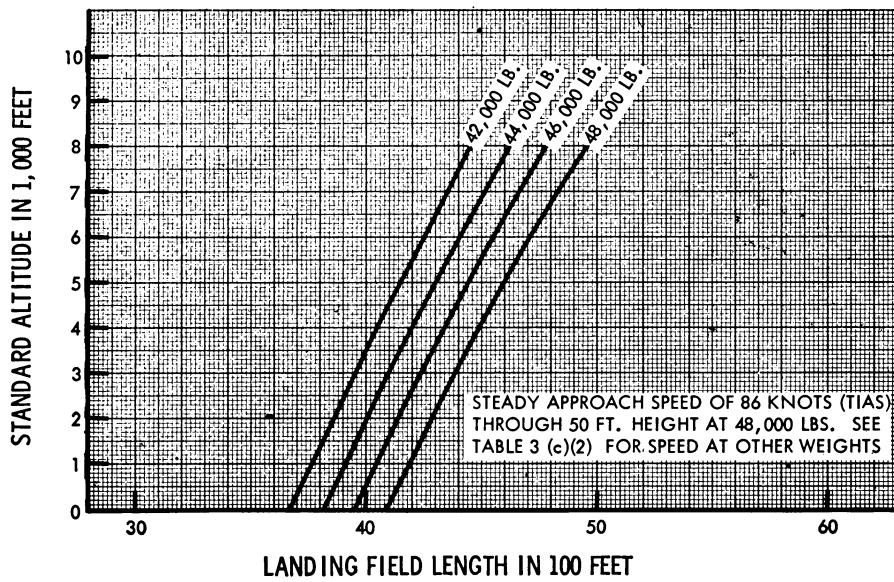


FIG. 3(c) (2)

[Doc. No. 4080, 30 FR 258, Jan. 3, 1965; 30 FR 481, Jan. 14, 1965, as amended by Amdt. 121-207, 54 FR 39293, Sept. 25, 1989]

APPENDIX D TO PART 121—CRITERIA FOR
DEMONSTRATION OF EMERGENCY
EVACUATION PROCEDURES UNDER
§ 121.291

(a) *Aborted takeoff demonstration.* (1) The demonstration must be conducted either during the dark of the night or during daylight with the dark of the night simulated. If the demonstration is conducted indoors during daylight hours, it must be conducted with each window covered and each door closed to minimize the daylight effect. Illumination on the floor or ground may be used, but it must be kept low and shielded against shining into the airplane's windows or doors.

(2) The airplane must be a normal ground attitude with landing gear extended.

(3) Unless the airplane is equipped with an off-wing descent means, stands or ramps may be used for descent from the wing to the ground. Safety equipment such as mats or inverted life rafts may be placed on the floor or ground to protect participants. No other equipment that is not part of the emergency evacuation equipment of the airplane may be used to aid the participants in reaching the ground.

(4) The airplane's normal electrical power sources must be deenergized.

(5) All emergency equipment for the type of passenger-carrying operation involved must be installed in accordance with the certificate holder's manual.

(6) Each external door and exit, and each internal door or curtain must be in position to simulate a normal takeoff.

(7) A representative passenger load of persons in normal health must be used. At least 40 percent of the passenger load must be females. At least 35 percent of the passenger load must be over 50 years of age. At least 15 percent of the passenger load must be female and over 50 year of age. Three life-size dolls, not included as part of the total passenger load, must be carried by passengers to simulate live infants 2 years old or younger. Crewmembers, mechanics, and training personnel, who maintain or operate the airplane in the normal course of their duties, may not be used as passengers.

(8) No passenger may be assigned a specific seat except as the Administrator may require. Except as required by item (12) of this paragraph, no employee of the certificate holder may be seated next to an emergency exit.

(9) Seat belts and shoulder harnesses (as required) must be fastened.

(10) Before the start of the demonstration, approximately one-half of the total average amount of carry-on baggage, blankets, pillows, and other similar articles must be distributed at several locations in the aisles and emergency exit access ways to create minor obstructions.

(11) The seating density and arrangement of the airplane must be representative of the highest capacity passenger version of that airplane the certificate holder operates or proposes to operate.

(12) Each crewmember must be a member of a regularly scheduled line crew, except that flight crewmembers need not be members of a regularly scheduled line crew, provided they have knowledge of the airplane. Each crewmember must be seated in the seat the crewmember is normally assigned for takeoff, and must remain in that seat until the signal for commencement of the demonstration is received.

(13) No crewmember or passenger may be given prior knowledge of the emergency exits available for the demonstration.

(14) The certificate holder may not practice, rehearse, or describe the demonstration for the participants nor may any participant have taken part in this type of demonstration within the preceding 6 months.

(15) The pretakeoff passenger briefing required by §121.571 may be given in accordance with the certificate holder's manual. The passengers may also be warned to follow directions of crewmembers, but may not be instructed on the procedures to be followed in the demonstration.

(16) If safety equipment as allowed by item (3) of this section is provided, either all passenger and cockpit windows must be blacked out or all of the emergency exits must have safety equipment in order to prevent disclosure of the available emergency exits.

(17) Not more than 50 percent of the emergency exits in the sides of the fuselage of an airplane that meet all of the requirements applicable to the required emergency exits for that airplane may be used for the demonstration. Exits that are not to be used in the demonstration must have the exit handle deactivated or must be indicated by red lights, red tape, or other acceptable means, placed outside the exits to indicate fire or other reason that they are unusable. The exits to be used must be representative of all of the emergency exits on the airplane and must be designated by the certificate holder, subject to approval by the Administrator. At least one floor level exit must be used.

(18) Except as provided in paragraph (a)(3) of this appendix, all evacuees must leave the airplane by a means provided as part of the airplane's equipment.

(19) The certificate holder's approved procedures and all of the emergency equipment that is normally available, including slides, ropes, lights, and megaphones, must be fully utilized during the demonstration, except that the flightcrew must take no active role in assisting others inside the cabin during the demonstration.

(20) The evacuation time period is completed when the last occupant has evacuated the airplane and is on the ground. Evacuees