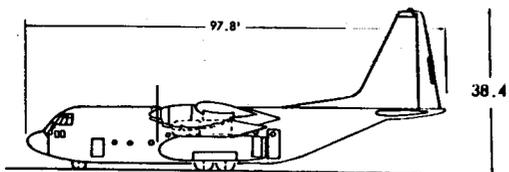
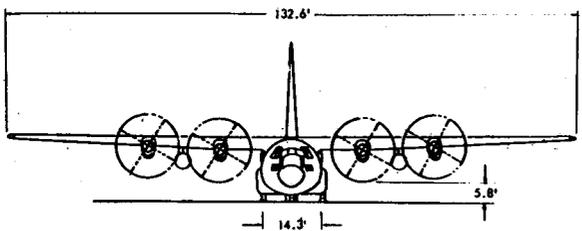
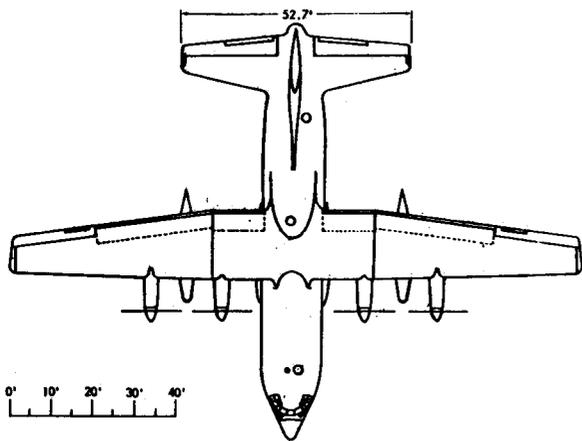


STANDARD AIRCRAFT CHARACTERISTICS

C-130G

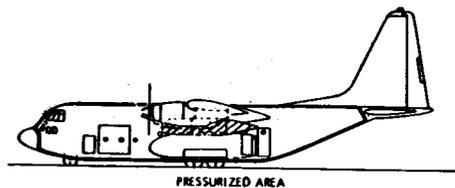
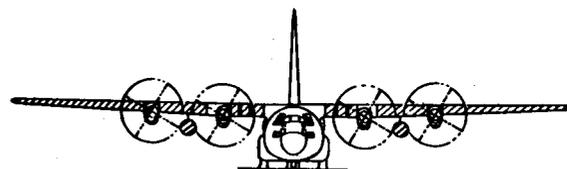
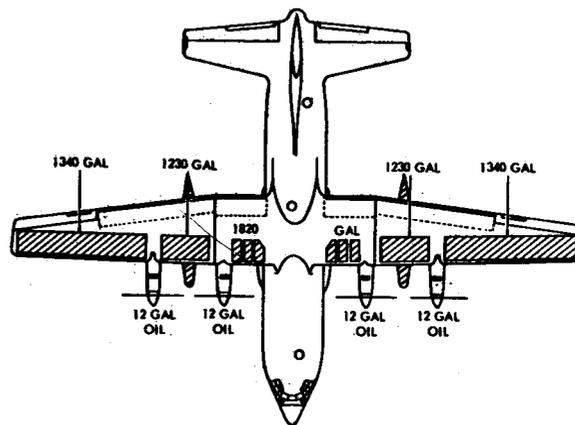
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BUREAU OF NAVAL WEAPONS
NAVY DEPARTMENT



DESCRIPTIVE ARRANGEMENT

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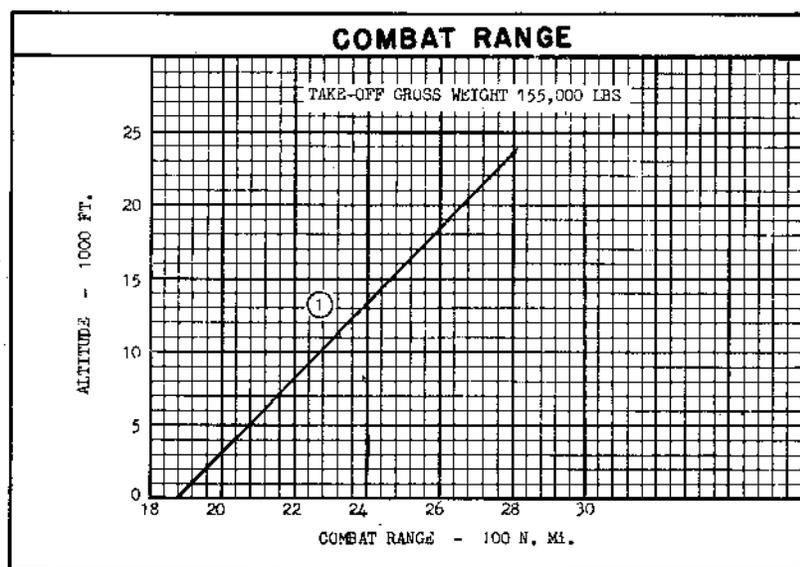
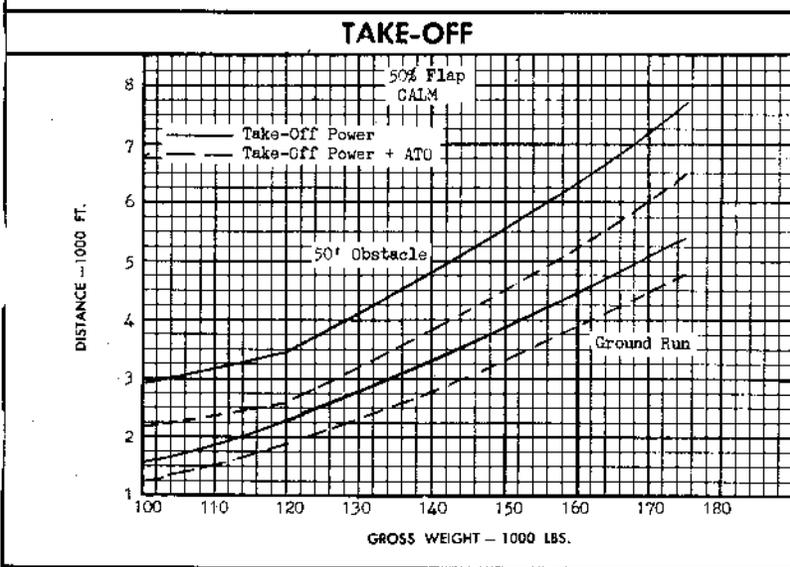
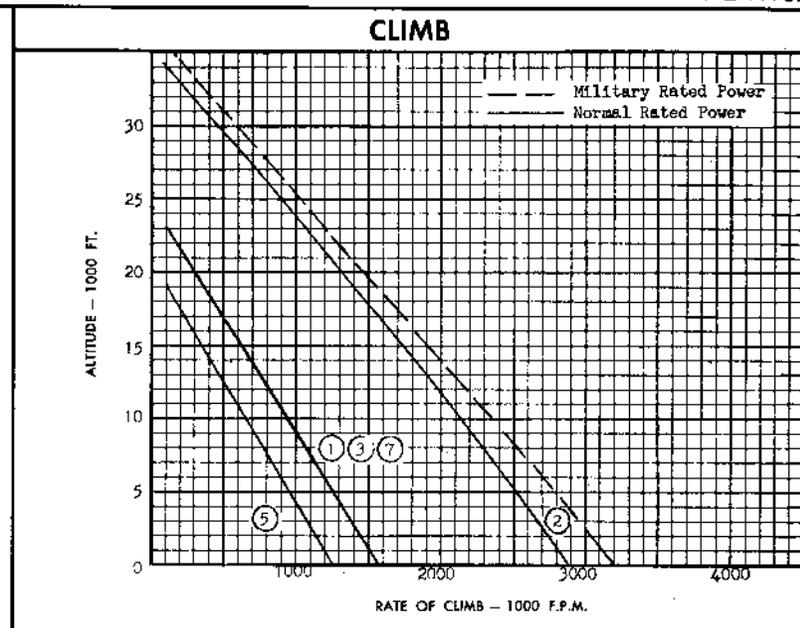
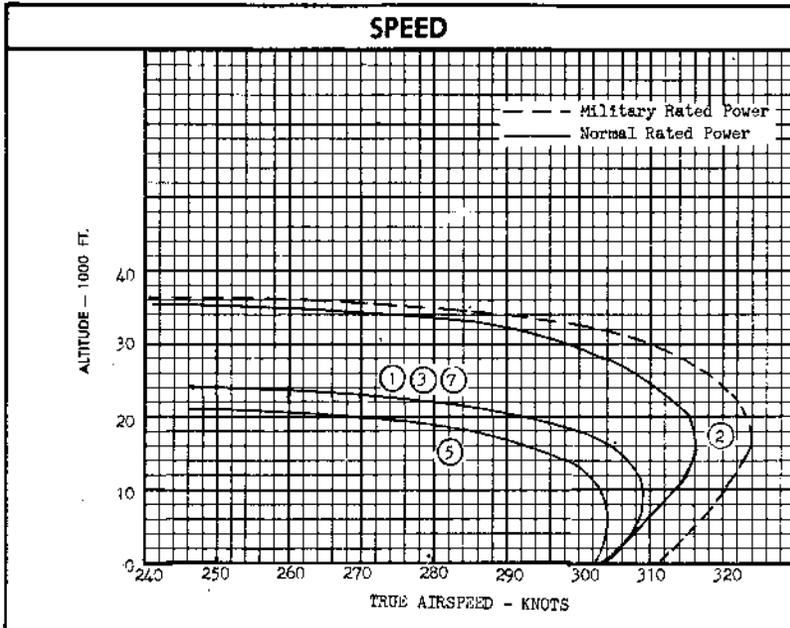


ARMAMENT AND TANKAGE

POWER PLANT					MISSION AND DESCRIPTION		WEIGHTS																																																																																																																																																																
No. & Model (4) T56-A-7 Mfr. Allison Engine Spec No. 377-F Type Axial Red. Gear Ratio 0.0739 Tail Pipe Fixed Area Prop Mfr. Hamilton Standard Blade Design No. A-7111C-2 Prop Dia. 13.5" No. Blades 4					A.F. Equiv. C-130E Mfr's Model: 282-44A-05 The mission of the C-130G is the transportation of personnel or cargo for aerial or conventional delivery. The aircraft is capable of carrying 92 combat troops or 64 paratroops with equipment. In the air evacuation configuration, the aircraft is capable of carrying 74 litters with 2 attendants, the normal crew is composed of pilot, co-pilot, flight engineer, navigator and loadmaster.		<table border="1"> <thead> <tr> <th>LOADING</th> <th>LBS</th> <th>L.F.</th> </tr> </thead> <tbody> <tr> <td>Empty (A)</td> <td>70057</td> <td>—</td> </tr> <tr> <td>Basic (A)</td> <td>70815</td> <td>—</td> </tr> <tr> <td>Design</td> <td>155000</td> <td>2.5</td> </tr> <tr> <td>Combat (Maximum Cargo)</td> <td>101,104</td> <td>2.5</td> </tr> <tr> <td>Max T.O. (Overload)</td> <td>175000</td> <td>2.25</td> </tr> <tr> <td>Max T.O. (Normal)</td> <td>155000</td> <td>2.5</td> </tr> <tr> <td>Max Land</td> <td>130000</td> <td>8.0 FPS(1)</td> </tr> </tbody> </table> Internal fuel less than 25,000 lb; No more than 6600 lb per outbd tank			LOADING	LBS	L.F.	Empty (A)	70057	—	Basic (A)	70815	—	Design	155000	2.5	Combat (Maximum Cargo)	101,104	2.5	Max T.O. (Overload)	175000	2.25	Max T.O. (Normal)	155000	2.5	Max Land	130000	8.0 FPS(1)																																																																																																																																						
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PERFORMANCE SUMMARY

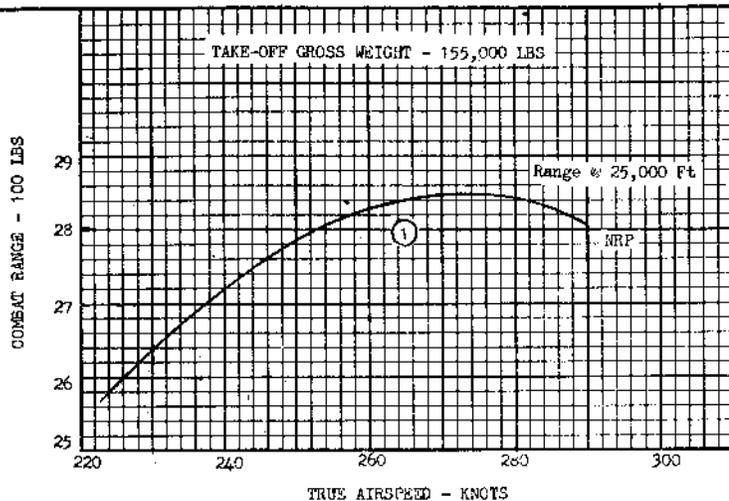
TAKE-OFF LOADING CONDITION	(1) Design Maximum Payload	(3) Design Maximum Fuel	(5) Maximum Payload Overload	(7) TACAMO Mission
TAKE-OFF WEIGHT lb.	155,000	155,000	175,000	155,000
Fuel internal/external (JP-5) lb./lb.	47328/0	(1) 47328/15592	47328/9965	47328/10015
Payload lb.	34965	19373	45000	25000
Wing loading lb./sq. ft.	88.8	88.8	100.3	88.8
Stall speed—power-off (2) kn.	102	102	109	102
Take-off run at S.L.— calm (9)/JATO (3)(9) ft.	4125/3565	4125/3565	5390/4750	4125/3565
Take-off run at S.L.— 89.6° (9) ft.	5015	5015	6670	5015
Take-off to clear 50 ft.— calm (9)/JATO(3)(9) ft.	5810/4812	5810/4812	7640/6457	5810/4812
Max. speed/altitude (4) kn./ft.	309/9000	309/9000	304/6000	309/9000
Rate of climb at S.L. (4) fpm.	1552	1552	1237	1552
Time: S.L. to 20,000 ft. (4) min.	27	27	(5) 11	27
Time: S.L. to 22,800ft. (4) min.	45	45	(6) 44	45
Service ceiling (100 fpm) (4) ft.	22800	22800	19000	22800
Combat range n.mi.	2843	4078	3065	3600
Average cruising speed kn.	273	273	275	274
Cruising altitudes ft.	20800/29400	20800/33000	16900/27000	20800/31600
Combat radius/mission time n.mi./hr.	1555/11,740	2142/16,064	1802/13,596	1000/13,410
Average cruising speed kn.	273/266	273/268	272/266	272/273
Time on Station - 25,000 ft - N.R.P. hrs.				5.84
COMBAT LOADING CONDITION	(2) 60% Mission Fuel No Payload	(4) 60% Mission Fuel No Payload	(6) 60% Mission Fuel No Payload	(8) 60% Mission Fuel No Payload
COMBAT WEIGHT lb.	101,104	110,459	107,083	107,063
Engine power	MILITARY	MILITARY	MILITARY	MILITARY
Fuel lb.	28397	37752	34376	34406
Combat speed/combat altitude kn./ft.	305/31200	306/28800	303/30500	303/30500
Rate of climb/combat altitude fpm/ft.	500/31200	500/28800	500/30500	500/30500
Combat ceiling (500 fpm) ft.	31200	28800	30500	30500
Rate of climb at S.L. fpm.	3212	2863	2996	2996
Max. speed at S.L. kn.	311	311	311	311
Max. speed/altitude kn./ft.	324/19000	322/17000	323/18000	323/18000
LANDING WEIGHT (7) lb.	111960	97016	122586	102378
Fuel lb.	4288	4936	4879	4721
Stall speed—power-off/military power (2) kn./kn.	89/71	80/65	91/75	83/68
Landing distance—ground roll/over 50 ft. obst.(8) ft./ft.	2030/3275	1920/3050	2620/4150	2000/3225
NOTES				
(1) Max. Fuel limited to 62920-lbs			(4) N. R. P.	
(2) 100% Flaps			(5) 10,000 ft	
(3) 8-1000 lb Thrust ATO Units - Operating for 14 Secs			(6) 19,000 ft	
			(7) Cargo + Fuel Reserves	
			(8) No Reverse Thrust	
			(9) MRP - 50% Flaps	



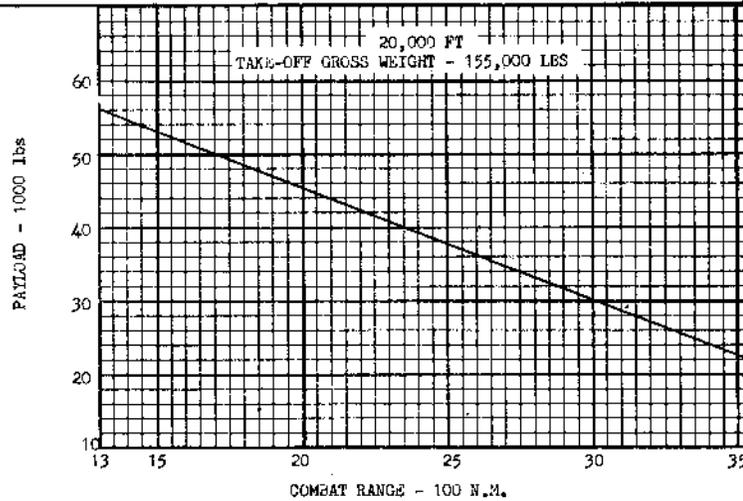
○ LOADING CONDITION COLUMN NUMBER

5

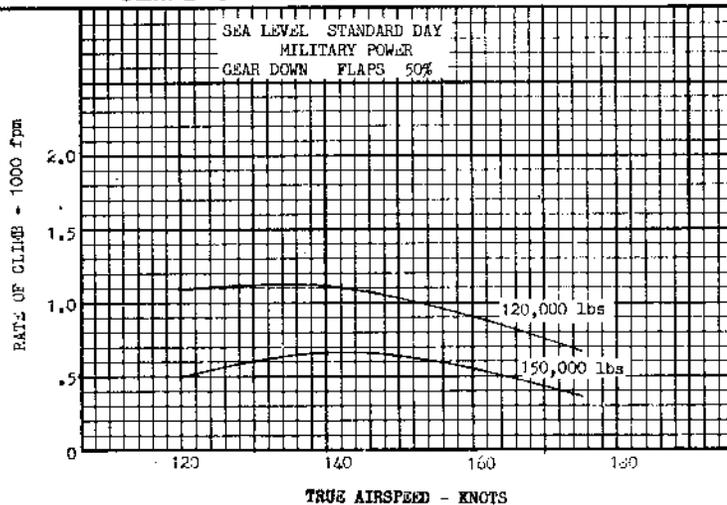
COMBAT RANGE



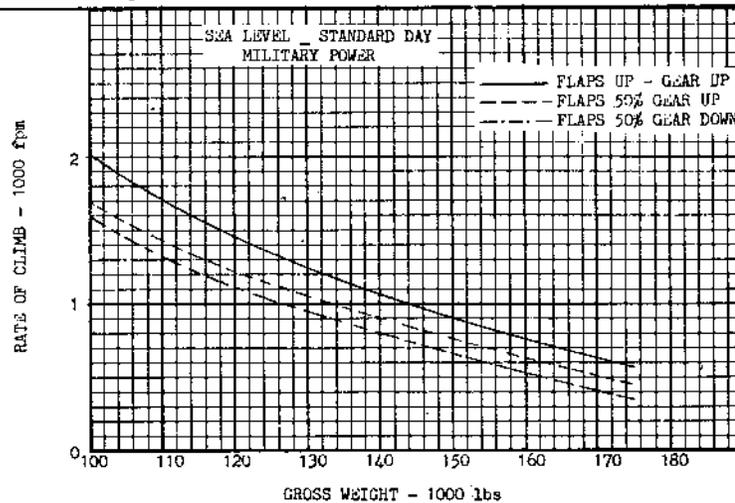
COMBAT RANGE



CLIMB-ONE ENGINE INOPERATIVE



CLIMB ONE ENGINE INOPERATIVE



○ LOADING CONDITION COLUMN NUMBER

NOVEMBER 1965

NOTES

RANGE MISSIONS

Start Engines, Warm up, Take-off, Accelerate to Climb Speed: 5 Minutes at Normal Power at Sea Level

Climb on Course to Cruise Ceiling at Normal Power Cruise to Remote Base at Speeds for Maximum Range at Altitudes for Maximum Range

Land at Remote Sea Level Base with Reserves (No fuel consumed, no distanced credit)

Reserve: 30 Minutes at Sea Level at Speeds for Maximum endurance plus 5% of Initial Fuel

RADIUS MISSIONS

Start Engines, Warm up, Take-off, Accelerate to Climb Speed: 5 Minutes at Normal Power at Sea Level

Climb on Course to Cruise Ceiling at Normal Power

Cruise to Remote Sea Level Base at Speeds for Maximum Range at Altitudes for Maximum range

Land at Remote Sea Level Base and Unload Entire Cargo (no fuel consumed, no distanced credit)

Start Engines, Warm up; Take-off, Accelerate to Climb Speed: 5 Minutes at Normal Power at Sea Level

Climb on Course to Cruise Ceiling at Normal Power

Cruise to Home Base at Speeds for Maximum Range at Altitudes for Maximum Range

Land at Home Base with Reserves

Reserves: 30 Minutes at Sea Level at speeds for Maximum Endurance plus 5% of Initial Fuel

TACAMO MISSION

Start Engines, Warm up, Take-off, Accelerate to Climb Speed: 5 Minutes at Normal Power at Sea Level

Climb on Course to Cruise Ceiling at Normal Power

Cruise to Station at Speeds for Maximum Range at Altitudes for Maximum Range

Climb to 25,000 ft (No distance credit)

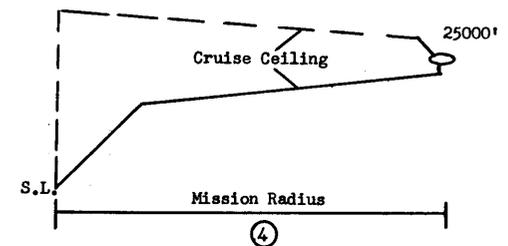
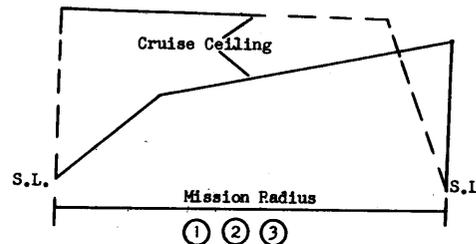
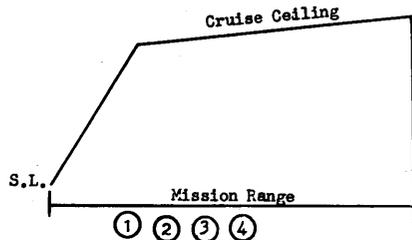
Loiter at 25,000 ft at Normal Power

Climb on Course to Cruise Ceiling at Normal Power

Cruise to Home Base at Speeds for Maximum Range at Altitudes for Maximum Range

Land at Home Base with Reserves

Reserves: 30 Minutes at Sea Level at Speeds for Maximum Endurance Plus 5% of Initial fuel



Performance Basis: U.S.A.F. Report No. 63-37 of 1/64, C-130E Category II Performance tests; calculated data based on Category II test data

○ LOADING CONDITION COLUMN NUMBER