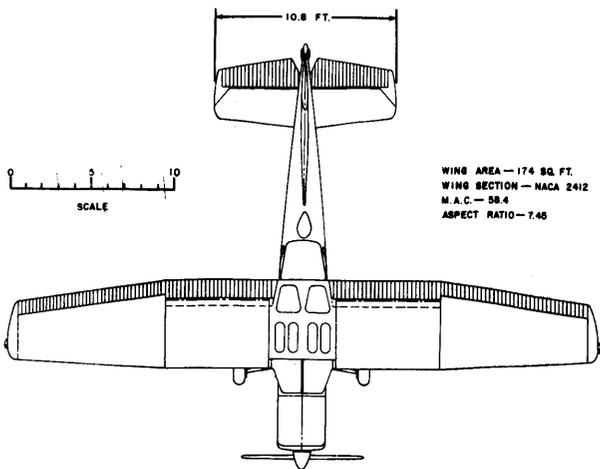




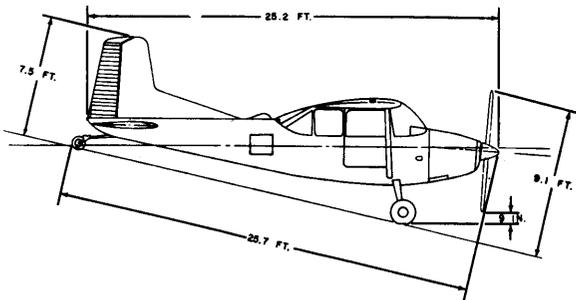
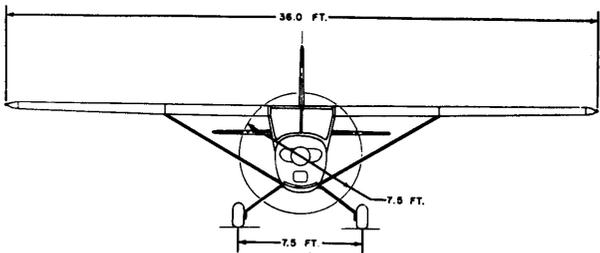
STANDARD AIRCRAFT CHARACTERISTICS MODEL O-1C

CESSNA

Published by direction of the Commander of the Naval Air Systems Command

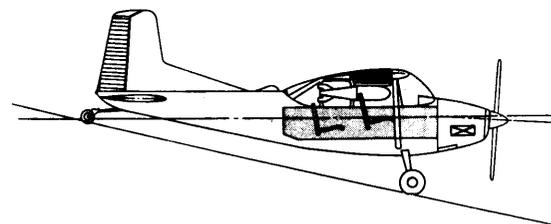
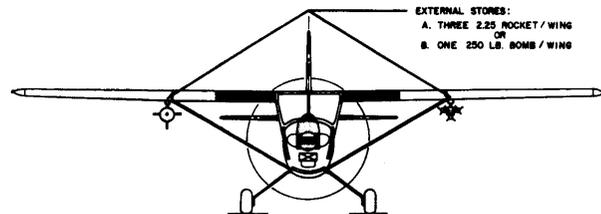
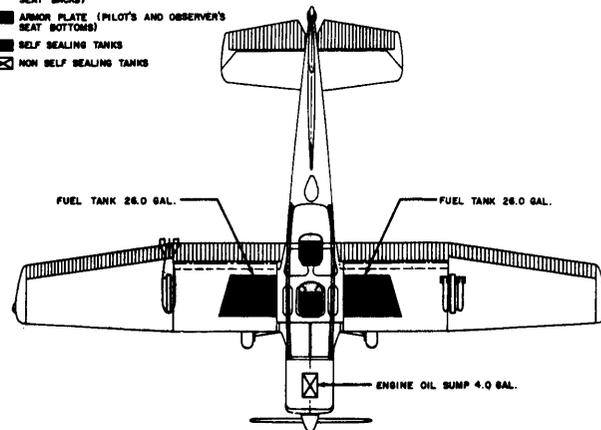


WING AREA—174 SQ. FT.
WING SECTION—NACA 2412
M.A.C.—58.4
ASPECT RATIO—7.48



DESCRIPTIVE ARRANGEMENT

- PROTECTION
- BLACK CURTAIN (CABIN SIDE WALLS FROM FIREWALL TO AFT END OF BAGGAGE COMPARTMENT AND PILOTS AND OBSERVER'S SEAT BACKS)
 - ARMOR PLATE (PILOT'S AND OBSERVER'S SEAT BOTTOMS)
 - SELF SEALING TANKS
 - NON SELF SEALING TANKS



ARMAMENT AND TANKAGE

POWER PLANT

NO. & MODEL.....O-470-2
 MFR.....Continental
 RED.GEAR RATIO.....Direct Drive
 PROP.MFR.....McCaughey
 PROP.BLADE DES.NO.....2A36C1/90M-0
 NO.BL./DIA.....2/7.5'

RATINGS

	<u>BHP</u>	<u>RPM</u>	<u>ALT.</u>
T.O.	265	2,600	S.S.L.
NORM.	250	2,600	S.S.L.

SPEC. NO. 1378e

MISSION AND DESCRIPTION

The basic mission of the OE-2 airplane is short range liaison.

The airplane has an all-metal, high wing, adjustable stabilizer, constant-speed propeller, controllable cowl flaps, armor plate on bottom of both seats and self-sealing fuel cells. Normal crew capacity consists of a pilot and observer.

The OE-2 differs from the OE-1 airplane in that it incorporates a O-470-2 engine in lieu of an O-470-11, constant speed prop, electric flap system, self-sealing fuel cells, new tail surfaces and free blown windshield.

DEVELOPMENT

First Flight.....August 1954
 Service Use.....September 1955

WEIGHTS

<u>LOADINGS</u>	<u>LBS.</u>	<u>L.F.</u>
EMPTY.....	1,830.....	
BASIC.....	1,861.....	
DESIGN.....	2,650.....	4.4
MAX. T.O.....	2,650.....	4.0
MAX. LAND.....	2,650.....	4.0

FUEL AND OIL

<u>NO. TANKS</u>	<u>TOT. GALS.</u>	<u>LOCATION</u>
2	48.5	Wing
Fuel Grade.....100/130		
Fuel Spec.....MIL-F-5572		

OIL

	4
CAPACITY (gals).....	30
GRADE.....	1100
SPEC.....	MIL-L-6062

ORDNANCE

Provisions for the following on a MK-8 shackle under each wing:

<u>NO.</u>	<u>ITEM</u>
3	2.25" sub-cal. AAR
1	250 lb. Aero-15A spray tank

Max. Capacity - 500 lb.

DIMENSIONS

WING AREA.....	174 sq.ft.
SPAN.....	36'-0"
MAC.....	58.4"
LENGTH.....	25'-8"
HEIGHT.....	9'-1"
TREAD.....	7'-6"
PROP. GRD. CLEAR.....	9"

ELECTRONICS

RADIO COMPASS.....	ADF-R11B
UHF.....	ARC Type 12
COMMUNICATIONS.....	PRC-8,9,10

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1)	(2)			
		LIAISON	FERRY			
TAKE-OFF WEIGHT	lb.	2,650	2,400			
Fuel (6.0 lbs/gal)	lb.	312	312			
Fayload	lb.	50				
Wing loading	lb./sq.ft.	15.2	13.8			
Stall speed - power-off (C)	kn.	51.1	48.6			
Take-off run at S.L. - calm (A)	ft.	390	300			
Take-off run at S.L. kn. wind	ft.					
Take-off to clear 50 ft. - calm (A)	ft.	735	600			
Max. speed/altitude (B)	kn./ft.	157.3/10,000	158.4/10,000			
Rate of climb at S.L. (B)	fpm.	1,300	1,500			
Time: S.L. to 10,000 ft.	min.	8.5	7.3			
Time: S.L. to 20,000 ft.	min.	22.6	18.7			
Service ceiling (100 fpm)	ft.	26,000	27,800			
Combat range	n.mi.	580	610			
Average cruising speed	kn.	108	107			
Cruising altitude(s)	ft.	5,000	5,000			
Combat radius	n.mi.	270				
Average cruising speed	kn.	108				
Mission time	hrs.	5.0				
COMBAT LOADING CONDITION						
COMBAT WEIGHT	lb.					
Engine power						
Fuel	lb.					
Combat speed/combat altitude	kn./ft.					
Rate of climb/combat altitude	fpm/ft.					
Combat ceiling (500 fpm)	ft.					
Rate of climb at S.L.	fpm.					
Max. speed at S.L.	kn.					
Max. speed/altitude	kn./ft.					
LANDING WEIGHT	lb.	2,388				
Fuel	lb.	29				
Stall speed - power-off (C)	kn.	48.4				
Stall speed - with approach power (C)	kn.	39.6				

NOTES

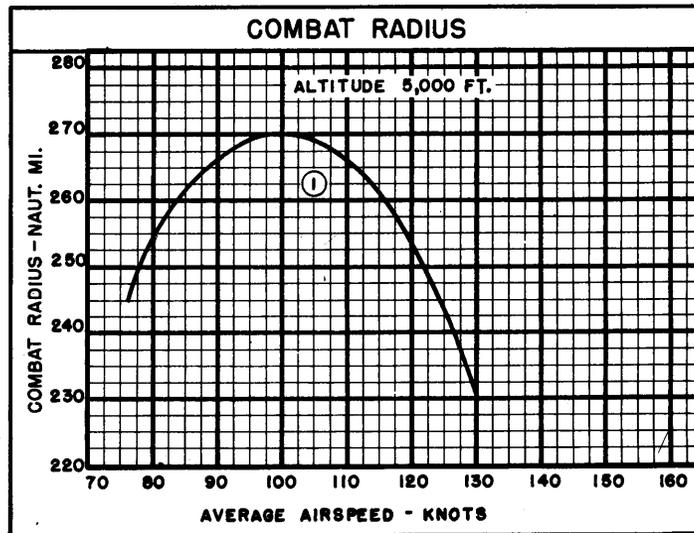
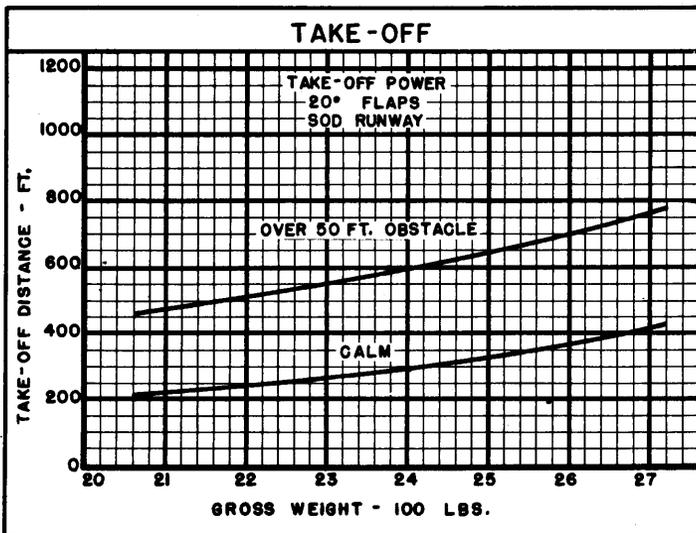
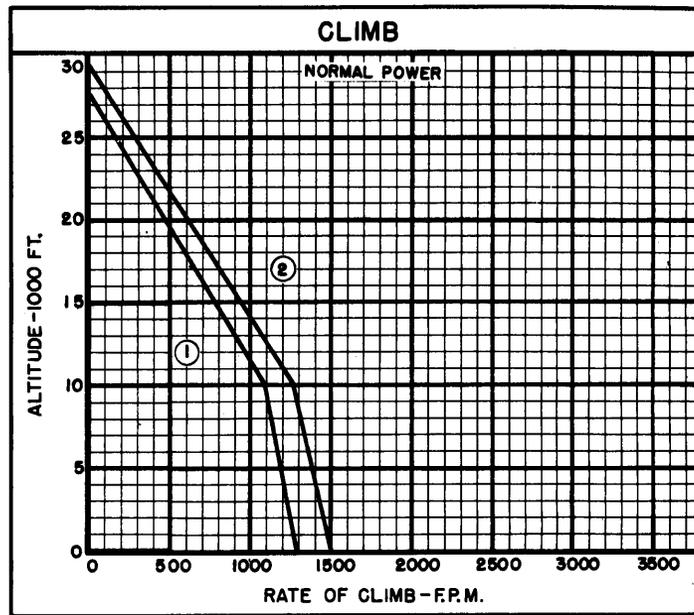
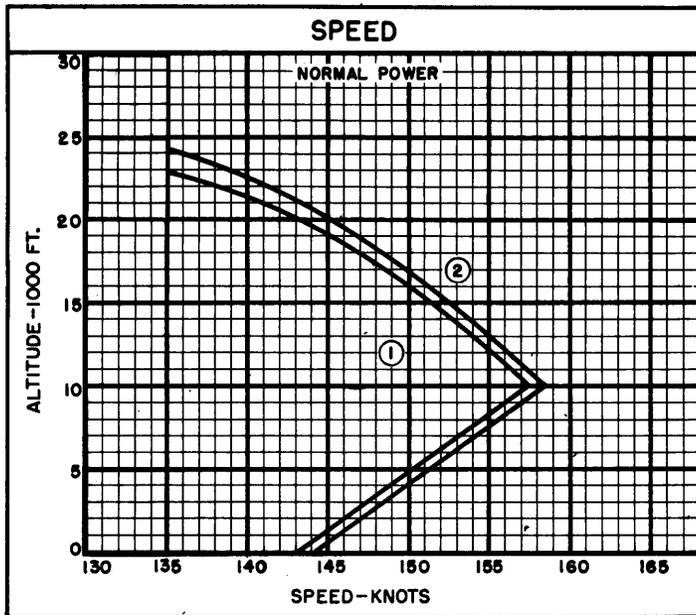
(A) Take-off power.

(B) Normal power.

(C) 40 degrees flaps.

PERFORMANCE BASIS: Contractors and partial NATC flight tests.

RANGE AND RADIUS are based on contractors flight test fuel consumption increased by 5%.



○ LOADING CONDITION COLUMN NUMBER

NOTES

MISSION TIME = TIME TO CLIMB / CRUISE-OUT / CLIMB / CRUISE-BACK

BASIC MISSION - LIAISON

WARM-UP, TAXI, TAKE-OFF: Fuel allowance for 5 minutes with normal rated power at sea level.

CLIMB: To 5,000 feet with normal rated power.

CRUISE-OUT: At 5,000 feet at speed for best cruise.

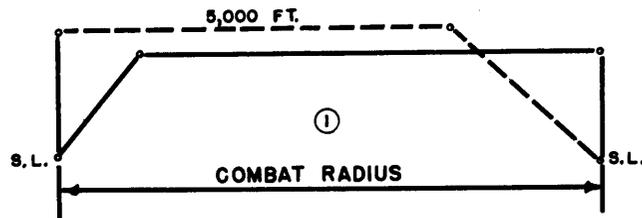
LAND: At remote sea level base - no fuel used - no distance gained.

TAKE-OFF: Fuel allowance for 5 minutes with normal rated power at sea level.

CLIMB: To 5,000 feet with normal rated power.

CRUISE-BACK: At 5,000 feet at speed for best cruise.

RESERVE: 5 percent of initial fuel plus 20 minutes fuel allowance at long range airspeeds at sea level.



○ LOADING CONDITION COLUMN NUMBER