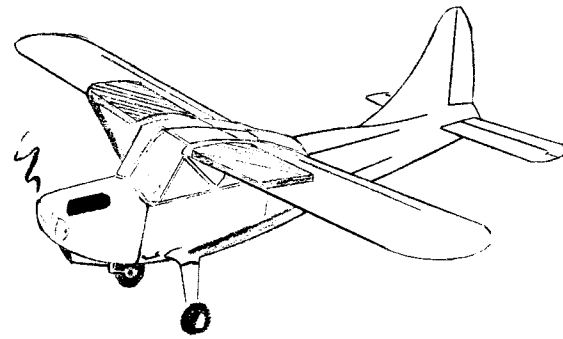
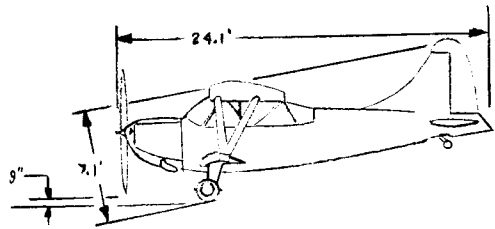
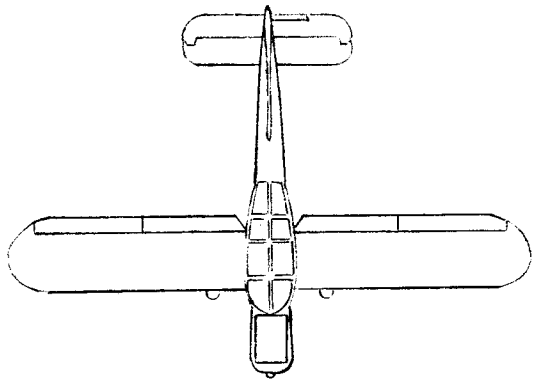
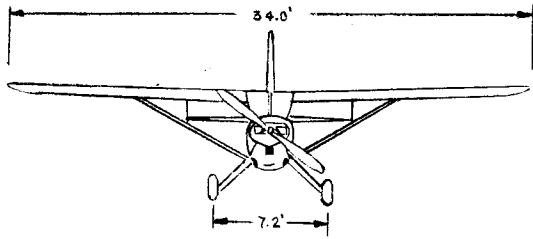






# STANDARD AIRCRAFT CHARACTERISTICS

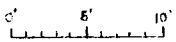
## OY-2 "SENTINAL"

CONSOLIDATED-VULTEE



 Fuel (Gal)

 Oil (Gal)



## POWER PLANT

NO. & MODEL.....(1)0-435-11  
MFR.....Lycoming  
RED.GEAR RATIO...Direct Drive  
PROP.MFR.....Koppers  
PROP. HUB NO.....220  
NO. BL./DIA.....2/7' -1"

### RATINGS

	<u>BHP</u> @	<u>RPM</u>	@ <u>ALT.</u>
T.O.	190	2,550	S.L.
NORM.	190	2,550	S.L.

## MISSION AND DESCRIPTION

AIR FORCE EQUIVALENT: L-5G

The principal mission of the OY-2 is short range liaison. The airplane can also be converted into an ambulance or cargo-carrier by folding down the back of the observers seat and removing the rear control stick.

The landing gear is a fixed cantilever type, with a fixed steerable tail wheel. Flight controls are operated manually and wheel brakes hydraulically. The electrical system is 24 volt. Provisions are made for the installation of floats. Normal crew consists of pilot and observer.

## WEIGHTS

<u>LOADINGS</u>	<u>LBS.</u>	<u>L.F</u>
EMPTY.....	1,600.....	
BASIC.....	1,626.....	
DESIGN.....	2,020.....	6.7....
MAX.T.O.....	2,265.....	6.0....
MAX.LAND....	2,265.....	

All weights are actual.

## FUEL AND OIL

<u>No. Tanks</u>	<u>Tot.Gal.</u>	<u>Location</u>
2	36	Wing

FUEL GRADE.....80  
FUEL SPEC....MIL-F-5572

### OIL

CAPACITY(Gals.).....3  
GRADE.....1100  
SPEC.....MIL-O-6082

## FEATURES

1 Litter or 200 lbs. cargo  
5 Message Containers  
Type A-1 Message pick-up  
K-20 Camera (Prov.)

## DIMENSIONS

WING  
AREA.....155 sq.ft.  
SPAN.....34' -0"  
M.A.C.....4' -9"  
LENGTH.....24' -1"  
HEIGHT.....7' -1"  
TREAD.....7' -2"  
PROP.GRD.CLEARANCE.....9"

## ELECTRONICS

COMMAND SET.....SCR-274N

Alternate Provisions  
RADIO SET.....SCR-610  
or AN/ARC-3

## PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	(1) LIAISON	(2) RECONNAIS- SANCE	(3) EVACUATION	(4) FERRY RANGE
TAKE-OFF WEIGHT lb.	2,265	2,265	2,065	2,065
Fuel lb.	216	216	216	216
Payload lb.	-	-	-	-
Wing loading lb./sq.ft.	14.6	14.6	13.3	13.3
Stall speed - power-off kn.	45.0	45.0	43.0	43.0
Take-off run at S.L. - calm (A) ft.	570	570	465	465
Take-off run at S.L. <sup>25</sup> kn. wind(A) ft.	135	135	110	110
Take-off to clear 50 ft. - calm (A) ft.	910	910	730	730
Max. speed/altitude (A) kn./ft.	110/S.L.	110/S.L.	113/S.L.	113/S.L.
Rate of climb at S.L. (A) fpm	900	900	1,050	1,050
Time: S.L. to 10,000 ft. (A) min.	18.3	18.3	12.4	12.4
Time: S.L. to service ceiling (A) min.	29.4	29.4	27.3	27.3
Service ceiling (100 fpm) (A) ft.	15,600	15,600	17,450	17,450
Combat range n.mi.	310	310		325
Average cruising speed kn.	79	79		78
Cruising altitude(s) ft.	5,000	5,000		5,000
Combat radius n.mi.	140	156	145	
Average cruising speed kn.	79	79	78	
Mission time hrs.	3.6	4.0	3.7	
<b>COMBAT LOADING CONDITION</b>				
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.				
<b>LANDING WEIGHT</b>				
Fuel lb.				
Stall speed - power-off kn.				
Stall speed - with approach power kn.				

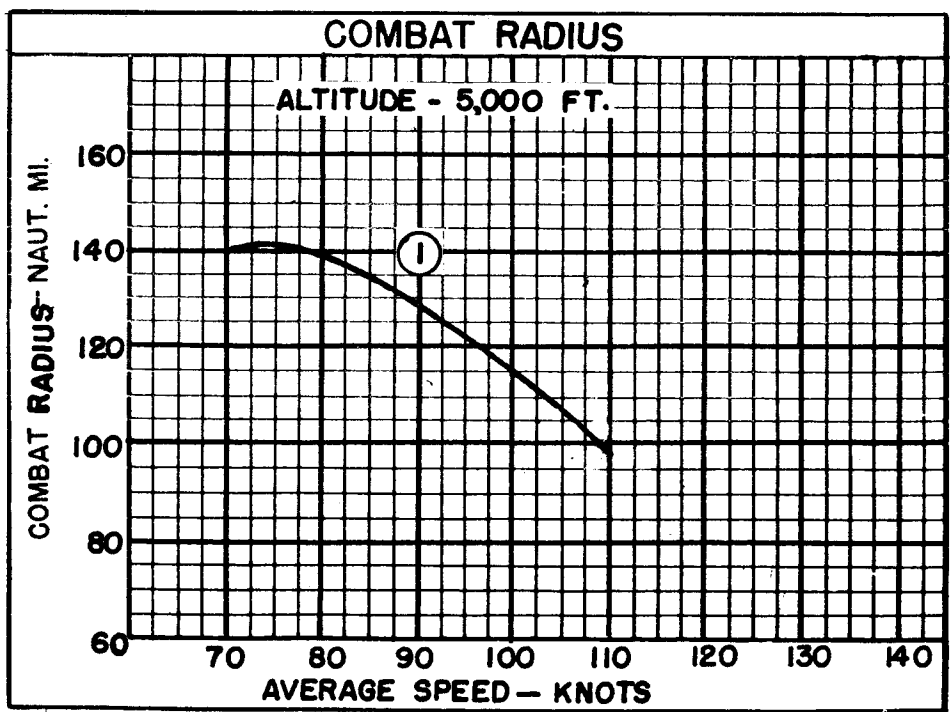
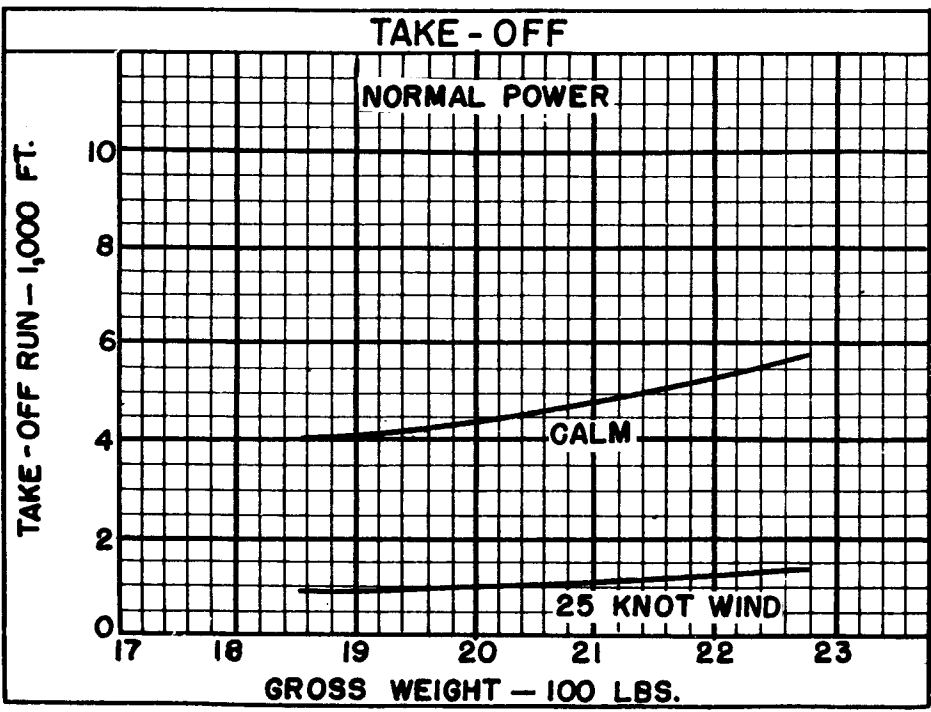
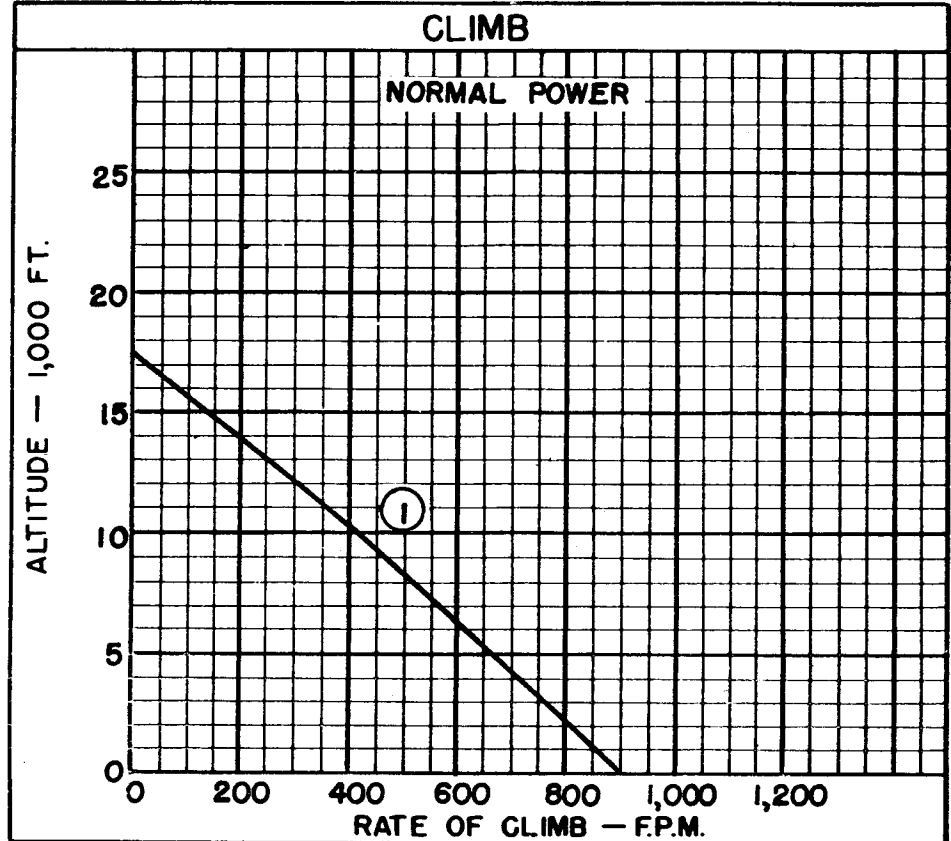
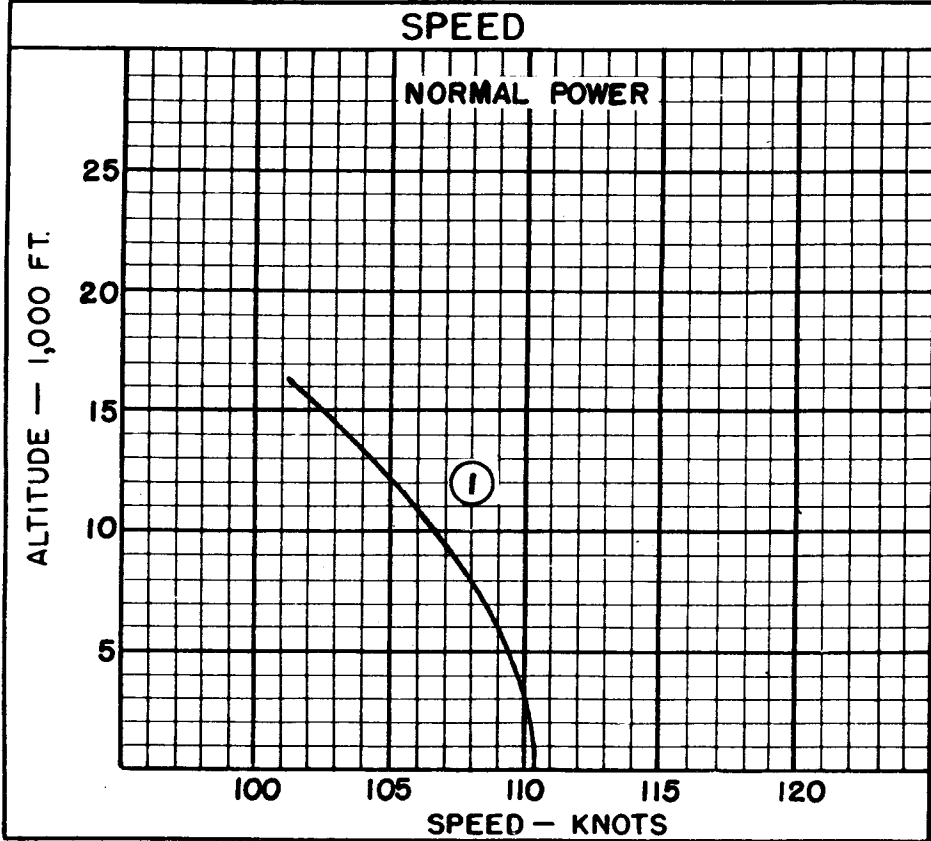
### NOTES

(A) NORMAL RATED POWER

PERFORMANCE BASIS: Flight test

Range and radius are based on flight test fuel consumption increased by 5%.

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# NOTES

MISSION TIME = TOTAL TIME FOR CLIMB, CRUISE-OUT AND CRUISE-BACK

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## COMBAT RADIUS PROBLEM - LIAISON

WARM-UP, TAXI, TAKE-OFF: Fuel allowance for 5 minutes at normal rated power at sea level.  
CLIMB: To 5,000 feet at normal rated power.  
CRUISE-OUT: At speed for long range at 5,000 feet.  
LAND: At sea level base (No fuel consumed, no distance gained).  
WARM-UP, TAXI, TAKE-OFF: Fuel allowance for 5 minutes at normal rated power at sea level.  
CLIMB: To 5,000 feet at normal rated power  
CRUISE-BACK: At speed for long range at 5,000 feet.  
RESERVE: Fuel allowance for 20 minutes at speed for long range at sea level plus 5 percent of initial fuel.

