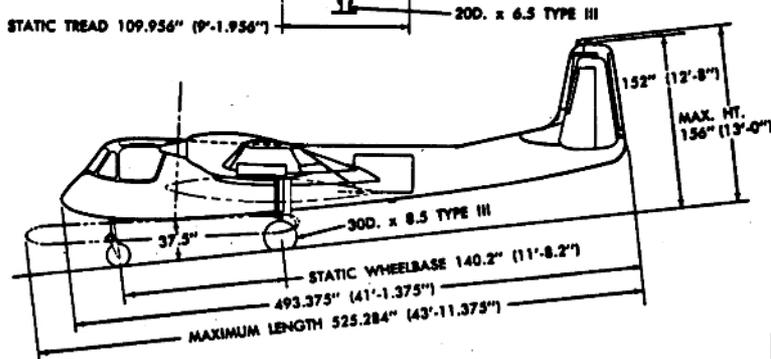
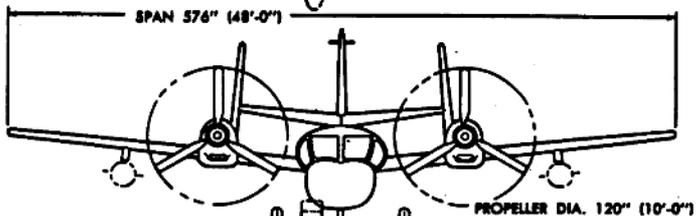
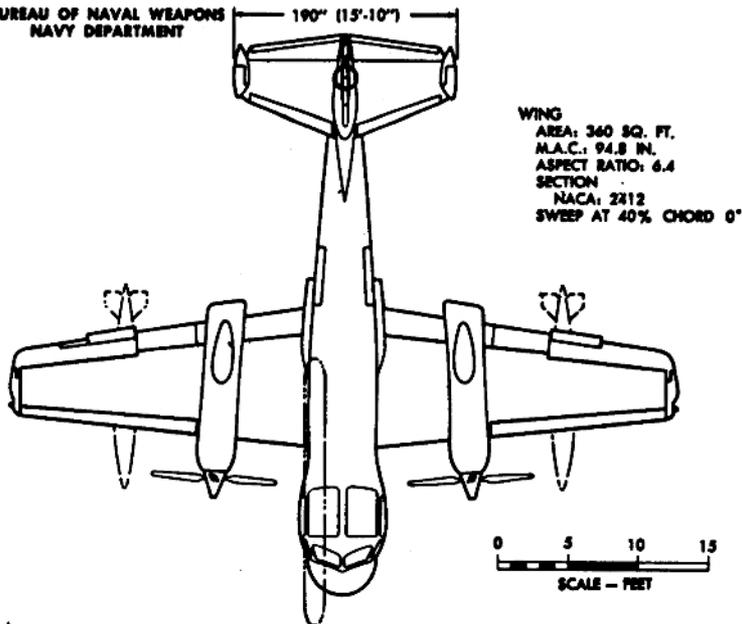


# STANDARD AIRCRAFT CHARACTERISTICS

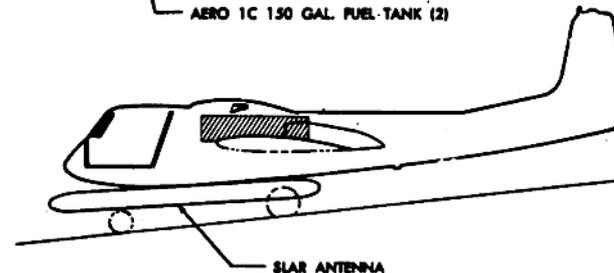
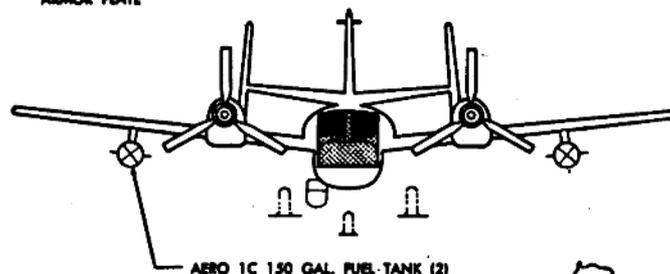
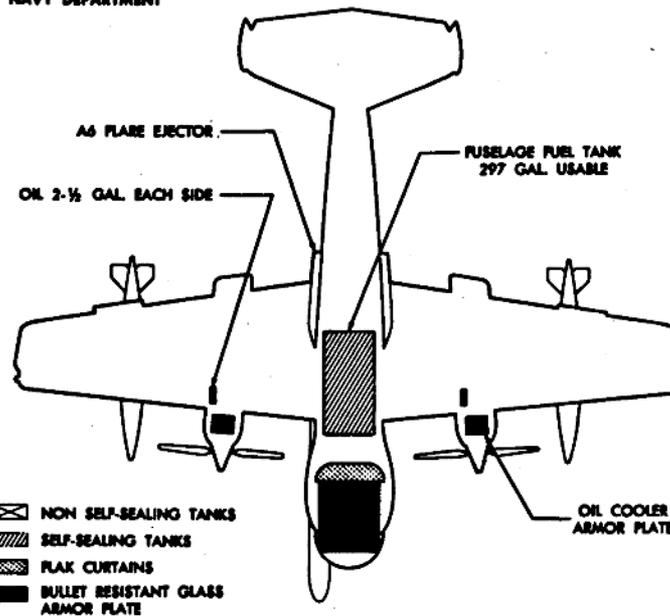
OV-10B MOHAWK

BUREAU OF NAVAL WEAPONS  
NAVY DEPARTMENT



DESCRIPTIVE ARRANGEMENT  
AO-1B

BUREAU OF NAVAL WEAPONS  
NAVY DEPARTMENT



ARMAMENT AND TANKAGE  
AO-1B

**POWER PLANT**

Turboprop  
 Model \_\_\_\_\_ (2) T53-L-7  
 Mfg. \_\_\_\_\_ Lycoming  
 Type \_\_\_\_\_ Axial-Centrif.  
 Eng. Length \_\_\_\_\_ 58.85 in.  
 Eng. Diameter \_\_\_\_\_ 23 in.  
 Eng. Spec. No. \_\_\_\_\_ 104,21B  
 Reduc. Gear Ratio \_\_\_\_\_ 12.4  
 Prop.Mfg. \_\_\_\_\_ Ham Std.  
 No. Bl./Diam. \_\_\_\_\_ 3/10 ft.  
 Prop.Bl. Des. No. \_\_\_\_\_ 7125-6

**RATINGS**

COND.	SHP	@ PRPM	@ ALT
Take-off	1090	1678	S. SL
Military	995	1678	S. SL
Normal	895	1678	S. SL

**ELECTRONICS**

UHF Radio Set \_\_\_\_\_ AN/ARC-55  
 FM Radio Set \_\_\_\_\_ AN/ARC-44  
 Interphone-Transistorized \_\_\_\_\_  
 \_\_\_\_\_ AN/AIC-12  
 LF-ADF Dir. Finder \_\_\_\_\_ AN/ARN-59  
 Identification Set \_\_\_\_\_ AN/APX-44  
 VOR Navigation Set \_\_\_\_\_ AN/ARN-30  
 Marker Beacon Rec. \_\_\_\_\_ R-1041  
 Radar Altimeter \_\_\_\_\_ APN-22  
 VHF Transmitter \_\_\_\_\_ T-366A/ARC  
 Auto Pilot \_\_\_\_\_ AN/ASW-12  
 Doppler Radar \_\_\_\_\_ AN/APN-129  
 Radar Surveillance System \_\_\_\_\_ APS-94

## Space Provided for:

VHF Radio Set \_\_\_\_\_ AN/ARC-73  
 Additions to IFF \_\_\_\_\_ MK-12  
 HF Radio Set \_\_\_\_\_ AN/ARC-( )

**MISSION AND DESCRIPTION**

The Grumman AO-1BF is a two place, twin turboprop aircraft capable of operating from small fields and unimproved runways. The aircraft is capable of performing missions of observation-surveillance, artillery gun fire spotting, air control emergency resupply and radiological monitoring.

The Mohawk has a midwing, triple tail, tricycle landing gear, with a fuselage of semimonocoque construction. Design features include wide span flaps, hydraulically operated inboard ailerons functioning both as flaps and ailerons, and manually controlled elevators, rudders and outboard ailerons.

The crew of two are seated side-by-side within a bubbled enclosure at the extreme forward end of the fuselage.

A remotely operated day and night KA-30 camera installation provides horizon-to-horizon photo coverage along the airplane flight path.

The AO-1BF version of the Mohawk carries an APS-94 Side Looking Airborne Radar Antenna as standard equipment.

External provisions are incorporated to carry two 150 gallon fuel tanks, or two resupply containers.

**DEVELOPMENT**

First Flight (Proto) \_\_\_\_\_ November 1961  
 Estimated First Service Use \_\_\_\_\_ January 1963

**DIMENSIONS**

Wing  
 Area \_\_\_\_\_ 360 sq. ft.  
 Span \_\_\_\_\_ 48 ft. 0 in.  
 MAC \_\_\_\_\_ 94.8 in.  
 Length \_\_\_\_\_ 43 ft. -11.4 in.  
 Height \_\_\_\_\_ 13 ft. -0 in.  
 Tread \_\_\_\_\_ 9 ft. -2 in.

**WEIGHTS**

Loading	Lbs.	L. F.
Empty E	10,983	
Basic	11,217	
Design	13,100	4.0
Combat		
Basic Mission	12,882	
Normal T.O.	13,654	
Maximum T.O.	16,643	
Max. Landing	16,643	

**FUEL AND OIL**

JP-4 (6.5 lbs./Gal.) MIL-F 5624A

Gal.	No. Tanks	Location
297	1	Fuselage
150	2	External

**OIL**

Capacity \_\_\_\_\_ 5 Gallons  
 Spec. \_\_\_\_\_ MIL-L-7808B

**ORDNANCE**

2 Flare Ejectors  
 2 Resupply Containers

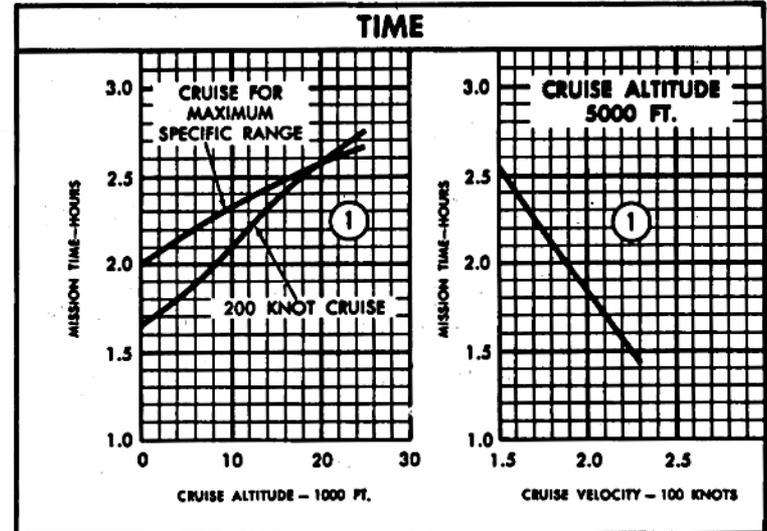
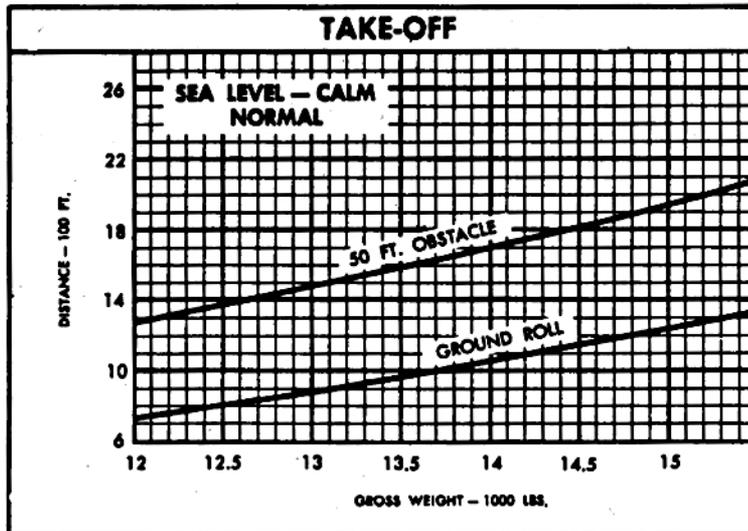
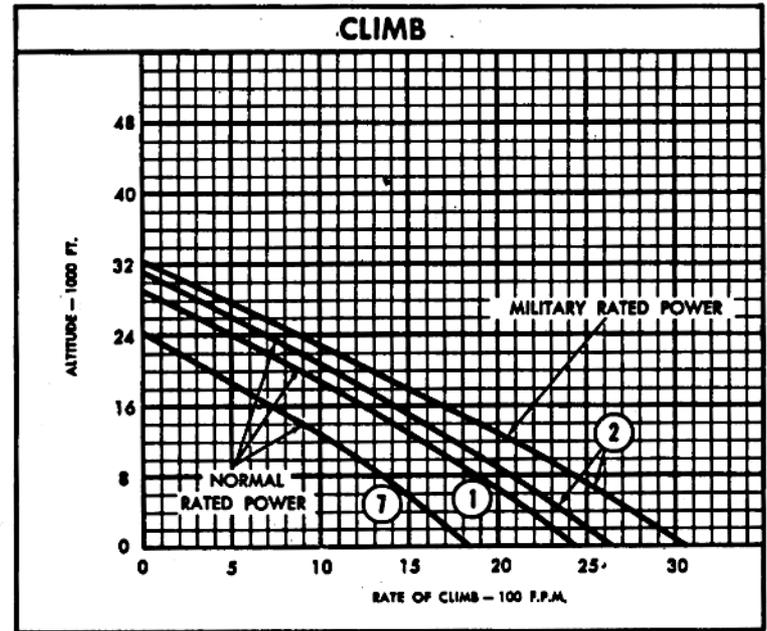
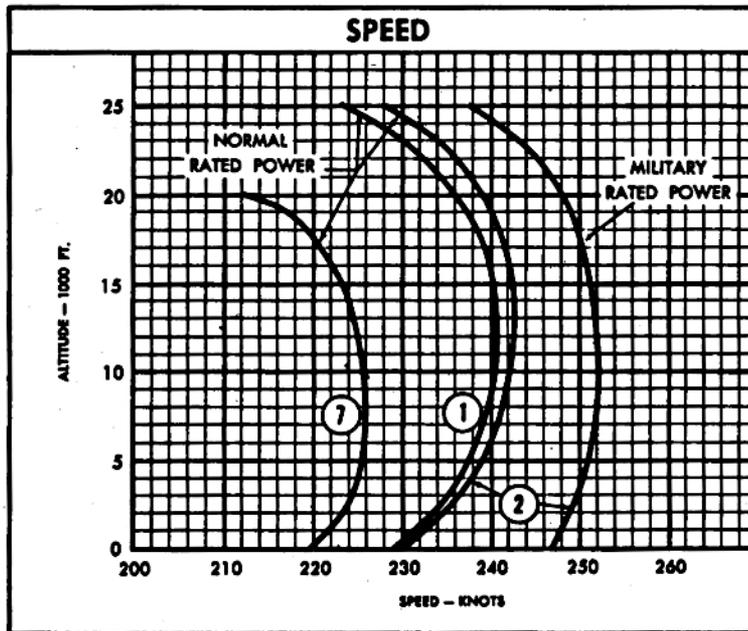
## PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	① OBSERVATION NO STORES	③ NIGHT PHOTO 2-A6 EJECTORS	⑧ EMERG. RESUPPLY 2-RESUPPLY CONTAINERS	⑦ FERRY 2-150 GAL EXT. TANKS
TAKE-OFF WEIGHT lb.	13,654	13,915	15,168	15,918
Fuel Internal/external lb.	1930	1930	1930	1930/1950
Payload lb.	-	264	1500	-
Wing loading lb./sq. ft.	38	38.7	42.1	44.6
Stall speed—power-off (D) kn.	73	73.8	77	79
Take-off run at S.L.—calm ft.	995	1040	1270	1410
Take-off to clear 50 ft.—calm ft.	1625	1690	2000	2185
Max. speed/altitude (A) kn./ft.	240.5/12,500	238/12,000	226.8/10,000	226/8000
Rate of climb at S.L. (B) fpm.	2800	2700	2320	2160
Time: S.L. to 20,000 ft. (B) min.	9.5	10	13	15
Time: S.L. to 25,000 ft. (B) min.	15.5	16	23	26.5
Service ceiling (100 fpm) (B) ft.	29,500	28,750	26,500	24,900
Combat range (C) n.mi.	365	358	334	1053
Average cruising speed kn.	200	200	200	203
Cruising altitude(s) ft.	5000	5000	5000	20,000
Cruise time hr.	1.80	1.77	1.64	4.98
Mission time hr.	1.84	1.80	1.69	5.30
COMBAT LOADING CONDITION	② NO STORES	④ 2-A6 EJECTORS	⑥ 2-RESUPPLY CONTAINERS	
COMBAT WEIGHT 60% Int. Fuel lb.	12,882	13,143	14,396	
Engine power	Military	Military	Military	
Fuel lb.	1158	1158	1158	
Combat speed/combat altitude (B) kn./ft.	250/5000	248/5000	238/5000	
Rate of climb/combat altitude (B) fpm/ft.	2660/5000	2560/5000	2175/5000	
Combat ceiling (500 fpm) (B) ft.	27,700	26,900	23,800	
Rate of Climb at S.L. (B) fpm.	3050	2940	2530	
Max. Speed at S.L. (B) kn.	247.2	244.9	235.9	
Max. speed/altitude (B) kn./ft.	252/11,500	249.5/11,500	239.5/10,000	
LANDING WEIGHT 10% Int. Fuel lb.	11,917	12,178	13,431	
Fuel lb.	193	193	193	
Stall speed—power-off (D) /approach power (E) kn.	67.5/54.6	68.2/55.2	71.5/58	
Landing distance to clear 50 ft. obst. ft.	870	890	1330	

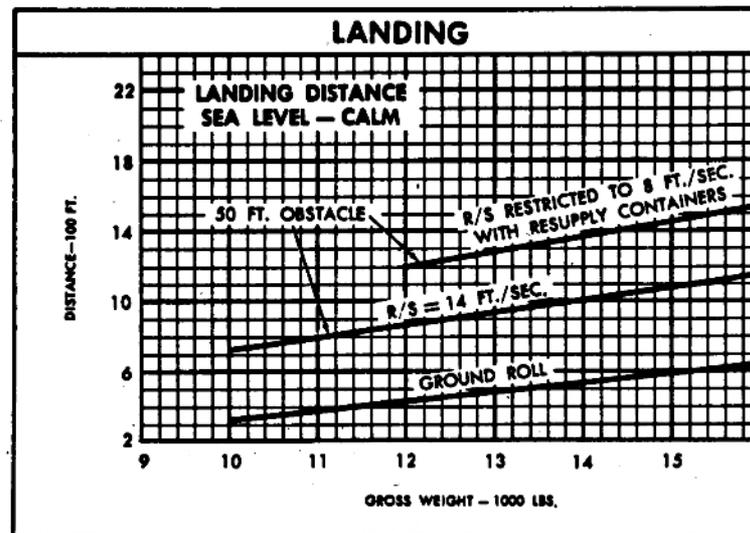
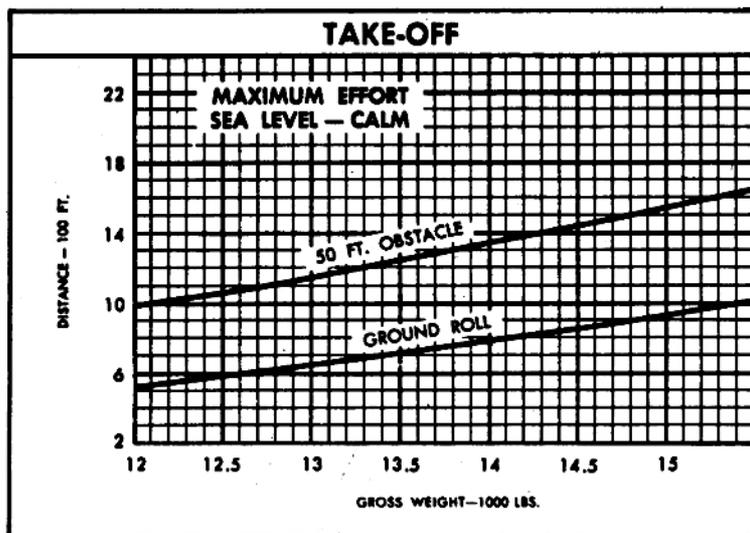
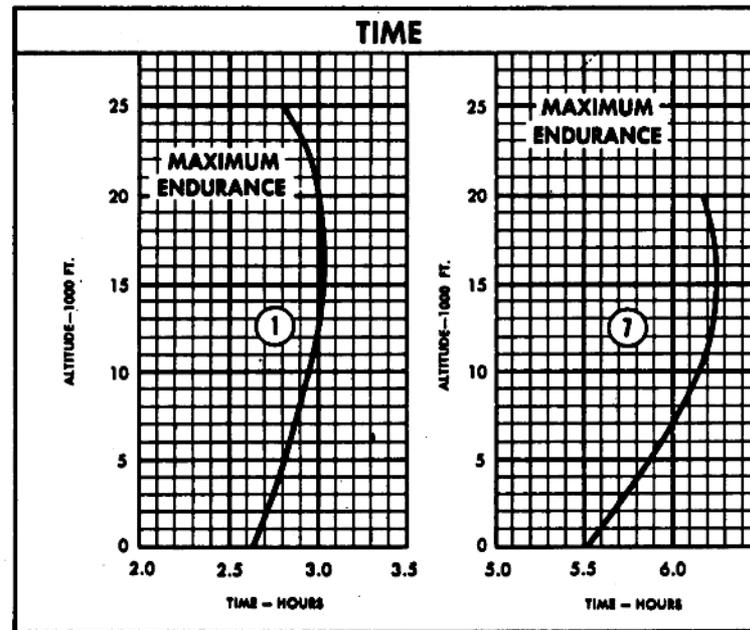
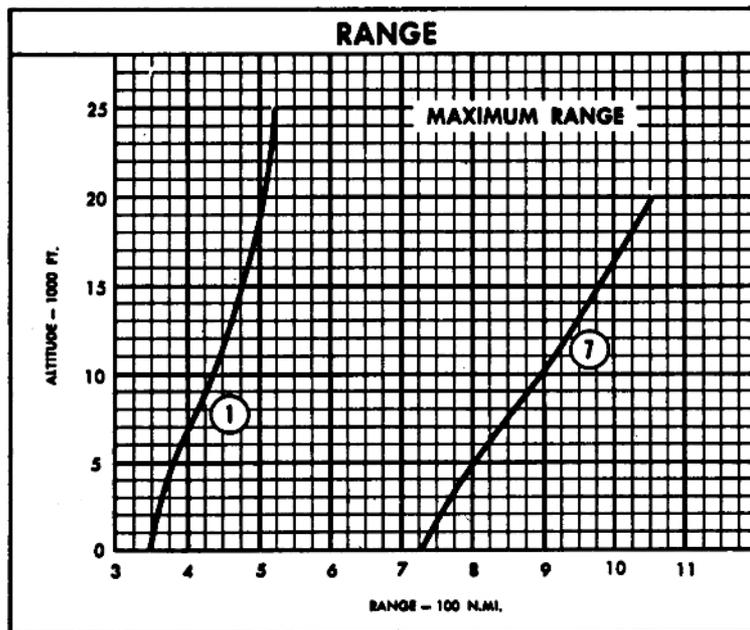
## NOTES

- (A) Normal Rated Power  
 (B) Military Rated Power  
 (C) See notes on Mission Specifications.

- (D) Flight idle power, propeller control at max rpm.  
 (E) Power for level flight at 120 percent of stall speed, power off, propeller control at max rpm.



○ LOADING CONDITION COLUMN NUMBER

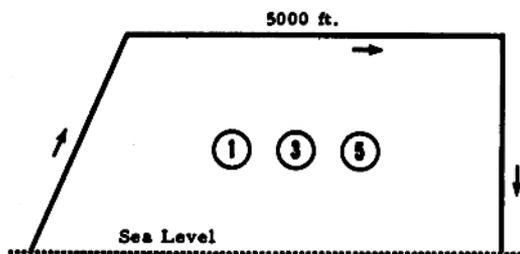


○ LOADING CONDITION COLUMN NUMBER

NOTES

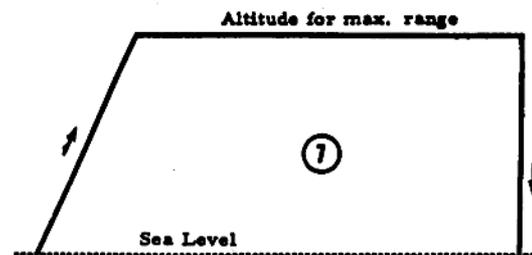
TACTICAL AIR OBSERVATION MISSION  
& NIGHT PHOTOGRAPHY

5 min. for warm-up, taxi, and take-off @ normal rated power  
Climb to 5000 ft. @ normal rated power  
Cruise @ 200 knots @ 5000 ft.  
Reserve-10% of initial internal fuel



FERRY MISSION

5 min. for warm-up, taxi, and take-off @ normal rated power  
Climb to altitude for max. range @ normal rated power  
Cruise at altitude and velocity for max. range  
Reserve-10% of initial internal fuel  
External fuel tanks dropped when empty



○ LOADING CONDITION COLUMN NUMBER