

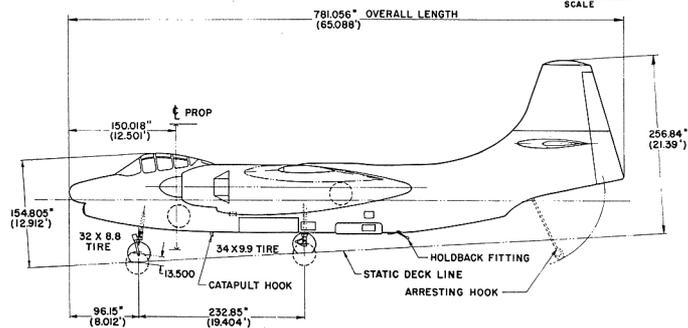
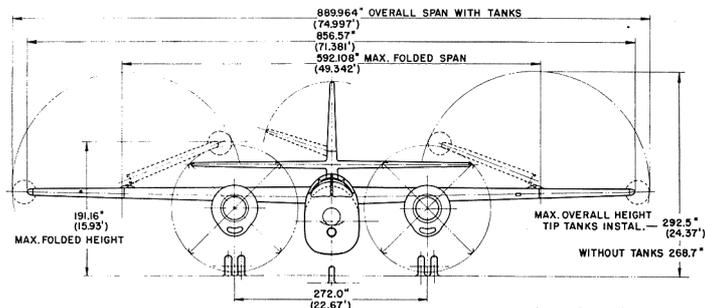
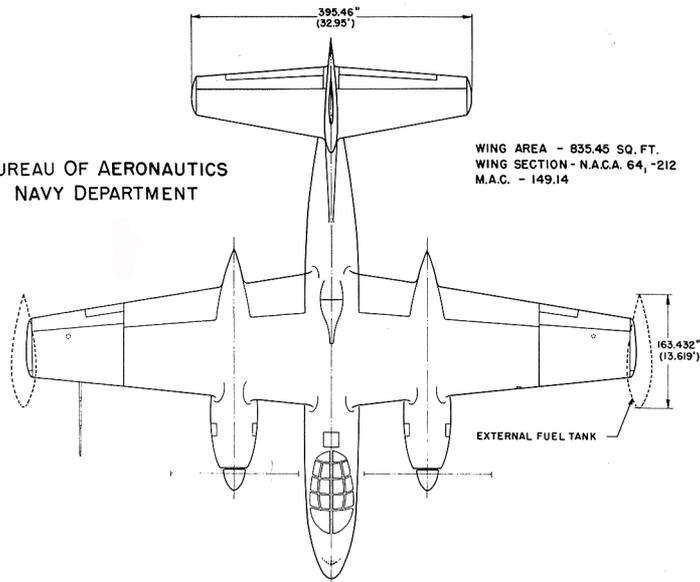
# STANDARD AIRCRAFT CHARACTERISTICS

## AJ-2P "SAVAGE"

NORTH AMERICAN

Standard Aircraft Characteristics MAVAER 1335A (REV. 1-49)

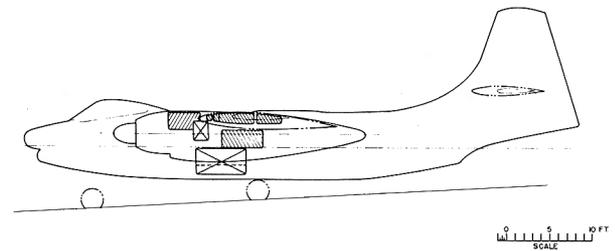
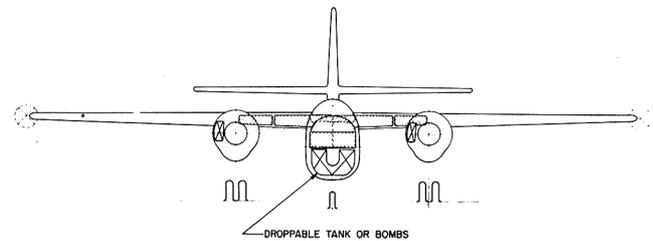
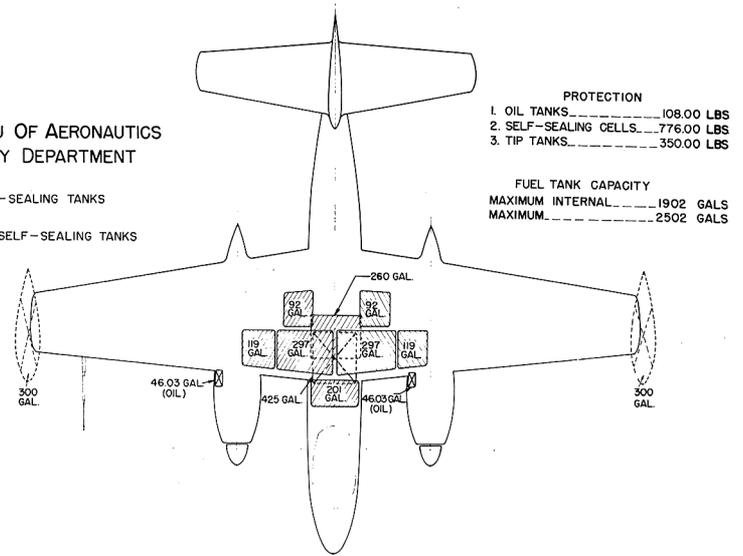
BUREAU OF AERONAUTICS  
NAVY DEPARTMENT



DESCRIPTIVE ARRANGEMENT

BUREAU OF AERONAUTICS  
NAVY DEPARTMENT

▨ SELF-SEALING TANKS  
☒ NON SELF-SEALING TANKS



ARMAMENT & TANKS

Standard Aircraft Characteristics NAVJER 1335B (Rev. 1-55)

**POWER PLANT**

NO. & MODEL.....(2) R-2800-44W  
 (1) J-33-A-10  
 MFR....Pratt & Whitney, Allison  
 SUPERCH., 1 Stg., 1 Spd. & Turbo  
 TURBO.....G.E.-7S-CH-S-F1  
 PROP. GEAR RATIO.....0.350  
 PROP. MFR.....Ham. Std.  
 PROP. DES. NO.....2E17M3-2HAD  
 NO. BL./DIA.....4/15'-1"

**RATINGS**

	Rhp	• Rpm	• Alt.
T. O.	2,300	2,800	S. L.
MIL.	2,300	2,800	30,000'
NORM.	1,800	2,600	37,600'

	Lbs.	• Rpm	• Alt.
T. O.	4,600	11,750	S.S.L.
MIL.	4,600	11,750	S.S.L.
NORM.	3,900	11,250	S.S.L.

SPEC. NOS. N-8127-B and 258-D

**MISSION AND DESCRIPTION**

The AJ-2P is a carrier-based photo-reconnaissance airplanes developed from the AJ-1 airplane. It will be used for both day and night photographic missions.

Principal differences from the AJ-1 are: larger vertical tail; no dihedral in horizontal tail; nose section of fuselage refaired to provide camera port; overall length 2 feet greater; smaller bomb bay; and camera stations immediately aft of bomb bay.

Mock-up date — January 1951  
 First flight — March 1952  
 Service use to start — April 1952

**WEIGHTS**

Loadings	Lbs.	L.F.
EMPTY.....	32,562.....	
BASIC.....	34,386.....	
DESIGN.....	48,040..	4.0
COMBAT.....	44,836..	4.2
MAX.T.O..(Field)	51,574*	3.7
	(Cat.)	51,574.....
MAX.LAND.(Field)	45,000.....	
	(Arrest)	37,500.....

All weights are estimated.

\*Maximum anticipated loading.

**FUEL AND OIL**

Gals.	No. Tanks	Location
1,016	6	Wing, S.S.
600	2	Tip, Drop
461	2	Fuse, S.S.
425	1	B.B., Drop
FUEL GRADE.....115/145		
FUEL SPEC....MIL-F-5572		

**OIL**

	R-2800	J-33	Turbo
CAP.(Gal.)	92	1	3
OIL GRADE	1120	1010	1010
MIL.SPEC.	0-6082	0-6081	0-6081

**ORDNANCE**

GUNS  
 None  
 BOMBS

Type	Location	No
M-120 Photoflash	Bomb Bay	14

**BOMB SIGHT**

Control Director.....Aero 7A

**CAMERAS**

4	K-38 - Aircraft Camera (Day Reconnaissance)
6	K-17C - Aircraft Camera (Day Reconnaissance)
4	T-11 - Aircraft Camera (Mapping and Charting)
3	K-37 - Aircraft Camera (Night Reconnaissance)
3	CA-8 - Aircraft Camera (Mapping and Charting)
3	CAS-2 - Aircraft Camera (Day Reconnaissance, strip) (See NOTES)

**DIMENSIONS**

WING AREA.....	836 sq. ft.
SPAN.....	71' - 5"
LENGTH.....	65' - 1"
HEIGHT.....	21' - 5"
TREAD.....	22' - 8"
M.A.C.....	12' - 5"
PROP. CLEARANCE.....	1' - 2"

**ELECTRONICS**

UHF.....	AN/ARC-27
RANGE REC.....	AN/ARC-5
HOMING.....	AN/ARR-2A
RADIO COMPASS.....	AN/ARN-6
MARKER BEACON.....	AN/ARN-12
HF REC.....	AN/ARR-15A
HF TRANSMITTER.....	AN/ART-13
IFF.....	AN/APX-6
ALTIMETER.....	AN/APN-1 or -22
INTERPHONE.....	AN/AIO-4
ALTIMETER-HIGH ALT.....	SCR-718C
SEARCH RADAR.....	AN/APS-31A
	(See NOTES)

Standard Aircraft Characteristics NAVAER-1335C

## PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	(1) NIGHT RECONNAISSANCE 14-TONS Flash Bombs	(3) DAY RECONNAISSANCE	(4) NIGHT RECONNAISSANCE 14-TONS Flash Bombs	(5) DAY RECONNAISSANCE
TAKE-OFF WEIGHT lb.	50,886	51,574	46,916	44,704
Fuel (Fixed/Drop) lb.	8,862/3,600	8,862/6,150	8,862/-	8,862/-
Payload (Cameras, Bombs) lb.	3,234	1,231	3,234	1,231
Wing loading lb./sq.ft.	60.9	61.7	56.2	53.5
Stall speed - power-off kn.	98.0	98.6	94.0	91.8
Take-off run at S.L. - calm ft.	2,460(1,348)	2,593(1,402)	1,785(1,090)	1,522(950)
Take-off run at S.L. 25 kn. wind ft.	1,248(684)	1,324(715)	881(540)	730(465)
Take-off to clear 50 ft. - calm ft.	—	—	—	—
Max. speed/altitude (1) kn./ft.	278/30,000	275/30,000	293/32,000	300/33,000
Rate of climb at S.L. (1) fpm	840	810	1,020	1,120
Time: S.L. to 10,000 ft. (1) min.	12.6	13.1	10.3	9.4
Time: S.L. to 20,000 ft. (1) min.	27.9	29.0	22.3	20.1
Service ceiling (100 fpm) (1) ft.	34,000	33,000	35,500	37,000
Combat range n.mi.	1,770	2,285	1,250	1,380
Average cruising speed kn.	247	247	260	261
Cruising altitude(s) ft.	25,000	25,000	25,000	25,000
Combat radius n.mi.	810	1,030	525	560
Average cruising speed kn.	215	216	228	230
(2)				
COMBAT LOADING CONDITION	(2)			
COMBAT WEIGHT lb.	44,836			
Engine power	Nil., All Eng.			
Fuel lb.	8,862			
Combat speed/combat altitude kn./ft.	402/30,000			
Rate of climb/combat altitude fpm/ft.	1,810/30,000			
Combat ceiling (500 fpm) ft.	40,300			
Rate of climb at S.L. fpm	2,960			
Max. speed at S.L. kn.	328			
Max. speed/altitude kn./ft.	404/33,000			
LANDING WEIGHT lb.	36,972			
Fuel lb.	998			
Stall speed - power-off kn.	83.5			
Stall speed - with approach power kn.	71.8			

## NOTES

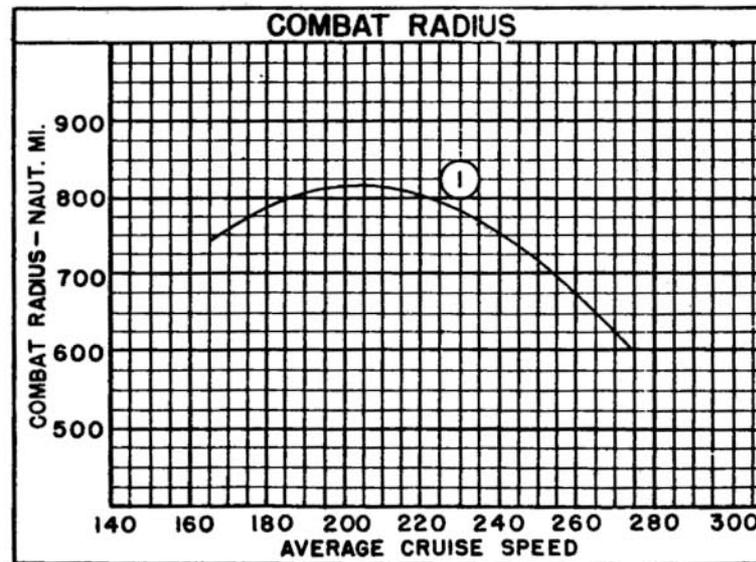
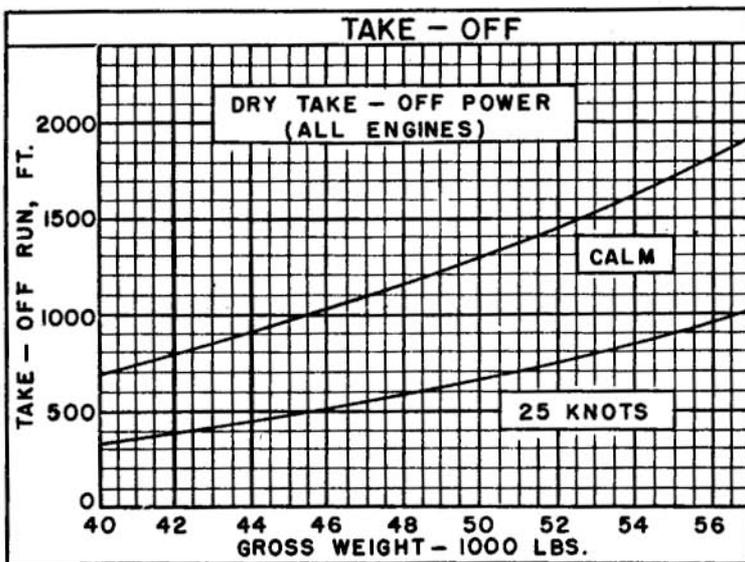
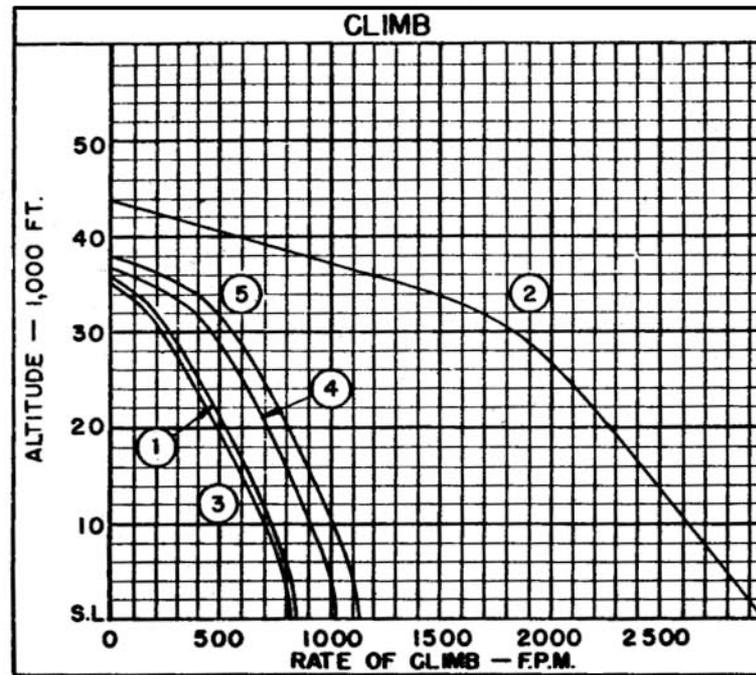
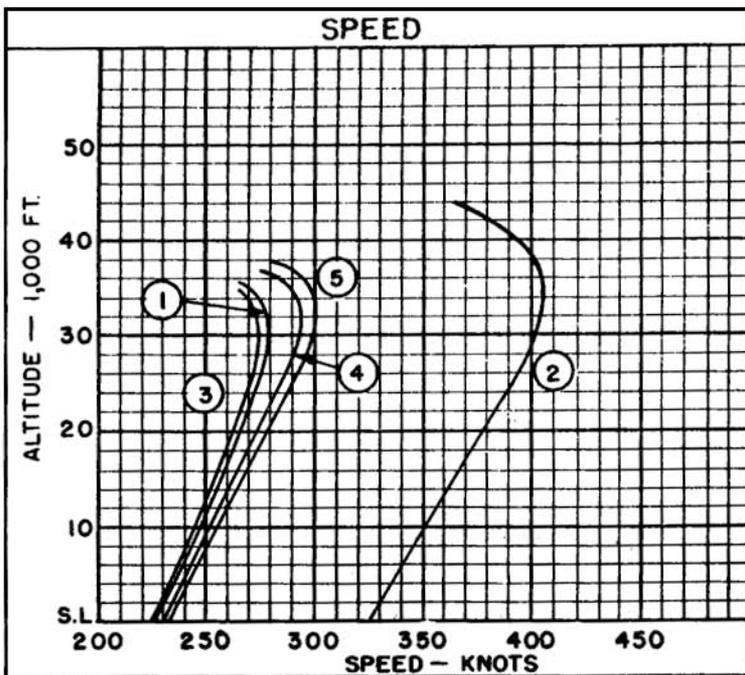
(1) Normal Power, Reciprocating Engines Only

Performance is based on calculations and partial AJ-1 flight test results.

Take-off distances are for take-off power on reciprocating engines. Figures in parenthesis are for take-off power on all engines.

Tip tanks are carried at all times in conditions (1), (2), and (3). Cruising fuel consumption is better with tip tanks on than with tanks off.

Combat range and radius are based on AJ-1 flight raised by 5%.



○ LOADING CONDITION COLUMN NUMBER

Standard Aircraft Characteristics NAVAER 1335E (REV. 2-50)

# NOTES

Spotting: 200 ft. length is required to spot 6 airplanes on the 96 ft. wide deck immediately aft of the forward ramp on the CV-9 class carrier.

## HIGH ALTITUDE RECONNAISSANCE COMBAT RADIUS PROBLEM

WARM-UP, TAXI, TAKE-OFF: Reciprocating engines: 10 minutes at normal power.  
Jet engine: 5 minutes at normal power.

CLIMB: On course to 25,000 feet at normal power. Jet off.

CRUISE-OUT: At 25,000 feet at V for long range. Jet off. Tip tanks retained.

CLIMB: On course to 30,000 feet at normal power. Jet off. Climb ends 57 nautical miles from target.

CRUISE-OUT: 43.5 nautical miles at 30,000 feet at V for long range. Jet off.

RUN-IN: 43.5 nautical miles at 30,000 feet at military power, all engines.

DROP FLARE, TAKE PHOTOGRAPHS

RUN-OUT: 43.5 nautical miles at 30,000 feet at military power, all engines.

DESCEND: To 10,000 feet. (No fuel used, no distance gained.)

CRUISE-BACK: At 10,000 feet at V for long range. Jet off.

DESCEND: To 1,500 feet. (No fuel used, no distance gained.)

RESERVE: 30 minutes at V for long range at sea level (jet off) plus 5% of initial fuel load.

COMBAT RADIUS = CLIMBS + CRUISE-OUT + RUN-IN + RUN-OUT + CRUISE-BACK

## ORDNANCE (Continued)

### CAMERAS (Continued)

3 AN-N-9 - Camera, gun  
1 A-10 - Camera, Aerial motion picture  
1 AN-N6A - Camera, gun  
1 A-28A - stabilized camera mount  
6 MA-10 - Image motion compensating magazines  
1 A-16VF - Optical viewfinder

### CAMERA STATIONS

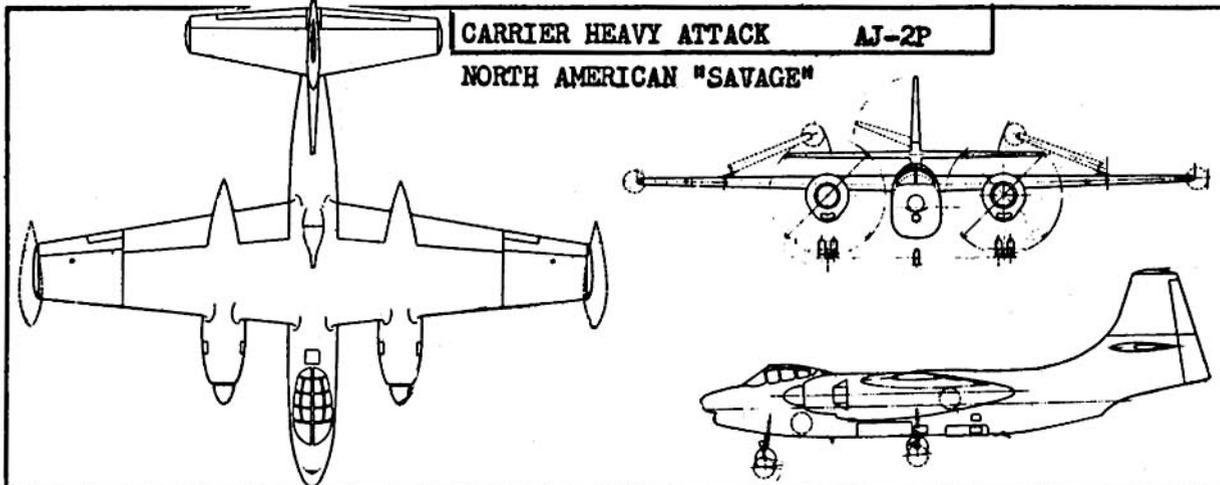
Forward oblique  
Trimetrogon  
Prime vertical  
Left oblique  
Right oblique

## ELECTRONICS (Continued)

RADIO HOMING.....AN/ARN-21  
(Planned Service Installation)  
IFF (I-R UNIT).....AN/APX-17  
(Planned Service Installation)

Provisions for:  
VHF.....AN/ARC-1 or -1A

# CHARACTERISTICS SUMMARY



CARRIER HEAVY ATTACK AJ-2P  
NORTH AMERICAN "SAVAGE"

WING AREA 836 sq. ft.  
WING SPAN 71' - 5"

LENGTH 64' - 1"  
HEIGHT 21' - 5"

AVAILABILITY			PROCUREMENT			
NUMBER AVAILABLE			NUMBER DELIVERED IN FISCAL YEARS			
ACTIVE	RESERVE	TOTAL				

STATUS	
Mockup date .....	January 1951
First Flight .....	March 1952
Service Use .....	April 1952

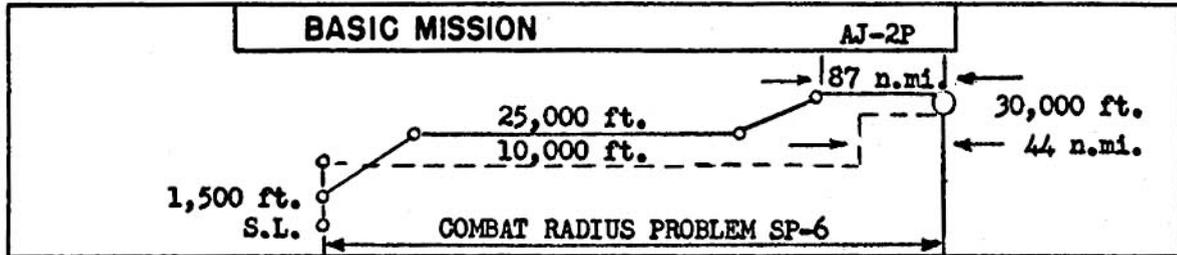
ENGINES
2 P & W R-2800-44W
1 Allison J-33-A-10
T.O. 2300/2800/S.L.
4600/11750/S.S.L.
MIL. 2300/2800/30000'
4600/11750/S.S.L.
NORM. 1800/2600/37600'
3900/11250/S.S.L.

FEATURES
CREW - 3
Folding wings and vertical fin
Catapulting provisions
Arresting gear
Pressurized Cabin
2,502 gals. fuel (usable) Maximum Cap.

ARMAMENT
GUNS - None
(14) T-9E-8 Photo Flash Bomb Bay
Control Director - Aero 7A

NAVAER 1519 A (REV. 1-49)

## CHARACTERISTICS SUMMARY



### PERFORMANCE

COMBAT RADIUS	COMBAT RANGE	SPEED
839 naut. mi. 207 knots avg. Mission Time: 8.3 hrs. Mission: Night Reconnaissance. 14 - T98 Flash Bombs	1,883 naut. mi. 230 knots avg. 8.6 hours	384 knots at 30,000 ft. 340 knots at 10,000 ft. 308 knots at Sea Level  Combat Weight (3 engines) Mil. Power
CLIMB	CEILING	TAKE OFF
970 ft./min. Sea Level, T. O. wt. Normal Power (Recip)	34,250 ft. 100 ft./min., T. O. wt. Normal Power (Recip)	2,200 ft. - Calm (Reciprocating engines only)
2,875 ft./min. Sea Level, Combat Wt. Mil. Power (3 engines)	40,500 ft. 500 ft./min., Combat Wt. Mil. Power (3 engines)	1,300 ft. - 25 kn (Reciprocating engines only)
LOAD	WEIGHTS	STALLING SPEED
Fuel 2,077 gal. (Gasoline) fixed 1,477 drop 600	Empty 31,900 lbs. *Combat 46,656 lbs. Take-off 50,256 lbs.  *Includes payload	103.9 knots (Power-Off) Flaps down, T. O. wt.
Payload: 3,443 lbs. of flash bombs, cameras		TIME TO CLIMB
		25,000 ft. in 9.7 min. Combat Wt., Mil. Power (3 engines)

### NOTES

PERFORMANCE is based on NATESTCEN and Contractor's flight test data.  
COMBAT RADIUS and RANGE are based on flight test fuel consumption increased by 5%.  
REASON FOR REISSUE: Availability of NATESTCEN Data.