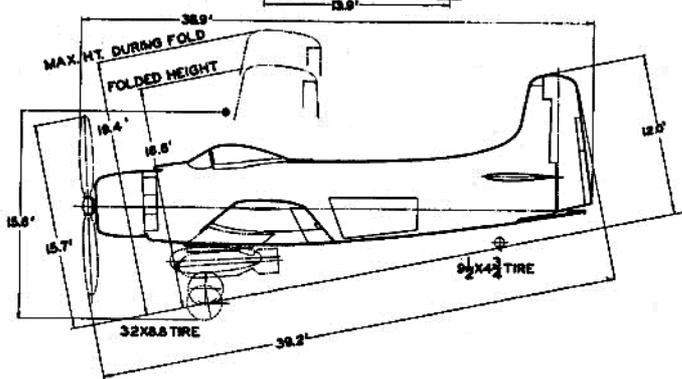
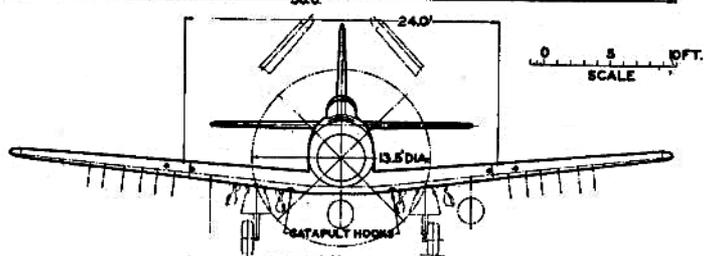
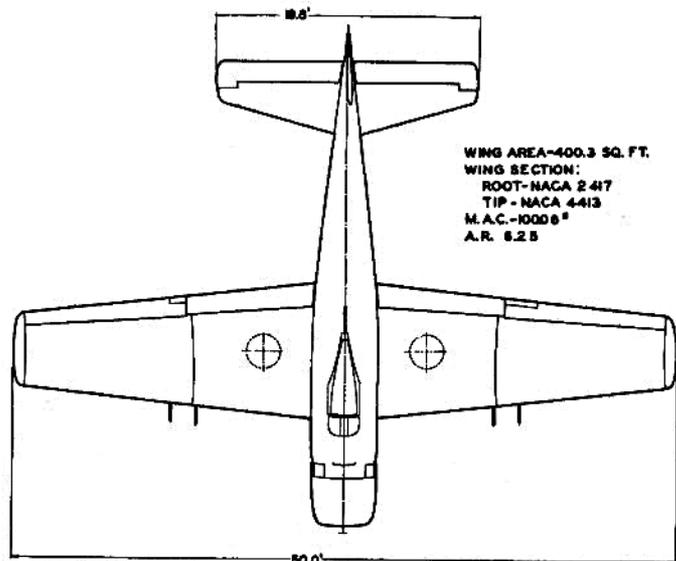




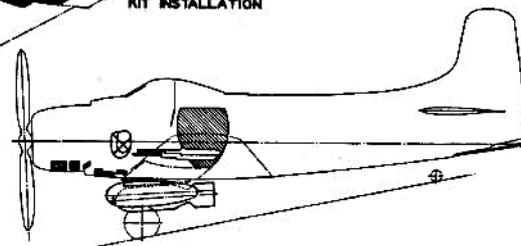
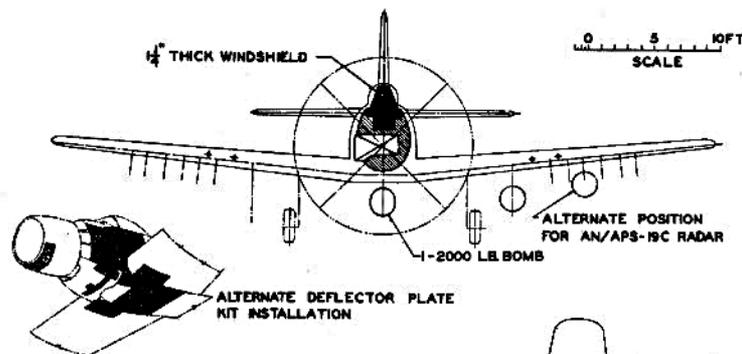
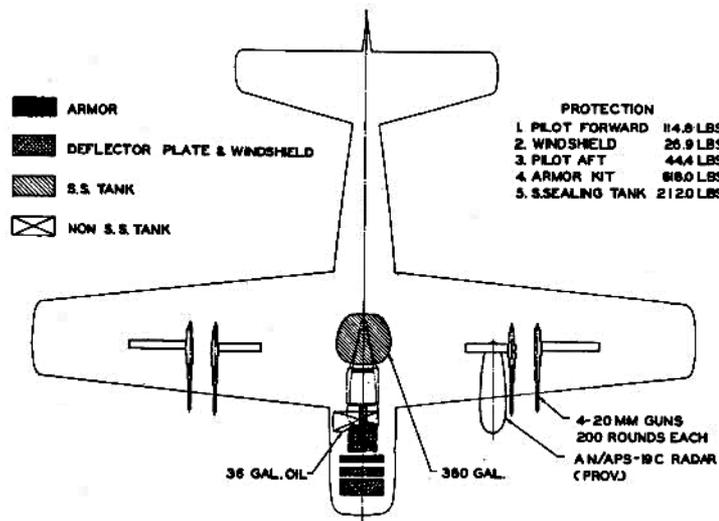
STANDARD AIRCRAFT CHARACTERISTICS

AD-6 "SKYRAIDER"

DOUGLAS



DESCRIPTIVE ARRANGEMENT



ARMAMENT & TANKAGE

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

POWER PLANT

NO. & MODEL (1) R-3350-26-WA
MFR. Wright Aero
SUPERCH 1 Stage, 2 speed
REDUCTION GEAR RATIO .4375:1
PROP. MFR. Aero Products
BLADE DES. A-642-G-805/M20A2-162-O
NO. BLADES/PROP. DIA. 4/13' 6"

RATINGS

	BHP	RPM	ALT
T.O.	2700	2900	S.L.
MIL.	2700 2100	2900 2600	S.L. to 3700' 11500' to 14500'
NORM.	2300 1900	2600 2600	S.L. to 6200' 12000' to 17000'

SPEC. NO. E-836D

ORDNANCE

GUNS

NO.	SIZE	LOCATION	RDS.
4	20mm, M-3	Wings	800
Armament Control Sys. (LABS) Aero 18C			

EXTERNAL LOAD

RACKS	NO.	LOCATION	MAX. CAP.
Aero 3A Bomb Ejector	1	Fuselage C.L.	3500 lb.
Mk. 51 with Aero 1-A Adapter	2	Inner Wing	4000 lb.
Aero 1AD-2 or Aero 1AE	12	Outer Wing	3000 lb.

1 Mk. 7, Mk. 8, Mk. 12, Mk. 91, or BOAR stores can be carried at the fuselage c.l.

MISSION AND DESCRIPTION

The AD-6 airplane's primary mission is the destruction of sea and ground targets by dive bombing attacks. The airplane is also capable of torpedo, glide bombing, rocket attacks and tactical support missions. The AD-6 is designed to operate from all classes of naval aircraft carriers or from land bases.

The single-place airplane is conventional in design and structure, landing gear, canopy, flaps, wing folding, and three fuselage dive brakes are operated hydraulically. Flaps are MACA single-slotted trailing-edge type. The pressure-balance type ailerons are operated by power boost. The rudder is equipped with a spring tab system. Longitudinal trim is achieved by an electrically adjustable stabilizer. Power plant, engine mount, and elevators are conventional. Oxygen for five hours is supplied.

The centerline bomb station of the AD-6 is capable of carrying external stores up to 3,500 lbs. weight and 30 inches diameter. A combination 14 and 30 inch suspension bomb ejector is installed. A bomb director suitable for either high or low altitude bombing is installed.

Wing bomb racks are similar to previous AD series, except the pylons are located 14 inches forward of the location of AD-4 and previous models. Aero 1A adapters (30-inch suspension) are provided for stores weighing over 2,000 lbs.

An external armor kit provides increased flak and small arms protection and can be readily removed or installed as dictated by operational requirements.

DEVELOPMENT

Prototype - - - - - AD-4B
First Flight - - - - - June 1953
Service Use - - - - - September 1953

DIMENSIONS

WING
AREA.....400 Sq. Ft.
SPAN.....50' - 0"
MAC.....8' - 4"
LENGTH.....39' - 2"
HEIGHT.....15' - 8"
TREAD.....13' - 11"
PROP. GRD. CLEARANCE.....6"

WEIGHTS

LOADINGS	LBS.	L.F.
EMPTY.....	11,902.....	
BASIC.....	13,111.....	
DESIGN.....	15,595.....	7.0
COMBAT.....	16,006.....	6.8
MAX. T.O. (Field).....	25,000.....	
(Cat.).....	25,000.....	
MAX. LAND. (Field).....	21,000.....	
(Arrest).....	17,500.....	

ALL WEIGHTS ARE CALCULATED

FUEL AND OIL

NO. TANKS	TOTAL GAL.	LOCATION
1	380	Fuselage
1	150 or 300	Ctr. Drop
2	150 or 300	Wing Drop

FUEL GRADE.....115/145
FUEL SPEC.....MIL-F-5572

OIL

CAPACITY (Gal.).....36
GRADE.....1120
SPEC.....AN-O-8

ELECTRONICS

UHF.....AN/ARC-27A
IFF.....AN/APX-6B, AN/APA-89
LF ADF.....AN/ARN-6
UHF DIR. FINDER.....AN/ARA-25
RADIO ALTIMETER.....AN/APB-22
MARK. BEACON REC.....AN/ARN-12
TACAN (Alt. to AN/ARN-6).....AN/ARN-21
SEARCH RADAR (Proc.).....AN/APS-19 C

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	(1) ATTACK 1-2,000 Lb. Bomb	(3) ATTACK 1-1,660 Lb. Store	(4) ATTACK 1-1,660 Lb. Store 2-300 Gal. Aero 1 A Fuel Tanks	(5) ATTACK 1-2,000 Lb. Bomb 2-150 Gal. Tanks 12-5 in. HVAR	
TAKE-OFF WEIGHT	lb.	18,918	18,578	22,588	22,602
Fuel	lb.	2,280	2,280	5,880	4,080
Payload	lb.	2,000	1,660	1,660	3,680
Wing loading	lb./sq.ft.	47.3	46.4	56.5	56.5
Stall speed - power-off	kn.	86.1	85.3	94.1	94.1
Take-off run at S.L. - calm (B)	ft.	1,155	1,110	2,070	2,080
Take-off run at S.L. 25 kn. wind (B)	ft.	630	600	1,145	1,150
Take-off to clear 50 ft. - calm	ft.	--	--	--	--
Max. speed/altitude (B)	kn./ft.	290/15,500	293/15,630	279/15,400	266/15,200
Rate of climb at S.L. (A)	fpm.	2,000	2,140	1,475	1,400
Time: S.L. to 10,000 ft. (A)	min.	5.1	5.0	7.6	8.0
Time: S.L. to 20,000 ft. (A)	min.	12.4	12.2	20.1	21.8
Service ceiling (100 fpm) (A)	ft.	31,100	31,650	26,550	25,750
Combat range	n.mi.	729	752	1,980	1,143
Average cruising speed	kn.	170	170	170	170
Cruising altitude(s)	ft.	5,000	5,000	5,000	5,000
Combat radius	n.mi.	268	273	680 (c)	561
Average cruising speed	kn.	170	170	170	170
Total Mission Time	hrs	3.5	3.5	8.2	6.9
COMBAT LOADING CONDITION	(2)	CLEAN			
COMBAT WEIGHT	lb.	16,006			
Engine power		Military			
Fuel	lb.	1,368			
Combat speed/combat altitude	kn./ft.	277/Sea Level			
Rate of climb/combat altitude	fpm/ft.	3,230/Sea Level			
Combat ceiling (500 fpm)	ft.	31,300			
Rate of climb at S.L.	fpm.	3,230			
Max. speed at S.L.	kn.	277			
Max. speed/altitude	kn./ft.	303/15,800			
LANDING WEIGHT	lb.	14,858			
Fuel	lb.	220			
Stall speed - power-off	kn.	76.3			
Stall speed - with approach power	kn.	71.7			

NOTES

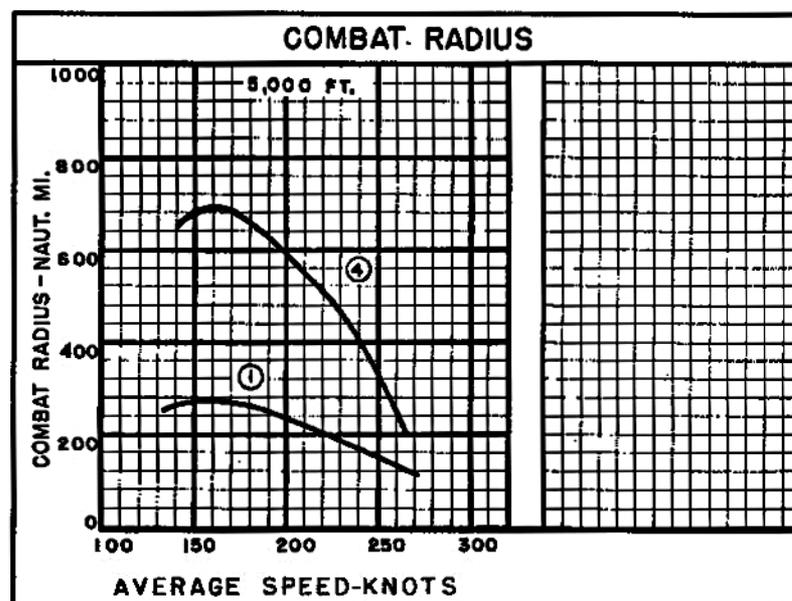
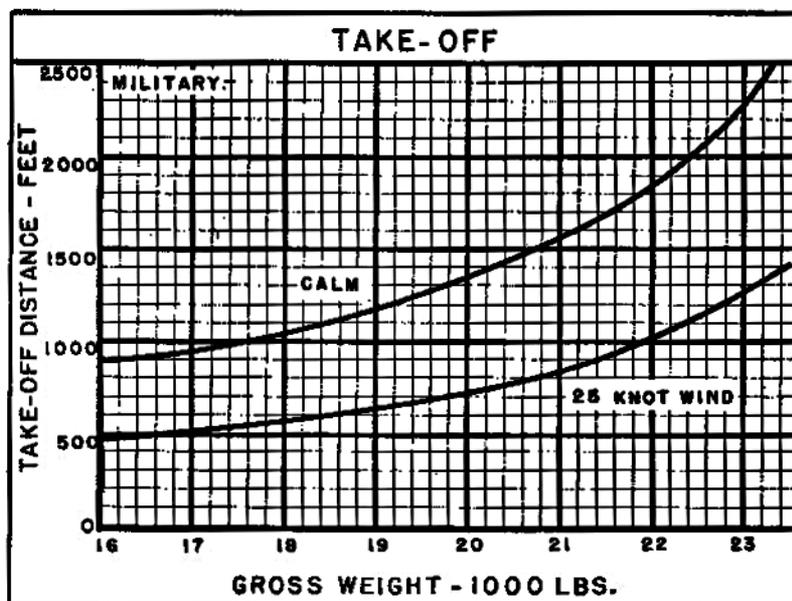
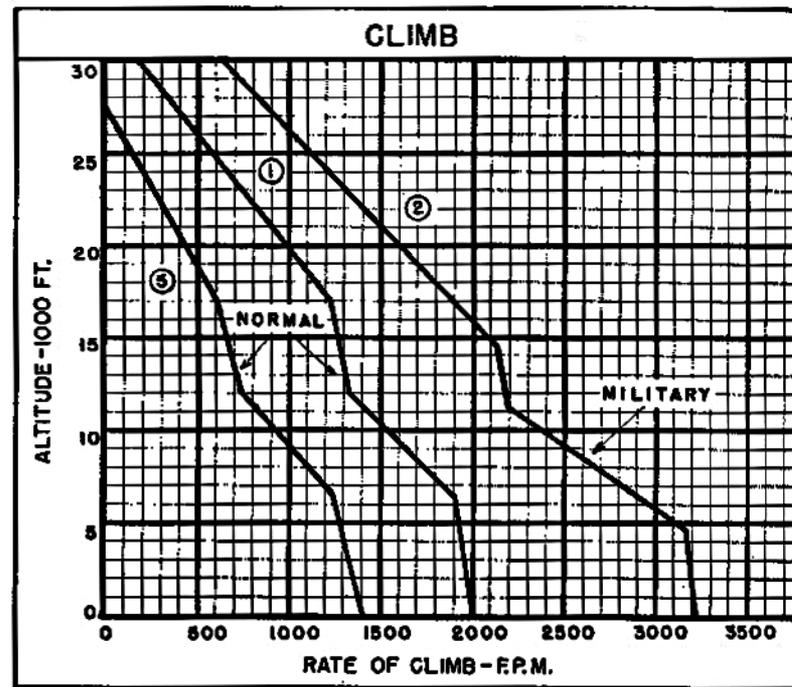
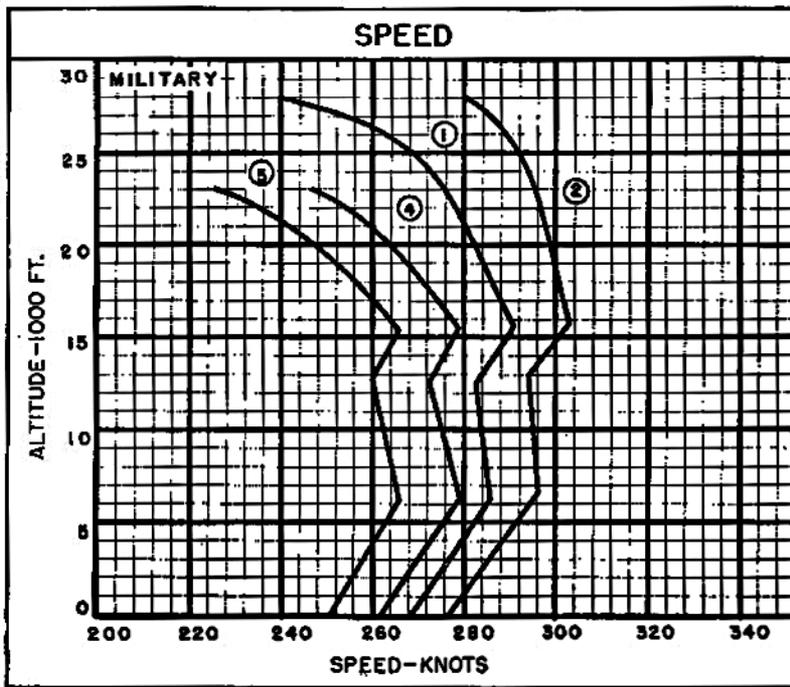
(A) Normal Rated Power.

(B) Military Rated Power.

(C) External fuel tanks and 1,258# of external fuel dropped prior to combat.

Performance Basis: Performance is calculated and based on flight tests of Models AD-4B, AD-5 & AD-6 Airplanes. Combat range and radius are based on fuel consumption data from AD-4B, AD-5 and AD-6 flight tests.

All loadings include centerline and inner wing bomb racks, 12 Aero 14 racks and 4-20 MM guns.



○ LOADING CONDITION COLUMN NUMBER

Standard Aircraft Characteristics NAVAER 1335E (Rev. 1-55)

NOTES

SPOTTING: A maximum operating spot aboard a CVA-19 (Angled Deck) class carrier consists of 42 aircraft on the flight deck with elevators and landing area clear and 41 aircraft on the hangar deck with hangar bay fire doors and elevators clear. Total - 83 aircraft.

LOW ALTITUDE ATTACK AND GROUND SUPPORT BOMBER

WARM-UP, TAKE-OFF, ACCELERATE: 10 minutes at normal rated power at sea level.

CLIMB: To 5,000 ft. at normal rated power.

CRUISE-OUT: At speed for long range at 5,000 ft.

DESCEND: To sea level - no fuel used - no distance gained.

DROP BOMBS AND FIRE ROCKETS

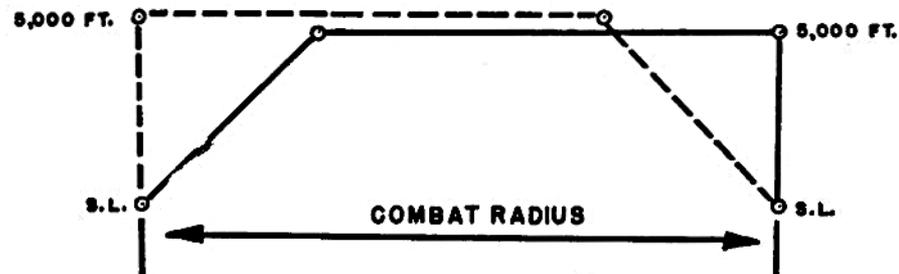
COMBAT: 5 minutes at maximum power plus 10 minutes at normal rated power at sea level.

CLIMB: To 5,000 ft. at normal rated power.

CRUISE-BACK: At speed for long range at 5,000 ft.

RESERVE: 20 minutes at speed for long range at Sea Level plus 5% of initial fuel.

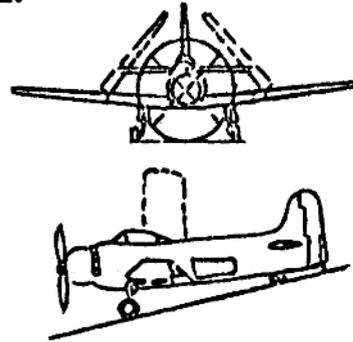
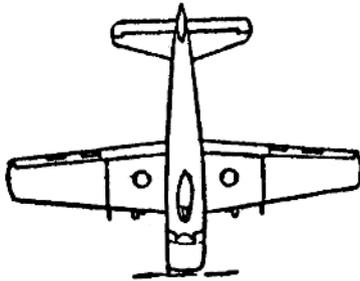
MISSION TIME = TIME REQUIRED FOR CLIMB + CRUISE-OUT + COMBAT + CLIMB + CRUISE-BACK



CHARACTERISTICS SUMMARY

LOW ALTITUDE ATTACK AD-6

DOUGLAS "SKYRAIDER"



WING AREA 400 Sq. Ft.
WING SPAN 50 Ft.

LENGTH 39' - 2"
HEIGHT 15' - 8"

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

STATUS	
First Flight	June 1953
Service Use	September 1953

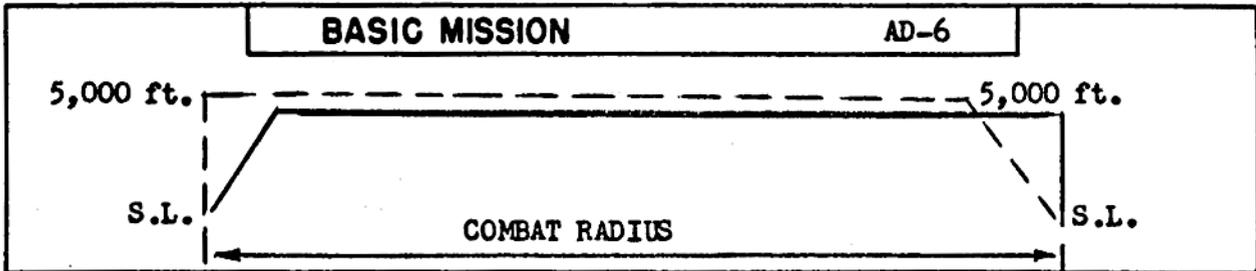
ENGINES			
1 WAC R-3350-26WA			
	<u>BHP</u>	<u>RPM</u>	<u>ALT.</u>
T.O.	2700	2900	S.L.
MIL.	2700	2900	S.L.- 3700'
	2100	2600	11500'- 14500'
NORM.	2300	2600	S.L.- 6200'
	1900	2600	1200'- 17000'

FEATURES
Crew - 1
Power Operated Canopy
Dive Brakes
Single Slotted Flaps
Folding Wings
1,280 gallons of fuel, Maximum Capacity

ARMAMENT			
<u>GUNS</u>			
<u>NO.</u>	<u>SIZE</u>	<u>LOCATION</u>	<u>RDS.</u>
4	20mm	Wings	800
<u>BASIC MISSION</u>			
1-2000 lb. G.P. Bomb			
<u>BOMBS, ROCKETS, SPECIAL</u>			
<u>WEAPONS</u>			
<u>LOCATION</u>		<u>MAX. CAP.</u>	
Fuse C. L.		3500 lb.	
Inner wing		4600 lb.	
Outer wing		5000 lb.	
Max. Load cap.		8000 lb.	

NAVA. 1519 A (REV. 1-49)

CHARACTERISTICS SUMMARY



PERFORMANCE

COMBAT RADIUS	COMBAT RANGE	SPEED
270 naut. mi. 170 knots avg. Mission Time 3.5 hrs. Basic Mission: Low Altitude Attack - (1) 2000 lb. G.P. Bomb	730 naut. mi. 170 knots avg. — hours	277 knots at S.L. ft. 289 knots at 5,000 ft. 303 knots at 15,800 ft. Combat Weight Military Power
CLIMB	CEILING	TAKE OFF
2,000 ft./min. Sea Level, T. O. wt. Normal Power	31,100 ft. 100 ft./min., T. O. wt. Normal Power	1,155 ft. - calm No Assist
3,210 ft./min. Sea Level, Combat wt. Military Power	31,300 ft. 500 ft./min., Combat wt. Military Power	630 ft. 25 kt. wind No Assist
LOAD	WEIGHTS	STALLING SPEED
Fuel 380 gal. fixed 380 drop - -	Empty 11,902 lbs. * Combat 16,006 lbs. Take-off 18,918 lbs. * BOMB NOT RETAINED	86.1 knots Power Off Flaps down, T. O. wt.
		TIME TO CLIMB
		10,000 ft. in 5.1 min. T.O.Wt., Normal Power

NOTES

Performance Basis: Calculations and flight test of AD-4B, AD-5 and AD-6. Range and radius are based on fuel consumption data from AD-4B, AD-5, and AD-6 Flight Test.