

# STANDARD AIRCRAFT CHARACTERISTICS

Standard Aircraft Characteristics NAVAER 1355A (REV. 1-55)

7

CLASSIFICATION (CANCELED) (CHANGED TO **AD-6**)  
 BY AUTHORITY OF

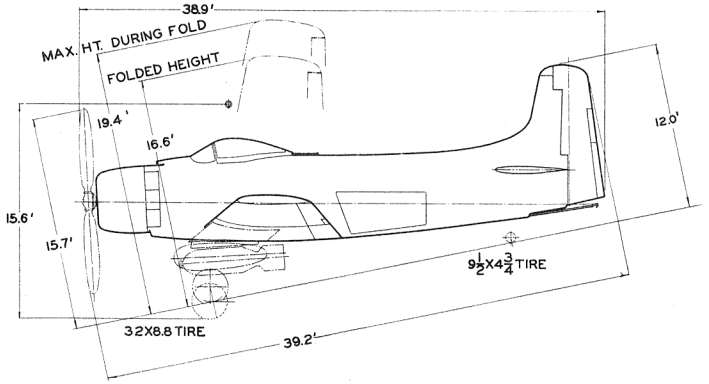
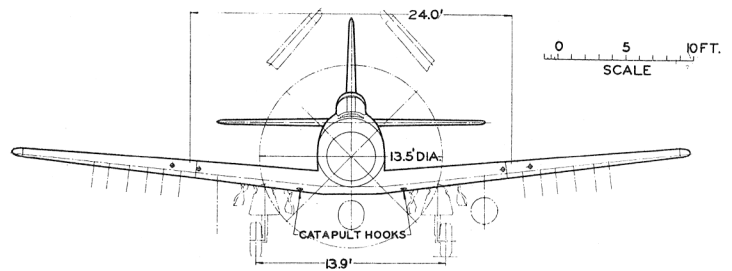
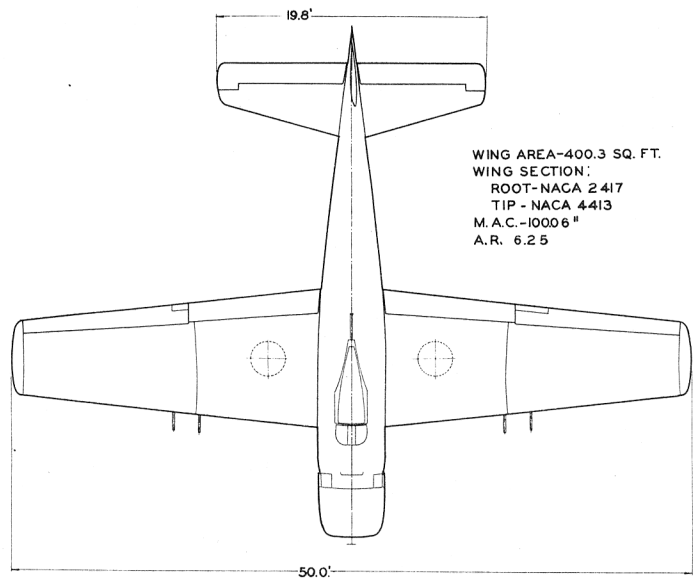
## "SKYRAIDER"

NAVAVC - AIR-960  
 ON 7/9/75 D. J. Walker, Sec. Spec.  
 (DATE) (SIGNATURE) (RANK)

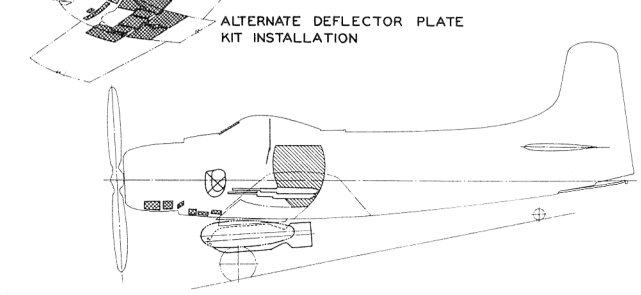
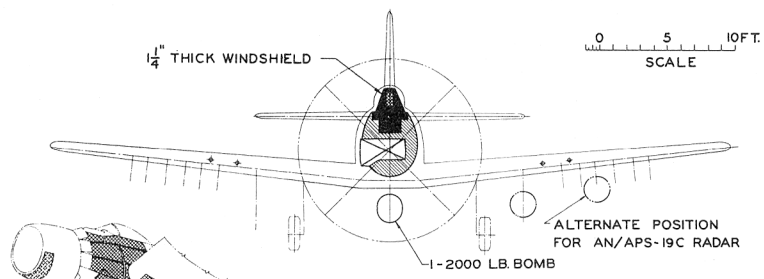
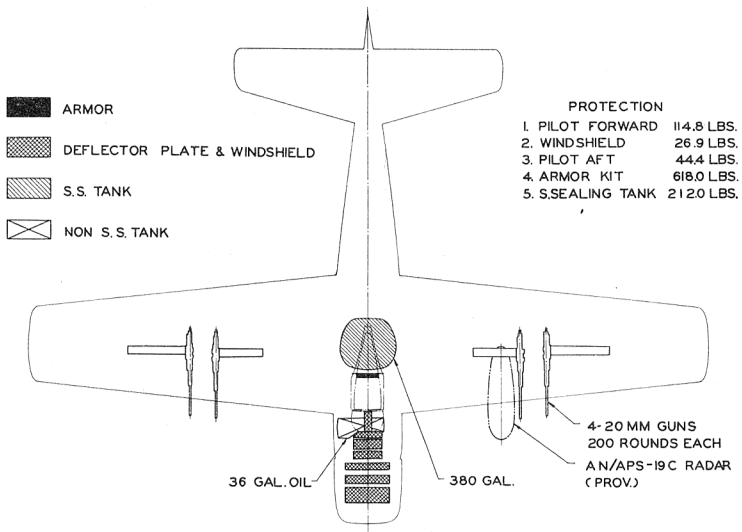
DOUGLAS

NAVAL AIR SYSTEMS COMMAND  
 DEPARTMENT OF THE NAVY

15 FEBRUARY 1956



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/M20A2-162-0  
 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. N-836D

**ORDNANCE**

GUNS

NO.	SIZE	LOCATION	RDS.
4	20mm, M-3	Wings	800
Armament Control Sys. (LAES) 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 14D-2 or Aero 14E	12	Outer Wing	3000 lb.

1 Mk. 7, Mk. 8, Mk. 12, Mk. 91, or BOAR store 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 NACA 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-557E

**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/APN-22
MARK. BEACON REC.....	AN/ARN-12
TACAN (Alt. to AN/ARN-6).....	AN/ARN-21
SEARCH RADAR (Prov.).....	AN/APS-19 C

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

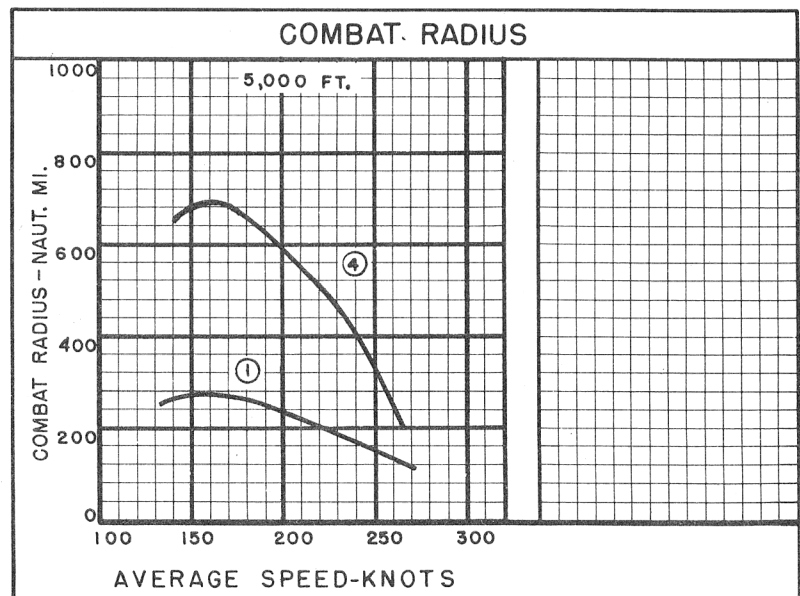
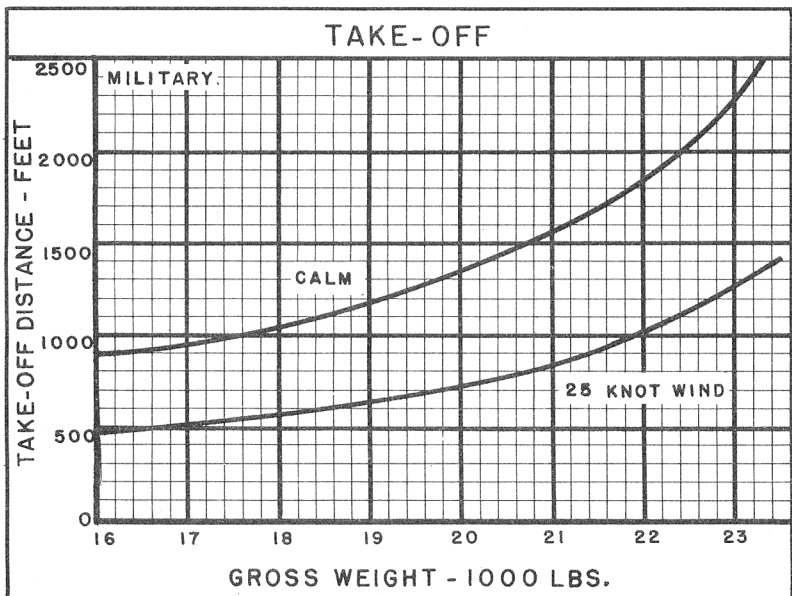
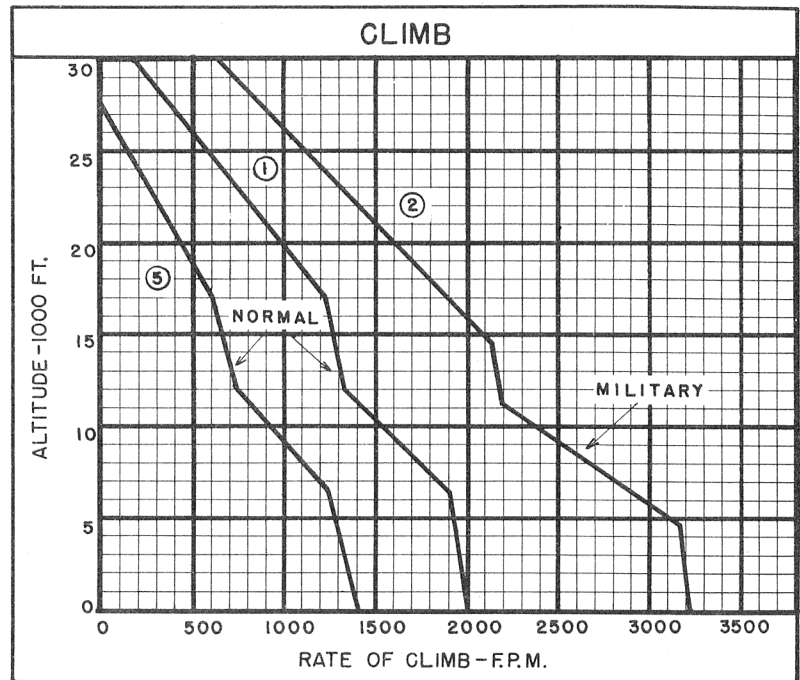
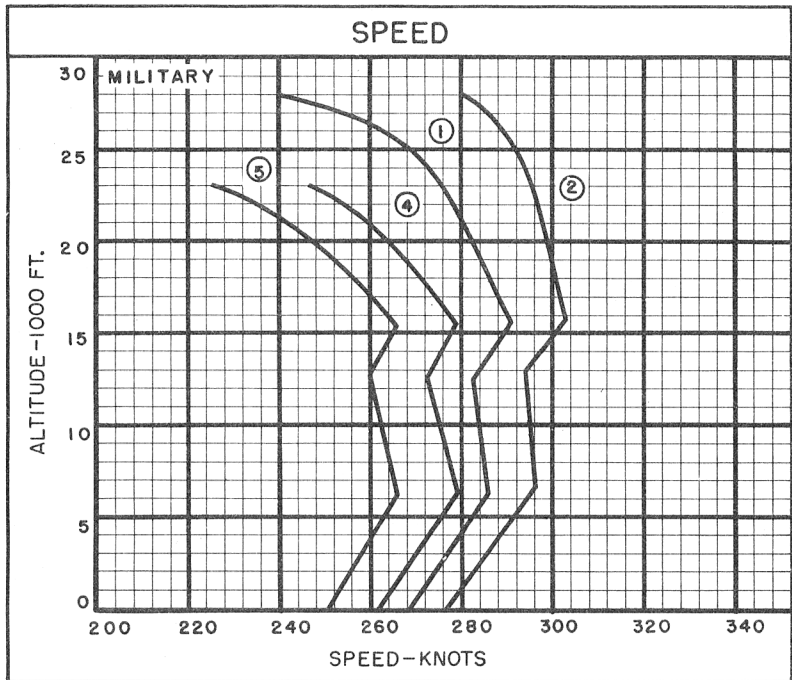
## PERFORMANCE SUMMARY

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
Fuel	lb.	2,280	2,280	5,880
Payload	lb.	2,000	1,660	1,660
Wing loading	lb./sq.ft.	47.3	46.4	56.5
Stall speed - power-off	kn.	86.1	85.3	94.1
Take-off run at S.L. - calm (B)	ft.	1,155	1,110	2,070
Take-off run at S.L. 25 kn. wind (B)	ft.	630	600	1,145
Take-off to clear 50 ft. - calm	ft.	--	--	--
Max. speed/altitude (B)	kn./ft.	290/15,500	293/15,630	279/15,400
Rate of climb at S.L. (A)	fpm.	2,000	2,140	1,475
Time: S.L. to 10,000 ft. (A)	min.	5.1	5.0	7.6
Time: S.L. to 20,000 ft. (A)	min.	12.4	12.2	20.1
Service ceiling (100 fpm) (A)	ft.	31,100	31,650	26,550
Combat range	n.mi.	729	752	1,980
Average cruising speed	kn.	170	170	170
Cruising altitude(s)	ft.	5,000	5,000	5,000
Combat radius	n.mi.	268	273	680 (C)
Average cruising speed	kn.	170	170	170
Total Mission Time	hrs.	3.5	3.5	8.2
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.

NAVARR-1335D (Rev. 1-55)



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

○ LOADING CONDITION COLUMN NUMBER

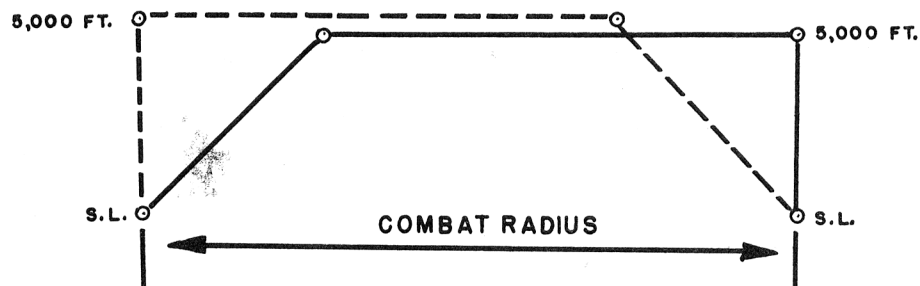
## NOTES

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



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