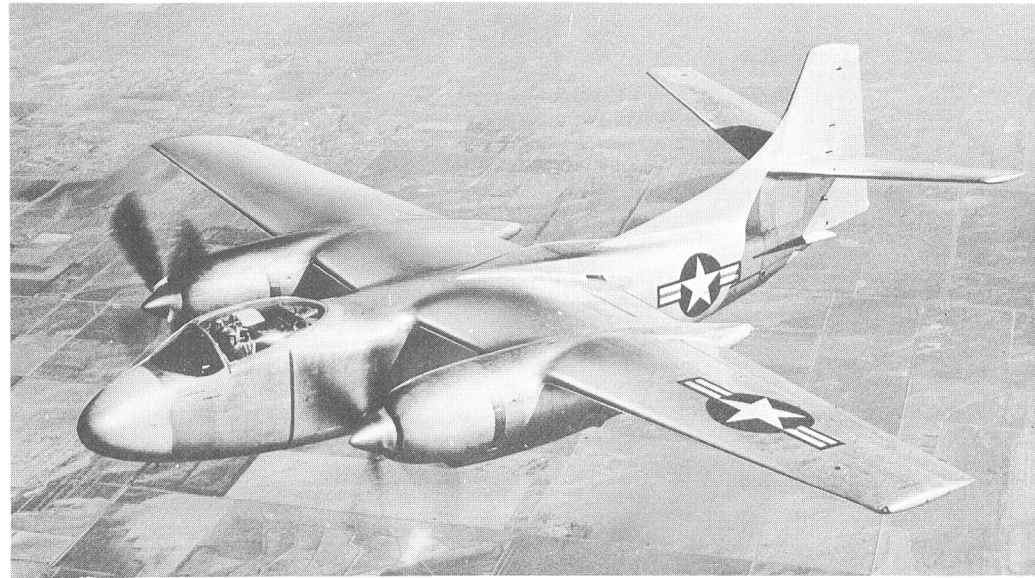


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BY T.A. Hill ON 12/19/96



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Standard Aircraft Characteristics NAVAR 1335A (REV. 1-55)

STANDARD AIRCRAFT CHARACTERISTICS

AJ-1 "SAVAGE"

NORTH AMERICAN

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30 JUNE 1957

AJ-1

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. CH-8
 PROP. GEAR RATIO.....0.350
 PROP. MFR.....Ham. Std.
 PROP. DES. NO.....2F17M3-24AC
 NO. BL./DIA.....4/15'-1"

RATINGS

	BHP	RPM	ALT
T.O.	2300	2800	S.L.
MILITARY	2300	2800	30000'
NORMAL	1800	2600	37600'
	LBS	RPM	ALT
T. O.	4600	11750	S.S.L.
MILITARY	4600	11750	S.S.L.
NORMAL	3900	11250	S.S.L.

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

MISSION AND DESCRIPTION

The AJ-1 is a carrier-based attack airplane. The first flight of the experimental model was made 3 July 1948. The first production delivery was June 1949.

The wing contains slotted flaps. The vertical fin folds and there is a crew of three in the pressurized cockpit. There is a power boost system for ailerons, elevators, and rudder.

The limit dive speed is 420 knots IAS at 5,000 feet altitude, and .78 Mach at high altitudes.

DEVELOPMENT

Mockup date (XAJ-1).....October 1946
 Service Use.....June 1949

WEIGHTS

LOADINGS	LBS.	L.F.
EMPTY.....	30,776.....	
BASIC.....	30,889.....	
DESIGN.....	48,040.....	4.0
COMBAT.....	46,352.....	4.0
MAX. T.O. (Field)	54,000.....	
(Cat.)	54,000.....	
MAX. ARREST (Field)	45,000.....	
(Arrest)	37,500.....	

All weights are actual.

FUEL AND OIL

GALS.	NO. TANKS	LOCATION
1,016	2	Wing, S.S.
201	1	Fuse., S.S.
600	2	Tip, Drop
840	1	Bomb Bay
500	1	Upper Bomb Bay
300	1	Lower Bomb Bay

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

OIL

	RECIP	JET	TURBO
CAP. (GAL)	57.0	3	3
OIL GRADE	1100	1010	1065
MIL. SPEC.	0-6082	0-6081	0-6082

ORDNANCE

GUNS

None

BOMBS

Type	Size	Location	No.
Bombs	100#	Bomb Bay	16
Bombs	250#	Bomb Bay	12
Bombs	500#	Bomb Bay	12
Bombs	1000#	Bomb Bay	8
Bombs	1600#	Bomb Bay	6
Bombs	2000#	Bomb Bay	4

Special Stores -- MK-5, 7, 8, 12, 15,
 91 and 39

(Only one of each type may be
 carried in Bomb Bay)

Mines (MK 39) 2000# Bomb Bay
 Mines (MK 25) 2000# Bomb Bay
 Mines 1000# Bomb Bay

BOMB DIRECTOR SET.....AN/ASB-1
 MAXIMUM BOMB CAPACITY.....12,000 lbs.

DIMENSIONS

WING AREA.....	836 sq. ft.
WING SPAN.....	71' - 5"
WING SPAN (with Tip Tanks).....	75' - 0"
WING SPAN (Folded).....	49' - 4"
HEIGHT.....	21' - 5"
HEIGHT (Folded).....	16' - 2"
HEIGHT (Folded with Tip Tanks)	17' - 4"
TREAD.....	22' - 8"
PROP. CLEAR.....	1' - 2"
M. A. C.....	12' - 5"

ELECTRONICS

VHF.....AN/ARC-1 or -1A
 RANGE REC.....R-23A/ARC-5
 HF LIAISON.....AN/ART-13
 HF REC.....AN/ARR-15A
 HOMING.....AN/ARR-2A
 ALTIMETER.....AN/APN-1
 MF RADIO COMPASS.....AN/ARN-6
 MARKER BEACON.....AN/ARN-8
 ALT. HIGH ALTITUDE.....SCR-718C
 SEARCH RADAR.....AN/APS-31, -31A
 or ASB
 IFF.....AN/APX-6
 UHF.....AN/ARC-27
 VOR-OMNI-RANGE.....AN/ARN-19
 INTERCOM.....AN/AIC-4

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

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PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1) ATTACK	(3) ATTACK	(4) ATTACK	(5) FERRY
		1 MK-5 Bomb 2-300 gal Tip Tanks 1-500 gal B.Bay Tank	1 MK-15 2-300 gal Tip Tanks	1 MK-5	2-300 gal Tip Tanks 1-840 gal B.Bay Tank
TAKE-OFF WEIGHT	lb.	49,952	50,963	42,418	49,351
Fuel	lb. (Fixed/Drop)	10,302/3,600	7,302/3,600	7,302/ -	12,342/3,600
Payload	lb.	3,025	7,600	3,025	-
Wing loading	lb./sq.ft.	59.8	61.0	50.8	59.1
Stall speed - power-off	kn.	103.0	104.0	95.4	102.4
Take-off run at S.L. - calm	(A) ft.	2,040(1,300)	2,200(1,420)	1,350(800)	1,960(1,250)
Take-off run at S.L. 25 kn. wind	(A) ft.	1,180(720)	1,300(795)	750(390)	1,150(690)
Take-off to clear 50 ft. - calm	ft.	-	-	-	-
Max. speed/altitude	(B) kn./ft.	300/26,000	295/26,000	332/34,000	303/26,600
Rate of climb at S.L.	(B) fpm.	1,000	970	1,425	1,040
Time: S.L. to 10,000 ft.	(B) min.	12.0	12.6	9.4	11.6
Time: S.L. to 20,000 ft.	(B) min.	26.0	27.7	17.4	25.1
Service ceiling (100 fpm)	(B) ft.	34,500	33,700	38,000	35,100
Combat range	n.mi.	2,190	1,505	1,125	2,660
Average cruising speed	kn.	234	235	235	233
Cruising altitude(s)	ft.	25,000	25,000	25,000	25,000
Combat radius	n.mi.	1,010	720	460	-
Average cruising speed	kn.	207	204	206	-
Mission time	hr.	10.1	7.3	4.6	12.1
COMBAT LOADING CONDITION		(2)			
		1-MK-15 retained			
COMBAT WEIGHT	lb.	46,352			
Engine power		Dry Mil., All Eng.			
Fuel	lb.	10,302			
Combat speed/combat altitude	kn./ft.	386/30,000			
Rate of climb/combat altitude	fpm/ft.	1,870/30,000			
Combat ceiling (500 fpm)	ft.	40,800			
Rate of climb at S.L.	fpm.	2,900			
Max. speed at S.L.	kn.	310			
Max. speed/altitude	kn./ft.	390/34,000			
LANDING WEIGHT	lb.	34,071			
Fuel	lb.	1,046			
Stall speed - power-off	kn.	85.9			
Stall speed - with approach power	kn.	72.4			

NOTES

REASONS FOR REISSUE: Loading condition modified to include special stores.
Performance data completely based on NATESCEN Flight Test data.

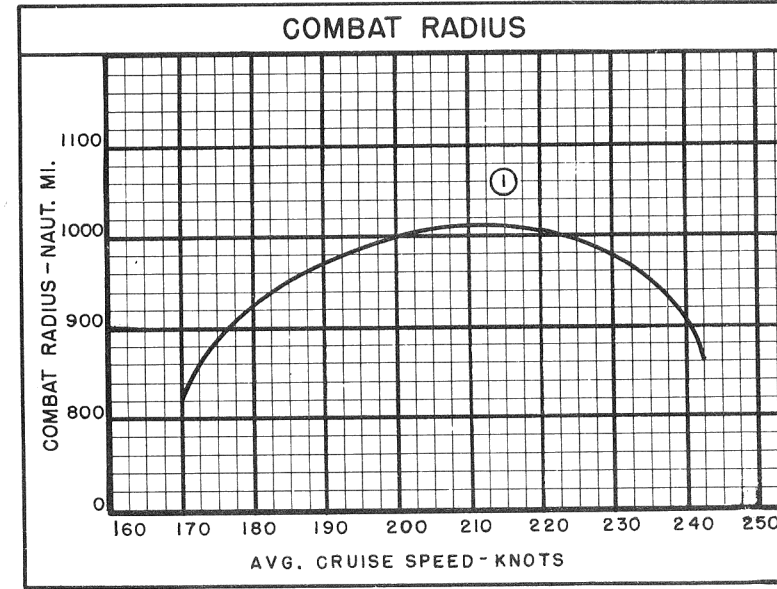
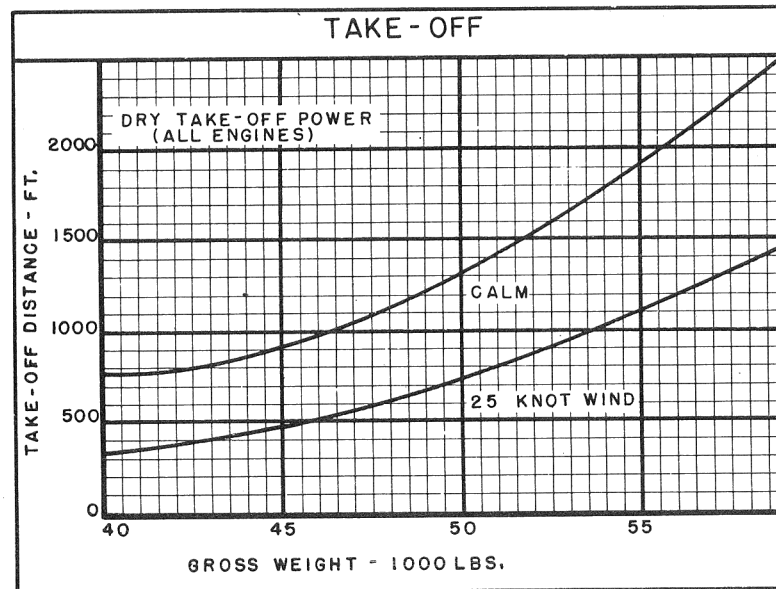
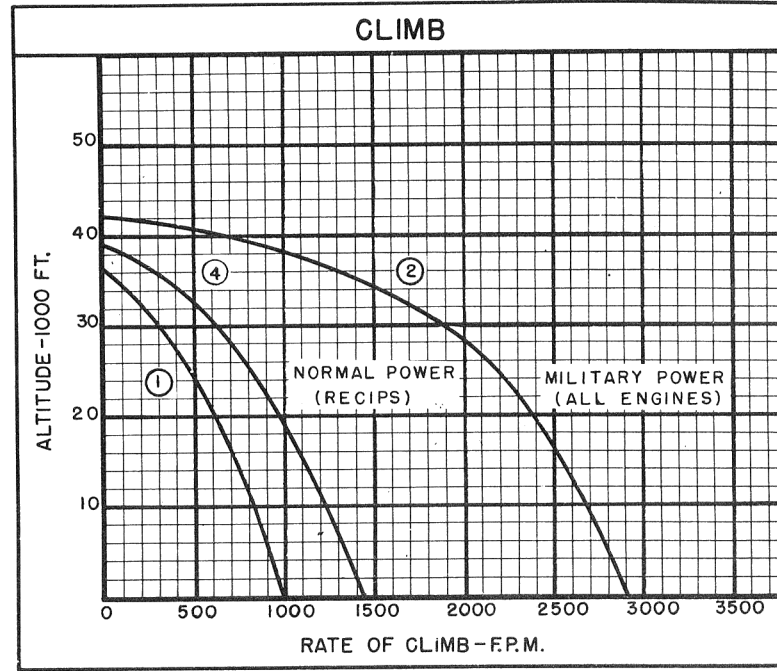
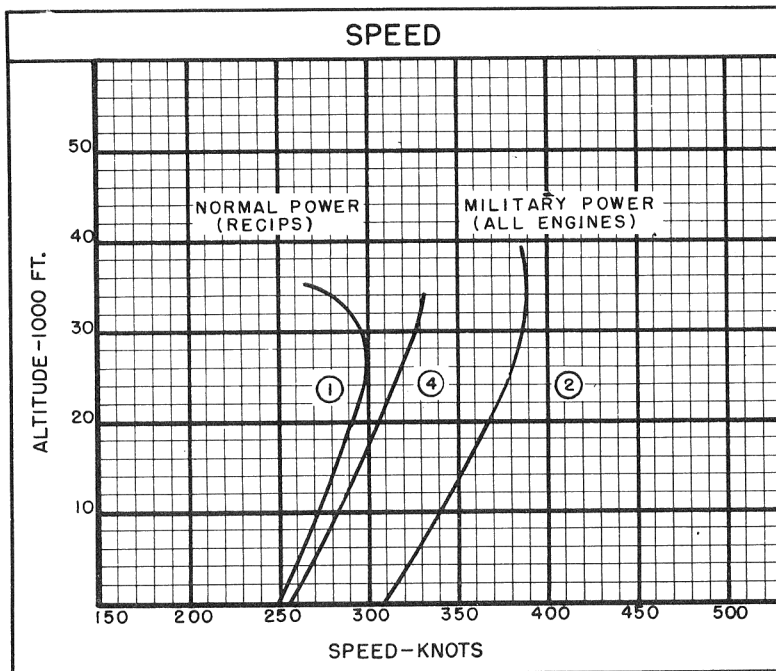
(A) Take-off distances are for take-off power on reciprocating engines.
Figures in parenthesis are for take-off power on all engines.

(B) Normal Rated Power (2 reciprocating engines).

COMBAT RANGE and RADIUS are based on flight fuel consumption increased by 5%.

Tip tanks are carried at all times. (Cruising fuel consumption is better with tip tanks on than with tip tanks off).

SPOTTING: A total of 22 airplanes can be accommodated in a landing spot on the flight and hangar decks of a CVA-19 class angled deck carrier.



○ LOADING CONDITION COLUMN NUMBER

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

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NOTES

HIGH ALTITUDE ATTACK COMBAT RADIUS PROBLEM

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

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

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

CLIMB: On course to 30,000 ft. at normal rated power. Jet off. Climb ends 87 nautical miles from target.

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

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

DROP BOMBS

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

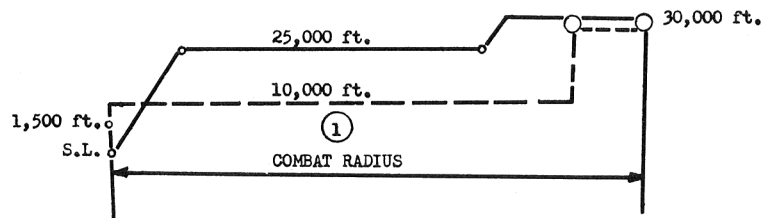
DESCEND: To 10,000 ft. (No fuel used, no distance gained).

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

DESCEND: To 1,500 ft. (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 = CLIMB + CRUISE-OUT + CLIMB + CRUISE-OUT + RUN-IN = RUN-OUT + CRUISE-BACK
 MISSION TIME = CLIMB + CRUISE-OUT + CLIMB + CRUISE-OUT + RUN-IN + RUN-OUT + CRUISE-BACK



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

○ LOADING CONDITION COLUMN NUMBER

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