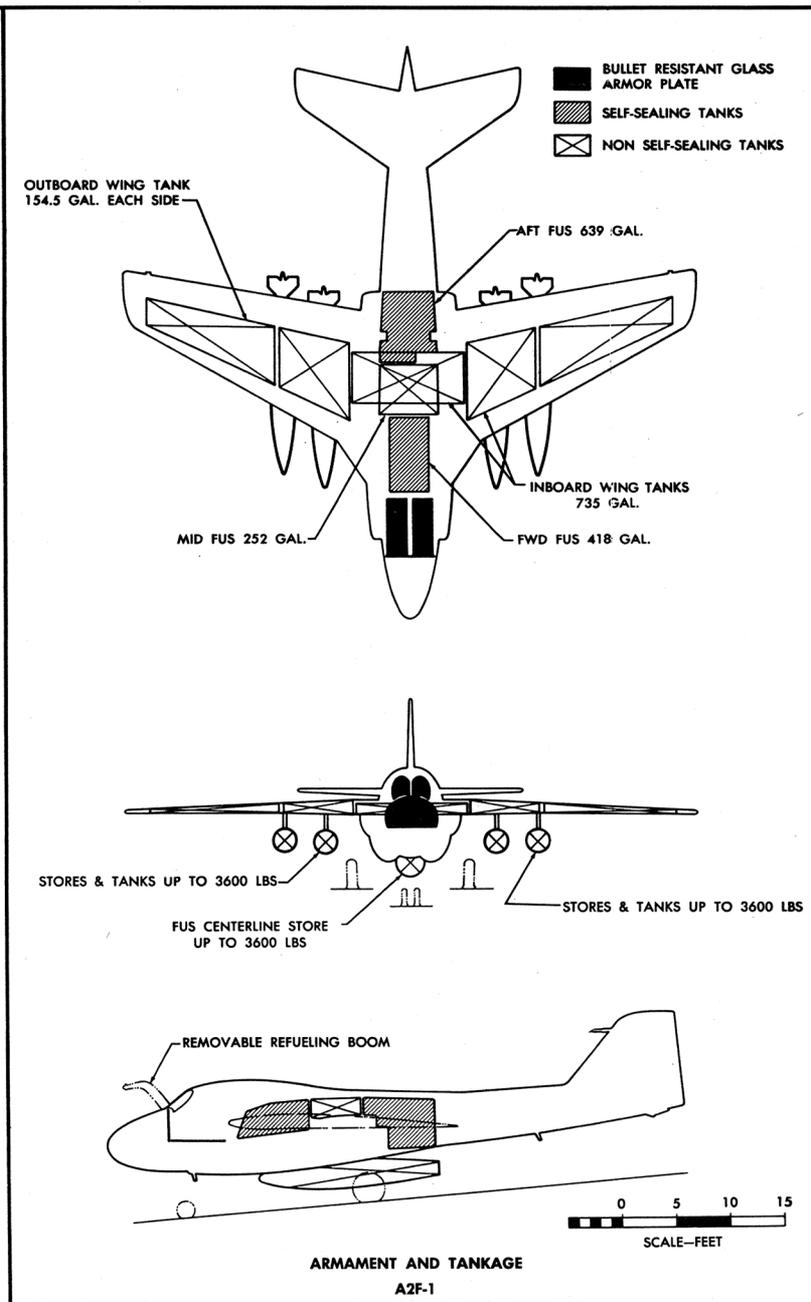
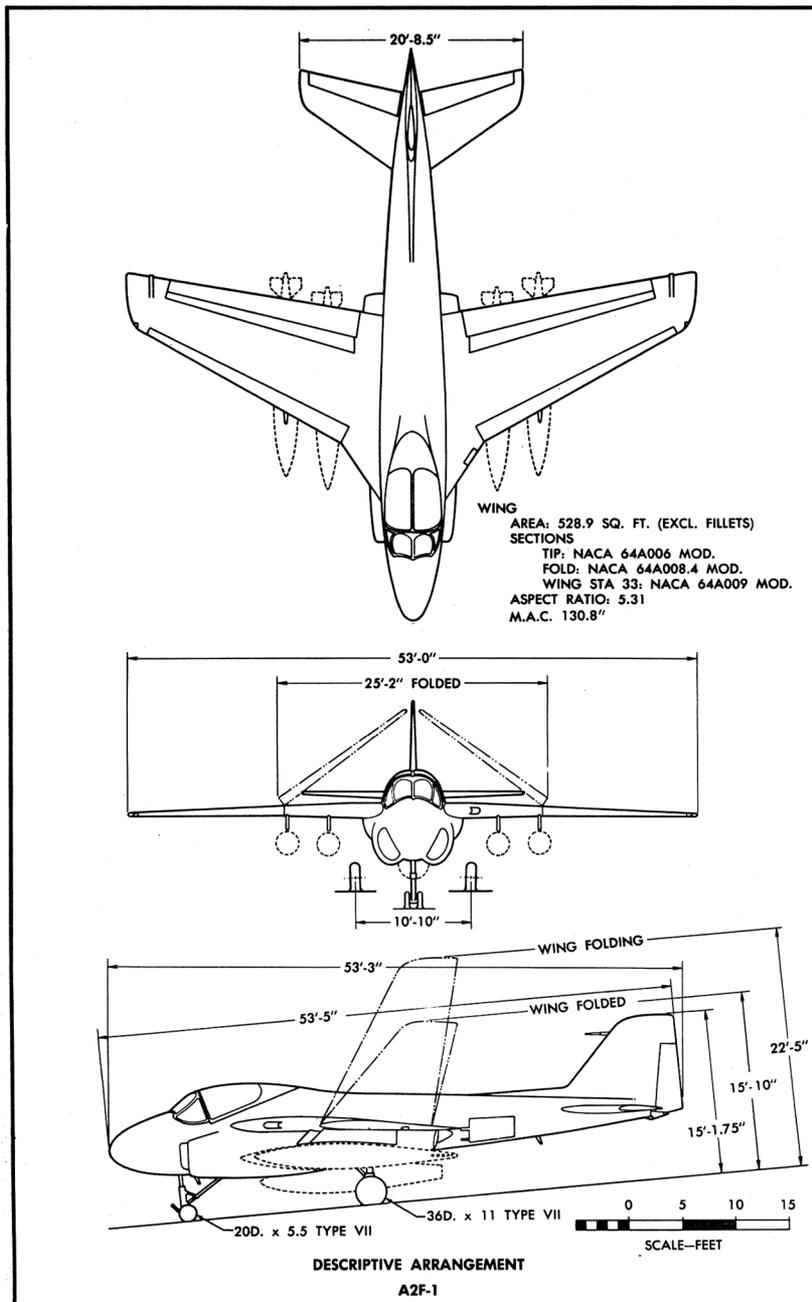


STANDARD AIRCRAFT CHARACTERISTICS

A2F-1

GRUMMAN

SERVICE



A2F-1

30 APRIL 1960

POWER PLANT

No. & Model ..(2) J52-P-6,
Mfgr. Pratt & Whitney
Type ..Twin Spool Axial Flow
Length 127"
Diameter 31"
Augmentation None

RATINGS

	Lbs.	@ RPM
Maximum	8500	11650
T.O. & Mil.	8500	11650
Normal	7500	11400

Sea Level Static

Spec No.N-1731 of
17 July 1957

ELECTRONICSAttack-Navigation-Instruments

*Search Radar
Track Radar AN/APQ-88
Doppler Radar AN/APN-122(V)
* Digital Computer
* Inertial Platform
Radar Altimeter AN/APN-117
Bullpup Transmitter AN/ARW-73
* All-Weather Bullpup
Integrated Display Subsystem
* - ~~None~~ nomenclature not available
Communications
CNI Package AN/ASQ-57
UHF ADF AN/ARA-50
UHF Rec. Transmitter AN/ARC-52
UHF Stand-by Rec. AN/ARR-40
IFF AN/APX-6B
IFF Coder AN/APA-89(SIF)
TACAN AN/ARN-21A
ICS AN/AIC-14

Counter Measures

Repeater Jammer AN/ALQ-32
Repeater Jammer (2) AN/ALQ-19
Chaff Dispenser AN/ALE-18
Warning Receiver (2) AN/ALR-15

MISSION AND DESCRIPTION

The A2F-1 is a medium size, all weather low altitude two-place attack aircraft capable of high subsonic performance and broad mission versatility including tanker capability.

At light gross weights it can operate from short unprepared fields and H-8 catapults, in close support of ground troops, while at higher gross weights, it can operate from C11-1 catapults on long range special weapon strikes against heavily defended fixed targets.

An integrated attack-navigation and central digital computer system is provided to find, track and destroy small moving targets and large fixed targets in all weather conditions. Pilot displays provide contact analogue, terrain clearance, attack and horizontal situation information in integrated form. Five store stations are provided, inboard of the wing fold joint.

Irreversible hydraulic flight controls are provided. Longitudinal control is effected by an all-movable stabilizer. Lateral control is provided by flaperons while a conventional rudder is used for directional control.

High lift devices are slotted flaps, leading edge slats and tilting tail pipes. Anti-skid brakes on main wheels are provided. Nose wheel tow catapulting is used. A speed brake is located aft on each side of the fuselage. Side by side ground level ejection seats are provided for the pilot and radar operator.

Power wing folding is provided. The engines may be removed and serviced by removal of fuselage fairing panels.

DEVELOPMENT

First Flight April 1960
Service Use December 1962

DIMENSIONS

Wing	
Area	528.9 sq. ft.
Span	53 ft.
MAC	130.8 inches
Sweepback ($\frac{1}{4}$ Chord)	25°
Length	53' 3"
Height	15' 2"
Tread	10' 10"

WEIGHTS

LOADINGS	LBS.	L.F.
EMPTY.....	23412
BASIC		
(Long Range)	24391
(Short Range)	24348
DESIGN.....	36395	6.5
COMBAT		
(Long Range)	40846
(Short Range)	32633
MAX.T.O.(Field)	53278
(Cat.)	53278
MAX. LAND.(Field)	32483
(Arrest)	32483

All weights are estimated.

FUEL AND OIL

No. Tanks	Gal.	Lbs.	Location
3	1309	8900	Fuselage
5	1044	7120	Wings
5(300 gal.)	1477	10044	Drop Tanks

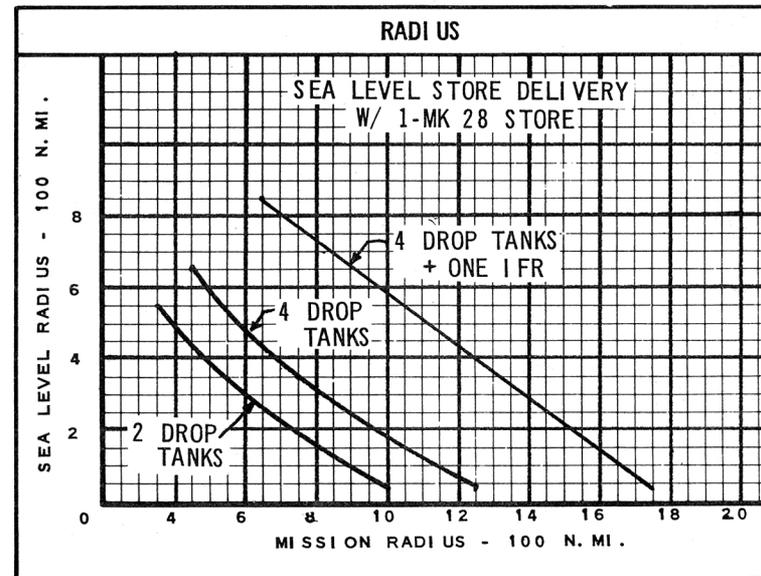
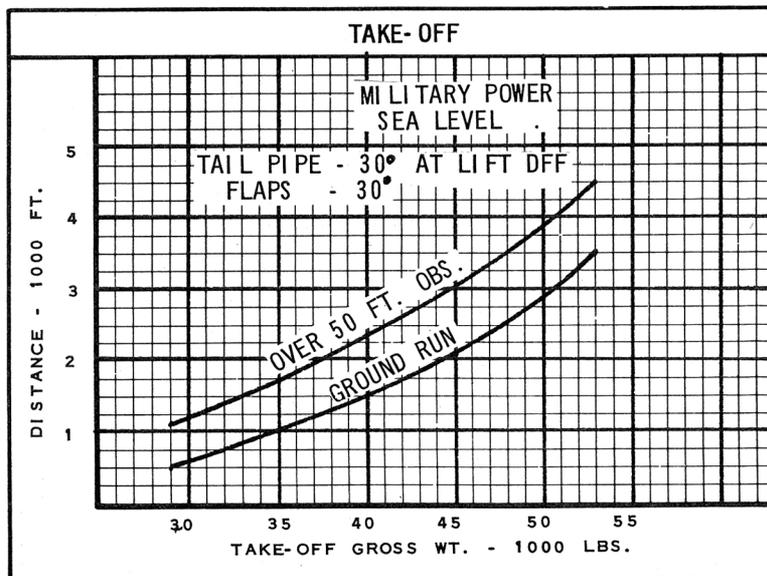
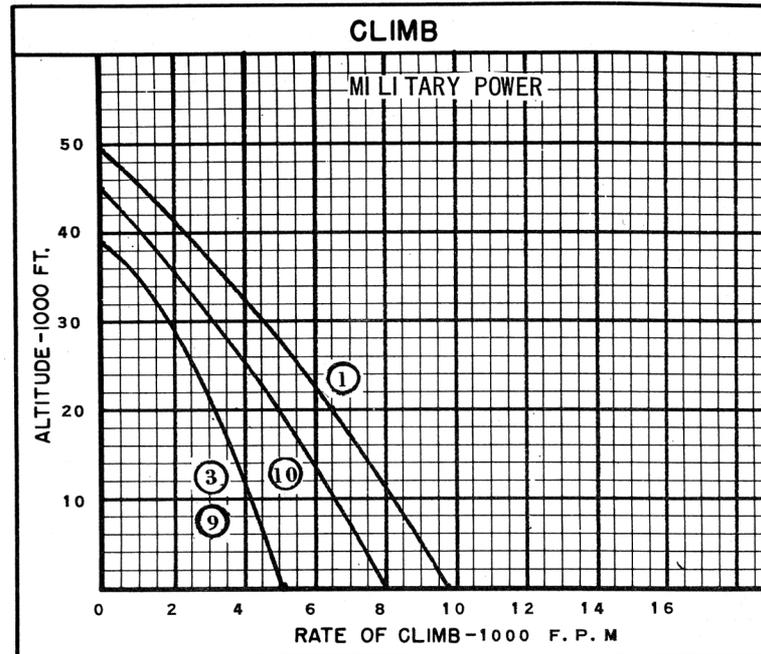
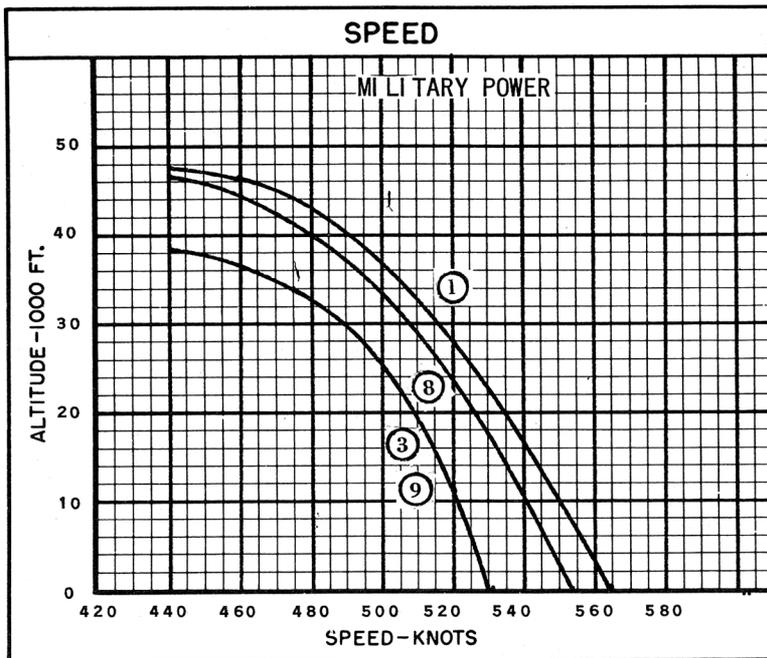
Fuel Grade JP-5
Fuel Spec. (Appl.) Mil-F-5624C-1

OIL

Capacity (Gals.).....5/Eng.
Spec. (Appl.) Mil-L-7808

ORDNANCE

Maximum Bomb Capacity:18000 lbs.
Bombs:MK.81,MK.82,MK.83,MK.84,
Fire Bomb-MK.79 Mod-6
Special Weapons: MK.28,
MK.28-1,MK.43
Rocket Pkg.:Aero 7D,Aero 10D,
Aero 6A1
Missiles:Sidewinder, Bullpup,
Corvus
In addition, the following
may be carried:
Practice Bomb Containers,
Aero 8A(MK.76,MK.89)
Lazy Dog Missile Dispenser-
Aero 1A
Flare Dispenser-Aero 5A
Napalm Tank-150 gal.



○ LOADING CONDITION COLUMN NUMBER

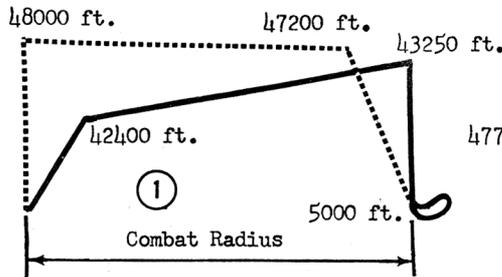
Standard Aircraft Characteristics NAVARR 1335E (Rev. 1-55)

NOTES

Loading (all data based on JP-5 fuel)	Take-Off Weight-Lbs.	Sea Level Store Delivery (Mod.)		Low Altitude Attack (Mod.)	
		Combat Radius	Mission Time	Combat Radius	Mission Time
1-MK 28 Store plus 2-300 gal. ext. tanks	47516	787	4.5	1054	5.9
1-MK 43 Store plus 4-300 gal. ext. tanks	51795	1044	5.7	1285	7.0
2-MK 83 Stores plus 3-300 gal. ext. tanks	49475	924	5.1	1173	6.5
5-MK 84 Stores	50846	415	2.8	624	3.9
4 Sidewinders	41559	465	3.1	763	4.6

Low Altitude Attack (Modified)

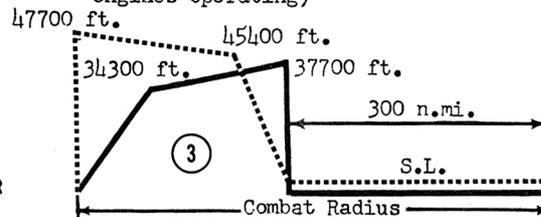
Warm-up, taxi, take-off: 5 min. SSL NRP
 Climb: On course to optimum cruise alt. with mil. power
 Cruise-out: At max. range speed at opt. cruise alt.
 Descend: To 5000 ft. (no fuel used, no dist. gained)
 Loiter: 1 hour at max. end. speed (no dist. gained) Store dropped at end of loiter
 Climb: On course to optimum cruise alt. with mil. power
 Cruise-back: At max. range speed at opt. cruise alt.
 Reserve: 5% initial internal fuel+20 min. @max. end. speed at S.L. (all engines operating)



○ LOADING CONDITION COLUMN NUMBER

Sea Level Store Delivery (Modified)

Warm-up, taxi, take-off: 5 min. SSL NRP
 Climb: On course to optimum cruise alt. with mil. power
 Cruise-out: At max. range speed at opt. cruise alt.
 Descend: To S.L. when 300 n.mi. from target (no fuel used, no dist. gained)
 Cruise: At max. range speed at S.L. (all engines operating)
 Dash: 3 min. to target with mil. thrust, tanks dropped prior to dash. (All engines operating)
 Drop Store(s)
 Dash: 2 min. from target with mil. thrust (all engines operating)
 Cruise: At max. range speeds at S.L. to a point 300 n.mi. from target
 Climb: On course to opt. cruise. alt. with mil. power
 Cruise-back: At max. range speed at opt. alt.
 Reserve: 5% initial internal fuel+20 min. @ max. end. speed at S.L. (all engines operating)



High Altitude Attack-Buddy IFR (Modified)

Warm-up, taxi, take-off: 5 min. SSL NRP
 Climb: On course to optimum cruise alt. with mil. power
 Cruise-out: At max. range speed at opt. cruise alt.
 Allowance for hook-up and flight contingencies - 5 min. at max. endurance speeds (no fuel used, no distance gained during transfer of fuel)
 Refuel Point: Limited to return of receiver to base with normal reserve if contact is not made.
 Cruise-out: At max. range speed at opt. cruise altitude
 Combat: 5 min. with mil. thrust at best cruise altitude
 Cruise-back: At max. range speed at opt. cruise alt.
 Reserve: 5% initial internal fuel +20 min. @ max. end. speed at S.L. (all engines operating)

