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BY TG Hill ON 12/19/96

NAVAIR 00-110AA4-7

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Standard Aircraft Characteristics

NAVY MODEL TA-4F AIRCRAFT

(TITLE UNCLASSIFIED)

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SERVICE



STANDARD AIRCRAFT CHARACTERISTICS

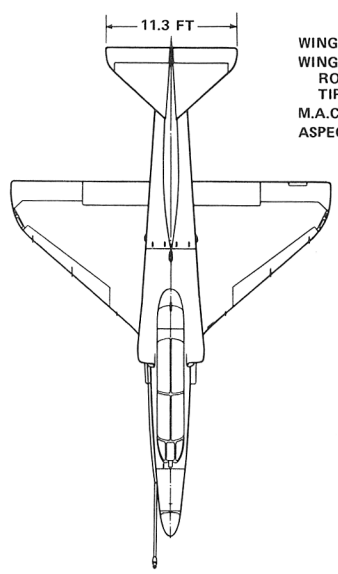
TA-4F SKYHAWK

(J52-P-8A ENGINE)

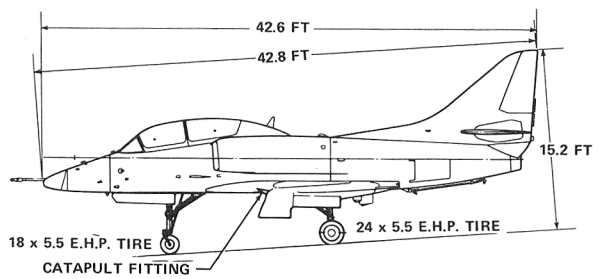
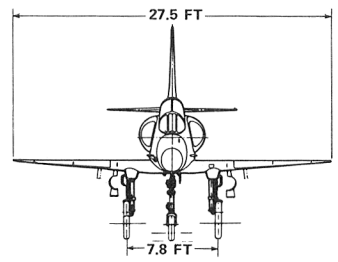
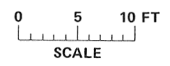
MCDONNELL DOUGLAS

TA-4F (J52-P-8A)

BUREAU OF NAVAL WEAPONS
NAVY DEPARTMENT



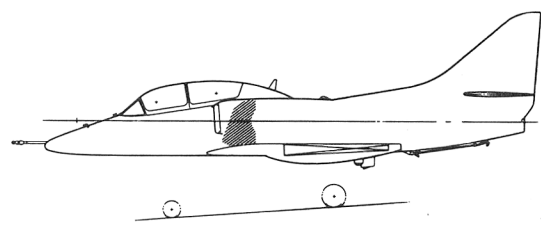
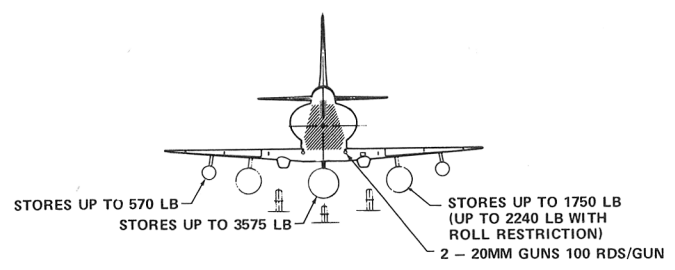
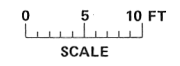
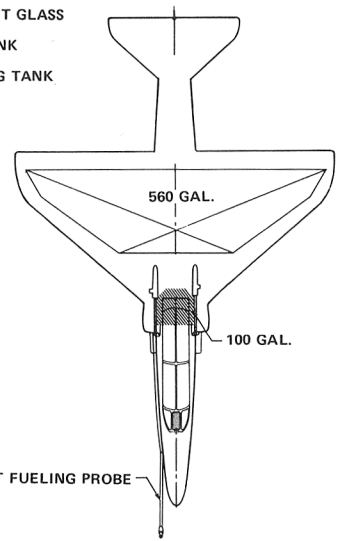
WING AREA: 260 SQ FT
WING SECTION:
ROOT NACA 0008-1.1-25-.0875 (.5 x 230)
TIP NACA 0005-.825-50-.0787 (.5 x 230)
M.A.C. 129.64 IN.
ASPECT RATIO 2.91



DESCRIPTIVE ARRANGEMENT

BUREAU OF NAVAL WEAPONS
NAVY DEPARTMENT

- BULLET-RESISTANT GLASS
- SELF-SEALING TANK
- NON-SELF-SEALING TANK



ARMAMENT AND TANKAGE

POWER PLANT	MISSION AND DESCRIPTION	WEIGHTS																																					
<p>Number and Model (1) J52-P-8A Axial Flow Twin Spool Turbojet without Afterburner MFR: Pratt & Whitney Aircraft Spec No. N-1844-B Length 116.9 in. Diameter 30.2 in.</p> <p style="text-align: center;">RATINGS</p> <table border="0"> <tr> <td>Military</td> <td>12,060 rpm</td> <td>9300 lb</td> </tr> <tr> <td>Normal</td> <td>11,660 rpm</td> <td>8200 lb</td> </tr> </table>	Military	12,060 rpm	9300 lb	Normal	11,660 rpm	8200 lb	<p>The TA-4F is a two-seat advanced jet trainer version of the A-4E airplane. Missions include training of pilots in combat aerobatics, tactical maneuvers, instrument flying, carrier takeoff and landing, and air-to-air and air-to-surface weapon delivery.</p> <p>The space for the second cockpit is obtained by moving the nose section of the basic A-4E forward 28 inches and reducing the size of the fuselage fuel tank. The nose landing gear is moved forward with the nose section. The rear seat is elevated above the forward seat for good visibility. Controls and instruments are repeated in the rear cockpit. Nose wheel steering and wing landing spoilers are installed.</p> <p>Spotting: A total of 175 airplanes can be accommodated in a landing spot on the flight and hangar decks of a CVA-59 class carrier.</p>	<table border="0"> <thead> <tr> <th>Loadings</th> <th>Lb</th> <th>L.F.</th> </tr> </thead> <tbody> <tr> <td>Empty</td> <td>10,696</td> <td>—</td> </tr> <tr> <td>Basic</td> <td>11,009</td> <td>—</td> </tr> <tr> <td>Flight Design</td> <td>12,504</td> <td>7.0</td> </tr> <tr> <td>Combat</td> <td>17,445</td> <td>5.0</td> </tr> <tr> <td>Max Takeoff</td> <td>24,500</td> <td>3.6</td> </tr> <tr> <td>Max Landing</td> <td></td> <td></td> </tr> <tr> <td> Arrest</td> <td>14,500</td> <td>6.0</td> </tr> <tr> <td> Airfield</td> <td>16,000</td> <td>5.5</td> </tr> </tbody> </table>	Loadings	Lb	L.F.	Empty	10,696	—	Basic	11,009	—	Flight Design	12,504	7.0	Combat	17,445	5.0	Max Takeoff	24,500	3.6	Max Landing			Arrest	14,500	6.0	Airfield	16,000	5.5				
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	<p>Span 27.5ft Length 42.5 ft Height 15.3 ft Max. Tread 7.8 ft Turn. Rad 24.5 ft* Wing Area 260 sq ft</p> <p>*Without in-flight fueling probe</p>	<table border="0"> <thead> <tr> <th>No.</th> <th>Location</th> <th>Loading</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Fuselage Center Line</td> <td>Up to 3575 lb</td> </tr> <tr> <td>2</td> <td>Inboard Wing</td> <td>*Up to 1750 lb</td> </tr> <tr> <td>2</td> <td>Outboard Wing</td> <td>Up to 570 lb</td> </tr> </tbody> </table> <p>*No Roll Restriction. Up to 2240 lb with Roll Restriction.</p> <p style="text-align: center;">Guns</p> <table border="0"> <tr> <td>2</td> <td>Lower Wing Outboard of Fuselage</td> <td>MK-12 20mm Guns with 100 rounds per gun</td> </tr> </table>	No.	Location	Loading	1	Fuselage Center Line	Up to 3575 lb	2	Inboard Wing	*Up to 1750 lb	2	Outboard Wing	Up to 570 lb	2	Lower Wing Outboard of Fuselage	MK-12 20mm Guns with 100 rounds per gun																						
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SERVICE

NAVAIR OO-110AA4-7

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	(1) HI-HI-HI CLEAN AIRPLANE	(3) HI-HI-HI 2-300 GAL. TANKS	(5) S.L. STORE DELIVERY 1-MK 28 STORE 2-300 GAL. TANKS	(7) CLOSE SUPPORT 1-300 GAL. TANK 12-MK 81 SNAKEYES	(9) FERRY 3-300 GAL. TANKS
TAKE-OFF WEIGHT lb.	16,324	21,525	23,582	23,321	23,748
Fuel internal/external (JP-5) lb./lb.	4488/NONE	4488/4080	4488/4080	4488/2040	4488/6120
Payload lb.	NONE	NONE	2040	3600	NONE
Wing loading lb./sq. ft.	62.8	82.8	90.7	89.7	91.3
Stall speed—power-off kn.	115	134	140	141	141
Take-off run at S.L.— calm (A) ft.	2210	3540	4190	4100	4240
Take-off run at S.L.— 25 kn. wind (A) ft.	1530	2540	3040	2980	3080
Take-off to clear 50 ft.— calm (A) ft.	3270	5000	5850	5730	5920
Max. speed/altitude (A) kn./ft.	591/3,000	548/5,000	539/5,500	479/10,000	537/6,000
Rate of climb at S.L. (A) fpm.	10,500	6700	5800	4800	5700
Time: S.L. to 20,000 ft. (A) min.	2.6	4.4	5.2	6.9	5.3
Time: S.L. to 30,000 ft. (A) min.	4.3	8.6	11.3	—	11.7
Service ceiling (100 fpm) (A) ft.	42,200	34,500	31,900	28,250	31,600
Combat range (tanks and stores retained) n.mi.	830	1330	1140	570	1555 (B)
Average cruising speed kn.	417	405	404	368	401
Cruising altitude(s) ft.	35,200 — 39,500	27,900 — 36,600	25,700 — 33,200	23,800 — 28,300	25,500 — 35,950
Combat radius/mission time n.mi./hr.	375/1.9	670/3.4	445/2.2	130/1.7	—
Average cruising speed kn.	417	407	409	380	—
IFR radius/mission time n.mi./hr.	675/3.4	—	—	—	—
IFR fuel transferred/distance lb./n.mi.	2377/398	—	—	—	—
COMBAT LOADING CONDITION	(2)	(4) TANKS RETAINED	(6) TANKS DROPPED STORE RETAINED	(8) TANK DROPPED BOMBS RETAINED	(10) TANKS RETAINED
COMBAT WEIGHT lb.	14,529	17,445	19,105	21,098	17,628
Engine power	MILITARY	MILITARY	MILITARY	MILITARY	MILITARY
Fuel lb.	2693	4488	4488	4488	4488
Combat speed/combat altitude kn./ft.	530/36,400	504/31,800	556/S.L.	486/5,000	535/S.L.
Rate of climb/combat altitude fpm/ft.	3150/36,400	2250/31,800	7950/S.L.	4800/5,000	8300/S.L.
Combat ceiling (500 fpm) ft.	43,600	37,800	36,300	29,500	37,000
Rate of climb at S.L. fpm.	11,900	8600	7950	5700	8300
Max. speed at S.L. kn.	590	544	556	478	535
Max. speed/altitude kn./ft.	591/3,500	550/6,000	562/7,500	492/11,500	541/6,000
LANDING WEIGHT lb.	12,611	13,591	13,609	13,993	14,335
Fuel lb.	775	1031	1032	983	1195
Stall speed—power-off/approach power kn./kn.	101/96	105/100	105/100	106/101	110/105
Landing distance—ground roll/over 50 ft. obst. (C) ft./ft.	3420/4135	3600/4315	3610/4325	3670/4385	3750/4465

- (A) Military thrust, takeoff weight, stores and tanks retained.
- (B) Ferry range is 1670 nautical miles if tanks are dropped when empty.
- (C) With spoilers open after touchdown.

NOTES

NOTE: All loadings except clean airplane include guns, ammunition, and pylons on all stations.
 Armor plate and associated ballast included for all configurations.
 Performance Basis: NATC and DAC flight tests of the Models A-4F and TA-4F.

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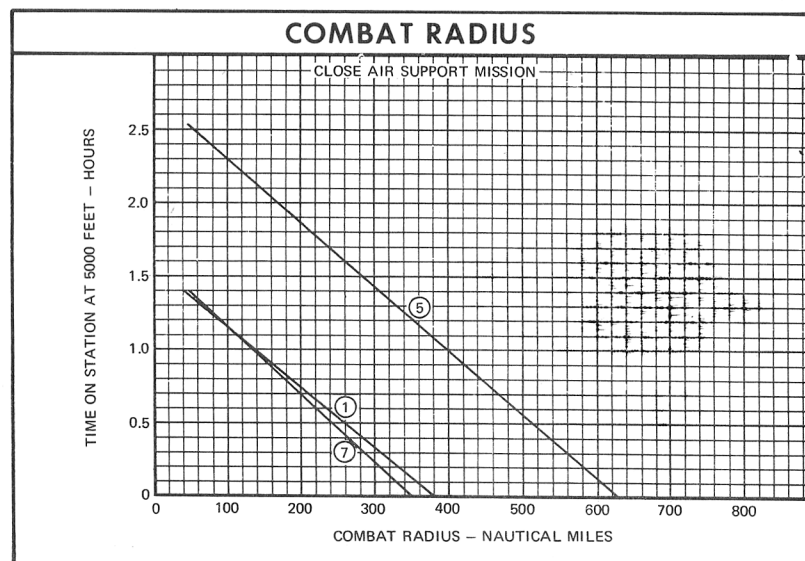
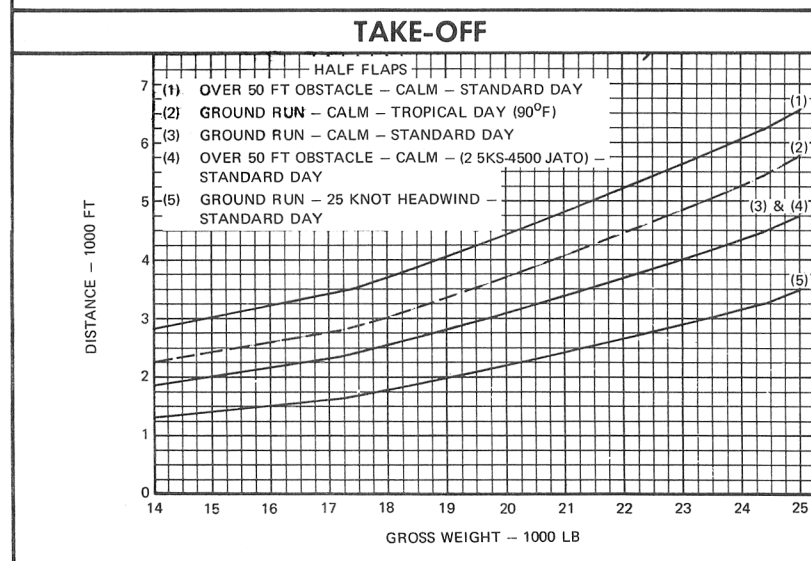
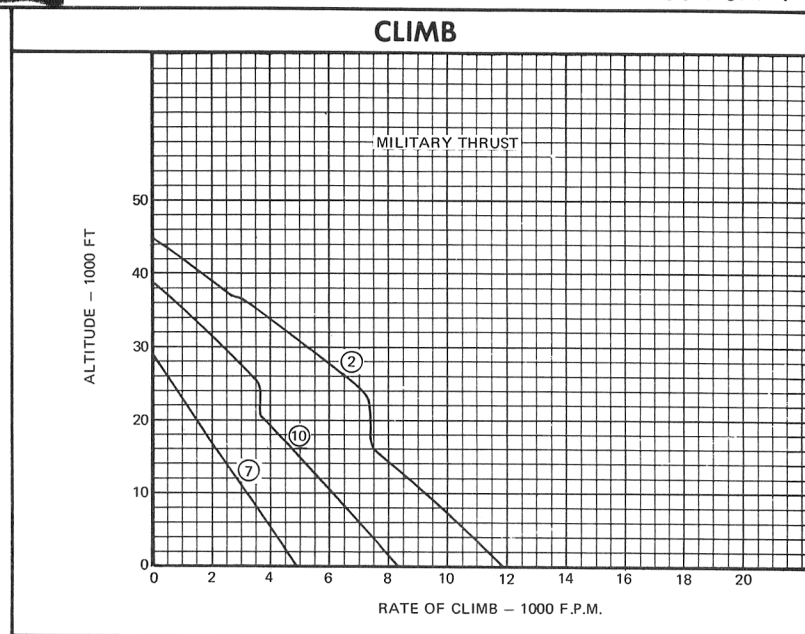
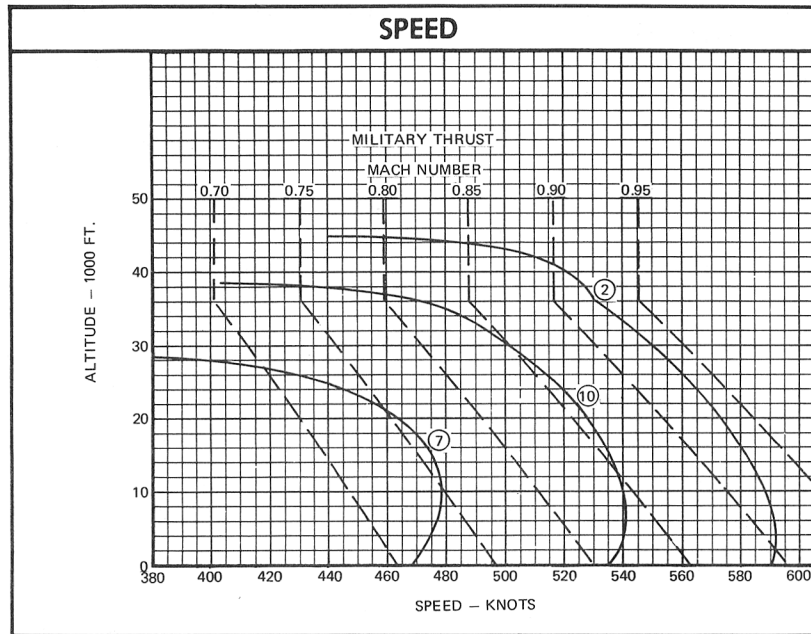
MISSION SUMMARY — ALTERNATE LOADINGS

		CLOSE SUPPORT		HI-LO-LO-HI		S.L. STORE DELIVERY		HI-HI-HI		LO-LO-LO		HI-LO-HI	
EXTERNAL STORE LOADING (B)	T.O.G.W. (LB)	COMBAT RADIUS n mi	MISSION TIME hr	COMBAT RADIUS n mi	MISSION TIME hr	COMBAT RADIUS n mi	MISSION TIME hr	COMBAT RADIUS n mi	MISSION TIME hr	COMBAT RADIUS n mi	MISSION TIME hr	COMBAT RADIUS n mi	MISSION TIME hr
① CLEAN AIRPLANE	16,324	135	1.6	(C) 170	1.2	(C) 130	0.6	375	1.9	160	1.2	270	1.4
③ (2) 300 GAL. TANKS	21,525	455	3.2	495	2.7	480	2.4	670	3.4	340	2.4	590	3.0
⑤ (1) MK 28 STORE (2) 300 GAL. TANKS	23,582	400	3.0	460	2.5	445	2.2	625	3.2	330	2.3	550	2.8
⑦ (1) 300 GAL. TANK (12) MK 81 SNAKEYES	23,321	130	1.7	(C) 215	1.5	(C) 200	1.1	350	1.9	195	1.5	285	1.6
⑨ (3) 300 GAL. TANKS	23,748	590	3.9	645	3.4	625	3.1	805	4.0	425	3.0	730	3.7
⑪ (1) MK 28 STORE	19,105	(C) 70	1.4	(C) 140	1.1	(C) 105	0.6	290	1.5	140	1.1	205	1.1
⑫ (3) AGM-12B BULLPUPS (2) 300 GAL. TANKS	23,563	350	2.8	415	2.4	400	2.0	570	3.0	305	2.2	500	2.6
⑬ (6) MK 81 SNAKEYES	19,073	(C) 50	1.3	(C) 125	1.0	(C) 95	0.6	255	1.4	125	1.0	(C) 180	1.0
⑭ (6) MK 81 SNAKEYES (2) 300 GAL. TANKS	23,550	340	2.7	405	2.3	390	2.0	555	2.9	300	2.2	485	2.6
⑮ (6) MK 82 SNAKEYES	20,663	(C) 40	1.3	(C) 120	1.0	(C) 90	0.5	235	1.3	120	1.0	(C) 170	1.0
⑯ (6) MK 82 SNAKEYES (2) 300 GAL. TANKS	(D) 24,500 (-640)	260	2.3	335	2.0	325	1.7	480	2.6	265	2.0	415	2.2
○													
○													

- (A) 5 minutes at military thrust at sea level.
 (B) All loadings include guns, ammunition and five pylons, except loading ①. Armor plate and associated ballast included for all configurations. Mission times do not include times for warm-up and takeoff, or 20 minutes loiter at sea level.
 (C) Based on cruise at intermediate altitude instead of optimum cruise altitude to obtain maximum climb plus cruise distance.
 (D) Fuel offloaded to meet maximum takeoff weight limit.

NOTES

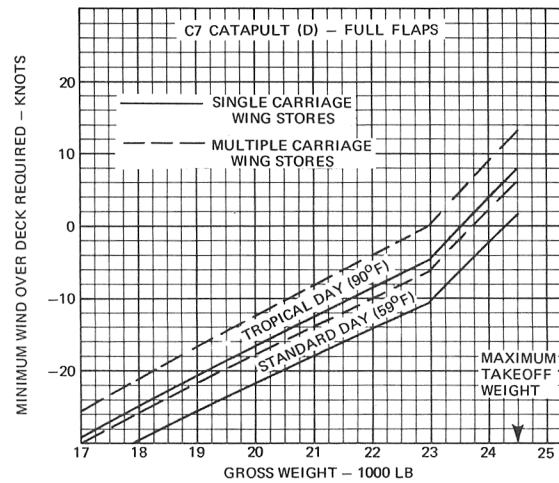
Data Basis: NATC and DAC flight tests of the Models A-4F and TA-4F.



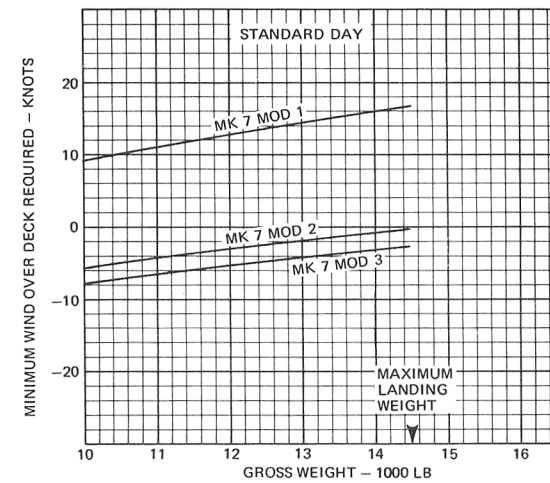
○ LOADING CONDITION COLUMN NUMBER

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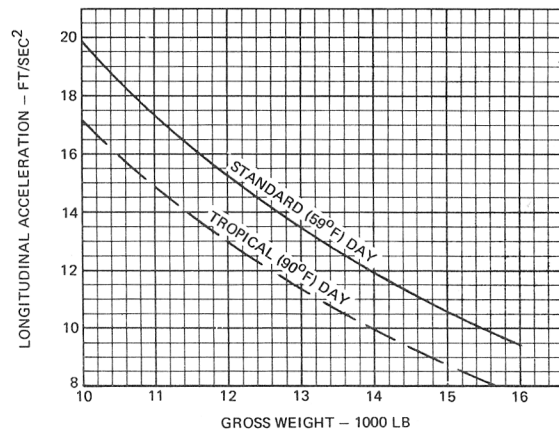
MINIMUM WIND OVER DECK REQUIRED FOR CATAPULTING
VS. GROSS WEIGHT (A) (B) (C)



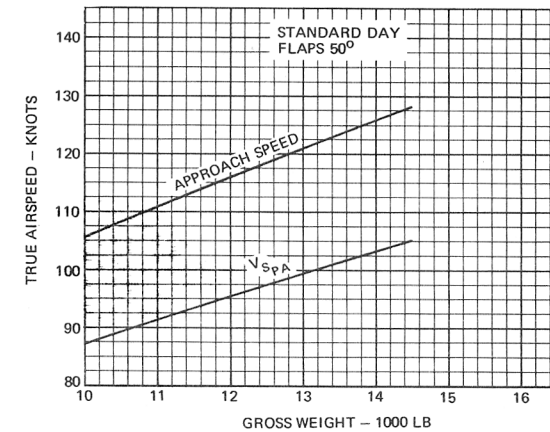
MINIMUM WIND OVER DECK REQUIRED FOR ARRESTING
VS. GROSS WEIGHT (E)



WAVE-OFF ACCELERATION (F)



CARRIER APPROACH SPEEDS (G)

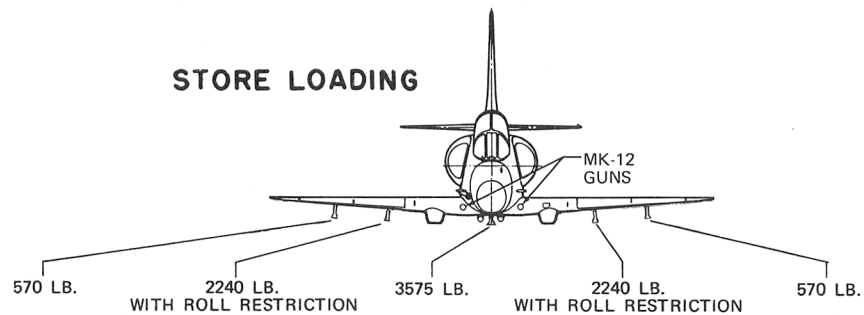


NOTES

- (A) CATAPULT TAKEOFF SPEEDS ARE DERIVED FROM A CORRELATION OF NATC MINIMUM ON A-4A, A-4B, A-4E, A-4F AND TA-4F.
- (B) CATAPULT END-SPEED IS LIMITED BY A MAXIMUM LONGITUDINAL ACCELERATION OF 5.47g OR A MAXIMUM TOW FORCE OF 120,000 LB.
- (C) CATAPULT END-SPEEDS CORRESPOND TO METERING ROD CATAPULT SERVICE CHANGES (CSC 253 FOR C7; CSC 271 FOR C11-1).
- (D) MINIMUM WIND OVER DECK REQUIRED FOR C11-1 CATAPULT IS C7 REQUIREMENT PLUS 13 KNOTS. NOTE: CURRENT OPERATIONAL RESTRICTION FOR CATAPULT FROM C11-1 LIMITS MODEL A-4 MAXIMUM WEIGHT TO 22,800 POUNDS.
- (E) ENGAGING SPEED LIMITED BY 5.14g MAXIMUM HORIZONTAL LOAD FACTOR.
- (F) WAVE-OFF ACCELERATION BASED ON LONGITUDINAL ACCELERATION AT APPROACH SPEED.
- (G) APPROACH SPEEDS BASED ON FLEET OPERATIONAL SPEEDS AND CORRESPOND TO A 4° GLIDE SLOPE AT 16-1/2 UNITS ON THE PILOT'S ANGLE OF ATTACK INDICATOR.

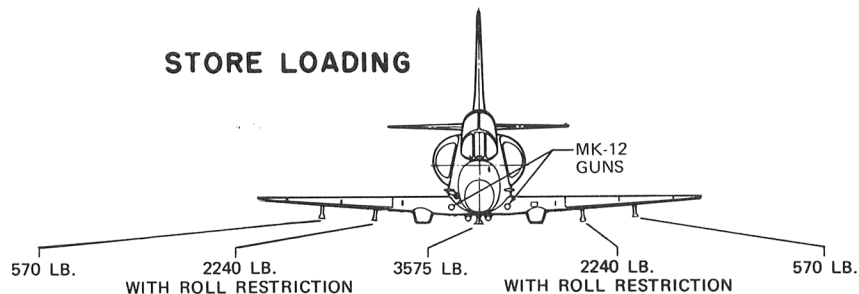
7
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STORE LOADING



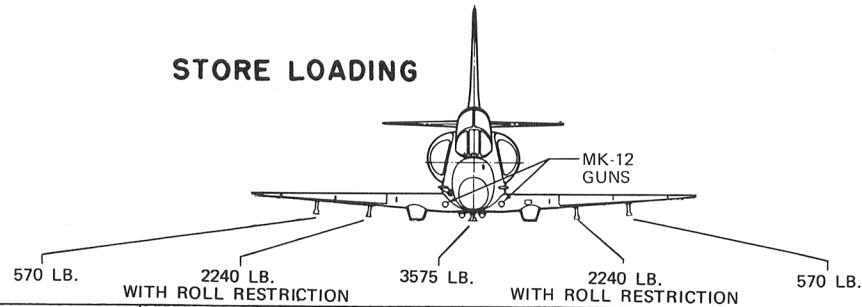
Ordnance		Station No. 5 Right Outboard	Station No. 4 Right Inboard	Station No. 3 Fuselage Centerline	Station No. 2 Left Inboard	Station No. 1 Left Outboard	
Suspension Equipment		1) Aero 20A Rack-Pylon 1) Aero 5A-1 Launcher Adapter 1) Aero 5A Pylon-Launcher 1) A/A 37B-1 MBR	1) Aero 20A Rack-Pylon 1) Aero 1A Adapter 1) MK-44 Missile Cluster Adapter (Lazy Dog) 1) Aero 3A Launcher 1) Aero 5A-1 Launcher Adapter 1) Aero 5A Pylon-Launcher 1) A/A 37B-1 MBR 1) A/A 37B-3 PMBR 1) MER-7 1) TER-7	1) Aero 7A Rack-Pylon 1) MK-44 Missile Cluster Adapter (Lazy Dog) 1) Aero 5A-1 Launcher Adapter 1) Aero 5A Pylon-Launcher 1) A/A 37B-1 MBR 1) A/A 37B-3 PMBR 1) MER-7 1) TER-7	1) Aero 20A Rack-Pylon 1) Aero 1A Adapter 1) MK-44 Missile Cluster Adapter (Lazy Dog) 1) Aero 3A Launcher 1) Aero 5A-1 Launcher Adapter 1) Aero 5A Pylon-Launcher 1) A/A 37B-1 MBR 1) A/A 37B-3 PMBR 1) MER-7 1) TER-7	1) Aero 20A Rack-Pylon 1) Aero 5A-1 Launcher Adapter 1) Aero 5A Pylon-Launcher 1) A/A 37B-1 MBR	
Bombs		1) MK-81 1) MK-81 Snakeye 1) MK-82 1) MK-82 Snakeye 1) AN-M81 (260 lb Frag.) 1) AN-M88 (220 lb Frag.) 1) AN-M57A (250 lb GP) 1) AN-M64A1 (500 lb GP) 1) AN-M30A1 (100 lb GP) 1) MK-94 Chemical 1) MK-77 Fire Bomb 1) Aero 7A (Lazy Dog)	6) MK-81 6) MK-81 Snakeyes 3) MK-82 3) MK-82 Snakeyes 1) MK-83 1) M117 Demolition 5) AN-M81 (260 lb Frag.) 5) AN-M88 (220 lb Frag.) 5) AN-M57A (250 lb GP) 1) AN-M64A1 (500 lb GP) 1) AN-M65A1 (1000 lb GP) 1) AN-M30A1 (100 lb GP) 1) MK-94 Chemical 3) MK-77 Fire Bombs 1) MK-79 Fire Bomb 2) CBU-1A/A 2) CBU-2A/A 1) Aero 7A (Lazy Dog) 1) MK-44 Cluster Adapter (Lazy Dog)	6) MK-81 6) MK-81 Snakeyes 6) MK-82 6) MK-82 Snakeyes 3) MK-83 1) MK-84 1) M117 Demolition 6) AN-M81 (260 lb Frag.) 6) AN-M88 (220 lb Frag.) 6) AN-M57A (250 lb GP) 1) AN-M64A1 (500 lb GP) 1) AN-M65A1 (1000 lb GP) 1) AN-M66A2 (2000 lb GP) 1) AN-M30A1 (100 lb GP) 6) MK-94 Chemical 4) MK-77 Fire Bombs 1) MK-79 Fire Bomb	6) MK-81 6) MK-81 Snakeyes 3) MK-82 3) MK-82 Snakeyes 1) MK-83 1) M117 Demolition 5) AN-M81 (260 lb Frag.) 5) AN-M88 (220 lb Frag.) 5) AN-M57A (250 lb GP) 1) AN-M64A1 (500 lb GP) 1) AN-M65A1 (1000 lb GP) 1) AN-M30A1 (100 lb GP) 3) MK-94 Chemical 3) MK-77 Fire Bombs 1) MK-79 Fire Bomb 2) CBU-1A/A 2) CBU-2A/A 1) Aero 7A (Lazy Dog) 1) MK-44 Cluster Adapter (Lazy Dog)	1) MK-81 1) MK-81 Snakeye 1) MK-82 1) MK-82 Snakeye 1) AN-M81 (260 lb Frag.) 1) AN-M88 (220 lb Frag.) 1) AN-M57A (250 lb GP) 1) AN-M64A1 (500 lb GP) 1) AN-M30A1 (100 lb GP) 1) MK-94 Chemical 1) MK-77 Fire Bomb	1) Aero 7A (Lazy Dog)

STORE LOADING



Ordnance	Station No. 5 Right Outboard	Station No. 4 Right Inboard	Station No. 3 Fuselage Centerline	Station No. 2 Left Inboard	Station No. 1 Left Outboard	
Guided Missiles	1) AGM-45A Shrike 1) AGM-12A, -12B Bullpup A	1) AGM-45A Shrike 1) AGM-12A, -12B Bullpup A 1) AGM-12C Bullpup B 1) Sidewinder 1A	1) AGM-12A, -12B Bullpup A	1) AGM-45A Shrike 1) AGM-12A, -12B Bullpup A 1) AGM-12C Bullpup B 1) Sidewinder 1A	1) AGM-45 Shrike 1) AGM-12A, -12B Bullpup A	
Rocket Launchers	1) LAU-32A/A 1) LAU-3A/A 1) LAU-10/A	2) LAU-32A/A 2) LAU-3A/A 2) LAU-10/A	3) LAU-32A/A 3) LAU-3A/A 3) LAU-10/A	2) LAU-32A/A 2) LAU-3A/A 2) LAU-10/A	1) LAU-32A/A 1) LAU-3A/A 1) LAU-10/A	
Mines	1) MK-50 with MK-15 Parapack	1) MK-36 with MK-27 Parapack 1) MK-36 Drill Mine with MK-4 Drill Kit 1) MK-50 with MK-15 Parapack 1) MK-52 with MK-20 Parapack or MK-35 Parapack	1) MK-25 with MK-26 Parapack or MK-34 Parapack 1) MK-25 Drill Mine with MK-4, -5 Drill Kit 1) MK-36 with MK-27 Parapack 1) MK-36 Drill Mine with MK-4 Drill Kit 1) MK-50 with MK-15 Parapack 1) MK-52 with MK-20 Parapack or MK-35 Parapack 1) MK-55 with MK-24 Parapack or MK-36 Parapack 1) MK-56 or 1) MK-56 Drill Mine with MK-28, Mod 1 Parapack	1) MK-36 with MK-27 Parapack 1) MK-36 Drill Mine with MK-4 Drill Kit 1) MK-50 with MK-15 Parapack 1) MK-52 with MK-20 Parapack or MK-35 Parapack	1) MK-50 with MK-15 Parapack	
Special Weapons			1) MK-28/MK-104 1) MK-43/BDU-8B /BDU-18 1) MK-57/BDU-12 /BDU-19 1) BDU-11E			
Pyrotechnics	6) MK-5 Mods 7, 10 Parachute flares 6) MK-6 Mods 5, 6 Parachute flares 6) MK-24 Mods 2A, 3 Parachute flares 6) MK-6 Mod 3 Float Light	6) MK-5 Mods 7, 10 Parachute flares 6) MK-6 Mods 5, 6 Parachute flares 6) MK-24 Mods 2A, 3 Parachute flares 6) MK-6 Mod 3 Float Light	6) MK-5 Mods 7, 10 Parachute flares 6) MK-6 Mods 5, 6 Parachute flares 6) MK-24 Mods 2A, 3 Parachute flares 6) MK-6 Mod 3 Float Light	6) MK-5 Mods 7, 10 Parachute flares 6) MK-6 Mods 5, 6 Parachute flares 6) MK-24 Mods 2A, 3 Parachute flares 6) MK-6 Mod 3 Float Light	6) MK-5 Mods 7, 10 Parachute flares 6) MK-6 Mods 5, 6 Parachute flares 6) MK-24 Mods 2A, 3 Parachute flares 6) MK-6 Mod 3 Float Light	

STORE LOADING



Ordnance		Station No. 5 Right Outboard	Station No. 4 Right Inboard	Station No. 3 Fuselage Centerline	Station No. 2 Left Inboard	Station No. 1 Left Outboard	
Tanks and Pods		<ul style="list-style-type: none"> 1) LM-119A Film Delivery Container 1) LAU-10/A Leaflet Dispenser 1) GTC-85 Pod-Mounted 	<ul style="list-style-type: none"> 1) 150 Gal Ext Tank 1) 300 Gal Ext Tank 1) MK-12 Mod 0 Chemical Tank 1) ALQ-31 ECM Pod 1) ALQ-31A Pod 1) MX-900 Chaff Dispenser 1) LM-119A Film Delivery Container 1) LAU-10/A Leaflet Dispenser 1) GTC-85 Pod-Mounted 	<ul style="list-style-type: none"> 1) 150 Gal Ext Tank 1) 300 Gal Ext Tank 1) 400 Gal Ext Tank 1) 300 Gal Buddy Tank 1) Aero 14B Spray Tank 1) ALQ-31 ECM Pod 1) ALQ-31A Pod 1) MX-900 Chaff Dispenser 1) LAU-10/A Leaflet Dispenser 1) NAVPAC 1) GTC-85 Pod-Mounted 	<ul style="list-style-type: none"> 1) 150 Gal Ext Tank 1) 300 Gal Ext Tank 1) MK-12 Mod 0 Chemical Tank 1) ALQ-31 ECM Pod 1) ALQ-31A Pod 1) MX-900 Chaff Dispenser 1) LM-119A Film Delivery Container 1) LAU-10/A Leaflet Dispenser 1) GTC-85 Pod-Mounted 	<ul style="list-style-type: none"> 1) LM-119A Film Delivery Container 1) LAU-10/A Leaflet Dispenser 1) GTC-85 Pod-Mounted 	
Training Stores		<ul style="list-style-type: none"> 1) MK-86 WSF 1) MK-87 WSF 6) MK-76, Mod 4, 5 (With MK-10 Lug) 6) MK-89 6) MK-106 Mod 3 6) MK-76 Mod 5 (With MK-14 Lug) 1) Aero 6A-1, 6A-2 1) Aero 7D 	<ul style="list-style-type: none"> 6) MK-86 WSF 6) MK-87 WSF 1) MK-88 WSF 6) MK-76 Mod 4, 5 (With MK-10 Lug) 6) MK-89 6) MK-106 Mod 3 6) MK-76 Mod 5 (With MK-14 Lug) 1) Aero 6A-1, 6A-2 2) Aero 7D 1) FAGU Pipe Organ 1) MK-26 Mod 0 Sidewinder target rocket 	<ul style="list-style-type: none"> 6) MK-86 WSF 6) MK-87 WSF 1) MK-88 WSF 6) MK-76, Mod 4, 5 (With MK-10 Lug) 6) MK-89 6) MK-106 Mod 3 6) MK-76 Mod 5 (With MK-14 Lug) 1) Aero 8A PBC (MK-76, MK-89, MK-106) 1) Aero 6A-1, 6A-2 3) Aero 7D 1) FAGU Pipe Organ 1) Aero 6A, or LAU-32 and A/A37B-3 PMBR with MK-76, Mod 5 or MK-106 Mod 3 1) Banner Tow Target 	<ul style="list-style-type: none"> 6) MK-86 WSF 6) MK-87 WSF 1) MK-88 WSF 6) MK-76 Mod 4, 5 (With MK-10 Lug) 6) MK-89 6) MK-106 Mod 3 6) MK-76 Mod 5 (With MK-14 Lug) 1) Aero 6A-1, 6A-2 2) Aero 7D 1) FAGU Pipe Organ 1) MK-26 Mod 0 Sidewinder target rocket 	<ul style="list-style-type: none"> 1) MK-86 WSF 1) MK-87 WSF 6) MK-76 Mod 4, 5 (With MK-10 Lug) 6) MK-89 6) MK-106 Mod 3 6) MK-76 Mod 5 (With MK-14 Lug) 1) Aero 6A-1, 6A-2 1) Aero 7D 	

NOTES

HI-HI-HI

Warmup, Taxi, Takeoff:
Five minutes at sea level static with normal power

Climb: On course to optimum cruise altitude with military power

Cruise out: At maximum range speed at optimum cruise altitude (drop external fuel tanks when empty)

Combat: Five minutes at optimum cruise altitude with military power (stores on, no distance gained) Stores dropped after combat

Cruise back: At maximum range speed at optimum cruise altitude

Reserve: 5% of initial fuel plus 20 minutes at maximum endurance speed at sea level

SEA LEVEL STORE DELIVERY

Warmup, Taxi, Takeoff:
Five minutes at sea level static with normal power

Climb: On course to optimum cruise altitude with military power

Cruise out: At maximum range speed at optimum cruise altitude (drop external fuel tanks when empty)

Descend: To sea level when fifty nautical miles from target (no fuel used, no distance gained)

Run in: Fifty nautical miles at sea level at maximum speed with military power

Combat: Five minutes at sea level with military power (stores on, no distance gained) Stores dropped after combat.

Run out: Fifty nautical miles at sea level at maximum speed with military power

Climb: On course to optimum cruise altitude with military power

Cruise back: At maximum range speed at optimum cruise altitude

Reserve: 5% of initial fuel plus 20 minutes at maximum endurance speed at sea level

CLOSE AIR SUPPORT

Warmup, Taxi, Takeoff:
Five minutes at sea level static with normal power

Climb: On course to optimum cruise altitude with military power

Cruise out: At maximum range speed at optimum cruise altitude (drop external fuel tanks when empty)

Descend: To 5000 feet (no fuel used, no distance gained)

Loiter: One hour at maximum endurance speed at 5000 feet (stores on, no distance gained) Stores dropped at end of loiter

Climb: On course to optimum cruise altitude with military power

Cruise back: At maximum range speed at optimum cruise altitude

Reserve: 5% of initial fuel plus 20 minutes at maximum endurance speed at sea level

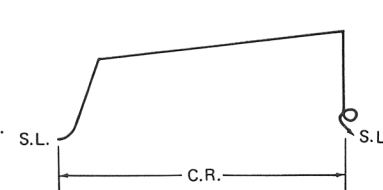
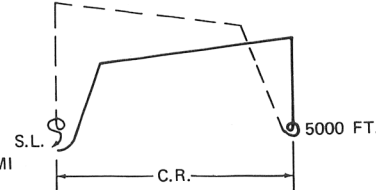
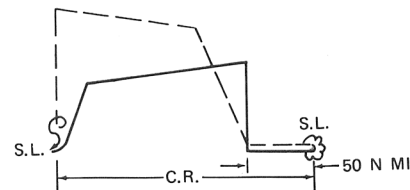
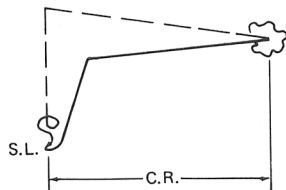
FERRY OR COMBAT RANGE

Warmup, Taxi, Takeoff:
Five minutes at sea level static with normal power

Climb: On course to optimum cruise altitude with military power

Cruise out: At maximum range speed at optimum cruise altitude

Reserve: 5% of initial fuel plus 20 minutes at maximum endurance speed at sea level



NOTES

HI-LO-LO-HI

Warmup, Taxi, Takeoff: Five minutes at sea level static with normal power
 Climb: On course to optimum cruise altitude with military power
 Cruise out: At maximum range speed at optimum cruise altitude (drop external fuel tanks when empty)
 Descend: To sea level when 100 nautical miles from target (no fuel used, no distance gained)
 Cruise out: At sea level at maximum range speed to target
 Combat: Five minutes at sea level with military power (stores on, no distance gained) Stores dropped after combat
 Cruise back: At sea level at maximum range speed to a point 100 nautical miles from target
 Climb: On course to optimum cruise altitude with military power
 Cruise back: At maximum range speed at optimum cruise altitude
 Reserve: 5% of initial fuel plus 20 minutes at maximum endurance speed at sea level

LO-LO-LO

Warmup, Taxi, Takeoff: Five minutes at sea level static with normal power
 Cruise out: At maximum range speed at sea level (drop external fuel tanks when empty)
 Combat: Five minutes at sea level with military power (stores on, no distance gained) Stores dropped after combat
 Cruise back: At maximum range speed at sea level
 Reserve: 5% of initial fuel plus 20 minutes at maximum endurance speed at sea level

HI-LO-HI

Warmup, Taxi, Takeoff: Five minutes at sea level static with normal power
 Climb: On course to optimum cruise altitude with military power
 Cruise out: At maximum range speed at optimum cruise altitude (drop external fuel tanks when empty)
 Descend: To sea level (no fuel used, no distance gained)
 Combat: Five minutes at sea level with military power (stores on, no distance gained) Stores dropped after combat
 Climb: On course to optimum cruise altitude with military power
 Cruise back: At maximum range speed at optimum cruise altitude
 Reserve: 5% of initial fuel plus 20 minutes at maximum endurance speed at sea level

