

UNCLASSIFIED

DECLASSIFIED

NAVAIR 00-110AA4-3

GROUP 4 DOCUMENT
DECLASSIFIED AFTER 12 YEARS
DOD DIR 5200.10

Standard Aircraft Characteristics

NAVY MODEL

A-4C

AIRCRAFT

(TITLE UNCLASSIFIED)

THIS PUBLICATION SUPERSEDES NAVAIR 00-110AA4-3 DATED 1 JULY 1967
WHICH SHOULD BE REMOVED FROM THE FILES AND DESTROYED.

This publication shall not be carried in aircraft on combat missions or when there is a reasonable chance of its falling into the hands of an unfriendly nation, unless specifically authorized by the "Operational Commander."

PUBLISHED BY DIRECTION OF THE
COMMANDER OF THE NAVAL AIR SYSTEMS COMMAND

NOTICE—This document contains information affecting the national defense of the United States within the meaning of the Espionage Laws, Title 18, U. S. C., Sections 793 and 794. The transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

UNCLASSIFIED

JANUARY 1970

Declassified by NAVAIRSYSCOM LTR 960:SNW ser 366 of 12 JUN 75

UNCLASSIFIED

NAVAIR 00-110AA1-3

Reproduction for non-military use of the information or illustrations contained in this publication is not permitted without specific approval of the issuing service (NAVAIR or USAF). The policy for use of Classified Publications is established for the Air Force in AFR 205-1 and for the Navy in Navy Regulations, Article 1509.

LIST OF CHANGED PAGES ISSUED

INSERT LATEST CHANGED PAGES. DESTROY SUPERSEDED PAGES.

NOTE: The portion of the text affected by the current change is indicated by a vertical line in the outer margins of the page.

* The asterisk indicates pages changed, added or deleted by the current change.

ADDITIONAL COPIES OF THIS PUBLICATION MAY BE OBTAINED AS FOLLOWS:

NAVAIR

ASAF ACTIVITIES.—In accordance with Technical Order No. 00-5-2.

NAVY ACTIVITIES.—Use DD FORM 1348 and submit in accordance with the instructions contained in NAVSUP PUBLICATION 437—Military Standard Requisitioning and Issue Procedures.

For information on other available material and details of distribution refer to NAVSUP PUBLICATION 2002, SECTION VIII and NAVAIR 00-500A.

UNCLASSIFIED

DECLASSIFIED

NAVAIR 60-110AA4-3

SERVICE

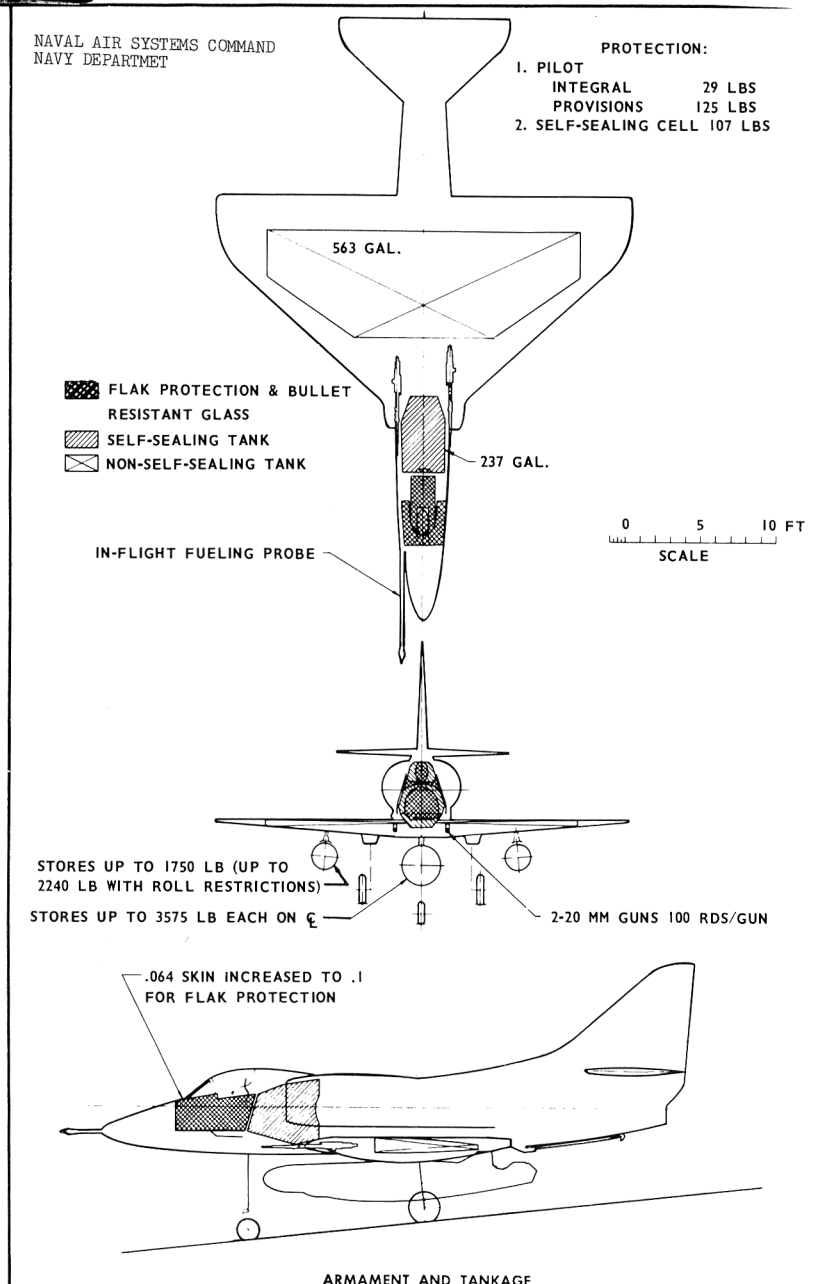
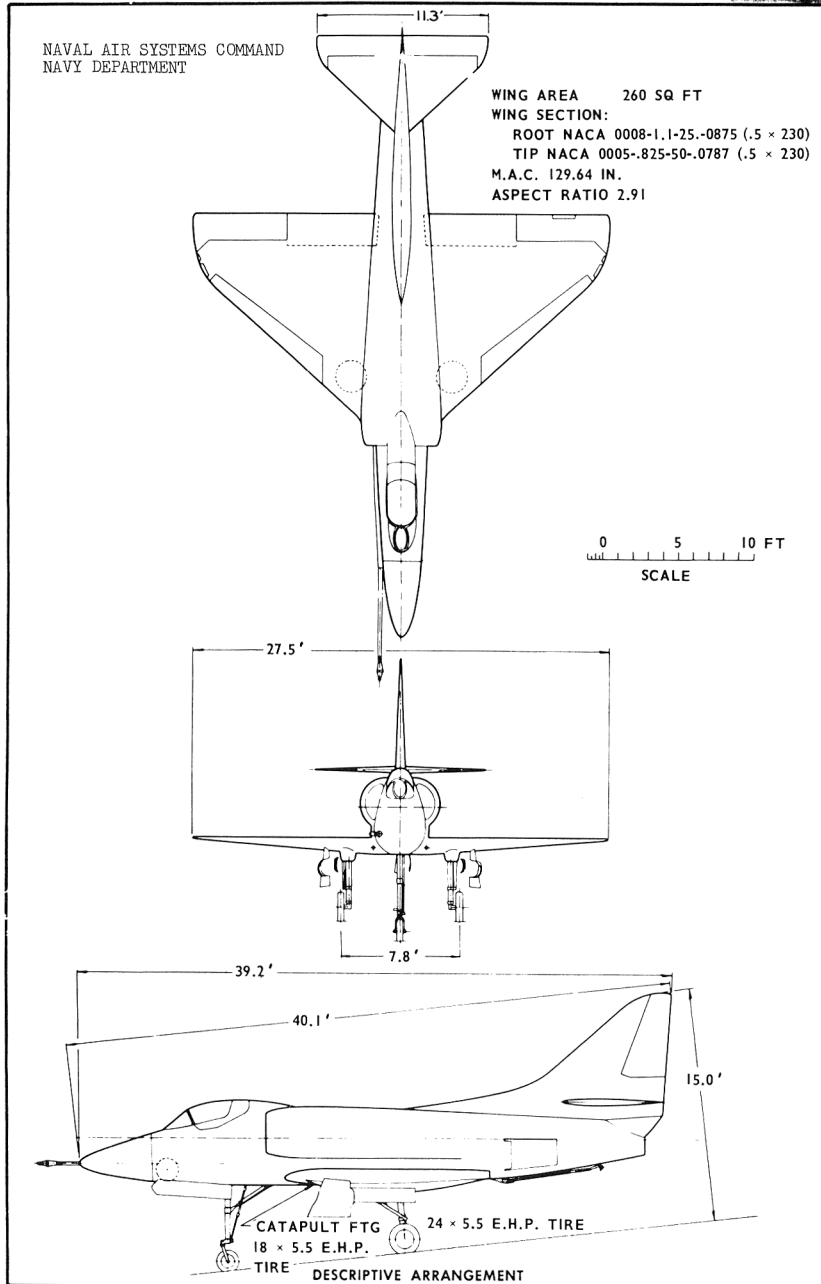


STANDARD AIRCRAFT CHARACTERISTICS

MODEL A-4C

DOUGLAS

UNCLASSIFIED



~~UNCLASSIFIED~~

DECLASSIFIED

| POWER PLANT | MISSION AND DESCRIPTION | WEIGHTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------|---------------|------------------|---------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------|-----------------|-----------|----------------|----------|-----------------|------------|---------------------|---------------|-----------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|---------|------|--------------|-----------------------|---|------------|---------------------------------------------|-------|----------|--------|-------------|--|--|---|---------------------------------|----------------------------------------|
| <p>No. & Model (1) J65-W-16A Axial Flow Turbojet Without Afterburner MFR. - Wright Aeronautical Spec. No. - W.A.C. Specification N390-B Length 113 in. Diameter 31 in.</p> <p style="text-align: center;">RATINGS</p> <table border="0"> <tr> <td>MIL.</td> <td>8300</td> <td>RPM</td> <td>7700 lb.</td> </tr> <tr> <td>Norm.</td> <td>8030</td> <td>RPM</td> <td>6780 lb.</td> </tr> </table> | MIL. | 8300 | RPM | 7700 lb. | Norm. | 8030 | RPM | 6780 lb. | <p>The A-4C airplane is a lightweight, high performance, carrier-based, jet-powered attack airplane capable of dive, glide and loft bombing, in-flight fueling (tanker or receiver), carrying an air-to-surface missile, and firing conventional guns and rockets. It can operate from CVS and CVA type carriers. Limited all-weather navigational aids are provided.</p> <p>The arrangement is conventional with all-metal semi-monocoque structure and three-spar low aspect-ratio wing. Landing gear, flaps, and speed-brakes are hydraulically operated. An electrically operated, fully adjustable stabilizer is used to trim throughout the normal flight range. The aileron, elevator, and rudder systems are hydraulic-power operated. Manual control is provided for emergencies. An automatic flight control system is provided for pilot relief.</p> <p>The small size of the airplane precludes the need for folding wings. The aft fuselage is readily removable to permit quick engine change.</p> | <table border="0"> <thead> <tr> <th>Loadings</th> <th>LBS</th> <th>L.F.</th> </tr> </thead> <tbody> <tr> <td>Empty</td> <td>9,827</td> <td>- - -</td> </tr> <tr> <td>Basic</td> <td>10,467</td> <td>- - -</td> </tr> <tr> <td>Flight Design</td> <td>12,504</td> <td>7.0g</td> </tr> <tr> <td>Combat</td> <td>16,249</td> <td>5.4g</td> </tr> <tr> <td>Max. Take-Off</td> <td>22,500</td> <td>3.9g</td> </tr> <tr> <td>Max. Landing</td> <td></td> <td></td> </tr> <tr> <td> Arrest</td> <td>14,500</td> <td>6.0g</td> </tr> <tr> <td> Airfield</td> <td>16,000</td> <td>5.5g</td> </tr> </tbody> </table> | Loadings | LBS | L.F. | Empty | 9,827 | - - - | Basic | 10,467 | - - - | Flight Design | 12,504 | 7.0g | Combat | 16,249 | 5.4g | Max. Take-Off | 22,500 | 3.9g | Max. Landing | | | Arrest | 14,500 | 6.0g | Airfield | 16,000 | 5.5g | | | | | |
| MIL. | 8300 | RPM | 7700 lb. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Norm. | 8030 | RPM | 6780 lb. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Loadings | LBS | L.F. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Empty | 9,827 | - - - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basic | 10,467 | - - - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flight Design | 12,504 | 7.0g | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Combat | 16,249 | 5.4g | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. Take-Off | 22,500 | 3.9g | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. Landing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arrest | 14,500 | 6.0g | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Airfield | 16,000 | 5.5g | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center;">ELECTRONICS</p> | | <p style="text-align: center;">FUEL AND OIL</p> <table border="0"> <thead> <tr> <th>Gal.</th> <th>No. Tanks</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>563</td> <td>1</td> <td>Wing</td> </tr> <tr> <td>237</td> <td>1</td> <td>Fuselage</td> </tr> </tbody> </table> <p>In-flight fueling provided. Fuel Spec MIL-F-5624 or MIL-F-5572 Maximum useable fuel 800 gal.</p> <p style="text-align: center;">OIL</p> <p>4.0 gal. mounted on engine Oil Spec MIL-L-7808</p> | Gal. | No. Tanks | Location | 563 | 1 | Wing | 237 | 1 | Fuselage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gal. | No. Tanks | Location | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 563 | 1 | Wing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 237 | 1 | Fuselage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>AN/ASQ-17 Electronic Control Central providing the following</p> <table border="0"> <thead> <tr> <th>Function</th> <th>Equivalent to</th> </tr> </thead> <tbody> <tr> <td>UHF Communications</td> <td>AN/ARC-27</td> </tr> <tr> <td>IFF</td> <td>AN/APX-6B</td> </tr> <tr> <td>SIF</td> <td>AN/APA-89</td> </tr> <tr> <td>UHF ADF</td> <td>AN/ARA-25</td> </tr> <tr> <td>Self-contained Navigation (Dead Reckoning Computer)</td> <td>AN/ASN-19A</td> </tr> <tr> <td>TACAN</td> <td>AN/ARN-21</td> </tr> <tr> <td>IABS</td> <td>AN/AJB-3</td> </tr> <tr> <td>Radar</td> <td>AN/APG-53A</td> </tr> <tr> <td>Autopilot</td> <td>Douglas</td> </tr> <tr> <td>Store Arming.</td> <td>T-249</td> </tr> </tbody> </table> | Function | Equivalent to | UHF Communications | AN/ARC-27 | IFF | AN/APX-6B | SIF | AN/APA-89 | UHF ADF | AN/ARA-25 | Self-contained Navigation (Dead Reckoning Computer) | AN/ASN-19A | TACAN | AN/ARN-21 | IABS | AN/AJB-3 | Radar | AN/APG-53A | Autopilot | Douglas | Store Arming. | T-249 | <p style="text-align: center;">DEVELOPMENT</p> <p>Contract Approval dates: Contract NOa(s) 57-182, 85 airplanes, dtd. 9-9-57 NOa(s) 59-0151, 195 airplanes, dtd. 10-2-58 NOa(s) 60-0128, 178 airplanes, dtd. 10-23-59 NOw(s) 61-0022, 180 airplanes, dtd. 9-26-60 First flight: August 1958 First fleet delivery: February 1960.</p> | <p style="text-align: center;">ORDNANCE</p> <table border="0"> <thead> <tr> <th>No.</th> <th>Location</th> <th>Loading</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Fuselage</td> <td>Stores up to 3575 lb.</td> </tr> <tr> <td>2</td> <td>Inbd. Wing</td> <td>Stores up to 2240 lb. with roll restriction</td> </tr> <tr> <td colspan="3" style="text-align: center;">-----</td> </tr> <tr> <td colspan="3" style="text-align: center;">GUNS</td> </tr> <tr> <td>2</td> <td>Lower Wing Outboard of Fuselage</td> <td>MK-12 20 mm Guns with 100 rds. per Gun</td> </tr> </tbody> </table> | No. | Location | Loading | 1 | Fuselage | Stores up to 3575 lb. | 2 | Inbd. Wing | Stores up to 2240 lb. with roll restriction | ----- | | | GUNS | | | 2 | Lower Wing Outboard of Fuselage | MK-12 20 mm Guns with 100 rds. per Gun |
| Function | Equivalent to | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UHF Communications | AN/ARC-27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IFF | AN/APX-6B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIF | AN/APA-89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UHF ADF | AN/ARA-25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Self-contained Navigation (Dead Reckoning Computer) | AN/ASN-19A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TACAN | AN/ARN-21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IABS | AN/AJB-3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Radar | AN/APG-53A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Autopilot | Douglas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Store Arming. | T-249 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No. | Location | Loading | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Fuselage | Stores up to 3575 lb. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Inbd. Wing | Stores up to 2240 lb. with roll restriction | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ----- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GUNS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Lower Wing Outboard of Fuselage | MK-12 20 mm Guns with 100 rds. per Gun | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p style="text-align: center;">DIMENSIONS</p> <table border="0"> <tr> <td>Span</td> <td>27.5 ft.</td> </tr> <tr> <td>Length</td> <td>40.1 ft.</td> </tr> <tr> <td>Height</td> <td>15.0 ft.</td> </tr> <tr> <td>Max. Tread.</td> <td>7.8 ft.</td> </tr> <tr> <td>Turn. Rad. (nose).</td> <td>20.5 ft.</td> </tr> <tr> <td>Wing Area</td> <td>260 sq. ft.</td> </tr> </table> | Span | 27.5 ft. | Length | 40.1 ft. | Height | 15.0 ft. | Max. Tread. | 7.8 ft. | Turn. Rad. (nose). | 20.5 ft. | Wing Area | 260 sq. ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Span | 27.5 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Length | 40.1 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Height | 15.0 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. Tread. | 7.8 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Turn. Rad. (nose). | 20.5 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wing Area | 260 sq. ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

UNCLASSIFIED

SERVICE

PERFORMANCE SUMMARY

| TAKE-OFF LOADING CONDITION | (1) Hi-Hi-Hi Clean Airplane | (3) S.L. Store Delivery 1-MK 28 Store | (5) Close Support 1-300 Gal Tank 12-MK 81 Snakeye | (7) Close Support 2-AGM 12B (Bullpup A) 1-300 Gal Tank | (9) Ferry 3-300 Gal Tanks |
|------------------------------------------------|--------------------------------|------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------|------------------------------|
| TAKE-OFF WEIGHT | lb. | 16,228 | 18,443 | 22,500 | 22,500 |
| Fuel — internal/external (JP-5) | lb./lb. | 5440/NONE | 5440/NONE | 5440/2031 (C) | 5440/5552 (C) |
| Payload | lb. | NONE | 2040 | 3600 | NONE |
| Wing loading | lb./sq. ft. | 62.4 | 70.9 | 86.5 | 86.5 |
| Stall speed—power-off | kn. | 114 | 122 | 138 | 137 |
| Take-off run at S.L.— calm (A) | ft. | 2300 | 3050 | 5710 | 3890 |
| Take-off run at S.L.— 25 kn. wind (A) | ft. | 1510 | 2080 | 4180 | 2710 |
| Take-off to clear 50 ft.— calm (A) | ft. | 3650 | 4700 | 8220 | 5800 |
| Max. speed/altitude (A) | kn./ft. | 570/3000 | 548/9000 | 473/14,000 | 518/10,500 |
| Rate of climb at S.L. (A) | fpm. | 7500 | 6150 | 3900 | 5250 |
| Time: S.L. to 20,000 ft. (A) | min. | 3.4 | 4.5 | 7.6 | 5.3 |
| Time: S.L. to 30,000 ft. (A) | min. | 5.7 | 7.7 | --- | 9.8 |
| Service ceiling (100 fpm) (A) | ft. | 41,950 | 38,500 | 29,800 | 35,600 |
| Combat range (Tanks Retained) | n.mi. | 990 | 755 | 715 | 1020 |
| Average cruising speed | kn. | 432 | 429 | 405 | 423 |
| Cruising altitudes | ft. | 36,800 - 42,150 | 34,050 - 38,400 | 27,800 - 35,200 | 32,500 - 39,000 |
| Combat radius/mission time | n.mi./hr. | 465/2.2 | 165/0.8 (B) | 195/2.0 | 295/2.4 |
| Average cruising speed | kn. | 432 | 431 | 418 | 427 |
| | | | | | |
| | | | | | |
| COMBAT LOADING CONDITION | (2) Clean Airplane | (4) Store Retained | (6) Tank Dropped Stores Retained | (8) Tank Dropped Missiles Retained | (10) Tanks Retained |
| COMBAT WEIGHT | lb. | 14,052 | 16,267 | 20,286 | 17,737 |
| Engine power | | MILITARY | MILITARY | MILITARY | MILITARY |
| Fuel | lb. | 3264 | 3264 | 5440 | 5440 |
| Combat speed/combat altitude | kn./ft. | 515/38,350 | 545/S.L. | 480/5,000 | 530/5,000 |
| Rate of climb/combat altitude | fpm/ft. | 2200/38,350 | 7100/S.L. | 4100/5,000 | 5550/5,000 |
| Combat ceiling (500 fpm) | ft. | 44,000 | 40,100 | 31,150 | 37,600 |
| Rate of climb at S.L. | fpm. | 8800 | 7100 | 4700 | 6250 |
| Max. speed at S.L. | kn. | 569 | 545 | 472 | 525 |
| Max. speed/altitude | kn./ft. | 571/4000 | 550/10,000 | 487/15,000 | 531/9000 |
| | | | | | |
| | | | | | |
| | | | | | |
| LANDING WEIGHT | lb. | 11,748 | 11,935 | 12,347 | 12,244 |
| Fuel | lb. | 960 | 972 | 1101 | 1087 |
| Stall speed—power-off/approach power | kn./kn. | 97/93 | 98/94 | 100/95 | 99/95 |
| Landing distance-ground roll/over 50 ft. obst. | ft./ft. | 2540/3255 | 2580/3295 | 2670/3385 | 2640/3355 |
| | | | | | |
| | | | | | |
| | | | | | |

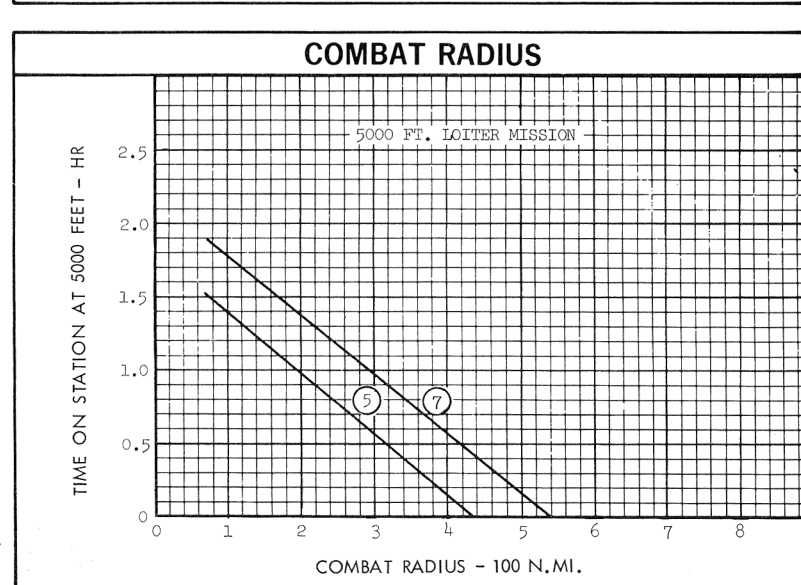
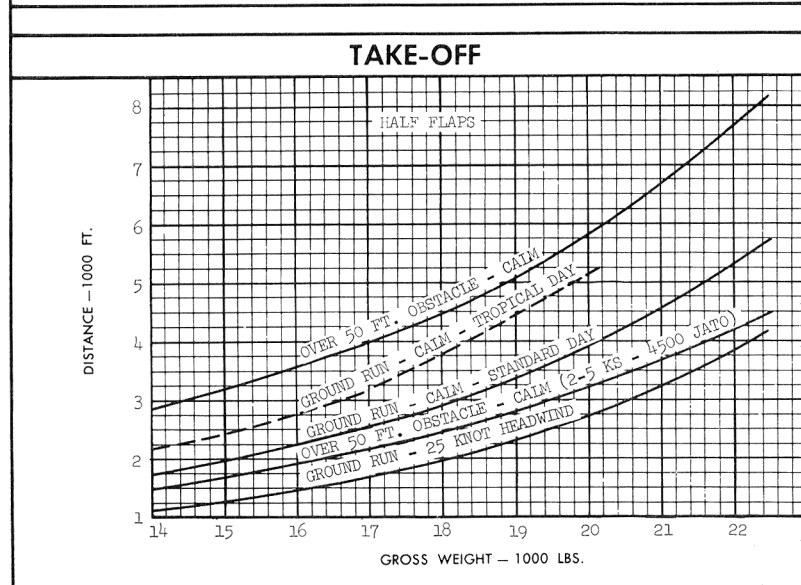
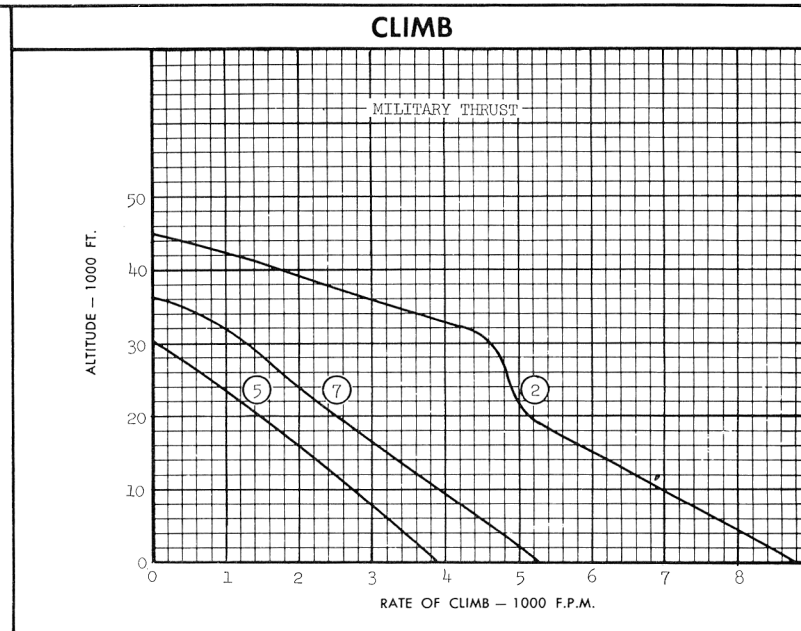
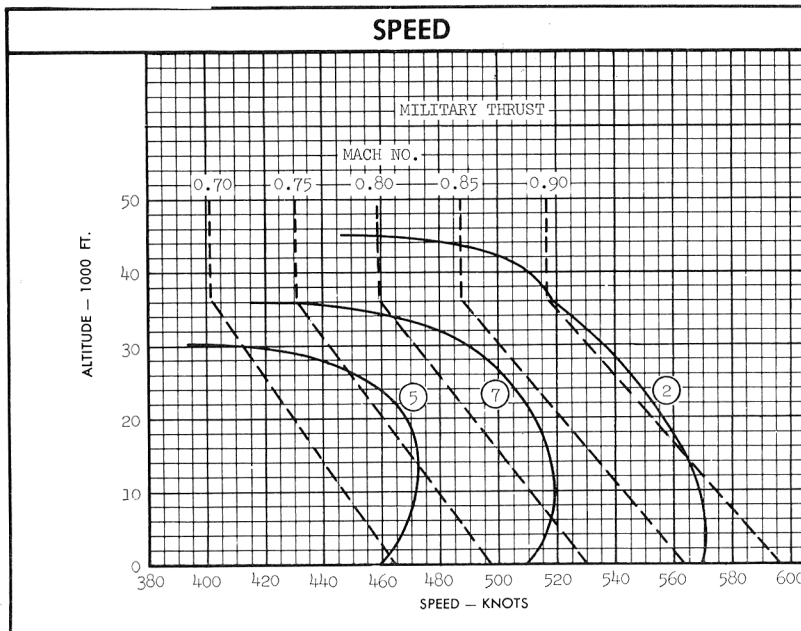
NOTES

- (A) Military thrust, take-off weight, stores and tanks retained.
 (B) With 2-300 Gal. Tanks the combat radius is 485 n. mi.
 (C) Fuel off-loaded to maintain maximum allowable takeoff weight of 22,500 pounds.
 (D) Ferry range is 1785 n. mi. if tanks are dropped when empty.
 (E) All loadings include guns and ammunition. All loadings except clean airplane have pylons on all stations.
 (F) Performance Basis: NATO and DAC flight tests of the Models A-4A, A-4B and A-4C.

A-4C

UNCLASSIFIED

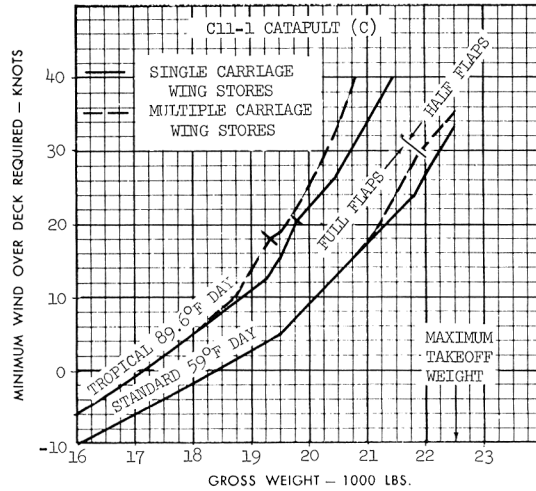
DECLASSIFIED



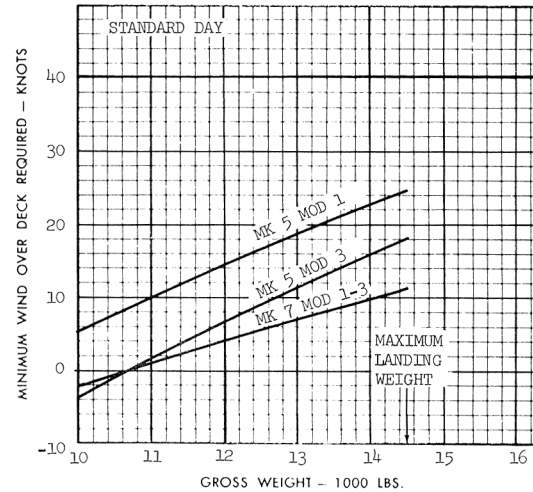
LOADING CONDITION COLUMN NUMBER

UNCLASSIFIED

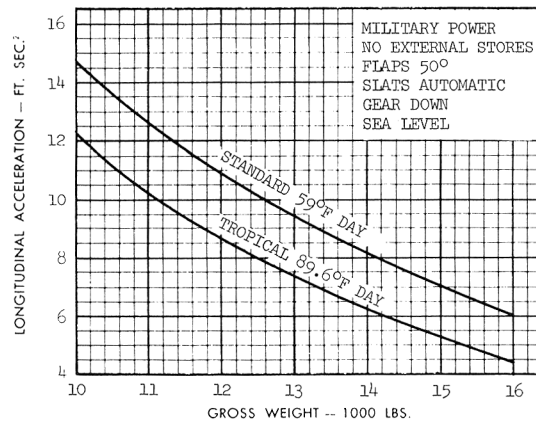
MINIMUM WIND OVER DECK REQUIRED FOR CATAPULTING VS. GROSS WEIGHT (A), (B)



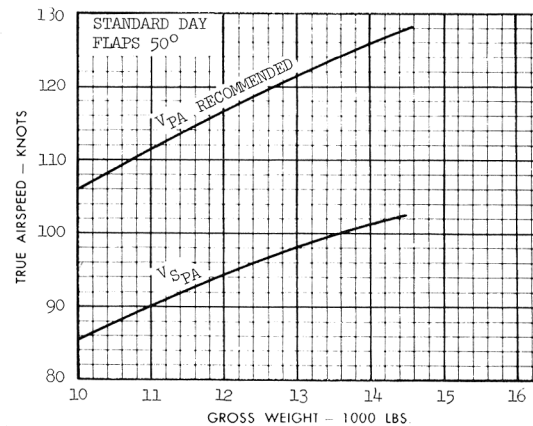
MINIMUM WIND OVER DECK REQUIRED FOR ARRESTING VS. GROSS WEIGHT (D)



WAVE-OFF ACCELERATION (F)



MINIMUM CARRIER APPROACH SPEEDS (E)

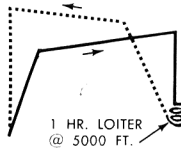
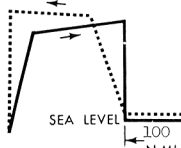
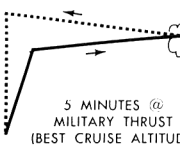
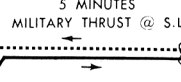
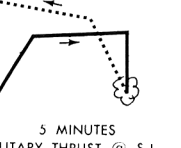


- (A) Catapult takeoff speeds are derived from a correlation of NATC minimums on A-4A, -4B, -4C, and -4E.
- (B) Catapult end speed is limited by a maximum longitudinal acceleration of 5.08g up to a gross weight of 19,480 lb. on the C11-1 catapult and 19,280 lb. on the C-7 catapult, and a tow force of 94,400 lb. at higher gross weights.
- (C) Minimum wind over deck required for C-7 catapult is C11-1 requirement minus 12 knots.

NOTES

- (D) Engaging speed limited by 5.14g maximum horizontal load factor.
- (E) Approach speeds based on fleet operational speeds and corresponding to 17½ units on the pilot's angle-of-attack indicator.
- (F) Wave-off acceleration based on longitudinal acceleration at fleet operational approach speeds.
- (G) 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.

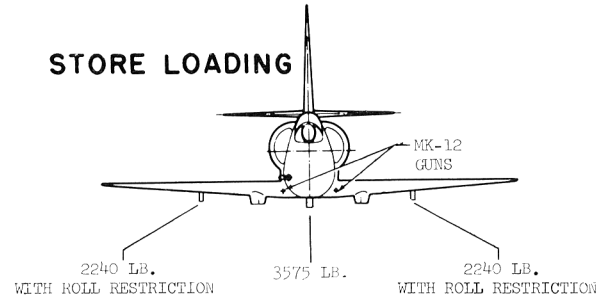
MISSION SUMMARY — ALTERNATE LOADINGS

| | | CLOSE SUPPORT | | HI-LO-LO-HI | | HI-HI-HI | | LO-LO-LO | | HI-LO-HI | |
|--------------------------------------------------------|-------------------|------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------|---------------------|
| | |  | |  | |  | |  | |  | |
| EXTERNAL STORE LOADING (A) | T.O.G.W. | 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. |
| 3 (1) MK 28 | 18,443 | 115 | 1.6 | 180 (D) | 1.2 | 390 | 1.9 | 170 | 1.2 | 295 | 1.5 |
| 7 (2) AGM 12B (BULLPUP A) (1) 300 Gal. Drop Tank | 19,960 | 295 | 2.4 | 340 | 1.9 | 550 | 2.7 | 255 | 1.8 | 460 | 2.3 |
| 11 (1) MK 28 (2) 300 Gal. Drop Tanks | 22,500 (-420) | 425 | 3.0 | 485 | 2.6 | 685 | 3.3 | 330 | 2.3 | 600 | 2.9 |
| 12 (6) MK 81 Snakeyes | 18,327 | 95 | 1.5 | 170 (D) | 1.2 | 355 | 1.8 | 160 | 1.2 | 265 | 1.4 |
| 13 (6) MK 81 Snakeyes (2) 300 Gal. Drop Tanks | 22,500 (-304) | 390 | 2.9 | 455 | 2.5 | 640 | 3.1 | 315 | 2.3 | 560 | 2.8 |
| 14 (6) MK 82 Snakeyes | 19,917 | 75 (D) | 1.7 | 160 (D) | 1.2 | 315 | 1.6 | 155 | 1.2 | 240 | 1.3 |
| 15 (6) MK 82 Snakeyes (2) 300 Gal. Drop Tanks | 22,500 (-1894) | 225 | 2.1 | 300 | 1.8 | 475 | 2.4 | 240 | 1.8 | 405 | 2.1 |
| 16 (12) MK 81 Snakeyes (6) MK 82 Snakeyes | 22,500 (-1335) | -- | -- | -- | -- | 140 | 0.8 | 85 | 0.7 | 95 (D) | 0.6 |
| 17 (2) LAU 3A/A Rocket Packs (1) 300 Gal. Drop Tank | 19,424 | 325 | 2.5 | 370 | 2.0 | 590 | 2.9 | 265 | 1.9 | 500 | 2.4 |

NOTES

- (A) Some loadings will not utilize entire fuel capacity due to takeoff weight limitations (amount of fuel off-loaded shown below takeoff gross weight).
- (B) All loadings include guns and ammunition and two wing pylons.
- (C) Data basis: NATC and DAC flight tests of the Models A-4A, A-4B, and A-4C.
- (D) Based on cruise at intermediate altitude instead of optimum cruise altitude to obtain maximum climb plus cruise distance.

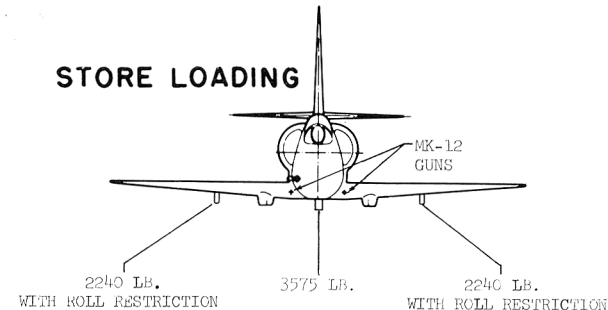
STORE LOADING



| Ordnance | Station No. 3 Left Wing | Station No. 2 Fuselage Centerline | Station No. 1 Right Wing |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suspension Equipment | 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 1) TER | 1) Aero 20A 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 1) TER | 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 1) TER |
| Bombs | 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 | 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) 1) 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) 1) MK-94 Chemical 3) MK-77 Fire Bombs 1) MK-79 Fire Bomb 2) CBU-1A/A 2) CBU-2A/A |

~~UNCLASSIFIED~~ **DECLASSIFIED**

STORE LOADING

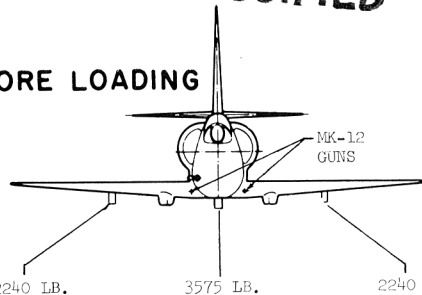


| Ordnance | | | Station No. 3 Left Wing | Station No. 2 Fuselage Centerline | Station No. 1 Right Wing | | |
|-------------------|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Bombs (Continued) | | | 1) Aero 7A (Lazy Dog) 1) MK-44 Cluster Adapter (Lazy Dog) | 1) MK-44 Cluster Adapter (Lazy Dog) | 1) Aero 7A (Lazy Dog) 1) MK-44 Cluster Adapter (Lazy Dog) | | |
| Guided Missiles | | | 1) AGM-12A, -12B Bullpup A 1) AGM-12C Bullpup B 1) Sidewinder LA | 1) AGM-12A, -12B Bullpup A | 1) AGM-12A, -12B Bullpup A 1) AGM-12C Bullpup B 1) Sidewinder LA | | |
| Rocket Launchers | | | 2) IAU-32A/A 2) IAU-3A/A 2) IAU-10/A | 3) IAU-32A/A 3) IAU-3A/A 3) IAU-10/A | 2) IAU-32A/A 2) IAU-3A/A 2) IAU-10/A | | |
| Mines | | | 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 1) 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 | | |

UNCLASSIFIED

UNCLASSIFIED

STORE LOADING

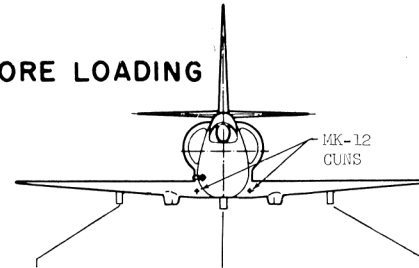


| Ordnance | | | Station No. 3 Left Wing | Station No. 2 Fuselage Centerline | Station No. 1 Right Wing | | |
|-----------------|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Tanks and Pods | | | 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) MK-900 Chaff Dispenser 1) IM-119A Film Delivery Container 1) LAU-10/A Leaflet Dispenser 1) GTC-85 Pod- Mounted | 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) MK-900 Chaff Dispenser 1) LAU-10/A Leaflet Dispenser 1) NAVPAC 1) GTC-85 Pod- Mounted | 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) MK-900 Chaff Dispenser 1) IM-119A Film Delivery Container 1) LAU-10/A Leaflet Dispenser 1) GTC-85 Pod- Mounted | | |
| Special Weapons | | | | 1) MK-28/MK-104 1) MK-43/EDU-8B /EDU-18 1) MK-57/EDU-12 /EDU-19 1) EDU-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 | | |

UNCLASSIFIED

UNCLASSIFIED

STORE LOADING



2240 LB. WITH ROLL RESTRICTION 3575 LB. 2240 LB. WITH ROLL RESTRICTION

| Ordnance | | | Station No. 3 Left Wing | Station No. 2 Fuselage Centerline | Station No. 1 Right Wing | | |
|-----------------|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Training Stores | | | 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 Side- winder target rocket | 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 PMER with MK-76 Mod 5 or MK-106 Mod 3 1) Banner Tow Target | 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 | | |

UNCLASSIFIED

DECLASSIFIED

UNCLASSIFIED

NOTES

HI-HI-HI

Warm-Up, Taxi, Takeoff: 5 min
S.L. NRP
Climb: On course to opt cruise
alt with Mil power
Cruise Out: At max range speed at
opt cruise alt (drop fuel tanks
when empty)
Combat: 5 Min at MRT (stores on, no
distance gained) (drop stores)
Cruise Back: At max range speed at
opt alt
Reserve: 5% initial fuel + 20 min
at max endurance speed at S.L.

SEA LEVEL STORE DELIVERY

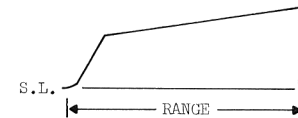
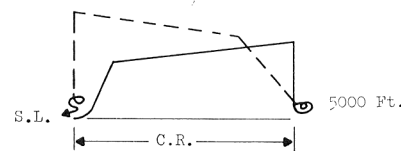
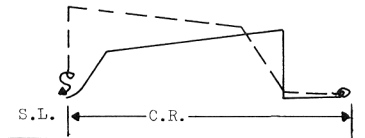
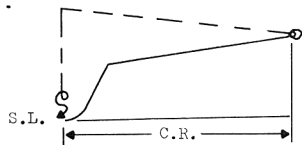
Warm-Up, Taxi, Takeoff: 5 min
S.L. NRP
Climb: On course to opt cruise
alt with Mil power
Cruise Out: At max range speed
at opt cruise alt (drop
fuel tanks when empty)
Descend: To S.L. when 50 n mi
from target (no fuel used
no distance gained)
Run In: 50 n mi at V_{max} at MRT
Combat: 5 Min at MRT (stores on,
no distance gained) stores
dropped after combat
Runout: 50 n mi at V_{max} at MRT
at S.L.
Climb: On course to opt cruise
alt with Mil power
Cruise Back: At max range speed
at opt alt
Reserve: 5% initial fuel + 20
min at max endurance speed
at S.L.

CLOSE AIR SUPPORT

Warm-Up, Taxi, Takeoff: 5 min
S.L. NRP
Climb: On course to opt cruise
alt with Mil power
Cruise Out: At max range speed
at opt cruise alt (drop fuel
tanks when empty)
Descend: To 1000 Ft. (no fuel used
no distance gained)
Loiter: 1 hr at max end speed no
distance gained, stores
dropped at end of loiter
Climb: On course to opt cruise
alt with Mil power
Cruise Back: At max range speed
at opt alt
Reserve: 5% initial fuel + 20 min
at max end speed at S.L.

FERRY RANGE

Warm-Up, Taxi, Takeoff: 5 min
S.L. NRP
Climb: On course to opt cruise
alt with Mil power
Cruise Out: At max range speed
at opt cruise alt (drop
fuel tanks when empty)
Reserve: 5% initial fuel + 20
min at max end speed at
S.L.



○ LOADING CONDITION COLUMN NUMBER

DECLASSIFIED

UNCLASSIFIED

~~UNCLASSIFIED~~

NOTES

HI-LO-LO-HI

Warm-Up, Taxi, Takeoff: 5 min S.L. NRP

Climb: On course to opt cruise alt with Mil power

Cruise Out: At max range speed at opt cruise alt (drop fuel tanks when empty)

Descend: To S.L. when 100/200 n mi from target (no fuel used, no distance gained)

Cruise: At max range speed at S.L. (drop fuel tanks when empty)

Combat: 5 Min. at MRT (stores on, no distance gained)

Drop Stores

Cruise: At max range speed at S.L. to a point 100/200 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 fuel + 20 min at max end speed at S.L.

LO-LO-LO

Warm-Up, Taxi, Takeoff: 5 min S.L. NRP

Cruise: At max range speed at S.L. (drop fuel tanks when empty)

Combat: 5 Min. at MRT (stores on, no distance gained)

Drop Stores

Cruise: at max range speed at S.L.

Reserve: 5% initial fuel + 20 min at max endurance speed at S.L.

HI-LO-HI

Warm-Up, Taxi, Takeoff: 5 min S.L. NRP

Climb: On course to opt cruise alt with Mil power

Cruise Out: At max range speed at opt cruise alt (drop fuel tanks when empty)

Descend: To S.L. (no fuel used, no distance gained)

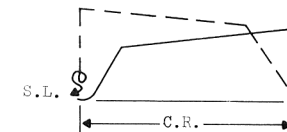
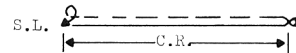
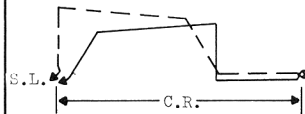
Combat: 5 Min. at MRT (stores on, no distance gained)

Drop Stores

Climb: On course to opt cruise alt with Mil power

Cruise Back: At max range speed at opt alt

Reserve: 5% initial fuel + 20 min at max endurance speed at S.L.



○ LOADING CONDITION COLUMN NUMBER

~~UNCLASSIFIED~~

DECLASSIFIED

~~UNCLASSIFIED~~

THIS PAGE INTENTIONALLY
LEFT BLANK

~~UNCLASSIFIED~~