

F/A-18A-D Hornet PCL (Pocket Check List) NATOPS

LATERAL WEIGHT ASYMMETRY LIMITS

Field takeoff	22,000 ft-lbs
Catapult takeoff	
Weight board \leq 36,000 lbs	6,000 ft-lbs
Weight board \geq 37,000 lbs	22,000 ft-lbs
Inflight conditions	26,000 ft-lbs

Asymmetric jettison/normal release of a store from station 2 or 8 that weighs in excess of 2330 pounds (i.e., GBU-24, MK-60, MK-65, Walleye II ER/DL) exceeds the lateral weight asymmetry limitation and is prohibited (even if this is the normal SMS release sequence, except in an emergency).

FCLP or Carrier landing with gross wt \leq 33,000 lbs. (including wingtip AIM-9 and wing fuel)	17,000 ft-lbs
Carrier landing with gross wt $>$ 33,000 lbs. (including wingtip AIM-9 and wing fuel)	14,500 ft-lbs

Field landing (flared) with sink rate at touchdown up to 500 fpm	26,000 ft-lbs
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ANGLE-OF-ATTACK LIMITATIONS

Flaps AUTO

CONFIGURATION	AOA LIMIT (°)	CG (% MAC)
FE	Unrestricted -6° to +25°	17 to 25% 25 to 28%
FE plus centerline tanks/stores	Unrestricted -6° to +25°	17 to 23.5% 23.5 to 28%
FE plus inboard tanks/stores (with centerline tank/stores)	-6° to +25°	17 to 27.5%
FE plus inboard tanks/stores (without centerline tank/stores)	-6° to +35° -6° to +25°	17 to 24% 24 to 27.5%
FE plus outboard tanks/stores (centerline tank/stores optional)	-6° to +25°	17 to 27.5%
FE plus inboard and outboard tanks/stores (centerline tank/stores optional)	-6° to +20°	17 to 27%

Lateral Weight Asymmetry AOA Limits.

- a. 6,000 to 12,000 ft-lbs asymmetry: -6° to $+20^{\circ}$.
- b. 12,000 to 26,000 ft-lbs asymmetry: -6° to $+12^{\circ}$.
- c. 22,000 to 26,000 ft-lbs asymmetry:
 - (1) Abrupt lateral stick inputs are prohibited.
 - (2) Smooth inputs up to 1/2 stick for rolling maneuvers up to a maximum of 180° bank angle change are authorized.
 - (3) Rudder pedal inputs are authorized only as required to maintain balanced flight (Slip indicator ball centered).

AOA Limits Due to Mach No. (F/A-18B/D)

MACH	AOA LIMIT
0.7 to 0.8	-6° to $+20^{\circ}$
0.8 to 0.9	-6° to $+15^{\circ}$
above 0.9	-6° to $+12^{\circ}$

Flaps HALF or FULL

0° to $+15^{\circ}$ AOA (transitory excursions up to $+20^{\circ}$ are allowed during catapult launch only).

WEIGHT LIMITATIONS

The maximum allowable gross weights are:

Location	Pounds
Field	
Takeoff	51,900
Landing (Flared)	39,000
FCLP/Touch-and-go/Barricade	
Before AFC 029	30,700
After AFC 029	33,000
Carrier	
Catapult	51,900
Landing	
Unrestricted	33,000
Restricted	34,000

Arrestments above 33,000 pounds are subject to the following restrictions:

- (1) Arresting gear - MK 7 MOD 3 Only
- (2) Glideslope - 3.5° Maximum
- (3) Recovery Head Wind (RHW) -
 - (a) 40 knots Minimum - Half flaps allowed
 - (b) Less than 40 knots - Full flaps only
- (4) Lateral Weight Asymmetry -
 - 14,500 ft-lb Maximum (External pylon stores, AIM-9 wing tips, and wing fuel)
- (5) No MOVLAS recovery

ACCELERATION LIMITATIONS WITHOUT G LIMITER

Configuration	Symmetrical	Asymmetrical
Flaps HALF or FULL	+0.5 g to +2.0 g	+0.5 g to +1.5 g
Flaps AUTO	(32,357 pounds or less) -3.0 g to +7.5 g	(32,357 pounds or less) Aircraft thru 161924 +0.2 g to +6.0 g Aircraft 161925 and up -1.0 g to +6.0 g
Gear Retraction and/or Extension	+0.5 g to +2.0 g	+0.5 g to +1.5 g

CATAPULT THROTTLE SETTINGS

Weight Board (LBS)	Engine Power
44,000 and below	MIL MIL/MAX MAX
45,000 and above	MAX

NOTE

MIL/MAX power setting is defined as stabilizing in Military power while in catapult tension, and selecting maximum afterburner at holdback release.

CV Launch Trim

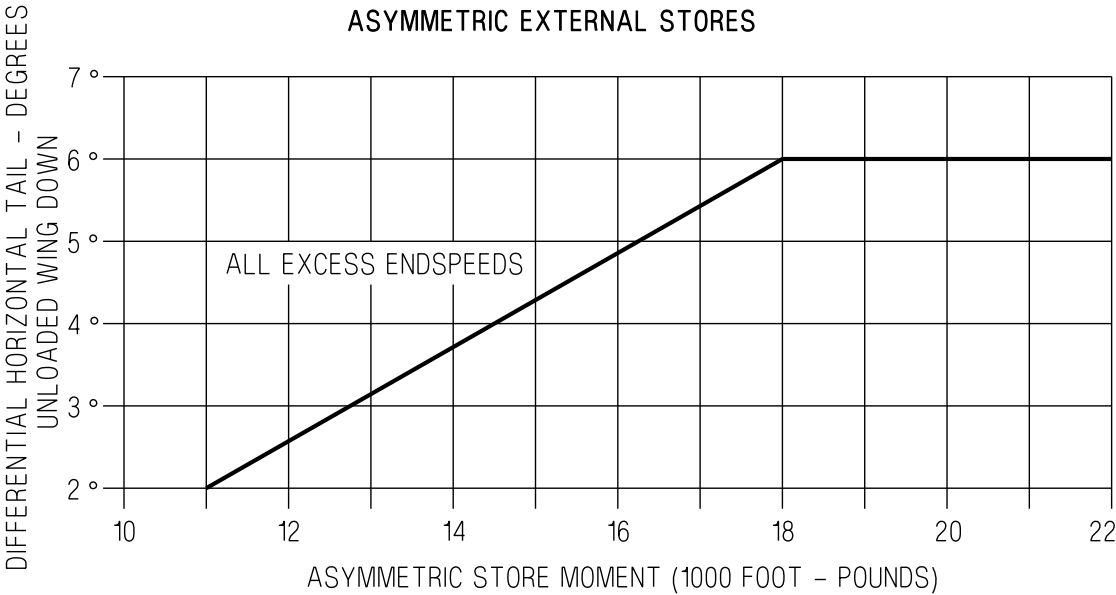
CATAPULT LONGITUDINAL TRIM

WEIGHT BOARD	NOSE UP TRIM
44,000 LBS AND BELOW	16 °
45,000 – 48,000 LBS	17 °
49,000 LBS AND ABOVE	19 °

NOTE

AIRCRAFT BEING LAUNCHED AT GROSS WEIGHTS OF 43,000 LBS AND ABOVE, SHOULD TRIM BY 3 ° NOSE UP IF ADVISED TO EXPECT 10 KNOTS OR LESS EXCESS ENDSPEED.

HALF – FLAP – MIL/MAX POWER
CATAPULT LAUNCH LATERAL TRIM REQUIREMENTS
ASYMMETRIC EXTERNAL STORES



WARNING

FAILURE TO INPUT DIFFERENTIAL STABILATOR TRIM FOR CATAPULT LAUNCHES WITH ASYMMETRIC STORES CAN AGGRAVATE AIRCRAFT CONTROLLABILITY.

NOTE

REDUCE DIFFERENTIAL TRIM BY 2 °
IF CARRYING A SINGLE GBU-24.

Landing Approach Speed

AIRCRAFT CONFIGURATION

FLAPS AS NOTED
GEAR DOWN
SPEED BRAKE IN

REMARKS

ENGINE(S): (2)F404-GE-400
U.S. STANDARD DAY, 1962

NOTE

- C G AT 25% MAC. APPROACH SPEEDS INCREASE 1 KNOT FOR EACH 2% THE C G IS FORWARD OF 25% MAC AND DECREASE 1 KNOT FOR EACH 2% THE C G IS AFT OF 25% MAC.
- INCREASE APPROACH SPEED BY 2 KNOTS IF WINGTIP AIM-9'S ARE OFF
- INCREASE APPROACH SPEEDS BY 2 KNOTS IF EXTERNAL STORES ON.

DATE: DECEMBER 1984
DATA BASIS: FLIGHT TEST

LANDING APPROACH SPEED (KCAS)

LANDING CONFIGURATION		FULL FLAPS 8.1° AOA (Normal Landing)	HALF FLAPS 8.1° AOA (Normal Landing)
GROSS WEIGHT (LB)	24,000	117	126
	25,000	119	129
	26,000	121	131
	27,000	124	134
	28,000	126	136
	29,000	128	139
	30,000	130	141
	31,000	133	144
	32,000	135	146
	33,000	137	148
	34,000	139	151
	35,000	141	153
	36,000	143	155
	37,000	145	157
	38,000	147	159
	39,000	149	161

Landing Approach Speed

AIRCRAFT CONFIGURATION

FLAPS AS NOTED
GEAR DOWN
SPEED BRAKE IN

REMARKS

ENGINE(S): (2)F404-GE-400
U.S. STANDARD DAY, 1962

NOTE

- C G AT 25% MAC. APPROACH SPEEDS INCREASE 1 KNOT FOR EACH 2% THE C G IS FORWARD OF 25% MAC AND DECREASE 1 KNOT FOR EACH 2% THE C G IS AFT OF 25% MAC
- INCREASE APPROACH SPEED BY 2 KNOTS IF WINGTIP AIM- 9'S ARE OFF
- INCREASE APPROACH SPEEDS BY 2 KNOTS IF EXTERNAL STORES ON
- MAIN GEAR TIRE LIMITATION - 210 GOUNDSPEED
- NOSE GEAR TIRE LIMITATION - 190 GOUNDSPEED

DATE: DECEMBER 1984
DATA BASIS: FLIGHT TEST

LANDING APPROACH SPEED (KCAS)

LANDING CONFIGURATION		HALF FLAPS 7.0° AOA (DEL or MECH)	HALF FLAPS 7.0° AOA 0° LEF (LEF Failure)	HALF OR FULL FLAPS - 10° AOA 0° TEF (TEF Failure)	7.0° AOA 0° LEF/0° TEF (LEF/TEF Failure)
GROSS WEIGHT (LB)	24,000	131	133	161	192
	25,000	134	135	164	196
	26,000	136	135	167	200
	27,000	139	141	170	204
	28,000	141	143	173	208
	29,000	144	146	177	212
	30,000	146	148	180	215
	31,000	149	151	183	219
	32,000	151	153	186	222
	33,000	153	156	188	226
	34,000	156	158	191	229
	35,000	158	160	194	232
	36,000	160	162	197	236
	37,000	162	165	199	239
	38,000	165	167	202	242
	39,000	167	169	205	245

Recommended Maximum Single Engine Recovery Weight

REMARKS

ENGINE(S): (2)404-GE-400

AIRCRAFT CONFIGURATION

HALF FLAPS

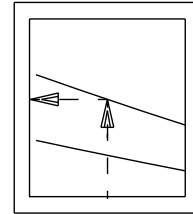
GEAR DOWN

DATE: 15 JANUARY 1993

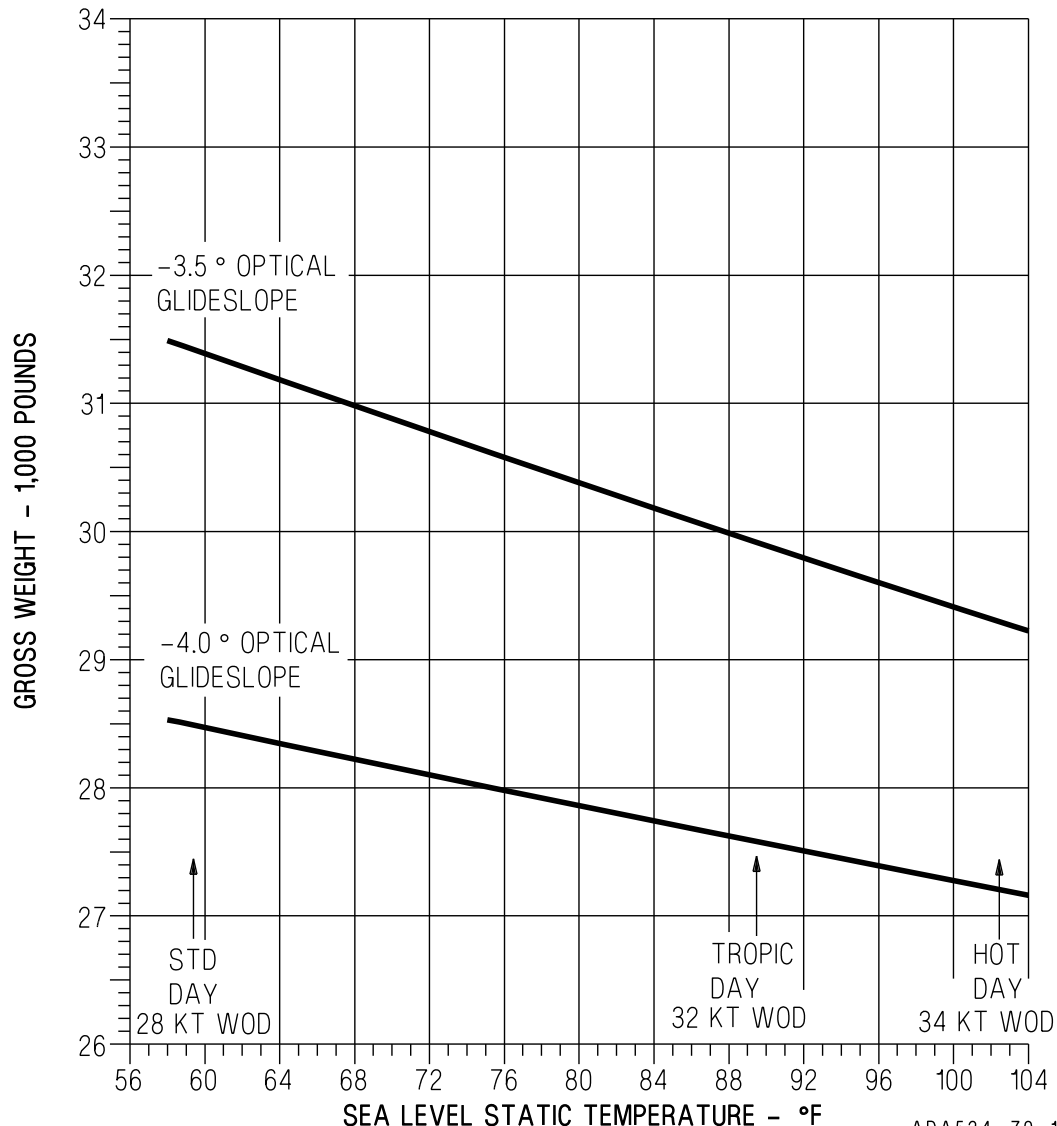
DATA BASIS: ESTIMATED
(BASED ON FLIGHT TEST)

NOTES

- HALF FLAPS
- LANDING GEAR DOWN
- FAILED ENGINE - WINDMILLING OR SEIZED
- C.G. AT 25%MAC
- INCREASE MAX WEIGHT BY 250 LB FOR EACH 1% THE C.G. IS AFT OF 25%MAC
- DECREASE MAX WEIGHT BY 250 LB FOR EACH 1% THE C.G. IS FWD OF 25%MAC
- GREATER WOD PROVIDES IMPROVED WAVEOFF PERFORMANCE
- ADJUSTING GROSS WEIGHT AT OR BELOW THE RECOMMENDED WEIGHT ENSURES LESS THAN 50 FEET ALTITUDE LOST DURING AN ONSPEED AOA SINGLE ENGINE MILITARY POWER WAVEOFF FROM AN ONSPEED AOA/ON GLIDESLOPE CONDITION. MAXIMUM WAVEOFF ALTITUDE LOST FOR TWO ENGINE OPERATION UNDER IDENTICAL CONDITIONS IS LESS THAN 30 FEET.



FUEL GRADE: JP-5
FUEL DENSITY:
6.8 LB/GAL



ADA524_70-1-37

INSTRUCTIONS

ENTER THE CHART WITH THE RELATIVE BEARING. MOVE ALONG THE RELATIVE BEARING TO INTERCEPT THE WIND SPEED ARC. FROM THIS POINT, DESCEND VERTICALLY TO READ THE CROSSWIND COMPONENT, FROM THIS INTERSECTION OF BEARING AND WIND SPEED, PROJECT HORIZONTALLY TO THE LEFT TO READ HEADWIND COMPONENT.

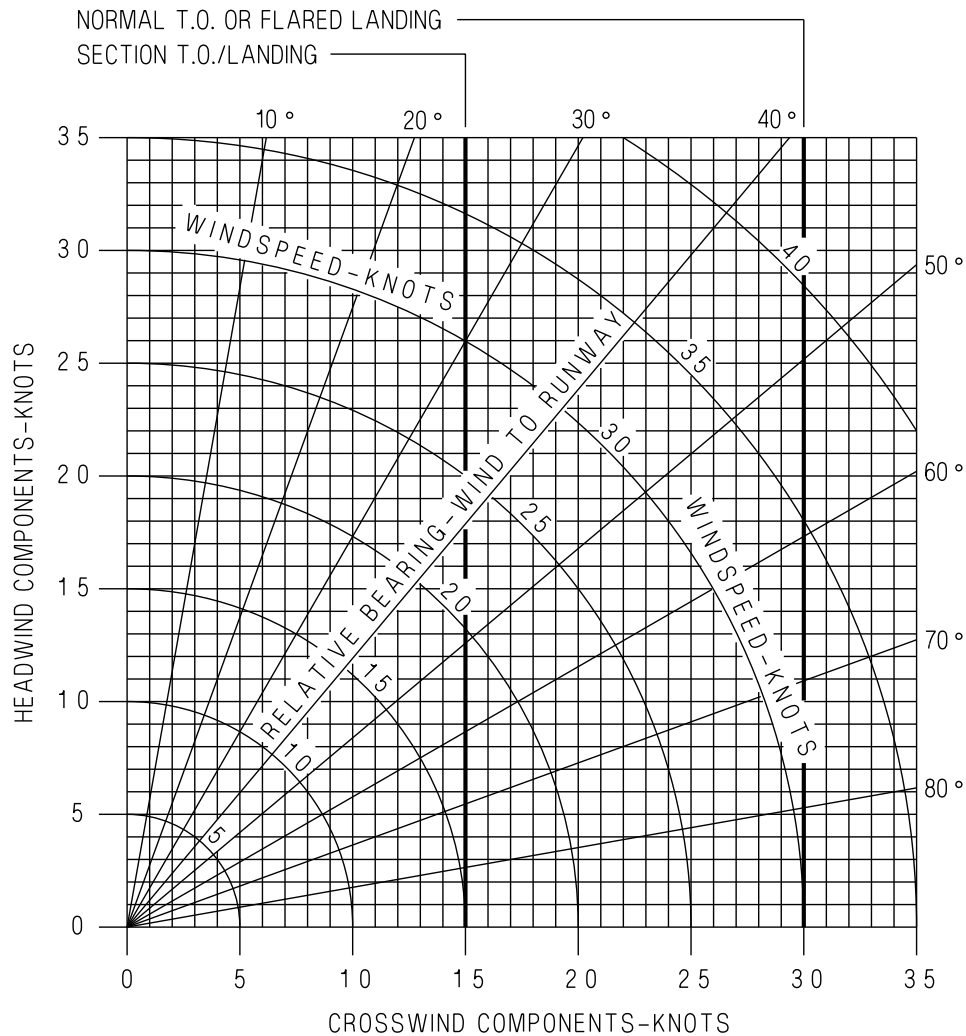
EXAMPLE

REPORTED WIND 050/35, RUNWAY HEADING 030.

- | | |
|----------------------------|-------|
| A. RELATIVE BEARING | 20 ° |
| B. INTERSECT WINDSPEED ARC | 35 KT |
| C. CROSSWIND COMPONENT | 12 KT |
| D. HEADWIND COMPONENT | 33 KT |

Wind Components

CROSSWIND LIMITS:



LATERAL WEIGHT ASYMMETRY LIMITS

Field takeoff 22,000 ft-lbs

Catapult takeoff

Weight board \leq 36,000 lbs 6,000 ft-lbs

Weight board \geq 37,000 lbs 22,000 ft-lbs

Inflight conditions 26,000 ft-lbs

Asymmetric jettison/normal release of a store from station 2 or 8 that weighs in excess of 2330 pounds (i.e., GBU-24, MK-60, MK-65, Walleye II ER/DL) exceeds the lateral weight asymmetry limitation and is prohibited (even if this is the normal SMS release sequence, except in an emergency).

FCLP or Carrier landing with gross wt \leq 33,000 lbs. (including wingtip AIM-9 and wing fuel) 17,000 ft-lbs

Carrier landing with gross wt $>$ 33,000 lbs. (including wingtip AIM-9 and wing fuel) 14,500 ft-lbs

Field landing (flared) with sink rate at touchdown up to 500 fpm 26,000 ft-lbs

ANGLE OF-ATTACK LIMITATIONS

Flaps AUTO

CONFIGURATION	AOA LIMIT ($^{\circ}$)	CG (% MAC)
FE	Unrestricted -6° to $+25^{\circ}$	17 to 25% 25 to 28%
FE plus centerline tanks/stores	Unrestricted -6° to $+25^{\circ}$	17 to 23.5% 23.5 to 28%
FE plus inboard tanks/ stores (with centerline tank/stores)	-6° to $+25^{\circ}$	17 to 27.5%
FE plus inboard tanks/ stores (without centerline tank/stores)	-6° to $+35^{\circ}$ -6° to $+25^{\circ}$	17 to 24% 24 to 27.5%
FE plus outboard tanks/ stores (centerline tank/ stores optional)	-6° to $+25^{\circ}$	17 to 27.5%
FE plus inboard and outboard tanks/stores (centerline tank/ stores optional)	-6° to $+20^{\circ}$	17 to 27%

Lateral Weight Asymmetry AOA Limits

- a. 6,000 to 12,000 ft-lbs asymmetry: -6° to $+20^{\circ}$.
- b. 12,000 to 26,000 ft-lbs asymmetry: -6° to $+12^{\circ}$.
- c. 22,000 to 26,000 ft-lbs asymmetry:
 - (1) Abrupt lateral stick inputs are prohibited.
 - (2) Smooth inputs up to 1/2 stick for rolling maneuvers up to a maximum of 180° bank angle change are authorized.
 - (3) Rudder pedal inputs are authorized only as required to maintain balanced flight (Slip indicator ball centered).

AOA Limits Due to Mach No. (F/A-18D)

MACH	AOA LIMIT
0.7 to 0.8	-6° to $+20^{\circ}$
0.8 to 0.9	-6° to $+15^{\circ}$
above 0.9	-6° to $+12^{\circ}$

Flaps HALF or FULL

- a. 0° to $+15^{\circ}$ AOA (transitory excursions up to $+20^{\circ}$ are allowed during catapult launch only)

WEIGHT LIMITATIONS

The maximum allowable gross weights are:

Location	Pounds
Field Takeoff	51,900
Field landing (flared)	39,000
FCLP/Touch-and-go/ Barricade	33,000
Carrier	
Catapult	51,900
Landing	
Unrestricted	33,000
Restricted	34,000

Arrestments above 33,000 pounds are subject to the following restrictions:

- (1) Arresting gear - MK 7 MOD 3 Only
- (2) Glideslope - 3.5° Maximum
- (3) Recovery Head Wind (RHW) -
 - (a) 40 knots Minimum - Half flaps allowed
 - (b) Less than 40 knots - Full flaps only
- (4) Lateral Weight Asymmetry -
 - 14,500 ft-lb Maximum (External pylon stores, AIM-9 wing tips, and wing fuel)
- (5) No MOVLAS recovery

ACCELERATION LIMITATIONS WITHOUT G LIMITER

Configuration	Symmetrical	Asymmetrical
Flaps HALF or FULL	+0.5 g to +2.0 g	+0.5 g to +1.5 g
Flaps AUTO	(32,357 pounds or less)- -3.0 g to +7.5 g	-1.0 g to +6.0 g
Gear Retraction and/or Extension	+0.5 g to +2.0 g	+0.5 g to +1.5 g

CATAPULT THROTTLE SETTINGS

Weight Board (LBS)	Engine Power
44,000 and below	MIL MIL/MAX MAX
45,000 and up	MAX

NOTE

MIL/MAX power setting is defined as stabilizing in Military power while in catapult tension, and selecting maximum afterburner at holdback release.

CV Launch Trim

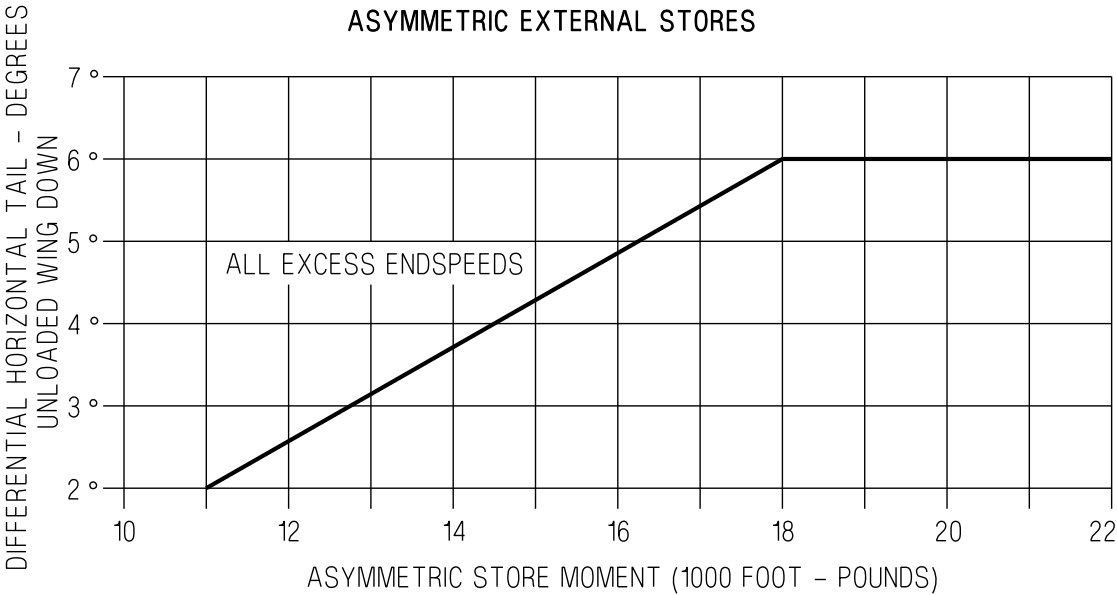
CATAPULT LONGITUDINAL TRIM

WEIGHT BOARD	NOSE UP TRIM
44,000 LBS AND BELOW	16 °
45,000 – 48,000 LBS	17 °
49,000 LBS AND ABOVE	19 °

NOTE

AIRCRAFT BEING LAUNCHED AT GROSS WEIGHTS OF 43,000 LBS AND ABOVE, SHOULD TRIM BY 3 ° NOSE UP IF ADVISED TO EXPECT 10 KNOTS OR LESS EXCESS ENDSPEED.

HALF – FLAP – MIL/MAX POWER
CATAPULT LAUNCH LATERAL TRIM REQUIREMENTS
ASYMMETRIC EXTERNAL STORES



WARNING

FAILURE TO INPUT DIFFERENTIAL STABILATOR TRIM FOR CATAPULT LAUNCHES WITH ASYMMETRIC STORES CAN AGGRAVATE AIRCRAFT CONTROLLABILITY.

NOTE

REDUCE DIFFERENTIAL TRIM BY 2 °
IF CARRYING A SINGLE GBU-24.

Landing Approach Speed

AIRCRAFT CONFIGURATION

FLAPS AS NOTED
GEAR DOWN
SPEED BRAKE IN

REMARKS

ENGINE(S): (2)F404-GE-402
U.S. STANDARD DAY, 1962

NOTE

- C G AT 25% MAC. APPROACH SPEEDS INCREASE 1 KNOT FOR EACH 2% THE C G IS FORWARD OF 25% MAC AND DECREASE 1 KNOT FOR EACH 2% THE C G IS AFT OF 25% MAC.
- INCREASE APPROACH SPEED BY 2 KNOTS IF WINGTIP AIM-9'S ARE OFF
- INCREASE APPROACH SPEEDS BY 2 KNOTS IF EXTERNAL STORES ON.

DATE: DECEMBER 1984

DATA BASIS: FLIGHT TEST

LANDING APPROACH SPEED (KCAS)

LANDING CONFIGURATION		FULL FLAPS 8.1° AOA (Normal Landing)	HALF FLAPS 8.1° AOA (Normal Landing)
GROSS WEIGHT (LB)	24,000	117	126
	25,000	119	129
	26,000	121	131
	27,000	124	134
	28,000	126	136
	29,000	128	139
	30,000	130	141
	31,000	133	144
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LANDING APPROACH SPEED

AIRCRAFT CONFIGURATION

FLAPS AS NOTED
GEAR DOWN
SPEED BRAKE IN

REMARKS

ENGINE(S): (2)F404-GE-402
U.S. STANDARD DAY, 1962

NOTE

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- INCREASE APPROACH SPEED BY 2 KNOTS IF WINGTIP AIM-9'S ARE OFF
- INCREASE APPROACH SPEEDS BY 2 KNOTS IF EXTERNAL STORES ON
- MAIN GEAR TIRE LIMITATION - 210 GOUNDSPEED
- NOSE GEAR TIRE LIMITATION - 190 GOUNDSPEED

DATE: DECEMBER 1984
DATA BASIS: FLIGHT TEST

LANDING APPROACH SPEED (KCAS)

LANDING CONFIGURATION		HALF FLAPS 7.0° AOA (DEL or MECH)	HALF FLAPS 7.0° AOA 0° LEF (LEF Failure)	HALF OR FULL FLAPS - 10° AOA 0° TEF (TEF Failure)	7.0° AOA 0° LEF/0° TEF (LEF/TEF Failure)
GROSS WEIGHT (LB)	24,000	131	133	161	192
	25,000	134	135	164	196
	26,000	136	135	167	200
	27,000	139	141	170	204
	28,000	141	143	173	208
	29,000	144	146	177	212
	30,000	146	148	180	215
	31,000	149	151	183	219
	32,000	151	153	186	222
	33,000	153	156	188	226
	34,000	156	158	191	229
	35,000	158	160	194	232
	36,000	160	162	197	236
	37,000	162	165	199	239
	38,000	165	167	202	242
	39,000	167	169	205	245

Recommended Maximum Single Engine Recovery Weight

REMARKS

ENGINE(S): (2)404-GE-402

AIRCRAFT CONFIGURATION

HALF FLAPS

GEAR DOWN

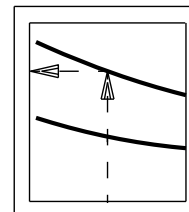
DATE: 15 JANUARY 1993

DATA BASIS: ESTIMATED

(BASED ON FLIGHT TEST)

NOTES

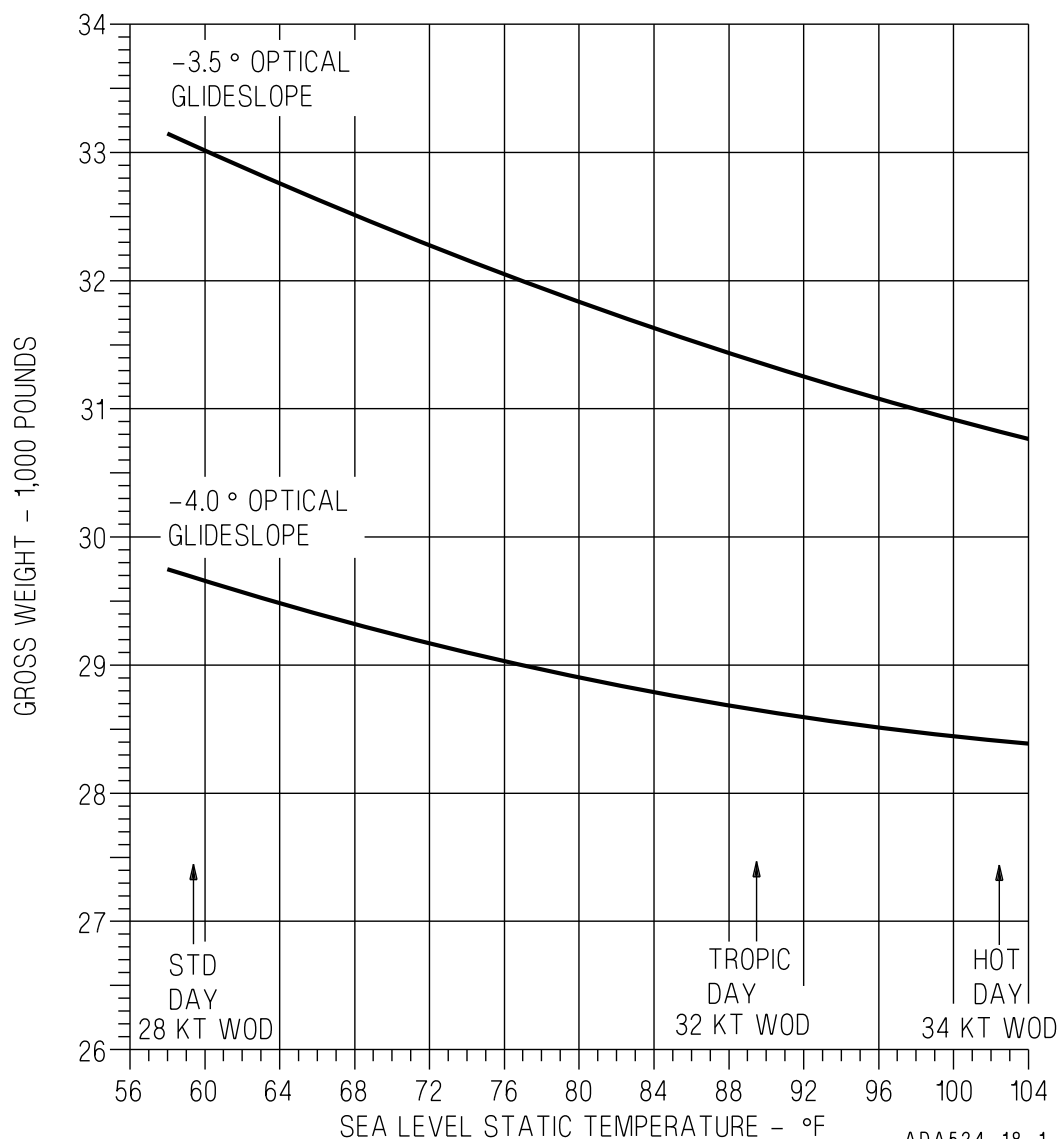
- HALF FLAPS
- LANDING GEAR DOWN
- FAILED ENGINE - WINDMILLING OR SEIZED
- C.G. AT 25%MAC
- INCREASE MAX WEIGHT BY 250 LB FOR EACH 1% THE C.G. IS AFT OF 25%MAC
- DECREASE MAX WEIGHT BY 250 LB FOR EACH 1% THE C.G. IS FWD OF 25%MAC
- GREATER WOD PROVIDES IMPROVED WAVEOFF PERFORMANCE
- ADJUSTING GROSS WEIGHT AT OR BELOW THE RECOMMENDED WEIGHT ENSURES LESS THAN 50 FEET ALTITUDE LOST DURING AN ONSPEED AOA SINGLE ENGINE MILITARY POWER WAVEOFF FROM AN ONSPEED AOA/ON GLIDESLOPE CONDITION. MAXIMUM WAVEOFF ALTITUDE LOST FOR TWO ENGINE OPERATION UNDER IDENTICAL CONDITIONS IS LESS THAN 30 FEET.



FUEL GRADE: JP-5

FUEL DENSITY:

6.8 LB/GAL



ADA524-18-1-039

INSTRUCTIONS

ENTER THE CHART WITH THE RELATIVE BEARING. MOVE ALONG THE RELATIVE BEARING TO INTERCEPT THE WIND SPEED ARC. FROM THIS POINT, DESCEND VERTICALLY TO READ THE CROSSWIND COMPONENT, FROM THIS INTERSECTION OF BEARING AND WIND SPEED, PROJECT HORIZONTALLY TO THE LEFT TO READ HEADWIND COMPONENT.

EXAMPLE

REPORTED WIND 050/35, RUNWAY HEADING 030.

- | | |
|----------------------------|-------|
| A. RELATIVE BEARING | 20 ° |
| B. INTERSECT WINDSPEED ARC | 35 KT |
| C. CROSSWIND COMPONENT | 12 KT |
| D. HEADWIND COMPONENT | 33 KT |

Wind Components

CROSSWIND LIMITS:

