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Note 3: The subject of this AD is addressed in Canadian airworthiness directive CF-97-21R1, dated July 22, 1998.

(h) This amendment becomes effective on November 22, 1999.

Issued in Renton, Washington, on October 7, 1999.

D. L. Riggan,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 99-26866 Filed 10-15-99; 8:45 am]

BILLING CODE 4910-13-U

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 96-NM-209-AD; Amendment 39-11372; AD 99-21-26]

RIN 2120-AA64

Airworthiness Directives; Raytheon (Beech) Model 400, 400A, 400T, and MU-300-10 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Raytheon (Beech) Model 400, 400A, 400T, and MU-300-10 airplanes, that currently requires a revision to the Airplane Flight Manual (AFM) to provide pilots with special operating procedures during icing conditions. This amendment adds a requirement to modify the airplane ice protection system. This amendment also removes Model MU-300 airplanes from the applicability of the existing AD. This amendment is prompted by the development of a modification that will positively address the unsafe condition. The actions specified by this AD are intended to prevent uncommanded nose-down pitch at certain flap settings during icing conditions.

DATES: Effective November 22, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of November 22, 1999.

ADDRESSES: The service information referenced in this AD may be obtained

from Raytheon Aircraft Company, Technical Services—Beech; P.O. Box 85, Wichita, Kansas 67201-0085. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Small Airplane Directorate, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Tina L. Miller, Aerospace Engineer, Flight Test Branch, ACE-117W, FAA, Small Airplane Directorate, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4168; fax (316) 946-4407.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 94-25-10, amendment 39-9094 (59 FR 64112, December 13, 1994), which is applicable to all Raytheon (Beech) Model 400, 400A, 400T, and MU-300-10 airplanes, and all Mitsubishi Model MU-300 airplanes, was published in the **Federal Register** on February 26, 1997 (62 FR 8650). That action proposed to continue to require a revision to the Airplane Flight Manual (AFM) to provide pilots with special operating procedures during icing conditions, and proposed to require modification of the horizontal stabilizer ice protection system. That action also proposed to remove Model MU-300 airplanes from the applicability of the existing AD. [The FAA is in the process of issuing separate rulemaking action (Docket 96-NM-210-AD) for Model MU-300 airplanes that will require, among other things, certain AFM revisions and installation of an ice detector on those airplanes.] That proposal was prompted by the development of a modification that will positively address the unsafe condition. The proposed requirements of that action are intended to prevent uncommanded nose-down pitch at certain flap settings during icing conditions.

Actions Since the Issuance of the NPRM

The FAA has reviewed and approved Raytheon Service Instructions No. T-1A-0064 (undated). This service information describes procedures for installation of an additional anti-ice control valve and pressure switch for the bleed air supply in the aft fuselage compartment, and an ice detector on the

nose of the aircraft, and related annunciators, relays, a selector switch, and electrical wiring in the flight compartment and fuselage areas. In addition, the service information contains a "Note" that provides procedures to perform if icing conditions are encountered during flight.

Comments to the NPRM

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request To Delay Issuance of the Final Rule

One commenter requests that the FAA delay the issuance of the final rule until a new modification of the horizontal stabilizer icing protection system is available for field installation on the Model 400T. The commenter states that such a modification would require less down time of the airplane and lower costs to the operator.

The FAA considers that a delay in issuance of this final rule is unnecessary. The FAA considers that accomplishment of the actions required by the existing AD were adequate to prevent uncommanded nose-down pitch at certain flap settings during icing conditions in the interim until the modification required by this final rule could be accomplished. However, as noted in the proposal, accomplishment of the modification of the ice protection system improves the ice protection of the horizontal stabilizer. Since such a modification is now available for Model 400T airplanes, the FAA has determined that it is appropriate to add a provision for accomplishment of this modification in this final rule. Paragraph (b)(2) of this AD has been revised accordingly.

Request To Revise the Cost Impact Paragraph

This same commenter requests that the FAA revise the number of airplanes specified in the Cost Impact paragraph of the proposal to reflect the actual number of airplanes affected by the proposal. The manufacturer notes that there are currently 360 Raytheon (Beech) Model 400, 400A, and 400T airplanes and MU-300-10 airplanes in the worldwide fleet, 64 Model 400 and MU-300-10 airplanes, 107 Model 400A airplanes, and 189 Model 400T airplanes of U.S. Registry.

The FAA concurs with revising the number of airplanes, and the resulting revision of the cost estimate figures involved. However, since the submittal of the manufacturer's initial comments,

the manufacturer has updated the correct number of airplanes again. The FAA has revised the Cost Impact paragraph of the final rule to specify the latest number of airplanes and the consequent revision of the cost estimate figures.

Request To Revise the Description of the Ice Protection System

This same commenter also requests that the description of the ice protection specified in the Summary section of the proposed rule be clarified from "horizontal stabilizer ice protection system * * *" to specify "airplane ice protection system." The manufacturer states that the proposal refers not only to the horizontal stabilizer ice protection, but pertains to the entire airplane's ice protection system.

The FAA acknowledges that the actions specified in the final rule apply to the entire "airplane" ice protection system, although the modification applies primarily to the horizontal stabilizer ice protection system. The FAA has revised the final rule to reflect the description of the modification as the "airplane ice protection system."

Additional Change to the Final Rule

As discussed previously, the FAA has reviewed and approved Raytheon Service Instructions No. T-1A-0064 (undated), which describes procedures for modification of the airplane ice protection system. The FAA has added the service instruction as the appropriate source of service information for accomplishment of the requirements of paragraph (b)(2) of this final rule.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 388 Raytheon (Beech) Model 400, 400A, 400T, and MU-300-10 airplanes of the affected design in the worldwide fleet.

The FAA estimates that 64 Model 400 and MU-300-10 airplanes, 90 Model 400A airplanes, and 183 Model 400T airplanes of U.S. registry will be affected by this AD.

The actions that are currently required by AD 94-25-10 (AFM revision) take approximately 1 work

hour per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact on U.S. operators of the actions currently required is estimated to be \$20,220, or \$60 per airplane.

For Model 400, 400A, and MU-300-10 airplanes: The modification that is required by this AD will take approximately 320 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Required parts will cost between \$37,000 and \$45,000 per airplane. Based on these figures, the cost impact on the requirements of this AD for U.S. operators of those airplanes is estimated to be between \$8,654,800 and \$9,886,800, or between \$56,200 and \$64,200 per airplane.

For Model 400T airplanes: The modification required by this AD will take approximately 360 work hours per airplane to accomplish, at an average rate of \$60 per work hour. Required parts will cost approximately \$40,000 per airplane. Based on these figures, the cost impact of the AD on U.S. operators of those airplanes is estimated to be \$11,272,800, or \$61,600 per airplane. However, the FAA has been advised that, for Model 400T airplanes, the manufacturer has committed previously to its customers that it will bear the cost of replacement parts and labor costs necessary to accomplish the replacement of those parts. Therefore, the future economic cost impact of this rule on U.S. operators may be less than the cost impact figure indicated above.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic

impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39-9094 (59 FR 64112, December 13, 1994), and by adding the following new airworthiness directive (AD), amendment 39-11372, to read as follows:

99-21-26 Raytheon Aircraft Company

(Formerly Beech): Amendment 39-11372. Docket 96-NM-209-AD. Supersedes AD 94-25-10, Amendment 39-9094.

Applicability: All Model 400, 400T, and MU-300-10 airplanes; and Model 400A airplanes having serial numbers RK-1 through RK-107 inclusive; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent uncommanded nose-down pitch at certain flap settings during icing conditions, accomplish the following:

(a) Within 20 days after December 28, 1994 (the effective date of AD 94-25-10, amendment 39-9094), revise the Limitations

Section and Normal Procedures Section of the FAA-approved Airplane Flight Manual (AFM) to include the following text. This may be accomplished by inserting a copy of this AD in the AFM.

"ICING CONDITIONS

If icing conditions are encountered during flight, no greater than 10 degrees flaps may be utilized for landing unless the following conditions are met:

1. The icing conditions were encountered for less than 10 minutes, and the Ram Air Temperature (RAT) during such encounter was warmer than -8 degrees C.

Or

2. A RAT of $+5$ degrees C or warmer is observed during approach and landing.

If either of the above two conditions is met, 30 degrees flaps may be utilized for landing. Otherwise:

Flaps (landing flaps setting)	10 degrees
Land Select (LAND SEL) Switch.	Flaps 10 degrees

Use landing data for 10 degrees flaps from Appendix 1 of this AD."

(b) Within 2 years after the effective date of this AD, accomplish the actions specified in paragraph (b)(1) or (b)(2) of this AD, as applicable.

(1) For Model 400, 400A, and MU-300-10 airplanes: Modify the airplane ice protection system in accordance with Beechcraft Service Bulletin No. 2600, dated November 1995. Accomplishment of this modification constitutes terminating action for the AFM revision required by paragraph (a) of this AD. Following such accomplishment, that AFM revision may be removed from the AFM.

(2) For Model 400T airplanes: Accomplish the actions specified in accordance with either paragraph (b)(2)(i) or (b)(2)(ii) of this AD.

(i) Accomplish the actions specified in paragraph (b)(2)(i)(A) and (b)(2)(i)(B) of this AD.

(A) Revise the Limitations Section and Normal Procedures Section of the FAA-approved Airplane Flight Manual (AFM) to include the following text. This may be accomplished by inserting a copy of this AD in the AFM. Following such accomplishment, the AFM revision required by paragraph (a) of this AD may be removed from the AFM.

"ICING CONDITIONS

If icing conditions are encountered during flight, no greater than 10 degrees flaps may be utilized for landing unless the following conditions are met:

1. The icing conditions were encountered for less than 10 minutes, and the Ram Air Temperature (RAT) during such encounter was warmer than -8 degrees C.

Or

2. A RAT of $+5$ degrees C or warmer is observed during approach and landing.

If either of the above two conditions is met, 30 degrees flaps may be utilized for landing.

Note: Do not operate anti-ice system at ram air temperatures greater than 50 degrees F (10 degrees C) unless in actual icing conditions, as indicated by the illumination of the ICING annunciator or airframe ice accumulation."

(B) Modify the airplane ice protection system in accordance with Raytheon Beech Service Instructions No. T-1A-0064 (undated). Accomplishment of the modification does not constitute terminating action for the requirement to revise the AFM in accordance with paragraph (b)(2)(i)(A) of this AD.

(ii) Modify the airplane ice protection system in accordance with a method approved by the Manager, Wichita Aircraft Certification Office (ACO), FAA, Small Airplane Directorate.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Wichita ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Wichita ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) Except as provided by paragraphs (a), (b)(2)(i)(A), and (b)(2)(ii) of this AD, the actions shall be done in accordance with Beechcraft Service Bulletin No. 2600, dated November 1995, or Raytheon Service Instructions No. T-1A-0064 (undated). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Small Airplane Directorate, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on November 22, 1999.

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APPENDIX 1

MODEL 400A (RK-24 AND AFTER) AND 400T

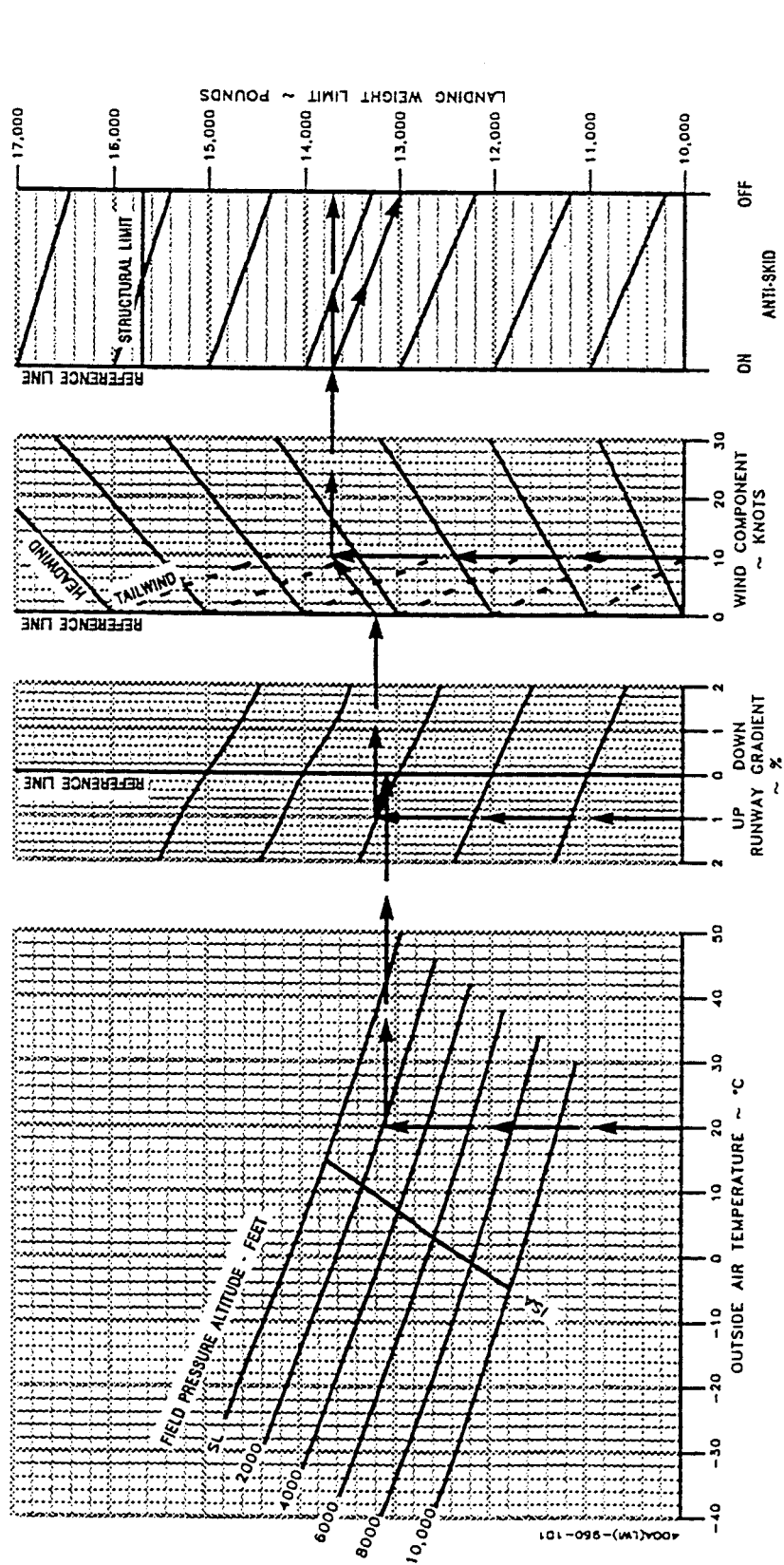
MAXIMUM LANDING WEIGHT LIMITED BY MAXIMUM BRAKE ENERGY

ASSOCIATED CONDITIONS:
BRAKING . . . MAXIMUM

FLAPS 10°

EXAMPLE:

OAT 20°C
FIELD PRESSURE ALTITUDE 2000 FT
RUNWAY GRADIENT 1% UP
HEADWIND 10 KTS
LANDING WEIGHT LIMIT:
ANTI-SKID (ON) 13,715 LBS
ANTI-SKID (OFF) 13,000 LBS



MODEL 400A (RK-24 AND AFTER) AND 400T

ASSOCIATED CONDITIONS:

THRUST RETARDED TO MAINTAIN 3°
APPROACH ANGLE TO 50 FT.

AT 50 FT, RETARD TO IDLE.

RUNWAY PAVED, DRY SURFACE

V_{REF} KIAS AS TABULATED

BRACING ... MAXIMUM

NOTE: TO DETERMINE THE FLAPS 10° LANDING DISTANCE, READ FROM THE "LANDING DISTANCE" GRAPH FOR THE APPROPRIATE FLAP 30° DISTANCE. THEN ENTER THE GRAPH BELOW WITH THAT VALUE, AND READ THE FLAPS 10° LANDING DISTANCE.

LANDING DISTANCE - FLAPS 10°

WEIGHT ~ POUNDS	V _{REF} ~ KNOTS
16,100	133
15,700	131
15,000	128
14,000	124
13,000	119
12,000	114
11,000	110
10,000	104

EXAMPLE:

FLAPS 30° LANDING DISTANCE

ANTI-SKID (ON) 3020 FT

ANTI-SKID (OFF) 3480 FT

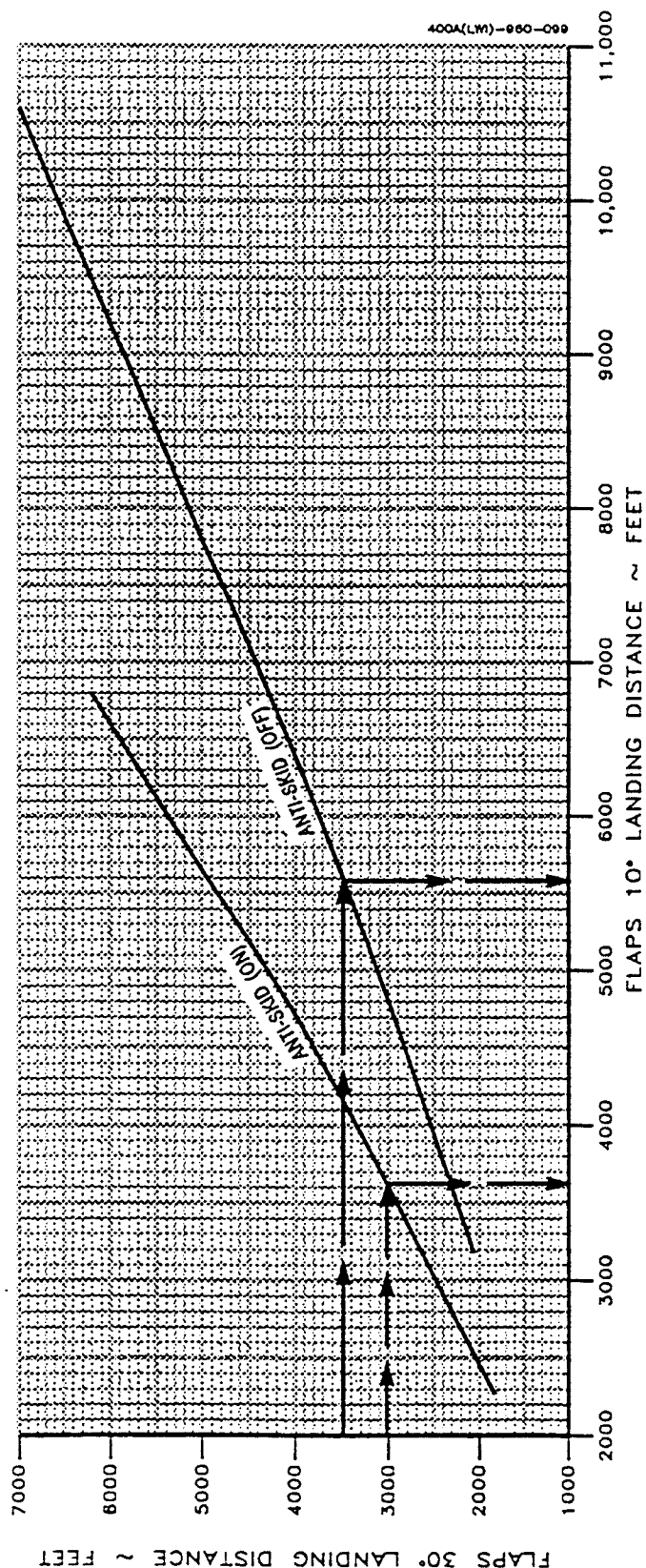
LANDING WEIGHT 13,000 LBS

FLAPS 10° LANDING DISTANCE

ANTI-SKID (ON) 3622 FT

ANTI-SKID (OFF) 5580 FT

V_{REF} 119 KTS



MODEL 400A (RK-24 AND AFTER) AND 400T

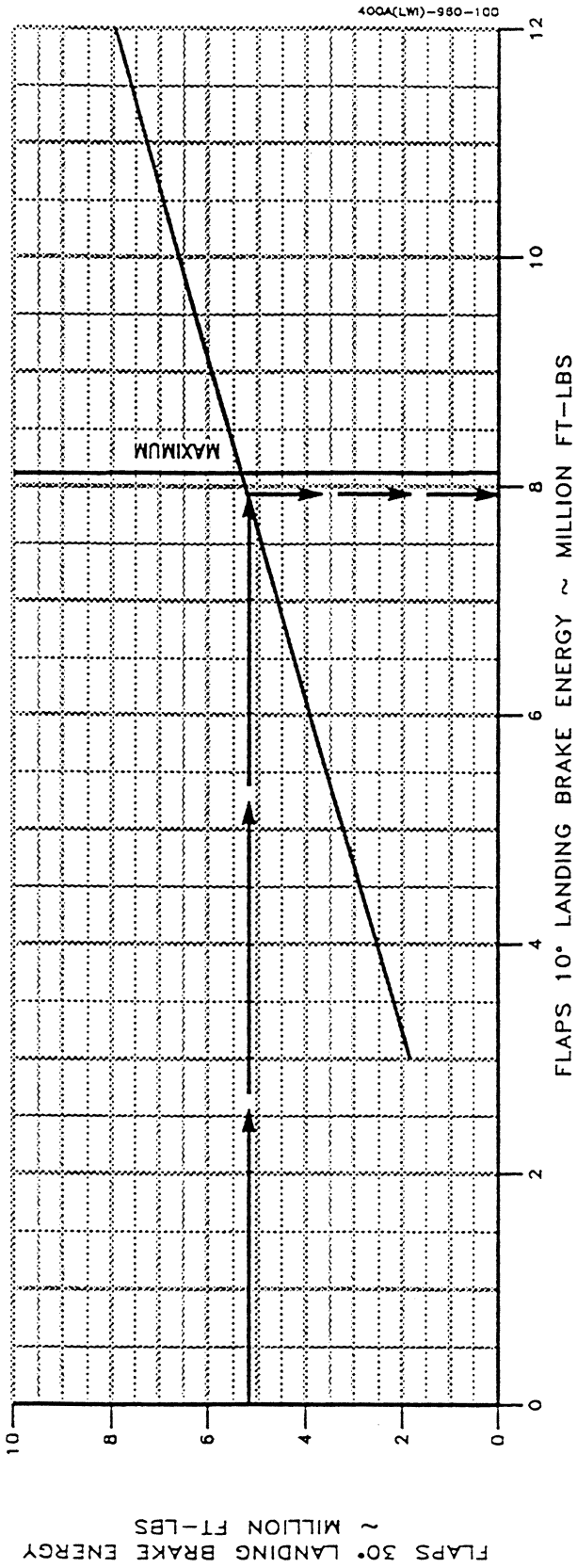
LANDING BRAKE ENERGY - FLAPS 10°

ASSOCIATED CONDITIONS:

THrust RETARDED TO MAINTAIN 3° APPROACH
ANGLE TO 50 FT. AT 50 FT, RETARD TO
IDLE.
Runway PAVED, DRY SURFACE
BRAKING MAXIMUM
ANTI-SKID (ON) OR (OFF)

- NOTES: 1. MAXIMUM LANDING BRAKE ENERGY = 8.12 MILLION FT-LBS.
2. TO DETERMINE THE FLAPS 10° LANDING BRAKE ENERGY, READ
FROM THE "LANDING BRAKE ENERGY" GRAPH FOR THE APPROPRIATE
FLAP 30° LANDING BRAKE ENERGY. THEN ENTER THE GRAPH
BELOW WITH THAT VALUE, AND READ THE FLAPS 10° LANDING
BRAKE ENERGY.

EXAMPLE:
LANDING BRAKE ENERGY
ANTI-SKID (ON) 5.18 MIL FT-LBS
FLAPS 10° LANDING BRAKE ENERGY
ANTI-SKID (ON) 7.93 MIL FT-LBS



MODEL 400A (RK-1 THRU RK-23), 400, AND MU-300-10

LANDING FIELD LENGTH - FLAPS 10°

ASSOCIATED CONDITIONS:

THRUST RETARDED TO MAINTAIN 3°

APPROACH ANGLE TO 50 FT.

AT 50 FT, RETARD TO IDLE.

RUNWAY PAVED, DRY SURFACE

V_{REF} MAX AS TABULATED

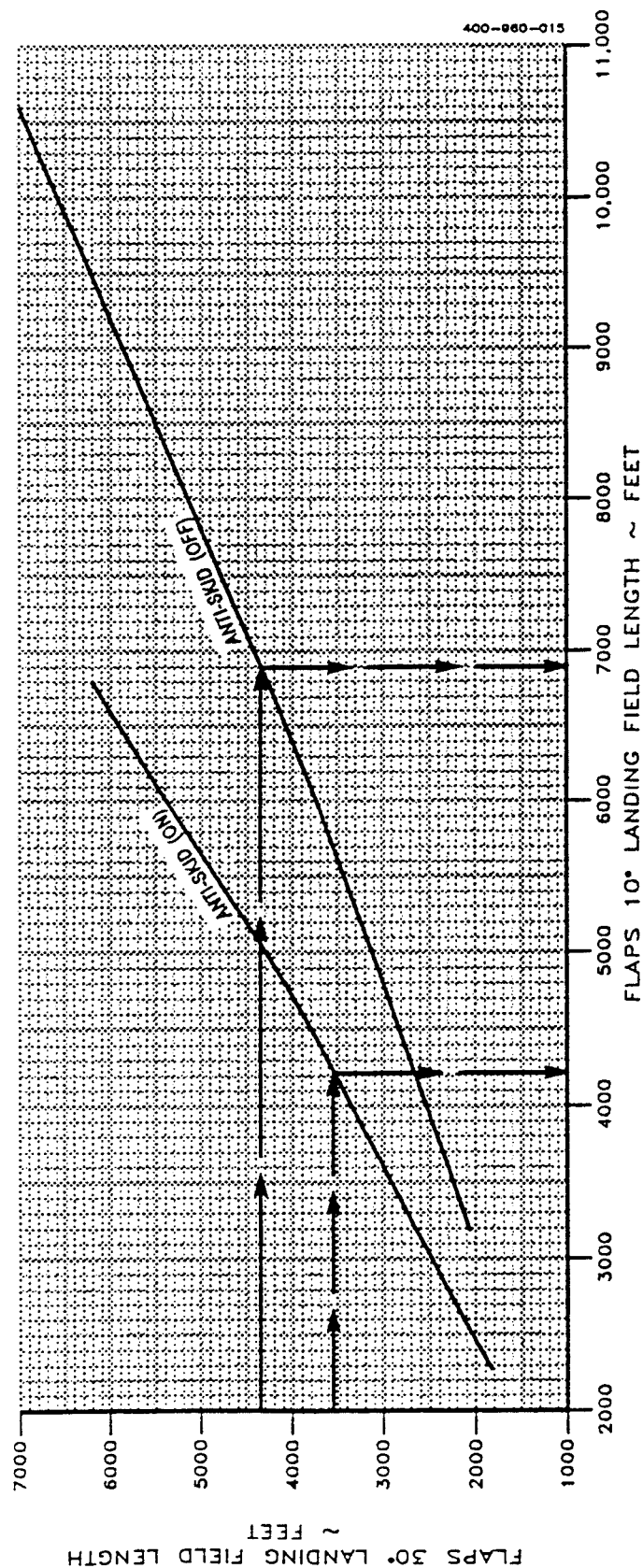
BRAKING MAXIMUM

NOTE: TO DETERMINE THE FLAPS 10° LANDING FIELD LENGTH, READ FROM THE "LANDING FIELD LENGTH" GRAPH FOR THE APPROPRIATE FLAP 30° FIELD LENGTH. THEN ENTER THE GRAPH BELOW WITH THAT VALUE, AND READ THE FLAPS 10° LANDING FIELD LENGTH.

WEIGHT ~ POUNDS	V _{REF} ~ KNOTS
15,780	133
14,220	126
13,000	121
12,000	116
11,000	112
10,000	106
9000	101

EXAMPLE:

FLAPS 30° LANDING FIELD LENGTH	
ANTI-SKID (ON)	3550 FT
ANTI-SKID (OFF)	4350 FT
LANDING WEIGHT	13,700 LBS
FLAPS 10° LANDING FIELD LENGTH	
ANTI-SKID (ON)	4214 FT
ANTI-SKID (OFF)	6892 FT
V _{REF}	124 KTS



MODEL 400A (RK-1 THRU RK-23), 400, AND MU-300-10

LANDING BRAKE ENERGY - FLAPS 10°

ASSOCIATED CONDITIONS:

THRUST RETARDED TO MAINTAIN 3° APPROACH
ANGLE TO 50 FT. AT 50 FT, RETARD TO
IDLE.

RUNWAY PAVED, DRY SURFACE
BRAKING MAXIMUM

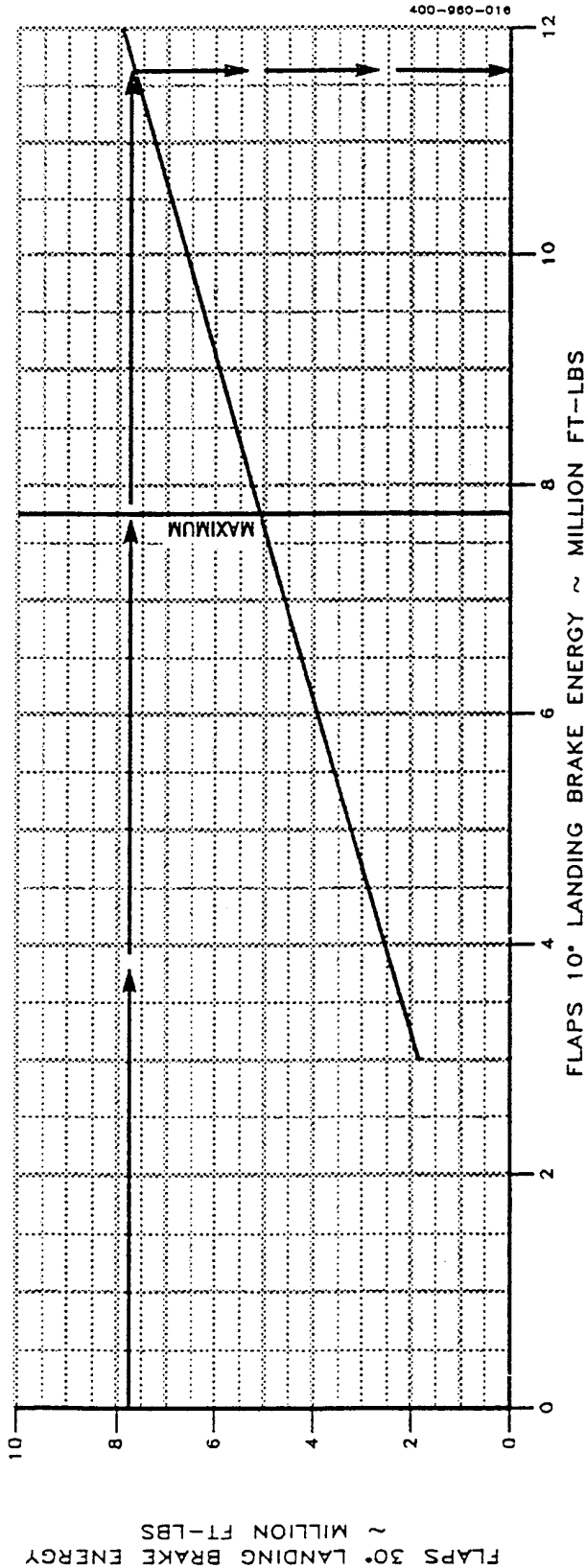
ANTI-SKID (ON) OR (OFF)

NOTES: 1. MAXIMUM LANDING BRAKE ENERGY = 7.76 MILLION FT-LBS.

2. TO DETERMINE THE FLAPS 10° LANDING BRAKE ENERGY, READ
FROM THE "LANDING BRAKE ENERGY" GRAPH FOR THE APPROPRIATE
FLAP 30° LANDING BRAKE ENERGY. THEN ENTER THE GRAPH
BELOW WITH THAT VALUE, AND READ THE FLAPS 10° LANDING
BRAKE ENERGY.

EXAMPLE:

LANDING BRAKE ENERGY	
ANTI-SKID (ON).....	7.75 MIL FT-LBS
FLAPS 10° LANDING BRAKE ENERGY	
ANTI-SKID (ON).....	EXCEEDS MAXIMUM



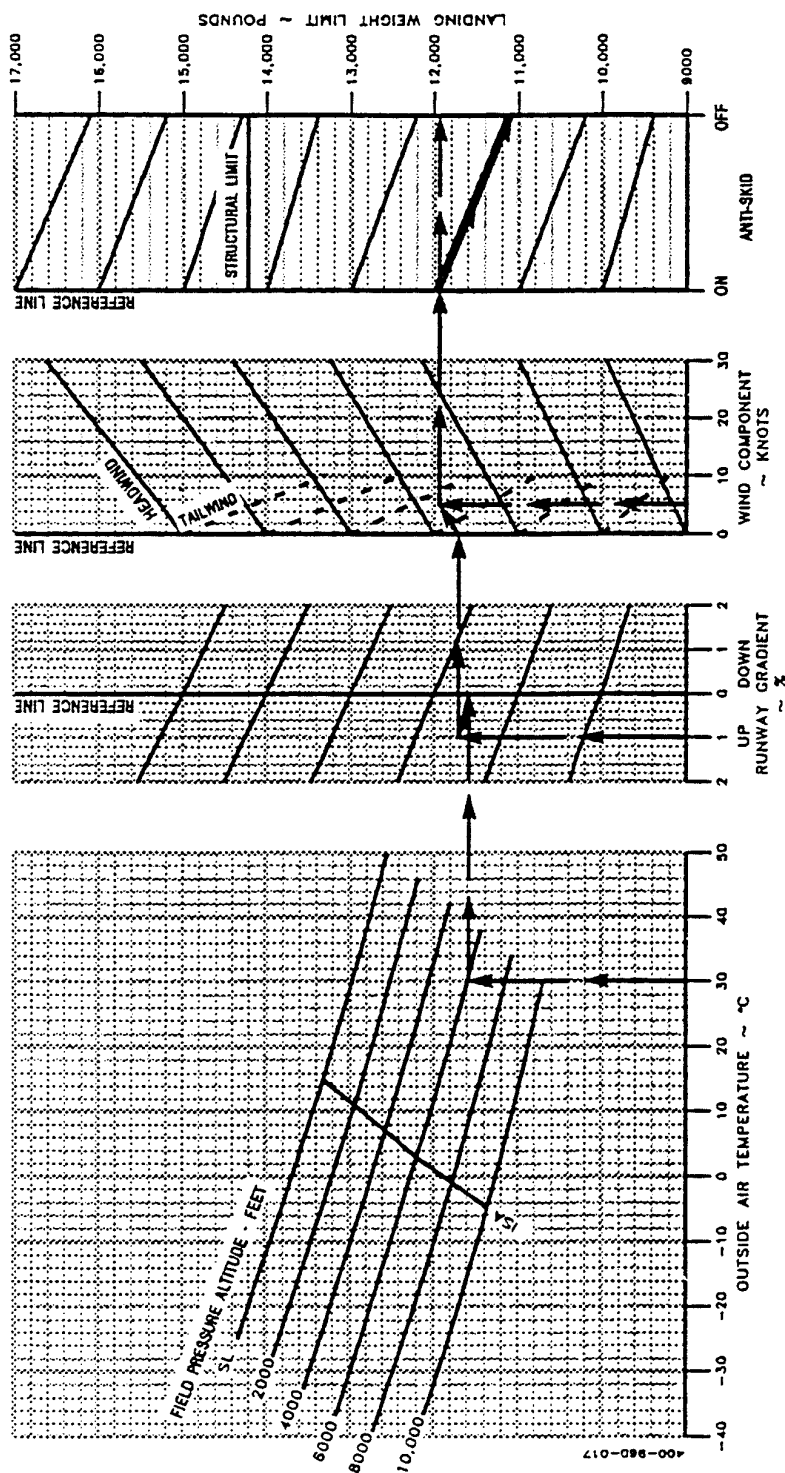
MODEL 400A (RK-1 THRU RK-23), 400, AND MU-300-10

MAXIMUM LANDING WEIGHT LIMITED BY MAXIMUM BRAKE ENERGY FLAPS 10°

ASSOCIATED CONDITIONS:
BRAKING . . . MAXIMUM

EXAMPLE:

OAT 30°C
FIELD PRESSURE ALTITUDE 6000 FT
RUNWAY GRADIENT 1% UP
HEADWIND 5 KTS
LANDING WEIGHT LIMIT:
ANTI-SKID (ON) 11,940 LBS
ANTI-SKID (OFF) 11,100 LBS



Issued in Renton, Washington, on October 7, 1999.

D.L. Riggin,

Acting Manager, Transport Airplane
Directorate, Aircraft Certification Service.

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