

DOCKET NO. SA-510

EXHIBIT NO. 2E

**NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.**

**EXCERPTS FROM:  
B-737-300/400  
BEFORE TAKEOFF CHECKLIST**

**BEFORE TAKEOFF CHECKLIST**

*NOTE: The BEFORE TAKEOFF checklist will be accomplished after both engines have been started.*

**RECALL . . . . . C . . . . . CHECKED**

Press and release the annunciator panel. Check that the annunciator panel and MASTER CAUTION lights illuminate. No lights should remain illuminated when the annunciator is released.

**FLIGHT CONTROLS . . . . . FO/C . . . . . CHECKED**

All flight controls checked for powered full unrestricted movement. Captain checks the rudder and the First Officer checks the ailerons/spoilers and elevators.

**TAKEOFF DATA . . . . . FO/C . . . . . CHECKED & SET**

Check takeoff weight message and weight and balance data to ascertain gross takeoff weight, flap setting, and engine power to be used. Determine appropriate speeds and power from V-speed Chart, computerized weight and balance, or Pilot's Handbook. Insure that operational information (takeoff and landing weight, V-speed, etc.) includes adjustments for any non-normal/unusual conditions; i.e., runway contaminations, MEL/CDL items, etc. The Captain and First Officer will set airspeed bugs in accordance with the following illustrations.

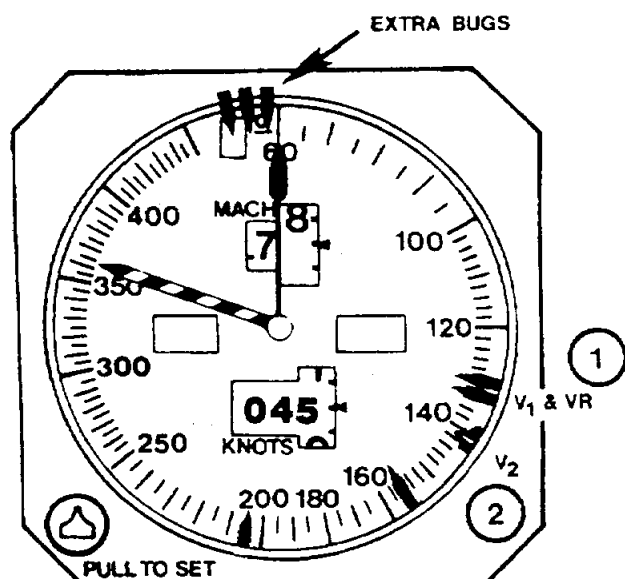
Verify  $N_1$  indicator bugs reflect full-rated thrust value. It is recommended that the flying pilot's FMC CDU be on TAKEOFF page for takeoff and the non-flying pilot's FMC CDU be on DIR INTC (or LEGS) page for takeoff.

1/29/93

B-737-300/400 PILOT'S HANDBOOK

**BEFORE TAKEOFF CHECKLIST (cont'd.)****TAKEOFF DATA — CHECKED & SET (cont'd.)**

TAKEOFF (FLAP 5 ILLUSTRATED)      SAMPLE V-SPEED CHART PAGE

G.W. **113,000** LBS.

TAKEOFF

5	1
<b>130</b>	<b>V<sub>1</sub> 135</b>
<b>131</b>	<b>V<sub>R</sub> 137</b>
<b>141</b>	<b>V<sub>2</sub> 146</b>
<b>BSEC</b>	<b>213</b>

V<sub>SS</sub>

1	<b>134</b>
5	<b>130</b>
30	<b>113</b>

B-737-300 L.R.

MANEUVERING

0	MAN	<b>204</b>
1	MAN	<b>171</b>
5	MAN	<b>163</b>
10	MAN	<b>160</b>
15	MAN	<b>156</b>
25	MAN	<b>151</b>

LANDING

40	REF	<b>132</b>
<b>30</b>	REF	<b>136</b>
15	REF	<b>146</b>
0	REF	<b>182</b>

→ ① Set an outer bug on V<sub>1</sub> and another outer bug on V<sub>R</sub>.

② Set the airspeed cursor (inner bug) on V<sub>2</sub>.

NOTE: Any other bugs you choose to set are optional; i.e., V<sub>2</sub> + 15 knots, zero flap maneuver, etc.

**FLAPS .....FO/C....., GREEN LT, DETENT**

Takeoff setting, LE FLAP green light illuminated, and physically check flap lever in the appropriate DETENT.

**STAB & TRIM .....FO/C....., ZERO, ZERO**

Set stabilizer trim. Check and callout stabilizer, rudder, and aileron trim as desired, zero being the normal for rudder and aileron. If a setting other than zero is desired, it should be called out.

NOTE: Offset rudder pedals can be an indication of undesired rudder trim due to incorrectly set trim or a sticking trim indicator.