

Docket No. SA-531

Exhibit No. 2-MM

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

Operations Group Chairman
Q400 CFM Operations Bulletin 09-003

(8 Pages)



OPERATIONS BULLETIN Q400 CFM #09-003

TO: Q400 CFM Manual Holders
FROM: Q400 Fleet Manager
SUBJECT: REF SPEEDS Switch and Speed Guidance
ISSUE DATE: 03/18/09
EFFECTIVE: UPON RECEIPT
BULLETINS IN EFFECT: 08-009; 08-010; 08-011; 08-012; 08-013; 08-014; 08-015; 09-001, 09-002, 09-003
ASSOCIATED BULLETINS:

INSTRUCTIONS:

- Staple Page 1 / 2 of the Q400 CFM Bulletin #09-003 to the front pages reserved for bulletins in the Q400 CFM.
- Write the following item into the expanded checklist on page 29 of 42, Section 5 of the CFM just above the Bugs item:

REF SPEEDS Switch.....AS REQ'D CR
- Staple Page 3/ 4 TAKEOFF profile onto page 1 of 16 , Section 9 of the CFM
- Staple Page 5/ 6 APPROACH WITH VERTICAL GUIDANCE profile onto page 2 of 16, Section 9 of the CFM
- Staple Page 7/ 8 APPROACH WITH NO VERTICAL GUIDANCE profile onto page 3 of 16, Section 9 of the CFM

PURPOSE:

This Bulletin adds a REF SPEEDS Switch item to the Normal Checklist. Within the Takeoff profile a note is included as a reminder that the REF SPEEDS Switch can be changed to INCR above 1000' AGL. The Approach profiles have been updated to include speed guidance.

PROCEDURE:

The instructions above include a pen and ink change to the Expanded Checklist within the CFM to add the REF SPEEDS Switch within the APPROACH Checklist.

- New approach profiles will give targets for airspeed during the approach phase.
 - 180 Kts. Minimum prior to gear extension.
 - 160 Kts. Minimum prior to the final approach fix (FAF)(150 Kts. Flap 35⁰)
 - On final fly the calculated V_{REF} for conditions plus 10 Kts. Minus 0 Kts.
- In high wind and gusty conditions, a wind correction to approach speed should be made. Add half the headwind and all of the gusts not to exceed 20 Kts. For example if the wind is 10 knots gusting to 20 Kts. 10 Kts. is the headwind wind value (5 Kts. of correction) and there is 10 Kts. of gust (10 Kts. of correction) for a total correction of 15 Kts. This wind and gust correction does not apply during Tailwind operations.

CLOSING:

If you have any questions regarding this Bulletin please contact me at 703-656-2451 or pdweston@colganair.com.

NORMAL CHECKLIST addition:

APPROACH

Altimeters	___ SET /CROSSCHECK	CR
Approach & Landing Brief.....	COMPLETE	CR
Ref Speeds Switch	AS REQ'D	CR
Bugs.....	SET	CR
GPWS Landing Flap	SELECTED ___ °	PM
Fuel Transfer.....	OFF	PM
Hyd Press/Qty	CHECK	PM
Caution/Warning Lights	CHECK	PM
Seat Belts Sign	ON	PM
External Lights.....	ON	PM



Expanded Checklist Addition:

Ref Speeds Switch..... AS REQ'D CR

The decision to turn the **REF SPEEDS** switch to **INCR** or **OFF**, for an approach, should be made prior to entering the initial approach phase and before the final approach segment.

It is prohibited to change the position of the **REF SPEEDS** Switch below 1,000' AGL

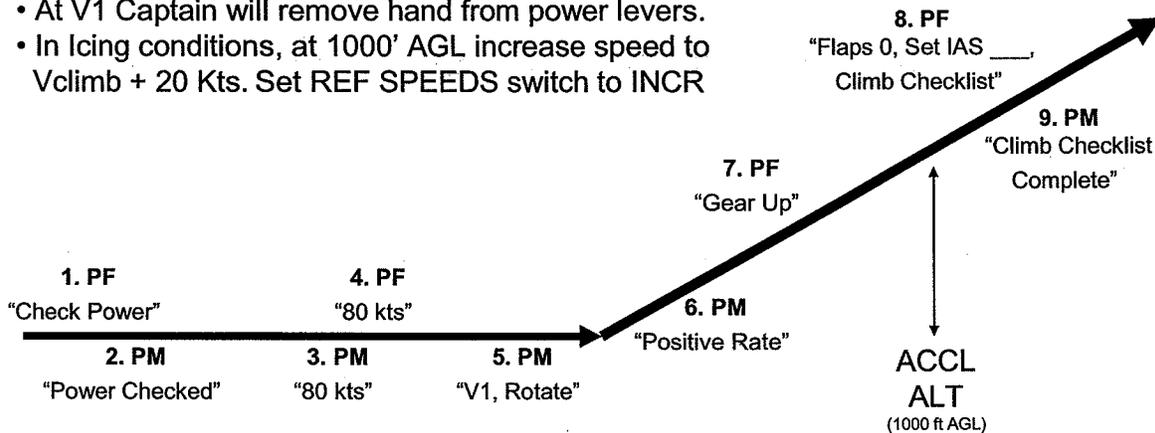
Whenever the **REF SPEEDS** switch is set to **INCR** the only speeds which may be bugged are V_{REF} (Ice) and V_{GA} (Ice).

When the **REF SPEEDS** switch is set to **OFF** the speed bug may be changed to V_{REF} and V_{GA} if above 1000' AGL.

Takeoff

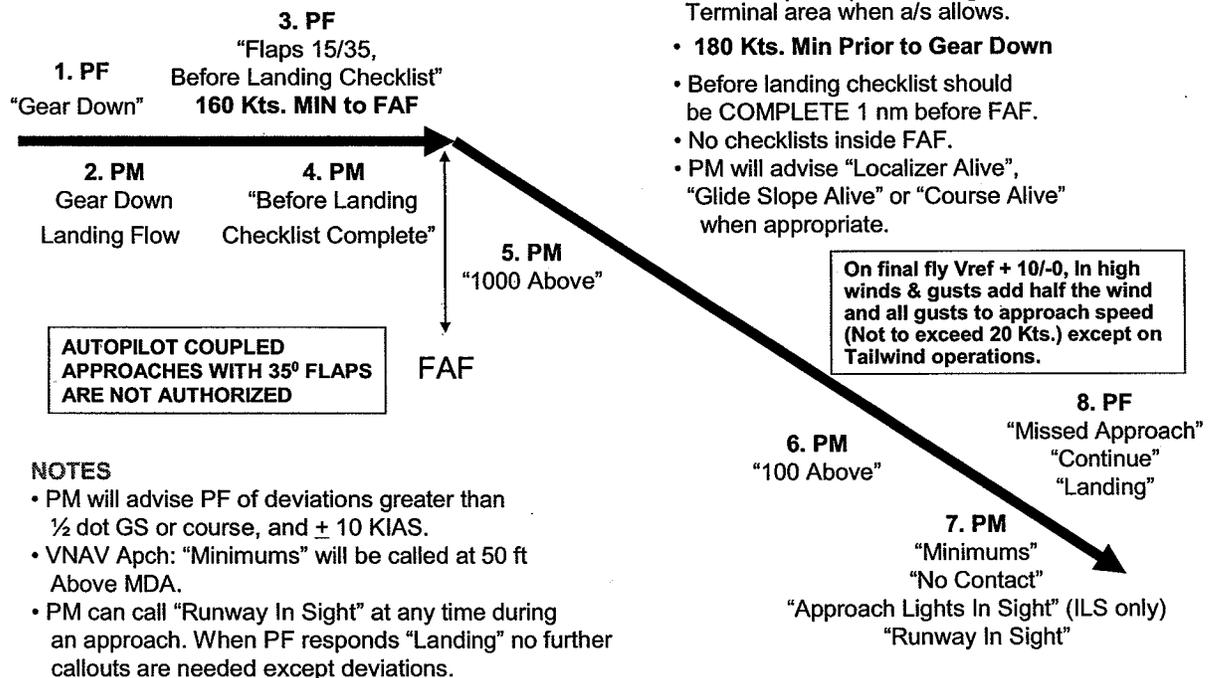
NOTES

- Speed bugs will be set V1, VR, V2, VFRI, VCLIMB.
- MDA altitude bug will be set to Acceleration Altitude.
- F/O Leg: Once the aircraft is lined up for T/O the Captain will state "Your Aircraft".
- F/O Leg: Captain will assume control of power levers after "Check Power" call, scan the ED for abnormalities and state "Power Checked"
- At V1 Captain will remove hand from power levers.
- In Icing conditions, at 1000' AGL increase speed to Vclimb + 20 Kts. Set REF SPEEDS switch to INCR



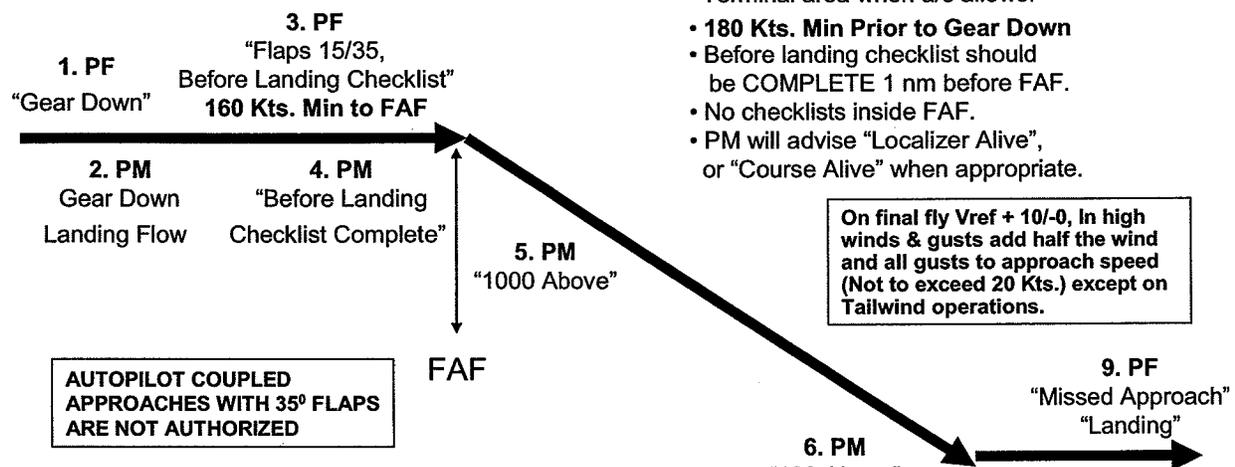
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Approaches With Vertical Guidance



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Approaches With No Vertical Guidance



- NOTES**
- Select flaps 5 upon entering Terminal area when a/s allows.
 - **180 Kts. Min Prior to Gear Down**
 - Before landing checklist should be COMPLETE 1 nm before FAF.
 - No checklists inside FAF.
 - PM will advise "Localizer Alive", or "Course Alive" when appropriate.

- NOTES**
- PM will advise PF of deviations greater than ½ dot off course, and ± 10 KIAS.
 - PM can call "Runway In Sight" at any time during an approach. When PF responds "Landing" no further callouts are needed except deviations.

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