

TRANSMISSION REPORT

92.01.10 18:53

SAS DISPATCH - CPHOW

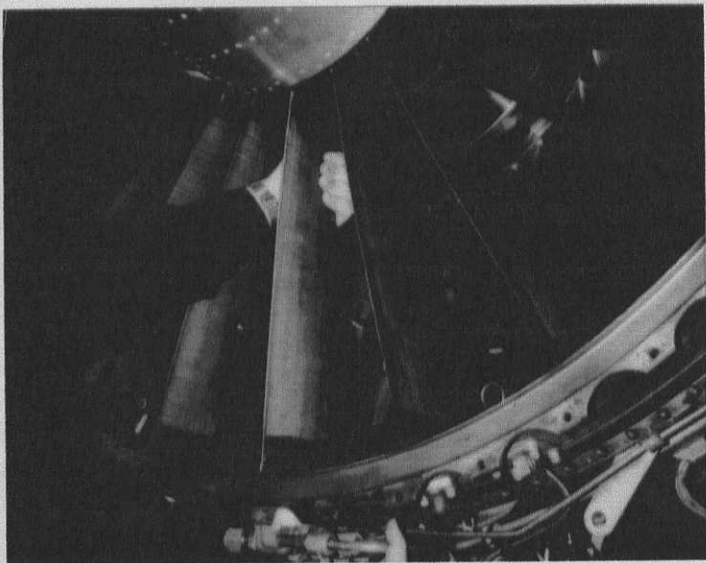
DATE	TIME	DURATION	REMOTE ID	MODE	PAGES	RESULT
92.01.10	18:52	01'18"	46 8 852109	G3	1	O.K.

TRANSMISSION REPORT

92.01.10 18:51

SAS DISPATCH - CPHOW

DATE	TIME	DURATION	REMOTE ID	MODE	PAGES	RESULT
01.10	18:50	01'03"	46 8 852109	G3	1	O.K.



FROM FC MD-80 OLUF HUSTED, CPH 2-1997

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TO : MD-80 FLEET OFF. STO.

APPENDIX : Mc DUNNALL DOUGLAS VOL II DEC 1/85

## SUGGESTION TO NEW SHORTER TEXT (SAME PROCEDURE (+ MANY IMPROVEMENTS

ENG ANTI-ICE ON : TEMP LESS THAN  $+6^{\circ}\text{C}$ , VISIBLE MOISTURE OR DEWPOINT WITHIN  $3^{\circ}\text{C}$

STATIC RUN-UPS : TO  $\frac{1}{2}$  POWER! (AS HIGH AS PRACTICAL)  
(ALSO IN TAXIING) FOR 15 SEC EVERY 10 MIN  
EVERY  $\frac{1}{2}$  SHALL BE PRECEDED BY SUCH A RUN-UP ( $\frac{1}{2}$  POWER) (MIN 70% N<sub>1</sub> FOR MIN. 15 SEC. OTHERWISE NO  $\frac{1}{2}$ , CONSIDER A PLANNED ABORTED  $\frac{1}{2}$  (IF B/A TOO LOW) AND RETAXI FOR A NEW  $\frac{1}{2}$ .

IF USED DURING APP. AND LANDING : KEEP ON TO SHUT DOWN, MAKE NOTE IN LOG, INCL UTC AND OAT.

NEW IDEA : AFTER INSTALLATION OF 2 MINI (VER. WIDE ANGLE VIDEO CAMERA'S (ONE IN EACH ENG CASING LOOKING ON THE BACK SIDE OF THE GUIDE VANES (LIGHT?) MONITOR (4 INCH) MOUNTED VISIBLE TO P.I.C. WE CAN STOP RUN-UPS (RELEASE BRAKES) WHEN ALL ICE GONE, AND SAVE A LOT OF FUEL TIME AND NOISE.

PLEASE ALSO SEND TO OTHER USERS FOR EVALUATION.

REGARDS!

Olof Husted

COPY

*Oluf Rasmus Emborg, Pol*

23/04/92

Rungsted, 3 MARCH 1992

To: **MD-80 FLEET OFFICE**

And: **"Forslagskassen" (Suggestion Box)**

**Remarks Accompanying my Suggested New Text for:  
"Engine Anti-Ice, Ground Procedures".**

Since the cost of doing static engine run-ups is "trivial" (see ICEFOD MAGAZINE, p. 12) and the cost of just a single "happy" accident is at least SEK 500,000,000, not to mention a fatal one.

This proposal for a new text includes the best and shortest from the manuals of the following operators:

SCANAIR x 2 (F.O.M.)  
SWISSAIR  
TRANSWEDE  
STERLING (F.O.M.)  
AMERICAN AIRLINES  
NORTHWEST AIRLINES  
nothing from SAS procedures,

but inspiration from "ICEFOD MAGAZINE", and a few ideas of my own.

Earlier suggestions concerning the use of video equipment for ice detection were sent to you by Fax on 11 January 1992.

This suggestion also aims to introduce savings; my guess is that savings at the rate of 50% in compressor maintenance can be achieved, corresponding to SEK 200,000,000 or more.

Best Regards,

Oluf Husted



## FLIGHT PROCEDURES

~~Flying under special conditions - Icing~~

## 1. GENERAL

ICING CONDITIONS EXIST WHEN: OAT is 6°C or below and visible moisture in any form is present, or dewpoint spread is  $\leq 3^{\circ}\text{C}$  or visibility is less than 2,000m.

Under exceptional conditions (very high humidity or visibility less than 1,000m), anti-icing must be used up to +10°C.

## 2. GENERAL

Operating jet engines in icing conditions as described in 1. above presents no major problems, but always remember that icing in engine inlet area can occur in bright sunshine or ice may remain stuck on the far side of the first compressor stage from the previous flight, if not handled correctly.

Some added precautions must be taken during ground operations to ensure safety of flight.

## 3. PREFLIGHT

Turn engine anti-ice system ON promptly after engine start and run up engines to T/O power (at least 1.4 EPR) every 10 minutes for 15 sec. (as a minimum), also during taxi-in.

Before brake release for T/O, run up engines to T/O power for a minimum of 15 sec., monitor engine sounds, EPR and EGT to assure normal operation.

Then reduce power to Auto-Throttle engage EPR (or 1.4 EPR) release brakes, add power for normal T/O (engage Auto-Throttle), crosscheck all engine instruments, especially EPR versus  $N_1$ , to be within limits during the take-off roll.

If not within limits, no T/O is allowed! Consider a planned aborted T/O (if B/A is too low) and re-taxi for a new T/O.

## 4. POSTFLIGHT

If the engine anti-icing system was used during approach and landing, the system must be kept ON until just before engine shut-down to prevent ice build-up in the intakes during taxiing.

Furthermore, a note must be made in the A/C log to inform the next crew that the engine anti-icing system has been used during landing and taxiing, including time in UTC and temperature OAT when the engine anti-ice was switched off.