

REPORT

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The scope of this investigation has been limited. Because of this, the AIBN has chosen to use a simplified report format. The report format conforming to the guidelines given in ICAO Annex 13 is only used when the scope of the investigation makes this necessary.

All times indicated in this report are local times (UTC + 1 hour), unless otherwise stated.

Boeing 727-200, G-BPND/Boeing 737-700, OY-KKR Aircraft type and reg.:

Operators: Cougar Leasing Ltd. (NITRO Operations)/Scandinavian Airlines

System

Radio call signals: NTR636C/SAS1368

Date and time: Monday 31 March 2003, at time 1945

Incident site: Oslo TMA, 8 NM south/southeast of Oslo airport Gardermoen

(ENGM)

Type of incident: Air traffic incident, violation of separation minimums Type of flight: Commercial, cargo flight/commercial, scheduled flight

Weather conditions: METAR time 1850Z:

20011KT CAVOK 03/M05 Q1016 NOSIG

Light conditions: Daylight (dusk)

Flying conditions: **VMC**

Flight plan: IFR (both) No. persons onboard: Not stated Injuries to persons: None Damage to aircraft: None Other damage: None

Air traffic controller: No service details provided

Information sources: Report on Air Traffic Incident and Report on

> Irregularity/Undesirable Incident, report from supervisor at Gardermoen TWR regarding NITRO Operations and the AIBN's

own investigations.

FACTUAL INFORMATION

A violation of separation minimums took place on Monday 31 March 2003 in Oslo TMA between a slow-moving Boeing 727 and a Boeing 737 departing at normal speed. At the time of the incident, the weight of traffic was average.

NTR636C was flying using its onboard navigation system on Standard Instrument Departure (SID) route GOTUR 4C under radar control of Oslo approach control, sector TMA East. SAS1368 was

using its onboard navigation system on SID TOMBO 4C also under the radar control of the same sector.

After departure on RWY 19L, the crew onboard NTR636C contacted Oslo APP, at time 19:43:18. The aircraft was then at 4 000 ft and climbing. SAS1368, which had taken off a short time afterwards, contacted Oslo APP East at time19:44:10.

At time 1944, the radar screen was displaying:

NTR636C at a height of 5 800 ft, with a ground speed of 170 kt, climb speed of 1 700 ft/min on route GOTUR. SAS1368 was at 4 800 ft and climbing, 4 NM behind the leading plane with a ground speed of 190 kt and a climb speed of 2 500 ft/min. After this, SAS1368 accelerated to a ground speed of 260 kt, while NTR636C continued at a ground speed of 190 kt.

At time 19:44:59, SAS1368 was instructed to turn left onto a heading of 050 degrees with the purpose of maintaining the approved separation minima between the aircraft, which was 3 NM at the time in question. Immediately afterwards, a 'Short term conflict alert' (STCA) was issued on the radar screen for sector TMA East. The minimum distance between the aircraft was measured as 2.9 NM. At this minimum recorded horizontal separation distance, the minimum vertical separation distance was 200 ft. SAS1368 was at 7 300 ft and NTR636C was at 7 500 ft.

The horizontal separation minimum that Gardermoen TWR had established between the aircraft on departure was sufficient. The reason for the violation of the minimum distance of 3 NM was the unusually low flying speed that NTR636C was maintaining during the climb.

Following a query by the supervisor at Gardermoen TWR that same evening, NITRO Operations in England advised that they had introduced a new "company noise abatement procedure" for ENGM. This prescribed climbing to 7 000 ft at an indicated airspeed (IAS) of 160 kt. This was unknown to both Gardermoen TWR and Oslo ATCC.

The relevant personnel at Oslo ATCC have now been informed of this procedure.

COMMENTS FROM THE ACCIDENT INVESTIGATION BOARD

AIBN considers that there was no actual collision hazard during this incident. The AIBN is also of the opinion that any operators, who introduce local operational procedures of significance to departures and approaches, should inform the appropriate air traffic control services about this.