

REPORT

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REP: 25/2002
 Date: 9 July 2002

All times given in this report is local time (UTC + 2 hrs), if not otherwise stated.

Aircraft

-type & reg.:	MD-81, LN-RMT and C-135/Boeing 707, reg. not reported
Radio call sign:	SAS 374 and OSY12F
Date and time:	13 June 2001, at 1007 hrs.
Location:	Ca. 15 NM northeast of Oslo airport Gardermoen (ENGM)
Type of occurrence:	Serious incident, AIRPROX
Type of flight:	Commercial, scheduled service and inspection flight according to "Open skies" agreement (mil. flight)
Weather cond.:	It was clear sky with unlimited visibility in the incident area
Light cond.:	Daylight
Flight cond.:	VMC, both aircraft
Flight plan:	IFR, both aircraft
No. of persons onb. :	Not reported
Injuries:	None
Aircraft damage:	None
Other damage:	None
ATCO TMA east	
-sex/age:	Male, 51 years
-certification:	2 April 1973
-authorization:	8 October 1998 (Oslo TMA)
ATCO TMA west	
-sex/age:	Male, 55 years
-certification:	29 March 1967
-authorization:	8 October 1998 (Oslo TMA)
Information sources:	Reports from both Commanders, report from Oslo ATCC, reports from involved Controllers, reports from involved Controller trainees and AAIB-N's own investigations.

SUMMARY

The incident occurred northeast of ENGM and involved SAS 374, an MD-81 from Scandinavian Airlines System departing ENGM on a flight to Tromsø airport Langnes, and OSY12F a C-135 on an Inspection flight in southeastern Norway according to the "Open skies" agreement. For more information on this agreement, refer to AIC A 23/98 dated

9 June 1998. Information with details for this flight was sent from Gardermoen Air Force Station to Oslo ATCC on a telefax dated 12 June 2001. Involved ATS-sectors were Oslo Control TMA west, operated by an authorized Air Traffic Controller (ATCO) before and at the time of the incident and TMA east, also operated by an authorized ATCO before and at the time of the incident. In addition this sector was manned by a controller trainee who was responsible for handling the air traffic under supervision of the ATCO on TMA east. A short time before the incident there was a change of controller trainees on TMA east. Both trainees were due for a final certification exam at the time of the incident. The exam was to take place in the following week. All of the involved ATC personnel were familiar with OSY12F and its planned route.

SAS 374 was established on Standard Instrument Departure (SID) TORGO 2A, cleared for climb to FL 190 in radio contact with TMA east and under radar following by this sector. At the time of the incident OSY12F was about to be established en route according to flight plan, and was flying at FL 110 on a southerly course. OSY12F was flying in air space normally controlled by TMA east, but the crew were communicating with the ATCO on TMA west according to an agreement between the two sectors. The reason for this agreement was that OSY12F was to operate in Sector TMA east only for the first 10-15 minutes of the flight before entering TMA west air space.

SAS 374 was climbing on a northerly course and was approaching FL 100 when the crew called TMA east on the radio. After three unanswered calls over a short period, radio contact was established and the crew asked for a confirmation that they were cleared for climb to FL 190. This took place at time 10:08:03. The controller trainee confirmed the clearance for FL 190. The SAS 374 crew then reported that they had just experienced an airprox with a Boeing 707, and that they had levelled off at FL 100 due to a TCAS RA warning (Traffic Collision Avoidance System, Resolution Advisory). They had visual contact with OSY12F for just a short period before passing, and the Commander claims in his report that if they had not levelled off at FL 100 they would have had a mid-air collision with OSY12F. The Commander on OSY12F confirms in his report that they passed SAS 374.

According to radar pictures there were no horizontal distance between the two aircraft as they passed each other. All of the involved reported the incident according to standard procedures.

COMMENTS FROM THE ACCIDENT BOARD

In AAIB-N's opinion there was a real danger of a mid-air collision in this incident, and the ACAS performed according expectations as the ATS system failed.

The ATCO on duty at TMA west writes in his report that he had studied the information letter on OSY12F before going on duty at time 0930. This information contained both text and a map with the planned route for OSY12F. The trainee on TMA east had been coordinating the OSY12F flight several times with ATCO on TMA west before it took off from ENGM. Accordingly, this trainee was familiar with OSY12F. OSY12F was airborne

at 1000 hrs, and at the same time there was a change of trainees at TMA east. The new trainee on duty contacted the ATCO on TMA west a few minutes before the incident, showing him the map with the planned route for OSY12F. At that time there were no further coordination as the ATCO on TMA west was occupied in another communication. The ATCO on TMA west suddenly observed SAS 374 and a following Braathens flight in the east sector and warned the trainee about the possible conflict. SAS 374 had just passed FL 090 and the ATCO did not perceive the communication between the trainee and SAS 374. The ATCO on duty on TMA east, who was supervising the trainee, writes in his report that he, at the time of the incident, for several reasons, did not listen in on all the communication between the trainee and the different aircraft. He writes that since the trainee was due for his final certification exam, he considered the workload and amount of traffic to be at a level that did not make it necessary to have a strict follow up with trainee. According to the report from the trainee that went off duty, the trainee going on duty was thoroughly briefed on OSY12F and what had been coordinated with TMA west. The trainee accepted this. The new trainee on duty on TMA east observed that he did not have a flight progress strip for OSY12F, and understood that OSY12F was to check in with TMA west. He observed that this was done, and cleared SAS 374 to climb to FL 190. According to his report he did not observe the conflict until he was warned by the ATCO on TMA west. At that time the SAS 374 crew called him, reporting that they just had passed another aircraft. He also writes that he thought that OSY12F, after having turned southbound, was to fly overhead the airport and not as far east as it did.

Several parts of the system failed at this incident. Information on the OSY12F flight was available to the involved personnel before the incident; despite this the trainee on TMA east thought that OSY12F was to fly further east at the time of the incident. This shows that the available information had not been studied carefully enough.

AAIB-N considers it unfortunate that the OSY12F was communicating with the ATCO on TMA west, while it was operating in the east sector. If OSY12F had been communicating with the trainee on TMA east for the time it was operating in his sector, it would have given him a better overview of the traffic situation and provided a necessary safety barrier. AAIB-N also questions the fact that the ATCO supervising the trainee did not have a closer follow up of him. He then would have had a chance to see the conflict between SAS 374 and OSY12F at an earlier stage. Even though the trainee was due for his certification exam, there is no doubt that the ATCO was responsible for a safe handling of the traffic situation in his sector.

This incident clearly shows a need to look into the routines and procedures at Oslo ATCC, and especially the duties and responsibilities of ATCOs and trainees during On Job Training. AAIB-N has had several similar reports on incidents where the system has failed, showing a need for strict routines in this area. AAIB-N also sees a safety barrier in letting a controller be responsible for the communication with aircraft in his own sector. After this incident, the management at Oslo ATCC have enforced the following for the controllers and trainees:

- On Job Training (OJT) with trainees demands full attention from the supervising controller, regardless of the trainee's level of experience.
- The ATCO who has control responsibility within one sector, should also be responsible for the communication within the same sector. Only on special occasions and after thorough coordination, other solutions should be accepted.

It is AAIB-N's opinion that these precautions take care of two important causal factors that contributed to the present incident.