

## BULLETIN

### AIRCRAFT ACCIDENT INVESTIGATION BOARD/NORWAY (AAIB/N) (TRANSLATED FROM NORWEGIAN)

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#### Aircraft

- type & reg.: DHC 8-311, LN-WFA/Panavia Tornado, ZA404  
Radio call sign: WIF 380/SPARTAN 2  
Date and time: 12 November 1997 at 1012 hours  
Location: Final RWY 18, at Stavanger Airport Sola  
Type of occurrence: Serious Incident/Air Traffic Incident  
Type of flight: Scheduled service/Military  
Weather cond.: Sola METAR at 1020: Wind: 120°/5 kt. Visibility: more than 10 km. Clouds: few at 1 500 ft, few at 2 000 ft CB, scattered at 4 000 ft. Temp./dewpoint: 9°C/7°C. QNH: 999 hPa  
Light cond.: Daylight  
Flight cond.: VMC  
Flight plan: IFR/VFR  
Injury: None  
Aircraft damage: None  
Other damage: None  
Information sources: Reports from both PICs, report from Air Traffic Controller in charge at Sola, report from Chief Air Traffic Controller at Sola, AAIB/N's own investigations.

All times given in this report is local time (UTC + 1 hour), if not otherwise stated.

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#### SUMMARY

The incident took place as a Tornado fighter aircraft (SPARTAN 2) and a DHC-8 (WIF 380) both entered short final to RWY 18 at Stavanger Airport Sola at the same time. When WIF 380 checked in with Sola TWR at 10:08:45, 15 NM from the airport, there were 5 other aircraft within the controlzone. There were 3 fighter aircraft and a light aircraft in the circuit to RWY 18, in addition to a helicopter operating low-level

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The Aircraft Accident Investigation Board has compiled this bulletin for the sole purpose of improving flight safety. The object of any investigation is to identify faults or discrepancies which may endanger flight safety, whether or not these are causal factors in the accident, and to make safety recommendations. It is not the Board's task to apportion blame or liability. Use of this report for any other purpose than for flight safety should be avoided.

overhead the western part of RWY 11. WIF 380 were cleared to continue approach to RWY 18.

One of the fighters (SPARTAN 1) landed at 10:10:00, but SPARTAN 2 informed the TWR that he would make another circuit. EAGLE 31 and SPARTAN 2 were then cleared "touch and go" and final RWY 18 accordingly. At 10:11:15 SPARTAN 2 reported final to RWY 18, and was cleared to land. SPARTAN 2 gave this report quite early, as he was still on right base. At 10:12:15 WIF 380 reported to be on short final to RWY18. The controller now became aware of the situation and tried to contact SPARTAN 2, giving him the following instruction: "SPARTAN 2 break off this approach, make a left hand delay turn present position, have traffic on final". The controller did not wait for confirmation from SPARTAN 2 but continued immediately to WIF 380: "WIF 380 cleared to land RWY 18".

SPARTAN 2 did not receive the instruction given to him by the controller, continued the approach and landed RWY 18. The crew on WIF 380 realized what was about to happen, discontinued the approach and made a go-around. WIF 380 landed on RWY 18 at 10:18, 5 minutes later.

The incident took place during a period of relatively high traffic load, including several different aircraft categories:

- LN NFU, a single engine light aircraft making left circuits to RWY 18
- SPARTAN, 4 UK TORNADO fighters split into 2 elements; SPARTAN 1/2 and SPARTAN 3/4. The first element SPARTAN 1/2 was directly involved in the incident, the other element SPARTAN 3/4 checked in with the TWR frequency 5 minutes after the incident.
- SAVER 52, a SAR helicopter doing airwork over the western part of RWY 11
- EAGLE 31, an F16 making right circuits to RWY 18
- WIF 380, a DHC-8 on ILS approach to RWY 18
- SAS 1866, a Fokker 50 on ILS approach to RWY 18, 7 NM behind WIF 380
- BRA 332, a B 737 on ILS approach to RWY 18, 14 NM behind SAS 1866.

The controller in charge was on his first duty, following an extended leave of absence during which he deputized for 8 months as TWR-controller at Haugesund Airport Karmøy. During these 8 months he had several duty-periods at Sola TWR, in order to maintain his authorization. His last duty-period at Sola was during week 36, 9 weeks before this incident.

## **COMMENTS FROM THE ACCIDENT BOARD**

It is AAIB/N's opinion that this incident involved a risk of collision.

It is obvious that the traffic density reached a level too high for the controller to cope with, considering his long absence from Sola TWR. The workload as a controller in



Haugesund TWR and Sola TWR cannot be compared, as Sola airport has a lot more traffic than Haugesund airport.

In addition to the trafficload, there were also several different categories of aircraft involved in the situation.

Interviews with controllers at Sola showed that controlling fighter aircraft was regarded as a challenge, and a positive contribution to their work. It is possible then, that the fighters took too much of the controllers attention. The fact that SPARTAN 2 asked for another circuit, instead of a full stop landing, contributed to the attention being taken away from WIF 380. When WIF 380 checked in, normal procedure for the controller would have been to move the Flight Progress Strip (FPS) from the "passive bay" to the "active bay" on the Flight Progress Board (FPB). This was not done. WIF 380 was not asked to give any further position reports during the approach, for instance to report Outer Marker (OM). A position report from WIF 380 could have served as a reminder for the controller in this situation.

SAVER 52 was also very busy on the radio-frequency, and may have been a disturbing factor for the controller.

In AAIB/N's opinion there were two main contributing factors leading to the incident. The controllers absence from Sola TWR, and the high traffic load. According to the regulations, the controller was authorized for duty despite of his long absence. This raises the question whether the regulations are too liberate, regarding the time a controller may be absent from duty, before additional training is required. It seems as if lack of training was the main cause why the controller let the situation get out of control. In AAIB/N's opinion it seem to be necessary for the CAA to reconsider the criteria for serving as Controller in charge during the first duty term, following a period of absence exceeding a certain period of time. During interviews with the management at Sola, AAIB/N was told that new regulations regarding this matter will be included in future revisions of both central and local ATC-regulations.

The second contributing factor was the high traffic load, and the several different categories of aircraft. The variety of aircraft categories, with different needs and demands, put the controller in a situation which ended in "traffic overload". In addition to the scheduled service traffic there were, as mentioned, fighter aircraft making "touch and goes", a helicopter doing airwork and the light aircraft in the circuit. The main issue will then be when and how to limit the traffic, i.e. how many training flights should be allowed in addition to scheduled service traffic with airplanes and helicopters. Training- and private flights must have a lower priority than commercial traffic, and ought to be refused when a situation of conflict occurs between these two categories of air traffic. The right thing to do in this situation would most likely have been to keep SAVER 52 on the ground and send LN-NFU to a holding position outside the traffic circuit.

Regarding the level of daily traffic at Sola airport, it seem to be necessary for the management to work out local directions on how to limit non-commercial traffic during

periods of heavy traffic load, for instance during military exercises, in order to prevent similar incidents.

## **RECOMMENDATIONS**

AAIB/N recommends that the CAA reconsider the criteria for serving as Controller in charge during the first duty term, following a period of absence exceeding a certain period of time.

In a comment to the preliminary report, the CAA writes that AAIB/N's recommendation is covered by a new revision of the central ATC regulations (HLT-A9) dated 1998-04-23.