



Australian Government

Australian Transport Safety Bureau

Aircraft loading event involving Fokker F28, VH-NHV

Perth Airport, Western Australia, 3 February 2017

ATSB Transport Safety Report
Aviation Occurrence Investigation
AO-2017-019
Final – 24 May 2017

Released in accordance with section 25 of the *Transport Safety Investigation Act 2003*

Publishing information

Published by: Australian Transport Safety Bureau
Postal address: PO Box 967, Civic Square ACT 2608
Office: 62 Northbourne Avenue Canberra, Australian Capital Territory 2601
Telephone: 1800 020 616, from overseas +61 2 6257 4150 (24 hours)
Accident and incident notification: 1800 011 034 (24 hours)
Facsimile: 02 6247 3117, from overseas +61 2 6247 3117
Email: atsbinfo@atsb.gov.au
Internet: www.atsb.gov.au

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Addendum

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Aircraft loading event involving Fokker F28, VH-NHV

What happened

On 3 February 2017, a Network Aviation Fokker F28 Mk 0100, registered VH-NHV (NHV), conducted a scheduled passenger flight from Perth to Kalgoorlie, Western Australia (WA). On board the aircraft were two flight crew, three cabin crew and 17 passengers.

The service to Kalgoorlie was originally scheduled in another company F28, registered VH-NHQ (NHQ). However, a fault occurred in NHQ after the aircraft was pushed back from the terminal for departure. The fault resulted in the aircraft returning to the terminal and the operator replacing NHQ with NHV for the service to Kalgoorlie.

The flight crew moved to NHV to start their pre-flight duties and took the certified load instruction sheet (LIS) for NHQ with them. After the flight crew boarded NHV, they received the customer management summary and passenger manifest with the registration NHQ. The crew identified the incorrect registration and rejected the paperwork. Subsequently a person, whom the captain believed was the loading supervisor for the ramp team loading the aircraft, entered the flight deck and inspected what the captain believed was the new LIS, again with the registration NHQ.¹ The captain asked this person if NHV was to be loaded as per NHQ and the response they² received satisfied them that that was the case. The captain then pen amended their LIS from NHQ to NHV.

The F28 has two cargo compartments forward of the wing, compartments A and B, and two compartments aft of the wing, compartments E and F. The flight to Kalgoorlie was planned to be loaded with 197 kg of freight and 272 kg of baggage (469 kg in total), distributed between compartments A and B.

The aircraft departed from Perth and landed at Kalgoorlie without incident. However, when the cargo compartments were opened after arrival at Kalgoorlie, there was no load on board the aircraft and the cargo nets were undone. The load was subsequently found to be on board NHQ in Perth, which had been towed into the operator's hangar for maintenance.

Load instruction sheet

Both of the aircraft involved in this incident, NHQ and NHV, were classified as Group-A F28 aircraft, therefore the same LIS instructions applied to both aircraft for weight and balance purposes. When NHQ developed a fault, the maintenance watch staff in the operations control centre³ identified NHV as the alternative aircraft for the Kalgoorlie service. The operator's terminal staff produced an amended LIS for NHV and sent a copy of the LIS to their contracted ground handling service provider. The LIS was marked as edition 1, but should have been marked as edition 2. However, post-incident, the ground handling service provider reported to the operator that they did not receive a copy of the LIS for registration NHV.

The normal process for the LIS is, once it is certified by the loading supervisor that the aircraft is loaded in accordance with the LIS and all cargo compartments inspected, it is passed from the loading supervisor to the flight crew. The incident LIS was certified for NHQ, which the captain amended to NHV after consultation with a person whom they believed was from the loading team. Pen amendments were a permitted practice at the time of the incident. The captain believed it was the correct LIS, but with the incorrect registration.

¹ The captain reported that they were a relatively new employee to the company and had not observed this prior to this incident.

² Gender-free plural pronouns: may be used throughout the report to refer to an individual (i.e. they, them and their).

³ The operations control centre includes staff from the operations and maintenance departments. Staff from the maintenance department are referred to as maintenance watch.

The LIS was also used by the operator themselves to prepare the offload instruction report for the destination airport. To prepare the offload report, the operator's ramp personnel would normally contact the contracted ground handling staff to retrieve the details from the final LIS.⁴ However, in the absence of a loading team, they could also check the LIS that was on the flight deck.

Management of changes within ground services

The conduit for information within the ground handling service provider is their movement control (MOCO). For ramp loading activities, MOCO contacts the ground resource allocator/coordinator who allocates the ramp loading tasks. Tasks are related to flight numbers and the task for loading flight number 1608 (NHQ) was completed prior to the aircraft change to NHV. Any further loading tasks related to this flight number, were required to be manually generated.

The LIS amended to NHV, sent (faxed) from the operator to their ground handling service provider had edition 1 for flight number 1608, as did the previous LIS for NHQ. The ground handling service provider reported to the operator, after the incident, that they did not receive an LIS for the registration NHV and therefore no team was allocated the task to transfer the freight and baggage from NHQ to NHV.

Weight and balance

The operator reported that the F28 has a 'very aft' empty weight centre-of-gravity due to the location of the engines near the tail of the aircraft. However, the majority of the passengers (16 from 17) were seated in the forward rows and therefore the aircraft did not exceed weight and balance limits on the incident flight.

Previous incidents

On the 26 January 2017, the operator experienced an incident in which paperwork with errors were delivered to the flight crew ([AO-2017-018](#)). Incorrect cargo weight data was entered by the flight crew, but there was no reported effect on the handling of the aircraft.

Safety analysis

Following the unserviceability of NHQ, the operator re-allocated the Perth to Kalgoorlie service to NHV. The operator's contracted ground handling service provider was responsible for loading the aircraft in accordance with the operator's LIS.

The operator verbally notified their ground handling services provider of the unserviceability, but not of the replacement registration. The ground handling service provider allocated tasks with reference to the flight number and the task for flight number 1608 had been completed in their system. The replacement registration was identified on the amended LIS, but the LIS inadvertently indicated that it was edition 1.

It is probable that a team was not allocated to the task of transferring baggage and freight from NHQ to NHV because the LIS sent to the ground handling service provider, marked as edition 1, was for a task recorded as already completed.

The operator was responsible for producing the offload instruction for the destination. It is therefore possible that the person who entered the flight deck of NHV, while the flight crew were preparing for flight, was there only for the purpose of confirming the offload figures from the LIS because they could not make contact with the loading supervisor. The captain was a relatively new employee and had no prior experience of this practice. Consequently they misunderstood the role of this person and the reason for their inspection of the LIS. The captain then pen amended the aircraft registration on the LIS from NHQ to NHV under the assumption that the LIS was actually for NHV. This was a permitted practice at the time, which resulted in the flight crew believing they had a certified LIS for the loading of NHV.

⁴ This process ensures last minute changes to the aircraft loading are captured for the offload report.

Findings

These findings should not be read as apportioning blame or liability to any particular organisation or individual.

- After NHQ became unserviceable, the operator sent the ground handling service provider a new load instruction sheet for NHV with the same flight number and edition as NHQ.
- NHV was not loaded because no team was allocated to the task of transferring the freight and baggage from NHQ to NHV.
- The policy of permitting flight crew to pen amend the load instruction sheet resulted in the aircraft departing with the flight crew believing they had a load instruction sheet certified for the loading of NHQ.

Safety action

Whether or not the ATSB identifies safety issues in the course of an investigation, relevant organisations may proactively initiate safety action in order to reduce their safety risk. The ATSB has been advised of the following proactive safety action in response to this occurrence.

Operator

As a result of this occurrence, the aircraft operator has advised the ATSB that they are taking the following safety action:

Advisory bulletin

The operator issued an advisory bulletin to their staff, to communicate the aircraft loading system requirements, including the interface requirements between departments for aircraft dispatch. Note 3 of the bulletin states that ‘after a significant change, such as an aircraft change, a new LIS will be issued with an updated edition number, previous editions should be placed so as not to be referenced in error.’

General details

Occurrence details

Date and time:	3 February 2017 – 2100 WST	
Occurrence category:	Incident	
Primary occurrence type:	Loading related	
Location:	Perth Airport, Western Australia	
	Latitude: 31° 56.42' S	Longitude: 115° 58.02' E

Aircraft details

Manufacturer and model:	Fokker Aircraft B.V. F28 Mk 0100	
Registration:	VH-NHV	
Operator:	Network Aviation	
Serial number:	11482	
Type of operation:	Air transport high capacity - passenger	
Persons on board:	Crew – 5	Passengers – 17
Injuries:	Crew – 0	Passengers – 0
Aircraft damage:	Nil	

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The ATSB is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers. The ATSB's function is to improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in: independent investigation of transport accidents and other safety occurrences; safety data recording, analysis and research; and fostering safety awareness, knowledge and action.

The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships. A primary concern is the safety of commercial transport, with particular regard to operations involving the travelling public.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and Regulations and, where applicable, relevant international agreements.

The object of a safety investigation is to identify and reduce safety-related risk. ATSB investigations determine and communicate the safety factors related to the transport safety matter being investigated.

It is not a function of the ATSB to apportion blame or determine liability. At the same time, an investigation report must include factual material of sufficient weight to support the analysis and findings. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

About this report

Decisions regarding whether to conduct an investigation, and the scope of an investigation, are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, a limited-scope, fact-gathering investigation was conducted in order to produce a short summary report, and allow for greater industry awareness of potential safety issues and possible safety actions.