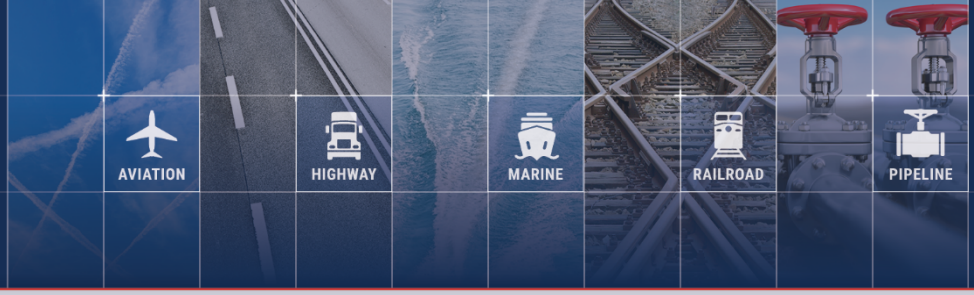

Aviation Investigation Final Report

Location:	Wagga Wagga, New South Wales,	**Incident Number:**	ENG10WA018
Date & Time:	October 4, 2009, Local	**Registration:**	VH-SBA
Aircraft:	Saab 340	**Aircraft Damage:**	None
Defining Event:		**Injuries:**	37 None
Flight Conducted Under:	Part 129: Foreign		

Analysis

Probable Cause and Findings

Findings

Factual Information

History of Flight

On 4 October 2009, at 1257 EST, a SAAB 340B aircraft, registered VH-SBA, experienced a failure of the left engine during initial climb out from Wagga Wagga Aerodrome, NSW, Australia on a regular scheduled flight to Melbourne, Victoria, Australia. The flight crew reported that they noticed abnormally high indications of the left engine inter-turbine temperature and they then conducted the non-normal checklist items, shut down the left engine, and returned to the aerodrome without further incident. Subsequent inspection of the left engine indicated internal damage, specifically to the 1st stage compressor blisk airfoil section (blade). Of the 34 passengers, and 3 crewmembers on board, there were no reported injuries.

The aircraft, serial number 340B-311, was built in Sweden in 1992 and was a twin-engine turboprop fixed wing regional airliner with a tricycle-type landing gear. The engine was a General Electric Company, model CT7-9B, serial number 785210.

The subsequent engine disassembly, examination and inspection was completed on behalf of the ATSB under the supervision of a representative of the UK Air Accidents Investigation Branch (AAIB).
The observations included:
-all compressor blades were mechanically damaged
-the 1st stage compressor blisk had 4 blades broken off at approximately mid span, while the others had tip damage and diameter reduction apparently from impact and trapping of debris, much like those further downstream
-the four failed 1st stage blades had fracture faces which look similar to each other

Further metallurgy examination of the failed blades from the 1st stage blisk was performed in the UK. That examination confirmed that the four failed blades on the 1st stage blisk of the compressor showed a fatigue mechanism related to the failure.

The investigation is being conducted by the Australian Transportation Safety Board. Further information pertaining to this accident may be obtained from:

Australian Transport Safety Bureau (ATSB)
P.O. Box 967, Civic Square
Canberra A.C.T. 2608
Australia

Tel.:

(61) 2 6257-4150 (24/7 Notifications)
(61) 2 6274-6464 (International liaison)
E-mail:
atsbasir@atsb.gov.au (Notifications)
atsbinfo@atsb.gov.au (International liaison)
Fax:
(61) 2 6274-6434 (Notifications)
(61) 2 6274-6474 (International liaison)
Website: http://www.atsb.gov.au

Information

Certificate:	**Age:**
Airplane Rating(s):	**Seat Occupied:**
Other Aircraft Rating(s):	**Restraint Used:**
Instrument Rating(s):	**Second Pilot Present:**
Instructor Rating(s):	**Toxicology Performed:**
Medical Certification:	**Last FAA Medical Exam:**
Occupational Pilot:	**Last Flight Review or Equivalent:**
Flight Time:	

Aircraft and Owner/Operator Information

Aircraft Make:	Saab	**Registration:**	VH-SBA
Model/Series:	340 B	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Unknown	**Serial Number:**	340B-311
Landing Gear Type:	Retractable - Tricycle	**Seats:**	
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	2 Turbo prop
Airframe Total Time:	34390 Hrs	**Engine Manufacturer:**	GENERAL ELECTRIC
ELT:		**Engine Model/Series:**	CT7
Registered Owner:	Regional Express Holdings Limited	**Rated Power:**	
Operator:	Regional Express Holdings Limited	**Operating Certificate(s) Held:**	Foreign air carrier (129)

Meteorological Information and Flight Plan

Conditions at Accident Site:		**Condition of Light:**	
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:		**Visibility**	
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:			
Departure Point:		**Type of Flight Plan Filed:**	Unknown
Destination:		**Type of Clearance:**	
Departure Time:		**Type of Airspace:**	

Airport Information

Airport:	Wagga-wagga YSWG	**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	3 None	**Aircraft Damage:**	None
Passenger Injuries:	34 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	37 None	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	Reichel, Harald
Additional Participating Persons:	
Original Publish Date:	November 3, 2020
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=75410