

A slippery day in Gander - Seaboard and Western Geneva Airtrader

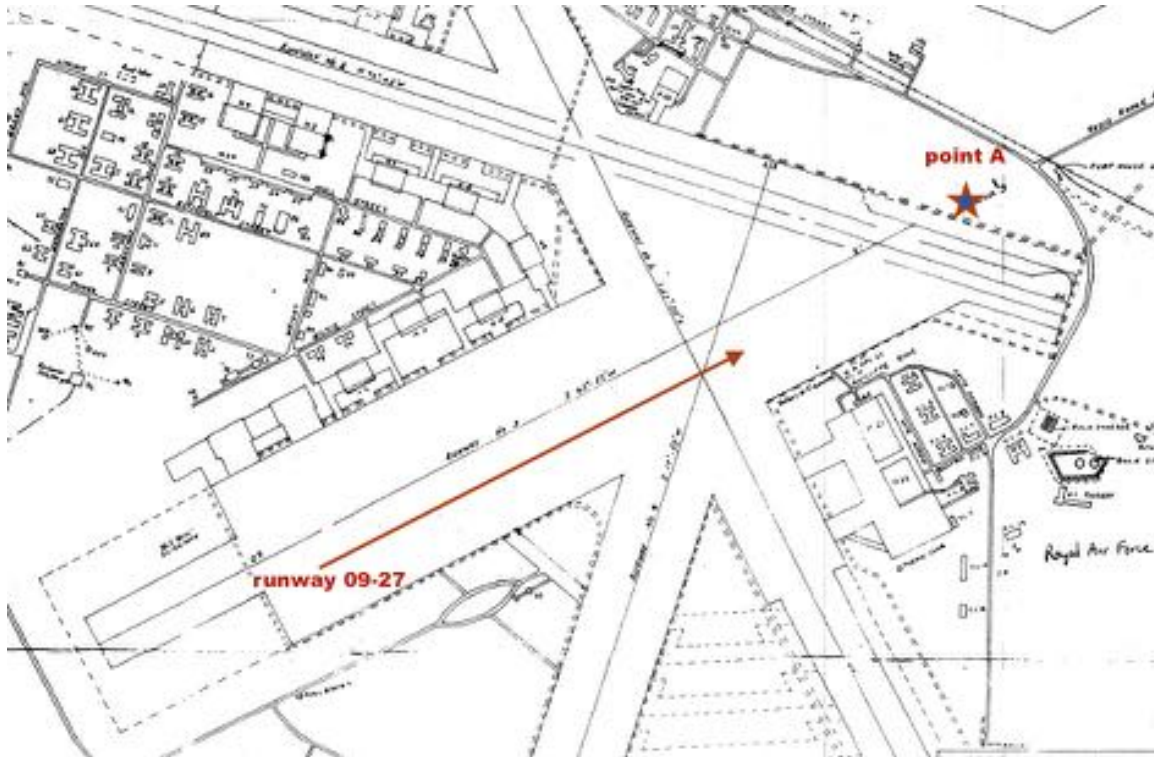
(by Robert G Pelley, 05 November 2017)

<http://bobsganderhistory.com>

From the days of the first Hudson bombers to cross the Atlantic in November 1940, pre-winter weather in Gander was known at best as unpredictable and at worst as treacherous. Those were the conditions when a Seaboard and Western DC-4, serial N75415B, named the "Geneva Airtrader", attempted to land in Gander on 22 November 1955.

This aircraft, designated as Flight 415, departed Idlewild for Gander at 06:12 GMT on 22 November 1955, carrying military cargo for overseas. The crew consisted of Captain Martin Mark Sattler; co-pilot Edwin Joseph Walent; first officer John Vernon Morreale and navigator William Thomas Kennedy. Captain M. Sattler was an experience pilot with about 10,500 hours flying time, which including around 6,000 hours on a DC-4.

At about 1147 GMT, the aircraft contacted Gander Tower and was cleared for a standard Instrument Landing System approach on runway 09. The aircraft touched down in what appeared a normal manner - but continued down past the end of the runway. It then rolled about 55-60 meters over half-frozen earth and then crossed and hung up on a ditch about 6-7 meters wide.



The aircraft was heavy with cargo. It landed with an all-up weight of about 63,200 lbs, the maximum allowable landing weight being only about 1000 lbs more, at 64,170.

While there were luckily no fatalities or even injuries, it is certain that given the weight and conditions, severe damages were inevitable.

The following is general type of damages to engines, props, landing gear, fuselage and wings as given in the official account of what happened:

1. Engines: (with possible other major damage to all four engines)

| | |
|------|--|
| No 1 | Lower cowling and oil cooler, underside of nacelle |
| No 2 | Lower cowling and oil cooler. Bottom cylinders damaged. Nacelle twisted approximately 15° and separated at the firewall. |
| No 3 | Lower cowling and oil cooler. Nacelle twisted approximately 10°. |
| No 4 | Lower cowling slightly damaged |

2. Propellers:

| |
|--|
| All blades have major damage. Domes and propeller assembly to be overhauled and magnifluxed. |
|--|

3. Landing gear:

| | |
|----------------------------------|--|
| Nose Gear | Scrapped. Parts salvageable, subject to magnifluxing |
| Left Main Gear & Right Main Gear | Parts salvageable, subject to magnifluxing. |

4. Fuselage:

| | |
|-------------------|--|
| Center Section | Right wing pulled away from fuselage, from forward wing attach points. Possible other damage |
| Nose Section | Nose wheel upper truss torn out. Much cockpit floor damage |
| Interior of Cabin | Bulkhead pushed forward and broken in door area. Ceiling forward of door wrinkled. |

5. Wings:

| | |
|------------|---|
| Left Wing | Wing tip damaged forward bottom side. Main, center and rear spar areas broken, top skin opened and severely buckled upward. Immediate area of left gear destroyed. |
| Right Wing | Top skin buckled very badly. Front center and rear spar badly distorted, possible breaks. Bottom skin stub wing between #3 nacelle and fuselage severely damaged, spar and stress plates twisted and broken |
| Wing Flaps | Badly buckled, torn and deformed behind both inboard engines. |

The photo below shows what this airplane would have looked like normally, based on standard Seaboard and Western livery.



Thanks is given to Darrell Hillier for several of the photos below, which let us better see the damages.







These basic facts having been told, the next step is to understand the causes or least contributing factors. First of all, a formal board of inquiry was not convened. However, competent officials wrote up a complete account, so that both American and Canadian authorities be apprised of the situation.

There were two main factors that came into play, namely runway surface conditions and the actual point of touch down.

Two other aircraft landed some time before. Trans-World Airlines Flight 885b landed on runway 11-32 at 09:59 GMT and the pilot reported "slick places on this runway".

Slightly later Gander tower controlled Flying Tiger aircraft 95414 for an approach on runway 09, informing the captain that the runway was slick in spots. This flight landed on runway 09 at 11:28 GMT but with apparently no difficulty and making no comment on runway braking actions.

Based on this previous information, as Geneva Airtrader came into land, Gander Tower gave braking conditions as fair to good. However use of this type of information was considered incorrect. The Manual of Operations of the time stated that a controller shall not use brake action as "poor", "fair" or "good" in describing the runway condition, and the controller-on-duty apparently was familiar with this regulation. It was the opinion of the examiners of the incident that the evaluation of the brake action is not a satisfactory way to describe the runway condition, since such evaluation might be valid for one type of aircraft and not for another.

It was considered that If the braking action is to be given, it should have been qualified by "it is reported that" or "the braking action is estimated to be".

It is not clear what difference all these nuances would make to a busy pilot on final approach. What, concretely, would a pilot have to do differently, given slight variations in the manner of describing the stopping ability of the aircraft?

There was perhaps one good "non-aeronautical" reason for this slight difference of describing runway conditions. In case of an accident, an airline company could theoretically take the airport administration to task for giving incorrect information. But when the tower controller says "it is reported that", he is probably not giving information that engages that airport administration.

Another, perhaps more important, consideration concerns how the landing was made. The four members of the crew gave the point of touchdown as about 1000 to 1500 feet from the end of the runway, leaving therefore about 4700 to 5200 feet to go on this runway measuring 6,180 feet.

However, from their statements, these crew members did not actually measure the distance and were making estimates based on their experience. On the other hand, based the runway lights, which were 200 feet apart, two tower personnel estimated touchdown at approximately 3,000 feet from the 09 end of the runway. As well, Eric Winsor, Airport Manager, and Rex Tilley, Operations Manager, both traced the wheel marks in the snow from the accident scene back to their start and established the point of touchdown as being 3,000 feet from the end of the runway.

With weather conditions of temperatures known to be hovering around freezing, a pilot would normally have tried to use maximum runway available. With a

touchdown believed by the crew to be at 1000 to 1500 ft from the button, maybe the pilot of Geneva Airtrader thought he had in fact used the entire runway.

In any case, he ended up roughly at point A on the previous map.

But what is amazing is that this aircraft, even with all the damage described above, flew again. During the 2nd world war, Gander was the hub of trans-Atlantic crossings. While the Americans used their own military mechanics who generally speaking returned home, RAF Ferry Command maintenance was run by the great Joe Gilmore who prided himself on the training of Newfoundlanders, who under his command, became superb mechanics. Being locals, they stayed in Gander and became the nucleus of a great maintenance unit.

The history of this aircraft is as follows:

| Registration History | | | | |
|----------------------|----------|--------------------------------|-----------|-------------|
| | Reg | Airline | Delivered | Status |
| + | 42-72254 | United States Army Air Force | 31.07.44 | Left Fleet |
| + | N75415 | Trans Caribbean Airways | 48 | Left Fleet |
| + | N75415 | Eastern Air Lines | 48 | Left Fleet |
| + | N75415 | Trans Caribbean Airways | 24.04.52 | Left Fleet |
| + | N75415 | Near East Air Transport | 53 | Left Fleet |
| + | N75415 | Seaboard And Western Airlines | 54 | Left Fleet |
| + | N75415 | Los Angeles Air Svc | 56 | Left Fleet |
| + | N75415 | Meteor Air Transport | 57 | Left Fleet |
| + | N75415 | General Airways | 58 | Left Fleet |
| + | N75415 | Atlas Airways | 58 | Left Fleet |
| + | N75415 | American International Airways | 59 | Left Fleet |
| + | HB-ILB | Balair | 20.12.60 | Left Fleet |
| + | N9760F | Mary Herzog Stuckl | 63 | Left Fleet |
| + | G-ASOG | Air Ferry | 28.01.64 | Written-off |

(info PlaneLogger website)

Hit trees on landing Frankfort 21 January 1964,
both crew members killed

Here are two photos of this aircraft in service later:
In "General Airways" livery:



In Ballair livery :(part of Swissair)



From a comparison "before and after", it is obvious that the maintenance folks in Gander sure knew how to put Humpty Dumpty back together again!!