

ACCIDENT SUPPLEMENTAL MATERIALS

RADAR DATA

The pilot had an InReach device onboard the airplane, which recorded hits every 20 minutes giving the location, speed and attitude. The data revealed that the airplane stopped in Sitka, Alaska on the day before the accident (January 25). The airplane departed Sitka around 1340 and arrived at Ketchikan, Alaska 1635, where the pilot pent the night. The pilot received 31.9 gallons of fuel and departed about 1000.

<https://share.garmin.com/SeanHayes>

TIME	LAT	LONG	Elevation (ft)	Speed (MPH)
9:54:00	55.355923	-131.709745	80.91	0
10:14:00	55.252025	-131.5365	2,623.75	105.99
10:34:00	54.87437	-130.92787	2,947.44	110.41
10:54:00	54.457963	-130.46458	5,317.55	101.7
11:14:00	54.015248	-130.09122	6,241.40	112.67
11:34:00	53.577715	-129.64097	5,134.25	112.67
11:54:00	53.128176	-129.19422	5,325.56	112.67
12:14:00	52.6691	-128.79873	4,913.09	110.41
12:34:00	52.236406	-128.40627	4,285.33	103.83
12:54:00	51.833216	-128.01669	3,267.81	97.54
1:14:00	51.384763	-127.70087	1,924.54	112.67
1:34:00	50.972368	-127.3438	1,138.32	87.71
1:54:00	50.782918	-126.83287	704.27	82.18
2:14:00	50.483261	-126.53587	2,452.66	89.62
2:34:00	50.396293	-125.92446	408.37	103.83
2:54:00	50.100456	-125.45001	1,549.87	99.61
3:14:00	49.778838	-125.01122	1,584.38	93.52
3:34:00	49.390283	-124.72566	3,311.84	80.39
3:54:00	49.13971	-124.30275	2,896.82	76.90
4:14:00	48.739396	-123.93844	2,395.87	95.52
4:34:00	48.335713	-123.60797	1,343.47	97.54

Figure 1: Tabular Data for InReach Data

Track Summary	
Started	Trip Time
Jan 26, 2021 9:54 AM	6:40:00
Dist. Traveled	Average Speed
609.97 mi	91.50 mph
Max. Speed	Max. Elevation
112.67 mph	6241 ft
Track Summary	
Started	Trip Time
Jan 25, 2021 10:35 ...	6:40:30
Dist. Traveled	Average Speed
622.91 mi	93.32 mph
Max. Speed	Max. Elevation
132.03 mph	11420 ft

Figure 2: InReach Synopsis for Flights on the 25th and 26th



Figure 3: All Flights Recorded on InReach

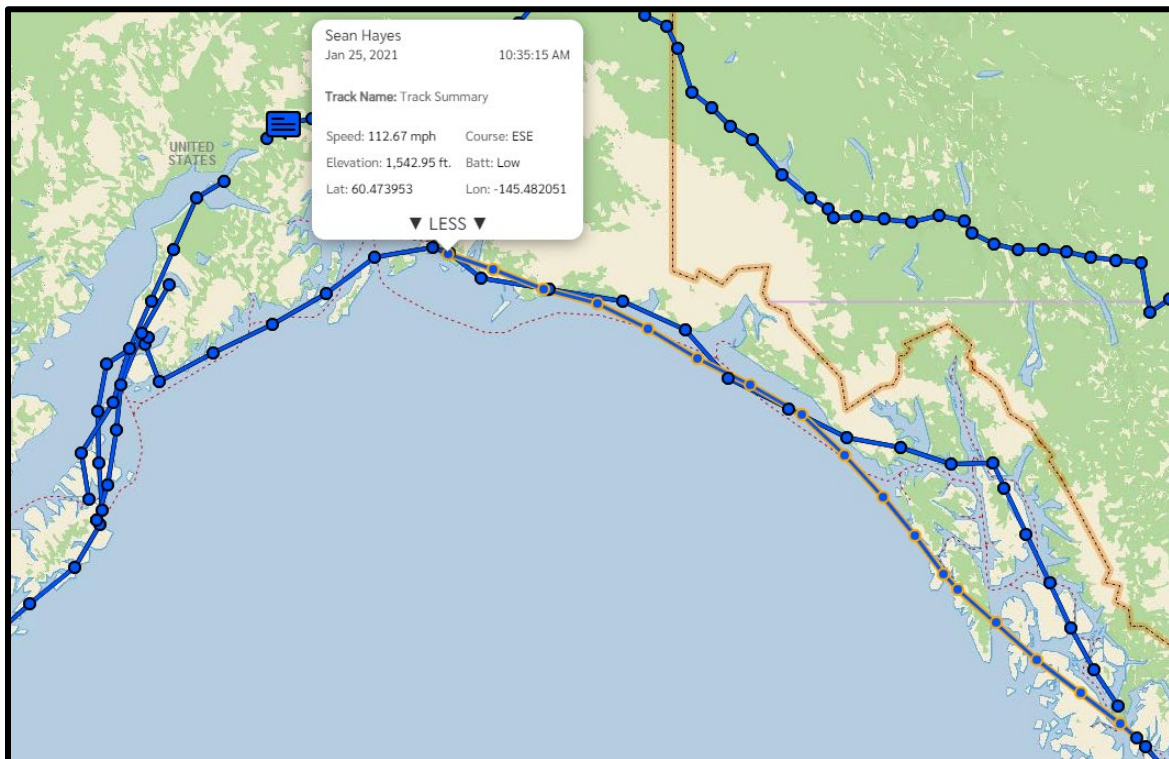


Figure 4: InReach January 25th Flights

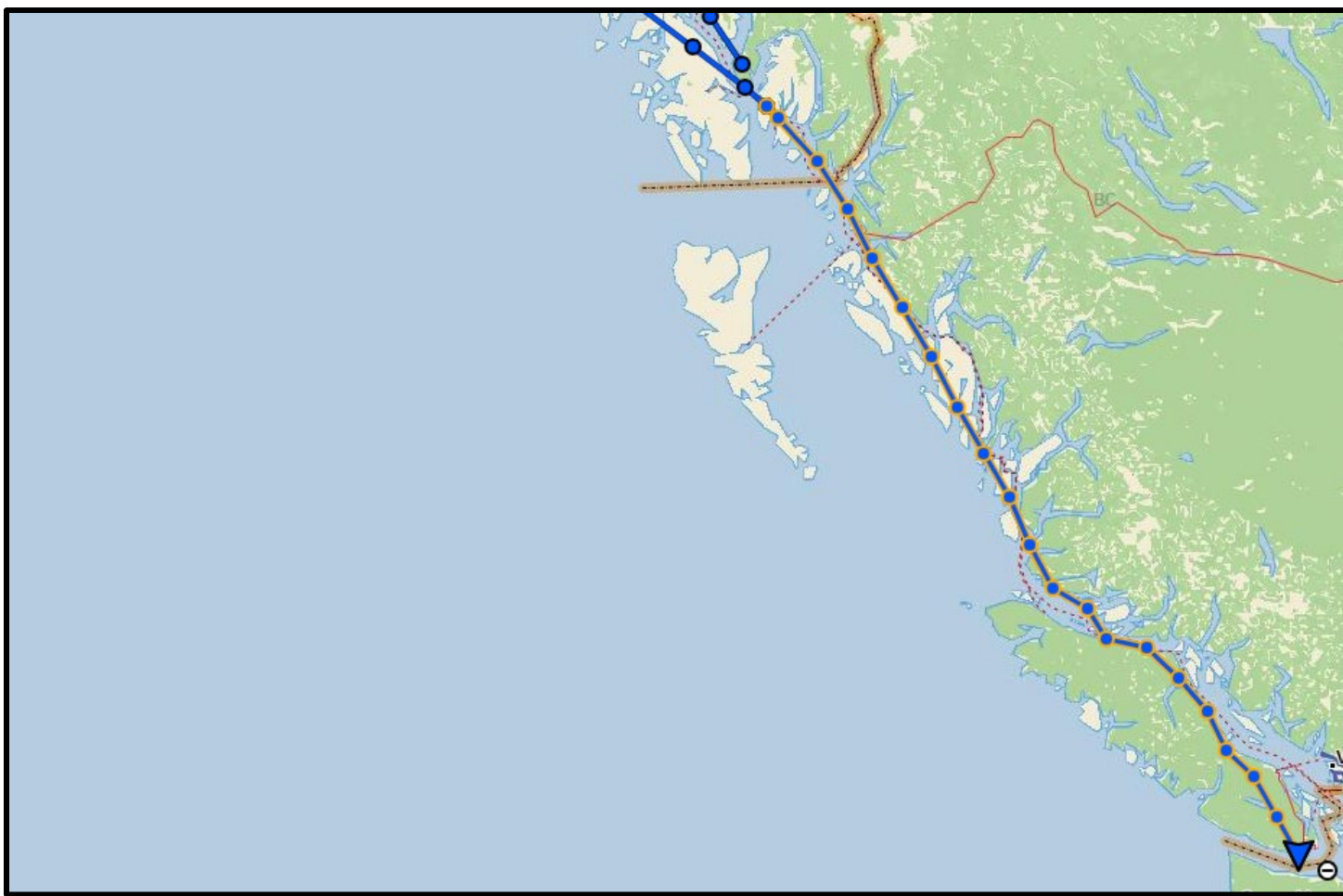


Figure 5: InReach January 26th Accident Flight

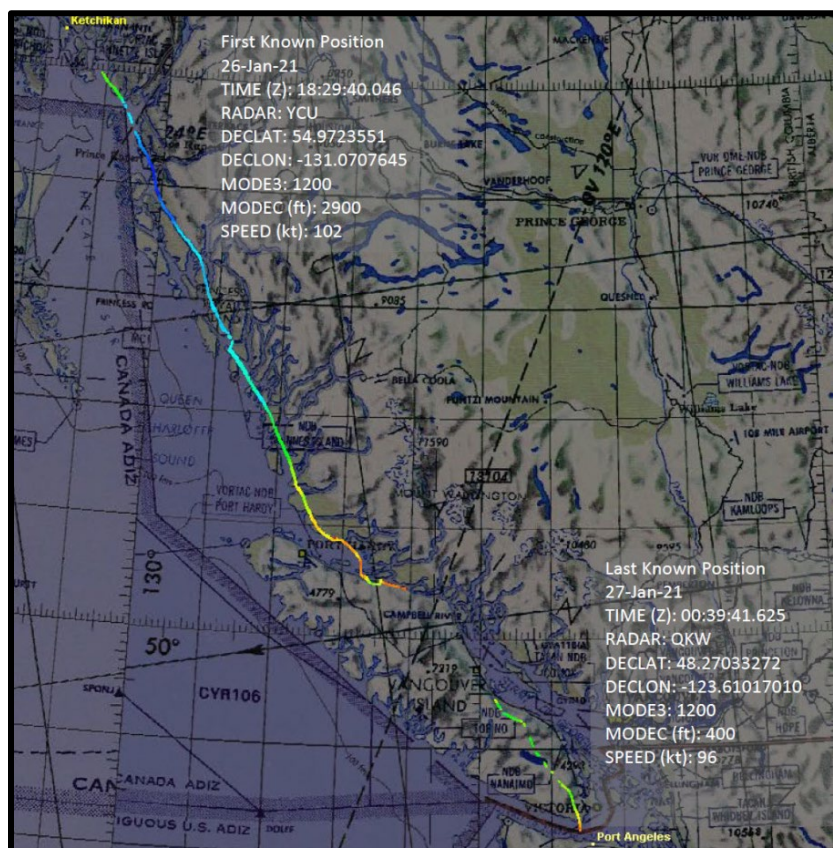


Figure 6: Preliminary Radar Data Overview

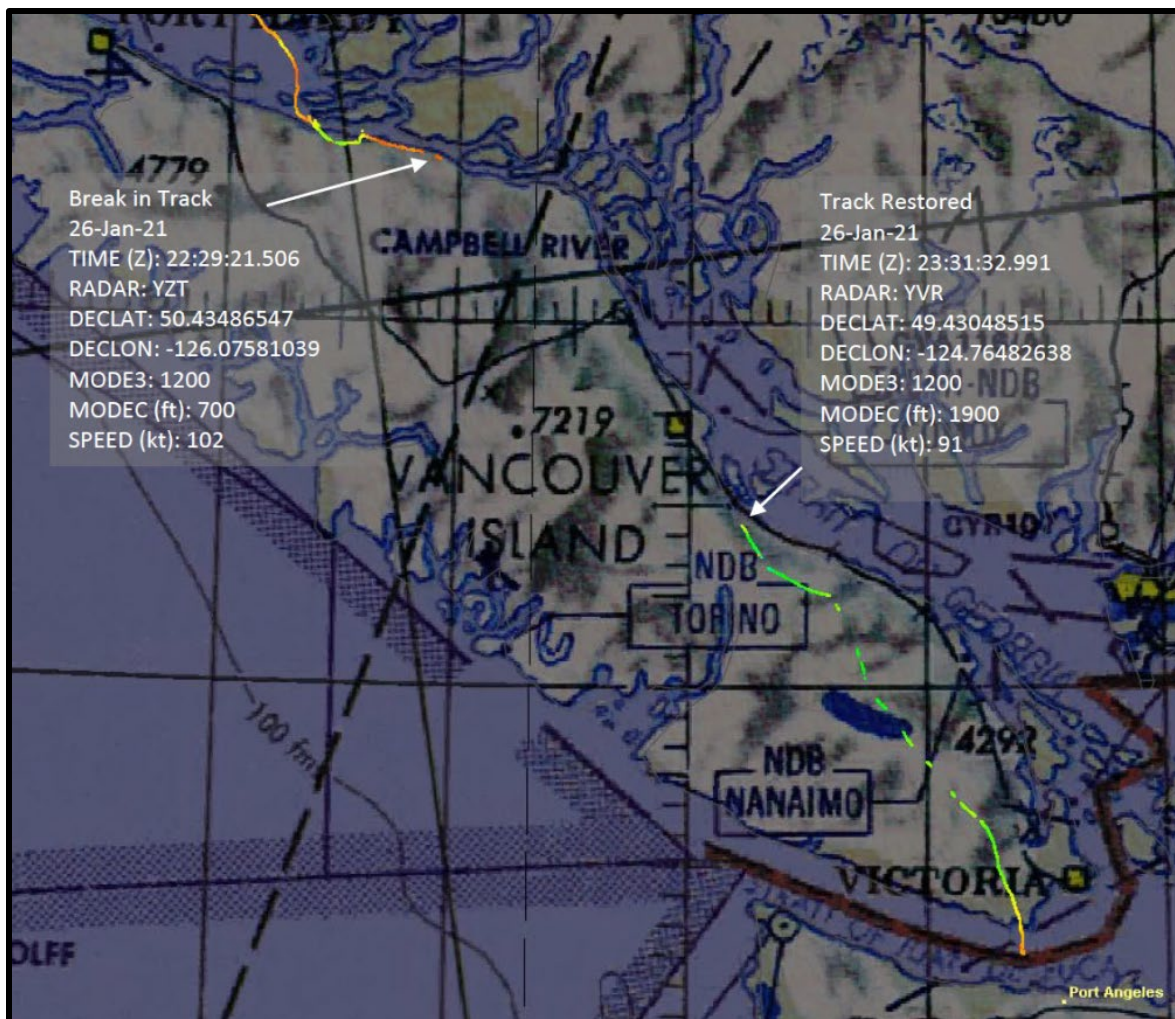


Figure 7: Preliminary Radar Data

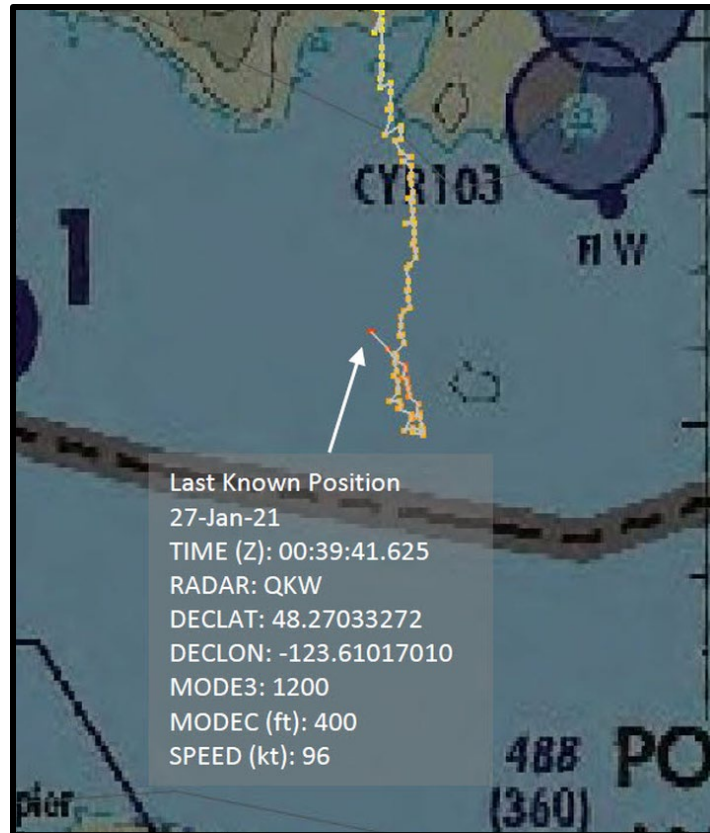


Figure 8: Preliminary Data of Last Radar Hits

The pilot sent a text message to his mother at 1639 showing the barge described in his radio communication.



Figure 9: Photo Pilot Sent Prior to Ditching in the Ocean

PERFORMANCE DATA

Pressure Altitude 6000 Ft.				Full Rich				Lean			
RPM	BHP	% BHP	TAS MPH	Gal./ Hour	End Hours	Mi./ Gal.	Range Miles	Gal./ Hour	End Hours	Mi./ Gal.	Range Miles
2500	90	62	122	9.3	4.0	13.1	485	7.9	4.7	15.5	571
2400	80	55	115	8.4	4.4	13.7	506	7.2	5.2	16.0	592
2300	71	49	108	7.7	4.8	14.0	518	6.5	5.7	16.6	624
2200	64	44	101	7.2	5.2	14.0	518	5.9	6.3	17.1	633
2100	58	40	94	6.7	5.5	14.0	518	5.2	7.1	18.0	666
2000	54	37	88	6.4	5.8	13.7	506	4.5	8.2	19.6	725

Time	Elevation	RPM	Gal/Hour	Fuel used	RPM	Gal/Hour	Fuel used
0.33333333	2623	2100	5.65	1.88	2600	9.99	3.33
0.33333333	2947	2100	5.61	1.87	2600	9.88	3.29
0.33333333	5317	2100	5.29	1.76	2600	9.06	3.02
0.33333333	6241	2100	5.17	1.72	2600	8.74	2.91
0.33333333	5134	2100	5.32	1.77	2600	9.12	3.04
0.33333333	5325	2100	5.29	1.76	2600	9.05	3.02
0.33333333	4913	2100	5.34	1.78	2600	9.20	3.07
0.33333333	4285	2100	5.43	1.81	2600	9.41	3.14
0.33333333	3267	2100	5.56	1.85	2600	9.77	3.26
0.33333333	1924	2100	5.74	1.91	2600	10.23	3.41
0.33333333	1138	2100	5.85	1.95	2600	10.51	3.50
0.33333333	704	2100	5.91	1.97	2600	10.66	3.55
0.33333333	2452	2100	5.67	1.89	2600	10.05	3.35
0.33333333	408	2100	5.95	1.98	2600	10.76	3.59
0.33333333	1549	2100	5.79	1.93	2600	10.36	3.45
0.33333333	1584	2100	5.79	1.93	2600	10.35	3.45
0.33333333	3311	2100	5.56	1.85	2600	9.75	3.25
0.33333333	2896	2100	5.61	1.87	2600	9.90	3.30
0.33333333	2395	2100	5.68	1.89	2600	10.07	3.36
0.33333333	1343	2100	5.82	1.94	2600	10.43	3.48
6.66666667				37.34			65.76

Hypothetical 6,000 @ 2100 RPM		
Alt	Gal/Hour	Fuel used
2623	5.65	1.88
2947	5.61	1.87
5317	5.29	1.76
6241	5.17	1.72
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
6000	5.20	1.73
2000	5.73	1.91
0	6.00	2.00
		37.15

From Owner's Manual			
2100 RPM		2600 RPM	
0	6	0	10.9
500	5.90	500	10.66
1000	5.80	1000	10.42
1500	5.70	1500	10.18
2000	5.60	2000	9.94
2500	5.5	2500	9.7
3000	5.44	3000	9.54
3500	5.38	3500	9.38
4000	5.32	4000	9.22
4500	5.26	4500	9.06
5000	5.2	5000	8.9
5500	5.16	5500	8.78
6000	5.12	6000	8.66
6500	5.08	6500	8.54
7000	5.04	7000	8.42
7500	5	7500	8.3

AIRPLANE INFORMATION

According to the Owner's Flight Manual, the quantity of fuel should be checked before each flight. There are 20-gallon tanks in each wing with direct reading gas gauges in the cabin at the wing root. One filler neck is provided in each wing panel. The fuel is brought to the engine by gravity flow through aluminum alloy tubing which runs rearward to and down the cabin door rear post and across to the center of the ship where the two lines connect to the tank selector valve. A single fuel line runs forward from the selector valve to the fuel strainer on the firewall. Fuel may be drained at the fuel strainer, at the tank drain plugs, or a belly fuel line drain plug just forward of the fuel tank selector valve. The fuel tank selector valve provides fuel from either the right tank or the left tank, a shut-off for both tanks, and can be set to provide fuel from both tanks simultaneously to provide maximum safety. Important — The fuel valve handle indicates the setting of the valve by its position above the valve dial.

There are two STC's for extra tanks, but the 337 did not indicated either were installed.

SA01388SE (Del-Air) installs either 7 or 15 gallon wing tanks

SA1614WE (Flint Aero, Inc.) installs 12 gallon wing tanks

FUEL QUANTITY

Fuel in Kodiak

AVGAS (Per Gallon) x 7 \$ [REDACTED]
N9114A
Total \$ [REDACTED]

Right-click or tap and hold here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.

Redemption Inc. DBA Island Air Service
1420 Airport Way
Kodiak, AK 99615
[REDACTED]

Visa [REDACTED] (Chip) Jan 24
2021
SEAN HAYES at 2:23 PM

Fuel in Sitka

Fuel Order	Fuel Date	Quantity	Unit Price	Invoice	Service Status
100LL Top off	Ordered: 1/25 13:28 Pumped: 1/25 13:42 Truck: T2	Pumped: 28.6 Billed: 28.6		SIT132609	Completed

Fuel in Ketchikan

The aircraft was topped off the following day and took a total of 31.9 gallons which would indicate the aux tank capacity was approximately 15 gallons. Video surveillance of the SIT fueling operation confirmed that no fuel was added to the aux tank in the fuselage.

Subtotal:	Fueling Details
Sales Tax:	Fuel Details
Total:	Fueling Request top off Pumped Gallons 31.90 Anti-Ice Additive False Request Date 1/26/2021 8:29:00 AM Pumped Date 1/26/2021 8:43:43 AM Truck T1 Serviced By Aviation01\Acaparas

PILOT INFORMATION

Sean M. Hayes

Pilot: COMMERCIAL, AIRPLANE SINGLE ENGINE LAND, AIRPLANE SINGLE ENGINE SEA, INSTRUMENT AIRPLANE, was a 38-year-old male. This pilot reported civil flight experience that included 650 total and 120 hours in last six months as of exam dated 6/19/2020. This pilot was 67 inches tall and weighed 180 lbs. at the time of the last exam. The last exam was conducted by a Aviation Medical Examiner (AME). Due to a reported DUI in February 2020, this pilot was not issued the requested Second Class Medical Certificate without limitations. Additional information was requested from the pilot in July 2020 and certification was denied in October 2020 due to failure to comply.

TEXT MESSAGES

1521 (Mother) Are you on the ground?
1522 (Mother) You still appear to be at Port Hardy
1524 (Pilot) Nasty headwind, I'm just past Comox, not sure if I have enough gas
1524 (Pilot) May land in Canada
1526 (Mother) Hopefully you won't have to clear customs just to get gas!
1527 (Pilot) It got super shitty the last hour
1527 (Mother) But if you do it will be worth it
1528 (Mother) Bummer at least you are through the hardest part now. If you have to wait it could have been much worse
1530 (Mother) Looks really nasty on the outside
1532 (Mother) Your tracker has been off for an hour and 15
1535 (Pilot) It says it's working
1538 (Mother) It just started again
1539 (Pilot) I reset it
1540 (Mother) Thanks. How's it looking on gas?
1541 (Pilot) Been in the air for 5.7 hours gps says 1.1 more hour / 57 gallons at 6-10 per hour
1542 (Pilot) It's a tough call, it should make it
1542 (Pilot) But these headwinds have got me going slow
1543 (Pilot) There's a bunch of clouds I'm trying to skirt as well
1544 (Mother) Sounds like a nervous combination
1545 (Mother) Average 8.38 g per hour will get you there on fumes
1546 (Pilot) I'm unhappy about it, already went through over an hour of really bad turbulence
1546 (Pilot) At least that's over
1552 (Mother) And your not pushing dark another good plus
1556 (Mother) Rolan just got the airport cam up at Port Angeles so I could watch you land
1600 (Pilot) Oh good yeah I'm going to head there
1604 (Mother) What's your eta now?
1613 (Pilot) 29 minutes
1613 (Pilot) It keeps changing
1614 (Pilot) I'll be doing 90 knots then cross a peak and suddenly 60
1615 (Pilot) Turbulent again too
1616 (Mother) Ugh
1618 (Pilot) Lots of clouds
1620 (Mother) Almost there looks good over the field. Should be better once you clear Vancouver Isl terrain
1634 (Pilot) Of course the last stretch is a water crossing
1636 (Mother) You can stop at and IMO
1636 (Mother) Nenimo
1637 (Mother) * Blessing

RADIO CALL

0837: (Pilot) Mayday mayday mayday... Cessna 9'er {interrupted]
0854: (Other Pilot) 14A how far north of the shoreline are you?
0856: (Pilot) Right in the middle, I'm out here by ... there... there's a boat going by... there's a tanker getting drug. I am out in the middle and I'm going down now. I'm going in the water.
0908: (Other Pilot) Anybody in the Coast Guard station listening?
0917: (Other Pilot) Are you east or west of the coast guard station at Port Angeles, if you can tell me?
0923: (Pilot) I don't know, [indiscernible] water...I'm right by this boat... there's a boat...there's a boat getting towed by a barge. I'm going in the water now.
0931: (Other Pilot) [indiscernible] call the Coast Guard. Your'e by the boat, by the...
0934: (Pilot) Ya, I'm behind the boat, behind the boat
0940: (Other Pilot) [indiscernible] channel going in the water and can't reach anyone in the Coast Guard.
0950: (ATC) 2MC say again.
0956: (Other Pilot) 2MC Received a mayday call on Port Angeles Unicom frequency for a Cessna that was ditching about 5 miles north of Port Angeles
0945: open mike

TIME LINE

A complete Search and Rescue review was performed and is in the public and private docket for this accident.

- Pilot made MAYDAY call and was in contact with Victoria Harbor Radio (CYWH)
- ZSE was notified by “someone” that there was a distress call and possible downed a/c with call sign ending in “14A”
- ZSE issued ALNOT (according to DTG on message) at 0149Z (1749 PST) – have requested all information to confirm times of initial notification, ALNOT issuance, and ALNOT cancellation – So we cannot confirm that time until we have that data.
- ZSE did reported a last position of 4816N/12337W which was in close proximity to last radar return.
- ZSE reported the last known position being at 0040Z (1640 PST) – Coincident with last recorded radar return.
- Radar data was available capturing the accident airplane until 0040 when radar was lost, at which time it indicated 400 ft msl, and was descending at about 500 fpm NW bound approx. 2.93 nm from the Canadian Coastline.
- The location of last report was not coincident with the reported triangulation conducted by USCG/CCG which has the estimated location as Race Rocks, over 4 miles E/NE of the last radar return)

The vessel in the picture is the Seaspan King. The tow/crane barge is quite identifiable/unique to that operator as well. Below are the overlying track lines, times and other vessels in the area. That is Mt. Baker in the background. The picture appears as though it was taken looking to the east-northeast. The Seaspan King appears to be about 1.9 nm away and race rocks are about 3.9 nm. The closest anchored ship is about 10 nm away.

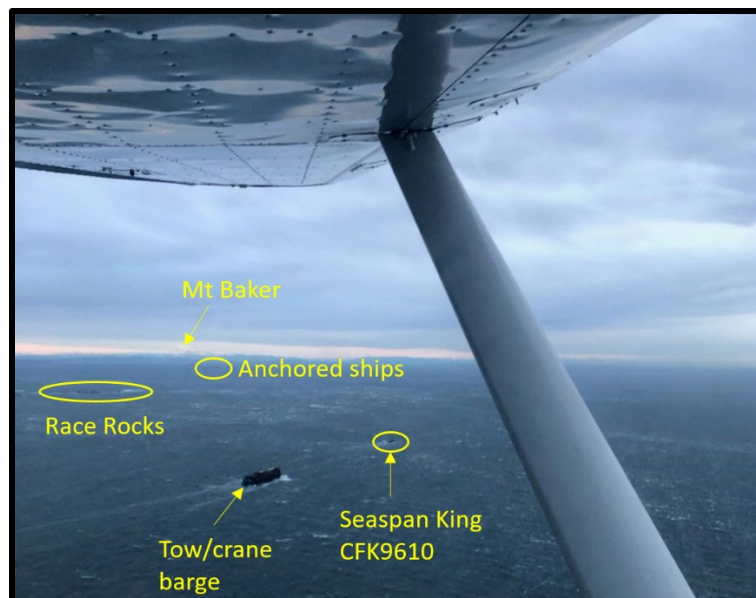


Figure 10: Photo Pilot Sent Prior to Ditching in the Ocean with Landmarks Notated