A CASE OF OFFSHORE DITCHING BY A PRIVATE AIRPLANE

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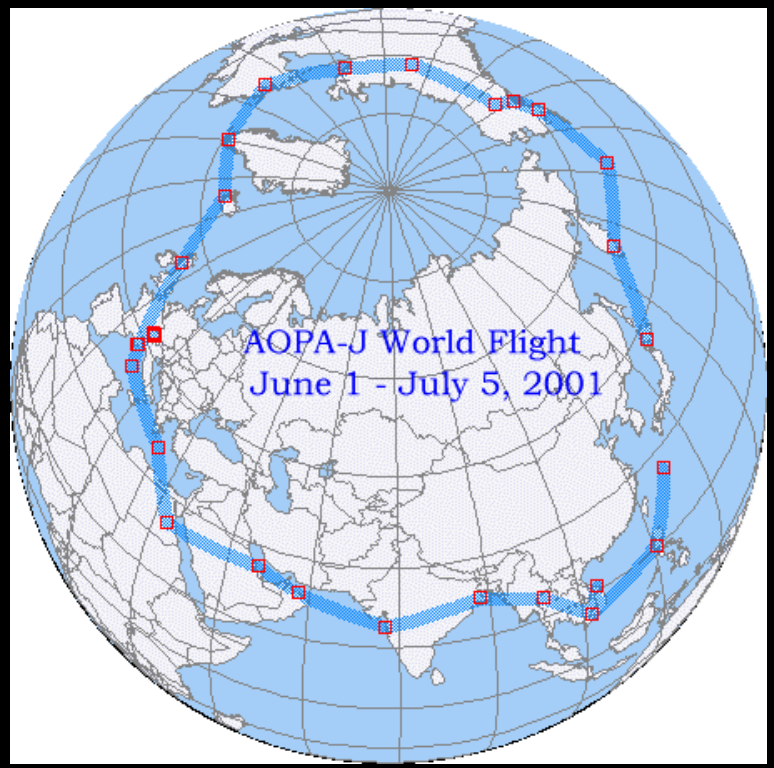
NTSB case #SEA01WA125 Pilatus PC-12/45, N660NR

- July 8, 2001, 1345 local time (0245UTC)
- a ditching in the Sea of Okhotsk, Western Pacific Ocean
- the pilot sustained minor injuries and the three passengers were uninjured
- Departure: Hakodate, northern Japan 0910 hours local
- Destinaton: Magadan, Russia
- instrument weather, on IFR plan, under 14CFR91
- in cruise at 8,100 meters altitude when the pilot felt a vibration
- 100FT overcast, 8-12FT swell
- 15 hours after the ditching they were picked up by a Russian container ship and airlifted to Sakhalin Island

Pilatus PC-12 single turboprop

max cruise	270 KTAS
max range	2,210 NM / 4,095 km
max op alt	30,000 FT



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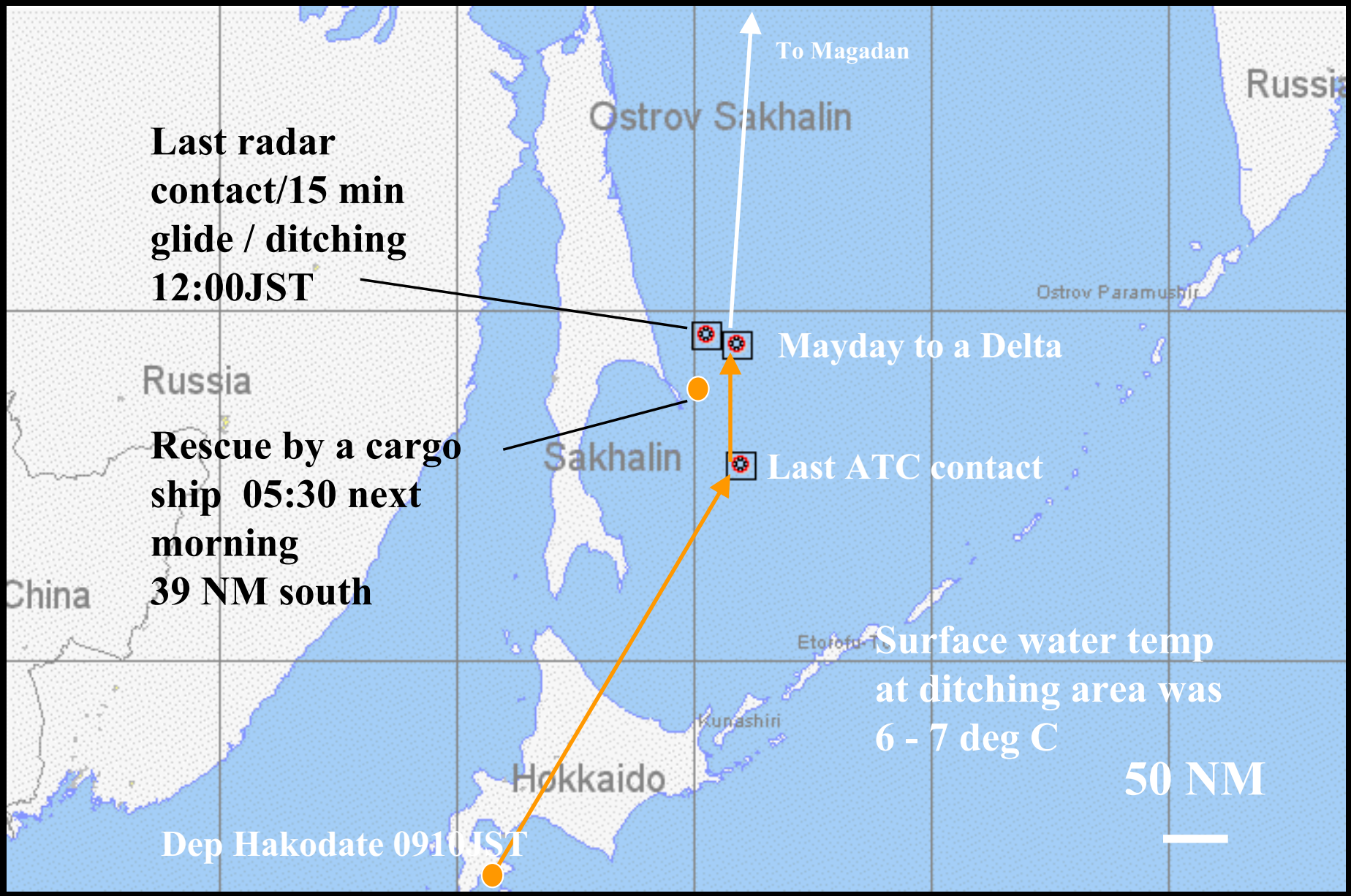
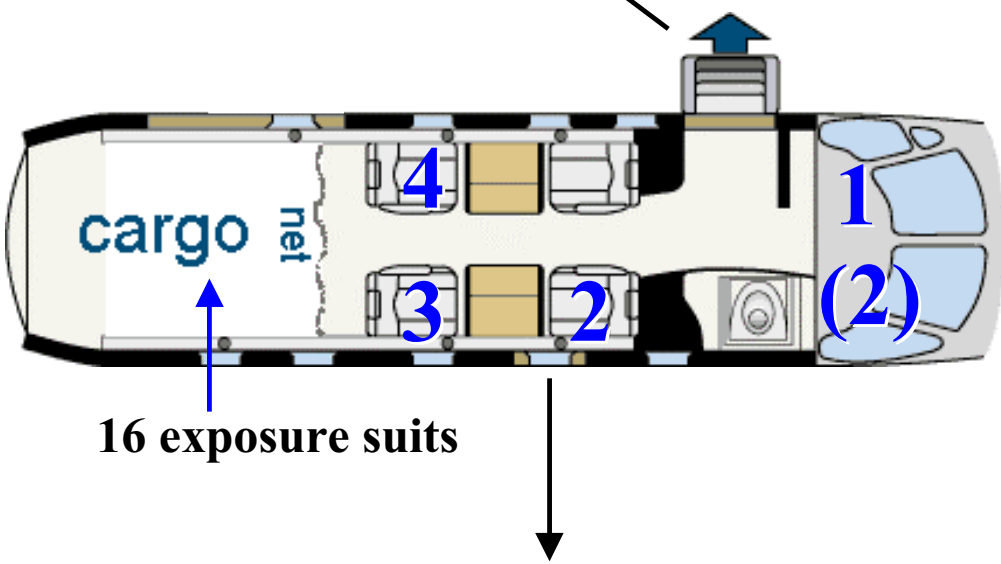
Route of N660NR /PC-12, July 8, 2001



[Wind 15kt, swell 3m, surface water 7 deg C]

automatic inflation --- raft

main door was used



16 exposure suits

P2 unable to open the door.

Minor injuries for P1 and P2.

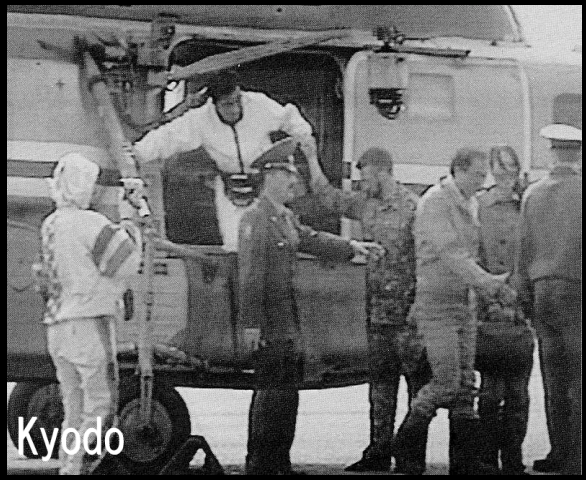
N660NR Sequence of Evacuation

1. Propulsion lost at FL270.
2. In-cloud descent.
3. P3/P4 suited up.
4. P1 suited up.
5. P2 suited up, brace in the cabin.
6. Break out at 100 feet.
7. Gear-up ditching. Wind 15 knot.
8. P2 had brief unconsciousness. No lap belt due to thick gloves.
9. P2 did not kick the aft plug door. No decal instruction to 'kick'.
10. P1 opened the main door.
11. P3 threw a raft out. No tether.
12. All aboard the raft.
13. Shelter manually erected.
14. Airplane tail was afloat more than several hours.

Rescue by a cargo ship ‘KHUDOZHNIK N. RERIKH VLADIVOSTOK’

- Rations and a flare gun were available.
- P3 gathered extra food and passports.
- No radio nor 406MHz EPIRB.
- The ship changed its original course to comply with a distress circular.

Two-hour Airlift to Yuzhino-Sakhalinsk on a Ka-32C



Lessons Learned from N660NR Case

1. The case was survivable. General ditching egress success rate is high (92%), and even the open water eventual survial rate is not low (82%) [Bertorelli].
2. Prompt Russian rescue activity was the key.
3. Canadian regularions for the equipment on trans-Atlantic small airplanes worked.
4. Seamanship made a difference on the life raft.
5. Multicultural crew relashionship was good after a period of working together.
6. Choice of clothes. Wet jeans felt cold.
7. Gear up or down? How long it floats? Low wing vs. high wings?, etc.