File 20111213.1233: I sent the following to Dr Martin and Dr Fléchais today. I hope they don't think less of me, like I should not be reading outside material, but rather coding my CS-1:

> Subject: AF 447 3rd interim report
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> I wonder if we ought to talk about the Air France 447 accident in reading group. The third interim report of the mishap investigation board is out, and there are clearly some relevant issues in it. Why on earth did Airbus designers think it was a good idea to average the readings from the two control sticks when the PF and PNF were applying opposite control inputs? Is there really no visual or audible indication when the flight control computer switches from Normal Law (in which the plane cannot stall) to Alternate Law (in which it can stall)? Why did Airbus designers design the thing to quit sounding the stall horn when the airspeed readings went too low? So many things went wrong on that flight: it was nighttime, and cloudy, so the pilots had no visual reference out the windows, but two apparently thought the plane was nose-up, and one thought the plane was nose-down. One pilot had his stick pulled all the way back and held that way and the other pilot didn't know it. The stall warning horn sounded repeatedly, but then it stopped, only the plane was still stalled and the pilots didn't know it. The technical root cause, both primary and backup pitot tubes briefly icing over that caused the autopilot to disengage, actually corrected itself 30 and 60 seconds later, respectively. But following that, over the next four minutes, three trained pilots flew a perfectly sound airplane into the ocean, and it happened because their mental models and the state that the flight computer was in were all different, and confused.

They have not replied yet. It is relevant to my thesis, because it is an example of what should have been a routine process going disastrously (technically, in this case, catastrophically) wrong.

References