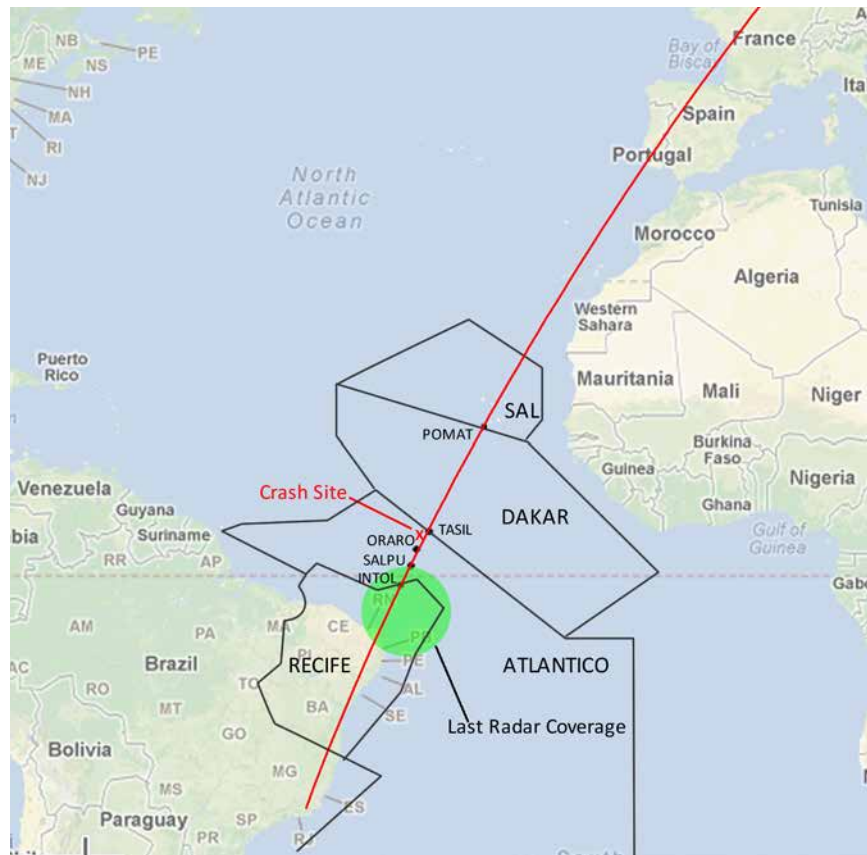
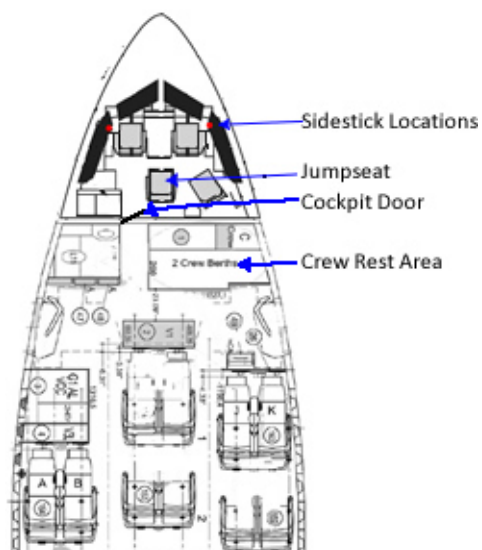


Understanding Air France 447: Images Collection

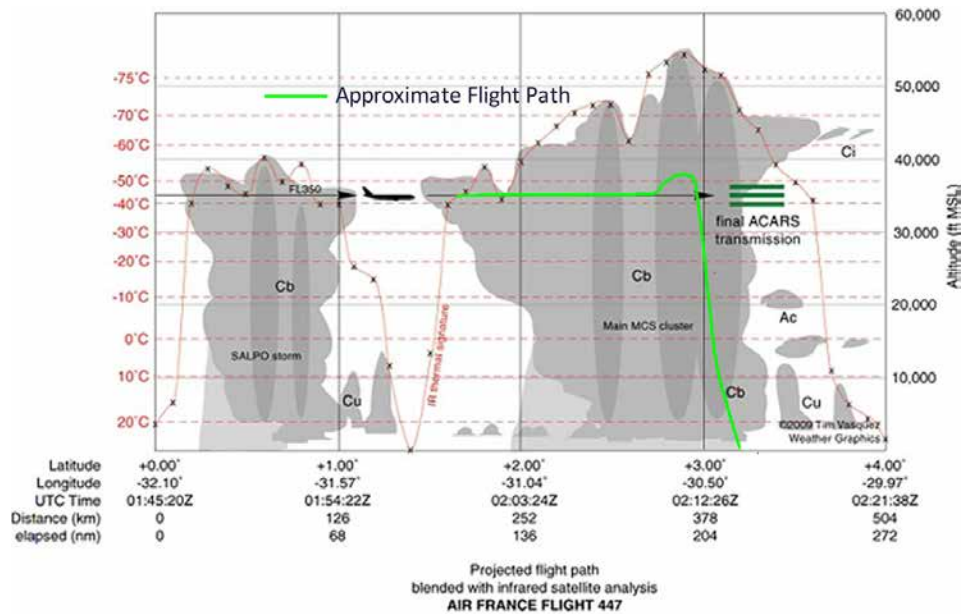
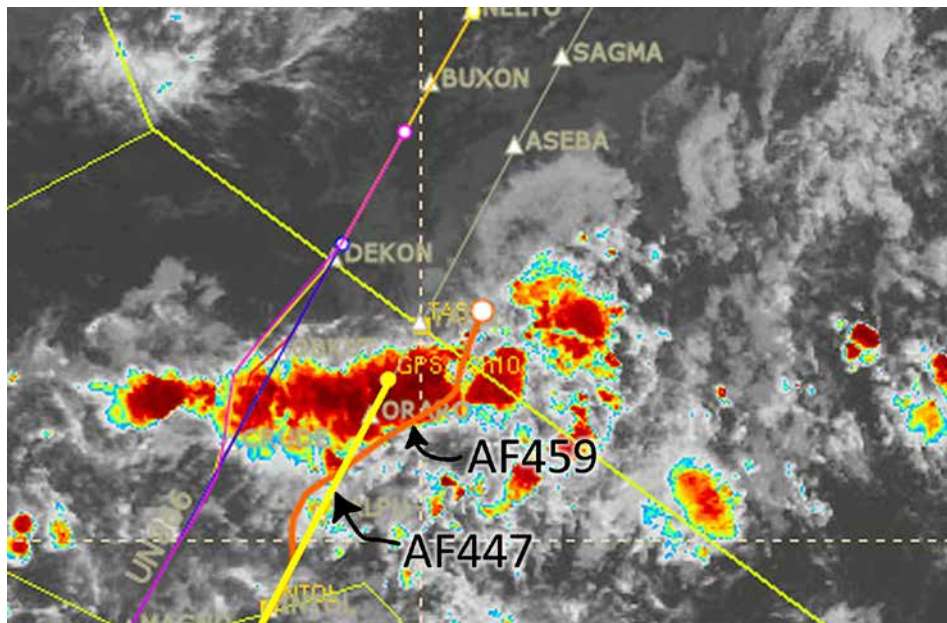
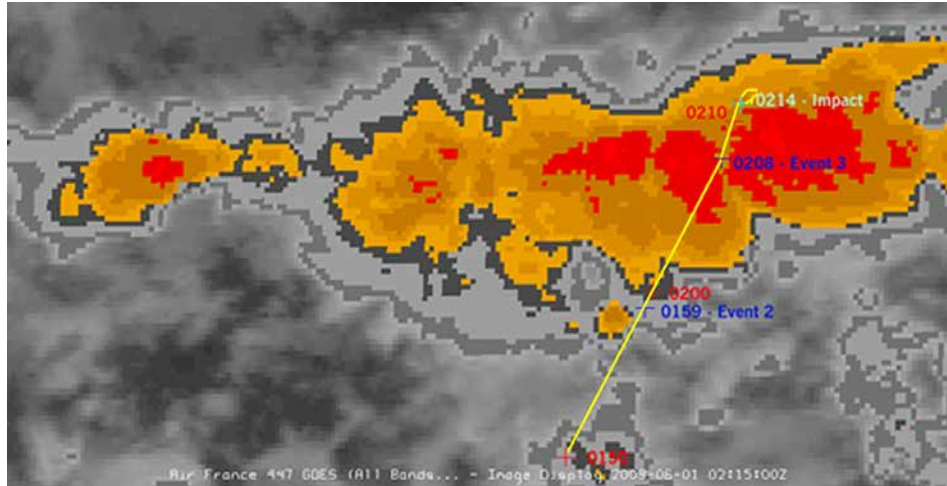
Chapter 1: Chronology



Chapter 2: The Flight Crew

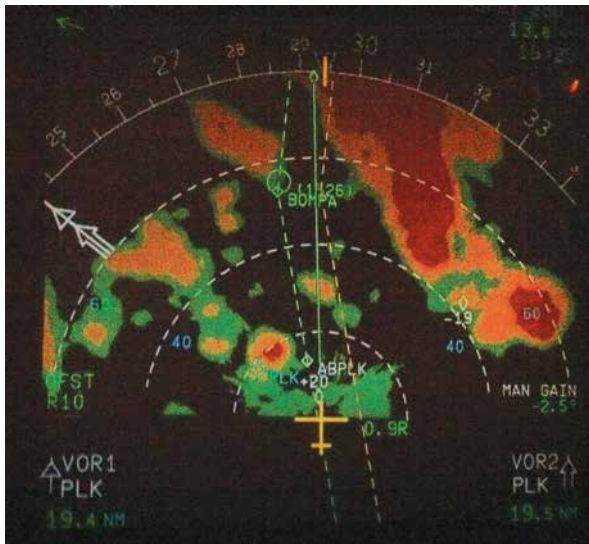


Chapter 4: Intertropical Convergence

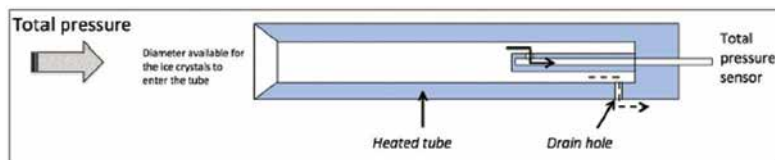




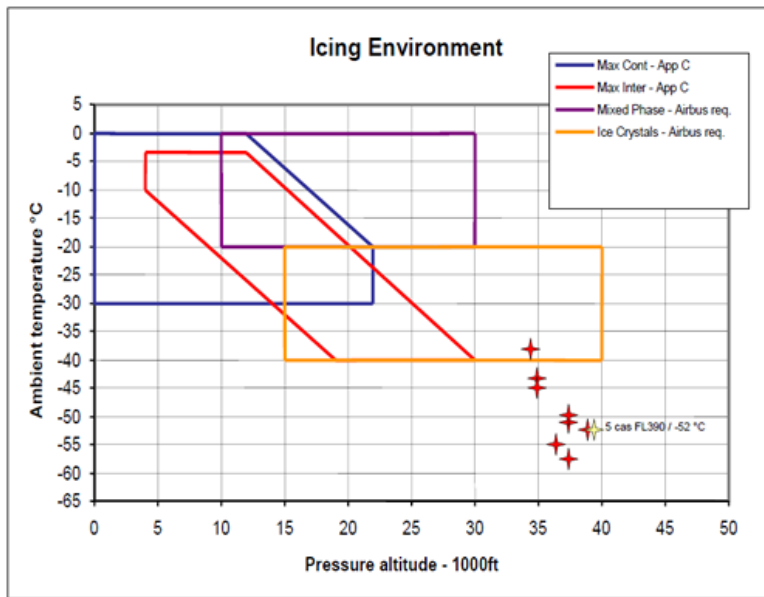
Chapter 5: Into the Weather



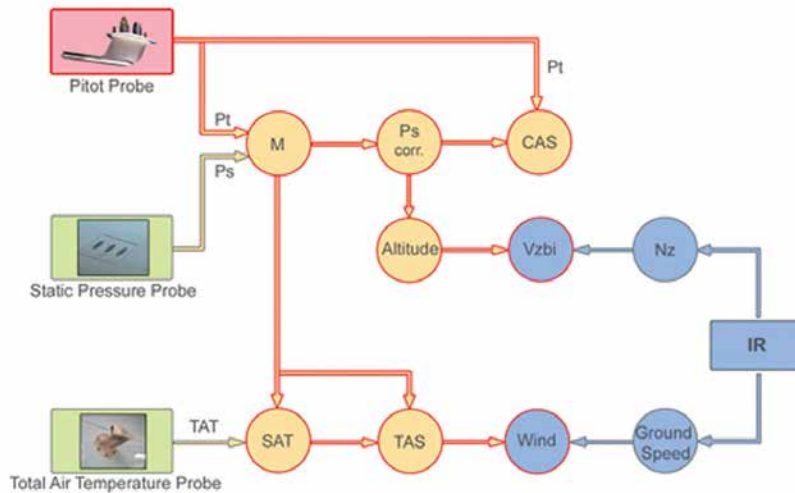
WXR-700 Control Head



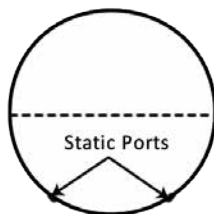
Pitot Tube
(Goodrich)



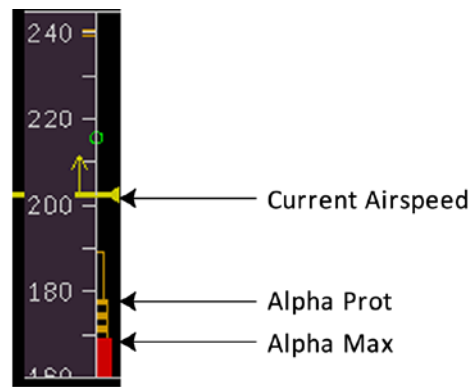
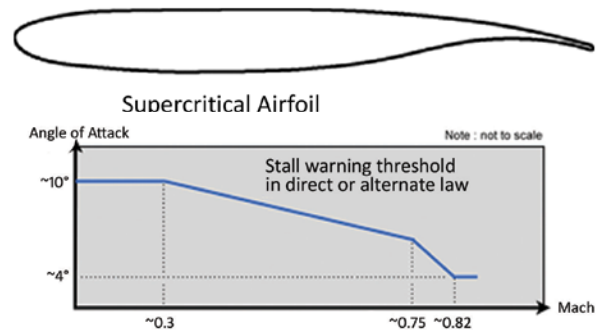
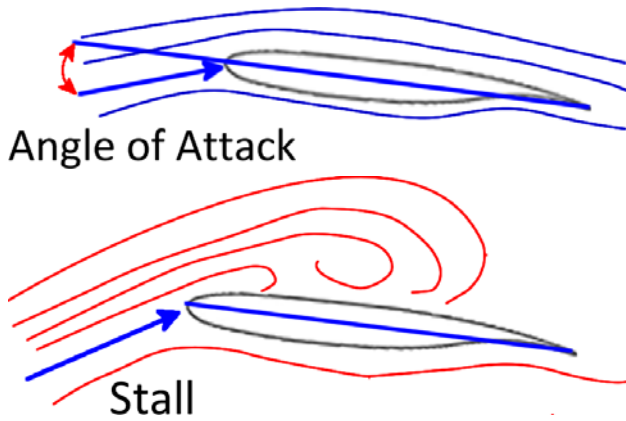
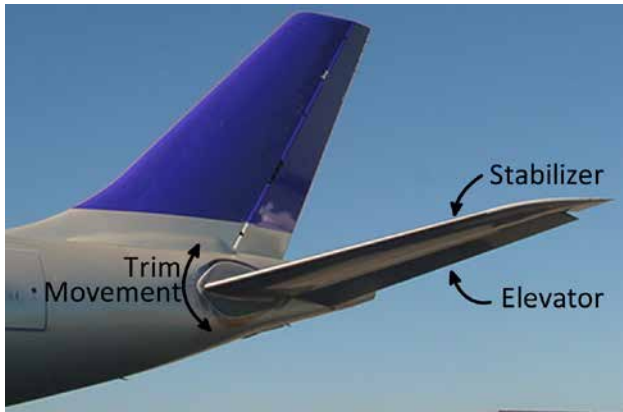
Certification Envelope of Pitot Probes



- CAS** : Calibrated Airspeed - speed indicated on the PFD
 - TAS** : True Airspeed - aircraft velocity relative to the air mass
 - M** : Mach Number - ratio between true airspeed and sound velocity
 - Ps** : Static Pressure - pressure of outside air
 - Pt** : Total Pressure - static pressure added to the pressure due to aircraft speed
 - SAT** : Static temperature - outside air temperature
 - TAT** : Total Temperature - static temperature added to the temperature due to aircraft speed
 - Vzbi** : Baro-Inertial Vertical Speed
 - Nz** : Vertical Load Factor
- BEA**

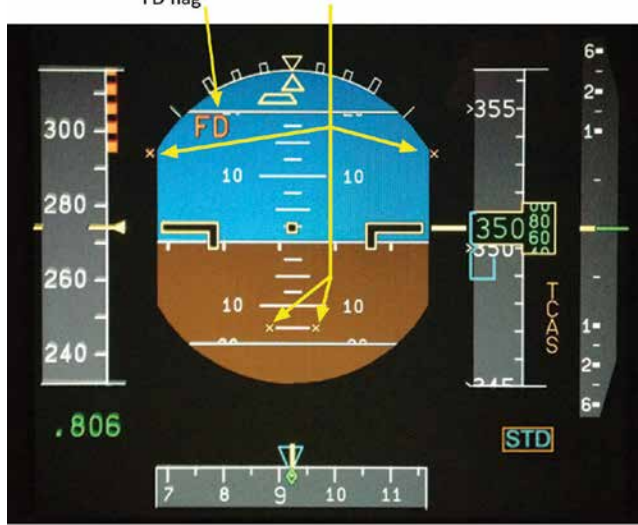


Chapter 6: "I have the Controls"

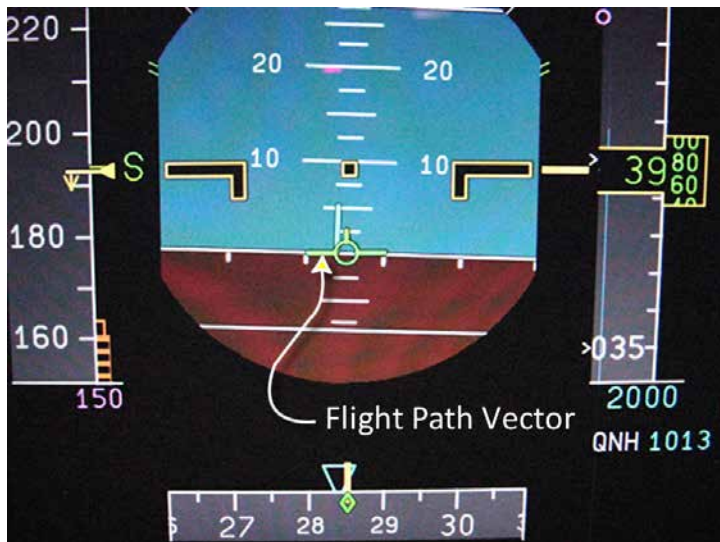


Airspeed Indicator

Green = signs replaced by amber XX's in Alternate law
FD flag



Flight Mode Annunciator

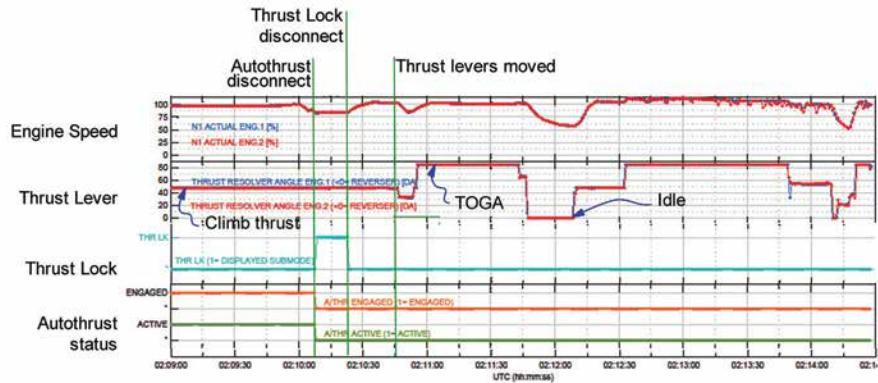
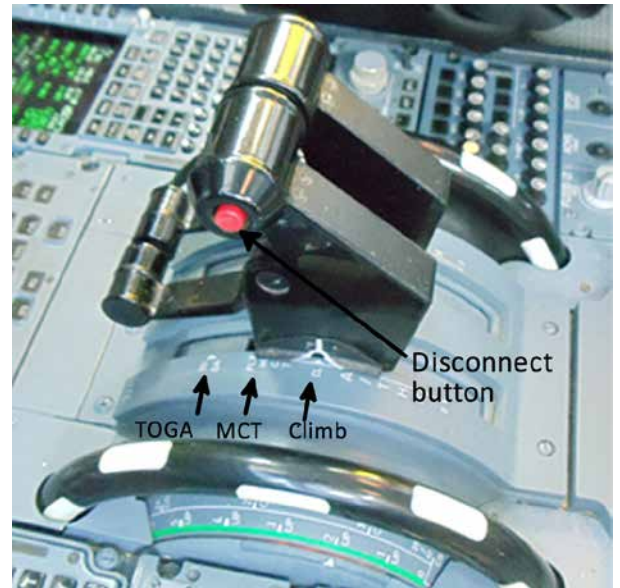


ECAM 02:10:08	
AUTO FLT AP OFF	
F/CTL ALTN LAW	
(PROT LOST)	
-MAX SPEED.....330/.82	
AUTO FLT	
REAC W/S DET FAULT	

ECAM 02:10:15	
AUTO FLT AP OFF	
ENG THRUST LOCKED	
-THR LEVERS.....MOVE	
AUTO FLT A/THR OFF	
-THR LEVERS.....MOVE	
F/CTL ALTN LAW	
(PROT LOST)	
	AUTO FLT

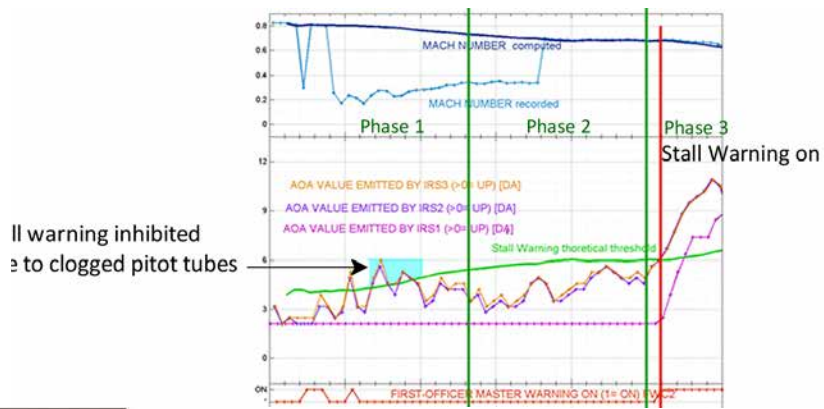
ECAM 02:10:10	
AUTO FLT AP OFF	
AUTO FLT A/THR OFF	
-THR LEVERS.....MOVE	
F/CTL ALTN LAW	
(PROT LOST)	
-MAX SPEED.....330/.82	
AUTO FLT	

Title	Theoretical symptoms	Time	Display Time
AUTO FLT AP OFF	cavalry charge + MW	02:10:05	02:10:05
AUTO FLT REAC W/S DET FAULT	SC + MC	02:10:06	02:10:07
F/CTL ALTN LAW (PROT LOST) -MAX SPEED.....330/.82	SC + MC	02:10:06	02:10:08
AUTO FLT A/THR OFF -THR LEVERS.....MOVE	SC + MC	02:10:08	02:10:10
ENG THRUST LOCKED -THR LEVERS.....MOVE	SC + MC	02:10:08	02:10:15
NAV TCAS FAULT	SC + MC	02:10:xx	02:10:xx
F/CTL RUD TRV LIM FAULT RUD WITH CARE ABV 160 KT	SC + MC	02:10:18	02:10:19
NAV ADR DISAGREE -AIR SPD.....X CHECK •IF NO SPD DISAGREE -AOA DISCREPANCY •IF SPD DISAGREE -ADR CHECK PROC..APPLY	SC + MC	02:12:xx	02:12:xx
F/CTL PRIM 1 FAULT	SC + MC	02:13:37	02:13:39
F/CTL SEC 1 FAULT	SC + MC	02:13:39	02:13:41

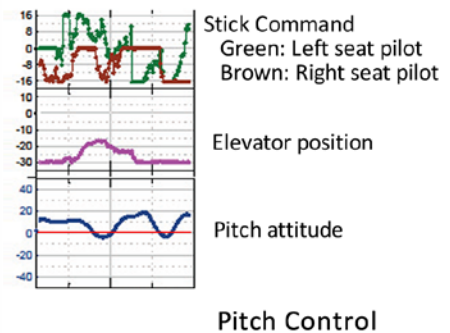


Chapter 7: Stalling and Falling

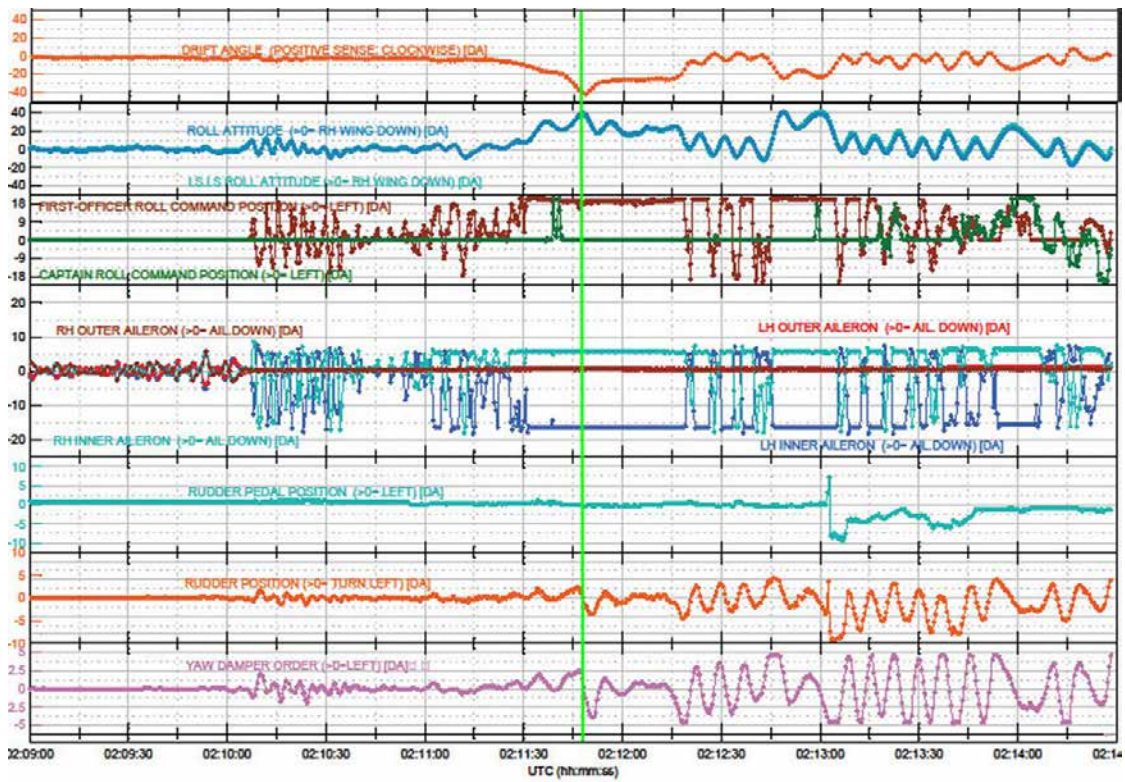




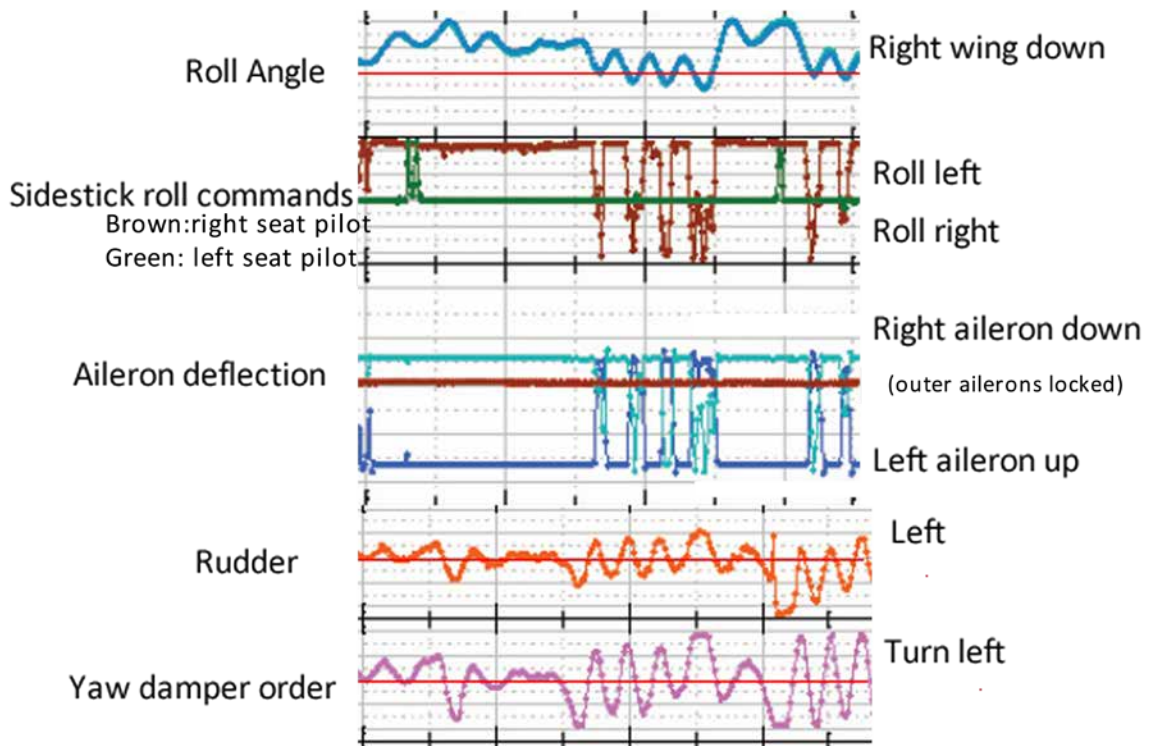
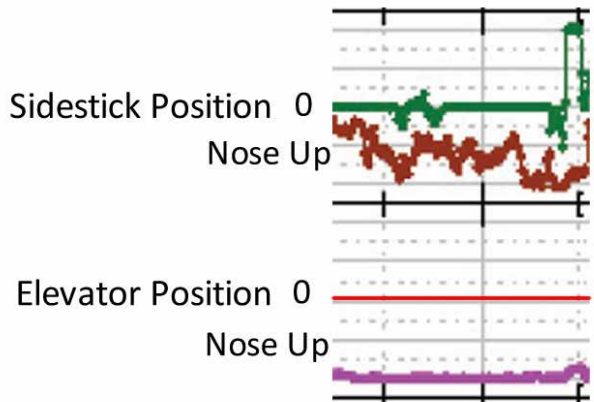
Blanked Vertical Speed Indication



Chapter 8: Aftermath



Chapter 10: Lessons Learned



Key Flight-Recorder Parameters

