Figure 1. Flight deck of the Boeing 747-400.
Figure 2. A system diagram describing what lies behind the mode control panel in a modern airplane.
Figure 3. The flow of information when the First Officer programs the FMS through the CDU. The light arrow represents the Captain’s restricted access to the first officer’s actions.
Figure 4. The flow of information in the altitude change procedure. Heavy blue arrows indicate mandatory information exchange, light blue arrows are discretionary, red arrows represent new mandatory information trajectories introduced by the modified procedure.
Figure 5. The flow of information in a non-automated cockpit when making a descent to cross a waypoint at a specified altitude.
Figure 6. The flow of information in an automated Boeing cockpit while making a descent to cross a waypoint at a specified altitude.
Figure 7. The flow of information required to interpret the consequences of selecting a high-level autopilot/flight director mode.
Figure 8. Airspeed indicator from the Boeing 757/767
Figure 9. A primary flight display. The airspeed tape is on the left, altitude tape on the right.
Figure 10. The primary flight instruments in the Boeing Next-Generation cockpit. The digital recreation of the electromechanical mach/airspeed indicator (MASI) is at the upper left.
Figure 11. Airspeed tape from the Integrated Mode Management Interface.
Figure 12. Conceptual space for the mode names. Distance between each pair of mode names reflects the judged similarity between the modes.
Figure 13. The Integrated Mode Management Interface (IMMI).