CHECKLIST: CONTROL/DISPLAY INTEGRATION				
CRITERIA	YES	NO	N/A	COMMENTS
1. Is the relationship control to display and display to control immediately apparent and unambiguous to the operator?				
2. Are control/display relationships apparent through proximity, similarity of grouping, coding, demarcation, labeling, spacing, color shading, insert panels, panel relief, use of mimics, and similar techniques?				
3. Are displays and controls sufficient to monitor and control within all design conditions and anticipated abnormal and off normal events? Are control manipulation and display monitoring complexity and precision consistent with the precision required for the system?				
4. Is feedback on control response adequacy provided as rapidly as possible?				
5. Is there no discernible time lag between system condition change and display indication or an immediate feedback indication of the process and direction of parameter change?				
6. Is adjustable illumination provided for visual displays, including control and panel labels and critical markings, which must be read at night or under darkened conditions?				
7. Does the operator assigned to control and monitor a particular function or group of related functions have physical and visual access to all controls, displays, and communication capability?				
8. Is hierarchical grouping used (i.e. by function, system, and subsystem) to increase the ease and reliability of monitoring of processes				
9. Are functional groups of controls and displays located in proximity to one another (i.e. arranged in groups such as power, status, test)?				
10. Are functional groups of controls and displays located to provide either or both left-to-right (referred) or top-to-bottom order of use?				
11. Are the more frequently used and the most important groups located in areas of easiest access?				
12. Are functional groups set apart by techniques such as demarcation or color shading?				
13. Is the location of recurring functional groups and individual items similar from panel to panel and are mirror image arrangements eliminated?				
14. Are groups of similar controls and displays laid out with no more than five similar components together in an unbroken row or column?				
15. When an operator must use a large number of controls and displays does their location and arrangement aid in determining which controls are associated with specific displays and equipment?				
16. Are controls and displays within functional groups located according to either operational sequence or function or both?				
17. Are controls and displays arranged in a manner consistent with their logical flow?				
18. Are controls arranged by importance with the most important or frequently used controls in the most accessible locations?				
19. Are associated vertical and horizontal displays arranged so as not to confuse the operator, or to cause the operator to grab the opposite controls due to the horizontal and vertical array?				

CHECKLIST: CONTROL/DISPLAY INTEGRATION				
CRITERIA	YES	NO	N/A	COMMENTS
20. When a display and control are used concurrently can the operator use the control and view the display without the possibility of parallax effort?				
21. Are controls that require the reading of several displays placed as near as possible to the related displays without obscuring the displays?				
22. When separate displays are affected by a combined control are the displays arranged from left to right with the combined control underneath the center of the displays without obscuring the displays?				
23. Where displays are selected using a rotary selector switch does the control position sequence conform to the display location and does the control move clockwise from OFF through the control settings? Does the control position indication correspond to display labels and do displays read off-scale rather than zero when not elected?				
24. When related controls and displays must be located on separate panels, are the displays, either on the adjacent upper panel or individual panels, mounted approximately at the same angle relative to the operator and not mounted facing each other?				
25. Are related control and display positions oriented to correspond to the positions of the controlled and monitored components?				
26. When the techniques in 2.2.2.1-9 cannot be used to make control display relationships apparent are techniques such as mimics or coding used?				
27. Are emergency displays and controls located where they can be seen and reached with minimum delay?				
28. Do display indicators clearly and unambiguously direct and guide appropriate control responses and is the response of the display to control movements consistent, predictable, and compatible with the operator's expectations?				
29. Is the time lag between system response time to a control input and display presentation minimized and is it consistent with safe and efficient system operation, meeting the user's expectations?				
30. Does the clock-wise movement of a rotary control or movement of a linear control forward, up, or to the right produce a clock-wise movement of circular scale pointers and increase the magnitude of the setting?				
31. Does the clockwise movement of a rotary control or movement of a linear control forward, up, or to the right produce a clockwise movement up or to the right for horizontal and vertical scale pointers and increase the magnitude of the reading?				
32. When circular fixed-pointer, moving-scale indicators are necessary does the clock-wise movement of a rotary control or movement of a linear control foreword, up, or to the right produce a counterclockwise movement of the scale and increase the magnitude of the reading?				
33. When vertical or horizontal fixed-pointer, moving-scale indicators are necessary does the clock-wise movement of a rotary control or movement of a linear control foreword, up, or to the right produce a movement of the scale down to the left and increase the magnitude of the reading?				
34. When there is a direct linkage between control and display is a rotary control used if the indicator must move through an arc of more than 180 degrees?				

CHECKLIST: CONTROL/DISPLAY INTEGRATION				
CRITERIA	YES	NO	N/A	COMMENTS
35. Are controls selected so that the direction of movement of the control is consistent with the related movement of the display, equipment component or vehicle?				
36. When control and display are parallel in line of movement are direction-of-movement relationships consistent?				
37. When control/display relationships specified in this document cannot be achieved are controls clearly labeled to indicate the direction of control movement required?				
38. When a rotary control and a linear display are in the same plane does the part of the control adjacent to the display move in the same direction as the moving part of the display?				
39. Does the control/display ratio for continuous adjustment controls minimize the total time required to make the desired control movement?				
40. Are functional groups of controls and displays located to provide for left-to-right or top-to-bottom sequence of use, or both?				
41. Is the ratio of display element movement to control movement high if a wide range of display element movement is required and low for a small range?				
42. When a knob is provided for making coarse display element settings on linear scales (0.2 in. to 0.16 in. or 0.4 mm to 2.5 mm) is approximately 5.9 in. (150 mm) of display element movement provided for one complete turn of the knob?				
43. When a knob is provided for making fine display element settings on linear scales (0.008 in. to 0.16 in. or 0.2 mm to 0.4 mm) is 1 in. to 2 in. (25 mm to 50 mm) of display element movement provided for one complete turn of the knob?				
44. When bracketing is used to locate a maximum or minimum does the control knob swing through an arc between 10 and 30 degrees on either side of the target?				
45. When a lever is provided for coarse settings does one unit of display element movement equal three units of lever movement?				
46. When a lever is provided for coarse settings in two dimensions does one unit of display element movement equal two and one-half units of lever movement?				
47. When counters are provided is the control display ratio such that one revolution of the knob produces approximately 50 counts?				
48. Does clockwise movement of rotary controls or movement of linear controls forward, up, or to the right produce increasing values in digital displays and bottom to top or right to movement in indicator lights?				