

Active Shooter Incident Management Checklist Revalidation: Content and Usability

This revalidation review was completed on 13 December 2017. A survey instrument was utilized to collect feedback from participants who used the *Active Shooter Incident Management Checklist Rev 2.0* in training sessions involving full-scale/functional Active Shooter Response exercises.

Following are the validation summary results:

Element	Number	Percentage
Total Participants surveyed	66	100%
Survey instruments returned	60	91%
Checklist includes appropriate attention items (Yes)	59	98%
Checklist makes sense (Yes)	59	98%
Checklist terminology is clear, concise, understandable (Yes)	58	97%
Checklist format is easy to follow (Yes)	59	98%
Checklist was helpful under pressure (Yes)	59	98%

Conclusion

The conclusion of this revalidation review is the *Active Shooter Incident Management Checklist Rev 2.0* has appropriate content, format, terminology, and usability for Active Shooter Event Response, and accordingly is found to be a valid job aid for Active Shooter Events.

Statement of Accuracy

The undersigned representative of Senior Management affirms and attests they have reviewed these findings and determined them to be truthful and accurate representations to the best of their knowledge.



Signature

William Godfrey

Printed Name

Title

CEO/Chief Consultant

Title

Date

23 Feb 2018

Date

Date

SUMMARY INFORMATION

Element	Number	Notes
Total Participants Surveyed	66	
Surveys completed and returned	60	
Participating agencies	15	
Law Enforcement	6	Bexar County SO, China Grove Police Department, Converse Police Department, La Salle County Sheriff's Office, Uvalde County Sheriff's Office, Via Transit Police
Fire Rescue	10	Bexar Bulverde Volunteer Fire Department, Bexar County Fire Rescue District 2, Bexar County Fire Rescue District 7, Bexar County Fire Rescue District 10, Converse Fire Rescue, Kirby Fire Rescue, La Salle County Fire Rescue, La Salle County Sheriff's Office, Leon Valley Police Department, San Antonio Fire Department,
EMS	1	San Antonio Fire Department
Training Exercise Scenarios (runs)	10	Full-scale/Functional (hybrid)

Participants received 24 hours of training comprised of didactic information and real-time hands-on exercise scenarios. Each participant surveyed participated in ten (10) full-scale/functional hybrid training exercise scenarios. C3 Pathways instructors conducted a hotwash and provided feedback to participants after completion of each training exercise scenario. Participants rotated assignments/roles after each scenario so no participant performed the same role more than one time. Exercise scenarios include basic complexity and moderate complexity Active Shooter Events and Complex Coordinated Attacks with 1-5 attackers, 5-50 patients, and 10-150+ victims.* Participants were given the survey instrument at the end of the 24 hour training course and asked to provide honest feedback including write-in comments and suggestions for improvement. The survey instrument consisted Yes/No questions and Likert Scale items.

* Victims = total involved including injured and uninjured persons excluding responders (unless a responder was shot during the incident and became a victim)

SURVEY INSTRUMENT RESPONSES (YES/NO)

Criteria	Yes	No	No Response	Total Responses
Did the checklist include the appropriate attention items?	98% (59)	2% (1)	0% (0)	100% (60)
Did the checklist make sense?	98% (59)	2% (1)	0% (0)	100% (60)
Is the terminology clear, concise and understandable?	97% (58)	3% (2)	0% (0)	100% (60)
Is the format easy to follow?	98% (59)	2% (1)	0% (0)	100% (60)
Did the checklist serve you well under the pressure of the exercise?	98% (59)	2% (1)	0% (0)	100% (60)

SURVEY INSTRUMENT RESPONSES (LIKERT SCALE)

Criteria	Strongly Agree 4	3	2	1	Strongly Disagree 0	No Response	Total Responses
The checklist is well structured and organized.	67% (40)	27% (16)	5% (3)	2% (1)	0% (0)	0% (0)	100% (60)
The checklist was easy to use.	70% (42)	25% (15)	3% (2)	2% (1)	0% (0)	0% (0)	100% (60)
The checklist steps/items kept me on track to perform better.	63% (38)	27% (16)	7% (4)	2% (1)	0% (0)	2% (1)	100% (60)
The checklist improved my situational awareness with all responders.	65% (39)	23% (14)	10% (6)	2% (1)	0% (0)	0% (0)	100% (60)
The checklist helped me with practicing and improving my incident management skills.	67% (40)	28% (17)	5% (3)	0% (0)	0% (0)	0% (0)	100% (60)
I would utilize this checklist during an actual event.	63% (38)	27% (16)	10% (6)	0% (0)	0% (0)	0% (0)	100% (60)

Active Shooter Incident Management Checklist Validation: Content and Usability

This validation review was completed on 30 January 2014. A survey instrument was utilized to collect feedback from participants who used the *Active Shooter Incident Management Checklist* in training sessions involving full-scale/functional Active Shooter Response exercises.

Following are the validation summary results:

Element	Number	Percentage
Total Participants surveyed	152	100%
Survey instruments returned	121	80%
Checklist includes appropriate attention items (Yes)	118	98%
Checklist makes sense (Yes)	118	98%
Checklist terminology is clear, concise, understandable (Yes)	105	87%
Checklist format is easy to follow (Yes)	119	98%
Checklist was helpful under pressure (Yes)	112	93%

Conclusion

The conclusion of this validation review is the *Active Shooter Incident Management Checklist* has appropriate content, format, terminology, and usability for Active Shooter Event Response, and accordingly is found to be a valid job aid for Active Shooter Events.

Statement of Accuracy

The undersigned representative of Senior Management affirms and attests they have reviewed these findings and determined them to be truthful and accurate representations to the best of their knowledge.



Signature

William Godfrey

Printed Name

President/Chief Consultant

Title

30 Jan 2014

Date

SUMMARY INFORMATION

Element	Number	Notes
Total Participants Surveyed	152	
Surveys completed and returned	121	
Participating agencies	9	
Law Enforcement	4	Nassau County Sheriff, Fernandina Police Department, Sumter County Sheriff, Wildwood Police Department
Fire Rescue	3	Nassau County Fire Rescue, Sumter County Fire Rescue, The Villages Fire Rescue
EMS	1	Rural Metro
Emergency Management	1	Nassau County Emergency Management
Training Exercise Scenarios (runs)	16	Full-scale/Functional (hybrid)

Participants received 8 hours of training comprised of didactic information and real-time hands-on exercise scenarios. Four (4) participant groups each participated in four (4) full-scale/functional hybrid training exercise scenarios (4 x 4 = 16 total exercise runs). C3 Pathways instructors conducted a hotwash and provided feedback to the given group after completion of each training exercise scenario. Participants rotated assignments/roles after each scenario so no participant performed the same role more than one time. Exercise scenarios include basic complexity and moderate complexity Active Shooter Events with 1-2 shooters, 5-25 patients, and 15-80 victims.* Participants were given the survey instrument at the end of the 8 hour training day and asked to provide honest feedback including write-in comments and suggestions for improvement. The survey instrument consisted Yes/No questions, Likert Scale items, and open-ended questions.

* Victims = total involved including injured and uninjured persons excluding responders (unless a responder was shot during the incident and became a victim)

SURVEY INSTRUMENT RESPONSES (YES/NO)

Criteria	Yes	No	No Response	Total Responses
Did the checklist include the appropriate attention items?	98% (118)	1% (1)	2% (2)	100% (121)
Did the checklist make sense?	98% (118)	2% (2)	1% (1)	100% (121)
Is the terminology clear, concise and understandable?	87% (105)	5% (6)	8% (10)	100% (121)
Is the format easy to follow?	98% (119)	2% (2)	0% (0)	100% (121)
Did the checklist serve you well under the pressure of the exercise?	93% (112)	2% (2)	6% (7)	100% (121)

SURVEY INSTRUMENT RESPONSES (LIKERT SCALE)

Criteria	Strongly Agree 4	3	2	1	Strongly Disagree 0	No Response	Total Responses
The checklist is well structured and organized.	62% (75)	31% (37)	5% (6)	0% (0)	1% (1)	2% (2)	100% (121)
The checklist was easy to use.	56% (68)	32% (39)	7% (9)	1% (1)	1% (1)	2% (3)	100% (121)
The checklist steps/items kept me on track to perform better.	54% (65)	40% (48)	4% (5)	0% (0)	1% (1)	2% (2)	100% (121)
The checklist improved my situational awareness with all responders.	60% (73)	31% (38)	3% (4)	2% (2)	1% (1)	2% (3)	100% (121)
The checklist helped me with practicing and improving my incident management skills.	58% (70)	36% (43)	3% (4)	1% (1)	1% (1)	2% (2)	100% (121)
I would utilize this checklist during an actual event.	53% (64)	32% (39)	8% (10)	2% (3)	2% (2)	2% (3)	100% (121)

Active Shooter Incident Management Checklist Validation: Guidelines for Developing Evaluation Checklists: Checklist Development Checklist

This compliance review was completed on 28 January 2014. Element criteria identified below were sourced from the following document:

Daniel L. Stufflebeam (July 2000). *Guidelines for Developing Evaluation Checklists: The Checklists Development Checklist (CDC)*. Retrieved from http://www.wmich.edu/evalctr/archive_checklists/guidelines_cdc.pdf

Identified Element Criteria were evaluated for compliance with four (4) possible answers: **Yes**, **Partial**, **No**, and **n/a** (not applicable). Following are the validation summary results:

Category	Number	Percentage
Total Items (Element Criterion)	41	100%
n/a (not applicable)	5	12%
Total Evaluated Items (Criterion)	36	100%
Yes	33	91.67%
Partial	3	8.33%
No	0	0.00%

Conclusion

The conclusion of this validation review is the *Active Shooter Incident Management Checklist* has a high degree of compliance with the criteria, process, and/or procedures identified in the above referenced source and is therefore valid in accordance with the referenced source.

Statement of Accuracy

The undersigned representative of Senior Management affirms and attests they have reviewed these findings and determined them to be truthful and accurate representations to the best of their knowledge.



Signature

William Godfrey

Printed Name

President/Chief Consultant

Title

28 Jan 2014

Date

1.0 DEVELOPMENT PROCESS

Element Criteria	Complies	Notes
1.1. Focus the checklist task		
<input type="checkbox"/> Define the content area of interest	Yes	
<input type="checkbox"/> Define the checklist's intended uses	Yes	
<input type="checkbox"/> Reflect on and draw upon pertinent training and experience	Yes	
<input type="checkbox"/> Study the relevant literature	Yes	
<input type="checkbox"/> Engage and have conversations with experts in the content area	Yes	
<input type="checkbox"/> Clarify and justify the criteria to be met by the checklist (e.g., pertinence, comprehensiveness, clarity, concreteness, ease of use, parsimony, applicability to the full range of intended uses, and fairness)	Yes	
1.2. Make a candidate list of checkpoints		
<input type="checkbox"/> List descriptors for well-established criteria of merit	Yes	
<input type="checkbox"/> Briefly define each of the initial checkpoints	Yes	
<input type="checkbox"/> Add descriptors for checkpoints needed to round out a definition of merit for the content area	Yes	
<input type="checkbox"/> Provide definitions for each of the added descriptors	Yes	
1.3. Classify and sort the checkpoints		
<input type="checkbox"/> Write each descriptor and definition on a separate 4" x 6" card	Partial	Electronic documents were used instead of 4x6 cards
<input type="checkbox"/> Sort the cards in search of categories	Yes	Categories were sorted
<input type="checkbox"/> Identify the main candidate categories and label each category	Yes	
1.4. Define and flesh out the categories		
<input type="checkbox"/> Define each category and its key concepts and terms	Yes	
<input type="checkbox"/> Write a rationale for each category	Partial	Rationale was discussed and understood by development group but not written
<input type="checkbox"/> Present relevant warnings about being overzealous in applying the checkpoint	Yes	
<input type="checkbox"/> Review the checkpoints in each category for inclusiveness, clarity, and parsimony	Yes	
<input type="checkbox"/> Add, subtract, and rewrite checkpoints as appropriate	Yes	
1.5. Determine the order of categories		
<input type="checkbox"/> Decide if order is an important consideration regarding the intended uses of the checklist	Yes	
<input type="checkbox"/> If so, write a rationale for the preferred order	Partial	Rationale was discussed and understood by development group but not written
<input type="checkbox"/> Provide an ordering of the categories	Yes	

2.0 REVIEW / FORMAT

Element Criteria	Complies	Notes
2.6. Obtain initial reviews of the checklist		
<input type="checkbox"/> Prepare a review version of the checklist	Yes	
<input type="checkbox"/> Engage potential users to review and critique the checklist	Yes	
<input type="checkbox"/> Interview the critics to gain an in-depth understanding of their concerns and suggestions	Yes	
<input type="checkbox"/> List the issues in need of attention	Yes	
2.7. Revise the checklist content		
<input type="checkbox"/> Examine and decide how to address the identified issues	Yes	
<input type="checkbox"/> Rewrite the checklist content	Yes	
2.8. Delineate and format the checklist to serve the intended uses		
<input type="checkbox"/> Determine with potential users whether category and/or total scores are needed or desired	n/a	
<input type="checkbox"/> Determine with users what needs exist regarding differential weighting of categories and/or individual checkpoints	n/a	
<input type="checkbox"/> Determine with users any checkpoints or categories of checkpoints that must be passed for a satisfactory score on the overall checklist	n/a	
<input type="checkbox"/> Determine with users what needs exist regarding profiling of checklist results	n/a	
<input type="checkbox"/> Format the checklist based on the above determinations	n/a	

3.0 EVALUATE

Element Criteria	Complies	Notes
9. Evaluate the checklist		
<input type="checkbox"/> Obtain reviews of the checklist from intended users and relevant experts	Yes	
<input type="checkbox"/> Engage intended users to field-test the checklist	Yes	
<input type="checkbox"/> Generally, assess whether the checklist meets the requirements of pertinence, comprehensiveness, clarity, applicability to the full range of intended uses, concreteness, parsimony, ease of use, and fairness	Yes	

4.0 FINALIZATION

Element Criteria	Complies	Notes
10. Finalize the checklist		
<input type="checkbox"/> Systematically consider and address the review and field-test findings	Yes	
<input type="checkbox"/> Print the finalized checklist	Yes	
11. Apply and disseminate the checklist		
<input type="checkbox"/> Apply the checklist to its intended use	Yes	Applied and tested in training
<input type="checkbox"/> Make the checklist available via such means as journals, professional papers, web pages, etc.	Yes	Plans are in place to do this
<input type="checkbox"/> Invite users to provide feedback to the developer	Yes	Plans are in place to do this
12. Periodically review and revise the checklist		
<input type="checkbox"/> Use all available feedback to review and improve the checklist at appropriate intervals	Yes	Plans are in place to do this

Active Shooter Incident Management Checklist Validation: Checklist for Formatting Checklists

This compliance review was completed on 27 January 2014. Element criteria identified below were sourced from the following document:

Barbara Bichelmeyer (October 4, 2003). *Checklist for Formatting Checklists*. Retrieved from http://www.wmich.edu/evalctr/archive_checklists/cfc.pdf

Identified Element Criteria were evaluated for compliance with three (3) possible answers: **Yes**, **Partial**, and **No**. Following are the validation summary results:

Category	Number	Percentage
Total Items (Element Criterion)	46	100%
Yes	42	91.30%
Partial	2	4.35%
No	2	4.35%

Conclusion

The conclusion of this validation review is the *Active Shooter Incident Management Checklist* has a high degree of compliance with the criteria, process, and/or procedures identified in the above referenced source and is therefore valid in accordance with the referenced source.

Statement of Accuracy

The undersigned representative of Senior Management affirms and attests they have reviewed these findings and determined them to be truthful and accurate representations to the best of their knowledge.



Signature

William Godfrey

Printed Name

President/Chief Consultant

Title

28 Jan 2014

Date

1.0 CONTEXT

Element Criteria	Complies	Notes
1.1 The title is on the first page.	Yes	
1.2 The title accurately and adequately describes the purpose of the checklist.	Yes	
1.3 A context is provided at the beginning of the checklist and specifies the following:	Partial	Context provided in Help document included with Checklist
1.3.1 The audience for the checklist	Yes	
1.3.2 When to use the checklist	Yes	
1.3.3 General directions for the checklist	Yes	
1.3.4 Tools/references that support the checklist	Yes	
1.3.5 Where to get help for using the checklist	Yes	
1.3.6 Developer and version date of the checklist	Yes	

2.0 CONTENT

Element Criteria	Complies	Notes
2.1 The checklist content is complete. (Content conveys all the necessary information to address the topic of the checklist.)	Yes	
2.2 Content is technically correct.	Yes	
2.3 Precise terms are used. (Precise terms are not open to wide interpretation, e.g., “three” is more precise than “several” and “weekly” is more precise than “periodically.”)	Yes	
2.4 The checkpoints focus the user on what to do.	Yes	
2.5 Precise verbs are used to delineate activities outlined in the checklist (e.g., “identify” is more precise than “write” and “write” is more precise than “communicate.”)	Yes	
2.6 Language is used consistently. (The same word is used to refer to a particular concept throughout the document, rather than using synonyms; e.g., the term “precise” is used repeatedly, rather than “specific,” “definite,” or “strict.”)	Yes	
2.7 Acronyms are spelled out on first reference.	Yes	
2.8 Common words are used. (Words used in everyday language should make up the bulk of the document, because these words facilitate clear understanding for the greatest number of readers.)	Yes	
2.9 Each item on the checklist includes only one activity. (This avoids confusion and keeps the user focused on one task to be completed at any given time.)	Yes	
2.10 Examples are provided, if needed. (Examples are useful when there is only one correct way to complete the task, when a task can be visually depicted, and when verbal directions are vague despite best efforts to clarify them.)	Yes	
2.11 Content is free of extraneous material, such as humor and attempts to motivate the user. (Humor and motivators only work during the first reading, and checklists are designed to be used in multiple applications.)	Yes	
2.12 Items are clear. Items should be	Yes	
2.12.1 Succinct (use no more or no fewer words than needed to convey the point)	Yes	
2.12.2 Positive (identify what to do, rather than what not to do)	Yes	
2.12.3 Declarative (make statements as opposed to asking questions)	Yes	
2.12.4 Active voice (emphasize verbs rather than adverbs or adjectives)	Yes	

3.0 STRUCTURE

Element Criteria	Complies	Notes
3.1 Similar and facilitating items are grouped together. (A facilitating item is one that helps the user complete another task; e.g., being able to save a document on a hard drive facilitates learning how to save a document on a floppy disk.)	Yes	
3.2 The order in which items are presented is functional.	Yes	
3.3 Items are numbered so users know the appropriate order in which to perform activities. (Even if there is not an inherent sequence to a task, creating one provides users with an orderly structure and enhances the likelihood of successful completion of the task.)	No	Items are listed in sequence order with opposing brackets to create a checkable box, e.g. [].
3.4 Visual breaks (white space/horizontal lines) are used to separate different items, sections, and ideas, making it clear where one element of a checklist ends and the next begins.	Yes	
3.5 Important information is highlighted in some way (boxed, centered, capitalized) to capture the user's attention.	Yes	
3.6 The word "not" is underlined when it is used (to draw attention to the negative).	Yes	
3.7 Textual devices are used effectively to control the intake and flow of information. Specifically:	Yes	
3.7.1 The use of different type faces and/or type sizes creates a clear structure (hierarchy) for the document.	Yes	
3.7.2 Body text is configured so that it is easy to read. (A few strategies to facilitate ease of reading include using serif typefaces, justified left text, combined upper and lower case, and space between paragraphs.)	Yes	
3.7.3 If color is used, it serves a meaningful purpose. (Color will be of little use if the checklist is photocopied; so if used, color should be absolutely necessary.)	Yes	

4.0 IMAGES (If needed)

Element Criteria	Complies	Notes
4.1 Images are presented on the left side of the document. (Users understand directions better when they see the concept first and then read the description, and in Western cultures our eyes move from the left to the right side of the page.)	Yes	Image is blocked in its own space; if checklist is tri-folded image is on left side.
4.2 Explanatory text is presented to the right of or directly below the image.	Yes	
4.3 Images are oriented from the user's perspective. (Users should see the image from the angle they would see it in real life, not mirror image, upside down, or backward.)	Yes	
4.4 Images serve an obvious purpose. (Images should directly contribute to users' understanding of the checklist content.)	Yes	
4.5 Images contain only essential information. (Line drawings are generally better instructional devices than photographs because drawings eliminate extraneous information and help the user focus on important attributes of an element.)	Yes	

5.0 USABILITY

Element Criteria	Complies	Notes
5.1 The draft checklist was tested to see if it worked as intended. (This requires that the developer has a clear sense of the goals and purposes for the checklist.)	Yes	
5.2 The tryout was conducted with members of the target audience for the checklist. (Target audience members are the only people who can adequately judge whether the checklist is of value to them as they work to achieve the purpose for which the checklist is intended.)	Yes	
5.3 The tryout was conducted with only one user at a time. (It is almost impossible to track more than one person at a time when documenting the user's experiences with and recommendations for the checklist.)	No	Checklist was used with responders during scenarios. Each responder/participant completed individual surveys after use.
5.4 The tester refrained from providing help during the tryout. (It's easy to get caught up in wanting to help the user understand areas of confusion, but it's more important to concentrate on documenting these problems and having the user suggest improvements so that in the long term the checklist is a better product.)	Partial	Coaching was offered to participants during training, but coaching was focused on improving participant performance and not on clarifying the checklist.
5.5 Revisions were made to the checklist based on the results of the tryouts.	Yes	
5.6 Tryouts continued until target users were able to use the checklists as intended	Yes	

Active Shooter Incident Management Checklist Validation: On the Typography of Flight-Deck Documentation

This compliance review was completed on 29 January 2014. Element criteria identified below were sourced from the following document:

NASA Ames Research Center: Asaf Degani, San Jose State (December 1992). *On the Typography of Flight-Deck Documentation*. Retrieved from http://ti.arc.nasa.gov/m/profile/adegani/Flight-Deck_Documentation.pdf

Identified Element Criteria were evaluated for compliance with four (4) possible answers: **Yes**, **Partial**, **No**, and **n/a** (not applicable). Following are the validation summary results:

Category	Number	Percentage
Total Items (Element Criterion)	22	100%
n/a (not applicable)	1	5%
Total Evaluated Items (Criterion)	21	100%
Yes	20	95.24%
Partial	1	4.76%
No	0	0.00%

Conclusion

The conclusion of this validation review is the *Active Shooter Incident Management Checklist* has a high degree of compliance with the criteria, process, and/or procedures identified in the above referenced source and is therefore valid in accordance with the referenced source.

Statement of Accuracy

The undersigned representative of Senior Management affirms and attests they have reviewed these findings and determined them to be truthful and accurate representations to the best of their knowledge.



Signature

William Godfrey

Printed Name

President/Chief Consultant

Title

30 Jan 2014

Date

LIST OF DESIGN RECOMMENDATIONS

Element Criteria	Complies	Notes
1. Sans-serif fonts are usually more legible than fonts with serifs. (3.2)	Yes	Gill Sans
2. Avoid using a font that has characters that are too similar to one another, as this will reduce the legibility of the print. (3.2)	Yes	
3. Avoid using dot matrix print for critical flight-deck documentation. (3.2)	n/a	
4. Long chunks of text should be set in lower case. (3.3)	Yes	
5. If upper case is required, the first letter of the word should be made larger in order to enhance the legibility of the word. (3.3)	Yes	
6. When specifying font height, or accessing graphs to determine the size of a lower-case character, the distinction between “x” height and overall size should be made. (3.4)	Yes	
7. As a general recommendation, the “x” height of a font used for important flight-deck documentation should not be below 0.10 inch. (3.4)	Partial	Overall font height meets both the 0.11 and 0.14 inch standards identified in section 3.4, but some fonts do not meet the “x” height recommendation of 0.10 inch or greater.
8. The recommended height-to-width ratio of a font that is viewed in front of the observer is 5:3. (3.5)	Yes	Meets or exceeds 5:3 ratio
9. The vertical spacing between lines should not be smaller than 25-33% of the overall size of the font. (3.6)	Yes	Meets or exceeds
10. The horizontal spacing between characters should be 25% of the overall size and not less than one stroke width. (3.6)	Yes	Meets or exceeds
11. Avoid using long strings of text set in italics. (3.8)	Yes	
12. Use primarily one or two typefaces for emphasis. (3.8)	Yes	
13. Use black characters over a white background for most cockpit documentation. (3.9)	Yes	
14. Avoid using white characters over a black background in normal line operations (3.9). However, if this is desired:	Yes	
1. Use minimum amount of text.	Yes	
2. Use relatively large typesize.	Yes	
3. Use sans-serif to minimize the loss of legibility.	Yes	

LIST OF DESIGN RECOMMENDATIONS (CONT)

Element Criteria	Complies	Notes
15. Black over white or yellow are recommended for cockpit documentation. (3.10)	Yes	
16. Avoid using black over dark red, green, and blue. (3.10)	Yes	
17. Use anti-glare plastic to laminate documents. (4.1)	Yes	
18. Ensure that the quality of the print and the paper is well above normal standards. Poor quality of the print will effect legibility and readability. (4.3)	Yes	
19. The designer must assess the age groups of the pilots that will be using the documentation, and take a very conservative approach in assessing information obtained from graphs and data books. (4.4)	Yes	