SATCE WG Document Structure - Proposed Changes

Updated: **05 Sept 2018 JSG**

ARINC INDUSTRY ACTIVITIES
An SAE ITC Program

Current Structure - ARINC Spec 439A
SIMULATED AIR TRAFFIC CONTROL ENVIRONMENTS IN FLIGHT SIMULATION TRAINING DEVICES

1 Executive Summary

2 Document Overview
2.1 Introduction
2.2 Scope
2.3 Intended Audience
2.4 Benefits of Simulated ATC Environment
2.5 Evolution of ARINC 439
2.6 International Standards and Requirements
2.7 Reference Documents
2.8 Document Conventions

3 Feature Set and Fidelity Levels
3.1 Introduction
3.2 System Design Goals
3.3 Fidelity Level Requirements
3.4 Automated Weather Reporting
3.5 Other Traffic
3.6 Radio Traffic
3.7 Language and Phraseology
3.8 ATC Voice Characteristics
3.9 Airport and Airspace Modeling
3.10 Weather
3.11 Communications between ATC and Ownship
3.12 Data Link Communications
3.13 System Correlation
3.14 Instructor Interfaces
3.15 Other Training Considerations
  3.15.1 Ownship Priority
  3.15.2 Debriefing Tools
  3.15.3 Lesson Plans
  3.15.4 Other Training Tools
  3.15.5 Rotary Wing
  3.15.6 Military Applications
  3.15.7 Interoperability

📄 **Table 1**
Summary Matrix: SATCE Features and Fidelity Level Requirements

4 Qualification and Training Approval Considerations
4.1 Introduction
4.2 Qualification vs. Training Approval

📄 **Table 2**
Functions & Subjective Tests

5 Implementing SATCE for MPL and AB Initio Pilot Training
5.1 General
5.2 MPL Phase 1 (Core Flying Skills)
5.3 MPL Phase 2 (Basic)
5.4 MPL Phase 3 (Intermediate)
5.5 MPL Phase 4 (Advanced)
5.6 Advanced Application of SATCE

6 Guidance on Technology
6.1 Introduction
6.2 Technologies
6.3 Export Control Considerations

7 SATCE Data, Installation, Maintenance, and Updates
7.1 Introduction
7.2 Installation Considerations
7.3 Maintenance Considerations
7.4 Update Considerations
7.5 Upgrade Considerations
7.6 Data Considerations

Appendices
APPENDIX A - Acronyms
APPENDIX B - Glossary
APPENDIX C - R/T Examples for MPL Training Tasks
APPENDIX D - Data Link

Future Structure - ARINC Spec 439X

PROPOSED

1 Executive Summary

2 Document Overview
2.1 Introduction
2.2 Scope
2.3 Intended Audience
2.4 Benefits of Simulated ATC Environment
2.5 Evolution of ARINC 439
2.6 International Standards and Requirements
2.7 Reference Documents
2.8 Document Conventions

3 Features and Fidelity Levels RENAMED
3.1 Introduction
3.2 System Design Goals
3.3 Fidelity Level Requirements
3.4 Automated Weather Reporting
3.5 Other Traffic
3.6 Radio Traffic
3.7 Language and Phraseology
3.8 ATC Voice Characteristics
3.9 Airport and Airspace Modeling
3.10 Weather
3.11 Communications between ATC and Ownship
3.12 Data Link Communications
3.13 System Correlation
3.14 Instructor Interfaces

📄 **Table 1**
Features and Fidelity Levels

4 Data Link NEW
4.1 Introduction ADDED

5 Rotary Wing Pilot Training NEW
5.1 Introduction ADDED

6 Military Pilot Training NEW
6.1 Introduction ADDED

7 Other Training Considerations NEW
7.1 Ownship Priority
7.2 Debriefing Tools
7.3 Lesson Plans
7.4 Other Training Tools

8 Device Qualification and Training Approval RENAMED
8.1 Introduction
8.2 Qualification vs. Training Approval

9 Ab Initio Pilot Training RENAMED
9.1 General
9.2 MPL Phase 1 (Core Flying Skills)
9.3 MPL Phase 2 (Basic)
9.4 MPL Phase 3 (Intermediate)
9.5 MPL Phase 4 (Advanced)

10 Advanced Pilot Training NEW
10.1 Introduction ADDED
10.2 Evidence Based Training ADDED

11 Guidance on Technology
11.1 Introduction
11.2 Technologies
11.3 Interoperability MOVED
11.4 Export Control Considerations

12 Data & Integration NEW
12.1 Data Considerations MOVED
12.2 Integration MOVED RENAMED
12.3 FSTD Host Interface ADDED
12.4 Visual System Interface ADDED
12.5 Communications System Interface MOVED

13 Installation, Maintenance and Updates RENAMED
13.1 Introduction
13.2 Installation Considerations
13.3 Maintenance Considerations
13.4 Update Considerations
13.5 Upgrade Considerations

Appendices
APPENDIX A - **Acronyms**
APPENDIX B - **Glossary**
APPENDIX C - **R/T Examples for MPL Training Tasks**
NEW APPENDIX D - **Functions & Subjectives Tests**
NEW APPENDIX E - **Fidelity Levels Mapped to License or Type of Training**

📄 **Table 2**
Functions & Subjective Tests