

Training System Requirements Report

Training Device Title: CMS
 Prepared by: BNH Director
 Date: September 2017

Training Audience:

Job/Position	Performance Objectives	Enabling Objectives
MARS	Operate the Identify Friend or Foe (IFF)	Describe the IFF Configure the IFF Operate the IFF
	Operate the Surveillance and HCA Radar	Describe the Surveillance and HCA Radar Operate the Surveillance and HCA Radar
	Operate EO/IR	Describe the EO/IR Operate the EO/IR
	Operate the Direction Finder (DF)	Describe the DF Initialize the DF Operate the DF

Identifies the functional requirements for each Training Device. This includes Target Audience, Objectives that Training Device should support, Synthetic Environment Requirements, Sensory Cues Requirements for Synthetic Environment and Components, as well as Elements that Synthetic Environment should support including how users should interact with those Elements. In other words, everything you need to procure Training Device.

Synthetic Environment Requirements:

Terrain	Entire planet, Arctic, Atlantic, Pacific and India Oceans
Environmental Conditions	Day and night, and seasons - i.e., Winter, Summer, Spring and Fall
User Control	Selection of location, environment and time of day

Synthetic Environment Sensory Cues Requirements:

	Duration	Pitch	Audio				Sound	Tempo	Volume	Brightness	Visual			Tactile		
			Quality	Rate	Rhythm						Composition	Field of View	Light	Rate	Manipulate	Texture
MARS																
Operate the Identify Friend or Foe (IFF)	Medium	Low	Constant	Gradual	Constant	Ding	Fast	Variable	Gradual Contrasts	Contrasting	Highlight Color	360 degree	Natural	Gradual Changes	Joystick	Fine Grained
Describe the IFF	Medium	Low	Constant	Gradual	Constant	Ding	Fast	Variable	Gradual Contrasts	Contrasting	Highlight Color	360 degree	Natural	Gradual Changes	Joystick	Fine Grained
Configure the IFF	Medium	Low	Constant	Gradual	Constant	Ding	Fast	Variable	Gradual Contrasts	Contrasting	Highlight Color	360 degree	Natural	Gradual Changes	Joystick	Fine Grained
Operate the IFF	Medium	Low	Constant	Gradual	Constant	Ding	Fast	Variable	Gradual Contrasts	Contrasting	Highlight Color	360 degree	Natural	Gradual Changes	Joystick	Fine Grained
Operate the Surveillance and HCA Radar	Long	Low	Constant	Gradual	Constant	Ding	Fast	Constant	Contrast in Illumination	Contrasting	Highlight Color	360 degree	Natural	Instantaneous Changes	Keyboard	Fine Grained
Describe the Surveillance and HCA Radar	Long	Low	Constant	Gradual	Constant	Ding	Fast	Constant	Contrast in Illumination	Contrasting	Highlight Color	360 degree	Natural	Instantaneous Changes	Keyboard	Fine Grained
Operate the Surveillance and HCA Radar	Long	Low	Constant	Gradual	Constant	Ding	Fast	Constant	Contrast in Illumination	Contrasting	Highlight Color	360 degree	Natural	Instantaneous Changes	Keyboard	Fine Grained
Operate EO/IR	Medium	Low	Constant	Gradual	Constant	Click	Fast	Constant	Dim Contrasts	Contrasting	Highlight Color	360 degree	Natural	Constant	Mouse	Fine Grained
Describe the EO/IR	Medium	Low	Constant	Gradual	Constant	Click	Fast	Constant	Dim Contrasts	Contrasting	Highlight Color	360 degree	Natural	Constant	Mouse	Fine Grained
Operate the EO/IR	Medium	Low	Constant	Gradual	Constant	Click	Fast	Constant	Dim Contrasts	Contrasting	Highlight Color	360 degree	Natural	Constant	Mouse	Fine Grained
Operate the Direction Finder (DF)	Short		Constant	Instantaneous	Constant	Dong	Fast	Weak	Instantaneous Contrasts	Full Spectrum of Color Chart	Highlight Color	360 degree	Natural	Instantaneous Changes	Mouse	Filmy
Describe the DF	Short	Low	Constant	Instantaneous	Constant	Dong		Weak	Instantaneous Contrasts	Full Spectrum of Color Chart	Highlight Color	360 degree		Instantaneous Changes	Mouse	Filmy
Initialize the DF	Short	Low	Constant	Instantaneous	Constant	Dong	Fast	Weak	Instantaneous Contrasts	Full Spectrum of Color Chart	Highlight Color	360 degree	Natural	Instantaneous Changes	Mouse	Filmy
Operate the DF	Short	Low	Constant	Instantaneous	Constant	Dong		Weak	Instantaneous Contrasts	Full Spectrum of Color Chart	Highlight Color	360 degree	Natural	Instantaneous Changes	Mouse	Filmy
	Long: 21% Medium: 50% Short: 29%	Constant: 0% High: 0% Low: 100%	Constant: 100% Mellow: 0% Soothing: 0%	Constant: 0% Fast: 0% Gradual: 71%	Constant: 100% Variable: 0%	Boom: 0% Buzz: 0% Chatter: 0%	Constant: 0% Fast: 100% Medium: 0%	Constant: 43% Strong: 0% Variable: 29%	Candle Power: 0% Contrasts: 0% Contrast in Illumination: 21%	Black and White: 0% Contrasting: 71% Dull: 0%	Bold: 0% Captions: 0% Contrasting style: 0%	30 degree: 0% 90 degree: 0% 180 degree: 0%	Black Light: 0% Fluorescent: 0% Incandescent: 0%	Constant: 21% Contrasting: 0% Fast: 0%	Foot: 0% Crank: 0% Grip: 0%	Blunt: 0% Braided: 0% Braille: 0%
	Constant: 0% Variable: 0%	Medium: 0% Penetrating: 0% Piercing: 0% Variable: 0%	Strident: 0% Variable: 0%	Instantaneous: 29% Slow: 0% Variable: 0%		Chirp: 0% Chuckle: 0% Clang: 0% Click: 0% Cry: 0% Ding: 50% Dong: 29% Grind: 0% Groan: 0% Peep: 0%	Slow: 0% Variable: 0%	Weak: 29%	Dim Contrasts: 21%	Full Spectrum of Color Chart: 29%	Highlight Color: 100%	360 degree: 100%	Infra Red: 0% Natural: 100%	Gradual Changes: 29% Instantaneous Changes: 50% Slow: 0% Variable: 0%	Handle: 0% Joystick: 29% Keyboard: 21% Lever: 0% Knob: 0% Mouse: 50% ouch screen: 0% Switch: 0%	Bumpy: 0% Coarse Grained: 0% Delicate: 0% Fine Grained: 69% Filmy: 31% Goosey: 0% Greasy: 0% Jagged: 0% Ribbed: 0%
Summary																

Synthetic Environment Elements:

Element	Activity	Description
AOPS	Detect	Detect at a distance of 100 km
	Observe	Observe at a distance of 50 km
	Recognize	Recognize at a distance of 25 km
	Identify	Identify at a distance of 10 km
JSS	Detect	Detect at a distance of 100 km
	Observe	Observe at a distance of 50 km
	Recognize	Recognize at a distance of 25 km
	Identify	Identify at a distance of 10 km
HCM	Detect	Detect at a distance of 100 km
	Observe	Observe at a distance of 50 km
	Recognize	Recognize at a distance of 25 km
	Identify	Identify at a distance of 10 km

Synthetic Environment Components Requirements:

EO/IR											
	Overall Fidelity Level	Equipment Control	Equipment Hardware	Equipment System	Equipment Motion	Equipment Audio	Equipment Visual	Acceleration Fidelity	Vibration Fidelity	Pitch/Roll Fidelity	
MARS											
Operate EO/IR	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
Describe the EO/IR	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
Operate the EO/IR	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
	Replica: 100%	Replica: 100%	Replica: 0%	Replica: 100%	Replica: 0%	Replica: 100%	Replica: 100%	Replica: 0%	Replica: 0%	Replica: 0%	
Summary	Representative: 0%	Representative: 0%	Representative: 100%	Representative: 0%	Representative: 0%	Representative: 0%	Representative: 0%	Replica: 0%	Replica: 0%	Replica: 0%	
	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Replica: 0%	Replica: 0%	Replica: 0%	
	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Replica: 0%	Replica: 0%	Replica: 0%	

HCAR											
	Overall Fidelity Level	Equipment Control	Equipment Hardware	Equipment System	Equipment Motion	Equipment Audio	Equipment Visual	Acceleration Fidelity	Vibration Fidelity	Pitch/Roll Fidelity	
MARS											
Operate the Surveillance and HCA Radar	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
Describe the Surveillance and HCA Radar	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
Operate the DF	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
	Replica: 100%	Replica: 100%	Replica: 0%	Replica: 100%	Replica: 0%	Replica: 100%	Replica: 100%	Replica: 0%	Replica: 0%	Replica: 0%	
Summary	Representative: 0%	Representative: 0%	Representative: 100%	Representative: 0%	Representative: 0%	Representative: 0%	Representative: 0%	Replica: 0%	Replica: 0%	Replica: 0%	
	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Replica: 0%	Replica: 0%	Replica: 0%	
	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Replica: 0%	Replica: 0%	Replica: 0%	

IFF											
	Overall Fidelity Level	Equipment Control	Equipment Hardware	Equipment System	Equipment Motion	Equipment Audio	Equipment Visual	Acceleration Fidelity	Vibration Fidelity	Pitch/Roll Fidelity	
MARS											
Operate the Identify Friend or Foe (IFF)	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
Describe the IFF	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
Configure the IFF	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
Operate the IFF	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
	Replica: 100%	Replica: 100%	Replica: 0%	Replica: 100%	Replica: 0%	Replica: 100%	Replica: 100%	Replica: 0%	Replica: 0%	Replica: 0%	
Summary	Representative: 0%	Representative: 0%	Representative: 100%	Representative: 0%	Representative: 0%	Representative: 0%	Representative: 0%	Replica: 0%	Replica: 0%	Replica: 0%	
	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Replica: 0%	Replica: 0%	Replica: 0%	
	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Replica: 0%	Replica: 0%	Replica: 0%	

DF											
	Overall Fidelity Level	Equipment Control	Equipment Hardware	Equipment System	Equipment Motion	Equipment Audio	Equipment Visual	Acceleration Fidelity	Vibration Fidelity	Pitch/Roll Fidelity	
MARS											
Operate the Surveillance and HCA Radar	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
Operate the Direction Finder (DF)	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
Describe the DF	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
Initialize the DF	Replica	Replica	Representative	Replica	Not Applicable	Replica	Replica				
	Replica: 100%	Replica: 100%	Replica: 0%	Replica: 100%	Replica: 0%	Replica: 100%	Replica: 100%	Replica: 0%	Replica: 0%	Replica: 0%	
Summary	Representative: 0%	Representative: 0%	Representative: 100%	Representative: 0%	Representative: 0%	Representative: 0%	Representative: 0%	Replica: 0%	Replica: 0%	Replica: 0%	
	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Stylized: 0%	Replica: 0%	Replica: 0%	Replica: 0%	
	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Not Applicable: 0%	Replica: 0%	Replica: 0%	Replica: 0%	