

6.2 SYNTHETIC ENVIRONMENT TECHNOLOGY



TASK DESCRIPTION:

- DEVELOP AND VALIDATE TECHNOLOGIES TO SUPPORT RAPID AND AUTOMATED 3D SCENE GENERATION FOR CAPTURING AND CONVERTING REAL -WORLD TERRAIN AND CULTURAL FEATURES INTO 3D IMAGES SUITABLE FOR IMMEDIATE TRAINING APPLICATION TO INCLUDE CLOSE QUARTER BATTLE (CQB) AND MILITARY OPERATIONS IN URBAN TERRAIN.

PAYOFF:

- NEAR REAL -TIME SCENE COMMON DATABASE GENERATION CAPABILITY FOR VIRTUAL TRAINING SYSTEMS
- AUTOMATED RECOGNITION OF TERRAIN AND CULTURAL FEATURES WITH PIXEL REDUCTION
- LIVE VIDEO INTEGRATED WITH SYNTHETIC ENV FOR AAR
- LIVE-VIRTUAL INTEGRATION FOR SYNTHETIC OPFOR

TECHNICAL APPROACH:

- PERFORM TECHNOLOGY FEASIBILITY ASSESSMENT
- PERFORM CONCEPT DEFINITION
- DEVELOP AND DEMONSTRATE THE VIDEO MODELING ENGINE
- EXPLOIT OBLIQUE IMAGERY TECHNOLOGY
- DEVELOP AUTOMATED RECOGNITION OF TERRAIN AND CULTURAL FEATURES
- INTEGRATE LIVE VIDEO WITH 3D MODEL FOR AAR
- DEVELOP PROCESSES AND TOOLS FOR MAGTF COMMON DATABASE PRODUCTION
- DEVELOP LIVE-VIRTUAL ENV INTEGRATION
- PERFORM EARLY DEVELOPMENT TESTING

PERFORMERS:

- CONTRACTOR: SARNOFF, TBD
- PMTRASYS (TDA)

SCHEDULE: SYNTHETIC ENVIRONMENTS

TASKS	FY02	FY03	FY04	FY05	FY06
SYN ENV AUTOMATION		▲	▲		
RF & VIDEO TRACKING		▲	▲		
COMMON DATABASE GEN			▲	▲	
LIVE-VIRTUAL INTEG				▲	▲
CONDUCT EVALUATIONS	▲	▲	▲	▲	▲
TRANSITION TO 6.3 PROGRAM		◆	◆	◆	

TRANSITION: SYNTHETIC ENVIRONMENTS (6.3)