

Accuracy Evaluation of the AC-130 Gunship

Gary Spradling ASI Division of SRS Technologies gspradling@fwb.asi.srs.com

850-862-4188





Aeronautical Systems Center, Strategic Planning (ASC/VXXP) was tasked in mid 1995 by USSOCOM to establish a combat accuracy baseline for the AC-130 gunship AFSOC agreed to provide training

missions to accomplish this task





Never Been Done Before – What is Truth

Need Benchmark for Comparison of Alternative Systems

Damage Potential Assessment



Data Collected

Aircraft Parameters Crew Notes BDA Video Impact Locations Target Damage Assessment Target Video



Ground Rules

Crew must be in combat dress less side arms

- Combat ready crew in each critical position
 - Pilot
 - Sensor operator
 - Fire control officer



Data Reduction

BDA Video Freeze Frame Analysis

Gun Plane Analysis

Ground Plane Analysis









Circular Error Probable - CEP The Number D such that 50% of Miss Distances are Less Than D and 50% are Greater Than D

Mean Radial Error - MRE The Average Radial Miss Distance





- Ammunition:
 - 20 105mm,
 - 52 40mm,
 - 500 25mm
- Aircraft/Sensors
 - AC-130H LLLTV and IR
 - AC-130U ALLTV, IR and Strike Radar





*****55 Missions Flown

900+ 105mm Rounds Fired

2300+ 40mm Rounds Fired

5500+ 25mm Rounds Fired





Opened Opportunities for Combined Training on Army Ranges

Established the Baseline to Measure Alternative Systems Against



Action Shots







