Achieving Positive Cost Avoidance in the Employment of the Marine Corps Operator Driver Simulator

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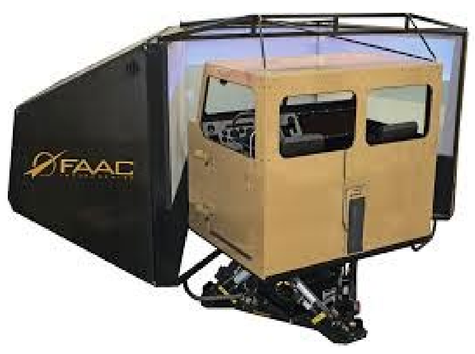
Abstract

This thesis develops a methodology and an estimate of the Marine Corps Operator Driver Simulator (ODS) training system cost-avoidance potential. It uses historical data on operations and sustainment expenditures on the Medium Tactical Vehicle Replacement at each of the Third Marine Expeditionary Force (III MEF) installations and Training and Education Command. This methodology aims to support the Program Manager of Training Systems as it seeks to understand how much ODS usage is required for the ODS sites to achieve positive cost avoidance, given the number of vehicle operator authorizations. This analysis estimates that positive cost avoidance can be achieved at each III MEF installation by implementing at minimum an 8-hour per year training requirement in vehicle operator training plans. Given certain ODS key performance parameters, each ODS site can support this quantity of training. This analysis provides decisionmakers with a data-backed methodology to support ODS training mandates for motor vehicle operators across the fleet.

Methods



Estimated FY26 ODS Costs	
Okinawa	$ 198,000
Iwakuni	$ 221,000
Hawaii	$ 173,000
FLTW	$ 510,000

	Costs/Operator	MEF	MLG	MARDIV	MAW	TECOM
FY2026	Per Year	$ 13,836.96	$ 21,046.94	$ 6,730.76	$ 56,256.32	$ 7,570.52
	Per Hour	$ 45.43	$ 76.27	$ 37.85	$ 1,087.88	$ 117.74
	Per Mile	$ 33.15	$ 25.59	$ 13.80	$ 488.46	$ 50.50

ODS Cost Avoidance (hours)	OKI	$ 851,247	Net Cost Avoidance (hours)	$ 653,246	Totals CY$20
	IWAKUNI	$ 307,657		$ 86,576	
	HAWAII	$ 188,761		$ 15,964	
	FTLW	$ 987,583		$ 477,200	
					$ 1,232,986
ODS Cost Avoidance (miles)	OKI	$ 931,340	Net Cost Avoidance (miles)	$ 733,339	
	IWAKUNI	$ 344,478		$ 123,397	
	HAWAII	$ 203,578		$ 30,781	
	FLTW	$ 1,817,998		$ 1,307,615	
					$ 2,195,132

Using exponential smoothing, I estimated FY26 O&S costs on real MTVRs at each III MEF command and TECOM and ODS systems at each location. I multiplied each command's cost per hour by their number of vehicle operator authorizations at certain locations and then multiplied that by various numbers of 'hours trained'. I then added up those products for each command at that installation. I then subtracted the cost to operate the ODS at that installation to receive net cost avoidance per installation.

Results & Impact

This analysis estimates that each location could achieve positive cost avoidance in the use of their ODS sites if each motor vehicle operator trained for at least eight hours in the ODS. This model estimates approximately $1.4 million in net cost avoidance across the III MEF installations and Fort Leonard Wood. PM TRASYS may use this research to drive higher participation in ODS training across the fleet by urging decisionmakers to amend the motor vehicle operator training requirements.

Future Research

I recommend that future research on this topic includes the addition of accurate, relevant data, the addition of the remaining Marine Corps installations that operate the ODS, and the addition of other ODS configurations and their corresponding vehicle variants.

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