

**STINFO COPY**

**AFRL-HE-WP-TP-2006-0087**



**Target Audience Analysis (TAA)  
Presentation/Briefing**

**H. Lee Ellwanger**

**Human Effectiveness Directorate  
Cognitive Systems Branch**

**March 2006**

**Interim Report for January 2004 to March 2006**

**20070404103**

**Approved for public release;  
distribution is unlimited.**

**Air Force Research Laboratory  
Human Effectiveness Directorate  
Warfighter Interface Division  
Cognitive Systems Branch  
WPAFB OH 45433-7604**

# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

<b>1. REPORT DATE (DD-MM-YYYY)</b> March 2006		<b>2. REPORT TYPE</b> Interim Presentation/Briefing		<b>3. DATES COVERED (From - To)</b> January 2004 - March 2006	
<b>4. TITLE AND SUBTITLE</b>  Target Audience Analysis (TAA) Presentation/Briefing				<b>5a. CONTRACT NUMBER</b>	
				<b>5b. GRANT NUMBER</b>	
				<b>5c. PROGRAM ELEMENT NUMBER</b> 62201F	
<b>6. AUTHOR(S)</b> H. Lee Ellwanger				<b>5d. PROJECT NUMBER</b>	
				<b>5e. TASK NUMBER</b>	
				<b>5f. WORK UNIT NUMBER</b> 7184X05C	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b>				<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> Air Force Materiel Command Air Force Research Laboratory Human Effectiveness Directorate Warfighter Interface Division Cognitive Systems Branch Wright-Patterson AFB OH 45433-7604				<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b> AFRL/HECS	
				<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>  AFRL-HE-WP-TP-2006-0087	
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release; distribution is unlimited. Cleared by AFRL/PA, on 17 Oct 06, Case # AFRL/WS-06-2393.					
<b>13. SUPPLEMENTARY NOTES</b>					
<b>14. ABSTRACT</b>					
<b>15. SUBJECT TERMS</b>					
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b>
<b>a. REPORT</b> UNCLASSIFIED	<b>b. ABSTRACT</b> UNCLASSIFIED	<b>c. THIS PAGE</b> UNCLASSIFIED			H. Lee Ellwanger
			SAR	10	<b>19b. TELEPHONE NUMBER (include area code)</b>

Standard Form 298 (Rev. 8-98)  
Prescribed by ANSI Std. Z39.18



---

# Target Audience Analysis (TAA)

## Interim Report: WU 7184X05C

Mar 2006



Lt H. Lee Ellwanger  
Program Manager  
Human Effectiveness Directorate



# Target Audience Analysis



MOA was signed by AFRL and AFIT, effective Aug 05, in support behavioral modeling and other research.

Researchers gain access to cutting edge problems, subject matter experts, and data support

AFRL and NASIC benefit from research as it develops, aid in focusing work, and access to AFIT personnel and students

A win-win-win collaboration!

This will be done through masters thesis and graduate research efforts and doctoral dissertations

In addition, NASIC and AFIT have instituted a program to sponsor qualified junior officers to attend AFIT



# Target Audience Analysis

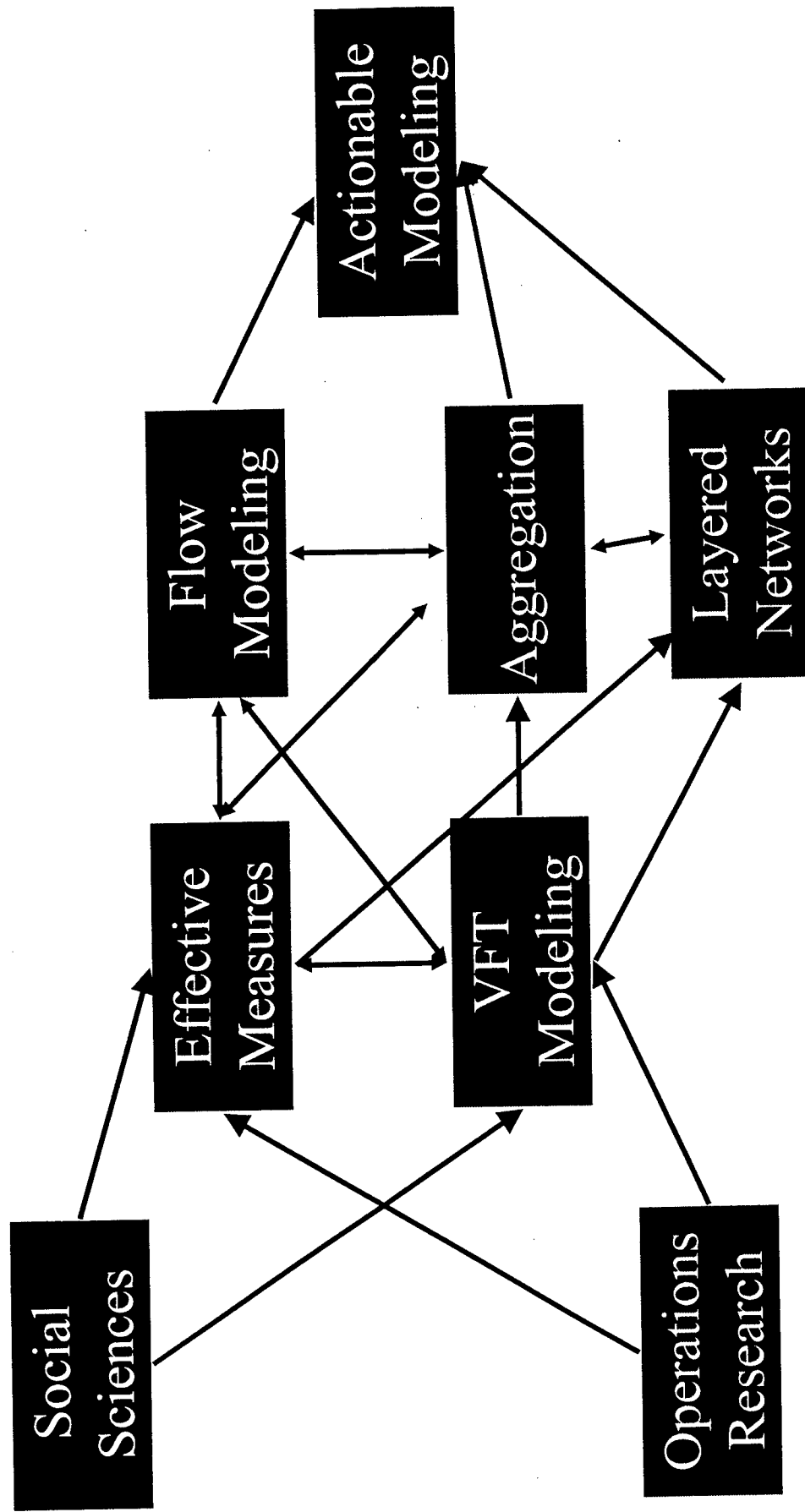
---



- **Developing advanced mathematical models for SNA**
  - **Determining vulnerabilities in complex networks**
    - **Profile, differentiate, classify leaders**
    - **Disrupt and destruct clandestine networks**
  - **Address challenges of behavioral influence analysis by using SNA with OR to create actionable modeling**
- **Provides research that can begin to address challenges the intel analysts face with adversarial modeling and provide model development input**



# Target Audience Analysis





# PSYOP Target Audience Analysis



57

## Resource Information

- Program Information
- Program Level: 6.2
- Start/Finish: FY05 – FY06
- Total Funding (\$K): \$225K
- Total S&E effort: 6 S&E-years
- Principal Technical Disciplines Involved
  - Operations Research
  - Human Factors
  - Mathematics
  - Cultural Modeling
  - Behavioral Science
  - Intelligence Analysis

## Description

### Goal:

**Specific Objectives:** (Top 2 or 3 in bullets)

- Develop and demonstrate innovative PSYOP/Influence Ops planning & assessment tools
- Advance the science of target audience analysis
- Support strategic, operational planners

### Approach or Methodology:

- Interoperable analysis, planning, and targeting tools
- Model-based decision support tools/methodology capable of predicting/measuring the effectiveness of PSYOP applications and strategies in the battlespace

### Major Technology Milestones

 (Top 2-3 in bullets)

- advancing new applications and processes to run in existing SNA tools
- reliable mathematical architecture yielding 95% successful identification

## Products and Benefits to the Customer

- Principal Customers: NASIC, ACC and AFIWC
- Products
  - Present:
    - Actionable SNA Models
  - Future:
    - Advanced, tailored social network analysis tools
- Benefit / Impact to the next user of your product (Value)
  - Future:
    - Social Influence Network Analysis
    - Layered Social Network Analysis
    - Behavioral Influences Analysis



## **Transition and Follow on Work**

---



- **Vehicle to utilize these models and algorithms for analyst use**
  - **Transition into software tool**
  - **Could also fund other model development**
- **Organizational and Cultural Criteria for Adversarial Modeling (OCCAM) Decision Aid**
  - **This will be combined with Graphical Agent Development Environment (GRADE), to form OCCAM-GRADE**
  - **Completion of this reengineered tool will be June 07**





## Transition and Follow on Work

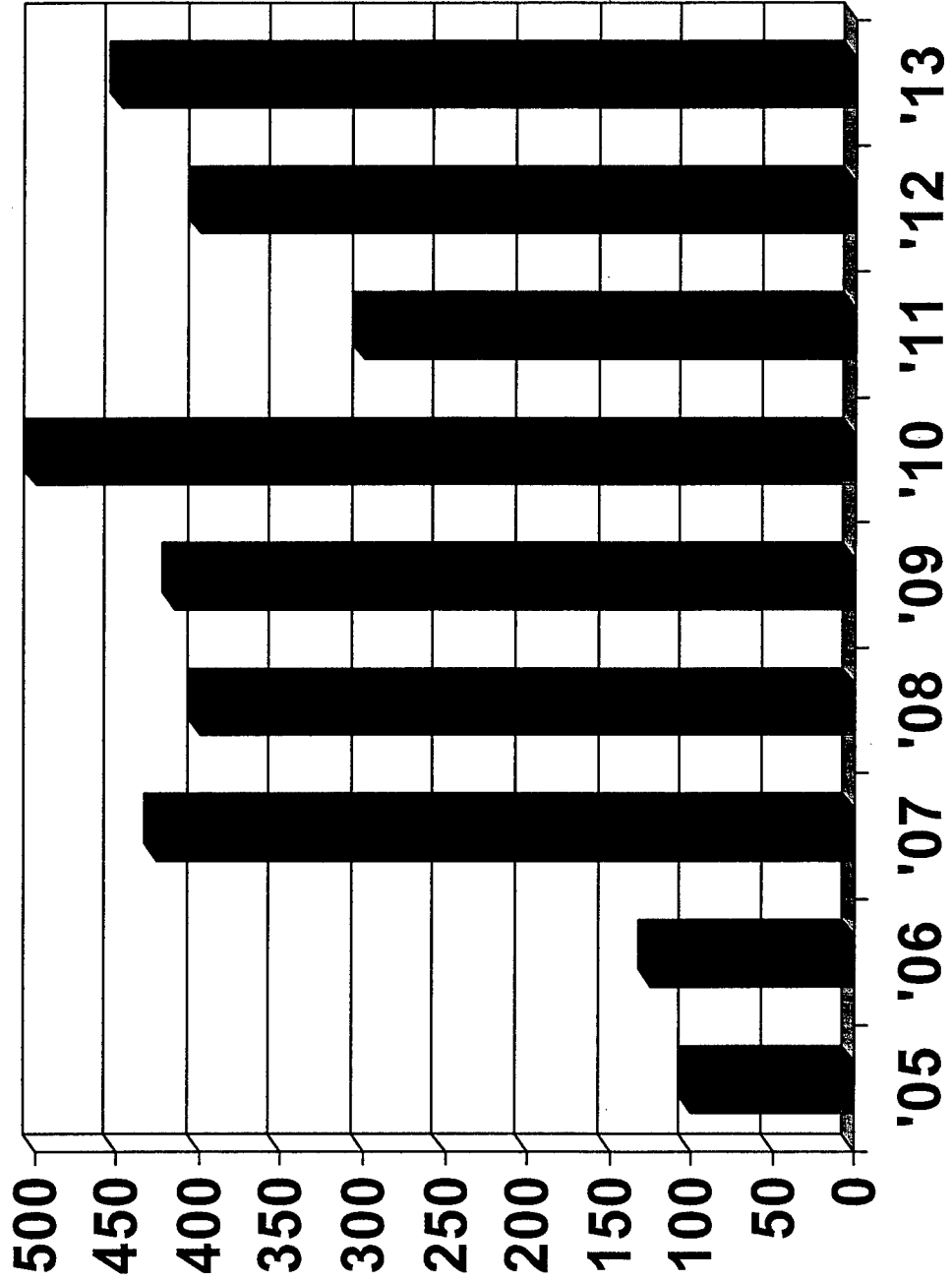
---



- Will be government owned
- Will be used by other government agencies
  - Model development will incorporate AFIT and CIA models, and also PSYOP modeling process by CRA
- HECS managed program
  - We have say in development
- Using tools already in existence, OCCAM and GRADE (currently being reengineered into OCCAM-GRADE)



# TAA/TAI Current Funding



■ \$K



# Funding and Execution

---



- **Obligations**
  - 06 Funding (125K) has been MIPRed to AFIT
  
- **Expenditures**
  - Salaries and Benefits
  - Contract Services
  - Equipment
  - Supplies
  - Travel
  - Indirect Costs

9