

Irregular Warfare Analysis Workshop
WG 3: Information
Operations/PSYOP/Social Sciences
Military Operations Research Society


Working Group Out Brief

3-6 February 09

Chairs: Mr. Ottenberg (AT&T), Ms. Grattan (Group W)

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Final annotated brief.

Co-Chairs: Michael Ottenberg (AT&T) in support of OSD PA&E SAC; Karen Grattan (Group W) in support of MCCDC, USMC.



Recorder: Dr. Adam Shilling, US Army CAA

Synthesis Group Representatives: Kirk Michaelson (Lockheed Martin), Dr. Stuart Starr (IDA)

Agenda

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- Working Group Purpose/Charges
- Participants
- Schedule / Briefs
- Approach
- Findings / Suggestions
- Key Take-Aways




Workshop Summary

This is the agenda.


This is an annotated final brief. Background slides augment each portion of the brief. All background slides parallel this agenda.

Participants

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- Tom Cioppa, TRADOC
- Debbie Duong, OSD PAE SAC
- Scott Helfstein, USMA CTC
- Christopher Paul, RAND
- John Lawson, USMC
- Scott Shields, JS
- William Young, N81
- William Bennett, BAE
- Jason Wendel, SOCOM
- Vic Garcia, SOCOM
- Jay Earles, SOCOM
- Christopher Rate, SOCOM
- John Crino, OSD PA&E
- Mohamed Hassabeinabi, SOCOM
- Jeremy Allen, SOCOM
- Robert Watwood, SOCOM
- Dennis Crall, SOCOM
- Brian Sweeny*, SOCOM
- Stephen Black, TRADOC
- Edward Cerer, TRADOC
- Lawrence Chinnery, JIOWC
- James Crutchfield, Lockheed Martin
- Richard Deckro, AFIT
- Jeffrey Edwards, TRADOC
- Anne McGee, JIEDDO
- Sidney Fincher, USAOTC
- Douglas Hoffman, USMC



Presenters – unable to participate in WG for entire symposium

Workshop Summary

Here are our participants - ~43 people registered for the WG. We had representation from the entire IO/PSYOP community. We had a good mix of social scientists and ORSA: approx 25% social scientists.

Scott Helfstein and John Lawson were instrumental by acting as moderators in our panel discussions.

Special thanks to SOCOM, OUSD(P) SOLIC, and USSTRATCOM for assisting in providing speakers for this working group.

We would also thank Bill Young, Scott Shields, John Lawson and Yuna Wong who live in the DC area and engaged with us as we were making sense of and developing the program for this working session. Also, all of our speakers who not only prepared pieces but offered comments and otherwise engaged with the thinking behind the efforts.

Participants

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- Thomas Leydorf, Wave Tech
- Thomas Mcnamara, JHU/APL
- Edward Negrelli, Leonie, LLC
- Michael Ottenberg, AT&T
- Karen Grattan, Group W
- Timothy Perkins, USA
- Jason Quirin, SOCOM
- Richard Rigazio, USN
- Todd Sherman, Lockheed Martin
- Rita Maria Szymanski, MITRE
- George Waltensperger, Lockheed Martin
- John White, NGIC
- Kirk Michealson, Lockheed Martin
- Derrick Smith, USSOCOM
- Stu Starr, IDA
- Adam Shilling, CAA
- Donna Middleton, NG
- Greg Jannarone, SOCOM

- ~43 signed up for the WG
- ~ 20% social scientists
- Great SOCOM J39 participation



Working Group #3 Agenda - Wednesday

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Wednesday, 4 February		
1300 - 1430	1) <u>Welcome</u>	Mr. Mike Ottenberg Ms. Karen Grattan
	2) <u>Problem Setting</u>	Dr. Christopher Paul, RAND
	3) <u>A View from the Ground</u>	John Lawson, USMC, Moderator
	- AQ's Comm: Strategies, Capabilities and Results	Dr. Scott Helfstein, USMA, CTC
	- Iraq	LTC Vic Garcia, J39, SOCOM
	- PSYOP Support to NAVCENT	Maj. Jason Wendell, J39, SOCOM
	- Analysis of Afghanistan Tribes	LTC Brian Sweeney, J39, SOCOM



Workshop Summary

Christopher Paul, RAND, “Enlisting Madison Avenue”

Scott Helfstein, CTC, “AQs Communications”

LTC Vic Garcia, JMISC, “Lines of Operations”

Major Jason Wendell, JMISC, “PSYOP Support to NAVCENT”

LTC Brian Sweeny, J39, SOCOM, “Analysis of Afghan Tribes”

Selected Insights: Chris Paul

Shaping -- activities that constrain adversary or increases friendly force options

Shaping is hard because of: Anti-American sentiment, Adversary shaping efforts, Media environment, Information environment, Culture

Selected challenges: Market segmentation, Information fratricide, PSYOP taint, Legal barriers, Measuring persuasion, influence, Command failure to use shaping assets, Intelligence needs for shaping, Balancing goals (near-, mid-, long-term)

Selected Insights: John Lawson, Moderator

Mass communications theory and the application of it as a set of criteria to evaluate IO.

Causality is not necessarily provided by IO; may be an exogenous stimulus to the system provided by other message or kinetic action

Mass media tools provide 70% of the solution: survey, focus groups, content analysis, theories change over time; move away from the idea of media as content purveyors with the ability to set agendas in a constrained, limited media environment. Media shapes agenda, but not opinions? (Not sure if this is a correct transcription). Older media filters out items, acts as a cultural filter, context providers. Internet obviate agenda setting. New, non-traditional, and multiple types of media change this idea. Ultimate source of truthful reporting, even if non attributed on the blogs, is usually traditional media. Audience as media users, not targets. Active choosers. Friends/grape vine vs media as source. Spiral of silence. Audiences hold opinions in private even when in public to avoid dissonance, exclusion, etc. According to Steven Chaffee, mass media is dead. Explosion of sources and opinions

Selected Insights: Scott Helfstein - Moderator

Think about strength and weaknesses of the methods presented here.

The presentations will outline representative examples of general methods.

Keep in mind as you listen to the presentations on how you would apply these and related methods to IO problems.

Scott Shields, J8 -- Case study Methodology

Explanatory (how or why)

Descriptive (time sequence)

Exploratory (what or who)

Explanatory – How, why

Descriptive – discover key phenomena

Explanatory – Why who leads to in-depth exploration

Mohammed's Face example

Test new theories

Research and teaching tool

Advantages

- context dependent
- emphasis on learning versus proof

Disadvantages

- unique to case
- validity or reliability
- Case selection bias
- Subjective conclusions
- Not predictive

Study Design

- type
- cases
- analysis
- Reporting

Working Group #3 Agenda - Thursday

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Thursday Morning, 5 February		
0800-1430	4) Key Problems in IO/PSYOP	
	- Open Space Technology	Ms. Karen Grattan Entire Group
	5) Methods, Models, and Tools I	Dr. Scott Helfstein, USMA, CTC, Moderator
	- Case Study	Scott Shield, JS
	- Case Case Study Application to Algeria 1956-1962	Dr. Bill Young, N81
	- Operation Iraqi Freedom Strategic Communication Analysis and Assessment	COL Tom Cioppa, PhD, TRADOC
	6) Methods, Models, and Tools II	Dr. Scott Helfstein, USMA, CTC, Moderator
	- Agent Based Modeling	Dr. Debbie Duong, SAIC
	- Media Influence Model, COMPOEX	Dr. Bill Bennett, BAE
	7) Key Problems in IO/PSYOP	
	Capabilities, Gaps, and Priorities	Ms. Karen Grattan Entire Group



Tom Cioppa, TRAC -- Applying OR to Strategic Communication in Iraq;

Critical to align

Facts on ground

Public perception

Media portrayal

Petraeus: "60% of the fight is information"

Issues

Inadequate time for reach-back

Need to **simply** convey information to senior decision makers

The IO Team tends to be "pick up", variable

It is a challenge to convey lessons learned

Assessment of strategic communications in Iraq using traditional ORSA techniques of statistical methods

Facts on the Ground must = public perception must = media portrayal to achieve success.

IBP of media

Alignment of the message – capture, categorize, share quotes

Iraqi perceptions – polls, focus groups

Manage erroneous stories

Cognitive dissonance on the part of US leadership

Bill Young, N81 -- Algerian case study ('56-'62):

Semiotic -- signs that form a message (e.g., action, reaction)

Battle of Algiers

Sequence how one output affects the next output – French did not look at long term, much less 2nd and 3rd order effects.

Kinetic actions as IO messages: bombings and counter bombings; assassinations

Hierarchy large to small

French could not disaggregate need to see the entire campaign. Needed success of all parts to achieve campaign success; was not able to accomplish

Semiotic – symbols, signs, words that form a message.. Sender-communications system (code) – receiver

No overall French message except Algeria = France. The message did not resonate with Algerians although it did with the Pied Noirs

Not plausible. Did not mobilize the population to do something.

FLN oriented its IO towards internal, metropolitan France, and 3rd party audiences.

Revenge achieved small group behavior modification – frightened Algerians from collaborating. Algerian moderates were placed in a dilemma on what to do – usually defected to the FLN

Afghan IO: THE US MUST:

- develop an over all message
- Determine what is expected from the population
- Determine what is the vision for the future of Afghanistan
- Describe what the US intends to do
- Be oriented towards the correct target audiences with plausible messages

Notes from Thurs (continued)

- What is the relation of case study method to statistics?
- What is the difference between case study and history? Essentially identical
- How should semiotics (symbols) be modeled?
- How can statistics be better used?
- Garcia sees the effort briefed by Cioppa as systematic ORSA support to IO, Public Affairs, and PSYOP. Has this approach been codified? Yes, but ...
- Timeliness issues – lessons learned
- immediacy of data output – use case study
- timeliness = 75% of the message, not just the message itself
- If the story being told/followed is a persistent miss-communication, then expend the effort to counter. Time and resources problem such that small items are left unchallenged. What is the impact on the overall goals of this triage effort?
- Must explain to the population the strategic reasons of Why the US invaded; What the US is trying to accomplish; what are the eventual long term relationship of the country to the US.
- Spokesmen perceived as being “Jewish”, not to be trusted.
- Is ORSA applied to strategic communications only for determining media effectiveness? No. ORSA applied to all aspects of strategic communications, IO, and PSYOP. Also applied to IPB, intelligence in general, etc.
- JFCOM will take the lessons learned and apply them to improve joint concepts and doctrine.
- Stringent time requirements: typically 2 hour timeframe. However, analysts should apply case study methodology to do long term trends.
- Personnel changeover is a big problem. Overlap and mentor systems ameliorate this issue to some degree
- Analytic reach-back is not sufficiently timely to deal with short term problems.
- All of the data in the View from the Ground briefs is dated and probably incorrect at this time due to rapidly changing events
- Contractors and government personnel form up a base of PSYOP experts... noted that post WWII almost all US PSYOP capability was dismantled
- Case study may be used for the short term and the long term
- Definitely should use the case study method for professional military education
- What is the mechanism for the capture of knowledge and transference for personnel change? Lessons learned, mentors, overlapping periods of service, etc.

Debbie Duong -- Agent Based Simulation (ABS)

Two dimensions

Cognitive vs reactive agents

Data- vs theory centric

Key challenge -- micro- and macro-level integration

Problems with ABS

Artifacts

Explain in general, not specifics

Technology of AI

Emerging tool -- Nexus (cognitive agent simulation of popular support)

Agents behave according to rules (may have rules imposed by culture)

New patterns of behavior emerge within the total system as a result of individual behaviors examined collectively.

Cognitive – rules of behavior do not change

Data Centric – what actually happened versus what theory states

Problems

Generalities from instances

Artifacts – not from assumptions, how do we instantiate the affects of assumptions

Replication is another technique

If computation is based on assumptions, this explains the general, not the specifics since the instance of the world is arbitrary.

Bill Bennett, BAE Systems -- Media Influence Modeling in Support of COMPOEX

Purpose -- forecast influence of media information on public attitudes/opinions toward subject entities

Approach -- hybrid modeling paradigm

ABM (entity behaviors)

SDM (time evolution of effects)

Theoretical underpinnings (e.g., agenda-setting theory; opinion leadership; social influence theory; co-orientation theory; priming and framing theory)

Key factor -- characterization of media channel

Issue -- has not performed VV&A

Media Influence Model

Hybrid of systems dynamics and agent based modeling

Audience cognition is modified by themed message content

Signal to noise ratio problem of messaging

Does not model the modification of audience behavior due to messaging

Explicit theme sources

Media theme coverage – which channels at what times

Estimate changes on public attitudes towards HNS government, COCOM, and the USG

Audience segmentation problem

Rhetorical/Intensity/Reinforcement/Acceptance issues

Represent short term projections

Notes from Thurs (continued)

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Represent short term projections

Agent based component uses named entities, influence relations, and entity influence behavior

Uses the following communications theories:

Primary Framing theory

Information theory

Social influence theory

Opinion leadership theory

Agenda setting theory

Co-Orientation theory

Changes in attitude depend upon the legitimacy, affinity, and competency of the message originator as well as the trust and credibility of the originator

Data sources include opinion polling – problems with stale data, limited snapshots have been ameliorated to some degree; also use SME

Complexity theory

Computational social science is at its infancy so why use M & S; it is hard to determine whether the means leads to a specific endstate

Q&A

MIM is good as a conceptual model, good representation of media. When should M&S be used?

Should there be an audience reception model? Yes. Also require a small approach to include the correct cultural filters. Other models treat social domains. Only attitude changes are modeled.

Message bias has intensity and a direction. Message bias may produce an effect in favor or against the content of the message

Conceptual model includes a degree of trust. Selection of the channel type plays a role in the level of trust towards a message

Fratricide may be limited by using the correct, focused channel directly to the target audience.

Easier to tear down trust than it is to build trust with IO. Negative political campaigns work!

Data is an issue.

MIM is in the proof of concept stage and requires VV&A

CAMEO, EPIC, and IO JMEM may also provide conceptual models that should be compared to MIM

Create standards to process data; this will shorten the timeline for modeling

Define MOE, then obtain the data

Do we have studies on the emotional attitude to straight news vs editorial reporting?

Could use SNA to conduct research on perceptions and the impact of messages on perception

Conceptual model can be done without mathematics; it is extremely valuable in helping analysts better understand the problem being modeled. Just framing the problem provides understanding.

Primary Themes

Open Space technology used to have the WG divide into semi-structured discussion groups. The groups developed the following themes to represent a synthesis of perceived capabilities, gaps, requirements, and priorities.

How we see the world (philosophical)

How we organize, prepare ourselves (whole of government)

Analytic design -- who participates and what we eVALUEate

Unintended consequences of our activities

Operational/operator constraints

Existing IO/PSYOP Tools

Historical analyses

Wargames (e.g., PSOM, SOFBAT)

M&S Media Influence Modeling (e.g., COMPOEX module; EPIC; SEAS; CAMIO)

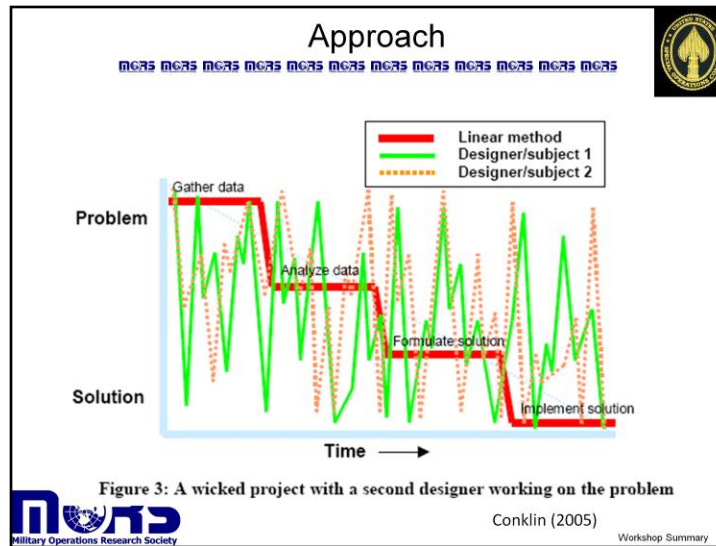
Computer Network Operations (e.g., IO JMEM tools)

Ranges (e.g., IO Range)

Feedback

Polling

Social Network Analysis (e.g., Facebook, formal SNA tools)



In working with irregular, unconventional and/or hybrid type problems, we are dealing with a great deal of complexity within the problem space. Such problems have been called “wicked” and “messy”, and (consistent with Reb Yancey’s discussion of Systemic Operational Design) we contend that you have to think about the work differently. Traditional problem solving, or solving complicated (versus complex) problems progresses in what we call the waterfall method... where we gather our data, analyze it, and move to our best solution in a relatively systematic way.

The biggest challenge in working with a wicked problem, though is in framing it. With each framing of the problem, we move the project toward a specific solution. In reality, the way we cognitively work in such cases is to move back and forth in the problem-solution space, framing, acting and reframing the problem. I think it is important here to remind ourselves of Col. McMaster’s point (which Reb shared); “if you think you have the solution to this you are wrong, and you are dangerous.” No one person is going to have the answer to IW-like problems. In fact, we know that we need the help of other disciplines in framing and addressing these problems, that is why this working group is also charged with dialoguing with the social sciences and social scientists.



So, that is where this image on this slide comes in: by adding team members, especially team members with different disciplinary cultures, and organizational cultures (as in interagency work), and different epistemological stances (or, approaches to knowledge), we have also added a great deal of **social complexity** to our problem. Now, the work not only includes the complex problem itself, but the social complexity inherent in getting the right teams to address these problems, to work effectively together. So we would add to Reb’s proposition about “thinking” about these problems: We not only need to think about the problems in new ways, we need to think about the **work** (and how we work together) in new ways. We have to think about how we work with each other, across language, cultures and paradigms, to make sense of the problem to get things done.

We found this “two designer” process even playing out between Mike and Karen as co-chairs. There was this desire to use a linear analysis approach toward our workshop: Find out current conditions and capabilities; identify coverage and gaps; identify potential solutions; test solutions against gaps; evaluate solutions; prioritize solutions. We did agree, though, that people look at all aspects of these problems and their related “steps” with near simultaneity, or even out of order. We used a blend of both approaches. Our schedule reflected a rational step-wise approach to our briefings, and we blended in some “social” technologies to make space for problem framing, sense-making and aligning in our efforts to ultimately locate issues, requirements, suitable solutions, and priorities.

Primary Themes Identified

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- **Issues about how we see the world—at the philosophical level**
- **Issues about how we organize and prepare ourselves—within DoD and across whole of government**
- **Issues around analytic design—who participates and what we eVALUEate**
- **Issues of unintended consequences of our activities**
- **Issues of operational/operator constraints**



Workshop Summary

WG members used the Open Space methodology to examine a set of general questions related to PSYOP. We opened the floor to the entire working group, and asked them to put the critical issues on the table, as they saw them. We gave each issue an “issue card” and turned the group loose to discuss the various issues in small groups. They were asked to capture (on colored index cards) the critical points or framing questions of the issues. After the lunch group a mini synthesis team gathered the cards and sorted them by common theme. This slide reflects the 5 key themes that emerged from the group work.

In the afternoon session, we asked groups to return to the work on these themes and consider the following:

1. What are the needs related to this issue. What needs to be sorted out?
2. What are the critical gaps within this theme area, that are limiting our capabilities?
3. What is the role that analysis plays in either addressing key needs or addressing key gaps?

The following slides capture a part of what came out of those discussions.

Primary Themes

- How we see the world (philosophical)
- How we organize, prepare ourselves (whole of government)
- Analytic design -- who participates and what we eVALUEate
- Unintended consequences of our activities
- Operational/operator constraints

Strategy and Philosophy Issues

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- Every action (even lethal action) is a PSYACT
- Must clearly define goals and messages at the strategic level
- PSYOP must be integrated with related activities such as PA and CMO.
- Resonant points—find items of common interests with local populations—we can't expect them to support OUR agenda
- Taxonomy and clear definitions are helpful
 - (but these definitions cannot be blinders that limit conceptual thought in planning, operations, or assessment)



Workshop Summary

Strategy and Philosophy

Is our thinking on influence correct?

What is meant by effectiveness

What do we hope to accomplish

How do we compete with our message

Is our idea of PSYOP a product of the US way of war or the US culture in general?

Every act is a PSYACT and a civil affairs act

At the strategic level who is the audience, what is the message

Course of action should have associated COAs

Plan for failure and unintended consequences

Competing messages – use Red teaming effort to determine how to counter act Red messages

Need Civil Affairs interoperability

Requirement in fashioning the message in accordance with the strategic content

Need discipline to develop and conduct PSYOP as a part of all combat COAs

Need success in assessment criteria

Need priority in intelligence to conduct PSYOP BDA

Focus on developing social networks to promote or foster message resonance

Need to understand from the start that the US is biased

A taxonomy to lay out IO duties, responses, and integration/interoperability among all entities conducting IO

Organizational Issues

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- **Ownership: PSYOP is/should be under umbrella of strategic command message**
- **Lexicon: analysts and operators need to have same lexicon**
- **Military needs to train and educate leaders to understand “soft” skills such as PSYOP and what these bring to the fight**
 - analysts can help construct valid case studies as part of officer/soldier education
 - a robust case study can provide basis for wargame (“road to conflict”), the case study can capture a full problem set that would facilitate learning on complex issues
- **Any PSYACT may lead to unintended consequences, may compromise DoS, USAID, or Peace Corps programs**



Workshop Summary

Organization

Where is PSYOP executed?

How to accommodate and understand the inter-relationships across the 5 IO pillars

How to coordinate PSYOP and other sources of information

Train and transform PSYOP organizations

Should PSYOP be in charge and control all operations since every act is a PSYACT? No.

Ownership should not change but improve. Use case study approach and focus on human terrain

A common lexicon is required

Institute change where the commander is the combined arms commander to include PSYOP. CMDR needs enlightenment on institutional basis, need to inform commanders at all echelons on the benefits and limits of PSYOP

IO pillars are flawed since they include many disparate, unrelated elements. Public affairs should, but rarely coordinates its actions with PSYOP

Role of analysis should be to provide MOEs, case studies

Black PSYOP function should be moved to another organization to prevent credibility issues

Coordination with inter-agencies is imperative

PSYOP staff officer must be proactive in working with the commander

Case study should be used as a training device, especially focusing on Phase 0 operations. M&S can support wargames

PSYOP must be integrated with related activities such as PA and CMO. PSYOP or PA magnifies the effect of CMO (such as MedCAPS, agriculture improvement programs, projects).

Resonant points—find items of common interests with local populations—we can't expect them to support OUR agenda, and we cannot expect them to sacrifice for OUR agenda

Taxonomy and clear definitions are helpful

-but these definitions cannot be blinders that limit conceptual thought in planning and operations

Ownership: PSYOP is/should be under umbrella of strategic command message

Lexicon: analysts and operators need to have same lexicon

Military needs to train and educate leaders to understand “soft” skills such as PSYOP and what these multipliers bring to the fight

-analysts can help with valid case studies as part of officer/soldier education

-case study can basis (“road to conflict”) for wargame (as opposed to fictional scenario), the case study can capture a full problem set that would facilitate learning on complex issues

-case study on informational dimensions of conflict in Phase -1 or during IPB is more proactive than waiting until engaged

PA and PSYOP don't talk? They need to...

May need to constrain “black” PSYOP to reduce OGA or commander's scruples in working with or using PSYOP

Kinetic ops have a psychological effect...These effects may lead to unintended consequences, may compromise DoS, USAID, or Peace Corps programs

Analytic Design Issues

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- How do we appropriately choose models methods and tools for OD in PSYOPS?
 - Generic tools that can be fine-tuned to the situation through social discourse
 - Develop different solutions that you can test
 - Know the TYPE of your problem
 - Test and compare using same data sets
 - Get a formal standardized data set
- What disciplines should be on the team? How do we choose the right ones and access them?
 - Analytic Ability/skills regardless of field
 - Open-minded and able to work across disciplines
 - Familiar with both military and OD process
 - Have both field and background analysis capabilities



Workshop Summary

1 – How do we appropriately choose models methods and tools for OD in PSYOPS?

Generic tools that can be fine-tuned to the situation through social discourse (like the MpiCE project – Measuring Progress in Conflict Environments which provides a list of MOEs for organization’s SMEs to choose from to tailor to specific situation).

Develop different solutions that you can test

Know the TYPE of your problem

Test and compare using same data sets

Get a conformal standardized data set

Use these models in different ways (eg – examination of both links and nodes in network models can provide insights)

Some examples:

SNA tools

Agent-based models

Bayesian

Influence models

Systemic Operational Design

Other issues:

Security Classification problems often prevent sufficient collaboration

CONTEXT matters for social issues

Keep in mind that tools should be crafted to support analysts, they cannot replace analysts

Meta data tagging problems

2 – What disciplines should be on the team? How do we choose the right ones and access them?

Analytic Ability/skills regardless of field

Open-minded and able to work across disciplines

Familiar with both military and OD process

Have both field and background analysis capabilities

Build a reserve corps like Civil Affairs which can be tapped as needed

Some team members must have PSYOPS experience

Comms theory (esp campaigns and influence issues)

Planners

Cultural expertise

FAO

Modeling/Sim etc technical people

Linguist (translation)

Social Sciences

Psychologists

3 – What is the appropriate approach to measure effectiveness? What else needs to be measured?

Step 1: Know the intent of campaign or conditions to be changed

Step 2: then you can set measures up front and constantly refine over time

(iteratively)

Notes continued on Analytic Design Issues

4 – How should we study outcomes of our actions?

COORDINATE – form friendly network of interservice, interagency, govt, private partners

Tailor to sub-groups and integrate

Do in steps – eg – how much closer did I get to the goal?
(eg – goal 50% positive polling – track trends from beginning)

Give your partners the collection requirements so they can collaborate

Don't rely on a single measure (eg – not just polling)

There should be different measures for different timeframes – short/medium/long

Short – single behavior events (eg – vote, obey curfew, etc)

Medium – trends in behavior (eg. Calling a reporting hotline)

Longer term – attitudes underlying (Must understand what attitudes underly your objectives and then what behaviors reflect these attitudes (ot measure them)

Address both good and bad outcomes

Cannot measure attitudes directly (polling can help but is not entirely reliable)

Gap: need to fund longer-term studies on what kinds of observable behaviors reflect the attitudes we are likely to seek (eg – what behaviors underly acceptance of a “market democracy”?)

Further issue:

Giving people something positive, something to say “yes” to –something which reflects their self-interests and values. This approach might be more effective (can sponsor studies to determine) but also more likely to provide the types of objectives which lend themselves to observable/measurable behaviors.

Analytic Design

How to choose the correct tools and methods?

What to discuss?

What are the correct MOE, MOPs?

Develop generic tools that can be modified for specific applications. How should tools be chosen?

What disciplines should be on a PSYOP team depends upon the timeframe. Field experience is a requirement. Analytical skills. Need flexibility. Reserves and contractors. Note that most PSYOP is currently performed by Reserves.

No prediction, only a range of possible outcomes.

How should we study outcomes – see the graph. Easy to measure changes to actions in the short term. Need to measure changes in attitudes, especially in the long term.

Know intent and strategic goals. Fashion MOEs accordingly. Easier to measure changes in action.

A positive message that resonates is required

Use common sense to check on operations. M&S may be of some assistance in examining long term issues.

Country specific plans on the shelf are possible, but are impractical since it is almost impossible to keep them up to date with current conditions within the country.

Measuring PICEnvironment provides menu of possible metrics for data collection, monitoring and evaluation

What disciplines should be on the team? How to select team members?

Planning, experience, analysis in background are all a plus. Varied background in a plus.

DoS CRC) Maintain a corps of qualified people to be available for deployment (like

Measuring effectiveness/ studying outcomes

Must be related to desired, explicit outcomes/ objectives

Identify which attitudes are related to outcomes; what behaviors stem from those attitudes

Messages should be “positive”—we should be FOR something that is in the interest of local national populations

Effective assessment plan could demonstrate RoI which can garner additional resources

“prediction” is too lofty a goal; forecasting, learning, developing understanding, understanding a phenomenon are much more feasible

Constraint Issues

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- Resource Constraints
- Legal/ Ethical Constraints
- Human Capacity Constraints
- Organizational Constraints
- Difficulty in demonstrating effectiveness of information products




Workshop Summary

See background slides for details.

Key Working Group Take-Aways

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- A coherent taxonomy and lexicon of IO is required
 - Analysts and operators must use the same set of definitions
- Models, methods, and tools must provide mechanisms for learning, understanding of the problem, not prediction
- Coordinate PSYOP across related combined, joint, and inter agency arenas
- Develop robust case studies which capture a full problem set to greatly benefit exercises, education, and training
- Non-kinetic assessment (MOP, MOE) must be in the initial plan
- Key gaps in PSYOP capabilities must be resolved by other means (traditional social sciences, ORSA approaches may assist)
 - Red teaming
 - Evolutionary development of M&S
 - Enhanced Wargaming (Phase 0)
 - Human terrain and media analysis

 **'Information is 60% of the COIN fight' – General Petraeus**

Workshop Summary

As noted. See background slides for additional take-aways.

JOCs and Joint Publications have been produced, but there is still confusion among the actors in the community.

Models do not predict; they provide insights, especially when excursions are compared to an accepted baseline.

PSYOP and all IO must be coordinated among all practicing departments, echelons, etc

Traditional ORSA approaches (M&S, optimization, etc) will be of assistance in resource allocation within PSYOP; social science and ORSA will NOT be of much use to solve fundamental authorities and policy issues.

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Irregular Warfare Analysis Workshop
WG 3: Information
Operations/PSYOP/Social Sciences
Military Operations Research Society
Working Group Out Brief

3-6 February



Workshop Summary

Questions?

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- Backup slides





Workshop Summary

Backup slides provide additional details on the slides presented in the main body of the presentation.

Goals

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- Inform
- Develop an appreciation for what is experienced as "ground truth" with regard to planning, implementing and evaluating PSYOP efforts.
- Identify gaps in IO/PSYOP that lend themselves to examination using operations research and social science tools
- Identify potential quantitative and qualitative methods, tools, approaches, data that may assist in solving gaps
- Identify concrete actions for future action to implement or test the application of the potential approaches defined in this WG



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Workshop Summary

What specific items are we trying to achieve in this WG?

Assessment:

-Achieved Goal #1

-Achieved Goal #2

-Achieved Goal #3


-Partial achievement of Goal #4. Showed several sample quantitative and qualitative methods, tools, approaches; was not comprehensive.

-Did not achieve Goal #5

Scope

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- Information Operations is composed of a wide variety of operations (e.g. Deception, Destruction, OPSEC, EW, PSYOP).
- We are limiting our discussions to PSYOP only.
- We are limiting our discussion to the application of social sciences techniques to IO/PSYOP and not the application of social science to IW in general.



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Workshop Summary

How are we scoping our efforts in the WG to achieve our goals?

Strategic communications and IO cover a wide variety of topics. IO alone is composed of 5 pillars: Deception, Destruction (CNO), OR, EW, and PSYOP.

Our original WG charges were focused on the impact of social science techniques on all aspects of IW in addition to those techniques that could be applied to PSYOP.

Hence we are limiting our discussion to the time available:

- PSYOP
- Social Sciences and ORSA related to IO/PSYOP

Definitions

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Joint definitions, concepts, and doctrine form the basis for all of our discussions (JP1-02, JP3-53, etc).

Information operations. Actions taken to affect adversary information and information systems while defending one's own information and information systems. Also called IO. (JP1-02)

Psychological operations. Planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. The purpose of psychological operations is to induce or reinforce foreign attitudes and behavior favorable to the objectives. Also called PSYOP. (JP 1-02)



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Workshop Summary

Basic Definitions we will use are those found in JP1-02 and JP3-53.

Definitions

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Public affairs. Those public information, command information, and community relations activities directed toward both the external and internal publics with interest in the Department of Defense. Also called PA. (JP 1-02)

Public diplomacy. Those overt international public information activities of the United States Government designed to promote United States foreign policy objectives by seeking to understand, inform, and influence foreign audiences and opinion makers, and by broadening the dialogue between American citizens and institutions and their counterparts abroad. (Approved for inclusion in the next edition of JP 1-02.)

Public information. Information of a military nature, the dissemination of which through public news media is not inconsistent with security, and the release of which is considered desirable or nonobjectionable to the responsible releasing agency. (JP 1-02)

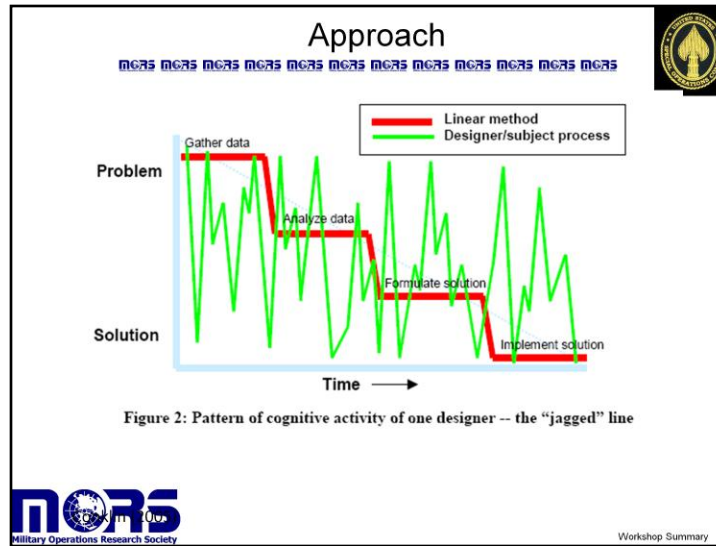
Propaganda. Any form of communication in support of national objectives designed to influence the opinions, emotions, attitudes, or behavior of any group in order to benefit the sponsor, either directly or indirectly. (JP 1-02)



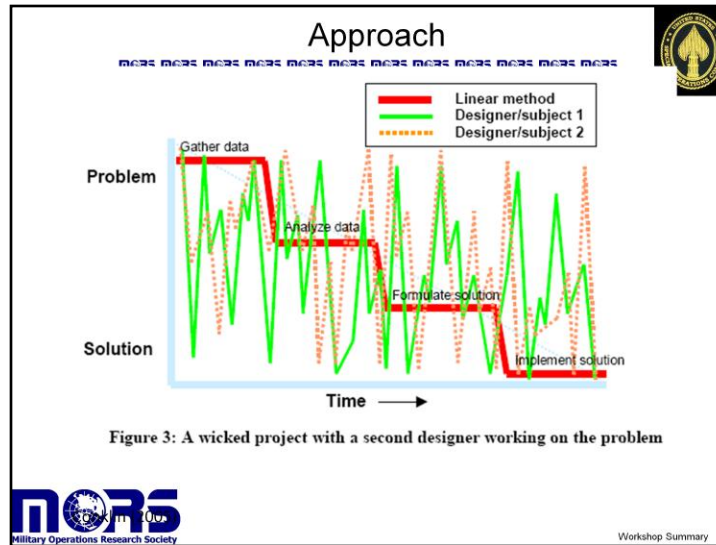
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Workshop Summary

Basic Definitions we will use



This is the way an analyst will work in cases where the problem is multi-dimensional and highly complex. This jagged line reflects the true cognitive activity of this kind of work, where there is significant iteration between the context and problem framing.





This slide gives us an image of how a team of two would work with a complex problem. They will not be on the same exact cognitive path. Much of the work to be done in a team is the sort of sense-making and alignment so that the team can move effectively together. This is how we might think of problem complexity amplified by social complexity.

Primary themes identified

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- Issues about how we see the world—at the philosophical level
- Issues about how we organize and prepare ourselves—within DoD and across whole of government
- Issues around analytic design—who participates and what we eVALUEate
- Issues of unintended consequences of our activities
- Issues of operational/operator constraints



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Workshop Summary

These were the themes that the group generated. In the afternoon session, we asked groups to return to the work on these themes and consider the following:

1. What are the needs related to this issue. What needs to be sorted out?
2. What are the critical gaps within this theme area, that are limiting our capabilities?
3. What is the role that analysis plays in either addressing key needs or addressing key gaps?

Strategy and Philosophy Issues

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- Every action (even lethal action) is a PSYACT
- Must clearly define goals and messages at the strategic level
- PSYOP must be integrated with related activities such as PA and CMO. PSYOP or PA magnifies the effect of CMO (such as MedCAPS, agriculture improvement programs, projects).
- Resonant points—find items of common interests with local populations—we can't expect them to support OUR agenda, and we cannot expect them to sacrifice for OUR agenda
- Taxonomy and clear definitions are helpful
 - but these definitions cannot be blinders that limit conceptual thought in planning, operations, or assessment

Strategy and Philosophy Issues

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Philosophical Requirements (1 of 3)

- **Leadership should establish a strategic vision / concept for PSYOP; at least in a theater or campaign**
 - **Operational objectives and effectiveness follows**
- **Determine what our message should be and intended audience**

Strategy and Philosophy Issues

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Philosophical Requirements (2 of 3)

- **Course of Action (CoA) development should include PSYOP assessment for each COA**
 - **How does the analyst assist the planner with COA development?**
 - **Effect on audiences**
 - **Task accomplishment**
 - **Kinetic versus non-kinetic**
 - **Success assessment criteria**
 - **Prioritization**
 - **Plan for failure and unintended consequences**

Organizational Issues

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- Ownership: PSYOP is/should be under umbrella of strategic command message
- Lexicon: analysts and operators need to have same lexicon
- Military needs to train and educate leaders to understand “soft” skills such as PSYOP and what these bring to the fight
 - -analysts can help construct valid case studies as part of officer/soldier education
 - -a robust case study can provide basis for wargame (“road to conflict”), the case study can capture a full problem set that would facilitate learning on complex issues
 - -case study on informational dimensions of conflict in Phase 0 or during IPB is more proactive than waiting until engaged
- PA and PSYOP don’t talk? They need to...
- May need to constrain “black” PSYOP to reduce other agencies’ or commander’s scruples in working with or using PSYOP
- Kinetic ops have a psychological effect...
 - Kinetic ops may lead to unintended consequences, may compromise DoS, SAIB, or Peace Corps programs



Dealing with Unintended Consequences

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- Unintended Targets of Messages
 - Tailor the way the message is presented to different groups, but not what message is sent. It is important to maintain consistency to develop trust
- Unintended Consequences of the message itself
 - For unintended consequences that happen for lack of knowledge
 - More understanding of possible consequences by getting more people who know the population looking at it
 - Better cooperation with IA and Intelligence community
 - Employ Academics/Social Scientists
 - Make better use of operational experience
 - Serve the population more, so that they tell you.
 - For unintended consequences that happen because they are too complex: **APPLY** understanding above to:
 - BOGSAT
 - War gaming
 - Simulation Analysis, Agent Based and System Dynamics
- Unintended Long Term Effects and Enemy exploitation of the Message
 - For unintended consequences that happen for lack of knowledge
 - Have people on the ground and population monitor effects and re-spin for damage control
 - Keep promises (especially by knowing when a promise was made)
 - For unintended consequences that happen because they are too complex: **APPLY** understanding above to:
 - BOGSAT
 - War gaming
 - Simulation Analysis, Agent Based and System Dynamics



Workshop Summary

Analytic Design Issues

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- How do we appropriately choose models methods and tools for OD in PSYOPS?
 - Generic tools that can be fine-tuned to the situation through social discourse (like the MpiCE project – Measuring Progress in Conflict Environments which provides a list of MOEs for organization's SMEs to choose from to tailor to specific situation).
 - Develop different solutions that you can test
 - Know the TYPE of your problem
 - Test and compare using same data sets
 - Get a conformal standardized data set
- What disciplines should be on the team? How do we choose the right ones and access them?
 - Analytic Ability/skills regardless of field
 - Open-minded and able to work across disciplines
 - Familiar with both military and OD process
 - Have both field and background analysis capabilities



Workshop Summary

Analytic Design Issues

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- What is the appropriate approach to measure effectiveness? What else needs to be measured?
 - Step 1: Know the intent of campaign or conditions to be changed
 - Step 2: then you can set measures up front and constantly refine over time (iteratively)
- How should we study outcomes of our actions?
 - COORDINATE – form friendly network of interservice, interagency, gov't, private partners
 - Tailor to sub-groups and integrate
 - Do in steps – eg – how much closer did I get to the goal? (eg – goal 50% positive polling – track trends from beginning)
 - Give your partners the collection requirements so they can collaborate
 - Don't rely on a single measure (eg – not just polling)
 - There should be different measures for different timeframes – short/medium/long
 - Short – single behavior events (eg – vote, obey curfew, etc)
 - Medium – trends in behavior (eg. Calling a reporting hotline)
 - Longer term – attitudes underlying (Must understand what attitudes underly your objectives and then what behaviors reflect these attitudes not measure them)
 - Address both good and bad outcomes
 - Cannot measure attitudes directly (polling can help but is not entirely reliable)



Workshop Summary

1 – How do we appropriately choose models methods and tools for OD in PSYOPS?

Generic tools that can be fine-tuned to the situation through social discourse (like the MpiCE project – Measuring Progress in Conflict Environments which provides a list of MOEs for organization's SMEs to choose from to tailor to specific situation).

Develop different solutions that you can test

Know the TYPE of your problem

Test and compare using same data sets

Get a conformal standardized data set

Use these models in different ways (eg – examination of both links and nodes in network models can provide insights)

Some examples:

SNA tools

Agent-based models

Bayesian

Influence models

Systemic Operational Design

Analytic Design Issues

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- **Gap: need to fund longer-term studies on what kinds of observable behaviors reflect the attitudes we are likely to seek (eg – what behaviors underly acceptance of a “market democracy”?)**
- **Further issue: giving people something positive, something to say “yes” to –something which reflects their self-interests and values. This approach might be more effective (can sponsor studies to determine) but also more likely to provide the types of objectives which lend themselves to observable/measurable behaviors.**



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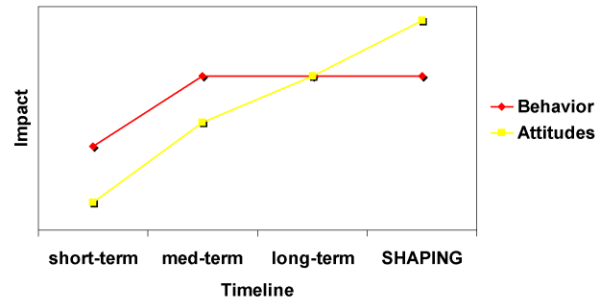
Systemic Operational Design

Analytic Design Issues

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Measuring Outcomes in Influence Operations



Workshop Summary

Easier to measure changes in action during the short term.

A means to measure changes in attitude are required for the long term.

Constraint Issues

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Resource Constraints

- Time
- Money
- Number of people
- Access to media outlets/ share of voice

Legal/ Ethical Constraints

- Smith-Mundt(?) Act and other US laws and regulations
- Host nation restrictions/ SOFAs
- RoE
- Scruples- PSYOP is nasty business, right?
- Local national govt control of media outlets (non-permissive)

Constraint Issues

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- Human Capacity Constraints
 - People who know how to do PSYOP
 - Advocacy for the discipline
 - Convincing leadership that PSYOP is useful and appropriate
 - Converting high-ranking advocates
 - “Know Yourself”- must understand own culture to make comparisons
 - “Know the other”
 - Cultural Awareness
 - Language/ Translation/ Cultural Literacy (beyond mere translation)
 - Understanding local attitudes (HTT work, CMO, F2F)
 - Capturing/ Transmitting learning
 - TTPs
 - Training/ Education of operators, leaders, “strategic corporals”

Constraint Issues

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- Organizational Constraints
 - “Kinetic culture” within US military
 - Career paths do not encourage development skill sets for “era of persistent conflict”
 - Inadequate organizational structures to accomplish missions within time constraints
 - Approval process for products
 - Strategic integration of PSYOP, PA, public diplomacy, and other strategic communications
 - Joint, interagency, combined, multi-national integration
- Difficulty in demonstrating effectiveness of information products
 - Difficult to show commander’s return on investment

Analytic Design Issues

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Analytic Design Issues

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Workshop Summary

Key Working Group Take-Aways

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- A separate workshop could address social science support to IW analysis in general
- M & S tools are immature to support PSYOP
 - Initial steps in the areas of social network analysis, systems dynamics, agent based models, and hybrids
 - May be more applicable to support longer term planning at higher echelons due to data requirements, time constraints, and expertise requirements
 - May not be applicable at the operational and/or tactical levels because PSYOP is not being implemented at the initial planning stages – reactive, not proactive operation under time constraints
 - Conceptual models are useful for understanding the problem
- Measuring Effectiveness of the message on target audience attitudes, perceptions, and actions
 - Easier to modify behaviors in the short term, but need to modify attitudes in the long term
 - Easier to measure behaviors; less able to measure changes in attitudes



We Have Just Scratched The Surface

Workshop Summary

Additional Key WG take-Aways