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STUDY S-190

BEHAVIORAL, POLITICAL, AND OPERATIONAL RESEARCH PROGRAMS ON COUNTERINSURGENCY SUPPORTED BY THE DEPARTMENT OF DEFENSE

Alfred Blumstein
Jesse Orlansky

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INSTITUTE FOR DEFENSE ANALYSES
RESEARCH AND ENGINEERING SUPPORT DIVISION

June 1965

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CONTENTS

		Page
	INTRODUCTION	1
I.	BACKGROUND	2
II.	ANALYSIS ON THE CURRENT PROGRAM OF RESEARCH ON COUNTERINSURGENCY	4
	A. Assessment of Relevancy to Counterinsurgency	4
	B. Technical Areas of Research	7
	C. Service Agencies and Supporting Contractors	8
	D. Data Analyzed	8
	E. Analysis of the Current Program	10
III.	DISCUSSION	23
IV.	CONCLUSIONS	28
V.	RECOMMENDATIONS	30
VI.	REFERENCES	31

APPENDIX A - Studies Included in the Non-Materiel Research and Development Program on Counterinsurgency

APPENDIX B - Evaluation and Use of Ratings

APPENDIX C - Studies Excluded from Consideration in this Study

APPENDIX D - Descriptions of Projects Reported by the Army, Navy, Air Force, and ARPA

Table 1 - Primary Classes of Contractors Employed by Various Agencies

Table 2 - Distribution of Funds by Service

Table 3 - Distribution of Funds by Technical Area

Table 4 - Distribution of Funds by Service and Technical Area

Table 5 - Categories of Funds used to Support Non-Materiel R&D Related to Counterinsurgency

Table 6 - Distribution of Studies by Contractor

Table 7 - Average Size of Study at Various Contractors (Includes all Directly Relevant and Support Studies)

Table 8 - Distribution of Studies According to Country Being Studied

Table 9 - Distribution of Studies by Area of the World

INTRODUCTION

This report analyzes the research program of the Department of Defense (DOD) pertaining to the behavioral, political, and operational aspects of counterinsurgency. This program includes research in the areas of anthropology, economics, sociology, operations research, psychology, and political science, i.e., the non-materiel program on counterinsurgency. It excludes research and development related to materiel and hardware. The purpose of this study is to determine the adequacy of the current research efforts so that, if required, new research can be proposed to improve our ability to understand, anticipate, and influence insurgent activities around the world in ways favorable to our national interests. Data contained in this report were also provided to the Subcommittee on Behavioral Sciences of the Defense Science Board for use in its report[1].

I. BACKGROUND

The DOD is responsible for conducting programs in special warfare, psychological operations, and civic action. It trains indigenous allied forces to provide for the military security of their own country, including the conduct of operations against local insurgents. It also advises indigenous forces and may participate directly in counterinsurgency operations. The scope of this responsibility is described in a series of official memoranda.[2-6] These memoranda make it clear that a thorough understanding of foreign cultures and a precise knowledge of foreign languages and of methods of training foreign nationals are necessary to meet these obligations. Also, because of the many types of action that might have to be taken by the U.S. or by its allies against insurgents, a better understanding of the methods of dealing with insurgencies in the underdeveloped countries is needed. Research necessary to produce this information is described in a series of official reports, including the recently issued report of the Defense Science Board.[1,7-10] Since 1957 there have been no fewer than 18 reports, which specify, in varying detail, the types of behavioral and social science studies which should be undertaken to improve our ability to cope with insurgency.[11-29] Clearly, there has been no lack of advice and guidance concerning the need for research on problems associated with social conflict and insurgency.

In 1958, four years after the French loss at Dien Bien Phu, President Eisenhower requested a committee of outstanding citizens to study the military assistance program, in the following words:

> The accomplishments, future needs, techniques, and interrelationships of military and economic assistance need to be reassessed in the light of continuing changes in military

technology and strategy and in economic and political conditions, and with consideration of new Communist techniques in waging the cold war.[24]

The well-known Draper report was the result of this effort. It recommended an increase in economic assistance, in addition to the existing military assistance program, to meet the anticipated Communist threat.

With this brief background and with the knowledge that suggestions for economic, political, and social science studies of insurgency have been made many times since 1957, we may now turn to the current program of social science research.

II. ANALYSIS OF THE CURRENT PROGRAM OF RESEARCH ON COUNTERINSURGENCY

At the outset, it is important to recognize that there is no program package or line item in the DOD budget labelled non-materiel research and development on counterinsurgency, as distinct from the materiel research program. Obviously, there is some social science research directed at this problem, but the relevant studies are not identified in any manner which permits their retrieval. There are some exceptions to this statement in the sense that is is generally known that Advanced Research Projects Agency's Project Agile and the Special Operations Research Office's Project Camelot are concerned directly and explicitly with counterinsurgency. However, there probably are other projects which contribute significantly to our knowledge of counterinsurgency, but they are either less well known or their titles do not contain the term counterinsurgency. The problem was to devise a means of finding them.

A. ASSESSMENT OF RELEVANCY TO COUNTERINSURGENCY

A special effort was required to identify all studies that might be considered relevant to counterinsurgency. In the summer of 1964, the Special Assistant for Counterinsurgency, Director of Defense Research and Engineering (DDR&E), asked the Military Services and ARPA to report all of their research and development projects which they considered relevant to counterinsurgency. In order to be certain that no useful studies were overlooked, the Services were instructed to include rather than omit studies of questionable relevance.

The replies proved that this suggestion had been heeded. Many studies were reported which deal directly with armed rebellion and social unrest in the developing countries. However, the replies also included studies whose relation with counterinsurgency was not obvious.

For example, studies such as the following were included:

(1) Methods for improving quality of new enlisted men,

(2) New techniques for classifying enlisted men,

(3) Effects of perceptual isolation on the human subject,

(4) Political transactions relevant to arms control,

(5) Geophysical warfare systems and concepts,

(6) Sleep and arousal of human subjects, and

(7) Problems posed by conflicting views concerning nuclear weapons.

On the one hand, it seemed desirable to eliminate from our analysis any studies that clearly contribute little or nothing to our understanding of the problem. On the other hand, it seemed desirable not to eliminate any studies in an arbitrary manner. Therefore, the responsibility of selecting the relevant studies was assigned to a panel of six judges competent in the technical areas of concern. The panel consisted of Drs. Joseph E. Barmack (City College of New York), Alex Bavelas (Stanford University), Launor Carter (System Development Corporation), Max Milliken (Massachusetts Institute of Technology), and the authors of this paper. The members represent the areas of social psychology, simulation, operations research, and economics. The panel was asked to rate each study on a three-point scale, in terms of its relevance to counterinsurgency as follows:

Rating	Description of Study
1	study contributes directly to counterinsurgency
2	study provides background data that may be more or less useful for counterinsurgency
3	purpose of study appears so remote that it is doubtful that the study can or will provide information useful for counterinsurgency. (This is no reflection on the fact that this study may be very useful for some other purpose.)

Information on the purpose and scope of each study, as shown in Appendix D, was provided to the panel. Each member worked independently and the ratings were combined statistically by the procedures described in Appendix B.

The ratings of the judges tended to agree as shown by the following data:

(1) On about one-half of all studies (49 percent), all six judges either agreed completely or only one judge differed by one rank unit.

(2) On about one-quarter of all studies (22 percent), there was a maximum difference of one rank unit among all judges.

(3) On the remainder of all studies (29 percent), there was some divergence of judgment as shown by instances of at least one rating at each extreme.

From these results, it is clear that the panel of judges showed considerable agreement in independently designating studies as relevant or not relevant to counterinsurgency. Therefore, we decided to eliminate from further consideration the least relevant group of studies, specifically those which received an average rating of 2.51 or greater. Simple arithmetic shows that such ratings can occur only if a majority of the judges agreed that a study should be rated as 3.0. Reference to the rating scale, above, shows that 2.51 is more than midway between background and remote in relevance. The purpose of our treatment was to eliminate those studies that are obviously not relevant to counterinsurgency and to retain those whose non-relevance is in doubt. The effect of this step was to reduce the funds by 19 percent in FY 65, and 16 percent in FY 64. It should be emphasized that a study judged as not relevant to counterinsurgency might still deal with an important military problem, e.g., strategic warfare or arms control.

Still employing the average relevance ratings, the next step was to separate the remaining studies into two categories dealing with relevance, defined as follows:

1. <u>Direct</u>: Studies which are most relevant to counterinsurgency.

Studies which received an average rating of 1.00 to 2.00 were placed in this category.

2. Support: Studies which are less relevant to counterinsurgency. Studies which received an average of 2.01 to 2.50 were placed in this category.

In general, the panel rated as most relevant studies which deal with specific insurgencies or with the development of methods or theory for studying insurgency. We call these the direct studies. The panel rated as less relevant those studies which are concerned with basic research and techniques of measurement. These are not directly applicable to counterinsurgency, although it is recognized that the results may ultimately prove useful for this purpose. We call these the support studies. Use of an average rating of 2.01 to separate these two groups was an arbitrary step, although it is based on the original instructions to the panel. The sensitivity of the results to this choice are examined in Appendix B.

B. TECHNICAL AREAS OF RESEARCH

The social science research and development program of the DOD covers many subjects and involves many scientific disciplines. For convenience, the Services were requested to arrange their studies in four categories which were different from the normal DOD budget structure. These were defined as follows:

1. Political Studies: Analyses of national or international problems of inter-relationships looking toward qualitative definition of counterinsurgency problems.

2. Operations Research, Systems Analysis, Economics: Operations research or systems evaluation studies, related to specific operational problems in Viet Nam or elsewhere. Generally, but not necessarily, military oriented; may include problems of tactics and doctrine, but not selection or evaluation of hardware, equipment, or systems.

3. Persuasion, Motivation, Psychological Operations: Studies of attitudes, social, economic and political behavior, motivation and psychology of individuals and groups, inter-personal and inter-group relationships and responses to various stimuli in such relationships.

4. Manpower Training and Selection Research: Research into the requirements for training programs, preparation of standards and tests for personnel selection, and development of criteria for measuring the effectiveness of training and selection procedures.

C. SERVICE AGENCIES AND SUPPORTING CONTRACTORS

Many organizations of the DOD support, and in some cases, conduct in-house research and development on counterinsurgency. Table 1 summarizes the primary classes of contractors employed by various agencies in accomplishing their research programs.

D. DATA ANALYZED

Since projects are continually being added to and deleted from the DOD research program as new needs are recognized, a listing is accurate only for a short time. Inevitably, the program which existed in the summer of 1964 was modified during the following six months. Therefore, our original data were submitted for verification to the Services and ARPA in December 1964, and thus, the information in this study is, to the best of our knowledge, accurate and complete as of that date.

The studies upon which our analysis is based are identified in Appendix A, and include the following information in each case:

Study Number

Title of Study

Organization Conducting the Research

Principal Investigator

Agency Sponsoring the Research
- Army
- Navy
- Air Force
- ARPA

Category of Funds in the DOD Budget
- 6.1 - Research
- 6.2 - Exploratory Development
- 6.5 - Management and Support
- S.P.- Special Projects, Navy

TABLE 1

PRIMARY CLASSES OF CONTRACTORS EMPLOYED BY VARIOUS AGENCIES

AGENCY	ORGANIZATION	MAJOR CONTRACTORS
Army	Human Factors and Operations Research Division, Army Research Office	Special Operations Research Office, American University Research Analysis Corporation Human Resources Research Office, George Washington University U.S. Army Personnel Research Office (In-house lab)
Navy	Psychological Sciences Division, Naval Analysis Group, ONR, Project Michelson, NOTS China Lake	Universities Non-profits Industry In-house
Air Force	Psychology Division AFOSR Headquarters, AFXPD (Via AFOSR) RTD Detachment 4, Eglin AFB Bioastronautics Div., WADC	RAND Universities Non-profits Industry In-house
Office of the Secretary of Defense	ARPA: Project Agile Behavioral Science Div. ISA (via ARPA)	RAND Research Analysis Corporation Special Operations Research Off. Universities Non-profits Industry In-house

Amount of Funds (in thousands of dollars)
Authorized for fiscal year 1964
Authorized for fiscal year 1965
Requested for fiscal year 1966*

Type of Research
Political Studies
Operations Research, Systems Analysis, Economics
Persuasion, Motivation, Psychological Operations
Manpower Training and Selection Research

E. ANALYSIS OF THE CURRENT PROGRAM

Table 2 shows that the amount spent for non-materiel research and development on counterinsurgency was $8 million in FY 64, and $10.8 million in FY 65, an increase of 35 percent. It is estimated that the entire military research and development budget on counterinsurgency, including the non-materiel portion, is about $160 million for FY 65; thus, the non-materiel portion represents about 6.7 percent of the total expenditure. (Unless otherwise noted, the term "research" will be used to represent non-materiel research and development on counterinsurgency or behavioral, social science, and operational research on counterinsurgency.) Most of the increase was directly applicable to counterinsurgency, i.e., for studies the panel regarded as highly relevant. For these two years, 65 percent and 73 percent of the total funds were spent for directly relevant studies.

1. Support of Research by the Military Services

In the following discussion, major attention will be directed to the most relevant and more heavily funded portion of the counterinsurgency program, i.e., the direct portion of the program.

Table 2 shows that the bulk of the counterinsurgency program (over 80 percent) is supported about equally by the Army and ARPA. The Army program (see Table 6) is conducted primarily by SORO; the ARPA program, funded largely by Project Agile, is conducted primarily by RAND and RAC, although it also supports other contractors. Although the Air Force and Navy doubled their direct programs from FY 64 to FY 65, they support

*This information was not analyzed because it was incomplete.

TABLE 2

DISTRIBUTION OF FUNDS BY SERVICE
(In Thousands of Dollars)

Service	FY 64						FY 65						Percent Change from FY 64 to FY 65		
	Direct	%	Support	%	Total	%	Direct	%	Support	%	Total	%	Direct	Support	Total
Army	$2305	45	$1899	67	$4204	53	$3106	40	$1798	61	$4904	45	35	-5	17
Navy	280	5	280	10	560	7	560	7	313	11	873	8	100	12	56
Air Force	393	8	209	7	602	8	724	9	382	13	1106	10	84	83	84
ARPA	2200	43	437	16	2637	33	3477	44	437	15	3914	36	58	0	48
TOTALS	$5178	101	$2825	100	$8003	101	$7867	100	$2930	100	$10797	99	52	4	35

only a fraction of the total counterinsurgency effort, i.e., 18 percent of all funds in FY 65.

2. Technical Content of the Research Program

Table 3 presents the distribution of funds by technical area. The two largest categories, operations research and persuasion and motivation, received 74 percent of the total funds and 69 percent of the direct funds for FY 65:

Area	Percentage of FY 65 Direct Program
Political Studies	10
Operations Research	42
Persuasion & Motivation	27
Manpower, Training and Selection Research	20
	99

Operations research, the most heavily supported area in FY 64, also received the largest percentage increase of funds in FY 65. Table 4 shows a further breakdown of the distribution of funds in each of these four technical areas by each of the Services and ARPA. In FY 65, ARPA gave about 60 percent of its funds to support operations research; the Army gave major support to operations research (44 percent) and persuasion and motivation (34 percent); the Air Force gave support to political studies (40 percent) and persuasion and motivation (36 percent); the Navy gave support to operations research (34 percent) and persuasion and motivation (25 percent). There was a similar distribution of effort in FY 64.

3. Types of Funds used to Support Research

Military research and development is supported by funds in the 6.1 to 6.5 series as projects proceed from basic research to test and evaluation. In addition, we found that some other funds, as noted below, also support research on counterinsurgency.

TABLE 3

DISTRIBUTION OF FUNDS BY TECHNICAL AREA
(In Thousands of Dollars)

Technical Area	FY 64						FY 65						Percent Change from FY 64 to FY 65		
	Direct	%	Support	%	Total	%	Direct	%	Support	%	Total	%	Direct	Support	Total
Political Studies	$ 562	11	$ 145	5	$ 707	9	$ 813	10	$ 195	7	$ 1008	9	45	34	43
Operations Research, Systems Analysis, Economics	1841	36	1788	63	3629	45	3301	42	1869	64	5170	48	79	6	42
Persuasion, Motivation, Psychological Operations	1617	31	574	20	2191	27	2151	27	649	22	2800	26	33	13	28
Manpower, Training, Selection Research	1159	22	318	11	1476	18	1602	20	217	7	1819	17	38	-32	23
TOTAL	$5178	100	$2825	99	$8003	99	$7867	99	$2930	100	$10,797	100	52	4	35

TABLE 4

DISTRIBUTION OF FUNDS BY SERVICE AND TECHNICAL AREA
(In Thousands of Dollars)

Service	Technical Area	FY 64						FY 65					
		Direct	%	Support	%	Total	%	Direct	%	Support	%	Total	%
Army	Political Studies	$ 0	0	$ 0	0	$ 0	0	$ 0	0	$ 0	0	$ 0	0
	Operations Research, Systems Analysis, Economics	366	16	1773	93	2139	51	366	12	1773	99	2139	44
	Persuasion, Motivation, Psychological Operations	1019	44	0	0	1019	24	1684	54	0	0	1684	34
	Manpower, Training, Selection Research	920	40	126	7	1046	25	1056	34	25	1	1081	22
	SUB TOTAL	$2305	100	$1889	100	$4204	100	$3106	100	$1798	100	$4904	100
Navy	Political Studies	20	7	80	29	100	18	55	10	130	42	185	21
	Operations Research, Systems Analysis, Economics	75	27	0	0	75	13	300	54	0	0	300	34
	Persuasion, Motivation, Psychological Operations	0	0	200	71	200	36	35	6	183	59	218	25
	Manpower, Training, Selection Research	185	66	0	0	185	33	170	30	0	0	170	20
	SUB TOTAL	$280	100	$280	100	$560	100	$560	100	$313	101	$873	100
Air Force	Political Studies	229	58	65	31	294	49	382	53	65	17	447	40
	Operations Research, Systems Analysis, Economics	0	0	15	7	15	3	35	5	96	25	131	12
	Persuasion, Motivation, Psychological Operations	164	42	129	62	293	49	182	25	221	58	403	36
	Manpower, Training, Selection Research	0	0	0	0	0	0	125	17	0	0	125	11
	SUB TOTAL	$393	100	$209	100	$602	101	$724	100	$382	100	$1106	99
ARPA	Political Studies	313	14	0	0	313	12	376	11	0	0	376	10
	Operations Research, Systems Analysis, Economics	1180	54	0	0	1180	45	2300	66	0	0	2300	59
	Persuasion, Motivation, Psychological Operations	654	30	245	56	899	34	550	16	245	56	795	20
	Manpower, Training, Selection Research	53	2	192	44	245	9	251	7	192	44	443	11
	SUB TOTAL	$2200	100	$437	100	$2637	100	$3477	100	$437	100	$3914	100
	TOTAL	$5178		$2825		$8003		$7867		$2930		$10,797	

Table 5 shows that most of the funds for the total research program on counterinsurgency come from the 6.2 category (Exploratory Development), 88 percent in FY 64, 83 percent in FY 65; the 6.1 category (Research) provided 12 percent and 13 percent, respectively. There was a substantial increase in funds from both sources from FY 64 to FY 65: this increase was $478,000 (50 percent) for 6.1 funds and $2,056,000 (30 percent) for 6.2 funds. The Navy supports some of its studies on counterinsurgency with the Special Projects fund, (which is part of Program Package No.1 for Strategic Offensive Forces); these studies are part of Project Michelson. The Army supports the preparation of Foreign Area Handbooks, at SORO, with Operations and Maintenance funds.

4. Types of Organizations which Perform the Research

Table 6 examines the types of organizations employed to conduct defense-oriented research on counterinsurgency. Excluding the small amount of work performed by industrial organizations (6 percent of all work in FY 64 and FY 65), all of this work is performed by non-profit organizations which, of course, include the universities.

Four non-profit organizations alone, i.e., RAC, SORO, RAND and HumRRO, performed 64 percent (FY 64) and 57 percent (FY 65) of all work. As is well known, these organizations were established to serve various segments of the DOD. HumRRO works only for the Army; SORO and RAC work mostly for the Army, but also get some support from ARPA; RAND works on counterinsurgency for the Air Force, ARPA, and ISA.

The arbitrary separation of projects into the direct and support categories (at an average relevance rating of 2.01) uniquely affects the amount of funds shown in these two categories for the universities and RAC. Much of the work at the universities is basic in nature, and not obviously relevant to counterinsurgency. Thus, more funds go to universities for basic research (i.e., background and support studies) than for applied research. A somewhat different process affects the large number of heavily funded support studies at RAC which deal with limited war. These support studies were judged indirectly relevant to counterinsurgency.

TABLE 5

CATEGORIES OF FUNDS USED TO SUPPORT NON-MATERIEL R&D RELATED TO COUNTERINSURGENCY
(In Thousands of Dollars)

Funds[1]	FY 64						FY 65						Percent Change from FY 64 to FY 65		
	Direct	%	Support	%	Total	%	Direct	%	Support	%	Total	%	Direct	Support	Total
6.1	$ 549	11	$ 409	15	$ 958	12	$ 846	11	$ 590	20	$ 1436	13	54	44	50
6.2	4534	88	2336	83	6870	86	6691	85	2235	76	8926	83	48	-4	30
6.5	75	1	-	-	75	1	300	4	-	-	300	3	300	-	300
S.P.	20	0.4	80	3	100	1	30	0.4	105	4	135	1	50	31	35
Sub-Total	5178	100.4	2825	101	8003	100	7867	100.4	2930	100	10,797	100	52	4	35
O&M	-		620		620		-		620		620				
TOTAL	$5178		$3445		$8623		$7867		$3550		$11,417		52	3	32

[1] 6.1 Research
6.2 Exploratory Development
6.5 Management and Support
S.P. Special Projects, Navy (Project Michelson)
O&M Operations and Maintenance, Army (SORO Foreign Area Handbooks)

NOTE: This table is the only one in this report which includes funds for the development and production of Foreign Area Handbooks. This effort is not treated by the Army as a part of its non-materiel research and development budget and it is supported by Operations and Maintenance funds.

TABLE 6

DISTRIBUTION OF STUDIES BY CONTRACTOR
(In Thousands of Dollars)

Contractor	FY 64						FY 65					
	Direct	%	Support	%	Total	%	Direct	%	Support	%	Total	%
Universities	$ 455	9	$ 792	28	$ 1247	16	$ 637	8	$ 826	28	$ 1463	14
Non-Profits												
SORO	1180	23	-	-	1180	15	1843	23	-	-	1843	17
RAC	691	13	1773	63	2464	31	1016	13	1773	60	2789	26
RAND	542	11	-	-	542	7	502	6	-	-	502	5
HumRRO	845	16	126	5	971	12	946	12	25	1	971	9
Other Non-Profits	529	10	83	3	612	7	597	8	100	3	697	6
In-house gov't	455	9	-	-	455	6	852	11	-	-	852	8
Industry	472	9	31	1	503	6	530	7	111	4	641	6
Foreign Univ.	9	0.2	20	0.7	29	0.4	19	0.2	20	0.7	39	0.4
Unknown	-	-	-	-	-	-	925	12	75	3	1000	9
TOTAL	$5178	100.2	$2825	100.7	$8003	100.4	$7867	100.2	$2930	100.7	$10,797	100.4

Universities received 16 percent of all funds in FY 64 and 14 percent in FY 65 (an actual increase of $216,000). Reference to Table 7 shows that the average size of a contract at a university is about $46,000; therefore, the increase in university funds from FY 64 to FY 65 provided for about four additional contracts.

5. Size of Study Contracts

Table 7 examines the number and average dollar value of the studies performed by each type of contractor. The increase in funds from FY 64 to FY 65 provided, on the average, larger support for each study ($96,000 compared to $80,000) as well as for a larger number of studies (113 compared to 100). A typical contract at a university is smaller than one at an industrial contractor, about $46,000 compared to $128,000. The average size of a study at the non-profit organizations (the figures range from $68,000 to $186,000) should be interpreted cautiously because of the practice, in larger programs, of lumping several tasks together and calling these a study.

6. Areas of the World Being Studied

Table 8 indicates the geographic areas of the world being studied in the counterinsurgency research effort. In many studies, the geographical area of interest was noted specifically in the descriptive material associated with each project. When such information was not available, or when the study involved several countries, the following definitions were employed:

Multiple Counterinsurgency Countries - Studies concerned generally with social unrest in the underdeveloped countries without focusing attention on any particular country or region of the world.

Overseas - Studies concerned with problems in selected foreign countries in which counterinsurgency appears not to be a present or future problem.

U.S. - Studies concerned with operational problems of U.S. forces, e.g., selection and training of American troops for overseas duty.

TABLE 7

AVERAGE SIZE OF STUDY AT VARIOUS CONTRACTORS
(Includes all Directly Relevant and Support Studies)
(In Thousands of Dollars)

Contractor	FY 64		FY 65	
	No. of Studies	Avg. Size	No. of Studies	Avg. Size
Universities	27	$ 46	32	$ 46
Non-Profits				
SORO[1]	18	66	21	88
RAC[1]	15	164	15	186
RAND[1]	8	68	4	126
HumRRO[1]	13	75	9	108
Other non-profits	8	77	8	87
In-house government	4	114	10	85
Industry	5	101	5	128
Foreign University	2	15	3	13
Unknown[2]	0	0	6	167
TOTAL	100		113	
AVERAGE STUDY		$ 80		$ 96

1. These figures include several tasks identified in our source material as one study
2. Contractor not selected at time of writing

Not Country Oriented - General studies, e.g., basic research, methodology, simulation.

Unknown - Studies concerned with overseas problems where the country of interest or even the overseas character was not specified.

Table 8 shows that a large effort is being directed at South Viet Nam and Southeast Asia, exclusive of South Viet Nam, i.e., primarily Thailand. ARPA supports both of these efforts as part of Project Agile. About $700,000 (FY 65) is directed at problems of Latin America. Less than $100,000 is directed at Asia (other than Southeast Asia) and no research effort is oriented at problems of Africa.

The tendency of the panel to regard as highly relevant studies concerned with the developing countries shows clearly in the table as does, also, the lower relevance (i.e., "support") given to studies that are not country oriented or that deal with the U.S. or USSR.

Table 9 consolidates this information into four major areas of the world. For this purpose, studies categorized as "multiple CI areas" and "overseas, not specified" are included in the "underdeveloped areas" category. In FY 65, about 81 percent of the direct program and 63 percent of the total program is directed towards the underdeveloped world. The increase in funds from FY 64 to FY 65 was primarily for more support of this type of study.

An examination of the studies concerned with the underdeveloped countries shows that only a very small portion of the work on these studies is actually conducted in the underdeveloped country. The major exception to this observation is, again, ARPA's on site work in Southeast Asia.

TABLE 8

DISTRIBUTION OF STUDIES ACCORDING TO COUNTRY BEING STUDIED
(In Thousands of Dollars)

Area	FY 64						FY 65					
	Direct	%	Support	%	Total	%	Direct	%	Support	%	Total	%
South Vietnam	$1211	23	$ -	-	$1211	15	$1571	20	$ -	-	$1571	15
Southeast Asia	388	7	-	-	388	5	617	8	-	-	617	6
Asia	25	0.5	15	1	40	1	66	0.8	16	1	82	1
Latin America	417	8	-	-	417	5	685	9	-	-	685	6
Africa	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	80	2	156	6	236	3	30	0.4	181	6	211	2
Multi CI countries*	1716	33	256	9	1972	25	2305	29	180	6	2485	23
Overseas	399	8	91	3	490	6	1068	13	98	3	1166	11
USSR & Communist China	160	3	260	9	420	5	160	2	275	9	435	4
Europe	-	-	105	4	105	1	-	-	110	4	110	1
U. S.	-	-	544	19	544	7	-	-	544	19	544	5
Not country-oriented	642	12	1398	50	2040	26	679	9	1446	49	2125	20
Unknown	140	3	-	-	140	2	686	9	80	3	766	7
TOTAL	$5178	99.5	$2825	101	$8003	101	$7867	100.2	$2930	100	$10,797	101

*i.e., generally oriented toward foreign underdeveloped areas

TABLE 9

DISTRIBUTION OF STUDIES BY AREA OF THE WORLD
(Data from Previous Table)
(In Thousands of Dollars)

Area	FY 64						FY 65						Percent Change from FY 64 to FY 65		
	Direct	%	Support	%	Total	%	Direct	%	Support	%	Total	%	Direct	Support	Total
Underdeveloped countries	$4,236	82	$ 518	18	$4,754	59	$6,342	8[illegible]	$ 475	16	$6,817	6[illegible]	50	-8	43
Strategic areas US, USSR Chicom, Europe	160	3	909	32	1069	13	160	2	929	32	1,089	10	-	2	2
Not country oriented	642	12	1398	50	2040	26	679	9	1,446	49	2,125	20	6	3	4
Unknown	140	3	-	-	140	2	686	9	80	3	766	7	390	80	447
TOTAL	$5,178	100	$2,825	100	$8,003	100	$[illegible],867	101	$2,930	100	$10,[illegible]97	100	52	4	35

II. DISCUSSION

In FY 65, the DOD will spend about $7.9 million for non-materiel research and development that is directly relevant to counterinsurgency. In addition, about $2.9 million will be spent for studies of a more general nature which support not only counterinsurgency, but other areas of military interest as well. Funds for studies which are directly relevant to counterinsurgency are 52 percent larger in FY 65 than in FY 64. The Army and ARPA will provide 45 percent and 36 percent, respectively, of all funds for the FY 65 counterinsurgency research budget. Funds for behavioral, political, and operational research represent about 6.7 percent of the total research and development budget on counterinsurgency in FY 65.

About one-half (48 percent) of the total program for FY 65 falls in the category of operations research and systems analysis. These studies are concerned generally with analyses of military operations and include such studies as indicators of effectiveness in counterinsurgency operations, development of military requirements, collection and analysis of after action reports, and evaluation of various methods of surveillance. Very few of these studies are concerned with political, behavioral, and social aspects of counterinsurgency. Studies concerned primarily with political aspects of insurgency and counterinsurgency account for 9 percent of all funds, while the behavioral and social studies account for an additional 26 percent. The latter amount provides for studies in the areas of psychology, sociology, anthropology, economics and history. The remainder of the studies (17 percent) are concerned with selection, training, and management of personnel.

Four organizations perform over one-half of all research on counterinsurgency: 64 percent in FY 64, 57 percent in FY 65. These organizations are SORO, RAC, HumRRO, and RAND, which serve the Army and the

Air Force and, more recently, ARPA. Substantial funds (from $0.5 to $2.8 million each) are provided to these organizations.

This situation contrasts sharply with that of the universities which received 16 percent of the total budget in FY 64 and 14 percent in FY 65 (an increase of $216,000 over the previous year). The FY 65 program provides for 32 studies at 26 different universities for a total of about $1.5 million. The tendency for universities to emphasize basic rather than applied research in the behavioral science areas undoubtedly accounts for the fact that in FY 65, they received only 8 percent of the directly relevant budget but 28 percent of the support budget. On the other hand, the four non-profit organizations, which receive such a large portion of the direct counterinsurgency budget, tend to emphasize applied rather than basic research.

South Viet Nam is the major area of the world being considered in the counterinsurgency program and, it alone accounts for 20 percent of the direct research budget. Another 9 percent is directed towards other areas of Southeast Asia, primarily Thailand. It is surprising to find that the DOD supports very little work directed towards other areas of the world in which insurgencies may arise: a total of $211,000 on the Middle East; $685,000 on Latin America; none on Africa. The remainder of the budget is either generally oriented to foreign areas without a focus on any specific area, or it is simply not foreign-country oriented at all. Most of the current work on counterinsurgency is accomplished without visiting or living in the countries being studied. While we cannot make a precise estimate, we believe that less than 10 man-years of effort (perhaps about $300,000 of the $10.8 million) is being spent overseas in addition to the work of the Agile field units in Southeast Asia and Panama.

The non-materiel research budget on counterinsurgency is supported largely by Exploratory Development funds (6.2 funds). This amounted to 83 percent of all funds in FY 65 while Research funds (6.1) provided 13 percent. Most work on the behavioral and social science aspects of counterinsurgency is preliminary research. Much of this research is conceptual in nature, requires the collection of basic information, and the development of new methodologies. It is more appropriate for

work of this character to be supported by Research funds (6.1) than by Exploratory Development (6.2) funds.

There was an almost equal percentage increase in 6.1 and 6.2 funds from FY 64 to FY 65. If behavioral research in counterinsurgency remains in the 6.2 category, it will probably have to compete with hardware development in future budgets that will increase only slightly over the next few years. Counterinsurgency research and development of the behavioral variety belongs more properly in the research category (6.1) where it can also, if justified, enjoy a larger rate of growth over the next few years.

There is insufficient evidence that the present program on counterinsurgency will meet the long-term needs of the DOD. This is shown most strikingly in the emphasis upon problems of South Viet Nam and Southeast Asia and the virtual neglect of other areas of the world, primarily Africa, but also Latin America. Already, these areas show important signs of social discontent; any delay in developing a better understanding of their problems may lead us to face elsewhere problems similar to those of South Viet Nam.

There is an underlying need for a large variety of reliable information about many countries in Africa and Latin America; e.g., composition of masses and elite groups, channels of communication and influence, attitudes toward the local government and toward foreigners of various origins, levels of education, resources for economic growth, and so forth. Such information must be collected and evaluated, but it is even more important that we attempt to understand the nature of the social changes that are going on in these countries and the underlying processes which govern them. In the long run, the development of appropriate theories will most enhance our ability to understand, predict and influence the social changes which confront us around the world.

An outstanding deficiency in the current DOD program is the absence of long-term support for the development of behavioral and social science methodology and theory applicable to counterinsurgency. The DOD has not committed a single university to the long-term study of social change and economic growth of the underdeveloped countries, the

basic conditions which give rise to insurgency. As a result, there is no community of scholars to lead the growth of knowledge in and the training of investigators concerned with these problems.

We have noted above that universities appear to fill a minor role in conducting research on insurgency and counterinsurgency. They received about 14 percent of the total budget for FY 65. This amount was divided among 26 universities with an average expenditure of less than $50,000 per study. This amount can support one or two professors with a small constellation of graduate students. Although a variety of investigators can be supported in this fashion, this type of support cannot produce a large cluster of talent at any single institution. This style of operation precludes the possibility of comprehensive, large scale studies and the intellectual stimulation afforded by interdisciplinary staffs.

One or more centers of excellence are needed to provide leadership, direction, and excitement to the study of societal development overseas. Without concentrated intellectual leadership, it will be difficult to get students and faculty interested in these problems.

Although SORO operates under an Army contract with the American University, it is not a part of the campus organization and its participation is only incidental to the educational function of the university. This observation applies also to RAND, RAC, and HumRRO, plus the other key organizations supported by the DOD.

There are many aspects of counterinsurgency to which sociology, anthropology, operations research, economics, and psychology may contribute. A natural consequence of the current efforts is that investigators who work more or less alone work primarily on those aspects of the problem in which they are most competent or most interested. There is insufficient interaction among the men of different scientific disciplines who study counterinsurgency; this is probably to everyone's mutual detriment. Even the key organizations emphasize operations research or social science, but not both. The establishment of one or more centers in a university setting, each

large enough to encompass a variety of scientific disciplines, is needed to infuse new viewpoints and new technologies to the study of counter-insurgency, preferably as the study of social conflict in the under-developed world. Such centers should concentrate on particular areas of the world, such as Latin America, the Middle East, sub-Sahara Africa, and Southeast Asia. There is also a need for a center more broadly concerned with social conflict in the underdeveloped world to serve the various agencies of the federal government which have obligations in this area.

IV. CONCLUSIONS

1. In FY 65 the DOD expenditure for non-materiel research and development directly relevant to counterinsurgency will be $7,867,000, an increase of 52 percent over FY 64. An additional $2,930,000 will be spent for studies that are indirectly relevant to counterinsurgency, an increase of 4 percent over FY 64. Overall, this represents an increase of 35 percent from FY 64 to FY 65. These funds support 100 and 113 studies, in FY 64 and FY 65, respectively. The amount spent for non-materiel research and development represents about 6.7 percent of the total DOD expenditure for research and development on counterinsurgency.

2. The Army and ARPA support most (81 percent in FY 65) of the behavioral and social science research on counterinsurgency.

3. Four non-profit organizations perform more than half (57 percent in FY 65) of the non-materiel research on counterinsurgency. These organizations are SORO, RAC, HumRRO and RAND.

4. Universities are not being utilized to any significant extent in the research program on counterinsurgency. Twenty-six universities perform 32 studies and receive about 14 percent of the total budget in FY 65. The average size of these studies is small, i.e., $46,000 compared to an average of $96,000 for all studies.

5. Major attention is being directed to the study of insurgencies in Southeast Asia, followed next by Latin America. Little attention is being directed to the Middle East and Africa.

6. Very little research on counterinsurgency is actually performed overseas. The outstanding exception is ARPA's work in Southeast Asia.

7. Most of the funds (83 percent) in FY 65 for research and development on counterinsurgency come from the Exploratory Development category, i.e., 6.2 funds. Many of the current studies are basic in nature and these belong in the Research category, i.e., 6.1 funds.

8. Central guidelines and careful coordination by the military and civilian departments of the government will be needed for an effective research program on counterinsurgency.

V. RECOMMENDATIONS

1. The programs oriented toward potential insurgencies in Latin America, Africa, and Asia should be expanded significantly. This is needed to improve our understanding of the processes by which insurgencies may develop in these areas. It is also necessary to train a cadre of people intimately familiar with the cultural, political, and economic problems of these areas.

2. Large, multi-disciplinary research centers concerned with the social development of underdeveloped nations should be established at several universities. This will permit the application of various technologies to continuing programs of research on counterinsurgency, and the training of specialists in the techniques of dealing with social unrest.

3. More of the research on counterinsurgency should be conducted directly in the less developed countries. Overseas studies are needed to record recent social and military developments, to collect accurate and timely information, to develop a competence in field research, and to build acceptance of Americans conducting research in various areas of the world.

4. The adequacy of the current mechanisms for coordinating the counterinsurgency research program within the DOD, and between government departments and agencies, should be re-examined periodically as the size and complexity of the program grows. Scientific panels should be established to assure the maintenance of high quality in the technical studies.

5. More support for research on counterinsurgency should be provided by Research (i.e., 6.1) funds.

VI. REFERENCES

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2. NSAM/162, June 19, 1962 and 10 July 1962

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4. Unified Action Armed Forces, JCS Publication 2, August 15, 1962

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17. Social Science Research and National Security, Ithiel de Sola Pool and others, Research Group in Psychology and the Social Sciences, The Smithsonian Institution, Washington, D. C. March 5, 1963

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27. Proposal for Research on Mass Psychology, prepared by the Air Force Office of Scientific Research (undated)

28. Implications for Behavioral Sciences in Special Warfare and Counterinsurgency, A Survey of Applied Research and Development Needs in the U. S. Air Force, A Review of Behavioral Sciences Research in Support of Air Force Programs in Counter-Insurgency and Limited Warfare, Colonel James L. Monroe for the Office of Scientific Research, HQ USAF, undated (FOR OFFICIAL USE ONLY)

29. Guide to Non-Materiel Research on Special Warfare and Civil Affairs, D. J. Alderson, et al., Combat Operations Research Group, Technical Operations, Inc., CORG Memorandum M-199, April 1965 (SECRET). (This memo was received after Study S-190 was completed).

APPENDIXES

APPENDIX A

Studies included in the non-materiel research and development program on counterinsurgency.

DIRECTLY RELEVANT

1. Political Studies
2. Operations Research, Systems Analysis and Economics
3. Persuasion and Motivation, Psychological Operations
4. Manpower, Training and Selection Research

SUPPORT

1. Political Studies
2. Operations Research, Systems Analysis and Economics
3. Persuasion and Motivation, Psychological Operations
4. Manpower, Training and Selection Research

DIRECTLY RELEVANT

	Study No.[1]	Source of Funds	Title/Contractor	FY 64[2]	FY 65[3]	FY 66[4]
POLITICAL STUDIES						
ARMY			None			
NAVY[5]	201	6.1	Socio-Political Precursors to Insurgency HRB-Singer Company	-	-	40
	202	6.1	Inventory of Foreign Area Research Nagle, D. Frendrick ERS, Department of State	-	25	25
	203	SP[6]	USSR-Chinese Relations G. Triska Stanford University (NOTS/PM[7])	20	30	30

1 These numbers refer to Descriptions of Tasks in Appendix D. Army studies are numbered in sequence, starting with 101, Navy with 201, Air Force with 301 and ARPA with 401.

2 Authorized in FY 64; these and all other figures in thousands of dollars.

3 Allocated for FY 65 and subject to change; does not include over ceiling requirement, i.e., currently unfunded projects.

4 Requested for FY 66; does not include over ceiling requirements; new FY 66 projects are not included. In many cases, no information on FY 66 was available, so that absence of a dollar amount in that column does not imply discontinuation of the project.

5 The contracting office for all Navy studies is the Psychological Sciences Division, ONR unless otherwise noted.

6 Special Projects fund.

7 Naval Ordnance Test Station, China Lake; Project Michelson (Project 177-000; Sub-project 006-08-02).

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
POLITICAL STUDIES (continued)					
AIR FORCE [8]		Project 9779 - Persuasion and Communication			
301	6.1	Patterns of National Development and Implications for Military Planning-Latin America and Africa Lipset University of California	50	70	70
302	6.1	Political Development and Modernization in Islamic Countries Binder University of Chicago	30	30	-
303	6.1	Comparative Studies of Modernization Affecting Military Planning Eisenstadt Hebrew University	9	10	10
304	6.1	The Politics of Modernization Apter University of California	-	75	80
305	6.1	Case Study of the Political Behavior of Foreign Military Elites Grusky-Hanson University of Southern Calif.	-	12	15
		Project 9748 - Policy Planning			
306	6.1	Military Implications of Change in Communist China Lindbeck East Asian Research Center Harvard University	85	85	90

8 The contracting office for all Air Force studies is the Psychology Division, AFOSR unless otherwise noted.

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
POLITICAL STUDIES (continued)					
AIR FORCE		Project 9748 (continued)			
307	6.1	Inventory of Foreign Area Research Nagle ERS, Department of State	-	25	25
308	6.1	Soviet Military Aid Program as a Reflection of Soviet Objectives Atlantic Research Corporation H. Weigert (AFXPD)[9]	55	45	50
309	6.1	Threats to U. S. Security via Latin America Lieuwen University of New Mexico (AFXPD)	-	30	30
ARPA		Agile			
401	6.2	Algerian Study Galula RAND Corporation	50	-	-
402	6.2	Historical Survey of Patterns and Techniques of Insurgency Conflicts in Post-1900 Latin America H. Weigert Atlantic Research Corporation	65	-	-
403	6.2	Effects of Strategic Hamlet Program in Vietnam Pham Chung University of Arizona	11	15	-

9 Directorate of Plans, Air Force

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
POLITICAL STUDIES (continued)						
ARPA			Agile (continued)			
	404	6.2	Studies of Northeast Thailand Field Office in Bangkok RAND Corporation	55	176	-
	405	6.2	Studies of Counterinsurgency in Latin America H. Weigert Atlantic Research Corporation	128	185	200
			Behavioral Science			
			None			

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
OPERATIONS RESEARCH, SYSTEMS ANALYSIS AND ECONOMICS						
ARMY			Research Analysis Corporation			
	101	6.2	Army Requirements for Aviation	150*	150*	
	102	6.2	Studies in Counterinsurgency	216	216	
NAVY	204	6.5	Utilization of Special Warfare Forces to Meet Other Limited War Needs (Proposed Study) (NAG/ONR)[10]	-	100	100
	205	6.5	Geographic Area Studies (Proposed Study) (NAG/ONR)	-	100	100
	206	6.5	Research Implications of Naval Counterinsurgency and Unconventional Warfare Operations Stanford Research Institute (NAG/ONR,	75	100	100
AIR FORCE			Project 9748 - Policy Planning			
	310	6.1	Strategies for Crisis Control Conflict Management Kintner University of Pennsylvania (AFXPD)	-	35	35

10 Naval Analysis Group, ONR

* Only a portion of these funds are related to COIN.

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
OPERATIONS RESEARCH, SYSTEMS ANALYSIS AND ECONOMICS (continued)					
ARPA		Agile			
406	6.2	Morbidity and Casualty Study Research Analysis Corporation	50	-	-
407	6.2	Southeast Asia Treaty Organization Medical Analysis Research Analysis Corporation	25	-	-
408	6.2	Royal Vietnam Air Force After-Action Study RAND Corporation	50	100	-
409	6.2	Ambush Patterns and Counter-Action Technique JRATA (in house)	100	150	-
410	6.2	Field Communication System Performance Stanford Research Institute	300	300	-
411	6.2	Threat Analysis Research Analysis Corporation	100	250	-
412	6.2	Border Surveillance and Control RAND Corporation	50	-	-
413	6.2	Railroad Security Research Analysis Corporation	50	-	-
414	6.2	Data Base Working Group COMUSMACV (in house)	255	400	-
415	6.2	Indicators (Factor Analysis) Study R. Jones RAND Corporation	100	200	-

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
OPERATIONS RESEARCH, SYSTEMS ANALYSIS AND ECONOMICS (continued)						
ARPA			Agile (continued)			
	416	6.2	New Areas Modelling Exercises in Counterinsurgency, especially organization and logistics models also operations research on control and protection of population, borders, lines of communication, economic infrastructure Research Analysis Corporation	100	300	-
	417	6.2	Statistical Progress Indications in Vietnam J. Johnson Research Analysis Corporation	-	50	250
	418	6.2	Impact of South Vietnam Operations Research Analysis Corporation	-	25	50
	419	6.2	Control of the Roads in South Vietnam Research Analysis Corporation	-	25	-
	420	6.2	Various Studies Research Analysis Corporation			1400
	421	6.2	Communication Requirements (Contractor undetermined, probably industry)			800
	422	6.2	Surveillance Defense Research Corporation			300
	423	6.2	Operational Analysis of Pacification Data RAND Corporation			1100
	424	6.2	Various studies (Contractors undetermined)			700
	425	6.2	Urban Insurgency R. Holbrook Defense Research Corporation	220	300	-

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
OPERATIONS RESEARCH, SYSTEMS ANALYSIS AND ECONOMICS (continued)						
ARPA			Behavioral Science			
	426	6.2	Dynamic Modelling and Counterinsurgency (Contractor undetermined)		500	-

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
PERSUASION AND MOTIVATION PSYCHOLOGICAL OPERATIONS						
ARMY			Special Operations Research Office [11]			
	103	6.1	Role of Military in Developing Nations McAlester, U. of Florida M. Janowitz, U. of Chicago Lowell, Indiana University	50	50	50
	104	6.2	Psychological Operations Guides John L. Houk	*	275	*
	105	6.2	Processes of Influence in Cross-Cultural Interactions: Personal to Institutional Ritchie Lowry	*	31	92
			Military Assistance Including Civic Action Research			
	106	6.2	Counterinsurgency Military Activities with Civilians Frederick H. Stires	*	47	*
	107	6.2	Counterinsurgency Mechanisms for Changing Attitudes To be determined		77	108

11 Summary of SORO Operating Budget

	Funds	FY 64	FY 65	FY 66
Foreign Area Handbooks	O&M	620	620	620
CINFAC	6.2		500	500
Camelot	6.1			1100
Camelot	6.2		450	900
Research	6.1	50	50	50
Other	6.2	880	843	900
Carry over from FY 64			247	
		1550	2710	4070

Note: Funding estimates for FY 65 and FY 66 in the table above were derived by multiplying each "Professional Man Year," as reported by SORO, by $30,581, an estimate provided by SORO. Due to a change in the organization of the SORO work program, it is impractical to show the continuity between particular studies for FY 64 and later years.

* To be determined

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
PERSUASION AND MOTIVATION PSYCHOLOGICAL OPERATIONS (continued)					
ARMY		Special Operations Research Office (continued)			
108	6.2	Roles of Military Establishments in Developing Nations Ritchie Lowry		153	92
109	6.2	Analytical Studies of Colonizations since 1900 Milton Jacobs		92	*
110	6.2	Cross-Cultural Relationships between Foreigners and American Military Commanders in Korea Felix Moos		31	47
		Unconventional Warfare and Counterinsurgency Research			
111	6.2	Study of Undergrounds Andrew Molnar Alexander Askenasy and Frederick Munson		61	61
112	6.2	Tactics of Counterguerrilla Opns. Andrew Molnar (subcontract monitor)		31	*
113	6.2	Internal Security Andrew Molnar and Adrian Jones		47	*
114	6.2	Internal (Revolutionary) Wars as Instruments and Processes of Socio-Political Change Edward W. Gude		92	92
115	6.2	Counterinsurgency Studies D. M. Condit		61	47
116	6.2	Effectiveness Measurements of U.S. Overseas Counterinsurgency and Country Modernization Programs Jeanne S. Mintz		31	*
117	6.2	Country Operations Information Requirements Edward W. Gude		31	*

* To be determined

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
PERSUASION AND MOTIVATION PSYCHOLOGICAL OPERATIONS (continued)					
ARMY		Special Operations Research Office (continued)			
		Field Support Activities			
118	6.2	Special Operations Research Field Office - Fort Bragg Donald Bloch		61	*
119	6.2	SORO Element of Human Factors and Operations Research Office - Korea Felix Moos		61	*
120	6.2	Special Operations Research Field Office - Panama Milton Jacobs		61	*
121	6.2	Counterinsurgency Information Analysis Center[12] - SORO Richard H. Moore		250	250
122	6.2	Miscellaneous - SORO	880	50	361
123	6.2	Camelot**	-	-	900
124	6.1	Camelot**	-	-	1100
		Other than SORO			
125	6.2	Troop-Community Relations Abroad Humphries American Institute of Research	64	77	0
126	6.1	Korean Field Studies Office In house (manned by SORO)	25	5	0
127	6.1	Cross-cultural Study of Personality Characteristics and Interpersonal Attitudes of Young Adults Ginsburg, Loyola U., Brazil (Latin American Field Office)	0	9	0

12 ARPA/Agile also provides $250K, so that this center operates on a $500K budget.

* To be determined.

** After preparation of this report, Project Camelot was cancelled.

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
PERSUASION AND MOTIVATION						
PSYCHOLOGICAL OPERATIONS (continued)						
NAVY	207	6.1	Delineation of the Naval Role in Psychological Opns. M. D. Havron Human Sciences Research, Inc.	31	31	60
	208	6.1	Intelligence Data Validation R. Naroll Institute for Cross-cultural Studies	-	35	30
AIR FORCE			Project 9779 - Persuasion and Communication			
	311	6.1	Military Power and Persuasion Biderman Bureau of Social Science Research, Washington, D. C.	50	85	130
	312	6.1	Cross-National Measures of Attitudes Change under Conditions of Modernization Inkeles Harvard University	10	10	20
	313	6.1	Persuasive Cross-cultural Communication (field studies in four foreign areas) Whittaker North Dakota State University	-	40	40
			Project 2516 - Psychological Effects of Weapons[13]			
	314	6.2	Psychological Effects of Non-Nuclear Weapons for Limited War (Detachment 4, Eglin AFB) James Palmer, Oklahoma U. Research Foundation	64	-	-

13 Detachment 4, Research and Technology Division, Weapons Laboratory, Eglin AFB.

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
PERSUASION AND MOTIVATION PSYCHOLOGICAL OPERATIONS (Continued)					
AIR FORCE		Project 2516 - (continued)			
315	6.2	Catalogue of Experimental Psychological Phenomena (Detachment 4, Eglin AFB) Clifford P. Hahn American Institute for Research	40	-	-
316	6.2	Psychological Effects of Non-Nuclear Weapons for Counterinsurgency (Detachment 4, Eglin AFB)	-	47	-
ARPA		Agile			
427	6.2	Analysis of Mobile Development Unit Operations RAND Corporation	92	-	-
428	6.2	Motivation Studies G. Hickey RAND Corporation	92	-	-
429	6.2	Counterinsurgency Information Analysis Center Partial Support of SORO Project	250	250	250
430	6.2	Various Behavioral Science Studies	-	-	2000
		Behavioral Science			
		None			

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
MANPOWER, TRAINING AND SELECTION RESEARCH						
ARMY			**Human Resources Research Office**			
	128	6.2	Development of Materials for Use in Training Personnel for Military Assistance Advisory Duties	51	+	
	129	6.2	Problems in Education and Training for Civic Action	151	+	
	130	6.2	Development of Concepts and Techniques in Area Training	76	+	
	131	6.2	Development and Evaluation of a Self-Instructional Method for Learning a Foreign Language	50	+	
	132	6.2	Technical Training Across Cultural Barriers	25	51	
	133	6.2	Methods for Improving Aerial Gunnery Training in the Armed Helicopter	101	101	
	134	6.2	Methods for Improving Naviation Training for Low Altitude Flight	76	50	
	135	6.2	Techniques and Training Methods for Improving Individual and Squad Infantry Performance in Operations during Limited Visibility	50	25	
	136	6.2	Procedures for Increasing the Effectiveness of Small Infantry-type Units	76	76	
	137	6.2	Methods for Improving the Effectiveness of Small Groups under Stress	88	76	

+ Continuation of these studies undetermined.

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
MANPOWER, TRAINING AND SELECTION RESEARCH (continued)						
ARMY			Human Resources Research Office (continued)			
	138	6.2	Development of Training for Improving the Combat Skills of Leaders in Small Infantry Units	101	101	
	139	6.2	Other HumRRO Studies (not specified)	-	466	
			U. S. Army Personnel Research Office*			
	140	6.2	Increasing the Effectiveness of Special Forces Personnel during Critical Situations	75	110	
NAVY	209	6.1	Development of Culture-Free Tests H. Gulliksen Princeton University F. M. Lord Educational Test Service	85	50	50
	210	6.1	Automated Instruction R. Glaser University of Pittsburgh L. Stolurow University of Illinois J. Swets Massachusetts Institute of Technology	100	120	120
	211	6.1	Foreign Culture Training Research	-	-	50
	212	6.1	Multilateral Crewing Training Research	-	-	50

* In-house laboratory

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
MANPOWER, TRAINING AND SELECTION RESEARCH (continued)					
AIR FORCE		Project 9778 - Behavioral Sciences Research			
318	6.2	Training for Cultural Contact and Interaction Skills for Counterinsurgency D. Haines WADC (in-house) Project 1710-08	-	30*	35
319	6.2	Development of Kit for Preparing Training Aid in the Field WADC (in-house) Project 1710	-	30*	-
320	6.2	Human Factors Problems in a Special Air Warfare Context R. I. Hirshberg Stanford Research Institute (Project 7184-04 WADC)	-	35*	-
321	6.2	Field Trials in South Vietnam of a New Method of Sighting WADC (in-house)	-	30*	-
ARPA		Agile			
431	6.2	Advisor-Counterpart Communications G. Hickey RAND Corporation	53	26	-
432	6.2	Education Programs for Indigenous Military Scientists		225	
		Behavioral Science			
		None			

* Estimate

SUPPORT

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY66
POLITICAL STUDIES						
ARMY			None			
NAVY	251	6.1	Inter-Nation Conflict: Case Studies of Egypt, Israel, and the United Nations at Five Points in Time R. C. North Stanford University	-	25	25
	252	SP	Analysis of International Tensions R. C. North Stanford University (NOTS/PM)	20	30	20
	253	SP	Comparison of the Values of Soviet and American Elites R. Angell University of Michigan (NOTS/PM)	25	30	30
	254	SP	Deterrence and Limited War M. Halperin Harvard University (NOTS/PM)	20	25	25
	255	SP	Deterrence in History R. Naroll Institute for Cross-Cultural Studies (NOTS/PM)	15	20	20
AIR FORCE			Project 9779 - Persuasion and Communication			
	351	6.1	Elite Structure and Transformation in Political Systems Beck University of Pittsburgh	65	65	65

Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
POLITICAL STUDIES (continued)				
ARPA	Agile			
	None			
	Behavioral Science			
	None			

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
OPERATIONS RESEARCH, SYSTEMS ANALYSIS AND ECONOMICS						
ARMY			Research Analysis Corporation			
	151	6.2	Operational Readiness Requirements of Combat Units	390	390	
	152	6.2	Mathematical Approaches to Combat Developments Requirements	144	144	
	153	6.2	Strategic Studies	180	180	
	154	6.2	THEATERSPIEL	222	222	
	155	6.2	Research Support for Gaming	180	180	
	156	6.2	Economic Analysis for Strategic Planning	213	213	
	157	6.2	Mobility for the Army	156	156	
	158	6.2	Advanced Technology Applications	288	288	
NAVY			None			
AIR FORCE			Project 9779 - Persuasion and Communication			
	352	6.1	Military Implication of the Transmission of New Technology to Developing Nations (Japan) Spencer Howard University	15	16	20

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
OPERATIONS RESEARCH, SYSTEMS ANALYSIS AND ECONOMICS (continued)					
AIR FORCE		Project 9748 - Policy Planning			
353	6.1	Investigation of Post-Arms Control Problems North American Aviation (AFXPD)	-	80	85
ARPA		Agile			
		None			
		Behavioral Science			
		None			

	Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
PERSUASION AND MOTIVATION PSYCHOLOGICAL OPERATIONS						
ARMY			None			
NAVY	256	6.1	Inducing Cooperation between Adversaries M. Deutsch Columbia University	14	14	15
	257	6.1	Effects of Persuasive Communications on Attitudes W. Weiss Hunter College	14	16	18
	258	6.1	Foreign Research Symposia P. Herring Social Science Research Council	10	15	15
	259	6.1	Small Group Coalitions W. E. Vinacke University of Buffalo	19	-	20
	260	6.1	Group Equilibrium F. K. Berrien Rutgers University	29	20	20
	261	6.1	Productivity & Cohesiveness in Culturally Heterogeneous Groups I. Katz New York University	10	10	12
	262	6.1	Persuasion and Attitude Change E. McGinnies University of Maryland	20	22	25
	263	6.1	Effects of Drugs on Somatic Activity and Human Responses R. W. Russell Indiana University	35	35	35
	264	6.1	Psychophysiology Associated with Interrogation Procedures L. Birzis Stanf d Research Institute	18	20	22

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
PERSUASION AND MOTIVATION PSYCHOLOGICAL OPERATIONS (continued)					
AIR FORCE		Project 9778 - Behavioral Science Research			
354	6.1	Measurement of Attitudes and Attitude Change Cook University of Colorado	24	21	-
		Project 9779 - Persuasion and Communication			
355	6.1	Study of Self-Management Techniques for Stressful Conditions Klausner Bureau of Social Science Research, Washington, D. C.	55	65	-
356	6.1	Study of Cognitive & Effective Attitude Cross-Culturally Tajfel University of Oxford, England	20	20	20
357	6.1	Action Means as a Factor in Persuasion (Outcomes) Nehnevajsa University of Pittsburgh	30	40	-
ARPA		Agile			
		None			

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
PERSUASION AND MOTIVATION PSYCHOLOGICAL OPERATIONS (continued)					
ARPA		Behavioral Science			
451	6.2	Simulation of Soviet Communication I. Pool Massachusetts Institute of Technology (monitored by AFOSR)	150	150	150
452	6.2	Communication, Cooperation and Negotiation in Culturally Heterogenous Groups F. Fiedler L. Stolurow C. Osgood H. Triandis University of Illinois (monitored by ONR)	95	95	95

Study No.	Source of Funds	Title/Contractor	FY 64	FY 65	FY 66
MANPOWER, TRAINING AND SELECTION RESEARCH					
ARMY		Human Resources Research Office			
159	6.2	Field and Laboratory Investigation of Selected Factors in Foreign Language Learning	76	+	
160	6.2	Procedures for Construction and Use of War-Like Exercises for Training in Decision Making	50	25	-
NAVY		None			
AIR FORCE		None			
ARPA		Agile			
		None			
		Behavioral Science			
453	6.2	Research on Human Performance P. Fitts W. Edwards A. Melton University of Michigan (monitored by AFOSR)	192	192	192

+ Continuation of these studies undetermined.

APPENDIX B

Evaluation and Use of Ratings

The procedure used to assess the degree of relevance to counter-insurgency of the individual projects is described in this appendix. The first screening was undertaken by the Military Services and by ARPA in selecting that portion of their total research and development program they considered at least somewhat relevant to the non-materiel aspects of counterinsurgency. But since their instructions had been to err by inclusion rather than by exclusion to avoid overlooking any possibly significant studies, a further screening was required. Some of the studies which were reported were clearly applicable; e.g., counterinsurgency in Latin America, advisor-counterpart communications, socio-political precursors to insurgency, effect of strategic hamlet program in Viet Nam. However, some of the studies which were reported appeared related only remotely to counterinsurgency; e.g., predictive model of intra-group negotiation, effect of drugs on somatic activity, sleep and arousal, parametric studies of hypnosis, political trans-actions relevant to arms control, risk-taking and decision-making, deterrence, weapon systems and decision-making, new techniques for enlisted classification. Rather than analyze so broad a program, it was thought wise to limit our consideration only to studies which were reasonably related to an understanding of counterinsurgency. Therefore, it became necessary to establish a means for distinguishing between studies which might and those which might not be regarded as relevant to counterinsurgency. This was accomplished with the aid of a panel of consultants familiar with the research fields that have been applied to the study of counterinsurgency.

The panel consisted of the following members:

Professor Joseph E. Barmack
Head, Department of Psychology
City University of New York

Professor Alex Bavelas
Department of Psychology
Stanford University

Dr. Launor Carter
System Development Corporation
Santa Monica, California

Professor Max Millikan
Director, Center for International Studies
Massachusetts Institute of Technology

The authors of this paper also served on the panel which, thus, consisted of six members. The composition of the panel provided technical coverage of economics, psychology, operations research, simulation, foreign affairs and military requirements.

Each member of the panel was provided with the information on each study shown in Appendix D. This information was taken from the DD613 project card, supplemented in some cases by additional information provided by the sponsoring organization. In most cases, it was also possible to indicate the responsible investigator and the contracting organization. The amount of funds assigned to the project was not provided since the emphasis was put on technical content.

The instructions to the panel were as follows:

> "...We have been asked to examine all defense-supported, non materiel R&D that may improve our ability to deal with counter-insurgency. Physical and engineering technologies are excluded. The non-materiel area includes behavioral science, economics, political science and operations research (but not medicine, psychiatry or physiology). Research related to counter-insurgency should be viewed on a short and long term basis and includes not only Vietnam but also all those areas in the world in which insurgency may arise to plague the U. S.
>
> "Our purpose, then is to determine whether the present

research program appears well designed to deal with the short and long term political and military problems of counterinsurgency. It is also important to recognize whether there are any gaps in this program, that is, to recommend new R&D that should be undertaken.

"Now, the question is whether this is a good program. It does not follow that the studies reported by the Services are necessarily relevant to counterinsurgency or that there is not room for improvement. In order to proceed in a systematic fashion, may I suggest that you try to answer the following questions:

1. Which of these studies seem to contribute directly to counterinsurgency?
2. Which of these studies seem to provide background data that may be more or less useful for counterinsurgency?
3. Which of these studies appear so remote that it is doubtful that they can or will provide information useful for counterinsurgency (this is no reflection on the fact that these studies may be very useful for some other purpose)?"

The panel members independently rated each project as 1 (directly relevant), 2 (background), or 3 (remote). Then all ratings were combined and a composite rating was generated for each project by taking the mean of the individual ratings ascribed to it. Before discussing the use of these average relevance ratings, it is necessary to examine the degree of agreement among the judges in their assessments. If the degree of agreement was low, then the rating process would have been questionable and of limited value.

The degree of agreement is examined in Table B-1. In 18 percent of the cases, there was complete agreement among the raters, a result about 35 times as large as that due to chance alone. For one-half of all studies (49 percent) all judges were either in complete agreement or only one judge differed by no more than one rank unit. For six judges, this agreement is about 15 times that explainable by chance alone, and so suggests a high degree of consistency of judgment. In one-quarter of all studies (22 percent) there was a maximum difference

of one rank between the judges (i.e., all ratings were 1 or 2, or were 2 or 3) but two or more judges agreed on each of the two ratings. For the remainder of studies (29 percent) there was more divergence of rating, i.e., at least one rating at each extreme.

Table B-1

VARIABILITY OF RATINGS

Degree of Agreement	No. of Studies	Percent of Studies
Complete agreement	25	18
Complete except rating different by 1 rank	43	31
Max. difference of one rank by two or more raters	31	22
At least one rating at each extreme	40	29
TOTAL	139	100

The data were also examined for judges' bias. The average ratings of the individual judges are summarized in Table B-2. These varied from 1.8 to 2.7, with an overall average rating (grand mean) of 2.05, i.e., almost midway on the three point scale. The average deviation from this mean of the six average ratings was 0.22 scale units. It is apparent that all of the judges arrived at a similar average (1.8 to 2.0) except for one whose average rating was 2.7 (i.e., who judged that many more of the studies in the program were not relevant to counterinsurgency). If the ratings of this judge are eliminated, the average rating becomes 1.92, with the average deviation reduced to only 0.06 scale units. Thus, five of the six judges appeared to have no significant bias. All ratings were retained for the analysis of the program.

Table B-2

INDIVIDUAL RATINGS ON "RELEVANCE" TO COUNTERINSURGENCY

Judge	No. of Ratings	Average Rating
1	124	1.8
2	137	2.0
3	123	2.0
4	116	1.9
5	123	2.7
6	124	1.9
	Mean =	2.05

This degree of internal consistency shown for the ratings is taken to indicate that, for practical purposes, the data are sufficiently reliable to permit further manipulation. The next problem, and the principle purpose of the entire exercise was to partition the studies into two major groups: those relevant to counterinsurgency (which would be retained for further analysis) and those not regarded as relevant to counterinsurgency (and which would be eliminated from further consideration).

A point had to be chosen arbitrarily as the cut-off point, beyond which studies were not to be included. This point was chosen as 2.51, since such a rating required a majority of the panel to have ascribed a rating of 3, i.e., "so remote that it is doubtful that the study can or will provide information useful for counterinsurgency". These studies were eliminated from further consideration in this paper. This led to the elimination of 33 studies funded for $1,465,000 in FY 64 (15 percent of the submissions) and 41 studies funded for $2,548,000 in FY 65 (19 percent of the submissions).

As indicated several times in this paper, the elimination of these

studies "is no reflection on the fact that these studies may be very useful for some other purpose than counterinsurgency" (the quotation is taken from our instructions to the panel). The actual magnitude of studies and funds in the "not relevant" category can only be regarded as a reflection of the broadness of viewpoint used originally by the Service representatives in reporting studies as of possible interest to the present inquiry; they had, in fact, been instructed to take a broad view.

We are left, then, with a group of studies (e.g., studies for $10,797,000 in FY 65) which, though regarded as relevant, vary in their degree of average relevance from 1.0 to 2.5. A cumulative distribution of these studies according to the average relevance rating is illustrated in Fig. B-1. The amount of funds is used for this purpose, rather than the number of studies, since this is the more meaningful indicator of volume of research effort. The cumulative curves of expenditures for both years are similar in form, except for the difference due to the increase for FY 65.

It was then judged desirable to make a further partition of the set of studies into "direct" and "support" groups. A rating of 2.01 was arbitrarily chosen as the dividing point, producing two groups as follows:

(1) studies with an average rating of 1.00 to 2.00, inclusive. This consists of 52 studies funded for $5178 in FY 64 and 78 studies funded for $7867 in FY 65. Hereafter, these studies are defined as "directly relevant to counterinsurgency" or "direct"

(2) studies with an average rating of 2.01 to 2.50, inclusive. This consists of 48 studies funded for $2825 in FY 64 and 35 studies funded for $2930 in FY 65. Hereafter, these studies are defined as "in support of counterinsurgency" or "support"

The effect of having chosen a different break point than 2.01 can be examined. First, it should be recognized that 2.0 is the only possible rating between 1.84 and 2.16 (since there were at most six raters), so that the results are completely insensitive to selection of any other point in this range. In Fig. B-2, the 1964 and 1965 cumulative funding

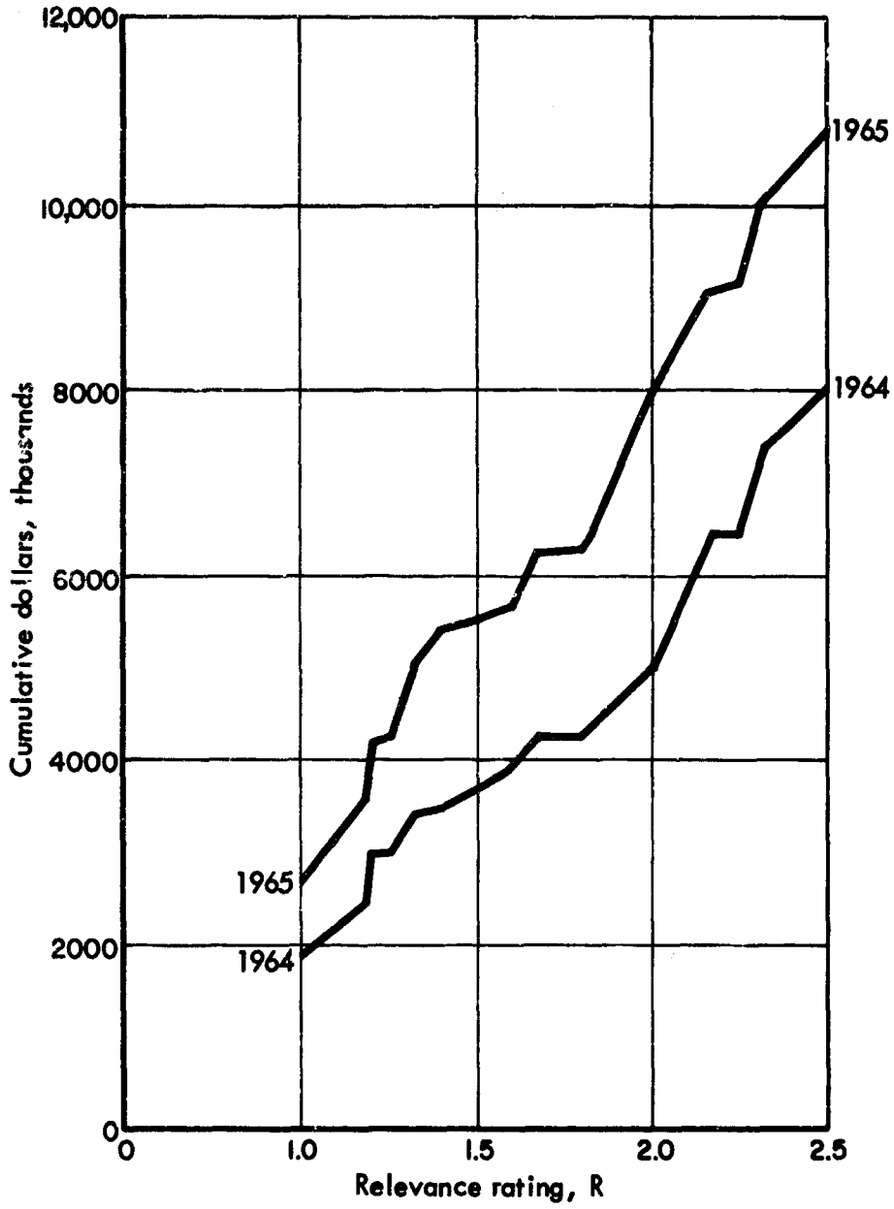

FIGURE B-1 Cumulative Funding of Studies with Relevance Rating at Least R

RS-23-65-1

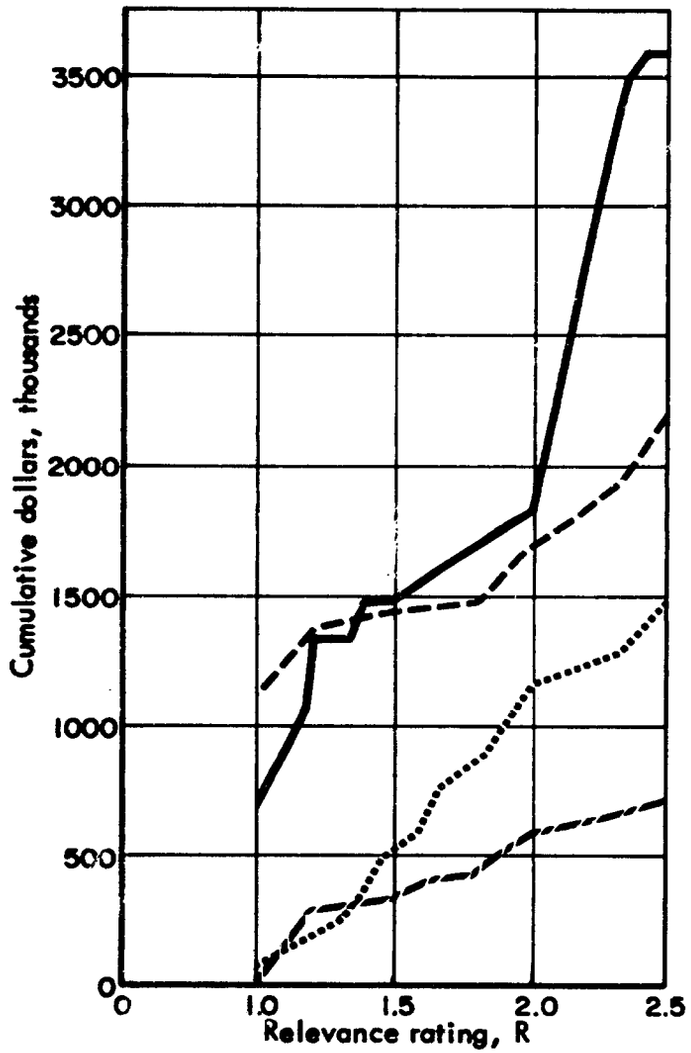

FIGURE B-2 1964 Cumulative Funding of Studies with Relevance Rating at Least R

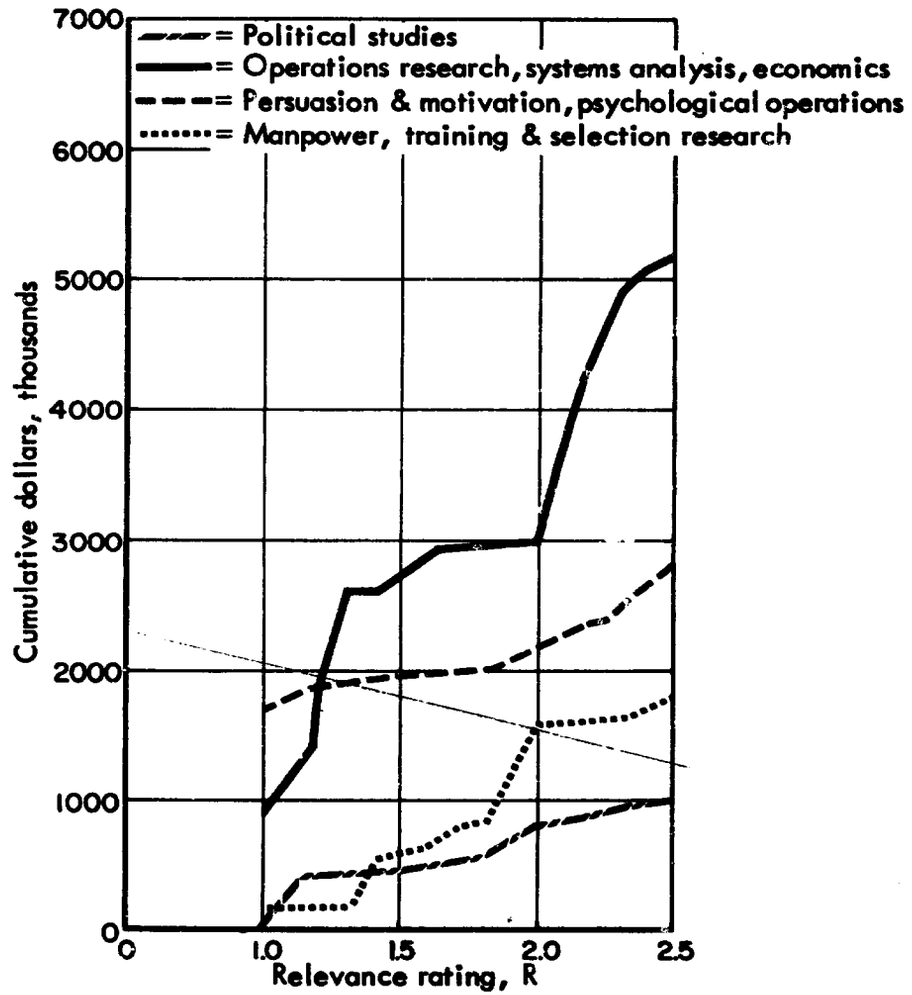

FIGURE B-3 1965 Cumulative Funding of Studies with Relevance Rating at Least R

distributions by relevance ratings are illustrated for the four technical areas considered. Since the distribution for political studies, for example, is relatively flat, changing the direct-support cutoff point would have had a proportional change in the distribution between direct and support. For operations research, a reduction in the cutoff point would have had only a slight effect, whereas an increase beyond 2.17 would have resulted in a sizable increase in the direct portion.

APPENDIX C

Studies Excluded from Consideration in this Study

Methods for Improving Quality of Newly Enlisted Men
New Techniques for Classifying Enlisted Men
Prediction of Effective Officer Performance
Psychological Measures Evaluation Programs - Cadet Leaders
Role Theory
Effects of Perceptual Isolation on the Human Subject
The Anticipation of Alternative International Environments
Political Transactions Relevant to Arms Control
Deterrence, Weapon Systems and Decision-Making
Risk-Taking and Decision-Making
Geophysical Warfare Systems and Concepts
Cross-Cultural Studies of Judgment and Decision-Making
Estimating Foreign Reaction to Military Activities and Programs
Case Studies of Past Crises as a Guide to Future Policy
Simulation Studies of Organizations under Stress
Leadership, Organizational Effectiveness and Human Resources
Predictive Model of Intra-Group Negotiation
Negotiation and Decision-Making in Complex Organizations
Simulation of Communication and Interaction
Analysis of Counterforce and Alternative U. S. Strategies
Problems Posed by Conflicting Views Concerning Nuclear Weapons
Sleep and Arousal of Human Subjects
Role Behavior and Social Structure
Performance of Leaders under Group Support or Non-Support
Effect of Group Change on Performance
Body and Field Perceptual Dimension and Altered Sensory Environments
Sensitization of Inadequate Symbolic Configurations

Innovation of Task-Oriented Communication

Effect of Realistic Stress on Differential Physiological Reaction

Personality and Careers Among Military Officers

APPENDIX D

Descriptions of Projects Reported by the Army, Navy, Air Force, and the Advanced Research Projects Agency

ARMY

Study 101 Army Requirements for Aviation
Research Analysis Corporation

To determine Army requirements for manned air vehicles.

The study will consider the employment of manned air vehicles for a) close fire support and other air-ground operations requiring close coordination; and b) air-mobile operations in which air vehicles are the normal mode of transport for combat elements.

Effort will be focused during WY64 on aviation requirements to conduct counterguerrilla and counterinsurgency operations.

(1) Field experimentation to compare target acquisition and weapons effectiveness of rotary-wing and fixed wing aircraft as escort vehicles for heliborne counterguerrilla operations.

(2) Analysis of the requirements, characteristics, and cost-effectiveness of candidate rotary- and fixed-wing light observation aircraft, for RAC-C-511, "Air Assault Concept," for CDC.

(3) Development of a continuing program of analysis of aircraft characteristics to meet mission requirements (close support, transport, liaison, etc.).

(4) Role of aircraft in the early stages of insurgency.

(5) Survivability of manned and unmanned aerial surveillance platforms.

Study 102 Studies in Counterinsurgency
Research Analysis Corporation

To analyze various aspects of counterinsurgency as a mode of cold war conflict with the aim of delineating the Army's role in such operations and assisting in the development of operational doctrine and organization.

There is a need for the systematic collection of experiential data on past counterinsurgency activities which will permit a detailed study of the steps, both military and civil, taken to counterinsurgency in historical instances. There is a parallel need for an assessment of the Army's capability and potential for assisting indigenous peoples in forestalling and countering insurgency, including establishing an adequate internal security organization and in conducting civic action programs.

(1) Data either exist of can be gathered by a diligent and scientifically directed effort that will permit identification of the causes for success or failure in various areas under differing geographic, political, economic, sociological, and military circumstances. An additional case study, following completion of the analysis currently under way of the Laos experience, will be made, with priority initially being given to Algeria or the Republic of Vietnam, depending on accessibility to data sources. As part of such a study, an examination of the data requirements desired for effective analysis of counterinsurgency operations will be undertaken. The case study investigations to date have indicated that the present system of reports used as a basis for collection of data on other U.S. Army operations overseas is inadequate for purposes of operations research in the counterinsurgency field.

(2) One promising course for the U.S. is to assist developing nations to achieve an internal security posture that will enable them to prevent the rise of subversive insurgency to guerrilla war intensity.

Little research has been done to ascertain what constitutes an adequate internal defense posture or how to achieve it. One possible approach would be an analysis of the Vietnam experience to determine what actions the U.S. and Vietnam might have taken that would have enabled internal security forces to detect and eliminate the Viet Cong insurgency in its weak, formative state. More specifically, the purpose of such a study would be to determine a) what constitutes an adequate organizational structure and strength, and what capabilities are required for the internal security forces of underdeveloped countries, and b) what constitutes an adequate counter-insurgency intelligence system of an underdeveloped country, and the methods and means to develop it.

(3) There is a requirement for a study of the methods by which the U.S. Army can most effectively conduct civic action activities in selected areas, with priority given to the development of a civic action country study, including a pilot plan of operations preferably for a South American country.

Study 104 Psychological Operations Guides (PSYGUIDE)
Special Operations Research Office, American University

To develop information on psychological operations, communications possibilities, concepts, and methods for selected countries or areas. This will include:

(1) Information on potential audiences, and on basic propaganda content and style including, as appropriate and available; specific symbols, appeals, or approaches of judged relevance to projected situations or conditions; and methods for effective presentation such as to cause desired changes in audience attitude.

(2) Information on communications media possibilities, including word-of-mouth, on criteria for the choice of media, and on methods for the most effective use of media chosen.

(3) Improvements in methodology to increase validity of the above types of information.

Requirements for country-specific information on symbols and on word-of-mouth communication channels to assist Army planning and conduct of psychological operations were established by OPS SW in 1957 and 1958. In separate tasks SORO produced two series of country studies, 21 on propaganda symbols and 3 on word-of-mouth communication. In 1963, OPS SW requested that the two topics be combined in a single series of studies. The requirement for research of this nature has been reiterated in AFDP of May 1963.

A series of research reports which can be published by OPS SW as handbooks to assist in planning or field operations will be prepared on countries according to mutual agreements between OPS SW and SORO. Each country report (subtask) will differ to some degree as the specific cultural and technical factors of the separate societies are reflected but all country reports will be similar in basic organization and format.

For the audience identification and appeals segments of country subtasks, procedures will include detailed consultant interrogations, and the analysis of literature and documents. In outline, and within the assumptions made regarding the U.S. posture vis-a-vis the target country and that country's orientation toward other powers, the research will include:

(1) Identification and description of target audiences including data on attitudes and behavior of these audiences that have bearing on psychological operations;

(2) Identification and description of cultural and symbolic material upon which actual messages can be built under appropriate projected situations and for appropriate goals;

(3) Development of information on communications media, both mass and interpersonal.

In addition to country subtasks, one continuing major subtask will be devoted to the development of improvements in content and research methodology for all country handbooks.

Subtasks:

I Psychological Operations Guide - Himalaya Area. (Begun in May 1963, submission of report is scheduled in September 1964.)

II Development of improvements in content and research methodology for Psychologocal Operations Guides. (Begun in May 1963, this continuing subtask will produce two reports during FY 65.)

III Psychological Operations Guide - Venezuela. (Begun in May 1963, submission of report is scheduled in September 1964.)

IV Psychological Operations Guide - Brazil. (Begun in May 1963, submission of report is scheduled in December 1964.)

V Psychological Operations Guide - Ecuador. (Projected to begin in August 1964 and end December 1965.)

VI Psychological Operations Guide - Bolivia. (Projected to begin in August 1964 and end December 1965.)

VII Psychological Operations Guide - Peru. (Projected to begin in October 1964 and end March 1966.)

VIII Psychological Operations Guide - Vietnam. (Projected to begin in August 1964 and end in July 1965.)

Study 105 Processes of Influence in Cross-Cultural Interactions: Personal to Institutional (EXTEND)
Special Operations Research Office - Ritchie Lowry

Objective: To improve understanding of the processes of cross-cultural influence with the view of increasing the effectiveness of relevant U.S. Army policies, plans, programs, and activities, particularly in terms of principles related to: situational factors, actor and audience characteristics, techniques, and variations in purpose or goals.

Background: The operational definition of the cold war highlights types of conflict waged at the lower end of the violence spectrum - social, economic, and political. Implicit in such a definition is the proposition that much of the conflict is to be waged in terms of suasion; this is particularly true for that arena of indirect conflict located in the developing nations. Here, the full use of modern weapon's technology is most inappropriate and the U.S. Army often must accomplish its mission as a foreign advising and assisting group. Principles of effective and efficient cross-cultural influence, useful in a wide variety of goals thus are major weapons of the military establishment for successfully waging the cold war.

Approach: The problem is attacked via a series of relatively small subtasks conducted both internally at SORO and externally with some of the nation's leading universities and research centers. The approach is multidisciplinary, with concepts and methods from each of the behavioral and social sciences as appropriate for each subtask.

Subtasks

I Analysis of critical incidents of cross-cultural influence reported in documentary sources. (Completed)

II Reconceptualizations of psychological operations and the war-peace decision. (Completed)

III Theoretical studies of influence processes. (Two studies are to be completed by November 1964. A 1 year subcontract was awarded Stanford University November 1963.

Study 106 Counterinsurgency Military Activities with Civilians (SAFMAC)
Special Operations Research Office - Frederick H. Stires

Objective: To improve the performance of Army civic action, particularly as practiced by the Army's Special Action Forces, by developing information about organizational principles and operational techniques in the planning and conduct of such activities.

Background: Civic action spans a wide spectrum of activities ranging from long-range nation building occurring in an atmosphere of peaceful national development, to the shorter-range actions designed to gain or to continue building, the loyalty of a particular segment of a society to its government. Civic action in all contexts has become recognized as an important Army mission in underdeveloped countries both now and for the foreseeable future. This is particularly true in insurgency situations where time is critical and civic action programs are executed by various specialized teams within the framework of overall counterinsurgency forces and particularly the Special Action Forces thereof. There is a need to develop further operational and organizational principles for civic action programs in this latter circumstance; a need for procedures to preserve, analyze, and interpret experiences in the conduct of civic action in the interest of aiding successors in assignments; a need for procedures to evaluate results and particularly to test options.

Approach: The task has been initiated with a case study of SAF civic action in an active insurgency situation. This first study will concentrate upon the problem areas relating to doctrinal concepts, organization and techniques of SAF conducted civic action in Vietnam. Information will be derived from interviews with experienced personnel from Special Action Forces and documents covering SAF activities. Subsequent studies may take either of two directions:

(1) Additional country case studies covering different types of insurgency situations;

(2) Development and evaluation of potential improvements in doctrine or methods of operation for the problems identified in the first subtask.

Subtask: I Case studies of SAF activities in South Vietnam. (Begun in January 1964, this subtask is expected to end in October 1964.)

Study 107 Counterinsurgency Mechanisms for Changing Attitudes (SIMPATICO)
Special Operations Research Office

Objective: To provide a basis for formulating doctrine or civic action by conceptualizing noncombat ways in which indigenous military forces make the attitudes of civilians more favorable toward their governments and military forces.

Background: The problem of insurgency, actual or incipient, exists in a number of friendly or neutral underdeveloped nations. The U.S. Military Assistance Program is designed to assist and advise the military establishments of these nations in taking appropriate actions to prevent or to counter such insurgency. An integral part of this assistance is military civic action, conceived as an important tool for preventing and countering insurgency by winning the support of the citizenry for the military and the government through social and economic benefit projects. Needed is information on the validity of the assumption that military civic action is an efficient method by which to produce favorable changes in attitudes relevant to countering insurgency, and a specification of the conditions under which such a relationship obtains.

More specifically a need exists for:

(1) A compilation of research literature that will enable civic action planners to capitalize on what is known of the mechanisms of attitude changes, and which will permit some assessment of the important factors to be considered in changing attitudes through civic action;

(2) A methodology for applying known principles of attitude change in the design of civic action programs in the course of a country survey;

(3) Empirical information concerning the consequences of civic action projects, using as criteria, the measures of attitude change. Ultimately a methodology by which such evaluations can be made should be developed.

Approach: The first study within this task will be oriented toward a specific Latin American country and will have five phases:

(1) The first phase will be a brief review of literature on attitude change to identify the variables central to attitude change and the rules concerning their applications;

(2) The second phase of the project will involve a field trip to the specific country to determine what conditions exist in the kinds of practical situations with which the military must deal;

(3) Based upon the first two phases, a set of procedures will be developed to assess the conditions in a field situation such as that visited which bear upon the need for and impact of civic action;

(4) The fourth phase will be an application of these assessment procedures to specific civic action projects and to comparable locations where civic action has not been conducted;

(5) From the above sequence of steps a number of sets of guide lines will be derived. This would include: (a) suggestions for evaluation procedures which may be useful over a range of situations and (b) suggestions for improvement in civic action plans for the type of situation studied.

Later subtasks may test the applicability of findings to situations with different types of insurgency threat, environment conditions or counter-insurgent capabilities.

Subtasks: I Civic action programs to effect attitude change. (Begun in March 1964, this subtask should be completed in December 1965.)

Study 108 **Roles of Military Establishments in Developing Nations (ROLE)**
Special Operation Research Office (Ritchie Lowry)

Objective: To improve understanding of the relationships between politico-military, economic, and social activities (purposive and incidental) of military establishments in developing nations and the impact of these activities on their internal political order and stability, socio-economic modernization, and international relations.

Background: On the one hand, it has been suggested that U.S. military support of indigenous military establishments is self defeating in terms of the U.S. longer range national interests because it will perpetuate military dictatorships and insurrections and is a source of political instability and potential oppression of individual liberty. Another view holds that the indigenous military establishments represent the best, frequently the only, internal mechanisms for promoting socio-economic development, maintaining internal political stability, and preventing successful covert aggression and insurgency. There is a need to rephrase the problem in terms of determining the cultural, societal, organizational, and personal factors which are associated with the varying societal roles which military establishments might assume.

Approach: The problem is attacked via a series of relatively small subtasks conducted both internally at SORO and externally with some of the nation's leading universities and research centers. The approach is multidisciplinary, with concepts and methods from each of the behavioral and social sciences as appropriate for each subtask.

Subtasks:

I Current state of knowledge in the study of political elites. (Begun in April 1963, this study should be completed in August 1964.)

II Inventory of propositions regarding military roles in developing nations. (Begun in April 1963, it is expected that this study will be completed in August 1964.)

III Theoretical studies in military sociology. (This study is on subcontract with the University of Chicago. Begun in October 1963, this project is expected to produce 2 to 3 studies each year, September 1964, 1965, and 1966.

IV Case study of the modernization of the Thai military. (Begun in August 1963, this study is expected to be completed in August 1964.)

V and VI Casebook (2 volumes) of political roles of the military in selected nations of Asia, Middle East, and Latin America. (Subcontracts with Indiana University and University of Florida were let in December 1963 and January 1964 respectively for this research. The studies are expected to be completed in March 1966.

VII Study of relationships among socio-economic background, career experiences, and political behavior of military officers in four Latin American nations. (Begun in March 1964, this subtask is scheduled for completion in March 1967.)

VIII Development of conceptual framework relating military institutions to other societal institutions in development process. (Begun in May 1964, this subtask is expected to end in July 1965.)

Study 109 Analytical Studies of Colonizations Since 1900 (COLONY)
Special Operation Research Office (Milton Jacobs)

Objective: To develop information on the various colonizations that have taken place since 1900 throughout the world, but with emphasis on Latin America; by careful analysis of such information to delineate principles that seem to be related to successful colonization. The recruiting of colonists, the sponsorship of the colony, its financing, planning, administration, and organization, the problems of leadership, motivation, and cooperation, should all be pointed out in cases where they seem to be significantly related to the success or failure of the colonization. Special attention should be given to cases where the military or gendarmeries of particular countries were assigned certain responsibilities within the colonization missions. Focus will also be on internal "indigenous colonizations" as contrasted with foreign colonization.

Background: In many Latin American countries, stable government and economic growth are threatened (1) by migrations of unskilled rural peoples into crowded cities where job opportunities and living conditions are marginal; (2) by the substandard living conditions of the rural peoples who remain in areas where agriculture is non-productive. For such reasons, many Latin American governments are attempting to colonize areas in their countries where an effective, productive, and satisfying agricultural life for their citizenry can be established. The armies and gendarmeries of these countries are often engaged, in cooperation with various indigenous governmental agencies, in planning and developing colonization programs. USARSO, USAID, the Peace Corps and other U.S. agencies, are asked to give advice and support to such programs by these Latin American governments. To perform a more effective advice-giving and support mission, USARSO, in particular the 3rd Civil Affairs Detachment, needs background information about colonization experiences.

Approach: (1) The first aspect of this task will be to identify and classify the various colonizations that have occurred since 1900. Data from historical and other documents will be examined. The classification will take into account such critical factors as: Whether the colony was organized under private sponsorship; what the purposes or goals of the colonizations were; whether the experiences based on observable criteria signify success or failure. (2) The second phase will be the sampling of the identified colonizations to allow comparisons among the different classes of colonizations. Comparisons will be made within and between groups on differences and similarities of factors other than those used for taxonomic purposes. (3) The third phase would include the deriving of principles relating to successful colonizations and cautions relating to unsuccessful ventures. Wherever possible, actual observation of various stages of colonization should be made firsthand as well as gathering of reactions of key persons involved in all phases of the colonization experiences.

Subtask: Analytical studies of colonizations since 1900. (Begun in June 1964, this study should be completed in December 1965.)

Study 110 Cross-Cultural Relationships between Foreigners and American Military Commanders in Korea (CRACK)
Special Operation Research Office (Felix Moos)

Objective: To develop an understanding of the cross-cultural problems facing American military commanders in their relationships with the local community. Emphasis will be placed on those problems which affect the accomplishments of the military mission and ultimately influence the U.S. relationships within a particular country.

Background: The U.S. Army's operations in the developing nations frequently places upon commanders demands concerning which there is a scarcity of both research and accumulated information. Cultural and personality differences preclude an effective method of operation which is "purely American." Adequate guide lines are not available to assist the commander. Misunderstanding is not infrequent and communications may be misperceived by either the military or the indigenous personnel. Information has never been accumulated which adequately accounts for either the successes or failures which have occurred in the past. Information is not available on the proper balance between formally structured relationships and informal associations. The extent to which actual specific socio-cultural information is required by the commander or his staff has never been ascertained. The research will provide a basis whereby the G-5 and civil affairs activities can assist the commander with increased effectiveness.

Approach: In the initial phase of this research in Korea emphasis will be placed on the analysis of Community Relations Advisory Councils as the formal mechanism utilized to facilitate and improve relationships with the indigenous community. Examination will be made of existing documents and file records within EUSA. These will be sorted and categorized to provide leads to policies followed, problems dealt with and actions recommended. Direct observation will be made of community relations council activities. Questionnaire's and interviews will be used to collect data on the content of CRAC meetings: the composition; participation; etc. The selection of posts, camps, or stations, as well as the sampling of CRAC's for Analysis will be based on discussion with appropriate EUSA staff individuals to ensure adequate representation. Within this area of emphasis several subtasks represent aspects of the problem which will be initially investigated.

Subtasks:

I Analysis of the organization and methods of operation of Community Advisory Councils which facilitate positive accomplishments. (Initiated in July 1964, this subtask is scheduled for completion in June 1965.)

II The roles of interpreters. (Begun in July 1964, this subtask is expected to end in June 1965.)

III Personality and cultural factors which lead to misconceptions and ineffective cross-cultural relationships. (Begun in July 1964, this subtask should end in December 1965.)

Study 111 Study of Undergrounds (UNDERGROUND)
Special Operation Research Office (Andrew Molnar, Alexander Askenasy, and Frederick Munson)

Objective: To develop information of assistance in the formulation of doctrine concerning patterns of organization, missions, and operations of underground movements and appropriate security force countermeasures.

Background: Undergrounds play a critical role in the outcome of insurgent movements. They provide a basis of support for terrorism, sabotage, guerrilla, and other types of subversive operations and carry out psychological operations, indoctrination, and reorientation of masses to the enemy point of view. Among techniques used to implement revolutionary strategy, the selection and training of revolutionary cadre, organization, indoctrination, psychological operations, and mass subversion are the most important. Revolutionary cells are established to control different circles and organized groups in all strata of a society. Parallel Communist hierarchies are organized, starting with the cell of a local

committee to the central committee of the party. These become the party's invisible machine by which unions, peasant and youth movements, sport and cultural associations, veterans' societies, and other groups are controlled. In order to combat enemy underground organizations and their subversive activities it is important to know how they are organized, how they function, and what their methods and techniques are. More detailed information is therefore required on the patterns of organizational structure, intra-organizational relationships, missions, modus operandi, etc., in order to develop a more effective doctrine for countering undergrounds.

The first phase of this task (UNDERGROUND I), culminated in a descriptive report which included a review of the nature of various undergrounds with special emphasis on resistance and revolutionary warfare.

Approach: During the second phase, the study will be concerned with the organization, operations, and techniques of underground organization. The approach will be to summarize and analyze information derived from a review of pertinent literature and consultation with experts in the field. A quantitative and qualitative analysis will be made of the effectiveness of various underground functions and the effect of various government countermeasures. The report will cover underground characteristics and missions in general, but will emphasize human factors and motivational factors. Among the characteristics which will be examined in detail are:

(1) Organizational structure and role of each part of that structure, including the creation of parallel hierarchies and revolutionary cadres such as agitprops, provocateurs, activists, and leaders at all echelons;

(2) Training and psychological preparation of revolutionary cadres;

(3) Indoctrination and reeducation of masses of people and efforts to win and retain active popular support.

Following the completion of Subtask II, further studies will be proposed such as a special analysis of the use of threats, coercion, and terror in underground movements.

Subtasks:

I Undergrounds in insurgent, revolutionary, and resistance warfare. (Completed)

II Human factors considerations in underground operations. (This subtask, initiated in January 1964, is scheduled for completion in December 1964.)

III The use of threats, coercion, and terror in undergrounds. (Projected)

Study 112 Tactics of Counterguerrilla Operations (TACO)
Special Operation Research Office (Andrew Molnar - Subcontract Monitor)

Objective: To assist the Army in planning and conducting counterguerrilla operations at the area commander level by (1) evaluating the effects of various counterguerrilla operations upon guerrilla, undergrounds, and civil populace; (2) establishing criteria by which to evaluate integrated civil-military effects; and (3) suggesting rules and considerations for decision-making by area commanders.

Background: In counterinsurgency, military action is usually focussed upon the counterguerrilla operations necessary to locate and destroy the guerrilla force, the effectiveness of military operations must be

guaged within the total context of political, psychological, economic, social, and military influences. The effects of such operations must certainly consider the psychological aspects of counterinsurgency operations. Furthermore, since in this type of civil-military warfare, military and psychological operations are inseparable, it is important to win the aid and support of the populace in order to destroy the guerrilla force. Thus, the military area commander is forced to make tactical decisions in which the political, psychological, and economic consequences of his actions are as important as the military ones. Consequently, the area commander not only requires knowledge concerning the effects of counterguerrilla operations upon the guerrillas, but also the effects upon the underground and the civilian populace--and how the civil-military counterinsurgency command structure is integrated at all echelons.

Approach: This research is being conducted under subcontract with Human Sciences Research, Inc. (HSRI). In this subcontract HSRI will:

(1) Prepare a concise, comprehensive synthesis of present knowledge of the civil-military factors in guerrilla and counter-guerrilla operations, with emphasis on counterguerrilla operations. Through a review of current literature, investigate pertinent aspects of at least three different insurgencies (selectively use examples from other insurgencies to demonstrate or clarify critical points) and include: (a) missions, offensive and defensive; (b) selected operational environments (selecting different geographic, political, and social factors); (c) phases of insurgent development (clandestine organization, psychological offensive, organizational expansion, militarization, and consolidation phases);

(2) Conduct interviews and consult with experts in the field, individuals responsible for formulating special forces doctrine, and recent South Vietnam MAAG returnees stationed at Fort Bragg and other locations as necessary in order to up-date counterguerrilla tactics and operations to take advantage of new developments and requirements.

Subtask: Nonmateriel factors in counterguerrilla operations. (This study, being conducted on subcontract let to Human Sciences Research, Inc., in July 1963, will be completed in October 1964.)

Study 113 Internal Security (SECURE)
Special Operation Research Office (Andrew Molnar and Adrian Jones)

Objective: To provide scientific information to the Army to assist in formulating doctrine concerning internal security problems and operations related to the prevention and countering of insurgency in developing nations.

Background: SORO has completed a descriptive study of the characteristics of undergrounds and is continuing analytic studies in this area. The other side of the problem, the functions of internal security forces and their role in combatting insurgency in developing nations, similarly needs description to fulfill the counterinsurgency requirement expressed in AFDP, May 1963(Vol. II, Annex B, Para 4 (c)). Attention should be given to organization, operations, and techniques of internal security forces prior to and during insurgency in combatting subversive organizations and maintaining public safety.

Approach: The objective of the first subtask will be to bring together information concerning:

(1) The organization and activities of internal security forces (paramilitary and police) prior to and during the insurgency, noting significant changes in structure and function in order to cope with the insurgents;

(2) Population and resources control measures used to combat subversion;

(3) Mass behavior as related to civil disturbances and riots.

Information will be derived from historical accounts of insurgencies and interviews with experts. Later subtasks may analyze particular internal security functions more intensively.

Subtask: Internal security and counterinsurgency (descriptive study). (This study, begun in February 1964, is estimated to be completed by June 1965.)

Study 114 Internal (Revolutionary) Wars as Instruments and Processes of Socio-Political Change (REVOLT)
Special Operations Research Office (Edward W. Gude)

Objective: To improve understanding of revolutionary war dynamics in terms of: the social-economic and political environment in which internal wars occur; the content, style, and form of the political movement which is the revolutionary mechanism, particularly with respect to the politics of violence; identifying and quantifying indicators of revolutionary potential to improve predictions of outbreaks of violence; identifying manipulatable factors associated with the failure of revolutionary movements.

Background: The current and projected world situation has been characterized by experts as one of "revolutionary ferment" and yet our understanding of revolutions as instruments and processes of socio-political change is rudimentary at best. Lacking such understanding, it is difficult to anticipate revolutions, or to devise in advance effective and efficient means of countering revolutionary movements, or to capitalize on such forces when it is in our national interests.

Approach: The problem is attacked via a series of relatively small subtasks conducted both internally at SORO and externally with some of the nation's leading universities and research centers. The approach is multidisciplinary, with concepts and methods from each of the behavioral and social sciences as appropriate for each subtask.

Subtasks:

I Case studies in insurgency and revolutionary warfare -- Cuba, Vietnam, Algeria. (Completed)

II Theoretical studies in internal war. (A 3-year subcontract let January 1964 with Princeton University, this subtask will produce two studies per year through January 1967.)

III Review and analysis of Soviet counterinsurgency doctrine. (Begun in August 1963, this study is expected to be completed in August 1964.)

IV Activities of the indigenous military establishment during the rise of Communist influence in a selected country.

V Role of marginal intellectuals in internal war. (Begun March 1964, this subtask is expected to be completed February 1965.)

VI Conceptual framework interrelating revolutionary processes. (Begun February 1964, this study is expected to be completed March 1965.)

VII Politics of violence and incipient revolution. (Begun February 1964, this study is expected to be completed June 1965.)

VIII The nature of revolutionary organizations and their vulnerabilities. (Projected)

Study 115 Counterinsurgency Studies (NUMISMATICS)
Special Operation Research Office (D. M. Condit)

Objective:

(1) To examine the counterinsurgency problem since 1900 in its overt manifestation in a large number of geographic areas, so as to produce both qualitative and quantitative data capable of synthesis, analysis, and comparative evaluation.

(2) To produce a casebook of summary articles on each of the cases of counterinsurgency examined above, so that the informational data produced in (1) above will be placed in perspective and overall context and put in a form useful for the Army's teaching and training mission.

(3) To analyze the available knowledge on about 50 counterinsurgency operations in such a way as to bring out such general principles and guide lines for countering insurgency as the data may support.

Background: The research described above is groundbreaking insofar as past work on counterinsurgency is concerned. First, whereas the bulk of previous research has focused on undergrounds and insurgency rather than on measures to prevent or counter those manifestations of disaffection, this task focuses directly on counterinsurgency. Second, whereas such research as has been done on counterinsurgency has been accomplished mostly on the basis of individual or geographically related campaigns, this task provides for analyzing counterinsurgency problems and measures on a comparative and across-the-board basis. Third, whereas the sum of most previous research has encompassed a total of eight or nine well-known cases, this task will enlarge the sample to over 50 counterinsurgency cases, many of which are little known or even unknown to those who must plan and conduct counterinsurgency campaigns.

This task responds to research recommendations made by USCONARC and STRICOM.

Approach: In most instances, professional or academic persons already expert in the particular areas of the cases will be called upon to order their information in accordance with a standard SORO-designed methodology, involving a set of factors critical to counterinsurgency. In addition, each area expert will prepare a written summary of his case, placing the critical factors in historical and chronological context and showing the strategic framework within which the critical factors were determined. This work, comprising the collection, ordering, and interpretation of data on individual cases, is the first phase of the proposed task.

The second phase of the work, analysis of counterinsurgency operations, will involve the use of both the specific informational data and the written summaries prepared in the first phase. It is planned to develop criteria by which to choose the eight to ten factors (e.g., population control methods, force organization, etc.) that appear to be most critical to the counterinsurgency outcome. Each of these factors will then be studied to determine under what conditions it plays an important role in counterinsurgency. For example, if "methods of population control" appears to be a key factor, the various aspects of population control would be delineated, cases of successful and unsuccessful population management compared, and conclusions concerning effective population management derived. This phase of the work will be undertaken after coordination with and concurrence of sponsoring agencies.

Subtasks:

I Ordering synthesis, and interpretation of individual counterinsurgency cases. Completion of critical factors cards and written textual material. (Begun in March 1963, this subtask is scheduled for completion in December 1964.)

II Comparative analysis of counterinsurgency operations. (Begun in March 1963, this subtask is expected to be completed in December 1965.)

Study 116 Effectiveness Measurements of U.S. Overseas Counterinsurgency and Country Modernization Programs (SUCCINDEX)
Special Operation Research Office (Jeanne S. Mintz)

Objective: To investigate and develop an initial set of measurements or criteria which would make it possible to measure U.S. progress or regression in the attainment of counterinsurgency and modernization objectives.

Background: In general, the United States, in its relations with developing countries, has had a threefold objective: First, to immunize the peoples of these countries against the blandishments of Communist subversive agents; second, to assist these less fortunate peoples so that they may enjoy the benefits of 20th century civilization; and finally, to have the transition to modernity made in as orderly a manner as possible. Within the past 2 years, U.S. governmental agencies have mobilized a great deal of talent and energy which have been devoted to countering subversive insurgency and, concomitantly, modernizing newly emerging nations. Considerable momentum has been generated in developing plans and policies to facilitate these processes. Individual U.S. agencies may now be able to estimate the degree of effectiveness of their own expenditures of effort and national resources within their special fields. However, a means of measuring coordinate national progress toward overall objectives has not yet been developed nor considered. Therefore, the problem of estimating the progress of U.S. efforts in countering insurgency and in modernizing less fortunate nations should be examined.

Approach: Extensive interviews with key Department of Defense personnel and selected personnel from other governmental, educational, and research agencies in the field of operational measurements and analysis, along with a review of appropriate literature in the field, would offer an initial step toward setting up a model which would specify the parameters along which national progress or regression might be measured. Effort would then be made to align available data from critical military, political, economic, and social areas with the model and determine additional data that should be obtained.

Subtask: Initial development and assessment of counterinsurgency progression and regression indices. (Begun in July 1964, this study will be completed in June 1965.)

Study 117 Country Operations Information Requirements (REQUIRE)
Special Operation Research Office (Edward W. Gude)

Objective: To improve the Army's capability to assess relevant strategic, tactical, and operational options vis-a-vis a given country under selected facts or assumptions of the international situation, and to improve the efficiency of research for country-oriented operations by considering the target country from all aspects of potential Army interest.

Background: SORO currently produces two country-oriented development products on a routine basis, the area handbook and psyguide manuals. From time to time, consideration has been given to development of additional country-oriented products; a counterinsurgency handbook, a civic actions manual, and an unconventional warfare manual. The purpose of the existing and considered products is to provide the Army with the kinds and amount of information (excluding perishable intelligence data of a situational and tactical nature) which it might require for planning and conducting operations in a given country. In the interests of both efficiency and economy, it is critical that the contents of country-oriented products:

(1) Focus on essential information, but be as detailed as necessary within that focus;

(2) Contain significant information on all items of unique importance on any given country.

The basis for achieving objectives (1) and (2) above at the present time is primarily the intuitive judgments of knowledgeable persons. What is needed for maximum efficiency and economy is a common methodology for achieving these objectives, which can be applied on a country-to-country basis, but which will allow for differences among the end products in terms of their scope and contents.

Approach: The task's initial effort focusses on the required methodological development. To accomplish this, methods will be developed:

(1) To specify possible future political systems of any selected nation;

(2) To show the possible relationships between political systems now and in the future;

(3) To identify significant social groups (e.g., military, educators) and the Essential Elements of Information required to influence them effectively.

Subt Exploratory development of a method for determining requirements for : nation about country operations. (This subtask is on subcontract , the University of Pittsburgh. It began December 1963, and is expected to terminate March 1965.)

Study 118 Special Operations Research Field Office-Fort Bragg (SORFO-Bragg)
Special Operation Research Office (Donald Bloch)

Objective: To assist the Special Warfare Center by advisory services and social science research on problems of psychological operations, unconventional warfare, and counterinsurgency.

Background: In March 1963, the Special Warfare School requested social science support to provide research capability and liaison with the social science research community. SORO established a field unit at Fort Bragg in June 1963. In addition to numerous advisory services to assist the Special Warfare School and Special Warfare Center, efforts have been initiated to formulate, in conjunction with members of the Special Warfare Center and USACDCSWA, their requirements for social science research.

Approach: Activities of the unit will continue in the areas of: advisory services to the Army units at Fort Bragg, liaison functions between these units and Human Factors and Operations Research to facilitate and make more appropriate the research of these agencies, and research on specific problems of interest to the Special Warfare Center and USACDCSWA. As the requirements for research are more firmly and specifically established by the Special Warfare Center, specific tasks will be initiated. Such tasks should take shape early in FY65.

Subtasks: (To be developed in coordination with the Special Warfare Center.)

Study 119 SORO Element of Human Factors and Operations Research Office-Korea (SORFO-Korea)
Special Operation Research Office (Felix Moos)

Objective: To assist the U.S. Army in Korea by applied social science research pertinent to the Army's operational needs in the fields of cross-cultural communication, military assistance, and community relations.

Background: Korea is in a unique position in the Far East in that the massive U.S. military presence there is a major factor affecting U.S. relations with that country. The ramifications of this military presence have global significance. Thus the role played in Korea by the U.S.Army is one filled with social, economic, and political as well as the primarily military implications. The U.S. Army is the major vehicle for American aid to Korea. Korean political development both affects and is affected by the U.S. military posture in Korea. The success or failure of various American programs there is largely a function of U.S. military policy and the manner in which that policy is carried out by military personnel assigned to Korea.

In this context, questions of military aid project selection, relations with the Korean Army, and relations with the civilian community become critical. Responsible U.S. military decision-makers are aware of these problems and are interested in systematic investigation leading to clearer identification of specific problems and hence more realistic and effective policies for Army activities in Korea. The SORO element of the Korean Research Unit was established in February 1964.

Approach: Personnel in this unit will:

(1) Assist Eighth U.S. Army personnel to be aware of and to utilize, as appropriate, SORO R&D products;

(2) Give advice based on social science knowledge concerning Army problems which do not warrant or are too urgent to await research;

(3) Collect field data pertinent to SORO tasks in other locations;

(4) Assist the Army to identify requirements for social science research;

(5) Conduct social science research on problems of interest to Eighth U.S. Army and USARPAC.

Subtask: See Task Statement No. 110, above.

Study 120 Special Operations Research Field Office-Panama (SORFO-Panama)
Special Operation Research Office (Milton Jacobs)

Objective: To assist USARSOUTHCOM and other appropriate military commands by conducting social science research on problems of understanding, affecting, or supporting foreign peoples and societies, especially in Latin American, involved in or threatened by insurgency and subversion.

Background: In the preparation of U.S. Army officers and soldiers for assignment to Latin American countries, and in the training of Latin American officers, USARSOUTHCOM needs information and studies to achieve better understanding of the social, political, military, and economic dimensions of these countries.

Civic Action programs in Latin America, as well as the training and preparation of U.S. Army personnel for such programs, and the activities of the School of the Americas could undoubtedly benefit from more precise analysis of their functioning and effectiveness.

Close relationships with USARSOUTHCOM's problems and with future programs provide many opportunities for a SORO field office in Panama to provide useful services to the Department of the Army and USARSOUTHCOM. The Field Office was established in February 1964.

Approach: The general needs of USARSOUTHCOM may be served by three research functions: informational, evaluative, and methodological. The informational function will provide materials designed to assist the military in their country planning for pre-insurgency, insurgency, and post-counterinsurgency phases of conflict within a country-specific framework, as well as planning for conventional war. Present and immediate future requirements include emphasis on country planning for the various phases of insurgency and for limited war.

As part of the informational research function, SORFO-Panama will interview key officers in USARSOUTHCOM and in the School of the Americas to obtain the objectives and the goals that they have established for their various programs and the informational requirements that are necessary for the successful achievement of their objectives. SORFO-Panama will also examine and evaluate the informational assets present within USARSOUTHCOM in order to discover the gaps and deficiences that exist and to recommend such measures and research programs that will fill the gaps.

Subtask: See Task Statement No. 109, above.

Study 121 Counterinsurgency Information Analysis Center (CINFAC)
Special Operation Research Office (Richard H. Moore)

Objective: To provide a facility which meets the requirement suggested by the Joint DOD/CIA Committee on Counterinsurgency Research and Development in their report (1 December 1962, Annex A., page v.) for the "establishment of a rapid-response system which can effectively store and retrieve raw data as well as completed studies on counterinsurgency."

Background: At the request of STINFO Division, ARO, a concept was developed and a feasibility study conducted to determine whether a Counterinsurgency Information Analysis Center, processing information on peoples and their environment, could be established.

Approach: A working taxonomic system modeled after the Outline of Cultural Materials of Human Relations Area Files, New Haven, Connecticut, has been devised. It emphasizes the political, economic, social and military considerations in insurgency and counterinsurgency situations. The system, when operational is designed to provide: (1) the basis for the systematic collection and processing of pertinent information (on a country-specific as well as on a functional basis), (2) the storing of that information, (3) the rapid retrieval of that information, (4) the analysis of the information in terms of the query directed at the information data bank. It is compatible with other existing information systems having application to counterinsurgency operations.

Study 125 Troop Community Relations Abroad
American Institute of Research (Humphries)

A study being conducted by the American Institute for Research to analyze troop community relations problems abroad and to develop proposals for indoctrination programs for both U.S. and indigenous personnel which will improve relationships.

Study 126 Korean Field Studies Office
In house (manned by SORO)

The Human Factors and Operations Research Unit under sponsorship of Army Research Office was established in Korea in February 1964. This unit presently consists of scientific personnel from HumRRO, SORO, and USAPRO, and is headed by a representative of ARO. Research being conducted is a portion of the work programs of HumRRO, SORO, and USAPRO.

Study 128 Development of Materials for Use in Training Personnel for Military Assistance Advisory Duties
Human Resources Research Office

The work in this subtask is aimed at the improvement of the effectiveness of military assistance advisors through the development and application of new techniques and job-oriented training materials. These techniques and materials will facilitate effective working relationships between advisors and their counterparts in the host military organization. The effort is being sponsored by the ACS/Force Development. Because of lack of prior training U.S. military advisors frequently in the past have failed to discern differences in approach between the methods they have acquired from their military experiences and those of their counterparts in the host countries. These variations in orientations have led at times to dissatisfaction and frustration on the part of both. To eliminate as far as possible this obstacle to successful military assistance operations, similarities and differences between the expectations of advisors and their counterparts about their work will be identified. Statements of advisors and counterparts concerning what they expect in various aspects of work on which they collaborate will be obtained, and these will be exchanged for evaluation. Acceptability of expectancies by both groups will be categorized. Also types of expectancies of newly assigned and experienced advisors will be used as bases for designing training materials and methods to assist prospective advisors toward more successful operations.

Study 129 Problems in Education and Training for Civic Action
Human Resources Research Office

The purpose of this research is to identify and solve problems for the training of U.S. and Allied military personnel for civic action. The Army's civic action projects are usually preceded by a survey conducted by a team of officers whose recommendations have far-reaching consequences. Projects based on these assessments usually are carried out by military and civilian personnel of the host country with the advice and assistance of U.S. Army personnel. Success of the planned efforts depends on the ability of the Army to gain an active commitment to the program and to train Allied personnel for the civic action operations. This is a problem for military assistance groups, missions and mobile training teams, and in addition for all U.S. Army schools among whose enrollees are personnel from the less developed countries. The ultimate success of civic action projects depends on the nature of this impact on the affected communities. The research will develop guidelines for conducting the initial civic action surveys. Opportunity will be afforded for an on-the-scene determination of the problems survey teams must deal with and the kinds of insights they must have to evaluate correctly the information gathered. Relevant data also will be collected from other civic action teams, from consultants and from observations of ongoing projects. Later research will deal with non-materiel factors that contribute to success of civic action projects and with methods of communicating with officers from developing nations who receive training in U.S. Army schools.

Study 130 Development of Concepts and Techniques in Area Training
Human Resources Research Office

This work is designed to increase the effectiveness of area training programs by broadening the concept of such training and by developing improved instructional techniques. Many of the Army's cold war missions require effective social interaction with indigenous personnel of different beliefs and values. U.S. personnel being prepared for such missions undergo area training involving historical, sociological, economic, geographic, political and military background of the host country. Available

information suggests that this orientation falls short of being adequate for these assignments. The planned research is expected to indicate improvements in Army area training programs. It should provide answers to such questions as: 1) can some critical problems of working in a foreign culture be simulated for research purposes; 2) by what other techniques can Army personnel acquire cross-cultural sensitivity; 3) how can returnees who worked effectively with indigenous personnel be identified, and how can they assist others to acquire skills that made them successful; 4) how can the effectiveness of area training programs be measured?

Study 131 <u>Development and Evaluation of a Self-Instructional Method for Learning a Foreign Language</u>
Human Resources Research Office

The objective of this research is to develop and evaluate a self-instructional method for learning a foreign language. The effort is being sponsored by the Defense Language Institute of the Department of Defense. The use of human instructors inherent in present language teaching creates restrictions in time, locale, and work load which make it difficult for many military personnel capable of learning a foreign language to do so. Development of a method that would eliminate the need for human instruction, at least in the initial stages of training, will permit many more personnel to acquire critical language skills. Language training through conventional methods is a process which lends itself readily to automation, especially in the early phases. The few automated courses so far developed reflect an orthodox linguistics approach, and so represent only a start toward exploiting psychological learning principles in language programing. Also to adapt these courses for military use would require considerable modification. In this study the content for a basic course in a designated language will be determined; the goal will be to teach the student to speak and understand this content, which will be sequenced so as to utilize the principles that psychological experimentation has shown to be effective. The programed content will be adapted to an electromechanical, textual system designed to duplicate the human instructor. Later, reading and writing skills will be added to the student's repertoire.

Study 132 <u>Technical Training Across Cultural Barriers</u>
Human Resources Research Office

This study has the purpose of developing improved techniques for training personnel of underdeveloped countries in the technical skills required by modern armies. In addition to the considerable number of foreign military personnel who are trained in U.S. Army installations under the Military Assistance Program, USMAAG personnel strongly influence the technical training conducted by indigenous armies in scores of MAP-assisted countries. Many personnel of our less developed Allied nations are handicapped by their backgrounds in efforts to absorb modern technical training. At the same time our own national interest require that such personnel be trained to the highest standards possible. Thus a need to make our training more effective is apparent, whether conducted in CONUS or in indigenous armies. The planned research should be useful also in constructing preparatory courses to rapidly raise the general level of technical aptitude in the underdeveloped countries. Initially a sample of Army tasks will be used to train representatives of several cultural or national groups now stationed in CONUS, in order to identify those tasks which present special difficulty. Effort will then be made to develop and evaluate improved techniques for training various cultural groups on representative man-machine tasks.

Study 133 Methods for Improving Aerial Gunnery Training in the Armed Helicopter
Human Resources Research Office

This subtask is designed to develop instructional methods for improving performance in aerial gunnery from the armed helicopter. Army aviation faces a distinctive set of training problems when coupling the addition of armament to the helicopter with the tactical requirement for nap-of-the-earth flight. These problems occur at two levels -- individual training and system operations. The various segments of the project are so set up as to meet both types of problems. The problems on which training research is urgently needed will be identified and a proficiency measure will be developed to assess the rapid decision -- making functions required of the operator during low altitude armed flight. At the system operations level methods for rapid and accurate encoding of target location information will be examined.

Study 134 Methods for Improving Navigation Training for Low Altitude Flight
Human Resources Research Office

The research planned for this study seeks to improve navigation techniques for low altitude flight and to develop training methods to teach these skills to aviator personnel. Navigation at low altitudes requires different techniques from those used at higher altitudes. To attain effective low altitude aerial navigation routinely, there needs to be considerable change from the current trial and error and constant practice methods of learning. More reliable methods for achieving and maintaining proficiency are indicated, and these should result from the planned research. To accomplish them, programmed instruction will be developed to give the pilot whole-task practice with emphasis on making rapid decisions under the conditions of uncertainty characteristic of low altitude navigation.

Study 135 Techniques & Training Methods for Improving Individual and Squad Infantry Performance in Operations During Limited Visibility
Human Resources Research Office

This research is concerned with the increase of the individual soldier's effectiveness in infantry operations during limited visibility through improved operating techniques and training methods. Emphasis is on operations for which surveillance equipment systems are not adequate. The study has been under way for some time, and several segments of work have been reported on. These include the probable impact of battle group ground surveillance radar on night operations of small infantry units and the training research implications of present and future roles of infrared devices in infantry night operations. In current activity critical perceptual performances are being determined, and factors contributing to perceptual efficiency under night operational conditions are under investigation. Facts and principles obtained will be applied in developing training or training guidance.

Study 136 Procedures for Increasing the Effectiveness of Small Infantry-Type Units
Human Resources Research Office

The study is expected to lead to the discovery and application of principles for team training that will induce greater unit esprit and team cohesion and efficiency in small infantry-type units. It will also test whether such training will carry over to other team tasks and affect the individual soldier's behavior when he is assigned to a team other than the one in which he was trained. Small infantry units perform a variety of actions which are non-sequential and occur under rapidly changing and unpredictable conditions, but which nevertheless must be coordinated if

they are to succeed. Hence, a high degree of interaction within the unit is required. The problem is to learn how to develop coordinated teams that will maintain their integrity in the face of fast personnel turnover. Preliminary research indicates that procedures can be designed to fulfill the objective of strengthening in individual soldiers general and specific habits of coordinating their efforts with those of other team members. Studies will be continued on the effect of various types of training on the level and rate of attaining proficiency in team performance on difficult, complex tasks, with specific focus on the generalization of these effects across tasks. Experimental manipulations will be developed covering such things as: 1) establishment of a group code (unit opinion), 2) team work under pressure, 3) team goal setting, and 4) familiarity of team members with one another.

Study 137 <u>Methods for Improving the Effectiveness of Small Groups Under Stress</u>
Human Resources Research Office

The objective of this research study is to improve, through training, the performance of small operational Army units under adverse conditions. An early effort in this area was done in response to a request by the ACS/I for a study of the requirements of the long-range reconnaissance patrol. A report has been submitted containing recommendations for improving the effectiveness of LRRP's in the Seventh Army. The current research is sponsored by Headquarters., USCONARC. Work is now in progress on the collection of data to provide accurate descriptions of the performance of small groups operating under various adverse conditions. These activities provide a unique combination of available operational groups -- special warfare, air assault, and infantry combat teams -- and trained observers who will obtain data of value both to the attainment of the study objectives and to the scientific community. Critical group factors are being delineated, including formal and informal organization and operation of the group and changes in group structure and functioning over time and under varying conditions. Research personnel will then be attached to operational groups in order to observe activities over an extended period. Analysis of sufficient data of this sort will provide hypotheses from which guides for improving effectiveness of small groups under adversity can be developed.

Study 138 <u>Development of Training For Improving the Combat Skills of Leaders in Small Infantry Units</u>
Human Resources Research Office

This subtask has the objective of improving officer training in the critical skills required for effective combat leadership in small infantry units. It recognizes the need to improve training in such areas of skill as those involved in making sound tactical decisions in which the leader of the small infantry unit must be proficient. In addition to tactical decision making the skills to be studied include logistics and personnel utilization. Units of the Seventh Army were surveyed to obtain information on the responsibilities of the rifle platoon leader in attack, defense and retrograde operations. Experimental methods are now being examined for teaching the skills which have been identified. The objectives are: 1) to teach fundamentals more efficiently, 2) to make training less dependent on the availability of terrain, and 3) to increase likelihood of leaders retaining skills under operational conditions. The development of techniques for representing terrain inside classrooms is in progress. During the remaining work emphasis will shift somewhat from methods of teaching fundamentals to methods for providing practice in applying fundamentals, with the objective of producing skills that would be less likely to deteriorate under pressure of combat.

Study 140 Increasing the Effectiveness of Special Forces Personnel During Critical Situations
U.S. Army Personnel Research Office (In-house laboratory)

Special forces operations impose a heavy requirement upon personnel for prompt, efficient reaction to critical situations and crisis. There is reason to believe that the very presence of the signs of crisis will have a detrimental effect and may even disrupt the behavior required to cope with the crisis. Objective is to determine those tasks and task components of Special Forces operations which are subject to degradation in critical situations, and to develop procedures, including work methods, capable of reducing or eliminating such performance decrements.

Study 151 Operational Readiness Requirements of Combat Units
Research Analysis Corporation

To evaluate the operation readiness of combat units, preferably those in theaters of operations, as pertains to tactics, doctrine, equipment, and organization. The evaluations will be made through the design and conduct of field experiments and troop tests and from information obtained through observation and direct participation in Army maneuvers, tests, and training exercises. Emphasis will be placed on quick response and rapid development of improved tactics and doctrine consistent with the continuing equipment modernization requirements. Will study air-ground interactions, night operations and combat agility of ground vehicles.

Study 152 Mathematical Approaches to Combat Developments Requirements
Research Analysis Corporation

Through mathematical and simulation techniques, combat problems involving all combinations of air-ground action will be investigated. Particular emphasis will be placed on supporting the activities of Project 107, "Operational Readiness Requirements of Combat Units" and in developing means of measuring combat effectiveness that complement the field-experimentation approach of RP-107.

Areas of mathematical model-building activity include: tank-vs-tank action, tank formation vulnerability, helicopter, vulnerability, and night operations.

Develop combat models to:

(1) Predict horizontal and vertical miss distances for tanks firing from canted positions;

(2) Investigate the vulnerability of tank formations to ground attack;

(3) Investigate the vulnerability of tank formations to aerial attack;

(4) Investigate the vulnerability of helicopters to small-arms fire; and

(5) Gain insight into the area of night operations.

Study 153 Strategic Studies
Research Analysis Corporation

Identify, analyze, and synthesize relations and interactions among strategic factors bearing on problems of significance to the Army and the nation, with particular emphasis on problems related to gaming, as a means of assisting Army strategic planners and decision makers in achieving Army objectives.

This continuing project is concerned with selected problems related to U.S. national objectives throughout the spectrum of conflict. It is especially concerned with the synthesis of strategic factors, with data drawn as much as possible from other sources, including research studies such as LMS-7. Interrelated factors studies include the military, political, economic, sociological, and psychological. The focus is on the interactions and impact of these factors on the Army's ability to achieve its objectives. The project addresses itself to problems confronting the Army in areas of limited, sub-limited, and cold war, including such matters as counterinsurgency, civil-military relations, and international defense arrangements. It does this largely through gaming and related analytical studies concerning vulnerabilities, opportunities, international commitments, and geopolitics.

(1) Analysis of U.S. and Free World strategic vulnerabilities in selected areas of the world in the decade 1966-1975. (Geographic areas not studied in previous work years will be covered. For example, North Africa, Africa south of the Sahara, and Eastern Asia.)

(2) Analysis of selected Army problems in international commitments and other Army involvements in support of U.S. Strategy in the decade 1966-1975 as required or appropriate to attain the Study objective.

Study 154 Theaterspiel
Research Analysis Corporation

To study selected command, decision, and operational problems concerning force strengths and composition, logistics, support requirements, and other military-related factors together with their interactions in conflict situations at the theater level using a problem-oriented computer-assisted gaming model as a research tool.

The study is designed to provide theater gaming to support Army requirements for studies involving such factors as the strength, type, composition, and support of theater forces.

The project is a continuing one embracing problems in the entire spectrum of conflict, from cold war through limited war to general war. Problems of interest to the sponsoring agency of the Army are selected for study by simulating conflict situations with which the Army is confronted around the world. These problems may include the gross requirements for ground combat, air support, logistics, intelligence, and related matters; operations in joint or combined commands and operations with allied and indigenous military forces; and matters relating to belligerent and non-belligerent nations and their government in the areas under study; all these evolving from interaction among services, allies, and indigenous forces and governments.

The project employs analysis, simulation, and computer-assisted gaming as principal, but not exclusive, research tools. A continuous supporting effort is made to extend the capabilities of the model to make it more comprehensive and for the production of results that lend themselves to quantitative and sophisticated analysis.

Study 155 Research Support for Gaming
Research Analysis Corporation

To support gaming operations with research directed at development of new improved methodology, models, and input data; to conduct background and exploratory research and analyses on gaming technology, including computing support thereto; and to extend gaming capabilities into new, additional, and more refined applications.

This study is intended to provide research support for gaming operations in general, and specifically to advance the current and future gaming capabilities of Projects 110, 111, and 109 particularly; to advance the state of the art of gaming; and to provide means of using gaming techniques and results to support the work of other RAC studies. Problems selected for study will take cognisance of the requirements of Army planners and decision makers in relation to the entire spectrum of conflict including cold war, insurgency, limited war, and certain aspects of general war. Special attention will be given to analyses and syntheses of military and military-related concerns. Included among the latter are political, economic, psychological and sociological factors. Effort will be directed toward the development of techniques to quantify such factors, to build models to employ these factors in simulations approaching real life situations, and to adapt these factors to processing on high-speed computers.

Study 156 Economic Analysis for Strategic Planning
Research Analysis Corporation

To anticipate and appraise significant economic and related aspects of the international situation, including development of analyses and forecasts of key parameters by power bloc and region, as a basis for broad planning of force and assistance programs, especially related to the Army Strategic Plans: Basic Army Strategic Estimate (BASE) and Army Strategic Plan (ASP).

It is necessary to develop a series of broad-based studies on anticipated world situations over the long term to provide a proper basis for long-range Army planning. These studies should be in sufficient depth to highlight significant underlying politico-economic factors that must be considered by Army planners concerned with force levels, deployments, allied and other forces, infrastructure, base rights, prepositioning, etc. These studies also will assist RP-35.5 in the development of realistic contexts for war gaming.

A firm basis of United States and foreign economic and related data must be developed for these studies, which should consider also such factors as regional alignments and ambitions; politico-economic policies and directions; and economic levels, growth rates, capabilities, and constraints. Also to be included is a special analysis of the Soviet assistance program, the policy of "turnaround," as indicated in the study A-1 proposed by OCA.

(1) Develop analyses and forecasts of key strategic economic and related parameters by power bloc and region.

(2) Develop a firm data base of United States and foreign data as the basis for the above analyses and forecasts.

Study 157 Mobility for the Army
Research Analysis Corporation

To determine Army objectives regarding strategic mobility.

An analysis of the Middle East contingency, completed in January 1963, disclosed the advisability of modifying the original approach to the study. The project, as currently conceived, will provide a comprehensive analysis of critical factors affecting the prompt deployment of Army forces in response to any one of a larger set of assumed contingencies. The approach is to formulate a parametric statement of the global strategic deployment requirement through consideration of those countries and areas in which the United States has formal commitments and/or vital interests. Skeletal scenarios (location, U.S. force size, and response-time requirements) for a typical contingency in each area will be developed as a generalization of the problem statement contained in the original study terms of reference.

With the assistance, guidance, and approval of PAG, the RAC study group will generate the necessary scenarios, force structures, and costing factors. Mathematical programming technique will be employed in a parametric cost-effectiveness analysis to determine the optimal mix of deployment methods as a function of requirement levels and other model parameters. Deployment methods to be considered include aircraft, high-speed shipping, and various forms of prestocking and prepositioning. The study will develop recommended Army objectives with regard to long-range strategic mobility. Account will be taken of present and programmed capabilities with respect to both surface and air transport, implications of existing and planned prepositioning, both fixed and floating, and of the location and commitment of deployable forces. Particular attention will be given to deployments in underdeveloped areas, including problems of loading and off-loading, compatibility of terminal facilities with the mode of transport, marrying-up of troops with equipment and supplies, and marshaling of transport. It will also analyze the implications of requirements arising from simultaneously occurring contingencies.

Study 158 <u>Advanced Technology Applications</u>
Research Analysis Corporation

To investigate on a continuing basis the effect of advancing technology on military operations. Studies are intended to ensure early exploitation of the potential of new techniques by early preliminary determination of operational feasibility and by identifying areas requiring research and exploratory development leading to eventual weapon-system development, or where appropriate, engineering development of tactical weapons and equipment.

The study will include all areas of technology with possible application to military operations. In some cases it might be desirable to analyze the technology and trends therein and evaluate the impact on future weapons, equipment, and military operations. In other cases it might be desirable to analyze the trends in doctrine, organization, and operations; the impact that this may have on requirements for materiel; and then survey technology to see how these requirements might be fulfilled. Some of the technological fields where recent advances have been made to be considered initially are: lasers, light amplification devices, cryogenics, ultra-speed shaped charges, fuel, fuel-cells, molecular electronics, bionics, and penetration aids.

Some of the technological needs for new tactical weapons to which the efforts may be directed are: improved human sensory perception, ultra-miniaturization, materials for weight reduction, jam-proof sensors, jam-proof guidance means, smoke-free propellants, higher energy propellents, ultra-high velocity warheads, longer duration lasers, night optics, improved high explosive effects, environmental reliability, energy projection, directional aroustic sensors, ultrasensitive sensors, and superconductivity applications.

Study 159 <u>Field and Laboratory Investigation of Selected Factors in Foreign Language Learning</u>
Human Resources Research Office

This task is intended to increase the effectiveness of foreign language training systems in meeting U.S. Army requirements by studies of selected factors involved in the language teaching - learning process. In contrast to previous language training research by this office, which has centered on development of automated, limited language courses, this work is non-developmental and will seek descriptive, experimental and correlational answers to certain specific language training questions. In the initial phase three segments of study will be pursued concurrently: 1) Information

on current practices in language training will be assembled and organized; attention will be on general concepts and orientations, techniques, course content and objectives, training media employed and evaluation procedures, 2) Training methods for teaching the phonology of a foreign language will be developed, instruction problems will be approached by linguistic analysis and by studies in auditory recognition and pronunciation and 3) How well acquired foreign language skills are utilized on the job and what factors affect the degree and nature of such usage will be studied.

Study 160 Procedures for Contruction and Use of War-Like Exercises for Training in Decision Making
Human Resources Research Office

The purpose of this research is to develop methods and techniques for contructing and conducting training war games that simulate the decision-making environment of an individual company grade officer during battle. Initially effort will be directed toward developing techniques and methodology for constructing battle environment simulations which will not involve the use of terrain nor have the extensive umpire and computational requirements of standard map maneuvers. Company grade officer materials of in-battle activities will be used to prepare a prototype exercise. Slide and tape presentation systems are being developed to depict command action during battle and to permit active and varied trainee participation. A manual describing the construction of the prototype exercise is in preparation. The exercise will be appropriate for use at the U.S. Army Infantry School in conjunction with standard map-maneuvers or as a separate topic. The methodology for preparing such an exercise will be put in the form of how-to-do-it manual for other interested users.

ADVANCED RESEARCH PROJECTS AGENCY

Study 401 Algerian Study
Rand Corporation (Galula)

Objective: The objective of this task is to analyze the French campaign in Algeria at the level of company-size units.

Study 402 Historical Survey of Patterns & Techniques of Insurgency Conflicts in Post 1900 Latin America
Atlantic Research Corporation (H. Weigert)

Objective: The objective of this task is to identify patterns of significant national and lower-scale insurgency activity, strategy, and tactics in Latin America since 1900 in order to determine whether and to what extent such insurgency:

(a) Conformed to communist doctrines of "protracted war" as defined by Mao Tse Tung, Vo Nguyen Giap, and Che Guevara

(b) Gave evidence of commonality in a distinctively Latin American style of insurgency

(c) Followed no discernible pattern.

Study 403 Effects of Strategic Hamlet Program in Vietnam
University of Arizona (Pham Chung)

Objective: The objective of this task is to evaluate the economic, military, and general effects of the Strategic Hamlet Program in Vietnam and its role in the long-term security of the country.

Study 404 Studies of NE Thailand
Rand Corporation - Field Office in Bangkok

Objective: The objective of this task is to determine the most likely sources of social conflict in Northeast Thailand, concentrating on those local problems and attitudes which could be exploited by the Communists.

Study 405 Studies of Counterinsurgency in Latin America
Atlantic Research Corporation (H. Weigert)

The objective is to identify patterns and techniques of national and lower scale CI conflicts in Latin America to derive data of assistance to U.S. planning for R&D requirements of military CI operations in Latin America.

Study 406 Morbidity and Casualty Study
Research Analysis Corporation

Objective: The objective is to determine the specific weapons and techniques of the enemy which are causing RVNAF casualties and the relative rate of occurrence of each type of wound. This analysis is intended to give better definitions of RDT&E requirements for improved weapons and armor.

Study 407 Southeast Asia Treaty Organization Medical Analysis
Research Analysis Corporation

Objective: The objective of this task is to assess the significance of medical factors in Southeast Asian military exercises performed under SEATO.

Study 408 Royal Vietnam Air Force After Action Report Study
Rand Corporation

Objective: The objective of this task is to obtain on a systematic basis more complete and definitive RVNAF reporting of actions between elements of the RVNAF and the Viet Cong. The specific intent is to collect data of the type that will permit systematic analysis to determine RDT&E requirements.

Study 409 Ambush Patterns and Counteraction Techniques
J. Rata (In-house)

Objective: The objective of this task is to analyze the ambush in all its forms, identify typical ambush patterns, and develop parametric data from which RDT&E requirements for counterweapons, devices and equipment can be developed.

Study 410 Field Communication Systems Performance
Stanford Research Institute

Objective: The objective of this task is to analyze the operational usage and performance of base and tactical communication systems in use in South Vietnam to provide part of the basis for the identification of RDT&E requirements in the communication equipment area.

Study 411 Threat Analysis
Research Analysis Corporation

Objective: The objective is to gain some understanding of the VC attack patterns and tactics and to ascertain whether these actions can be correlated with identifiable parameters such as the fraction of the population in completed hamlets, geographical or security region, character and strength of defenses, time of the day or month, etc.

Study 412 Border Surveillance and Control
Rand Corporation

Objective: The objective of this task is to ascertain the feasibility of detecting and eventually diminishing illicit traffic in men and materials into and out of South Vietnam.

Study 413 Railroad Security
Research Analysis Corporation

Objective: The objective is to analyze security of the Vietnam Railway System and recommend improved techniques.

Study 414 Data Base Working Group
COMUSMACV (In-house)

Objective: The objective is to inventory the existing data and reports systems, assess their usefulness for command and research needs, and institute improved procedures.

Study 415 Indicators (Factor Analysis) Study
Rand Corporation (R. Jones)

Objective: The objective is to analyze groups of items whose reasonable relationships (correlations) with each other are such as to suggest them as valid indicators of counterinsurgency progress.

Study 416 New Areas Modeling Exercises in Counterinsurgency, esp. Organization & Logistics Models also O/R on Control & Protection of Population, Borders, Lines of Communication, Economic Infra-Structure
Research Analysis Corporation

Objective: As indicated

Study 427 Analysis of Mobile Development Unit Operations (MDU)
Rand Corporation

Objective: The MDU's in Thailand are basically civic-action teams, put into the field by the National Security Organization, which seek to combine and apply the talents of all civilian and military departments under a single commander. Primary missions are to persuade villagers to have faith and confidence in the RTG, to study local conditions as a basis for development planning, and to collect useful information. An analyst was assigned to spend seven weeks in Northeast Thailand with one of the MDU's and evaluate its performance.

Study 426 ARPA/AGILE Plans to Participate in a Dynamic Modeling Program for CI thru the ARPA Behavioral Sciences Project
Dynamic Modeling and Counterinsurgency (contractor undetermined)

Objective: No further statement necessary.

Study 428 Motivation Studies
Rand Corporation (G. Hickey)

Objective: The objective is to analyze the relationship between the history of ARVN NCO and middle grade officer performance in combat, and the history of personal background, appointment and promotion patterns. Also to observe the impact of charged reward, punishment and promotion patterns on performance in combat.

Study 429 Counterinsurgency Information Center (SORO)
Partial Support of SORO Project

Objective: The objective is to support a Counterinsurgency Information Center to be operated by SORO. The center will contain information relating to social and behavioral science, political science and economics. (See Study 121)

Study 431 Advisor-Counterpart Communications
Rand Corporation (G. Hickey)

Objective: The objective of this task is to survey the problem in human communication between U.S. advisors and their Vietnamese counterparts and to determine which of these problems are susceptible to improvement through research and development.

Study 432 Education Programs for Indigenous Military Scientists

Objective: The objective is to encourage cross-fertilization of the Military R&D community by inviting limited numbers of military scientific personnel from selected indigenous countries to CONUS for instruction and training.

Study 452 Communication, Cooperation and Negotiation in Culturally Heterogeneous Groups
University of Illinois (F.E. Fiedler, C.E. Osgood, H.C. Triandis, L.M. Stolurow) (Monitored by ONR)

To provide some of the basic research support to the Navy's intercultural role the following kinds of research have been undertaken in this program:

(1) To examine negotiation or bargaining behavior in a variety of ethnolinguistic settings;

(2) To explore the applicability of recently developed techniques of instructional programming in diverse linguistic barriers, and

(3) To learn more about techniques or cooperative and creative interaction across linguistic and cultural barriers. Contacts have been made in a number of European nations, and experiments are in progress to develop the necessary knowledge and techniques to further the above objectives. It is planned to extend this program to Asian nations next year and perhaps to South America.

NAVY

Study 201 Socio-Political Precursors to Insurgency
HRB - Singer, Incorporated

One of the major threats to our strong defensive posture throughout the world is the enemy's skill at formenting, precipitating, exploiting, and directing insurgent activities of either a covert or overt (guerilla) nature. Despite the fact that some insurgency sensing capability already exists within the intelligence community, some important requirements remain. New sources of data need to be tapped. A reliable, valid method of attack needs to be introduced which will not only predict trouble but will predict it at a very early point in time. In addition, the new approach should supply information of value in deriving means of averting trouble. If by means of socio-political sensors the enemy is observed to be using a certain pattern of manipulation, it will then be possible not only to assess the relative degree of threat imposed by such a plan, but to provide field personnel with systematized guide lines of effective counter manipulations and monitoring/evaluating results.

FY 64 - 0
65 - $75,000
66 - $95,000

Study 202 Inventory of Foreign Area Research
Dept. of State, External Research Staff (D. Fendrich, Nagle)

Contribute to the support of the service rendered by the External Research Staff which serves as a clearinghouse for government-sponsored and private research in pertinent social science areas. The most valuable output as far as the Navy is concerned has been directories of such research. It is now proposed to expand these functions to provide coordination of government sponsored research in these areas which will be useful in avoiding possible overlap of support.

Study 203 Chinese Relations
Stanford University (Jan Triska)

"Objective reality" has no influence upon the decision-maker, except as it is filtered through his particular set of lenses. One thing we must do then in trying to influence the choices and actions of the Soviets and Chinese is try to discover what their perceptions of their environments are. Their response to U. S. actions (or weapon systems) will depend to a large extent on their perceptions of the United States, of each other and their relations with each other, and of the world environment and their position and role within the context of this environment.

Study 204 Utilization of Special Warfare Forces to Meet Other Limited War Needs
Naval Analysis Group, Office of Naval Research

The Navy's mobility and flexibility of response is providing a cornerstone to our national security. Special Warfare Forces may well represent additional capability to meet other limited war needs. This study will examine the entire limited war spectrum of force requirements and relate the capabilities of Special Forces to these requirements.

Study 205 Geographic Area Studies
Naval Analysis Group, Office of Naval Research

Studies in this category will cover specific geographic areas and will provide a basic understanding of the politico-economic social aspects of the area as they relate to water communications systems. A study outline as follows is contemplated:

1. Define as a socio-economic model the inter-relationships between national human resources, waterborne communication systems and the economic development and internal-external security of a country.

2. Using Colombia as a model, determine to what extent the development of water communication systems and associated livelihoods could contribute to the progressive development of the economic and political stability of the country, developing priorities and costs for a twenty year period.

3. Based upon the priorities forecast, what resources of the U. S. Navy could be utilized to assist or promote the development required? What research and development effort should be exerted now to meet future needs?

Study 206 Research Implications of Naval Counterinsurgency and Unconventional Warfare Operations
Stanford Research Institute (Naval Analysis Group, Office of Naval Research)

The overall objective of this research will be to analyze counterinsurgency and unconventional warfare operations from the viewpoint of Naval requirements and potential contributions to provide a basis for development of a research and analysis program that should provide the military establishment with improved concepts, techniques, and equipments and systems for future counterinsurgency and unconventional warfare.

Study 207 Delineation of the Naval Role in Psychological Operations
Human Sciences Research, Inc. (M. D. Havron)

The psychological operations of the U. S. Navy, namely missions designed primarily for their psychological impact, are becoming increasingly important. This program is aimed at an overall delineation of the Naval role in psychological operations and where possible to develop material which will serve as a basis for implementation by commanders and operating forces.

Study 209 Development of Culture-Free Tests
Several investigators at a number of universities (Princeton University, Educational Testing Service, H. Gulliksen, F. M. Lord)

The practical utility of psychological selection tests for military personnel has been well established. Unfortunately, existing tests are not suitable for translation and use in other languages and cultures. They are "culture bound". In order to insure the rapid growth and early stability of emerging nations, the use of effective selection and classification tests will be required. We need to know more about how our own tests can be converted to usable form in other languages and cultures; about techniques for developing non-language tests for illiterate populations; and ultimately how to develop culture-free tests that can be used universally. Research in this program includes basic test theory to develop a better understanding of tests and testing and of sophisticated techniques such as multidimensional analysis which will permit the precise identification of areas where change is required to make tests more universally usable across different languages and cultures.

Study 210 Automated Instruction
Several investigators at a number of laboratories (R. Glaser, U. of Pgh.; L. Stolurow, U. of Ill.; J. Swets, MIT).

Military assistance to emerging nations generally involves providing them with military equipment. This in turn creates training needs to provide men trained in operation and maintenance. Other more general tactical

training is also involved. There is a great need for exploiting new developments in the automation of instruction to simplify and improve training.

Study 251 Inter-Nation Conflict: Case Studies of Egypt, Israel, and the United Nations at Five Points in Time
Stanford University (R. C. North)

This research will draw upon historical materials in order to acquire information about reciprocal perceptions and responses of national decision-makers in times of crisis and of their interactions with mediators external to the dyad. The primary technique of exploiting historical material will be the detailed content analysis system (the General Inquirer) developed for use on the IBM 7090 at M. I. T., Harvard University, and Stanford University.

Study 252 Analysis of International Tensions
Stanford University (R. C. North, et al.) (NOT/Point Mugn)

The principal Aim of this research is to analyze various levels of international tension by means of content analysis of public documents from the U.S., the U.S.S.R., and the People's Republic of China, and to formulate a typology of interaction patterns typical of these nations.

Study 253 Comparison of the Values of Soviet and American Elites
University of Michigan (R. Angell) (NOTS/Point Mugn)

Perceptions are influenced by values and hence an understanding of the values of decision-makers and elites is important in attempting to predict Soviet perceptions of and reactions to various aspects of deterrence.

Study 254 Deterrence and Limited War
Harvard University (M. Halperin) (NOTS/Point Mugn)

The aim of this study is to assess the viability of a direct defense strategy in relation to alternative and complementary local area strategies. This is accomplished through the discussion of a number of possible strategies for the defense of third areas and the logical analysis of the impact of alternative strategic postures.

Study 255 Deterrence in History
Institute for Cross-Cultural Studies (R. Naroll) (NOTS/Point Mugn)

The search for factors which deter agressive action must be carried on throughout the entire range of human experience. Essentially, the product of such an investigation consists of a listing of factors which have apparently some measure of effect in previous deterrent situations, a description of the operation of each factor, and an evaluation of the effectiveness of each factor and combination of factors in deterring aggressive action.

Study 256 Inducing Cooperation between Adversaries
Columbia University (M. Deutsch)

This research program will investigate techniques of inducing cooperation between adversaries and changing hostile orientation of adversaries.

Study 257 Effects of Persuasive Communications on Attitudes
Hunter College (W. Weiss)

Though there is much use of negotiation, propaganda, and intelligence operations, such use is entirely empirical and not based on modern behavorial and social science research. On the basis of coordinating

experiments, there will be an attempt to wield existing research in these areas into an integrated body of knowledge.

Study 258 Foreign Research Symposia
Social Science Research Council (P. Herring)

The principal objective of the series of foreign symposia is to stimulate interest in cross-cultural research on selected problems of group psychology. The focus will be on such Navy-relevant topics as conflict resolution, intergroup conflict and cooperation, negotiation, etc., to which prominent psychologists abroad can make unique contributions. The first symposium of prominent European psychologists has been held in Sorrento, Italy, in December 1963. In addition to the cross-fertilization of ideas which this has made possible, there will be included in the published proceedings a survey of current research in group psychology in Western Europe and a directory of research and training centers of scientists.

Study 259 Small Group Coalitions
University of Buffalo (W. E. Vinacke)

This research will investigate the strategies which characterize bargaining and decisions when members of small groups differ in relative strength and personality characteristics.

Study 260 Group Equilibrium
Rutgers University (F. K. Berrien)

Experimental data have been obtained on the process whereby groups react to and adjust to sudden stress in working conditions under a variety of different conditions. Research is being conducted both in the United States and abroad on group equilibrium as it relates to productivity and morale in problem solving work groups.

Study 261 Productivity and Cohesiveness in Culturally Heterogeneous Groups
New York University (I. Katz)

Since the Navy is faced with an important problem in the integration of groups of personnel drawn from diverse cultural backgrounds, results obtained from this research on the principles governing the dissolution of such disruptive influences should find application in the form of conditions which will lead to greater cooperativeness and productivity.

Study 262 Persuasion and Attitude Change
University of Maryland (E. M. McGinnies)

Methods of persuasion vary from culture to culture. The basic effort in this research program is to test various hypotheses stemming from a developing theory of attitude change, as they apply to foreigners as well as to Americans.

Study 263 Effects of Drugs on Somatic Activity and Human Responses
Indiana University (R. W. Russell)

The fundamental information of the action of chemical modifiers of human behavior may be applied to military situations in order that predictable changes of individual performance behavior can be made reliably. Conditions associated with prolonged monitoring tasks, the need for enhanced surveillance and to minimize reactions to stressful situations are examples of applications.

Study 264 Psychophysiology Associated with Interrogation Procedures
Stanford Research Institute (L. Birzis)

The primary objective of this research is to explore several interrogation protocols, physiological measures, and novel combinations of autonomic and sensory-motor electrophysiological changes that may occur during various interrogation situations. Any improvement in the techniques to determine the veracity of a person being interrogated should be highly useful to the military, particularly in attempts to obtain information in an unconventional warfare situation.

AIR FORCE

Study 301 Patterns of National Development and Implications for Military Planning - Latin America and Africa
University of California (Lipset)

The objective of this research is to conduct empirical studies of key topics connected with the problems of development in the emerging nations of Africa, Asia, and Latin America. The first topic relates to an exploratory cross-national study of students and how they contribute to the stability or instability of a nation. This will be studied partly by means of analysis of new questionnaire data to be collected from students overseas. The second topic focuses on the development of educational institutions, their relationships to other institutions, and how these together affect the modernization process. This topic will also be studied cross-nationally by means of historical documents and some data supplied by survey research. The third topic concerns methodological difficulties encountered in studies of comparative national development, particularly as these studies relate to survey research techniques in areas particularly relevant to military interests.

Study 302 Political Development and Modernization in Islamic Countries
University of Chicago (Binder)

The proposed research will be an investigation of the relation between national integration and political development. The research will be conducted in a group of Islamic countries of the Near and Middle East and North Africa. The underlying assumption is that modernization involves a degree of political maturation, which has two major aspects: 1) A realistic appraisal of ones own national capabilities, and 2) The adoption of a responsible foreign policy as a consequence of a realistic appraisal of the capabilities and intentions of foreign nations. It is hypothesized that political maturity cannot be attained without political stability which is related to a concept of national identity. It is further proposed to test the role of emerging social classes as the mediating agents in material modernization and their influence in political modernization. One of the principal products will be the provision of a tested scheme for the analysis of development that can be applied in other developing areas. These studies bear directly on the role of the U.S. Military in providing military advice, assistance, and advanced training in U.S. Military Schools for the indigenous military leaders, and to the problems of long-range military planning.

Study 303 Comparative Studies of Modernization Affecting Military Planning
Hebrew University (S. U. Eisenstadt)

The objective of this research will be to explore the ways in which the process of modernization in new and developing nations affects attitude changes of the populations and structural change of the economic and social systems of the countries to be studied. After the structural and attitudinal varieties of selected new nations have been determined, the research will focus upon the analysis of the conditions facilitating or impeding change toward the acceptance of modern, western conditions. Countries will be selected from Asia, Africa, and Latin America and compared with Israeli experience in their success and failure to bring about orderly change. This research should be significant assistance to Air Force plans and operations concerned with the issues of special warfare and international affairs.

Study 306 Military Implications of Change in Communist China
Harvard University, East Asian Research Center (Lindbeck)

The focus of this research program is Communist China. Research studies are concerned primarily with three general problems: 1) organizational integration; 2) value transformation and modernization; and 3) political organization and process (mobilization and use of power, including its ideological legitimation). Studies will be undertaken form various disciplinary perspectives; social science, anthropology, and political science, but projects on Chinese society and politics will be closely coordinated. Among the tasks to be undertaken during the initial three-year period are the following: 1) processes of organizational integration; 2) the individual as a citizen in Communist China; 3) ideal prescriptions for individual personality; 4) value modernization; 5) political organization and process; 6) decision-making processes; and 7) research on Chinese military policy and its implications for American military strategy and foreign policy. This research will take place both in the United States and East Asia.

Study 307 Inventory of Foreign Area Research
Department of State, External Research Staff (Nagle)

This investigator will prepare periodic inventories of government sponsored research projects in the fields of the behavioral sciences, including the following categories of research materials; bibliographies, studies in economics, education, foreign relations, geography, government and politics, history, and general regional studies, including the results of anthropological, sociological, and psychological studies. The inventories cover both classified and unclassified research reports.

Study 308 Soviet Military Aid Program as a Reflection of Soviet Objectives
Atlantic Research Corp., (H. Weigert, AFXPD)

The contractor will study the main underlying objectives of the Soviet military aid program. Have these objectives changed in the past and are they likely to change in the future? He will review the development of the Soviet military aid program from its inception to the present. What major changes have taken place and why? What evidence is there of instances in which the Soviets have reacted to something the U.S. did not do? The contractor will analyze the present aims of Soviet military aid. What is relationship of present aims to the "wars of liberation" policy? An attempt will be made to forecast future Soviet military aid programs. What effect will internal economic factors have on future Soviet military aid programs? What will be the estimated relative influence of the United States, Peking, and France on future Soviet military aid plans?

Study 310 Alternative Strategies for Crisis Control and Conflict Management
University of Pennsylvania (AFXPD) (Kintner)

The contractor will analyze the problem of escalation. Develop information relating to the means and advantages of escalation of U.S. aerospace forces; control and interdiction of escalation by hostile powers; the tactics, strategy and doctrine applicable in escalation situations; and tactics, strategy and doctrine applicable to the use of air power in cold war situations.

Study 311 Military Power and Persuasion
Bureau of Social Science Research (Biderman)

This study is directed toward providing an increased understanding of social, cultural, psychological and political aspects of persuasive

communication as they may relate to the control and impact of military power. A systematic analytic structure will be developed for integrating existing knowledge and conducting investigations relevant to problem areas such as counter-insurgency and civic action programs of the Air Force. There will be a continuing development of research approaches, tapping of scientific resources in the academic community and the transmittal to Air Force Planning Officers of Social Science Research results in this problem area. The study should provide a useful bridge between the application of research in direct support of Air Force programs, and the on-going stream of more basic research relating to the psychological and social impact of aerospace power.

Study 312 Cross-National Measures of Attitude Change Under Conditions of Modernization
Harvard University (Inkeles)

The goal of this research is to achieve systematic measures of attitude change for use in a wide range of cultural settings where modernization is occurring. Attitudes toward self, peers, and authority and aspirations for self, for children, and for community, are some of the main dimensions to be explored initially. The development and testing of such measures are considered an indispensable foundation for understanding the massive process of social change, and its frequently explosive political consequences, now being experienced in many parts of Asia, Africa and Latin America.

Study 351 Elite Structure and Transformation in Political Systems
University of Pittsburgh (Beck)

This research project is designed to study the aggregate composition of political elites, through time, in selected states of Eastern Europe. Three research interests can be identified in the project: 1) Data on the character of political elites in Eastern Europe, 2) Validation or rejection of hypotheses related to the direction of elite change in totalitarian political systems, 3) Theoretical statements regarding the process of elite transformation. Each of these will be systematically explored. The research effort should contribute to the understanding of what has actually occurred in totalitarian political systems, what trend has been developing, and in what manner the interplay between internal and external factors has stimulated and retarded the transformation of elites. The latter is crucial for understanding one aspect of persuasive communication procedures and assessing ultimate alternative policies in Air Force planning procedures.

Study 352 Military Implication of the Transmission of New Technology to Developing Nations (Japan)
Howard University (Spencer)

The objective of this study is to examine the nature and military implications of the transmission and diffusion of new technology through a modern nation to developing countries. The study will focus upon the economic factors but will include other world-wide ramifications of a modern nations role (Japan) in receiving and diffusing new technology to other less developed countries of the world. It will seek to determine the basic conditions for and consequences of such transmission and diffusion. This study promises to be useful in providing insights in the area of transferring and communication intellectual skills and technological methods from the United States to less developed countries, such as those in which Air Force personnel are training people in the use of modern equipment and weapons.

Study 354 Measurement of Attitudes and Attitude Change
University of Colorado (Cook)

The goal of this research is the construction and testing of a set of standardized measuring instruments, as it were, for these important ingredients of human persuasion and motivation. The focus of the work is on the measurement of attitudes toward social groups-- people of other countries, or sub-groups within a country. Particular attention will be given to interviewing techniques and on techniques in which inferences are drawn from performance on objective tasks. This work should contribute significantly to an area which is becoming increasi. ly important to the Air Force-- the ability to measure and assess the influence of its operations, systems development and personnel on host communities and people, both domestic and foreign.

Study 355 Study of Self-Management Techniques for Stressful Conditions
Bureau of Social Science Research (Klausner)

The objective of these studies is to determine the techniques, strategies, and motivating forces used by individuals who are members of a group or an organization regularly operating in stressful environments. Investigations will be made of such groups as military special forces, specialized religious groups, and sport parachutists (skydivers), whose activities subject them to disapproval, physical hostility, or danger. Efforts will be made to identify those strategies and techniques used to prepare persons to face stress, and those forms of ritualism or group loyalty that are manipulated to provide resistance to stress. Results of this research should be useful in suggesting ways of improving selection and training procedures for personnel required for stressful assignments.

Study 356 Study of Cognitive and Affective Attitudes Cross-Culturally
University of Oxford, England (Tajfel)

This research will elucidate the motivational basis for the development of prejudice. Current theories implicate: 1) The consequences of the process of socialization, 2) Emotional experiences underlying particular types of personality structure, or 3) The results of a multiplicity of social influences. Three stages in the development of cognitive aspects of prejudice are recognized--differentiation, identification, and evaluation. The investigator will examine the way in which individuals categorize information and the way in which the mode of categorization affects the acquisition of sterotypes which facilitate the learning of responses that are described as prejudiced behavior. Studies will be undertaken in cross-cultural settings in an effort to control the effects of group and cultural factors in development of attitudes toward an individuals own group and other groups. The results of this research are applicable to the preparation of personnel for overseas military assignments and in the development of training and operational coordination of U.S. and foreign military personnel.

Study 357 Action Means as a Factor in Persuasion (Outcomes)
University of Pittsburgh (Nehnevajsa)

The objective of this research is to conduct a series of studies on important factors involved in judgment and decision-making about critical political and international issues. Previous studies concerned themselves with judgments of probability, desirability, and desirability attributed to others, regarding the possible occurrence of certain future events. In the present studies the focus will be on available and actual means of action courses possible to individuals and groups acting in a socio-political situation. Possible

courses of action will be evaluated in relation to the circumstances and environments in which some of these actions are: A) prescribed, B) preferred, C) permitted, or D) prohibited. The results of this study will be placed in a predictive relation against claims of how respondents would act in specific cold war situations.