



# governmentattic.org

*"Rummaging in the government's attic"*

Description of document: Defense Intelligence Agency report, Biological Warfare Capabilities - European Communist Countries, March 1973

Requested date: 23-October-2008

Released date: 10-June-2013

Posted date: 13-August-2013

Source of document: Commander  
US Army Intelligence & Security Command Freedom of Information/Privacy Office  
ATTN: IAMG-C-FOI  
4552 Pike Road  
Fort George G. Meade, MD 20755-5995  
Fax: (301) 677-2956  
Email: [FOIA/Privacy Office](#)  
[Online FOIA Request Form](#)

Note: This report is one of 16 reports released under Mandatory Declassification Review by the US Army Intelligence & Security Command. All of these reports may be accessed here: <http://www/governmentattic.org/inscomBWCW.html>

The governmentattic.org web site ("the site") is noncommercial and free to the public. The site and materials made available on the site, such as this file, are for reference only. The governmentattic.org web site and its principals have made every effort to make this information as complete and as accurate as possible, however, there may be mistakes and omissions, both typographical and in content. The governmentattic.org web site and its principals shall have neither liability nor responsibility to any person or entity with respect to any loss or damage caused, or alleged to have been caused, directly or indirectly, by the information provided on the governmentattic.org web site or in this file. The public records published on the site were obtained from government agencies using proper legal channels. Each document is identified as to the source. Any concerns about the contents of the site should be directed to the agency originating the document in question. GovernmentAttic.org is not responsible for the contents of documents published on the website.



**DEPARTMENT OF THE ARMY**  
**UNITED STATES ARMY INTELLIGENCE AND SECURITY COMMAND**  
**FREEDOM OF INFORMATION/PRIVACY OFFICE**  
**FORT GEORGE G. MEADE, MARYLAND 20755-5995**

REPLY TO  
ATTENTION OF:

Freedom of Information/  
Privacy Office

10 JUN 2013

This is in further response to your Freedom of Information Act (FOIA) request of October 23, 2008, and supplements our electronic message of May 12, 2010.

Coordination has been completed with another element of our command and other government agencies and records returned to this office for our review and direct response to you. We have reviewed the records and determined the records are partially releaseable to you. A copy of the records are enclosed for your use.

We have completed a mandatory declassification review in accordance with Executive Order (EO) 13526. As a result of our review information has been sanitized and 4 pages have been withheld in their entirety as the information is currently and properly classified TOP SECRET, SECRET and CONFIDENTIAL according to Sections 1.2(a)(1), 1.2(a)(2), 1.2(a)(3) and 1.4(c) of EO 13526. This information is exempt from the public disclosure provisions of the FOIA pursuant to Title 5 U.S. Code 552 (b)(1). It is not possible to reasonably segregate meaningful portions of the withheld pages for release. The records are enclosed for your use. A brief explanation of the applicable sections follows:

Section 1.2(a)(1) of EO 13526, provides that information shall be classified TOP SECRET if its unauthorized disclosure reasonably could be expected to cause exceptionally grave damage to the national security.

Section 1.2(a)(2) of EO 13526, provides that information shall be classified SECRET if its unauthorized disclosure reasonably could be expected to cause serious damage to the national security.

Section 1.2(a)(3) of EO 13526, provides that information shall be classified CONFIDENTIAL if its unauthorized disclosure reasonably could be expected to cause serious damage to the national security.

Section 1.4(c) of EO 13526, provides that information pertaining to intelligence activities, intelligence sources or methods, and cryptologic information shall be considered for classification protection.

In addition, information has been sanitized from the records and 4 pages have been withheld in their entirety as the release of the information would reveal sensitive intelligence methods. This information is exempt from public disclosure pursuant to Title 5 U.S. Code 552 (b)(7)(E) of the FOIA. The significant and legitimate governmental purpose to be served by withholding is that a viable and effective intelligence investigative capability is dependent upon protection of sensitive investigative methodologies. It is not possible to reasonably segregate meaningful portions of the withheld pages for release.

The withholding of the information described above is a partial denial of your request. This denial is made on behalf of Major General Stephen G. Fogarty, the Commanding General, U.S. Army Intelligence and Security Command, who is the Initial Denial Authority for Army intelligence investigative and security records under the FOIA. You have the right to appeal this decision to the Secretary of the Army. Your appeal must be postmarked no later than 60 calendar days from the date of this letter. After the 60-day period, the case may be considered closed; however, such closure does not preclude you from filing litigation in the courts. You should state the basis of your disagreement with the response and provide justification for a reconsideration of the denial. An appeal may not serve as a request for additional or new information. An appeal may only address information denied in this response. Your appeal is to be made to this office, for forwarding, as appropriate to the Secretary of the Army, Office of the General Counsel.

Coordination has been completed and we have been informed by the Central Intelligence Agency (CIA) that information is exempt from public disclosure pursuant to Title 5 U.S. Code 552 (b)(1) and (b)(3) of the FOIA.

The withholding of the information by the CIA constitutes a denial of your request and you have the right to appeal this decision to the Agency Release Panel within 45 days from the date of this letter. If you decide to file an appeal, it should be forwarded to this office and we will coordinate with the CIA on your behalf. Please cite CIA #F-2010-01292/Army #57F-09 assigned to your request so that it may be easily identified.

Coordination has been completed and we have been informed by the Defense Intelligence Agency (DIA) that their information is exempt from public disclosure pursuant to Title 5 U.S. Code § 552 (b)(1), (b)(2) (b)(3) and (b)(4) of the Freedom of Information Act and Executive Order (EO) 13,526 § 1.4 (c) (d) and (h). The statute invoked under Title 5 U.S. Code 552 (b)(3) is 10 U.S.C. §424, which allows for the protection of organizational and personnel information for DIA.

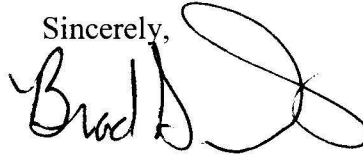
The withholding of the information by the DIA constitutes a partial denial of your request and you have the right to appeal this decision directly to the DIA. If you decide to file an appeal, it should be forwarded to the Director, Defense Intelligence Agency, ATTN: DAN-1A-FOIA, Washington, DC 20340-5100. Please cite MDR #0155-2010 assigned to your request so that it may be easily identified.

You have received all Army intelligence investigative records pertaining to this request.

There are no assessable FOIA fees.

If you have any questions regarding this action, feel free to contact this office at 1-866-548-5651, or email the INSCOM FOIA office at: [INSCOM\\_FOIA\\_ServiceCenter@mi.army.mil](mailto:INSCOM_FOIA_ServiceCenter@mi.army.mil) and refer to case #57F-09.

Sincerely,

A handwritten signature in black ink, appearing to read "Brad S. Dorris". The signature is stylized with a large, looping flourish at the end.

Brad S. Dorris  
Director  
Freedom of Information/Privacy Office  
Investigative Records Repository

Enclosure

~~TOP SECRET~~

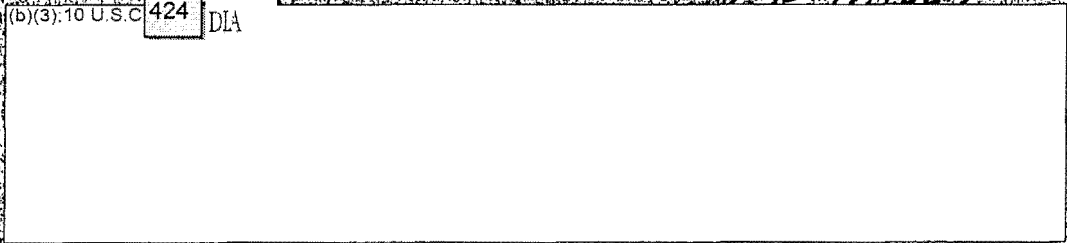
Copy 102 of 128  
SAO/ST-SS-03-37-73



# DEFENSE INTELLIGENCE AGENCY

## BIOLOGICAL WARFARE CAPABILITIES -- EUROPEAN COMMUNIST COUNTRIES (U)

(b)(3)-10 U.S.C. 424 DLA



### LIBRARY COPY

NO FOREIGN DISSEMINATION  
CONTROLLED DISSEMINATION  
NO DISSEMINATION ABROAD

P12 P241  
P311 P363  
P141 (7)  
P195  
P217 CIRC

(b)(3)-10 U.S.C. 424 DLA



TCS-692476/77  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

E-2 IMPDET

515

~~TOP SECRET~~

THE CLASSIFIED OR LIMITED STATUS OF THIS DOCUMENT OR DOCUMENTS APPLIES  
TO EACH PAGE THEREOF UNLESS OTHERWISE MARKED. SEPARATE PAGE PRINTOUTS  
MUST BE MARKED ACCORDINGLY.

~~TOP SECRET CHESS RUFF~~

(b)(1)

SAO/ST-SS-03-37-73  
Original

BIOLOGICAL WARFARE CAPABILITIES--EUROPEAN COMMUNIST COUNTRIES (U)

(b)(6)

SAO/ST-SS-03-37-73

(b)(3);50 U.S.C. 424

DIA

March 1973

Information cutoff date: 3 January 1973

This study supersedes suppl 1, SAO/ST-SS-03-37-71 dated April 1971.

(b)(3);10 U.S.C. 424

DIA

(b)(3);10 U.S.C. 424

DIA

(b)(3);10 U.S.C. 2640

DIA

(b)(3);10 U.S.C. 424

TCS-692476/77

Handle via

~~TALENT-KEYHOLE~~ (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~

(b)(1)

517

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73  
Original

PREFACE

(U) The purpose of this study is to assess the many facets of biological warfare information available on Czechoslovakia, East Germany, Poland, Hungary, Romania, Bulgaria, and Yugoslavia. For each of these nations, information is treated concerning: order of battle for biological warfare; identifications and descriptions of biological warfare materiel; production installations and capabilities; stockpiles and storage facilities; doctrine and procedures which would govern the use of biological warfare; defensive measures to be taken in the event biological warfare was initiated; and applicable research, development, and testing programs. Albania will be included in scheduled updates of this study. The biological warfare capability of the USSR is reviewed in a separate study (ST-CS-03-34A-71).

(b)(1)

(U) Throughout this product, titles of illustrations and tables are followed by the appropriate security marking symbol indicating the classification of titles only. Unclassified titles are indicated by the symbol (U). For headings (such as section, subsection, appendix, paragraph, etc.), the security marking symbol is given only for titles that are classified. Unclassified headings are indicated by the absence of any symbol.

(U) Constructive criticisms, comments, or suggested changes are solicited, and should be forwarded to the Defense Intelligence Agency, Washington, D. C. 20301, ATTN: DT-1A.

518

111

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly



~~TOP SECRET CHASS RUFF~~

(b)(1)

SAO/ST-SS-03-37-73  
Original

LIST OF EFFECTIVE PAGES

SUBJECT MATTER	PAGE NUMBERS	DATE
Title Page -----	None	March 1973
Preface -----	iii and iv	Original
List of Effective Pages ----	v and vi	Original
Record of Changes -----	vii and viii	Original
Table of Contents -----	ix thru xxiv	Original
List of Illustrations -----	xxv and xxvi	Original
List of Tables -----	xxvi	Original
Summary -----	xxvii thru xxx	Original
Section I -----	1 thru 76	Original
Section II -----	77 thru 140	Original
Section III -----	141 thru 194	Original
Section IV -----	195 thru 218	Original
Section V -----	219 thru 240	Original
Section VI -----	241 thru 262	Original
Section VII -----	263 thru 282	Original
Appendix I -----	I-1 thru I-6	Original
Appendix II -----	II-1 thru II-4	Original
Bibliography -----	A-1 thru A-66	Original
DD Form 1473 -----	B-1 and B-2	Original
Distribution List -----	C-1 and C-2	Original

519

v

~~TOP SECRET CHASS RUFF~~

(b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET GHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73  
Original

RECORD OF CHANGES

CHANGE NUMBER	DATE OF CHANGE	DATE ENTERED	SIGNATURE, RANK/RATE AND ORGANIZATION OF INDIVIDUAL ENTERING CHANGE

520

vii

~~TOP SECRET GHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73  
Original

(This page intentionally left blank)

521

viii

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73

Original

TABLE OF CONTENTS\*

	<u>Page</u>
Preface -----	iii
Summary -----	xxvii
SECTION I. CZECHOSLOVAKIA	
A. INTRODUCTION	
1. Historical Background -----	1
2. Status of Czechoslovak Microbiology -----	2
3. Geography -----	2
4. Political Factors -----	3
B. ORDER OF BATTLE FOR BW	
5. Biological Warfare Program -----	3
6. Organization for CBR Defense in Ground Forces -----	4
7. Medical Units Concerned with CBR Defense -----	15
8. CBR in Civil Defense Units and Programs -----	17
C. DOCTRINES AND PROCEDURES GOVERNING USE OF BW WEAPONS	
(b)(1)	
D. DOCTRINES AND PROCEDURES FOR DEFENSE AGAINST BW	
14. Introduction -----	21
15. Preparation -----	21
16. BW Intelligence and Agent Warning -----	23
17. Rules of Conduct on Ground Contaminated by Bacterial Agents -----	24
18. Antiepidemic Measures Employed Following a BW Attack -----	25

\*All titles are UNCLASSIFIED unless otherwise shown.

ix

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72

Handle via

TALENT-KEYHOLE (b)(1)

control systems jointly

~~TOP SECRET CHESS RUFF~~

(b)(1)

SAO/ST-SS-03-73-73  
Original

TABLE OF CONTENTS (Continued)

	<u>Page</u>
E. BW MATERIEL (OFFENSIVE)	
19. BW Weapons -----	26
20. BW Agents -----	27
F. BW MATERIEL (DEFENSIVE)	
21. General -----	27
22. Individual Protective Equipment -----	27
23. Collective Protection Equipment -----	30
24. Reconnaissance, Detection and Diagnosis Equipment -----	31
25. Decontamination Agents and Equipment -----	32
26. Test Sets for Protective Equipment -----	33
27. Vaccines and Sera -----	33
G. PRODUCTION FACILITIES AND CAPABILITIES	
28. Introduction -----	33
29. Fluorescent Antisera -----	34
30. Pharmaceuticals -----	34
31. Protective Clothing and Equipment -----	34
32. BW Agents -----	34
33. Unidentified Installation Near Zamberk, Czechoslovakia -----	35
H. STOCKPILES AND STORAGE FACILITIES	
34. Stockpiles -----	36
35. Storage Facilities -----	37
I. BW RESEARCH AND DEVELOPMENT	

(b)(1)

523

x

~~TOP SECRET CHESS RUFF~~

(b)(1)

TCS-692476/12  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

TABLE OF CONTENTS (Continued)

Page

(b)(1)

J. ANTICROP BIOLOGICAL WARFARE

47. Major Crops -----	70
48. R&D Against Naturally Occurring Crop Pests and Anticrop Warfare Agents -----	70
49. Assessment of Anticrop BW Capabilities -----	72

K. SUMMATIONS

50. Conclusions -----	72
51. Intelligence Gaps -----	73

L. TRENDS AND FORECASTS

52. Trends -----	74
53. Forecasts -----	74

SECTION II. EAST GERMANY

A. INTRODUCTION

1. Historical Background -----	77
2. Competence in Microbiology and Public Health -----	78

B. ORDER OF BATTLE FOR BW

3. Biological Warfare Program -----	78
4. Organization of the Chemical Directorate in East Germany -----	78

524

xi

TCS-692476/72

Handle via

TALENT-KEYHOLE (b)(1)

control systems jointly

(b)(1)

SAO/ST-SS-03-73-73  
Original

TABLE OF CONTENTS (Continued)

	<u>Page</u>
5. Organization for CBR in the Ground Forces -----	79
6. Civil Defense -----	81
 C. DOCTRINES AND PROCEDURES GOVERNING USE OF BW WEAPONS	
7. Warsaw Pact Plans -----	81
8. Soviet Front -----	81
9. Employment of Biological Agents -----	82
 D. DOCTRINE AND PROCEDURES FOR DEFENSE AGAINST BW	
10. General -----	83
11. Protection Against Biological Agents -----	83
12. Detection of Biological Agents -----	85
13. Collective Protection Facilities -----	85
14. Contaminated Areas Surveillance -----	86
15. Techniques for Complete Chemical and Biological Agent Decontamination -----	87
16. Sanitation After Exposure to Biological Agents -----	88
17. Partial Sanitation After Biological Agent Contamination -----	88
18. Complete Sanitation -----	89
19. Complete Sanitation in Mobile Shower Facilities -----	90
20. Methods for Biological Agent Decontamination of Clothing -----	90
21. Techniques for Chemical and Biological Agent Decontamination of Important Terrain Features -----	92
 E. BW MATERIEL (OFFENSIVE)	
22. General -----	94
23. Possible BW Agents -----	94
 F. BW MATERIEL (DEFENSIVE)	
24. General -----	96
25. Individual Protective Equipment -----	96
26. Decontaminating Materials -----	98
27. Individual Decontamination Kits -----	99
28. Equipment for the Decontamination of Weapons, Installations and Vehicles -----	99

525

(b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/SI-SS-03-37-73  
Original

TABLE OF CONTENTS (Continued)

	<u>Page</u>
29. Devices for the Decontamination of Terrain -----	102
30. Devices for the Decontamination of Clothing -----	103
31. Shower Units -----	103
32. Reconnaissance and Detection Equipment -----	104
 G. PRODUCTION FACILITIES AND CAPABILITIES	
33. Introduction -----	104
34. BW Agents -----	105
35. Vaccines and Sera -----	105
36. Protective Clothing and Equipment -----	106
 H. STOCKPILES AND STORAGE FACILITIES	
37. Stockpiles -----	106
38. Storage Facilities -----	106
 I. RESEARCH AND DEVELOPMENT	
(b)(1)	
 J. ANTICROP BIOLOGICAL WARFARE	
45. General -----	132
46. R&D Against Naturally Occurring Crop Pests and Anticrop Warfare Agents -----	132
47. Assessment of Defensive Anticrop BW Capabilities ---	133
48. Assessment of Offensive Anticrop BW Capabilities ---	133

526

xiii

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-697476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly



SAO/ST-SS-03-73-73  
Original

TABLE OF CONTENTS (Continued)

	<u>Page</u>
K. EAST GERMAN NAVAL BW CAPABILITIES	
49. CBR Activity -----	134
50. Offensive BW -----	134
51. CBR Protection Systems -----	134
52. Related Publications -----	135
L. SURELATIONS	
53. Conclusions -----	135
54. Intelligence Gaps -----	136
M. TRENDS AND FORECASTS	
55. Trends -----	137
56. Forecasts -----	138
SECTION III. POLAND	
A. INTRODUCTION	
1. Historical Background -----	141
2. Competence in Microbiology and Public Health -----	142
3. Geographical and Political Factors -----	143
B. ORDER OF BATTLE	
4. Military Organizations and Personnel -----	143
5. Military Equipment -----	148
6. Navy BW Capabilities -----	150
C. DOCTRINE AND PROCEDURES GOVERNING USE OF BW WEAPONS	
7. Doctrine -----	151
8. Procedures -----	152
D. DOCTRINE AND PROCEDURES FOR DEFENSE AGAINST BW	
9. Doctrine -----	153
10. Procedures -----	153

527

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

TABLE OF CONTENTS (Continued)

	<u>Page</u>
E. BW MATERIEL (OFFENSIVE)	
11. Agents -----	154
12. Munitions -----	154
F. BW MATERIEL (DEFENSIVE)	
13. Decontamination -----	154
14. Identification and Detection -----	155
G. PRODUCTION FACILITIES AND CAPABILITIES	
15. Agent Production -----	156
16. Munitions -----	157
H. STOCKPILES AND STORAGE FACILITIES	
17. Stockpiles -----	157
18. Capabilities -----	157
I. BW RESEARCH, DEVELOPMENT, AND TESTING	

(b)(1)

528

SAO/ST-SS-03-73-73  
Original

TABLE OF CONTENTS (Continued)

	<u>Page</u>
(b)(1)	

J. ANTICROP RESEARCH

38. General -----	186
39. Major Crops -----	186
40. R&D Against Naturally Occurring Crop Pests and Crop Diseases -----	187

(b)(1)
--------

45. Assessment of Defensive Anticrop BW Capabilities ---	190
46. Assessment of Offensive Anticrop BW Capabilities ---	190

K. SUMMATIONS

47. Conclusions -----	190
48. Intelligence Gaps -----	191

L. TRENDS AND FORECASTS

49. Trends -----	191
50. Forecasts -----	193

SECTION IV. HUNGARY

A. INTRODUCTION

1. Historical Background -----	195
2. Competence in Microbiology and Public Health -----	196
3. Geographical and Political Factors -----	197

529

xvi

TABLE OF CONTENTS (Continued)

	<u>Page</u>
H. ORDER OF BATTLE FOR BW	
4. Military Organizations and Personnel -----	198
5. Military Equipment -----	199
C. DOCTRINE AND PROCEDURES GOVERNING USE OF BW WEAPONS	
6. Doctrine -----	200
7. Procedures -----	200
D. DOCTRINE AND PROCEDURES FOR DEFENSE AGAINST BW	
8. Doctrine -----	201
9. Procedures -----	201
E. BW MATERIEL (OFFENSIVE)	
10. Agents -----	202
11. Munitions -----	202
F. BW MATERIEL (DEFENSIVE)	
12. Decontamination -----	202
13. Identification and Detection -----	202
G. PRODUCTION FACILITIES AND CAPABILITIES	
14. Production Facilities -----	204
15. Capabilities -----	204
H. STOCKPILES AND STORAGE FACILITIES	
16. Stockpiles -----	205
17. Capabilities -----	205
I. BW RESEARCH, DEVELOPMENT, AND TESTING	
18. General -----	205
19. Medical Universities -----	205

(b)(1)

530

xvii

TCS-692476/72

Handle via

TALENT KEYHOLE (b)(1)

control systems jointly

SAO/ST-55-03-73-73  
Original

TABLE OF CONTENTS (Continued)

9  
Page  
(b)(1)

J. ANTICROP RESEARCH

25. General ----- 210

26. Major Crops ----- 211

27. R&D Against Naturally Occurring Crop Pests and Anticrop Warfare Agents ----- 211

28. Assessment of Defensive Anticrop EW Capabilities --- 213

29. Assessment of Offensive Anticrop EW Capabilities --- 213

K. SUMMATIONS

30. Conclusions ----- 213

31. Intelligence Gaps ----- 214

L. TRENDS AND FORECASTS

32. Trends ----- 214

33. Forecasts ----- 215

SECTION V. ROMANIA

A. INTRODUCTION

1. Historical Background ----- 219

2. Competence in Microbiology and Public Health ----- 220

3. Geographical and Political Factors ----- 220

B. ORDER OF BATTLE

4. Organizations and Personnel ----- 221

5. Military Equipment ----- 224

531

xviii

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

TABLE OF CONTENTS (Continued)

	<u>Page</u>
C. DOCTRINE AND PROCEDURES GOVERNING USE OF BW WEAPONS	
6. Doctrine -----	224
7. Procedures -----	224
D. DOCTRINE AND PROCEDURES FOR DEFENSE AGAINST BW	
8. Doctrine -----	225
9. Procedures -----	225
E. BW MATERIEL (OFFENSIVE)	
10. Ground Force Capabilities -----	225
11. Romanian Navy BW Capabilities -----	226
F. BW MATERIEL (DEFENSIVE)	
12. Decontamination -----	226
13. Identification and Detection -----	227
G. PRODUCTION AND STOCKPILES	
14. Production Facilities and Capabilities -----	227
15. Stockpiles and Storage Facilities -----	228

H. [Redacted Box]

(b)(1)

SAO/ST-SS-03-73-73  
Original

TABLE OF CONTENTS (Continued)

	<u>Page</u>
I. ANTICROP RESEARCH	
24. General -----	234
25. Major Crops -----	235
26. R&D Against Naturally Occurring Crop Pests and Anticrop Warfare Agents -----	236
27. Assessment of Defensive Anticrop BW Capabilities ---	236
28. Assessment of Offensive Anticrop BW Capabilities ---	236
J. SUMMATIONS	
29. Conclusions -----	236
30. Intelligence Gaps -----	237
K. TRENDS AND FORECASTS	
31. Trends -----	237
32. Forecasts -----	238
SECTION VI. BULGARIA	
A. INTRODUCTION	
1. Historical Background -----	241
2. Competence in Microbiology and Public Health -----	242
3. Geographical and Political Factors -----	242
B. ORDER OF BATTLE	
4. Military Organization and Personnel -----	243
5. CBR Training -----	244
6. Military Equipment -----	246
C. DOCTRINE AND PROCEDURES GOVERNING USE OF BW WEAPONS	
7. Doctrine -----	247
8. Procedures -----	247

533

xx

TCS-69247772  
Handle via

TALENT KEYHOLE (b)(1)  
control systems jointly

TABLE OF CONTENTS (Continued)

	<u>Page</u>
D. DOCTRINE AND PROCEDURES FOR DEFENSE AGAINST BW	
9. Doctrine -----	247
10. Procedures for BW Defense -----	247
E. BW MATERIEL (OFFENSIVE)	
11. Agents -----	248
12. Delivery Systems -----	249
F. BW MATERIEL (DEFENSIVE)	
13. Decontamination -----	249
14. Identification and Detection -----	249
G. PRODUCTION FACILITIES AND CAPABILITIES	
15. Production Facilities -----	250
16. Stockpiles and Storage Facilities -----	250
H. BW RESEARCH, DEVELOPMENT, AND TESTING	
17. General -----	250
(b)(1)	
(b)(1)	
I. ANTICROP RESEARCH	
24. General -----	256
25. Major Crops -----	257

534

xxi



SAO/ST-SS-03-73-73  
Original

TABLE OF CONTENTS (Continued)

	<u>Page</u>
26. R&D Against Naturally Occurring Crop Pests and Anticrop BW Agents -----	257
27. Assessment of Defensive Anticrop BW Capabilities ---	258
28. Assessment of Offensive Anticrop BW Capabilities ---	258
 J. SUBMATIONS	
29. Conclusions -----	258
30. Intelligence Gaps -----	259
 K. TRENDS AND FORECASTS	
31. Trends -----	259
32. Forecasts -----	260
 SECTION VII. YUGOSLAVIA	
A. INTRODUCTION	
1. Historical Background -----	263
2. Competence in Microbiology and Public Health -----	264
3. Geographical and Political Factors -----	265
 B. ORDER OF BATTLE	
4. Organization of the Biological Defense Capability in Yugoslavia -----	266
5. Training of the Biological Warfare Personnel -----	266
 C. DOCTRINE AND PROCEDURES GOVERNING USE OF BW WEAPONS	
6. Tactical Doctrine of BW in Yugoslav Ground Forces -----	266
7. Procedures -----	266
 D. BW MATERIEL (OFFENSIVE)	
8. Agents -----	268
9. Delivery Systems -----	268

xx-11

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

TABLE OF CONTENTS (Continued)

	<u>Page</u>
E. BW MATERIEL (DEFENSIVE)	
10. Equipment -----	268
11. Supplies -----	268
F. PRODUCTION FACILITIES AND CAPABILITIES	
12. Types of BW Agents and Munitions Produced and Stockpiled -----	268
13. Types of BW Defensive Equipment Produced and Stockpiled -----	268
14. Production Sites -----	271
15. Other Stockpiles -----	271
G. BW RESEARCH, DEVELOPMENT, AND TESTING	

(S)

(b)(1)

H. SUMMATIONS	
29. Conclusions -----	277
30. Intelligence Gaps -----	278

xxiii

YCS-692476/72  
Handle via  
~~TALENT KEYHOLE~~ (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-55-03-73-73  
Original

TABLE OF CONTENTS (Continued)

	<u>Page</u>
I. TRENDS AND FORECASTS	
31. Trends -----	279
32. Forecasts -----	279
APPENDIX I. CBR TRAINING FOR CZECHOSLOVAK ARMORED UNITS -----	I-1
APPENDIX II. MOBILE CHEMICAL SCHOOL, (CBR), LIBEREC -----	II-1
Bibliography -----	A-1
DD Form 1473 -----	B-1
Distribution List -----	C-1

537

xxiv

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT KEYHOLE (b)(1)  
control systems jointly

LIST OF ILLUSTRATIONS\*

Figure	Page
(S) (b)(1)	

- 10. New Czechoslovak protective mask ----- 29  
(S) (b)(1)
- 12. Schematic diagram of Czechoslovak aerosol chamber ----- 48
- 13. Institute of Microbiology building, Prague-Krc ----- 49
- 14. Dr. Ivan Malek, Former Director, Institute of Microbiology,  
Czechoslovak Academy of Sciences, Prague ----- 49
- 15. Continuous culture equipment at the Institute of  
Microbiology ----- 51
- 16. Organization chart, Institute of Virology, Bratislava ----- 57  
(S)

(b)(1)	
--------	--

\*All titles are UNCLASSIFIED unless otherwise shown.

xxv

538

TOP SECRET CHESS RUFF (b)(1)

SAO/SI-SS-03-73-73

Original

<u>Figure</u>	<u>Page</u>
26. Dr. Stephan Slopek, Director of the Institute of Immunology and Experimental Therapy, Wroclow -----	179
27. Dr. Tadeusz Wolski, Chief Breeder of the Choryn Plant Breeding Station near Poznan -----	189

(b)(1)

Table

I. Estimated TO/E of Independent ABC Battalion -----	267
II. Selected Medical Research Laboratories -----	269
III. Major Pharmaceutical Plants -----	270
IV. Medical Depots -----	272

539

xxvi

TOP SECRET CHESS RUFF (b)(1)

TCS-692476/72  
Handle via (b)(1)  
TALENT-KEYHOLE-  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73  
Original

(b)(1)

NO FOREIGN DISSEM

540

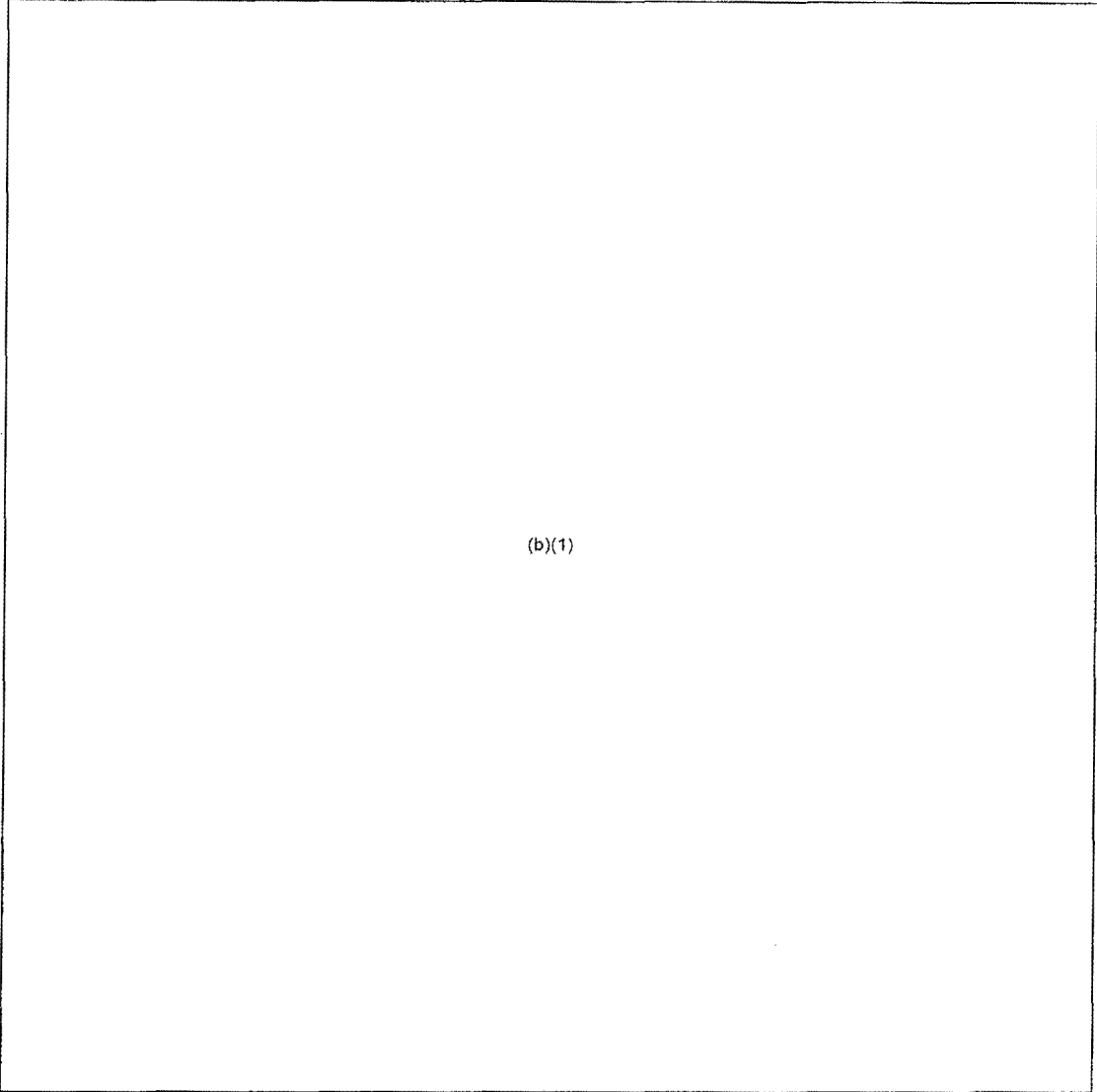
xxvii

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73  
Original



(b)(1)

NO FOREIGN DISSEM

541

xxviii

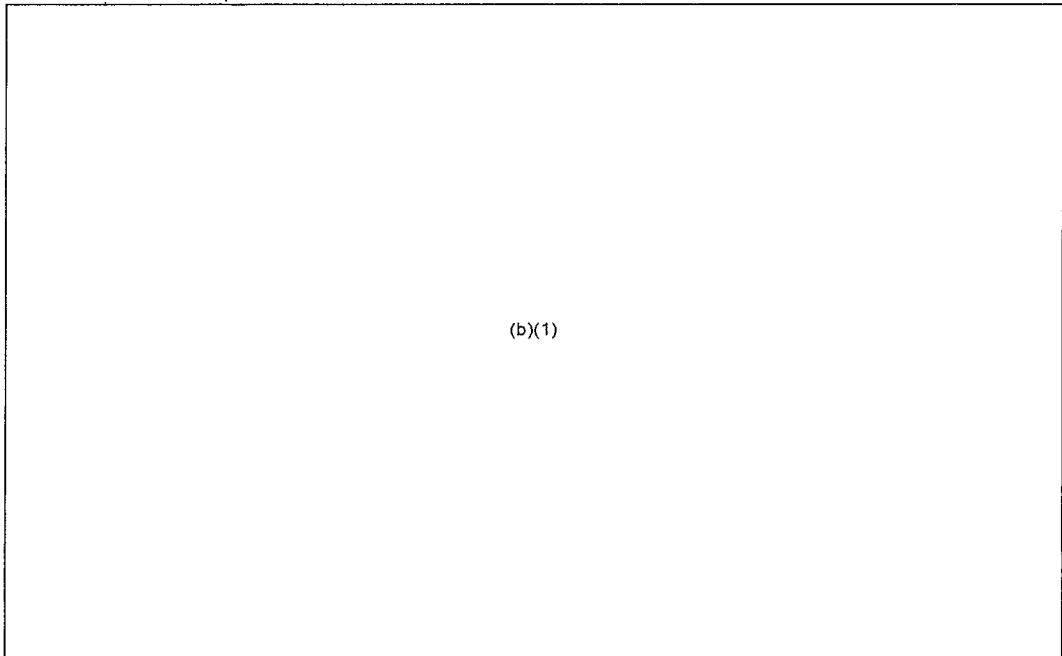
~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73

Original



(b)(1)

542

xxix

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly



~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73  
Original

(This page intentionally left blank)

543

xxx

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73  
Original

Section I.

CZECHOSLOVAKIA

A. INTRODUCTION

1. ~~(S)~~ Historical Background

(b)(1)

(b)(1)

544

1

~~TOP SECRET CHESS RUFF~~ (b)(1)

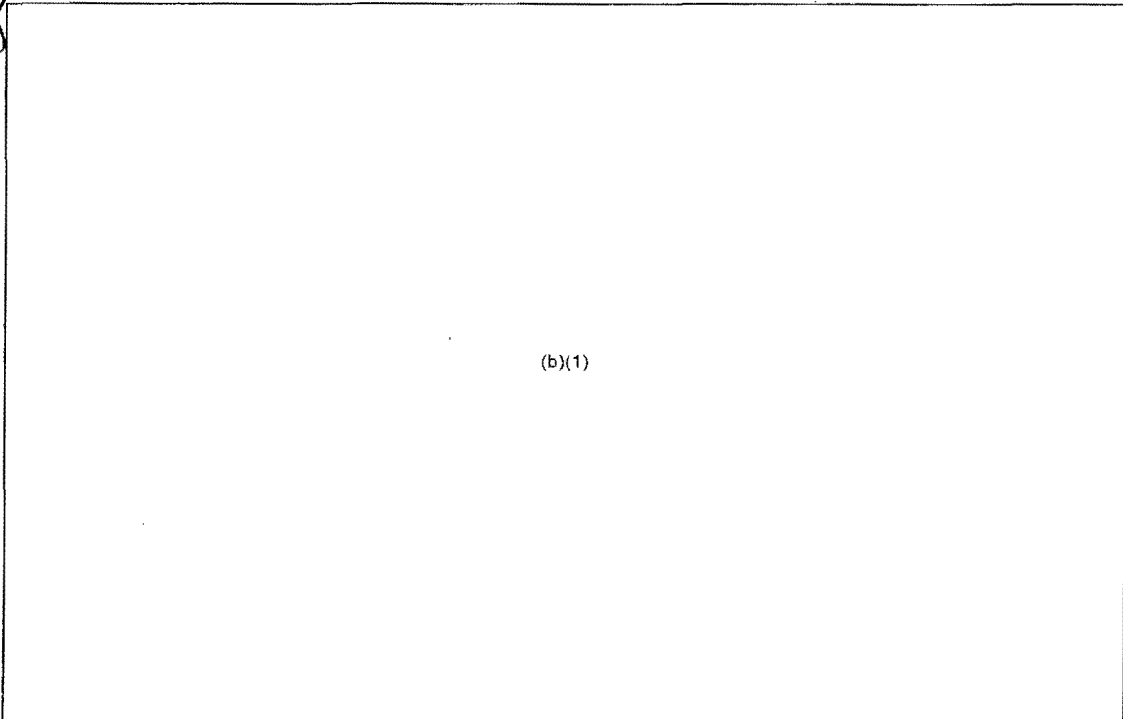
TCS-691476/72  
Handle via  
~~TALENT-KEYHOLE~~ (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73

Original

(S)



(b)(1)

3. (U) Geography

Czechoslovakia is located on the Central European plateau, and its borders are generally situated on mountainous terrain. It is a long narrow country measuring approximately 500 by 175 miles. It is bordered on the north by Poland, on the east by the Soviet Union, on the south by Hungary and Austria, and on the west by West and East Germany. Most of the industrial and population centers, such as Prague, Plzen, and Ceske Budejovice, are located in the western part of the country. Bratislava, in the south central portion of the country, is about 35 miles from Vienna. The eastern part of the country would seem to be the most likely site for resting and producing agents for BW since this area is the most sparsely populated portion of the country, farthest from West Germany where the greatest threat to its security lies, and lies closest to the Soviet Union.

545

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-6/2476/72

Handle via

TALENT KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73  
Original

4. ~~(S)~~ Political Factors

(b)(1) Per CIA, (b)(3):50 U.S.C. 403

(b)(1)

B. ORDER OF BATTLE FOR BW

5. ~~(S)~~ Biological Warfare Program

(b)(1)

b. Organization and Strength

(b)(1)

3

~~TOP SECRET CHESS RUFF~~ (b)(1)

546

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73  
Original

(b)(1)

c. Training

(b)(1)

(b)(1)

6. ~~(S)~~ Organization for CBR Defense in Ground Forces

(b)(1)

547

4

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72

Handle via

TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~

(b)(1)

SAO/ST-SS-03-37-73  
Original

b. ~~(S)~~ Army and Military District Level

(b)(1)

(4) ~~(S)~~ Organization and strength

(b)(1)

(b)(1)

548

5

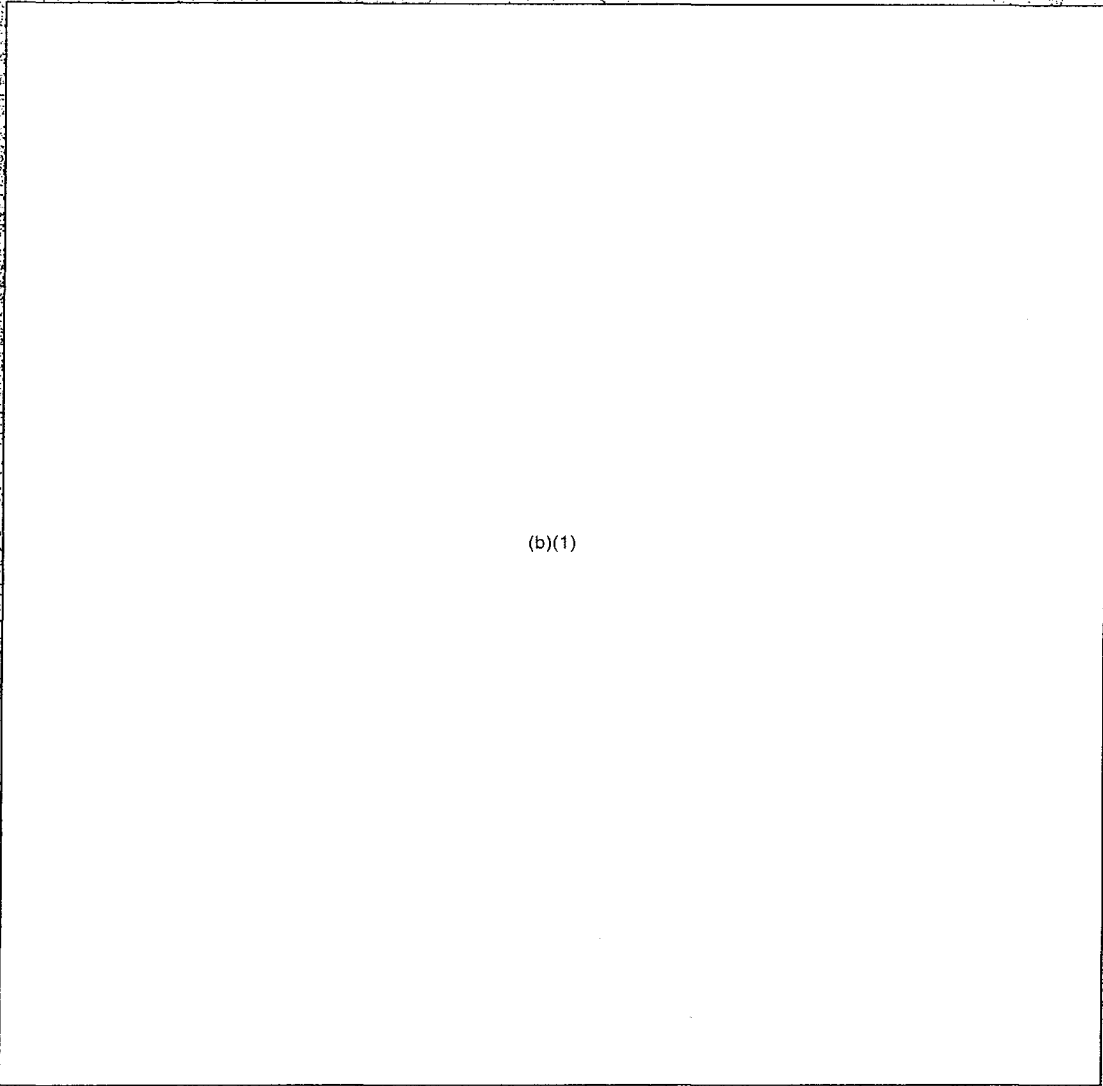
~~TOP SECRET CHESS RUFF~~

(b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73  
Original



(b)(1)

549

6

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72

Handle via

TALENT-KEYHOLE (b)(1)

control systems jointly

~~TOP SECRET CHESS RUFF~~

(b)(1)

SAO/ST-SS-03-37-73

Original

(b)(1)

550

7

~~TOP SECRET CHESS RUFF~~

(b)(1)

TCS-692476/72

Handle via

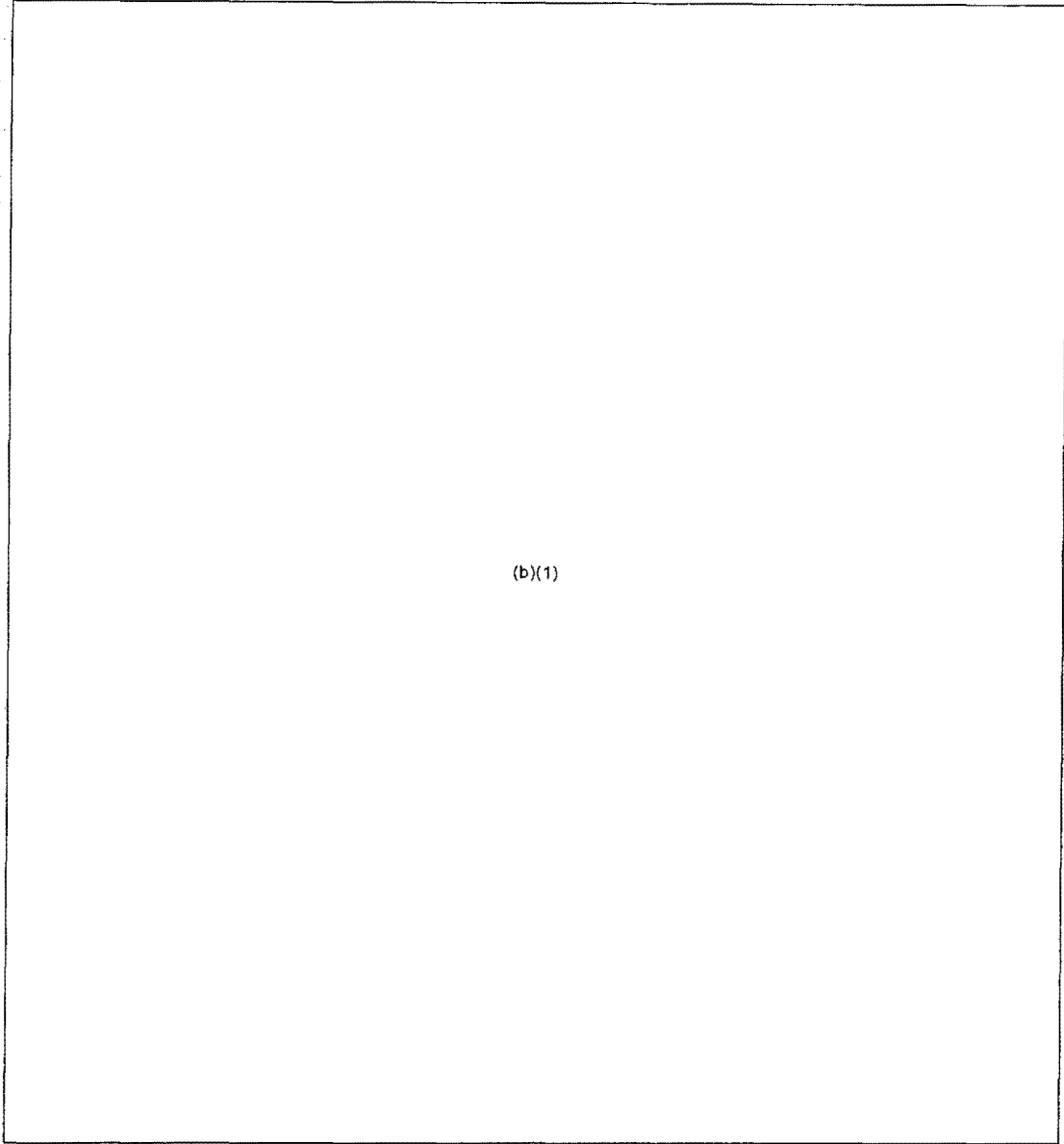
TALENT-KEYHOLE (b)(1)

control systems jointly



~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-55-03-73-73  
Original



(b)(1)

~~TOP SECRET CHESS RUFF~~ (b)(1)

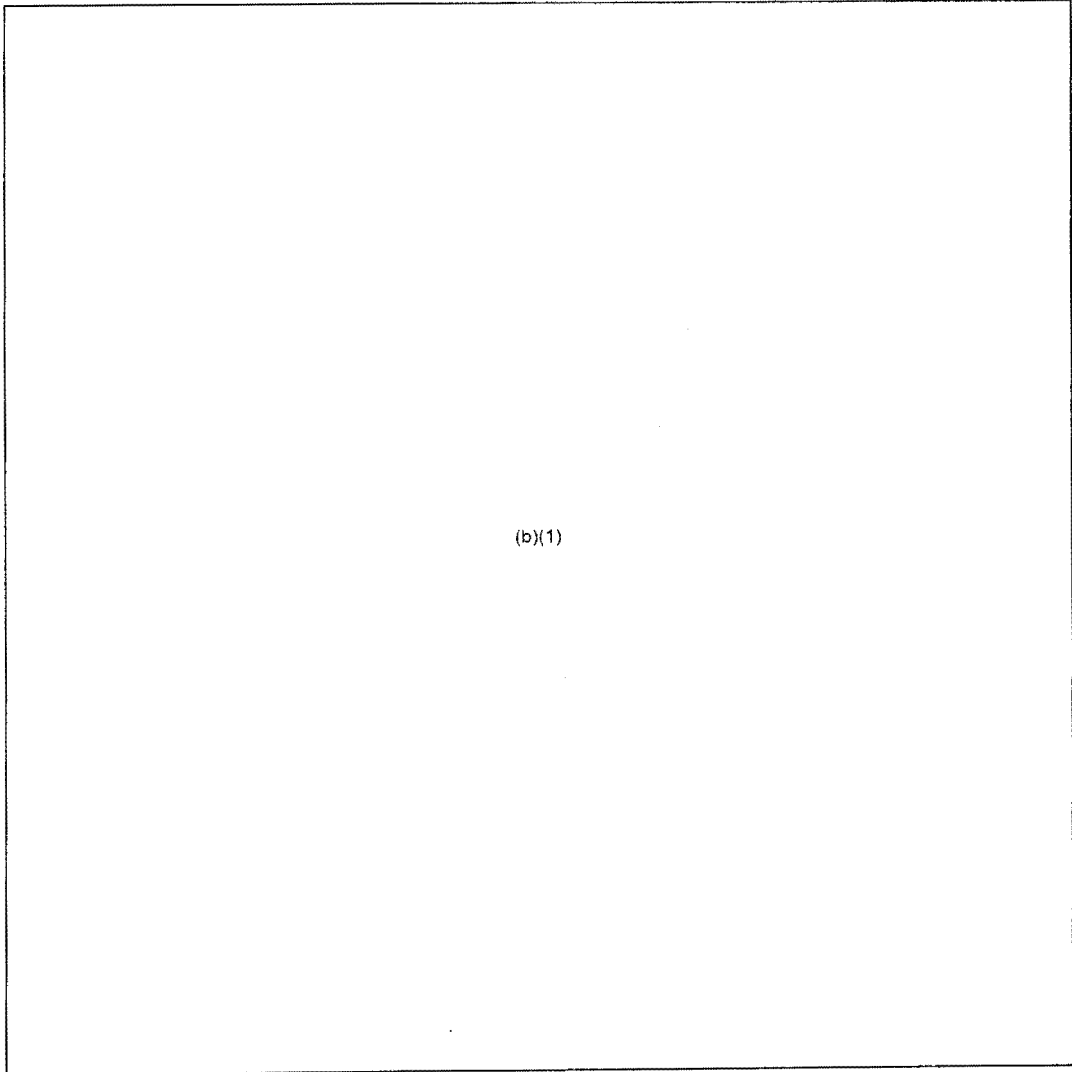
551

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73

Original



(b)(1)

552

9

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72

Handle via

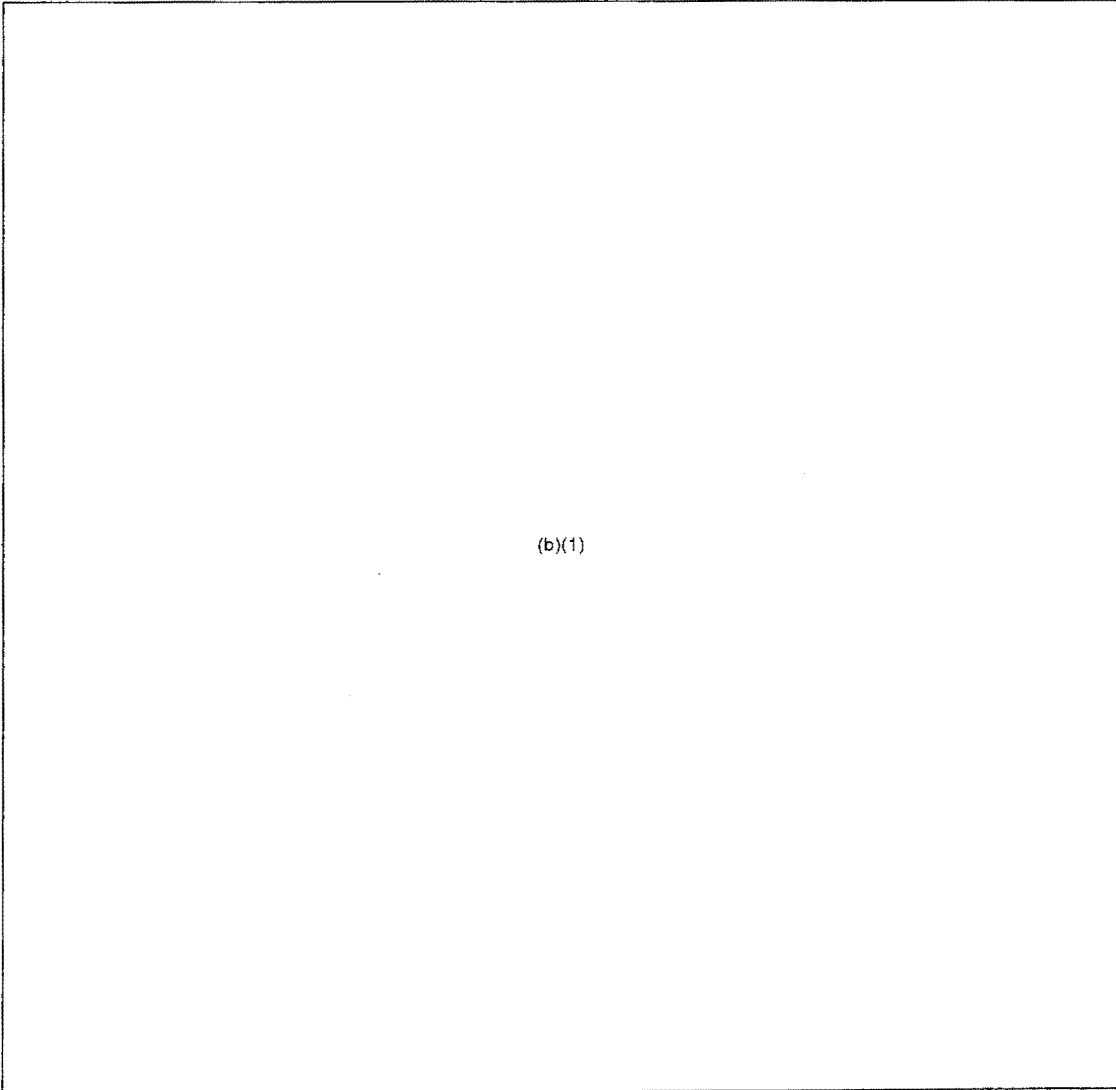
TALENT-KEYHOLE (b)(1)

control systems jointly

~~TOP SECRET CHESS RUFF~~

(b)(1)

SAO/ST-SS-03-73-73  
Original



(b)(1)

553

10

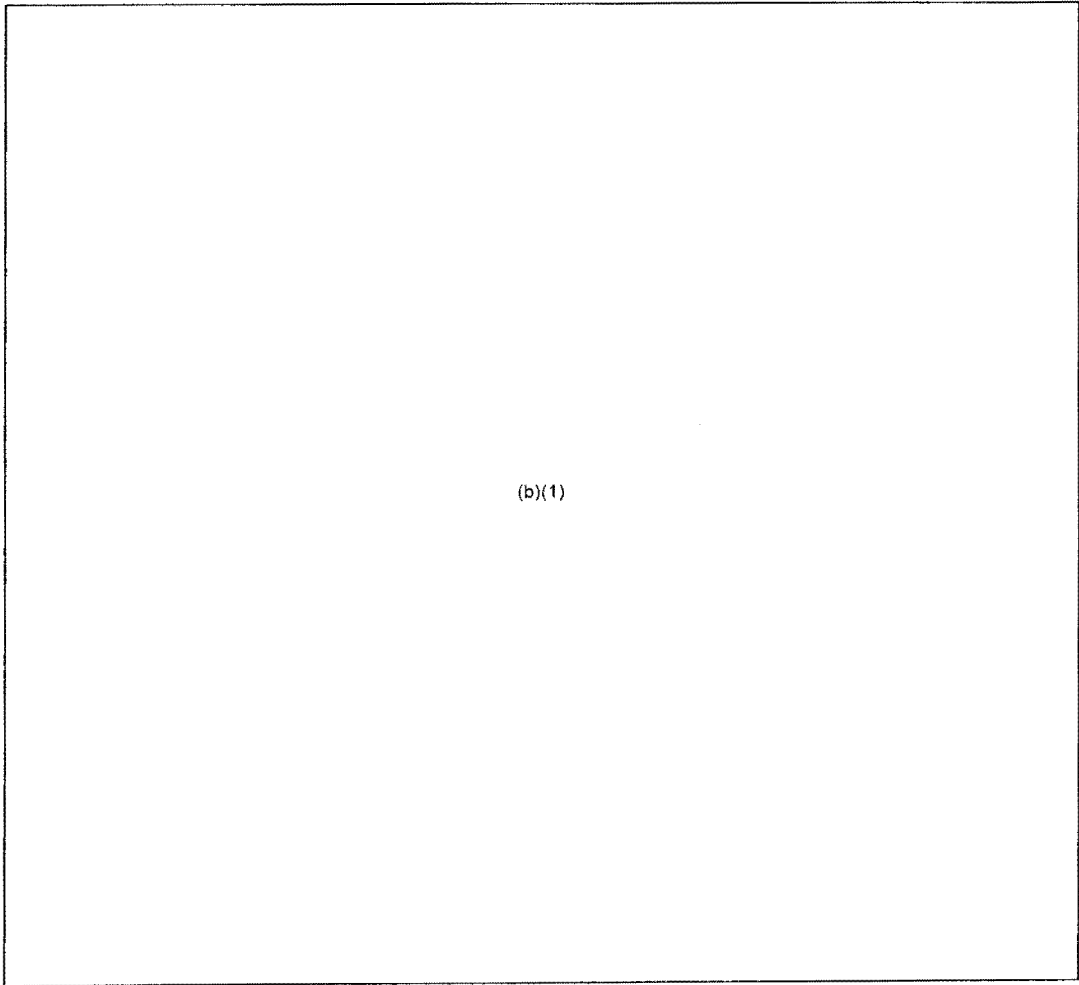
~~TOP SECRET CHESS RUFF~~

(b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE-(b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73  
Original



(b)(1)

554

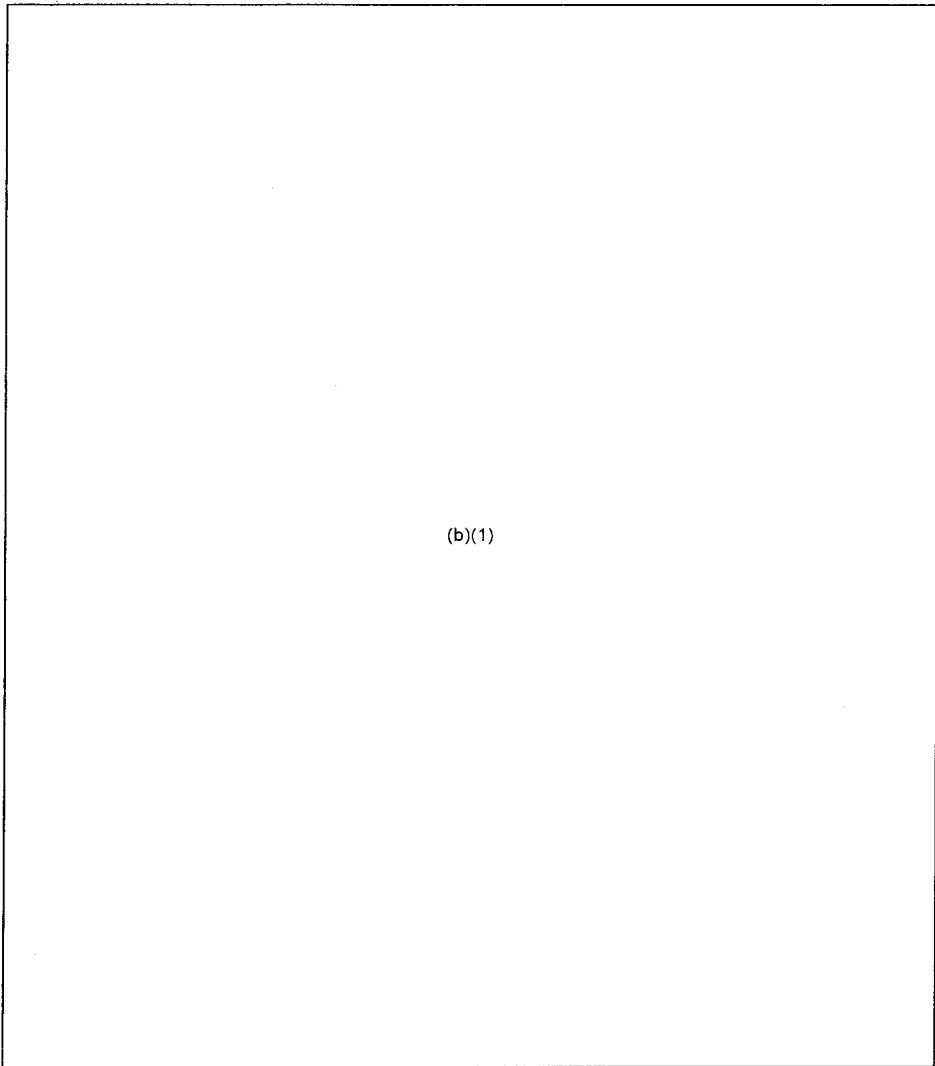
11

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73  
Original



(b)(1)

555

12

~~TOP SECRET CHESS RUFF/SPOKE~~

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~

(b)(1)

SAO/ST-SS-03-37-73  
Original

(b)(1)

(6) ~~(S)~~ Training

(b)(1)

c. ~~(S)~~ Division Level

(b)(1)

556

13

~~TOP SECRET CHESS RUFF~~

(b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE ~~(b)(1)~~  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73  
Original

(b)(1)

d. ~~(S)~~ Regimental Chemical Reconnaissance Platoon

(b)(1)

~~(S)~~ (S) Mission

(b)(1)

557

14

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73  
Original

c. ~~(S)~~ Battalion Level

(b)(1)

(2) ~~(S)~~ (b)(1) Per CIA, (b)(3):50 U.S.C. 403  
(b)(1) Per CIA, (b)(3):50 U.S.C. 403 (b)(1)

(b)(1)

7. ~~(S)~~ Medical Units Concerned With CBR Defense

a. ~~(S)~~ Hygiene and Epidemiology Detachment

(b)(1)

558

15

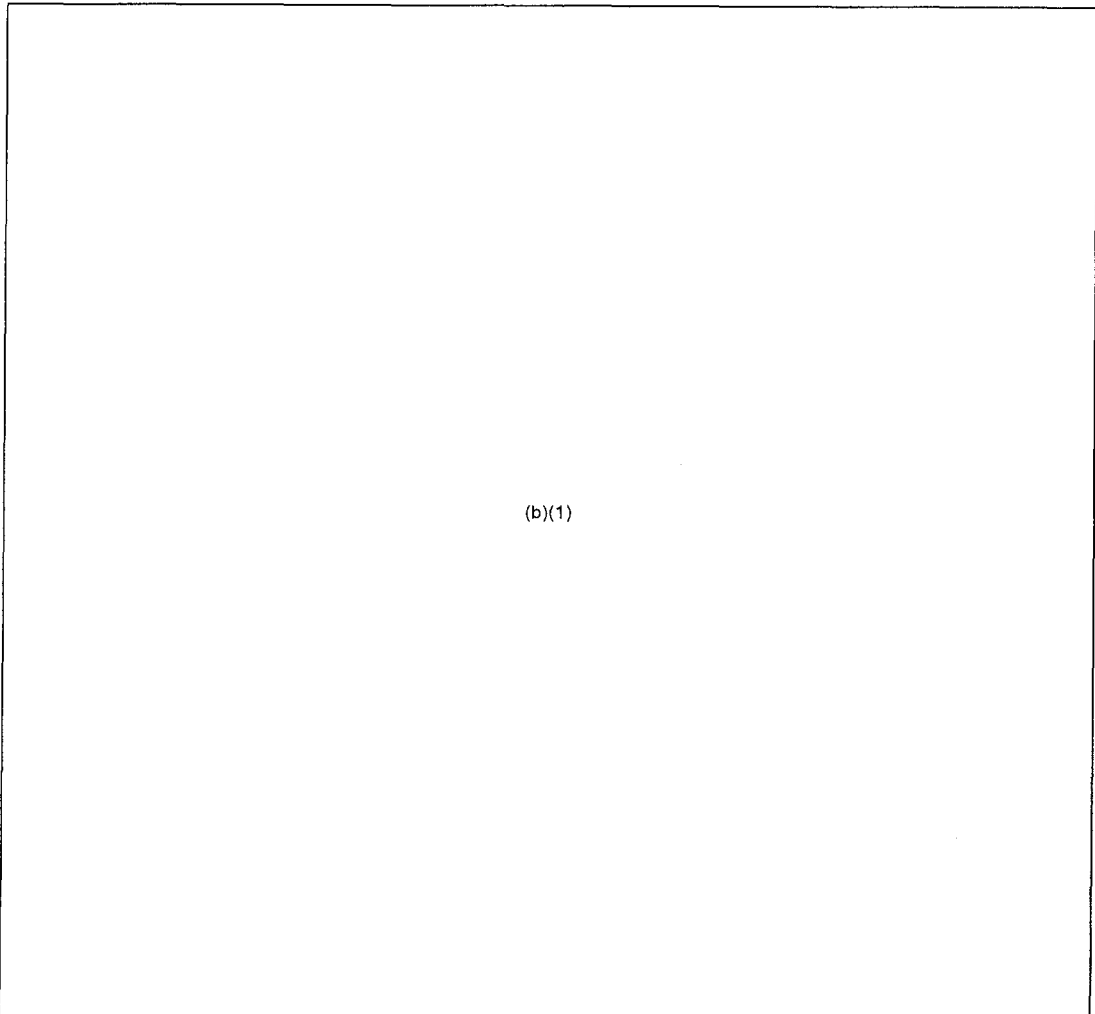
~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT KEYHOLE (b)(1)  
control systems jointly



~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73  
Original



(b)(1)

559

16

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE-(b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73  
Original

b. ~~(C)~~ Hygiene-Epidemiology Platoon

(b)(1)

8. ~~(C)~~ CBR in Civil Defense Units and Programs

(b)(1)

560

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72  
Handle via  
~~TALENT-KITHOLE~~ (b)(1)  
control systems jointly

TOP SECRET CLESS RUFF (b)(1)

SAO/ST-SS-03-73-73  
Original

(b)(1)

18

TOP SECRET CLESS RUFF (b)(1)

561

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~

(b)(1)

SAO/ST-55-03-37-73  
Original

(b)(1)

C. DOCTRINES AND PROCEDURES GOVERNING USE OF BW WEAPONS

9. ~~(S) General~~

(b)(1)

~~TOP SECRET CHESS RUFF~~

(b)(1)

562

~~TCS-692476/77  
Handle via  
TALENT-KEYHOLE-(b)(1)  
control systems jointly~~

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73

Original

(b)(1)

10. ~~(S)~~ Secrecy Concerning Employment of Biological Weapons

(b)(1) Per CIA, (b)(3): 50 U.S.C. 403

(b)(1), (b)(3): 50 U.

(b)(1)

11. ~~(S)~~ Czechoslovak Plans for the Use of Biological Weapons

(b)(1) Per CIA, (b)(3)

(b)(1) Per C

(b)(1)

12. ~~(S)~~ BW Technical Troops

(b)(1)

~~TOP SECRET CHESS RUFF~~

(b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73

Original

(b)(1)

13. ~~(C)~~ Classified CBR Instructions

(b)(1)

D. DOCTRINES AND PROCEDURES FOR DEFENSE AGAINST BW

14. (U) Introduction

a. (U) Throughout the Czechoslovak Military organization there is ample evidence that the Czechoslovak Army is patterned after its Soviet counterpart. A Soviet publication on biological warfare and means of protection has been translated and published in Czechoslovakia.<sup>141</sup> It is not unreasonable to assume that Soviet doctrines and procedures for defense against BW, as published in the above book, have been adopted by the Czechoslovaks.

b. (U) Defense against BW consists of a complex of measures aimed at preparing the military and civilian population to ward off and eradicate disease infection in the event of an enemy biological attack. As discussed in detail below, these measures have been broken down into steps to be taken before the outbreak of hostilities, after the outbreak of hostilities but before an overt BW attack, and countermeasures which must be initiated during and after a BW attack.<sup>141/142</sup>

15. ~~(C)~~ Preparation

a. (U) Immunization. The use of vaccines is one of the most effective means of preventing infections by biological agents, but it is not practical to depend on this measure alone for several reasons. The number of possible BW agents is large, and protection against each agent usually requires immunization with a specific vaccine. Effective vaccines are not

TCS-692476/72

Handle via

TALENT-KEYHOLE (b)(1)

control systems jointly

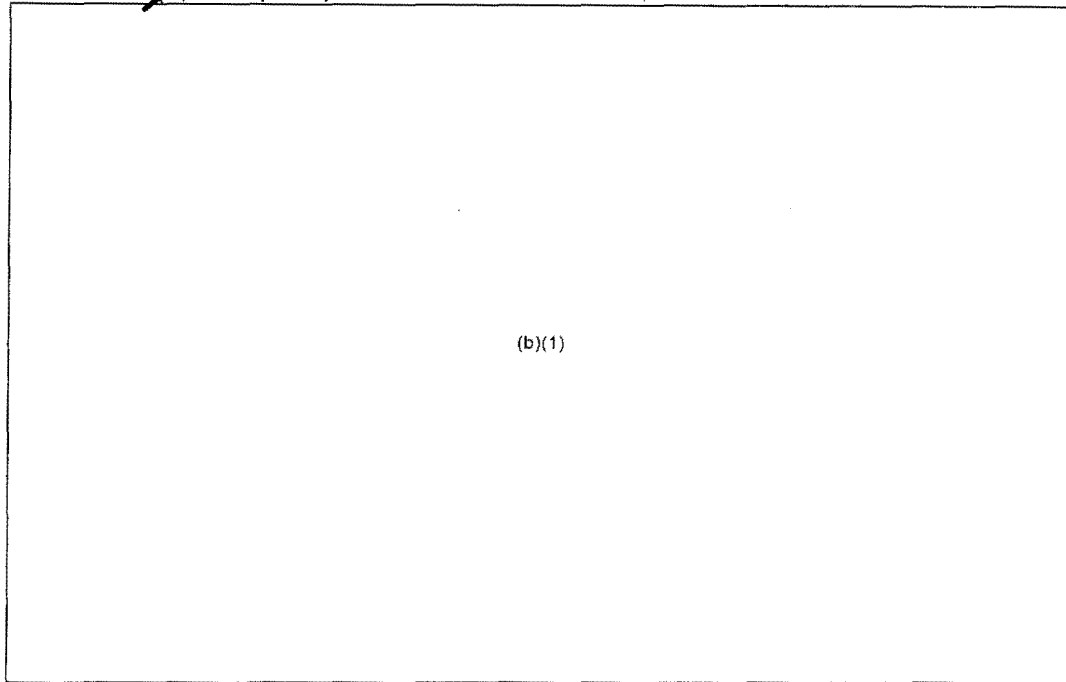
~~TOP SECRET CHESS RUFF~~ (b)(1)

564

SAO/ST-55-03-73-73  
Original

available for all the possible BW agents, and concomitantly the duration of artificial immunity conferred by certain vaccines may be relatively short. Furthermore, a massive dose of the agent can usually overwhelm any degree of immunity.

b. ~~(C)~~ Compulsory Inoculations.<sup>143</sup>



(b)(1)

d. (U) Immunization Techniques

(1) (U) General. Any intent to immunize as a means of defense against BW requires the availability of effective vaccines against potential agents, ready accessibility to these vaccines in sufficient quantity, and the means to administer these vaccines quickly to large numbers of people. The task is simplest if the biological agents to be used are known. In the absence of this knowledge, the best action is to inoculate against as many likely candidate agents as possible. Mixed vaccines are convenient for this purpose.<sup>144</sup>

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-37-73  
Original

(2) (U) Mixed vaccines. The Soviets have published numerous papers on mixed vaccines which are effective against a variety of candidate biological warfare agents, including those causing anthrax, plague, brucellosis, tularemia, viral encephalitides, Q-fever, smallpox, yellow fever, cholera, and botulism. Soviet work on the development of mixed vaccines is considered to be primarily intended for BW defense.<sup>141/142</sup> The Czechoslovaks, however, appear to have done little or nothing to develop mixed vaccines.

e. (U) Sanitary Measures. The following sanitary-hygienic precautions are advocated<sup>141/142</sup> to prevent the spread of infectious diseases among the troops:

(1) (U) Observance by every serviceman of rules of personal hygiene.

(2) (U) Maintenance of proper sanitary hygiene conditions in areas where troops are located.

(3) (U) A supply of potable water and uncontaminated food for all personnel should be maintained.

f. (U) Training. Both troops and civilian populations are taught the nature and effectiveness of biological weapons, the need to recognize a biological attack, the use of defensive materiel to ward off and decontaminate biological agents, rules of personal hygiene, the procedures for maintaining cleanliness, the need to protect supplies, and clues to aid in the timely detection of infected personnel.<sup>141/142</sup>

#### 16. (U) BW Intelligence and Agent Warning

Both overt and covert means are employed by the Soviets to obtain information on enemy preparations for BW. The defense system must anticipate a rapid exposure of personnel to biological agents and devise for rapid dissemination an appropriate warning in case of this eventuality. Foreknowledge of enemy intent is essential to take appropriate countermeasures and to initiate defensive precautions.<sup>141/142</sup> As there are no special devices yet developed by which all pathogenic microorganisms and toxins can be recognized immediately and precisely in real time, criteria have been set up for the observation and recognition of all clues indicating the employment of BW agents.<sup>141/142</sup> These signs have been described as being the dull explosion of an aerial bomb, artillery shell, or mine in the absence of indications that radioactive or poisonous substances have been released. Another sign would be the presence of powder-like substances and drops of liquid on the soil and vegetation near points of detonation. By observation, data can be collected about the scattering and impacting of various objects dropped from airplanes, about the presence of

23

~~TOP SECRET CHESS RUFF~~ (b)(1)

566

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly



~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-SS-03-73-73

Original

insects, ticks, and rodents, and about the identity of insects and rodents foreign to the given locality. Finally, the explosive appearance of animal disease among livestock and the sudden outbreak of human illnesses can be due to infection by biological agents.<sup>141/142</sup> According to Soviet doctrine, observation posts are established everywhere, whether a unit is on the fighting front or in the rear, to insure security round-the-clock. The observer watches for sabotage infection; for the dissemination of bacterial agents from enemy aircraft or from special machines, sprayers, or other apparatus used for this purpose; and for the appearance of exotic biological vectors, etc. It has been emphasized that the appearance of unknown faces and any unusual activity in the surveyed district should always attract the attention of the observer.<sup>141/142</sup> To report a biological attack, alarm signals have been worked out and established in advance. These have been made known to all personnel, military and civilian alike. These signals are solely for an alarm in the event of either a chemical or biological attack. They are given a priority for dispatch by all possible means of communication.<sup>141/142</sup> When there is a positive indication that the enemy has applied BW agents, a so-called biological survey should be performed. Organization of the biological survey is the fixed responsibility of all commanding officers and their staffs. Both officers and soldiers can be utilized. In order that this duty can be successfully performed, officers and soldiers should always be well grounded in the fundamentals of biological warfare.<sup>141/142</sup> A biological survey is conducted constantly upon the initiation of military action, and, for this purpose, certain equipment is required: topographical maps, writing paper, pencils, protective clothing and gas masks, together with a set of small boxes, jars, and instruments for taking samples. A detailed procedure for conducting the survey has been established.<sup>141/142</sup>

17. (U) Rules of Conduct on Ground Contaminated by Bacterial Agents

a. In the event of biological warfare, every Soviet soldier, sailor, and officer is expected to exhibit unusual stamina, initiative, and dauntless determination for victory over the enemy. A BW attack cannot be the reason to cease fighting.<sup>141/142</sup>

b. The fundamental obligation of a soldier is the successful completion of his mission. For the successful completion of military missions under conditions of biological warfare, every serviceman must know how to protect himself and his arms from contamination; for these purposes, he must know how to use the fortified installations, topographical formations, field expediences, and naval accommodations which may be available.<sup>141/142</sup>

c. To avoid contamination, every soldier must be able to use individual items issued for antibiological defense and to operate in them for extended periods. He must be able to

24

567

~~TOP SECRET CHESS RUFF~~ (b)(1)

TC5-692476/77

Handle via

TALENT KEYHOLE (b)(1)

Control systems jointly

TOP SECRET CHESS RUFF (b)(1)

SAO/ST-SS-03-37-73

Original

perform sanitary treatment, disinfection, and insecticidal procedures, and he must keep in working order the various items of individual protective equipment. When these items are not available, he must be able to improvise suitable substitutes. 141/142

d. Provisions, water, and personal equipment must be kept free from contamination, and the sanitary-hygiene rules must be strictly observed. Every serviceman must know that terrain contaminated by biological agents is considered accessible for combat action. To minimize the contamination of the individual soldier by bacterial agents, precautionary measures have been prescribed. Contaminated terrain is best traversed in vehicles. 141/142

18. (U) Antiepidemic Measures Employed Following a BW Attack

a. Sanitary Measures

(1) Partial sanitary treatment. Partial sanitary treatment and disinfection are to be accomplished immediately after the biological attack. These actions will be taken by each individual soldier. This treatment is limited to washing the exposed parts of the body and the surface of all military equipment which has to be touched for fulfillment of the military mission. 141/142

(2) Complete sanitary treatment. Complete sanitary treatment is to be accomplished in an unpolluted place after the withdrawal of each unit or ship from combat. Complete treatment is also to be made available either in field or station hospitals for infected personnel who have been wounded. Special treatment points are planned for this complete sanitary and disinfecting treatment which consists of thorough scrubdown in a shower while personal clothing and equipment are being decontaminated. 141/142

b. Organization of Observation and Quarantine

(1) General rule. All personnel of the Army exposed directly to biological agents or using food and water thought to be polluted by bacterial agents must be considered contaminated. In order to prevent the spread of infectious diseases, observation and follow-up procedures are to be instituted. 141/142

(2) Observation. Observation is a system of measures for providing isolation and confinement as well as therapeutic and prophylactic treatment to prevent the spread of infectious diseases. The units under observation continue combat activities while maximal restrictions are placed on their contacts with persons who have not been exposed to the biological agents. Removal from the contaminated area of materiel which has not been

25

568

TOP SECRET CHESS RUFF (b)(1)

TCS-692476/72

Handle via

TALENT-KEYHOLE (b)(1)

control systems jointly

~~TOP SECRET CHESS RUFF~~ (b)(1)

SAO/ST-55-03-73-73

Original

disinfected is prohibited. Special routes are set up for passage through the area. All exposed personnel are to be given emergency treatment, and every effort will be made to determine precisely which personnel have been infected. Departure of personnel from the contaminated area will be strictly controlled.<sup>141/142</sup>

(3) Quarantine. When it has been determined that microbial agents of especially dangerous diseases such as plague and cholera have been used, the protocol above must be replaced by quarantine. Quarantine is a system of control measures aimed at the complete isolation of the focus of each infection and the liquidation of infectious disease within it. With the consent of proper authorities, a quarantined unit may be withdrawn from combat. An armed guard for the contaminated area will be posted, departures are to be forbidden, and admissions will be restricted. In order to limit potential epidemics, exposed personnel will be divided into small groups. Special decontamination procedures will be followed.<sup>141/142</sup>

c. Decontamination Measures

(1) Boundaries. The boundaries of the contaminated area are determined as soon as possible after the biological attack. All efforts will be exerted to contain agent materiel within the area. After establishing the boundaries, a directive is issued for the behavior of personnel on the contaminated terrain: for the use of road, water supply, shelters, living, and agricultural premises; for the disinfection of combat equipment, transportation facilities, and arms; and for the sanitary treatment of personnel and animals. The decision whether or not to completely disinfect the contaminated area is to be made by the commanding officer.<sup>141/142</sup>

(2) Procedures. Decontamination machines are usually used for the disinfection of terrain, defense installations, combat equipment, and structures. Individual equipment will be disinfected with hand sprayers, manpack decontamination sprayers, hydraulic pumps, etc. Detailed decontamination procedures have been established.<sup>141/142</sup>

E. BW MATERIEL (OFFENSIVE)

19. (S) BW Weapons

(b)(1) Per CIA, (b)(3): 50 U.S.C. 403

(b)(1)

569

26

~~TOP SECRET CHESS RUFF~~ (b)(1)

TCS-692476/72

Handle via

TALENT-KEYHOLE (b)(1)

control systems jointly

(b)(1)

20. ~~(S)~~ BW Agents

(b)(1) Per CIA, (b)(3); 50 U.S.C. 403  
  
(b)(1)

F. BW MATERIEL (DEFENSIVE)

21. ~~(C)~~ General

(b)(1)

22. ~~(C)~~ Individual Protective Equipment

(b)(1)

27  
570

~~TOP SECRET CHESS RUFF~~

(b)(1)

SAO/ST-SS-03-73-73

Original

(b)(1) Per CIA, (b)(3):50  
U.S.C. 403

(b)(1) Per CIA, (b)(3):50  
U.S.C. 403

(b)(1)

571

28

~~TOP SECRET CHESS RUFF~~

(b)(1)

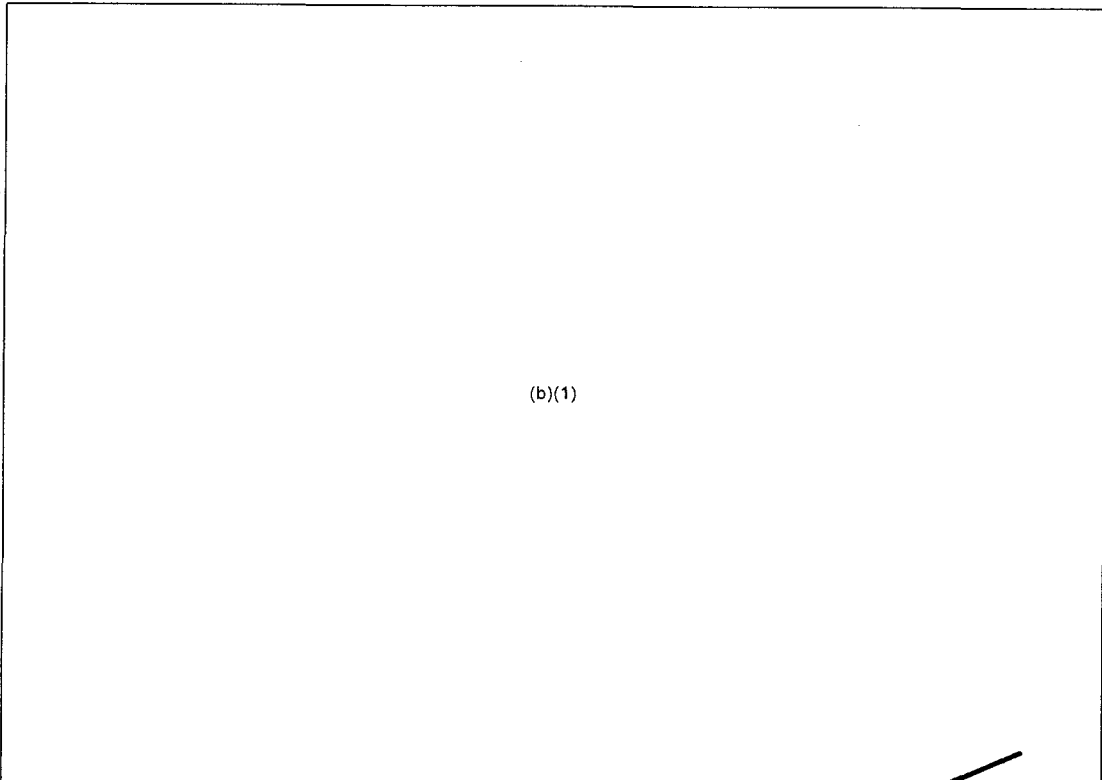
TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly

~~TOP SECRET CHESS RUFF~~

(b)(1)

SAO/ST-SS-03-37-73

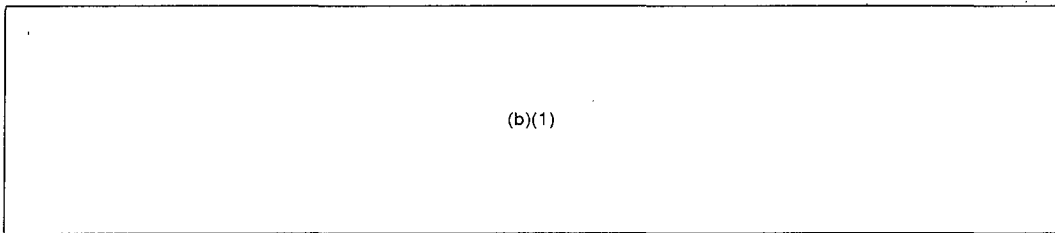
Original



(b)(1)

~~(CONFIDENTIAL)~~

Figure 10. New Czechoslovak protective mask (U).



(b)(1)

572

29

~~TOP SECRET CHESS RUFF~~

(b)(1)

TCS-692476/72  
Handle via  
TALENT-KEYHOLE (b)(1)  
control systems jointly