

Long-Range Surveillance Unit Operations

Contents

	Page
Preface	xiii
Summary of Change	xv
Chapter 1 FULL-SPECTRUM OPERATIONS	1-1
Section I. TYPES AND COMBINATIONS OF ARMY OPERATIONS	1-1
Four Types of Army Operations.....	1-1
Intelligence.....	1-2
Section II. INFANTRY RECONNAISSANCE AND SURVEILLANCE UNITS	1-2
Characteristics.....	1-2
Missions and Organizations.....	1-3
Section III. LONG-RANGE SURVEILLANCE COMPANY	1-3
Primary Missions.....	1-4
Secondary Missions.....	1-4
Comparison to Special Operations Forces.....	1-4
Organization.....	1-4
Sustainment.....	1-5
Subordinate Organizations and Key Personnel.....	1-5
LRSD and LRS Teams.....	1-7
Characteristics.....	1-7
Capabilities.....	1-8
Limitations.....	1-8
Chapter 2 COMMAND AND CONTROL	2-1
Section I. OVERVIEW	2-1
Standard LRSU Command and Control.....	2-1
BFSB Staff.....	2-2
Reconnaissance and Surveillance Squadron.....	2-6
Nonstandard LRSU Command and Control.....	2-7
Command Posts.....	2-7
Tactical Operations Center.....	2-10
Task Organization Outside NAMED Areas of Interest.....	2-13
Liaison Duties, Employment, and Coordination.....	2-13

Distribution Restriction: Approved for public release; distribution is unlimited.

*This publication supersedes FM 7-93, 3 October 1995.

	Section II. COMMUNICATIONS, COMPUTERS, AND INTELLIGENCE	2-14
	Communications.....	2-14
	Computers and Intelligence.....	2-15
Chapter 3	MISSION DEVELOPMENT	3-1
	Section I. ISR OPERATIONS AND MISSION ORDERS	3-1
	ISR Operations.....	3-1
	Mission Orders	3-3
	Section II. MISSION PLANNING FOLDER.....	3-5
	Development	3-5
	Contents	3-5
	Target Folder Format.....	3-9
	Section III. OPERATIONS SECURITY	3-12
	Personnel Security	3-12
	Mission Classification.....	3-12
	Separation.....	3-13
	Security during Coordination.....	3-13
Chapter 4	TEAM OPERATIONS	4-1
	Section I. PHASES	4-1
	Planning Phase	4-1
	Infiltration Phase and Insertion Method.....	4-16
	Execution (Actions on Objective)	4-17
	Exfiltration Phase and Extraction Method	4-17
	Recovery	4-18
	Section II. RECONNAISSANCE OPERATIONS.....	4-21
	Area Reconnaissance	4-21
	Zone Reconnaissance.....	4-23
	Route Reconnaissance	4-25
	Bridge Classification.....	4-25
	Leader Reconnaissance.....	4-25
	Section III. SURVEILLANCE OPERATIONS.....	4-26
	Selection and Occupation of Sites	4-26
	Security and Reports.....	4-27
	Linkup and Dissemination of Information.....	4-29
	Contingencies.....	4-29
	Heavy Team and Platoon Operations	4-30
	Section IV. COMBAT ASSESSMENT	4-30
	Definition and Purpose	4-30
	Considerations.....	4-30
	Characteristics.....	4-31
	Damage Types and Levels.....	4-31
	Bridges	4-32
	Buildings	4-33
	Bunkers	4-35
	Dams and Locks.....	4-35
	Distillation Towers	4-36
	Military Equipment.....	4-36

	Ground Force Personnel	4-38
	Storage Tanks For Petroleum, Oil, Lubricants	4-39
	Power Plant Turbines and Generators	4-39
	Rail Lines and Rail Yards.....	4-40
	Roads.....	4-40
	Runways and Taxiways	4-41
	Satellite Dishes	4-41
	Ships	4-42
	Steel Towers	4-43
	Transformers.....	4-43
	Tunnel Entrances Or Portals	4-43
	Tunnel Facility Air Vents	4-44
	Section V. TARGET ACQUISITION.....	4-44
	Combat Patrol.....	4-45
	Mission Planning Factors.....	4-45
	Employment of Laser Designators.....	4-45
	Fire Support.....	4-46
	Fire Plans	4-47
	Section VI. URBAN TERRAIN	4-47
	Surveillance Operations.....	4-47
	Reconnaissance Operations.....	4-48
	Plans	4-48
	Hide and Surveillance Sites	4-52
	Section VII. IMAGERY COLLECTION AND TRANSMISSION	4-53
	Imagery Labels	4-53
	Image-Gathering Equipment.....	4-54
	Section VIII. STABILITY OPERATIONS.....	4-61
	Types	4-62
	Capabilities and Limitations	4-67
	Section IX. SPECIAL MISSIONS	4-68
	Chemical, Biological, Radiological, and Nuclear	4-68
	Pathfinder.....	4-68
	Personnel Recovery.....	4-68
Chapter 5	INSERTION AND EXTRACTION METHODS	5-1
	Section I. WATERBORNE OPERATIONS	5-1
	Considerations	5-1
	Combat Rubber Raiding Reconnaissance Craft.....	5-1
	Scout Swimmers	5-5
	Helocasting Operations.....	5-7
	Section II. HELICOPTER OPERATIONS	5-9
	Special Patrol Insertion/Extraction System.....	5-9
	Fast-Rope Insertion/Extraction System	5-20
	Army Aviation and Air Assault.....	5-25
	Pickup and Landing Zones	5-25
	UH-60 Loading Sequence	5-31

	Section III. VEHICLE OPERATIONS.....	5-31
	Mobility Platforms	5-32
	Planning Considerations	5-32
	Section IV. OTHER OPERATIONS.....	5-46
	Airborne Operations	5-47
	Stay-Behind Operations	5-47
	Foot Movement Operations.....	5-48
Chapter 6	COMMUNICATIONS	6-1
	Section I. NETWORKS.....	6-1
	Architecture and Frequency Management.....	6-1
	Operations Bases	6-1
	Teams.....	6-2
	Section II. RADIOS, COMPUTERS, AND THE BASE RADIO STATION.....	6-2
	Elements of Success.....	6-2
	HF, VHF, and UHF Radios.....	6-2
	Primary, Alternate, and Contingency Radios	6-3
	Fundamentals.....	6-4
	Beyond-Line-of-Sight Equipment	6-4
	Ruggedized COTS Laptop	6-6
	Communications Base Radio Station Platform.....	6-7
	Section III. OPERATIONS	6-7
	Tactical Employment.....	6-7
	Site Selection.....	6-8
	Tactical Satellite	6-9
	Section IV. REPORTS	6-9
	Messages and Report Formats.....	6-9
	Communications Security.....	6-16
	Section V. ELECTRONIC WARFARE.....	6-16
	Electronic attack.....	6-17
	Electronic warfare support.....	6-17
	Electronic protection.....	6-17
	Section VI. ANTENNAS.....	6-19
	Wavelength and Frequency	6-19
	Resonance	6-19
	Polarization.....	6-20
	Radio Wave Propagation	6-20
	Classification	6-23
	Construction and Selection	6-26
	Common Types of Antennas.....	6-27
	Field-Expedient Antennas.....	6-31
	High Frequency, Directional, Field-Expedient Antennas	6-34
	Section VII. UNUSUAL ENVIRONMENTS.....	6-36
	Desert Operations	6-36
	Jungle Operations	6-36
	Cold Weather Operations.....	6-37

	Mountain Operations.....	6-38
	Urban Operations.....	6-39
Chapter 7	INTELLIGENCE PREPARATION OF THE BATTLEFIELD.....	7-1
	SECTION I. DEFINE THE OPERATIONAL ENVIRONMENT.....	7-1
	Identify Significant Characteristics of the Environment	7-1
	Identify the Limits of the Command's Area of Operations	7-3
	Establish the Limits of the Area of Influence and the Area of Interest.....	7-3
	Evaluate Existing Databases and Identify Intelligence Gaps	7-4
	Initiate Collection of Information Required to Complete IPB	7-4
	SECTION II. DESCRIBE ENVIRONMENTAL EFFECTS ON OPERATIONS	7-4
	Analyze the Environment.....	7-4
	Describe Environmental Effects.....	7-9
	SECTION III. EVALUATE THE THREAT	7-9
	Analyze Threat Factors.....	7-9
	Update or Create Threat Models	7-10
	Identify Threat Capabilities	7-16
	SECTION IV. DETERMINE THREAT COURSES OF ACTION	7-17
	Identify the Threat's Likely Objectives and Desired Endstate	7-17
	Identify the Full Set of COAs Available to the Threat	7-17
	Evaluate and Prioritize Each Course of Action.....	7-18
	Develop Courses of Action	7-18
	Identify Initial ISR Requirements	7-21
	Prepare Decision Support Template.....	7-21
Chapter 8	EVASION AND RECOVERY	8-1
	Fundamentals	8-1
	Chain of Command.....	8-2
	Plans	8-2
	Types of Recovery	8-2
	Classifications of Evasion	8-3
	Movement	8-4
	Disguises.....	8-6
	Evasion Aids	8-7
	Evasion Areas.....	8-9
Appendix A	RECRUITMENT, ASSESSMENT, AND SELECTION PROGRAM.....	A-1
	Purpose and Organization	A-1
	Recruitment.....	A-1
	Assessment	A-2
	Selection	A-4
	Reassignment.....	A-5
Appendix B	ORDERS AND BRIEFS.....	B-1
	Section I. ORDERS	B-1
	Warning Order	B-1
	Operation Order	B-4
	Fragmentary Order	B-8

	Section II. BRIEFS.....	B-8
	Types.....	B-8
	Confirmation Brief.....	B-11
	Mission Analysis Brief.....	B-11
	Decision Brief	B-17
	Backbrief.....	B-17
	Mission Concept Brief	B-20
	Debrief	B-34
Appendix C	PLANNING AREA FACILITIES AND SITES.....	C-1
	Facilities.....	C-1
	Fixed Site.....	C-1
	Field Site.....	C-1
Appendix D	GEOGRAPHIC ENVIRONMENTS	D-1
	Jungle Operations	D-1
	Desert Operations	D-1
	Mountain Operations	D-2
	Cold Weather Operations.....	D-2
Appendix E	CONTINGENCY PLANS	E-1
	Branches and Sequels	E-1
	Contingency Plan Matrix	E-1
Appendix F	COORDINATION FOR ARMY AVIATION	F-1
Appendix G	HIDE AND SURVEILLANCE SITES	G-1
	Surface Sites	G-1
	Hasty Subsurface Sites	G-2
	Finished Subsurface Site	G-4
	Site Selection.....	G-7
	Leader Reconnaissance.....	G-7
	Occupation of Hide Site.....	G-7
	Actions in Hide Site	G-9
	Priority of Work.....	G-9
	Site Sterilization.....	G-9
Appendix H	BATTLE DRILLS.....	H-1
	Break Contact.....	H-1
	React to Air Attack.....	H-5
	React to Indirect Fire	H-6
	React to Flares	H-6
	Break from Hide or Surveillance Site	H-6
Appendix I	TRACKING AND COUNTERTRACKING	I-1
	Concepts of Tracking	I-1
	Organization of Tracking Team.....	I-5
	Tracker and Dog Team	I-5
Appendix J	NIGHT OPERATIONS.....	J-1
	Night Vision	J-1
	Hearing.....	J-4
	Smell.....	J-4

Fatigue	J-5
Selection of Route.....	J-5
Night Walking.....	J-6
Signals	J-7
Target Detection	J-8
Movement.....	J-9
Appendix K EXAMPLE EVASION AND RECOVERY PLAN.....	K-1
GLOSSARY.....	Glossary-1
REFERENCES.....	References-1
INDEX.....	Index-1

Figures

Figure 1-1. Organization of long-range surveillance company.	1-5
Figure 1-2. Concept of intelligence, surveillance, and reconnaissance.....	1-10
Figure 2-1. Company operations base.....	2-8
Figure 2-2. Example C2 employment schematic for a LRSC.....	2-9
Figure 2-3. Example C2 employment schematic for a LRSD in an MSS.....	2-10
Figure 3-1. Intelligence, surveillance, and reconnaissance.....	3-2
Figure 3-2. LRS mission development process.....	3-4
Figure 3-3. Example format for target folder.....	3-10
Figure 4-1. TLP and METT-TC.....	4-7
Figure 4-2. Development of courses of action.....	4-12
Figure 4-3. Reconnaissance and surveillance elements.....	4-22
Figure 4-4. Fan method.....	4-23
Figure 4-5. Converging routes method.....	4-24
Figure 4-6. Successive sector method.....	4-24
Figure 4-7. Example surveillance site.....	4-27
Figure 4-8. Example hide site.....	4-28
Figure 4-9. Example imagery labels.....	4-53
Figure 4-10. Example imagery legend.....	4-54
Figure 4-11. Example panoramic sketch.....	4-55
Figure 4-12. Example topographic sketch.....	4-56
Figure 4-13. Example objective sketchpad.....	4-57
Figure 4-14. Example drawing technique: whole to part.....	4-59
Figure 4-15. Example drawing technique: use of common shapes to show common objects.....	4-60
Figure 4-16. Example drawing technique: use of perspective to represent depth.....	4-60
Figure 4-17. Example drawing technique: use of vanishing points to indicate distance.....	4-60
Figure 4-18. Example drawing technique: hatching.....	4-61
Figure 5-1. Rubber boat.....	5-2
Figure 5-2. Short count, long count.....	5-4