



NICARAGUAN ARMY

CORPS OF ENGINEERS



HUMANITARIAN DEMINING IN THE REPUBLIC OF NICARAGUA

Lima, August 2003



OBJECTIVE: FULFILL OTTAWA CONVENTION

ON THE PROHIBITION OF THE USE, STOCKPILING, AND TRANSFER OF ANTIPERSONNEL MINES AND ON THEIR DESTRUCTION.

- A. CLEARANCE OF SOWN MINES (Period: 10 años)
- B. DESTRUCTION OF STOCKPILED MINE INVENTORY (Period: 4 Años)

GENERAL OBJECTIVES OF THE PROGRAM

1. CLEAR LANDMINES, UXO'S FROM THE NORTHERN AND SOUTHERN BORDERS OF THE COUNTRY, CIVILIAN AND MILITARY OBJECTIVES WITHIN THE INTERIOR OF THE NATIONAL TERRITORY CONTAMINATED WITH MINES, ENERGY INFRASTRUCTURE AND ROADWAYS, ACCESS TO SETTLEMENTS, VILLAGES, AND COOPERATIVES.
2. MINES AND UXO'S REPORTED BY THE POPULATION, THAT DO NOT CORRESPOND TO OUR REGISTRIES, OR THAT COULD HAVE BEEN INSTALLED AND/OR ABANDONED BY THE FORCE.
3. REDUCE THE RISK OF MINE ACCIDENTS THAT COULD RUIN THE PHYSICAL INTEGRITY OF THE POPULATION OF AFFECTED AREAS.
4. PREPARE THE AFFECTED AREAS TO PERMIT ECONOMICALLY PRODUCTIVE ACTIVITIES IN THE FIELD.
5. DESTROY ANTIPERSONNEL MINES FROM THE INVENTORIES OF THE NICARAGUAN ARMY.



DEVELOPMENT OF NATIONAL HUMANITARIAN DEMINING.

PHASES	Period	Demined Objectives	Kms. of Border	Mines Destroyed.
I.- Without Supervision	1989-1992	31		11,819
II.- With International Support (WAS SUPERVISED)	1993	60		2,373
III.- Without International Support	1994-1995	158		13,577
IV.- With International * Support	1996-2003	545	274.5	66,542



UPDATED TO 30 June 2003.

ADVANCES COMPLETED

I.- NATIONAL HUMANITARIAN DEMINING PLAN (Period 1989 – 30 JULY 2003)

a.- Quantity of mines sown according to Registries. 135,643 units

b.- Mines destroyed and certified during operations. 94,311 units

c.- UXO'S Destroyed 553,593 units

d.- Areas cleared of mines 3,403,919.57 M²

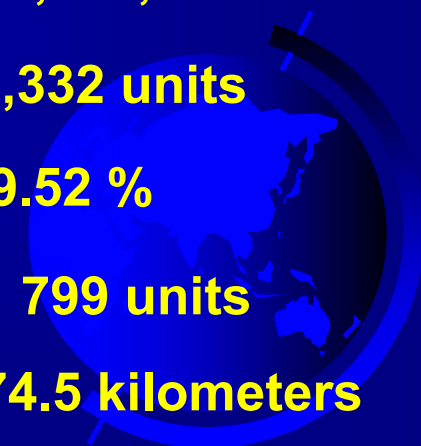
e.- Dangerous Areas 6,728,651 M²

f.- Mines to be destroyed 41,332 units

g.- percentage Fulfilled. 69.52 %

h.- Objectives cleared 799 units

i.- Kilometers cleared 274.5 kilometers



II.- ANTIPERSONNEL MINE STOCKPILE DESTRUCTION PLAN

A.- STOCKPILED AP MINES:

133,435

B.- FULLFILMENT PERIOD:

DECEMBER 2002

SUMMARY:

✦ 1999 (3 EVENTS)	20,000 MINES
✦ 2000 (2 EVENTS)	20,000 MINES
✦ 2001 (3 EVENTS)	50,000 MINES
✦ 2002 (3 EVENTS)	43,435 MINES

TOTAL MINES DESTROYED

133,435 MINES

PERCENTAGE FULFILLED:

100%

On August 28, 2002 the last stockpile destruction was carried out, destroying 18,435 AP mines, completing a total of destruction of 133,435 mines, Nicaragua's commitment before the Ottawa Convention.

COMPONENTS OF THE NATIONAL HUMANITARIAN DEMINING PROGRAM

I.- FINANCIAL ADMINISTRATOR

- BILATERAL
- MULTILATERAL

NATIONAL
COUNTERPART

II.- OPERATIONAL

- CLEARANCE OF MINES SOWN AND DESTRUCTION OF ALL TYPES OF UXO'S.
- DESTRUCTION OF STOCKPILED ANTIPERSONNEL MINES.

TYPES OF MINES SOWN AND STOCKPILED



PMN



PMN-2



POMZ-2



PPMISR-11

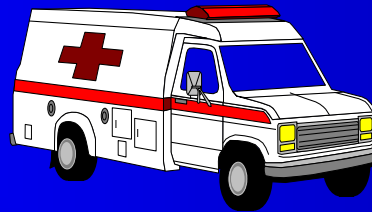


III.-MEDICAL/PSYCHOLOGICAL



HELICOPTERS

2/3



MEDICAL PERSONNEL

MEDICS 22

PARAMEDICS 22

AMBULANCES 12

PSYCHOLOGIST 03



IV.- MINE RISK EDUCATION



V.- CERTIFICATION

- Manual
- Canine
- Mechanized

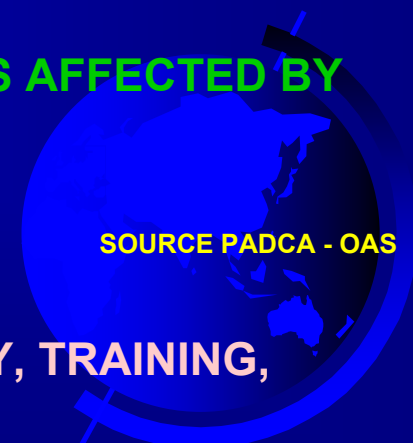


PRINCIPAL CHARACTERISTICS

NATIONAL HUMANITARIAN DEMINING PROGRAM

- 1.- NATIONAL DEMINING COMMISSION, MAXIMUM COORDINATION**
- 2.- ARMY OF NICARAGUA, ORGANIZES, PLANS, AND EXECUTES DEMINING IN TWO COMPONENTS:**
 - a) DESTRUCTION OR MINE RMOVAL
(ANTICIPATED TO CULMINATE IN 2004 – 2005)**
 - b) DESTRUCTION OF STOCKPILED MINES
(ANTICIPATED TO CULMINATE IN 2002)**
- 3.- PREVENTION CAMPAIGNS, DIFFUSION, AND MINE ACCIDENT PREVENTION.**
- 4.- ASSISTANCE AND REINTEGRATION PROGRAM FOR VICTIMS AFFECTED BY MINES.**

AFFECTED BY MINES :	602 PERSONS (14 OF WHICH DIED).
----------------------------	--
- 5.- ACCEPTED INTERNATIONAL NORMS (IMSMA) ON SECURITY, TRAINING, AND EXECUTION OF OPERATIONS.**





ARMY OF NICARAGUA

***NATIONAL HUMANITARIAN DEMINING PROGRAM
PROJECTED COMPLETION
2003 – 2005.***

DEFINITION OF PLANNING PARAMETERS

- **PERFORMANCE OF DEMINING SQUADS PER TYPE OF DEMINING OBJECTIVE**
- **BASIC EXECUTING UNIT: DEMINER SQUAD**
- **PERFORMANCE OF MINE SWEEPING EQUIPMENT**
- **TIME OF WORK (HOURS / DAYS)**
- **TOPOGRAPHICAL CHARACTERISTICS OF THE TERRAIN, SEASON, ETC.**
- **ACCESABILITY OF AREA OF OPERATIONS.**
- **EXISTANCE OF REGISTRIES.**
- **ESTABLISHED PRIORITIES OF DEMINING OBJECTIVES.**
- **MINEFIELD CHARACTERISTICS (DIMENSION, QUANTITY OF MINES, TYPE OF MINES.)**
- **CALCULATION OF CASUALTIES (AMOUNT OF ACCIDENTS/YEAR)**



CAPACITY / DAY PER DEMINING FRONT OF OPERATION

IN MINE FIELDS.

.- AREAS CLEARED PER DAY	300 M²
.- PER EACH M² CLEARED	0.5 METALLIC OBJECTS
.- PER EACH DESTROYED MINE	10-15 METALLIC OBJECTS
.- MINES DESTROYED PER WORK DAY	10-15 MINES
.- PER EACH MINE DESTROYED	20-30 M² CLEARED

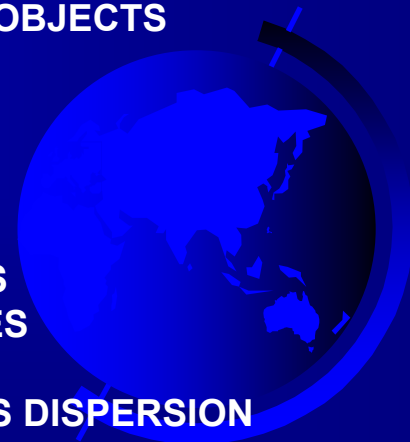
IN BRIDGES

CAN WORK UP TO A MEDIUM SIZED BRIDGE

PER EACH BRIDGE (10 DAYS)	2,500 M² CLEARED
CLEARED AREA PER DAY	250 M²
PER EACH 1 M² CLEARED	2 METALLIC OBJECTS
MINES DESTROYED PER DAY	10-15 MINES
PER EACH MINE DESTROYED	16-25 M² CLEARED
PER EACH MINE DESTROYED	33-50 METALLIC OBJECTS

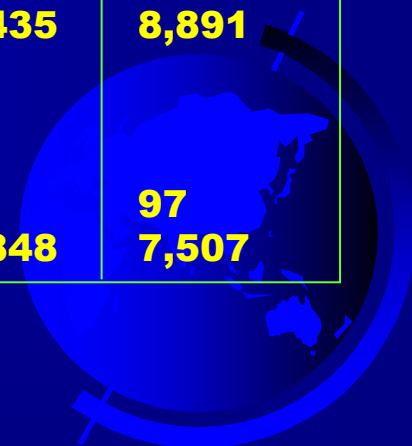
DESTRUCTION OF UXO'S

MUNITIONS OF MORE THAN 250 KGS	9 MUNITIONS
MUNITIONS OF 100 - 225 KGS	18 MUNITIONS
PROJECTILES OF 100 - 155 MM	90 PROJECTILES
PROJECTILES OF 50-75 MM	162 PROJECTILES
MORTAR GRENADES 60-120 MM	120 GRENADES
MUNITIONS AND PROJECTILES OF LESSER CALIBER	DEPENDS ON ITS DISPERSION



PROJECTION OF THE CHRONOLOGY OF DEMINING OPERATIONS JULY 2003 – DECEMBER 2005

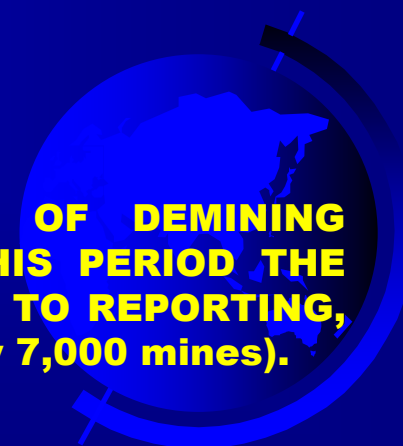
<u>DEMINING FRONT OF OPERATIONS NO. 1</u>	FULFILLMENT PERIOD			
	2003	2004	2005	TOTAL
DEMINING OBJECTIVES :	01	08	16	25
MINEFIELDS :	600	3,380	2,496	6,470
 <u>DEMINING FRONT OF OPERATIONS NO. 2</u>				
DEMINING OBJECTIVES :	01	02	15	18
MINEFIELDS :	847	2,497	2,868	6,212
 <u>DEMINING FRONT OF OPERATIONS NO. 3</u>				
DEMINING OBJECTIVES :	04	09	10	23
MINEFIELDS :	1,880	3,576	3,435	8,891
 <u>DEMINING FRONT OF OPERATIONS NO. 4</u>				
DEMINING OBJECTIVES :	30	34	33	97
MINEFIELDS :	1,811	2,848	2,848	7,507



<u>DEMINING FRONT OF OPERATIONS NO. 5</u>	FULFILLMENT PERIOD			
	2003	2004	2005	TOTAL
DEMINING OBJECTIVES :	08	14	04	26
MINEFIELDS :	737	1,306	2,650	4,693
<u>MECHANIZED MINE SWEEPING DETACHMENT</u>				
DEMINING OBJECTIVES :	01	01	01	03
MINEFIELDS :	2,000	3,400	3,400	8,800
<u>MARKING DETACHMENT</u>				
QUANTITY OF OBJECTIVES :	30	131	31	197

DEMINING OBJECTIVES : 197
MINES TO BE DESTROYED : 42,573 MINES

PROJECTED FOR THE YEAR 2006 IS THE CONTINUATION OF DEMINING OPERATIONS WITH UP TO THREE FO, DESTROYING DURING THIS PERIOD THE AMOUNT OF MINES EQUIVALENT TO THE ONES ATTENDED TO DO TO REPORTING, THAT WERE NOT CONSIDERED IN THE INITIAL PLAN (approximately 7,000 mines).





ARMY OF NICARAGUA

CORPS OF ENGINEERS

MARMINCA – IADB/OAS (19)

• SUPERVISION AND TECHNICAL SUPPORT

SUNATIONALES SUPERVISORS

INSNATIONALES INSTRUCTORS



ADMIN. DEMINING PROGRAM

PADCA OAS

DEMINING UNITS

• LOGISTIC AND FINANCIAL SUPPORT



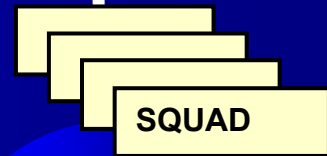
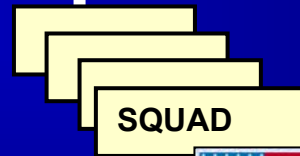
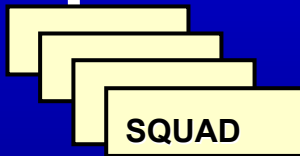
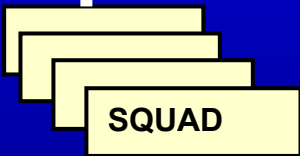
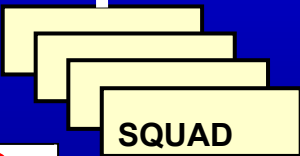
F.O # 1

F.O # 2

F.O # 3

F.O # 4

F.O # 5



MINE SWEEPING DETACHMENT

SQUAD



CANINE

TEAM (10 DOGS)



MARKING DETACHMENT

SQUAD



GENERAL OBJECTIVES

FULFILL THE NATIONAL HUMANITARIAN DEMINING PROGRAM, AND DECLARE NICARAGUA “ CONCLUDED DEMINING OPERATIONS” IN 2005.

DESTROY 41,332 MINES THAT ARE FOUND “SOWN” AND PENDING DESTRUCTION (ACCORDING TO REGISTRIES), IN A PERIOD OF 2.5 YEARS AND CARRY OUT PREVENTION, MARKING, AND DESTRUCTION OF UXO’S.

SPECIFIC OBJECTIVES

READJUSTMENT OF THE PLANS FOR THE FO, MINE SWEEPING DETACHMENT AND MARKING DETACHMENT, FOR THE FULFILLMENT OF THE NATIONAL HUMANITARIAN DEMINING PLAN IN 2005.

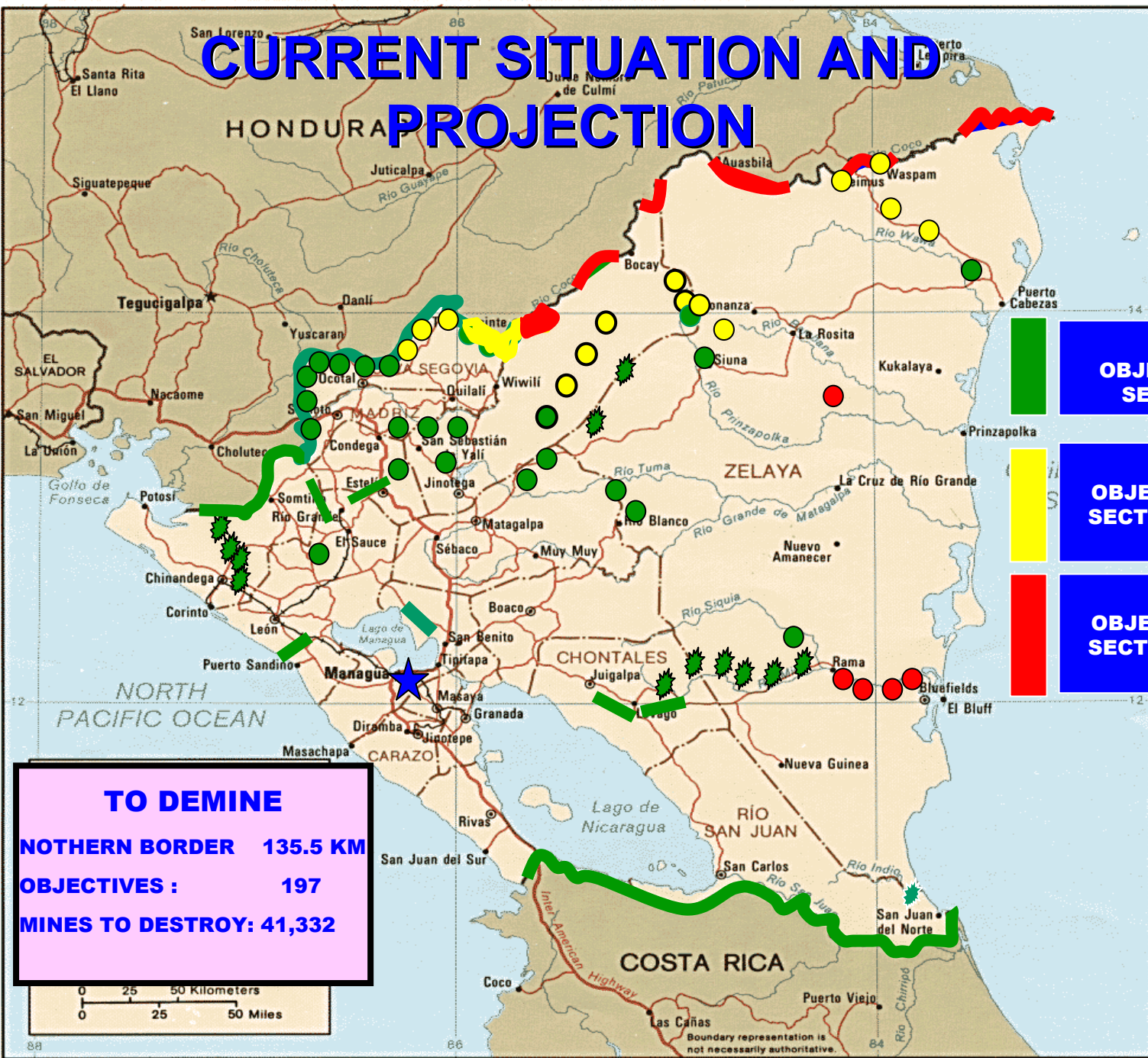
SOCIO-ECONOMIC IMPACT EVALUATION, DECREASING THE RISK OF MINE ACCIDENTS TO THE POPULATION, VALUE THE ADVANCES AND DIFFICULTIES IN RESPECT TO THE ORIGINAL PLAN.

STRENGTHEN THE FRONTS OF OPERATION No. 1 AND No. 2 IN THE DEMINING OF THE OBJECTIVES ASSIGNED TO FRONTS No. 3 AND No. 4, IN ACCORDANCE WITH THE ORIGINAL PLANS IN NUEVA SEGOVIA 2001-2005, TO FULFILL THE GOALS OF THE PROPOSAL.

INSERT WITHIN THE NATIONAL DEMINING PLAN THE OBJECTIVES ATTENDED TO SUCH AS POPULATION REPORTING AND ENGINEERING OPERATIONS WITHIN THE PROGRAM, TO DATE SIGNIFY 5,796 MINES.



CURRENT SITUATION AND PROJECTION

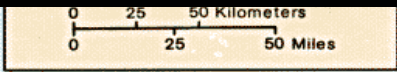


1989 – 2002
OBJECTIVES AND BORDER
SECTIONS DEMINED.

2003
OBJECTIVES AND BORDER
SECTIONS PLANNED TO BE
DEMINED.

2004 - 2005
OBJECTIVES AND BORDER
SECTIONS PLANNED TO BE
DEMINED.

TO DEMINE
NORTHERN BORDER 135.5 KM
OBJECTIVES : 197
MINES TO DESTROY: 41,332



Boundary representation is not necessarily authoritative.

COMMITTED FUNDS

ORIGINE	AMOUNT (Millions of dollars)	PERIOD	
DENMARK*	6,2	2001-2005	FO-1 y 2.
SWEDEN*	5,0	2000-2004	FO-3
CANADA*	2.0	2003	FO-4
NORWAY *	2,0	2002-2003	FO-4
UNITED STATES *	3.4	2000-2004	FO-5
EUROPEAN UNION ***	1.4	2003-2004	FO-4
JAPAN***	0.8	2003-2004	DBM

TOTAL

20.8 MILLION US

TOTAL DEFICIT 7.0 MILLION US \$ (DOLLARS), NOT INCLUDING PREVENTION AND VICTIM ASSISTANCE (REHABILITATION).

* **COMMITTED TO FINANCING UNTIL THE CONCLUSION OF THE NATIONAL HUMANITARIAN DEMINING PLAN. EN MILLONES DE US DÓLARES.**

*** **MINE SWEEPER – FINANCIAL COMMITMENT.**

*** **FINANCIAL COMMITMENT.**

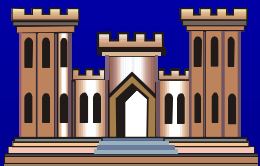
METHODS OF HUMANITARIAN DEMINING OPERATIONS



MANUAL METHOD



EMPLOYMENT OF CANINE MINE DETECTORS



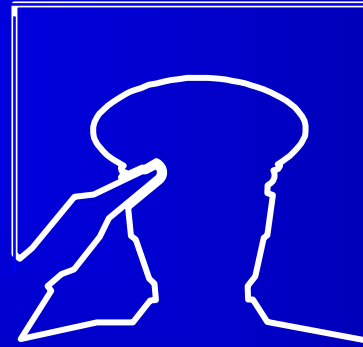
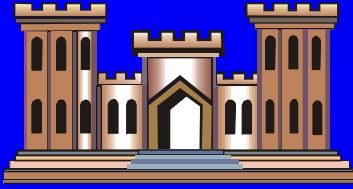
MECHANIZED METHOD



PRINCIPAL PROBLEMS THAT AFFECT DEMINING OPERATIONS

- ❏ DIFFICULTY IN LOCATING MINEFIELDS BY REFERENCE POINTS THAT HAVE BEEN LOST OVER TIME.**
- ❏ TOPOGRAPHICAL CONFIGURATION OF TERRAIN.**
- ❏ BAD CONDITION OF ROADS, BRIDGES AND HIGHWAYS.**
- ❏ SHIFTING OF MINES DUE TO FLOODS, CONTAMINATED EXTENSIVE AREAS (MITCH).**
- ❏ MINES BURIED BY MUD AND SEDIMENTS. EXISTENCE OF A LOT OF METALLIC GARBAGE (MITCH).**
- ❏ SAPPER ACCIDENTS IN DEMINING OPERATIONS. (19 ACCIDENTS, WITH 34 AFFECTED).**
- ❏ LIMITED HELICOPTER CAPACITY FOR AERIAL MEDICAL EVACUATION MISSIONS.**
- ❏ LIMITED MINE RISK EDUCATION CAMPAIGN DUE TO LACK OF FUNDS.**
- ❏ UNSTABLE FINANCING .**





Thank you very
much.

