

CROMAC – Croatian Mine

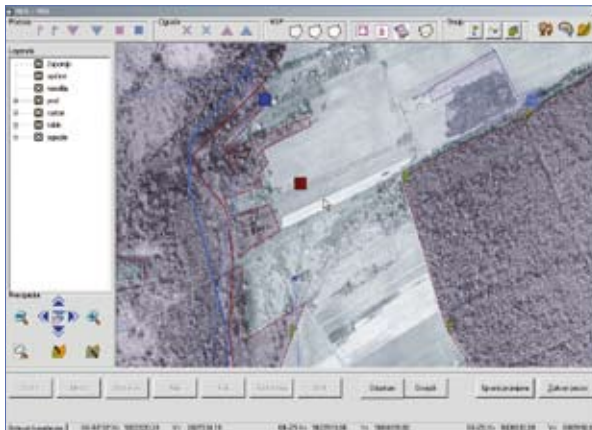
CROMAC ACTIVITIES:

- General and technical survey
- MSA marking and fencing
- Planning and development of mine search and demining project proposals
- Public tenders and awarding the works
- Quality control – quality assurance over mine search and demining operations and handover of searched and/or demined area
- Issuance of demining certificates guaranteeing that the area is no longer mine contaminated
- Accreditation of certified legal entities or tradesmen for conducting humanitarian demining operations
- Research and development of demining technologies
- Testing of machines, devices and equipment used in humanitarian demining operations
- Providing expert assistance and information on mine danger and status of mine suspected area to the authorized bodies
- Cooperation with international mine action subjects

MINE INFORMATION SYSTEM – MIS

Mine information system is an integral dynamic user system of digital mine situation data collected and it consists of:

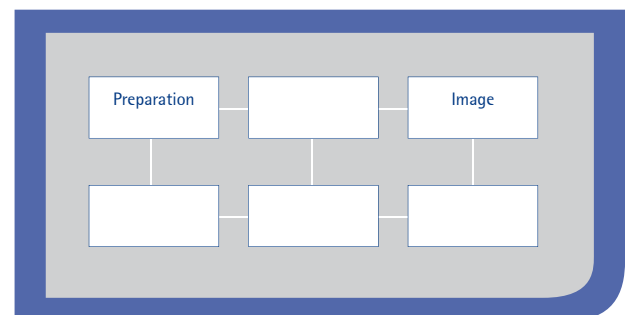
- database
- geographical information system (GIS)



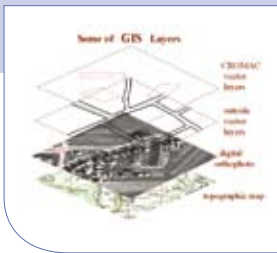
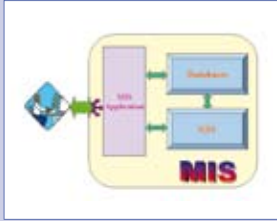
Database and **GIS** are in function of planning humanitarian demining, efficient and rational conducting of general and technical surveys, inclusion and cancellation of MSA, development of project documentation, quality assurance, quality control, issuance of demining certificate and availability of information over the Internet.

Maps produced with most modern technologies of digital colour orthophoto (DOF 2, product of GEOFOTO Ltd.) S 1: 2 000) are inserted into the database. Thanks to the donation of the Kingdom of Norway to IT Department – Scan Section, in March 2007, there was a highly sophisticated scanner installed and CROMAC SCAN CENTRE established. The scanner was manufactured and installed by the company ProCaptura from Norway.

Scan Centre enables scanning of large format maps and other graphical information and their geocoding into the official coordinate system, vectorization of data from the maps and their distribution.



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Mine information system – MIS:

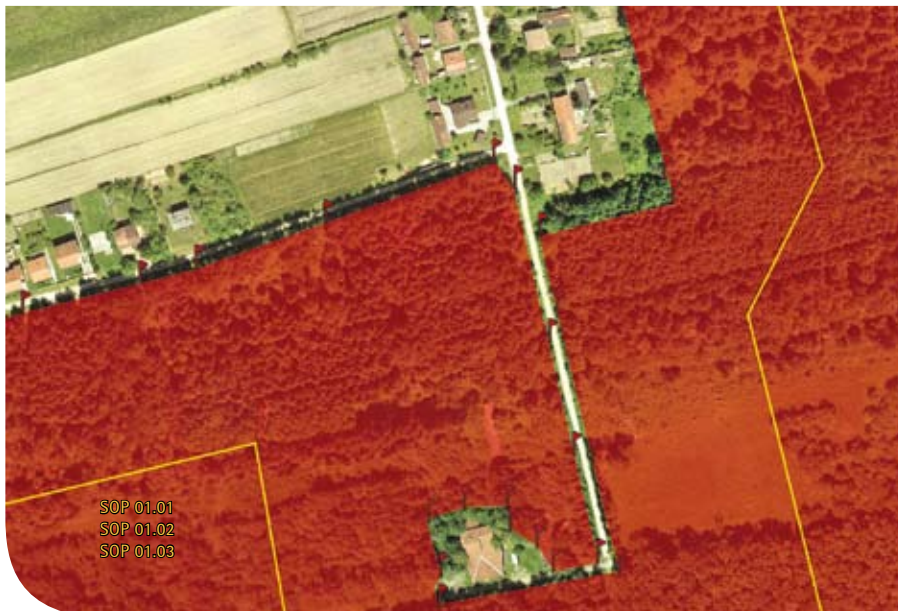
- Database
- Geographic Information System
- Scanning
- DOF 2

MINE SUSPECTED AREA (MSA)

General survey:

- Analytic preparation
- Field data collection and verification
- Marking of mine suspected area
- Final analysis and making general survey reports

- Defines the boundaries of mine suspected area (MSA)
- Defines the categories of areas inside MSA
- Estimates the MSA structure according to the area type and intended use
- Performs the reconstruction of minefields inside the MSA and estimates the number and type of mines
- Performs the MSA marking with mine warning signs
- Continuous reconstruction of the entire MSA



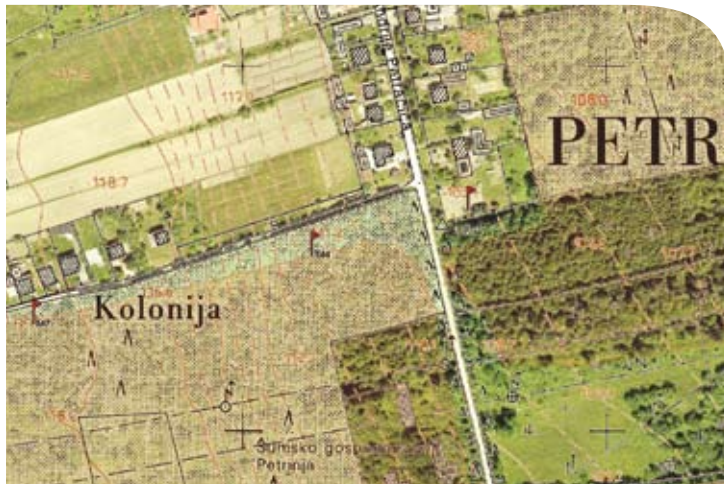
Areas inside MSA are defined as per method of demining on the basis of criteria for the establishment of area status by general survey:

- area to be demined
- area to be searched
- areas used at one's own risk

All registered general survey data is inserted into CROMAC MIS and available in a form that suits the practical use for mine search and/or demining project development and informing the citizens.

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PLANNING AND PROJECT DOCUMENTATION DEVELOPMENT



For the purpose of precise priority setting, standardized criteria and rational usage of limited funds for areas important from safety, socio-economic and ecological aspect, Croatian Mine Action Centre has developed criteria for setting humanitarian demining priorities that are the basis for the development of Three-Year Humanitarian Demining Plan as well as Annual Humanitarian Demining Plans and clear definition of mine impact on the development of the Republic of Croatia.

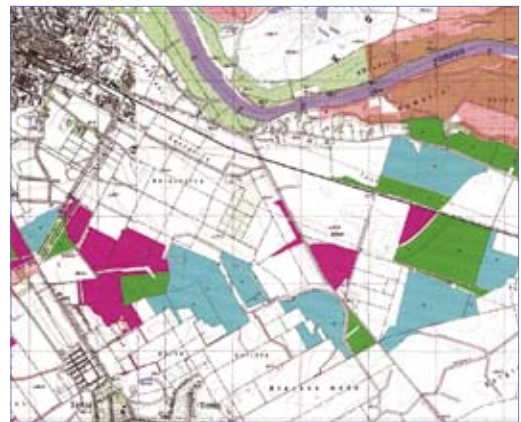
Based on Annual Humanitarian Demining Plan, Croatian Mine Action Centre makes Operative Plans of Activities defining project documentation development (mine search and demining project proposals, technical survey execution projects), general and technical survey, marking and supervision over demining operations.

Project documentation is made in accordance with valid regulations and rules of profession. It comprises all information that enable the following:

- making a decision on implementation of public tender procedure i.e. awarding mine search and/or mine clearance operations to accredited legal entities or tradesmen as per law on public procurement on the basis of mine search and/or demining project proposal,
- conducting demining, mine search or technical survey based on demining, mine search or technical survey project proposals.

Planning and project documentation development:

- Planning
- Technical survey execution projects
- Mine search and demining execution projects



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MINE SUSPECTED AREA



Quality assurance and control:

- Accreditation of humanitarian demining companies
 - Quality Assurance
 - Supervision
 - Quality Control
- Quality Assurance (QA) and Quality Control (QC) over mine search/demining operations is the responsibility of a Quality Assurance and Quality Control Department. Quality Assurance during the execution of mine search/demining operations is conducted by Quality Assurance Officers and Monitors.
 - Quality Assurance during the execution of operations includes:
 - supervision over the operations in progress,
 - control inspection, sampling of the area searched and demined,
 - record keeping.
 - During the QA procedure, QA Officer identifies the situation at the worksite in relation to the execution project and performs sampling of searched and demined areas.
 - Quality Control over executed mine search and/or demining operations is planned and conducted by QA Officer on the control samples of the demined i.e. searched worksite.
- QA Officer determines the control samples manual mine detection is to be applied.
- Sampling methods and procedures have been elaborated by applying sampling plans indexed as per acceptable quality level-AQL (ISO 2859-1).
- Control samples include all project entireties (minimum 1% of the total area searched and/or demined).
- Maximum size of separate control sample is determined depending on the intended use of the land area.
- Based on the Report on Handover of the demined or searched area, CROMAC issues a certificate guaranteeing that the area is no longer contaminated i.e. that it has been cleared.
- Analysis of completed demining projects