



PORTABLE FIELD PROCESSOR COMBAT 71

LEM Company – Portable Field Processor “Combat 71”

Combat 71 – characteristics military operational use – RSTA exploration units

The military operational characteristics of the "Combat 71" Field Portable Computer allow it to be used tactically, for surveillance, target acquisition, and control of the Territory of:

- ☐ ***Patrols LRRP “Long Range Recognize Patrol”***
- ☐ ***Infantry and Cavalry Patrols;***
- ☐ ***Patrols and Units of the RSTA Units;***
- ☐ ***Advanced Ground Artillery Watchers;***
- ☐ ***Advanced Watchers of the "Mortars" Infantry;***
- ☐ ***FAC “Laser Designator System” observers;***



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Combat 71 – Features Military Operational Use – Detection bases Instrumental

The military operational features allow the "Combat 71" Portable Field Processor to equip opto, electronic, radar systems, such as:

- ☐ *Digital Field Protractor (Thermal Camera and RF Laser);*
- ☐ *Radar Surveillance of the battlefield;*
- ☐ *Field Acoustic, Seismic, Magnetic detection systems;*
- ☐ *Systems for video surveillance and protection;*
- ☐ *Aircraft ground control stations*
Micro UAV remote controlled;
- ☐ *RSTA systems on telescopic pole;*



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Combat 71 – Features Military Operational Use – Unit Command Post

The military operational characteristics allow the "Combat 71" Portable Field Processor to equip the command post of the units:

- ☐ ***Company and Platoon Mortar Infantry;***
- ☐ ***Battery and Mountain Artillery Section;***
- ☐ ***Battery and Paratroopers Section;***
- ☐ ***Artillery Section "MLRS" Rocket Launcher;***
- ☐ ***"Single-pipe" Terrestrial Artillery Section;***
- ☐ ***Anti-aircraft Artillery Section;***
- ☐ ***Companies and Platoon amphibious landing units;***
- ☐ ***Platoon Special Forces;***
- ☐ ***"Radar 2D" Anti-aircraft Radar Section***



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Combat 71 – Features Paramilitary and civil operational use

The characteristics for the paramilitary and civil use of the "Combat 71" Portable Field Processor for:

- ❑ Control of the territory of the police force;***
- ❑ Installation of the Police and Carabinieri radio;***
- ❑ Control of illegal immigration of the Guardia di Finanza;***
- ❑ Border control or Guardia di Finanza control areas;***
- ❑ Battalion Cacciatori Carabinieri searches kidnapped;***
- ❑ Anti-poaching units of the State Forestry Corps;***
- ❑ Nuclei Body building anti-abusive control
State forestry;***
- ❑ NBC cores and Fire Brigade emergencies;***



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Combat 71 – Hardware technical features

The hardware technical characteristics of the "Combat 71" field portable computer are :

- ☐ ***Pentium III CPU card, 933 Mhz (1)***
- ☐ ***512 Mb basic RAM memory, expandable up to 2 Gb;***
- ☐ ***2.5 "60 Gb Fixed Disk, expandable up to 120 Gb;***
- ☐ ***Slot for standard 2 GB Compact Flash II solid state hard disk expandable up to 8 GB;***
- ☐ ***15 "TFT matrix screen res. 1024 x 768 pixels;***
- ☐ ***64 Mb Graphics Card, expandable to 128 Mb ;***
- ☐ ***Standard immersion keyboard with illuminated keys;***
- ☐ ***"Mouse" immersion pointing device;***
- ☐ ***DVD / CD Rom Burner, external USB;***
- ☐ ***2-channel CNR military communications interface card Stanag 4202 and MIL-STD 188 - 220; (1)***

The second version of 2006, the new technology upgrade military CPU card doily processor.



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Combat 71 – technical features Basic software (optional)

The "Combat 71" portable field computer is certified for the installation of basic software:

- ***Operating system :***
 - ❑ ***Windows XP professional;***
 - ❑ ***Linux Red Hat 9xx ;***
- ***Office:***
 - ❑ ***Office professional 2003;***
- ***Data Base:***
 - ❑ ***DBMS Access;***
 - ❑ ***Oracle DBMS;***
- ***"GIS" Cartographic Manager:***
 - ❑ ***Geografical Information Systems "Mapinfo Limited";***
 - ❑ ***"Erdas" Graphic Display;***



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Combat 71 – technical features Application Software (optional)

The "Combat 71" portable field computer allows the management of application software for:

➤ ***Digital Cartography:***

- ☐ ***Raster IGMI SRG / ISO 8211, Matrix DTM;***
- ☐ ***Raster NIMA ADRG / CADRG, DTED,;***
- ☐ ***Vector IGMI and NIMA VMAP format;***
- ☐ ***User defined format Symbology Library, NATO APP-6 standard military tactics a;***

➤ ***Formatted Messaging:***

- ☐ ***Stanag 5500, Adatp-3, APP-9 general catalog;***
- ☐ ***Stanag 5620, Adatp-1 (Arty 1-2), ASCA;***
- ☐ ***Stanag 5621, (command);***
- ☐ ***Stanags 5624, 2103, ATP / 45 NBC Attack;***
- ☐ ***Interface Control Document MLRS Version C and D;***



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Combat 71 – technical features Application Software (optional)

The portable field computer "Combat 71" allows the standard management of communication with:

- ☐ **CNR VHF / FM Combat Radio Network in accordance with Stanag 4202 and MIL - STD 188-220;**
- ☐ **CNR HF / AM Combat Radio Network in accordance with Stanag 4202 and MIL - STD 188-220;**
- ☐ **Cavo LAN cable network in accordance with standard Ethernet, TCP / IP, and 802.3b;**
- ☐ **WAN network via analog or digital radio link in accordance with standard TCP / IP, X25, X400;**
- ☐ **WIRELESS network according to Bluetooth standard, 802.11.b / g;**
- ☐ **DAB Radio Network (digital radio);**
- ☐ **Mobile telephony network in accordance with GSM, GPRS, UMTS standards;**



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Combat 71 – Mechanical and Electrical Characteristics

The mechanical characteristics of the computer allow installation on vehicles and helicopters :

- ☐ ***Antivibration base for installation on rotated and tracked military or civil vehicles;***
- ☐ ***Anti-vibration base for installation on helicopte;***



The electrical characteristics for the power supply are:

- ☐ ***24 Vdc from Military Vehicle;***
- ☐ ***220 Vac from external power supply;***
- ☐ ***24 Vdc from Solar Panel or batteries;***



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Combat 71 – External Interface Ports

The external interface ports for the "Combat 71" computer are:

- ☐ *Nr.4 alternative serial ports RS 232/422/485;*
- ☐ *nr. 1 USB ports (1 for external CD Rom player);*
- ☐ *nr. 1 porta LAN Ethernet 802.3b*
- ☐ *nr.1 802.3b Ethernet LAN port;SVGA video input / output;*
- ☐ *CNR Radio channels "stanag 4202 - MIL 188-220;*

In option:

- ☐ *1 802.11b / g Bluetooth adapter;*
- ☐ *1 external fiber optic adapter;*
- ☐ *1 external "IRDA" infrared adapter;*
- ☐ *1 GPRS or UMTS network adapter;*
- ☐ *nr. 1 EUTELSAT Satellite interface adapter;*

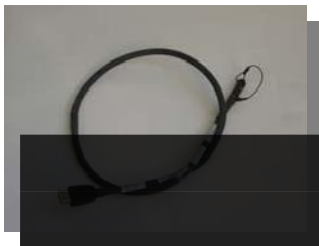


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Combat 71 – Features Accessories

The "Combat 71" Portable Field Processor has the following optional accessories:

- ☐ ***Fiber optic cable adapter ;***
- ☐ ***Rigid hood for transport and airborne;***
- ☐ ***Semi-rigid bag for operational transport;***
- ☐ ***Solar panel for recharging computer batterie;***
- ☐ ***Parallel and IRDA cable adapter;***
- ☐ ***sunshade system***
- ☐ ***Field hub for 802.3 lan network;***
- ☐ ***Field hub for USB ports;***



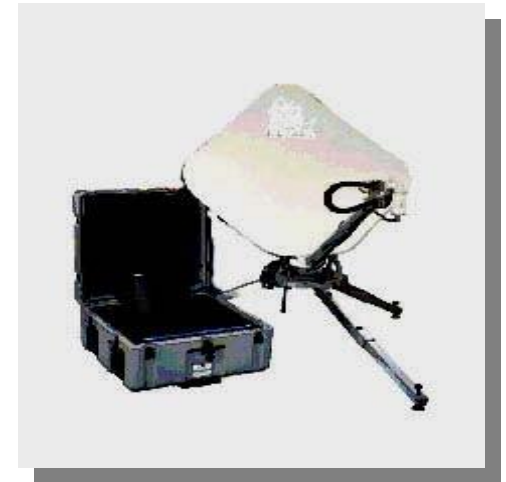
Combat 71 – Satellite Communication systems

Portable Field Processor "Combat 71" is integrated with the "STARLEM" system for connection and connection to satellites:

- ☐ Eutelsat e Intelsat civil satellite ;
- ☐ SICRAL Italian Military satellite ;

The technical characteristics of the system are:

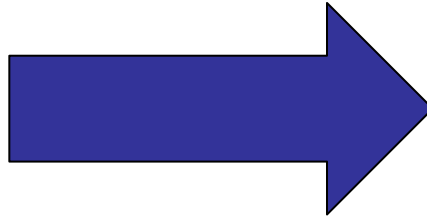
- ☐ GPS and SW system for automatic alignment
- ☐ 24 Vdc or 220 Vac power supply
- ☐ Standard DVB-S modem
- ☐ Optional security crypto
- ☐ 2 - 6 Mbps transmission band Formats: MPEG2 Video; IP Data; voice;
- ☐ High speed channel for IP data for remote Email, file transfer, Messages;



Combat 71 – Physical - Environmental Characteristics

The "Combat71" portable field computer has been developed and tested for extreme operating conditions that comply with the following civil and military regulations:

- ☐ ISO 9000 – 01 – 02 ;
- ☐ STANAG 2895 ;
- ☐ MIL – STD 810 E
- ☐ IP 67 e 68 ;
- ☐ MIL – STD 461 D;
- ☐ FINABEL 2-C-10;
- ☐ Marcatura CE ;
- ☐ NBC



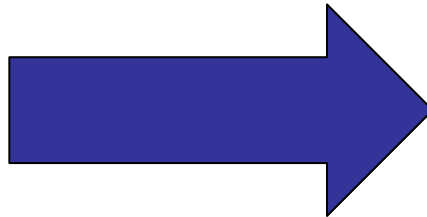
MIL - STD 810 E

- ☐ mthd 501.4 Storage High Temp.;
- ☐ mthd 502.4 Proc I Storage Low Temp. ;
- ☐ mthd 501.4 Proc II Op. Cond.High Temp. ;
- ☐ mthd 502.4 Proc II Op. Cond. Low Temp. ;
- ☐ mthd 500.4 Altitude, storage ;
- ☐ mthd 514.5 proc I Vibrations ;
- ☐ mthd 514.5 proc II Loose cargo transp ;
- ☐ mthd 516.5 proc I Shock ;
- ☐ mthd 516.5 proc VI bench handling ;
- ☐ mthd 507.4 proc III Humidity ;
- ☐ mthd 512.4 Proc I immersion ;
- ☐ mthd 509.4 Salt Fog ;
- ☐ mthd 510.4 proc I blowing dust ;
- ☐ mthd 510.4 proc II blowing sand ;

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- ☐ IP 67 e 68 ;
- ☐ MIL – STD 461 D;
- ☐ FINABEL 2-C-10;
- ☐ Marcatura CE ;
- ☐ NBC

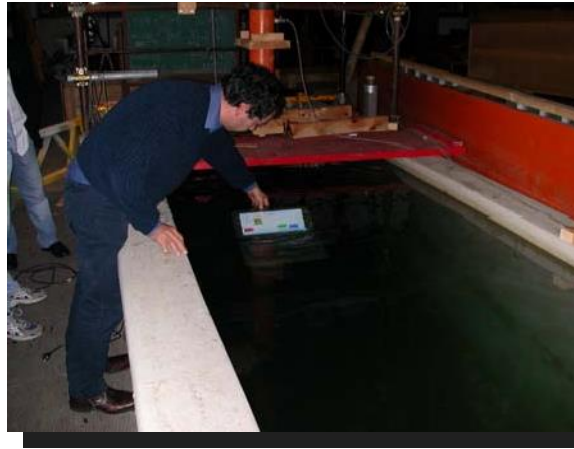


RemediationTest NBC
FINABEL 2.C.10 42.2 violent wind
MIL-STD-461C elettromagnetic
compatibility
STANAG 4235 electrostatic
discharge
STANAG 4236 atmospheric
discharge
Test for CE marking purposes

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Combat 71 – Environmental Climate Test - Immersion

The immersion tests were carried out in the tank with the portable field computer "Combat 71" in operation with active CPU test software program.



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Combat 71 – Environmental Climate Tests - Low Operating Temperature

The low operating temperature tests (-49 ° C) were carried out in a climatic chamber, with the portable field computer "Combat 71" in operation with the active CPU test software program.



Combat 71 – Environmental Climate Tests - Heavy Rain

The pouring rain tests were carried out using a pressure washer with jet directed from above towards the portable field computer "Combat1".

