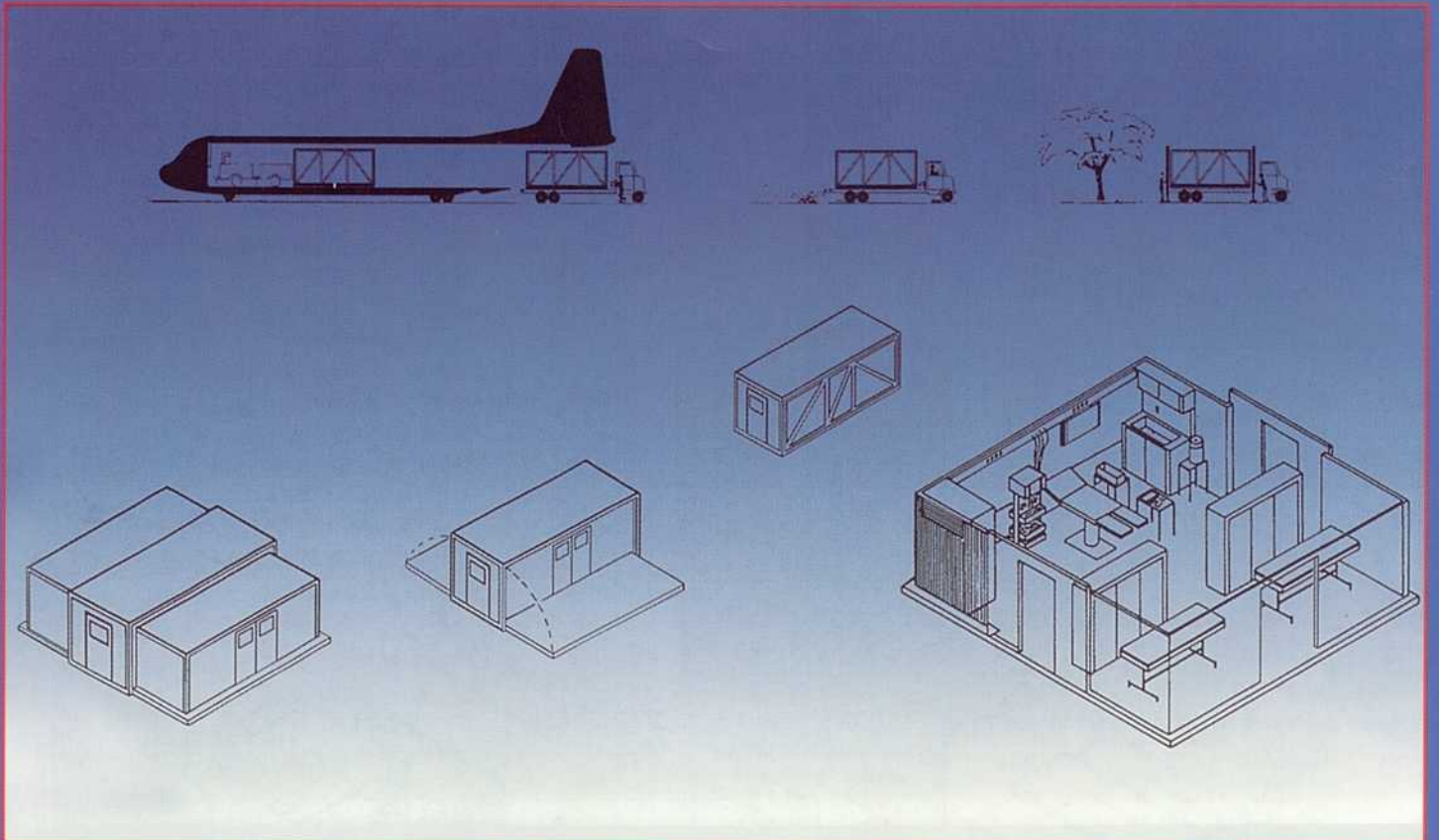


# NORWEGIAN MOBILE HOSPITALS AND DISASTER UNITS



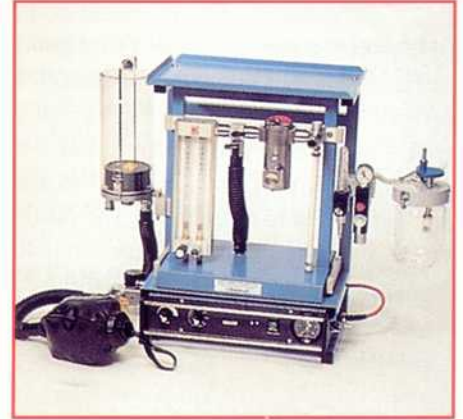
# EQUIPMENT FOR FIELD HOSPITALS



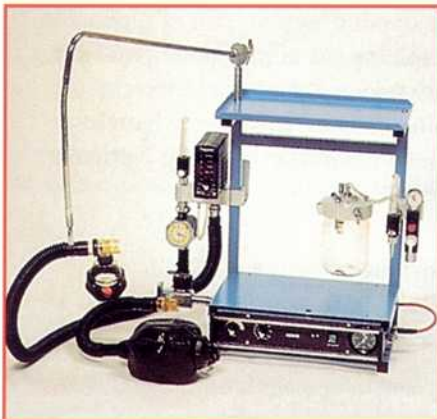
**Anaesthesia machine model MP-1**  
This model is designed for use with a «Draw-over» patient system. By using a resuscitator ambient air is drawn through the vaporizer and to the patient. It is also possible to use oxygen from an oxygen concentrator.



**Anaesthesia machine model MP-2**  
This is an MP-1 where flowmeters for O<sub>2</sub> and N<sub>2</sub>O, as well as an O<sub>2</sub> flush valve, is added. The MP-2 is a standard anaesthesia machine working on the same principles as a regular anaesthesia machine found in most hospitals. It can be used as a «Draw-over» machine if the oxygen supply fails.



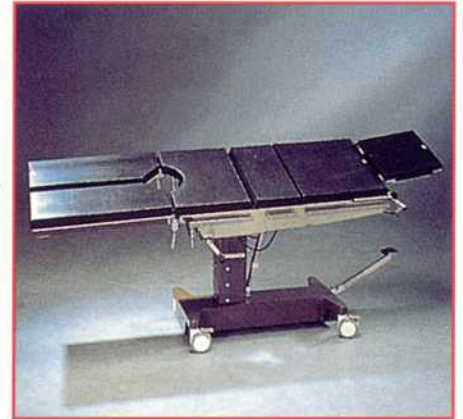
**Anaesthesia machine model MP-3**  
This is an MP-2 with a ventilator, suction and bag in bottle system added. This provides a very sophisticated machine. The MP-3 can also be used as a «Draw-over» machine similar to the MP-1 and MP-2.



**Post op. ventilator model MP-4**  
The MP-4 provides a ventilator as well as suction unit. If the power or gas supply fails the patient can also be manually ventilated. The ventilator has a 30 min. battery back-up.



**Luxo operating lamp**  
The Outpatient luminaire is a floodlight beam luminaire designed for professionals who demand the ultimate in highly versatile performance and design. The light output intensity, the highly flexible counterbalanced positioning arm, and the low temperature «cool» beam make the Outpatient the automatic choice for many applications.



**Reison operating table**  
This operating table has been specially developed for field hospitals. The tables have a radio-translucent top for radiography, trendelenburg adjustment, adjustable back section, one-piece or split-leg section, and hydraulic height adjustment. The operating table can be split in two main parts for easier transportation.

Normeca A/S is a 100% owned Norwegian company located 8 miles outside Oslo, the capital of Norway. The company was founded in 1983 and presently employs 22 people. Normeca A/S is one of the leading companies in Norway in the areas of anaesthesia, as well as patient monitoring systems for ICU and CCU. Normeca A/S represents a large number of the world's leading manufacturers of medical equipment in the Norwegian market, such as Dameca, Ambu, Danica, Berechtold, Novamatrix, Bird, Porter and Aspira.

# EQUIPMENT FOR FIELD HOSPITALS



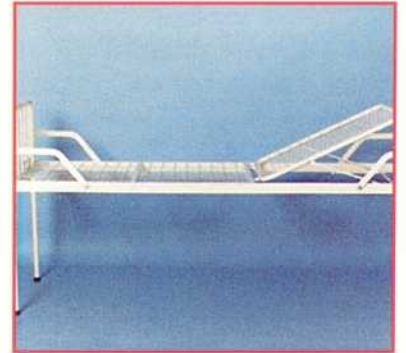
## NorHosp stretcher system

The NorHosp stretchers are stable and easy to carry. The stretcher is made of aluminium sections and a tough tarpaulin material which allows x-rays to pass through it. The stretcher can be supplied with short or long legs, with or without wheels. The flexibility and high quality makes the NorHosp stretcher unique.



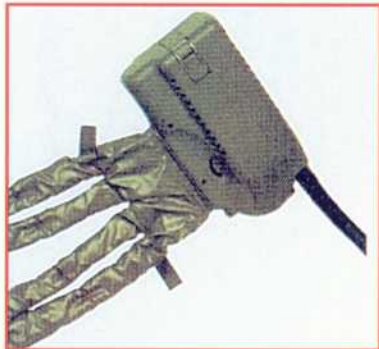
## The Lightweight Decontamination System

The LDS NBC-SANATOR® III is a compact multi-purpose system which features high performance, simplicity and economy in deployment, operation and maintenance. Extensive use over years in service worldwide with NATO and other forces in tropical to arctic environments has given proof of system reliability. Consistent easy starting is achieved at temperatures down to -40.



## Normeca Camp Bed

This bed has been developed together with the Royal Norwegian Army and is manufactured in solid epoxy-coated steel. It can be delivered with head and/or foot tilt and can be folded flat for easy transportation and storage. Bunks-beds, as well as siderails, infusion stands and transporters, are also available.



## Heatpac heating system

Heatpac is a charcoal-based hot-air generator that serves as a personal heater. The system has been sold to military forces around the world and is also well-suited for civil defence and rescue organizations. To the Heatpac system we can also deliver rescue bag, infusion sleeve, medical storage container and thermal over-boots.



## Rofi hospital tents

Many different types of tents can be delivered. The inflatable tents can be rapidly deployed as well as removed. This tent system is designed for accommodation, administration, field hospital and dispensary. Traditional hospital tents up to 90 sq. meters can also be supplied.



## NorHosp Stretcher Racks.

For use in aircrafts, trains, buses, vans and on board ships. The rack system is manufactured from special aluminium profiles, designed to provide maximum strength and a minimum of weight. The rack system makes it possible to place up to 3 stretchers above each other.

Normeca A/S retains the right to alter the specifications of any products shown in this brochure.

In 1986 Normeca A/S together with the Royal Norwegian Army and Dameca in Denmark, started to develop a new generation of anaesthesia machines for field hospitals. These anaesthesia machines have been delivered to 26 countries and the Royal Norwegian Army has bought more than 200 machines at a value of US \$ 6 mill.

In 1993 Normeca A/S started a co-operation with six other Norwegian companies, among them Apotekernes Fællesinkjøp A/S, a company owned by the Norwegian government. Together, we have one of the worlds most complete and flexible range of field hospitals.

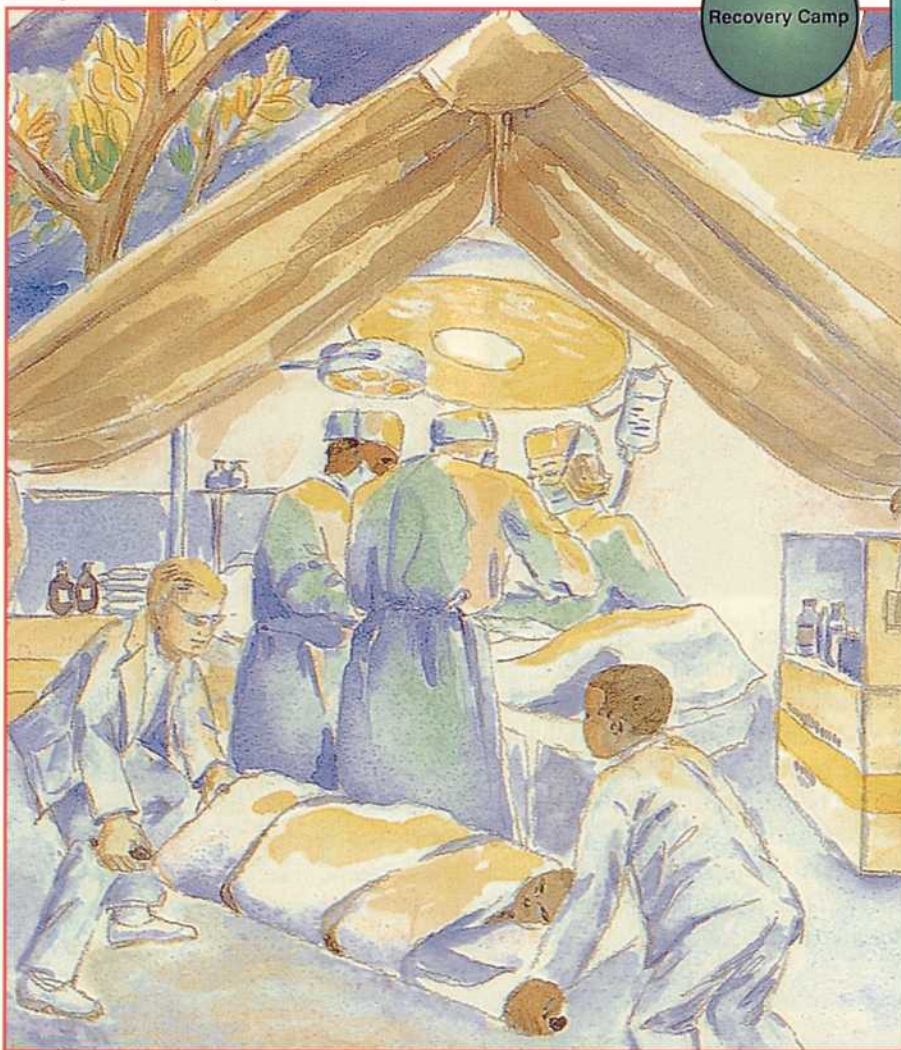
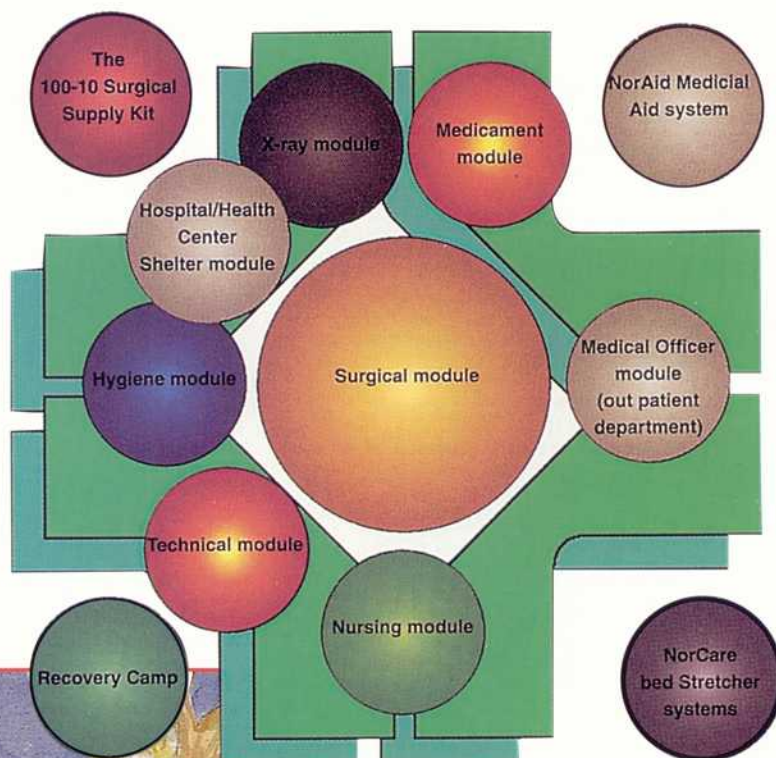
# NorHosp

## NORWEGIAN MOBILE HOSPITAL

The Norwegian Mobile Hospital and Disaster Unit (NorHosp) is a flexible medical emergency unit composed of different modules. It is specially designed for surgical treatment of injuries sustained in disasters and armed conflicts, but it can also be used for other purposes, such as the introduction of health services to rural areas. The NorHosp modules can easily be customized for use in tents, flat packs, containers or already existing buildings. In addition, the modules can be split up and organized in various combinations.

NorHosp is a highly rated field hospital built in close cooperation with the Norwegian health authorities and various aid organizations.

NorHosp was first designed in 1982 and was reorganized in 1989 and 1992 in order to improve its function in the field. This has led to alterations in the original module system



The module system makes it possible to split up the complete unit and use the various modules in different combinations. In this way NorHosp can be tailored to meet the particular needs.

### NorHosp storage

A total of five complete NorHosp's are stored in A.F.'s warehouse in Oslo. Whenever a Norhosp is released, it will be replaced by a new NorHosp in the warehouse.

A.F.'s logistical department are able to ship a NorHosp to the nearest international airport within 6 hours. A complete NorHosp can be transported to any place in the world, and be fully operational within 48 hours if the flight connections are adequate.

This is in case of emergency. Normal delivery time is 10 - 12 weeks.



**Normeca<sup>AS</sup>**  
SUPPLIER OF MOBILE HOSPITALS

# NorBase

## NORWEGIAN MOBILE CONTAINER HOSPITAL

### The Norwegian Mobile Container Hospital (NorBase)

The container-based field hospitals are unique in construction and design. All are based on standard 20-foot ISO containers.

The two sides of the container are lowered, and sections on each side pulled out. Within 20 minutes, the available floor-space has tripled (to approximately 36 square metres).

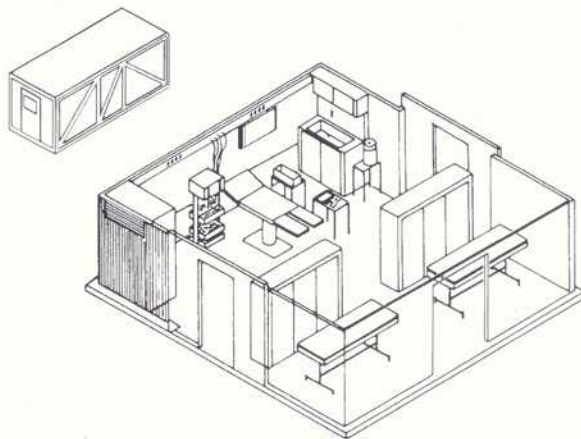
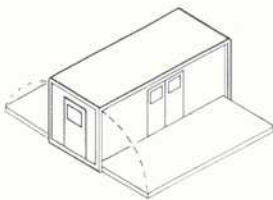
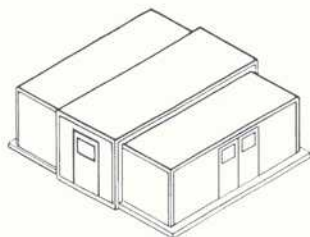
All fixed installations such as water, drainage, electricity, gas pipes, heating and airconditioning are built in and ready for use. **The containers are constructed of lightweight aluminum and fibreglass.**



*From a container-based operating theatre*

**NorBase containers can be delivered as a:**

- Complete operating theatre
- Emergency room
- ICU
- X-ray room
- Laboratory
- Sterilization or any other features designed for user needs



*All you need to do to make the NorBase Disaster Hospital operational is to plug in the generator, the water tank and the sewage pipes.*

### FLEXIBILITY AND WIDE RANGE OF USE

The disaster hospital system is well suited for use in civilian disasters as well as in the military medical services. Ease of handling and operating, combined with the robust design and construction, makes it possible to use the system in the epicentre of the disaster. The wide range of equipment and instruments makes it possible to treat and discharge a large number of patients. In military terminology the system can be used for 2<sup>nd</sup> to 5<sup>th</sup> echelon.

The flexibility is achieved through de-centralized technology (located in each individual unit), which makes it possible to use the units on either a stand-alone basis or joined together, without any major pre-planning or preparation. The use of light-weight technology, including aluminium and fibreglass, make the units easy to transport and prepare for use.



**Normeca<sup>AS</sup>**  
SUPPLIER OF MOBILE HOSPITALS

# Multispace

## NORWEGIAN MOBILE MEDICAL SYSTEM

### Multispace Mobile Medical Systems

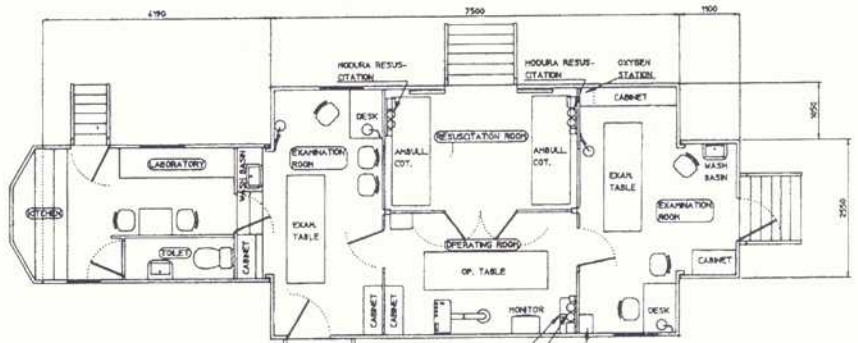
The Multispace system is based on the same principle as the container-based hospitals, with pull-out sections to expand the floor area. Depending on the specifications of the user, Multispace can be fitted with operating theatre, emergency room, laboratory, doctor's office, dental treatment room or any combination. All containers and/or Multispace units can be linked together.

### Multispace Mobile Emergency Clinic

Is supplied as a complete unit with a specially built, expandable trailer and towing truck. In addition to air-conditioning, power, water and sewage systems, the trailer contains:

- Reception room with resuscitation equipment
- Operating theatre with:
  - operating table
  - instrument tables
  - instruments,
  - operating light
- Two consultation rooms
- Laboratory with:
  - autoanalyzer
  - microscope
  - autoclave

A small kitchen and two toilets complete the facilities.



## NORWEGIAN SURGICAL SUPPLY KIT

A KIT DEVELOPED BY THE NORWEGIAN COUNCIL OF HEALTH PREPAREDNESS.

The 100 - 10 Surgical Supply Kit is estimated to cover the demands of medical disposable equipment for approximately 100 surgical inpatients for 10 days, including disposables for surgical operations.

The material, which is disposable, is packed in splash-proof cartons clearly marked with numbers and colour codes.



The kit contains all essential medical disposables:

- |                             |                          |                    |
|-----------------------------|--------------------------|--------------------|
| • Bandages                  | • Sutures                | • Burn dressings   |
| • Compresses                | • Syringes               | • Valves           |
| • Drains                    | • Needles                | • Safety devices   |
| • Tubes                     | • Cannulas               | • Refuse equipment |
| • Hygiene equipment         | • Catheters              | • Gauze            |
| • Sterilization accessories | • Monitoring accessories |                    |



**Normeca**<sup>AS</sup>  
SUPPLIER OF MOBILE HOSPITALS

# NorAid

## NORWEGIAN MOBILE MEDICAL AID SYSTEM

*NorAid.* The medical treatment kit system, for use in disaster, emergency and developing programmes.

The NorAid system is a self-contained unit. However, the system fits easily into most kinds of existing outpatient departments, dispensaries, health posts, hospitals, tents etc. The NorAid system is a multi-module system that can be delivered complete, or module by module, according to your needs.

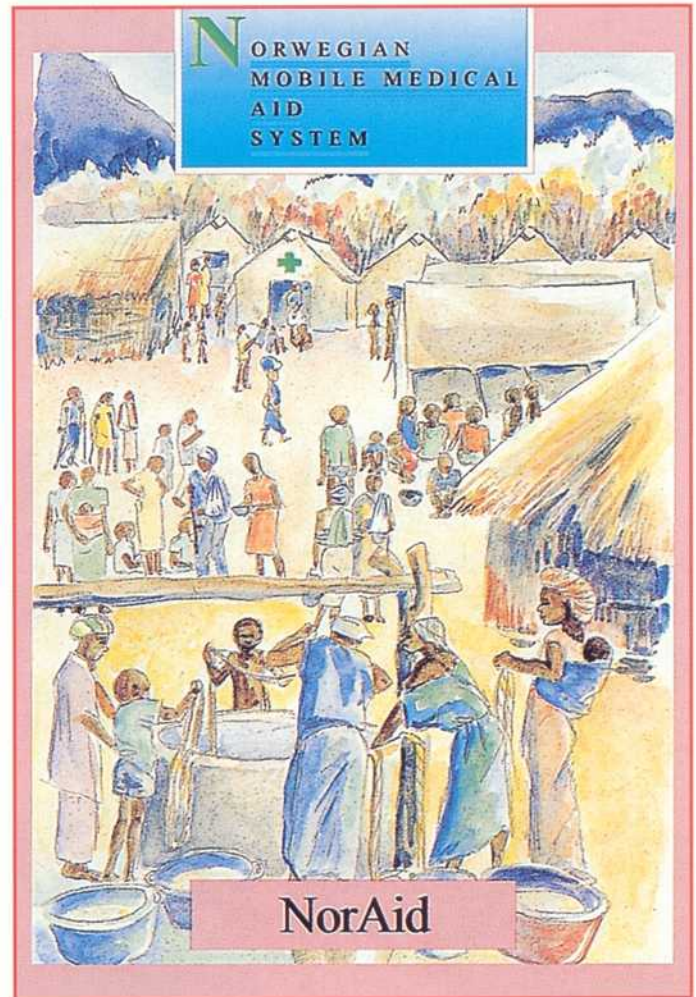
The modules are estimated to cover the needs for preventative health care, curative activities and education.

Most of the equipment is packed in lightweight, durable and splashproof plywood cases. To facilitate classification and organization in the field, all the cases are clearly marked with different numbers and colour codes, identical to those in the NorAid catalogue

### NorAid modules:

A complete NorAid system can take care of 30,000 people for one month.

- DOCTORS OFFICE MODULE
- SURGICAL INSTRUMENT MODULE
- MOTHER CHILD MATERNITY MODULE
- REHYDRATION/NUTRITION MODULE
- VACCINATION MODULE
- BLOODBANK MODULE
- LABORATORY MODULE
- AMBULATORY MODULE
- DRUG MODULE
- KITCHEN/ SERVICE MODULE
- TECHNICAL MODULE
- SANITATION MODULE
- BASIC MODULE
- INFUSION SUPPLY MODULE
- BANDAGES CATHETERS INJECTIONS SUPPLY MODULE
- VACCINATION SUPPLY MODULE
- REHYDRATION/NUTRITION SUPPLY MODULE



## RECOVERY CAMP KIT

### NORWEGIAN SHELTER AND CARE FOR 500 PEOPLE

Natural disasters, man-made disasters, political, religious and ethnic instability, with or without armed conflicts, have led to the highest number of refugees and displaced people ever. Such situations may rise suddenly and without any warning. In order to be prepared and able to meet situations like this, the Norwegian Board of Health have stored mobile quarters, called Recovery Camp, for domestic and international use.

Each camp is estimated to give 500 people temporary care, and can be utilized as a refugee camp as well as sickbay.

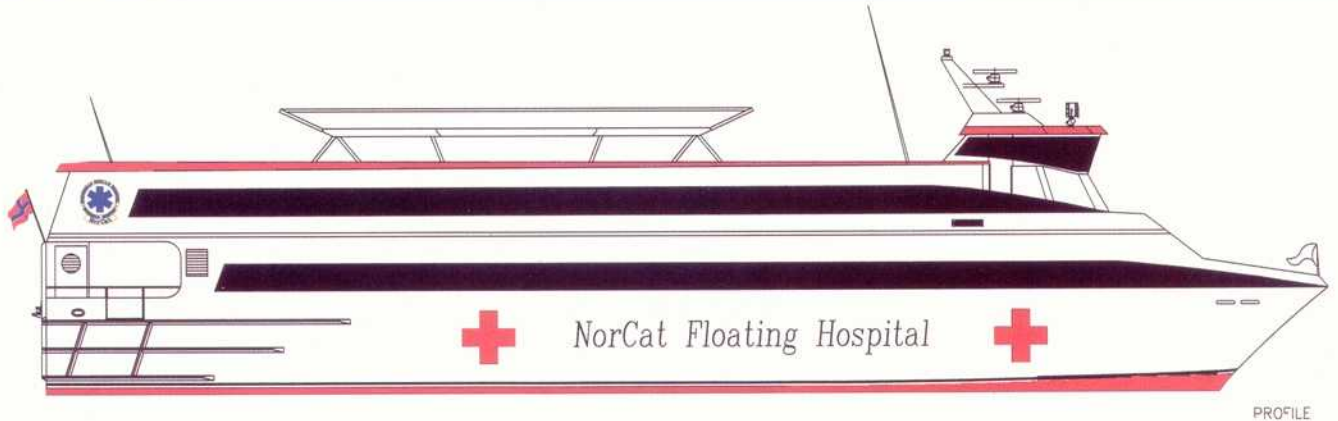
The camps are supplied with catering facilities, toilets, equipment for water heating and supplies, showers, electric power, lighting systems and 17 tents of 90 m<sup>2</sup>. The tents can be used in arctic as well as in tropical regions:

Furthermore the camps have beds, bed-linen, clothes, cutlery and personal toilet requisites for every individual.

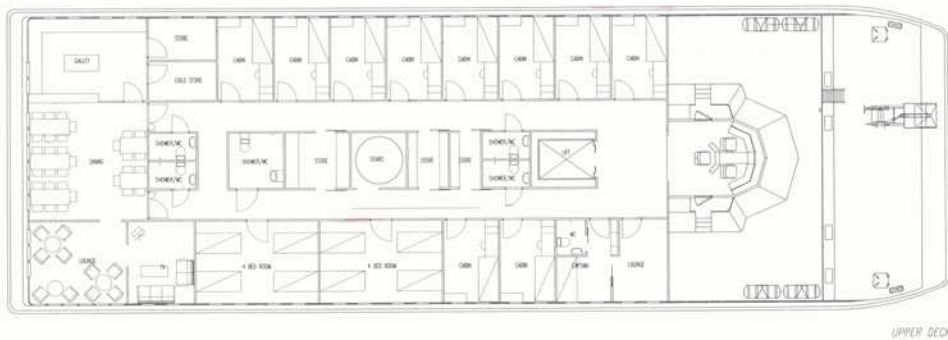


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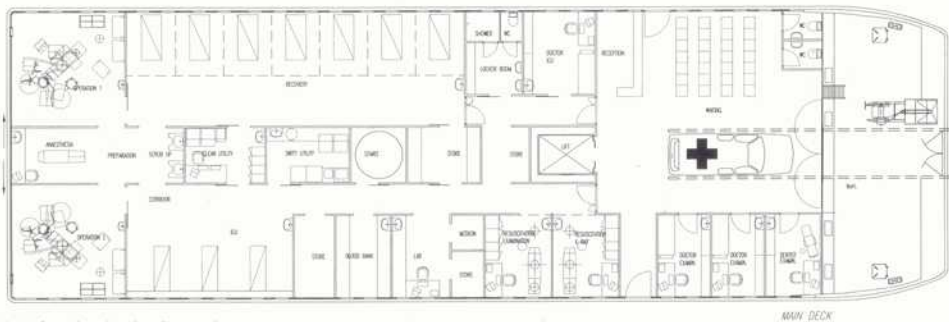
# NorCat - Floating Hospital



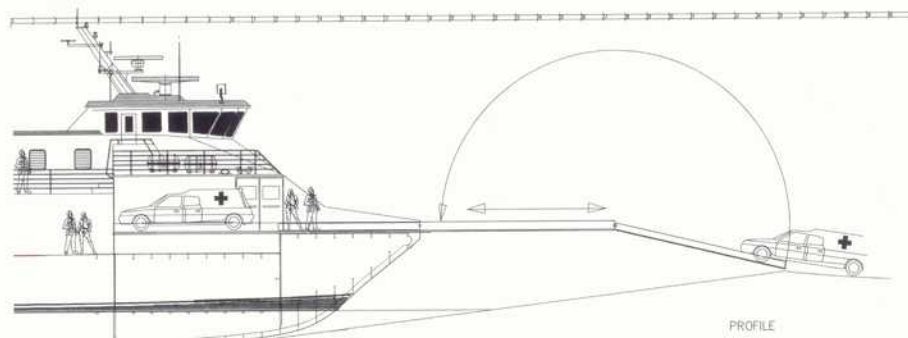
NorCat - floating hospital based on Catamarans from 27 mtr to 42 mtr



Upper deck designed as our customers/ users want it



Main deck designed as our customers/ users want it



 **Normeca<sup>AS</sup>**  
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