



**PACES: Preparedness for Appropriate
Accommodation in Emergency Shelters**
“The Italian Civil protection experience”

Stefano Ciavela

Presidenza del Consiglio dei Ministri

Dipartimento della Protezione Civile



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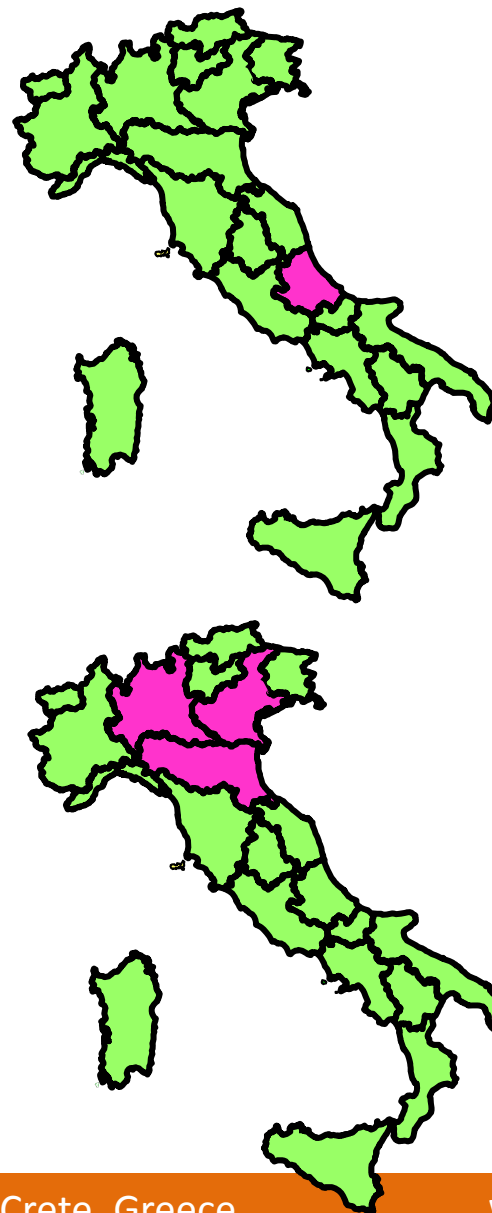


NATIONAL EMERGENCY - FIRST PHASE POPULATION ASSISTANCE

AQUILA EARTHQUAKE	Max value
Displaced people	67.459 InTents → 35.690 In Hotel → 31.769
Tents camps	171



EMILIA ROMAGNA EARTHQUAKE	Max value
Displaced people	16.564 In Tents → 11.321 In Hotel/Other Structures → 5.243
Tents camps	41



1 Region
Abruzzo

2 Provinces
L'Aquila
Teramo

3 Regions

Emilia Romagna
(4 Provinces)

Lombardia
(1 Province)

Veneto
(1 Province)



MAIN LOGISTICS WAREHOUSES FOR EMERGENCY RESOURCES

CIVIL PROTECTION DEPARTMENT

MINISTRY OF INTERIOR - REGIONS

ITALIAN RED CROSS





PACES: Preparedness for Appropriate accommodation in Emergency Shelters



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REGIONAL LOGISTICS WAREHOUSES FOR EMERGENCY RESOURCES CIVIL PROTECTION REGIONAL MODULES SYSTEM



TENT CAMP MODULE

2.1 Modulo assistenza alla popolazione (h6) -standard

Dimensionato per 250 persone sfollate **250 PEOPLE**

Squadra operativa

Coordinamento: 1
Assistenti/animatori (con formazione di tipo assistenziale di cui uno psicologo): 6

PERSONNEL

Totale Squadra: 7

Confezionamento

5 Container 10" (3x2,5 m) per 42 tende p.i.88
(o 8 Container 10" (3x2,5 m) per 32 tende pneumatiche)
6 Container 10" (3x2,5 m) per 18 bagni
4 Container 10" (3x2,5 m) per 12 docce
2 Container 10" (3x2,5 m) per 250 brande + effetti letterecci
1 Container 10" (3x2,5 m) per cisterne acqua
1 Pianale o rimorchio per generatore 150 kW
1 Carrello per torre faro + gruppi illuminanti
1 Carrello per struttura info point

PACKING

Attrezzatura

- 42 tende tipo PI 88 (ministeriale) da 6 posti (o 32 tende pneumatiche da 8 posti) complete di impianti e termoriscaldatori
- 250 brandine pieghevoli
- pavimentazione mobile sotto tenda (grelle livellanti)
- recinzione leggera
- 18 bagni (3 moduli da 4, 2 moduli da 2 di cui uno per disabili)
- 12 docce (2 moduli da 4, 2 moduli da 2 di cui uno per disabili)
- 4 serbatoi acqua da 1000 l cadauno
- 1 generatore da 150 kW silenziato carrellato o 2 generatori da 80 kW
- 1 quadro generale
- 10 quadri di zona
- 1 torre faro da 2 kW con generatore da 12 kW, altezza faro >8 m
- 8 gruppi illuminanti da 600 W (di cui 4 tipo tower e 4 carrellati)
- 1 struttura organizzativa (Info Point) dedicata alle persone sfollate, con possibilità di autogestione da parte delle persone sfollate

RESOURCES

TRANSPORTATION

Trasporto

4/5 Bilici per 16/20 container 10"

1 Autocarro cassonato (6 m) c/gru per generatore 150 kW

1 Autocarro cassonato (6 m) per 2 container 10"

2 Fuoristrada per traino carrelli



NEEDED AREA

Superficie minima necessaria (70x60) m = 4200 m²



Logistics planning principles

Interoperability
Effectiveness
Efficiency
Flexibility
Semplicity

Optimization
Promptness
Synergy
Quality requirements
Safety requirements

Maintenance



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CIVIL PROTECTION DEPARTMENT MAIN RESOURCES



Pneumatic tent



Autostable - Iron frame - tent



Air Conditioner



Power Generator



Light Tower



Field electrical system



Multipurpose Modular tent

TRANSPORTATION



Scenario Workshop, 19 April 2016, FORTH, Heraklion, Crete, Greece

www.paces-project.eu



PNEUMATIC TENT



Mt. 7,55 x 5,60
Square mt. 42,28
Weight: kg 314



Plus accesories:
Electrical system : kg 45,
Floor tile: kg 182,
Dust carpet: kg 107,
Shading cover: kg 46,
Repair kit. Kg 18,
Weight: kg 398



Empty basket: kg 130

**Total Weight:
kg 712**

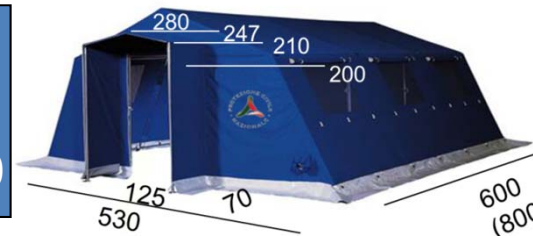


L: 201 cm.
P: 122 cm.
H: 97 cm.
M³: 2.378



AUTOSTABLE TENT 3/4 ARCHES

Mt. 6/8 x 5,30
Square mt 31/42
Weight: kg 210/250



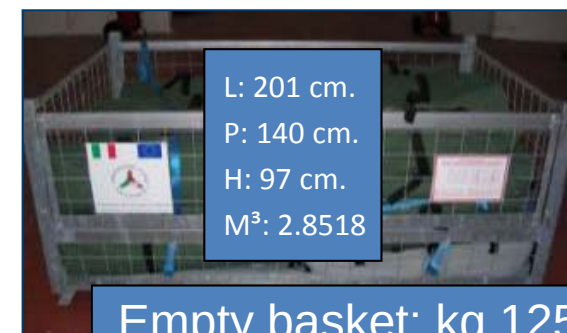
Plus accesories:
Electrical system: kg 27,
Floor tile: kg 144,
Dust carpet: kg 66
Weight: kg 237

Inner tent bag: kg 60
Fly sheet bag: kg 60
Stakes and poles bag: kg 67
Stakes and poles bag: kg 64

Total Weight: kg 487



L: 201 cm.
P: 140 cm.
H: 97 cm.
M³: 2.8518

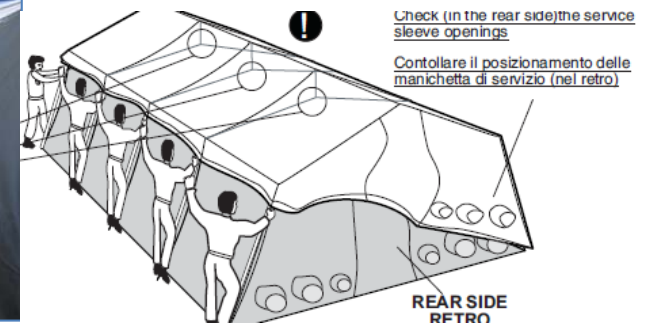


Empty basket: kg 125



Nepal earthquake – April 2015

PNEUMATIC TENT vs AUTOSTABLE TENT **Disavantages and vantages**





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Basic standards

Extention: 1-2 ha

People: 250-500 - (32-64 tents) – 1-2 Modules

n.1 tent for family

Field kitchen and dining tent

n.1 toilet per 12 units

n. 1 shower per 20 units

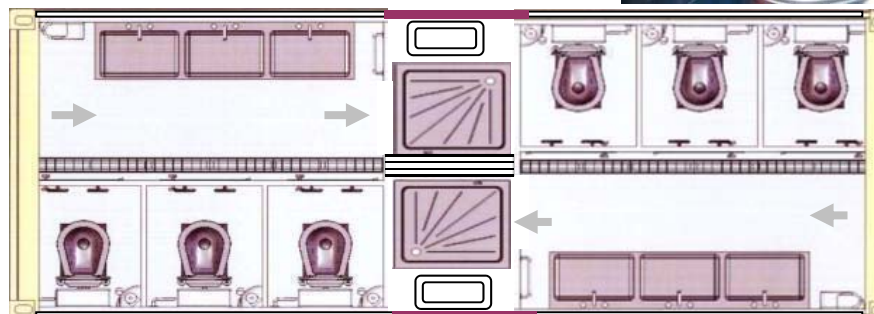
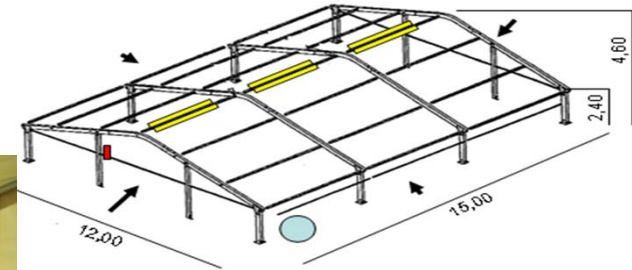
Toilet and shower for disabled people

Warehouse

Logistics for operators

Parking area

Services area





Additional services

Kindergarten – Schools

Bank mobile office

ATM

Post Office

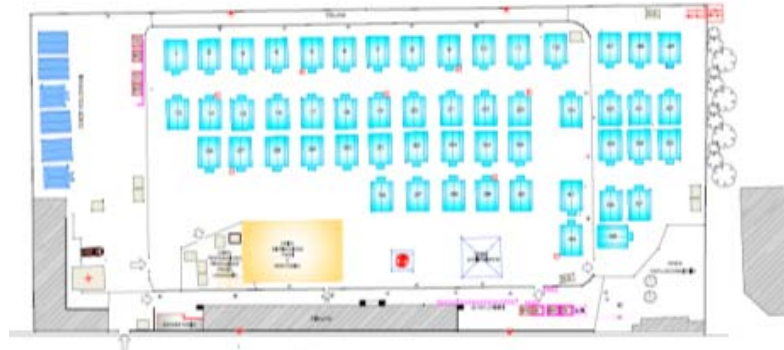
Pharmacy

Library

Church

Laundry and ironing area

Local Authority office





COMMON DIFFICULTIES

Damage to private buildings and number of displaced
No local emergency planning
Season time - climate condition
Road network damaged
Spontaneous camps



Huge request of gravel, bulldozer, forklifts, etc.
Request of population to stay close their houses/farms
Population census
Voting, elections
Safety standards
Domestic detentions



Waste management
Camp closure, disassembly



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Some examples Different shapes



THANKS A LOT FOR YOUR KIND ATTENTION

Stefano Ciavela – Presidenza del Consiglio dei Ministri - Dipartimento della Protezione Civile

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