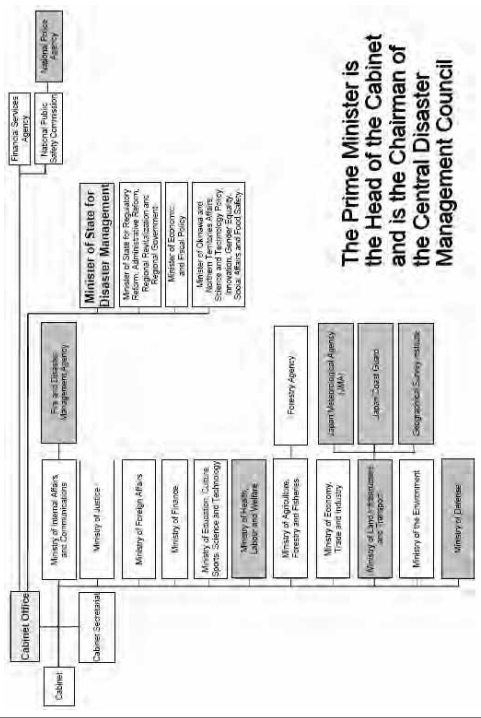


Merkezi Yönetim



Değişen Durumlara Müdahale ve Afetten Etkilenen Bölgelere Müdahale

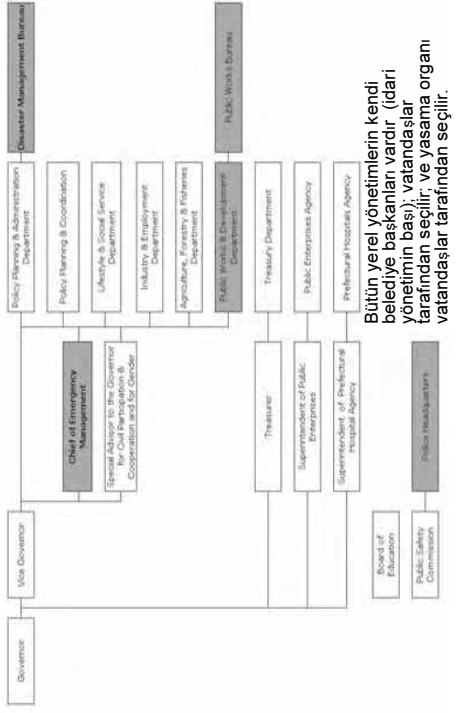
- Deprem
- Başbakanlıkta bulunan Kriz Yönetim Merkezine akin eden afete müdahaleden sorumlu yetkililerle acil telefon görüşmeleri
- Afet Yönetiminden sorumlu Devlet Bakanının başkanlığında üst düzey devlet yetkililerinden oluşan acil durum koordinasyon ekibinin oluşturulması
- Acil bilgi analizi

30 dakika



Depremden sonra en kısa sürede Basın Toplantısı

Yerel Yönetim (Hyogo Vilayeti)



Acil Duruma Müdahale

- Acil inceleme ekibinin afet bölgelerine gönderilmesi
- Arama ve Kurtarma Ekiplerinin Seferber Olması
 - ◆ Polis, İtfaiye, Savunma Güçleri
- Tam ölçekli arama ve kurtarma faaliyetleri
- Ulus çapında acil yardım
 - ◆ Acil tıbbi tahliye
 - ◆ Yiyecek ve su
 - ◆ Battaniye ve Giyecek
 - ◆ Toprak kayması gibi ikincil afetlerin önlenmesi
 - ◆ Altyapının ve kamu hizmetleri altyapısının geçici olarak tamir edilmesi

3 saat



24 saat



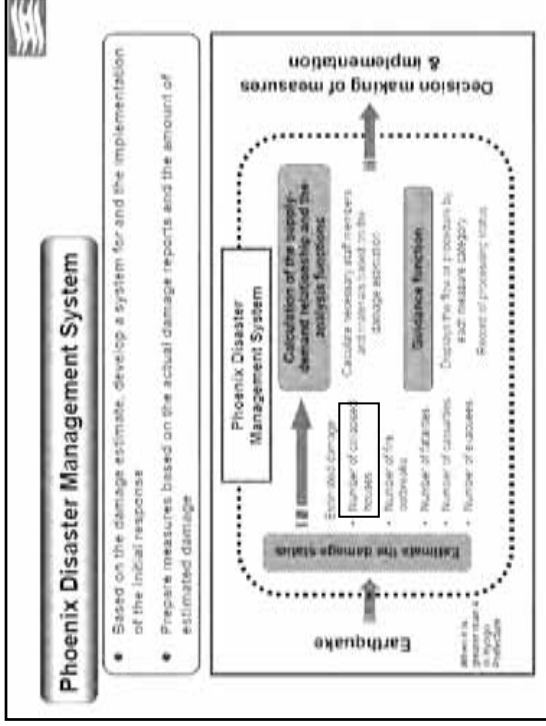
Japonya'da Temel Acil Durum Hizmetleri

Yangın & Ambulans

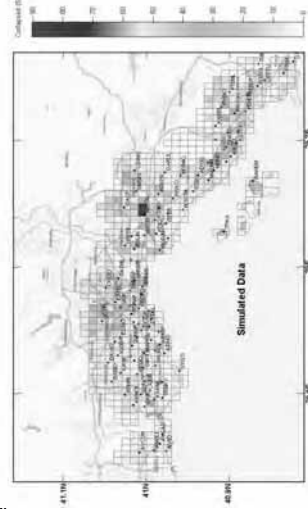
119'u Ara → Belediye (Şehir, Kasaba, Köy) İtfaiyesi



- Toplum düzeyinde gönüllü itfaiyeciler
- Vilayet düzeyinde zayıf koordinasyon
- Yangın Savunma Ajansı tarafından toplam yangın savunma yönetimi politikası, Kamu Yönetimi Bakanlığı, İç İşleri Bakanlığı, Ulusal düzeyde Posta ve Telekomünikasyon



- İstanbul Deprem Acil Müdahale Sistemi
- Kandilli Rasathanesi ile ortak yürütülen çalışmaya ek olarak, hasar gören bölgelerdeki vatandaşların ihtiyaç tespiti de yapılmalı
 - Yıkılan veya hasar gören bina sayısı, ölü ve yaralı sayısı, bölgedeki nüfus ve bu veriler ışığında ihtiyaç tespitinin yapılması
 - Lojistik



Tüm İBB binalarında yapısal olmayan riskler azaltılmalı

- HYOGO Prefectural Government Headquarter

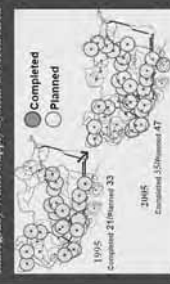


Okul, Spor Salonu, Hastane, vb Bahçelerine Su Tankları, Gıda Depoları ve Acil Durum Malzemeleri

Lessons learned from earthquake

- ① Traffic congestion
- ② Increase of water for living-use
- ③ Regular water supply points
- ④ Water for hospital (the artificial dialysis) and garbage center

Emergency Water Supply System Covered Area



Bölgesel Afet Önleme Üssü (Honjo İlköğretim Okulu)



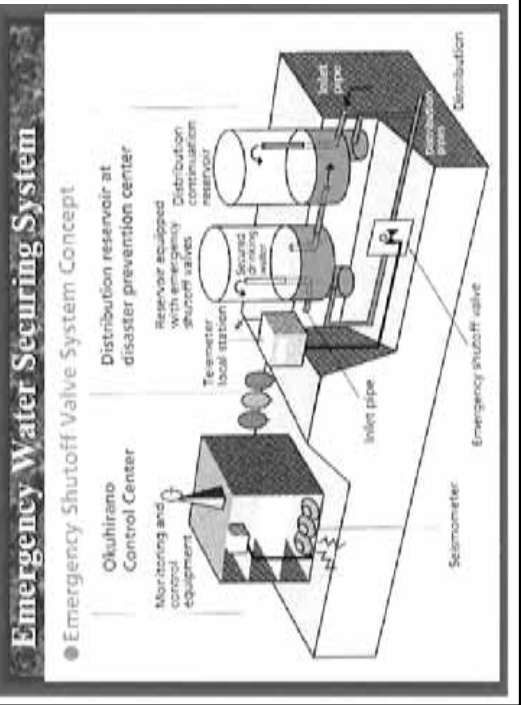
**Halk sadece okullara
değil, diğer kamu ve
belediye tesisleri ile
birlikte fabrikalara da
sığınacak.**



İSTANBUL İTFAİYESİ ÖNERİSİ

- Büyükşehir Belediyesi okullara spor salonu yapıyor. Bu salonların dış kısmında salon duvarına bitişik olarak itfaiye gönüllülerine ait ekipmanları ve yardım malzemelerinin yerleştirileceği depo yapılabilir. Bu okul toplanma ve eğitim merkezi olarak kullanılabilir.

Su Şebekesinin Depreme Göre İnşası



PERSONEL VE HALKIN DOĞRU BİLGİLENDİRİLMESİ İÇİN 171 AFET MESAJ HATTI

TELEFON KUYRUKLARI



Sesli Mesaj Servisi 171

Afet durumunda mesaj bırakmak için özel hat.

"Afet durumunda mesaj bırakmak için özel hat", büyük caplı afetlerin vuku bulunmayan haldede felaket bölgesi ile diğer bölgeler arasında "sesli mesaj panosu" rolü oynamaktadır.

171'i aradıktan sonra, talimatlarla uyararak mesaj bırakmak / bırakılan mesajları dinlemek mümkündür.

Unutmayalım 171'i, Afet Özel Hattı 1|7|1

THINK

071

+ 1 + Numara (MESAJ)
+ 2 + Numara (DİNLEME)

30 SANİYE, SESİNİZ
KAYDEDİLİR !

It's For You

8 milyon mesajı aynı anda taşıyor. Maliyeti 9 milyon \$.
NTT tarafından her ayın 1'inde test ediliyor.

Güvenlik ile ilgili bilgilerin Elektronik Posta ile iletilmesi hizmeti

Hyogo Afet Önleme İletişim Ağı

Rögar ve sel faaliyeti veya deprem halinde, evleri tehlikeye ve sığınma yerlerine toplamına emni ve benzeri acil bilgiler kent sakinlerine sorularla ulaştırılıyor.

Çop telefonunun e-posta adresini kayıt ettirenlere, Kobe İl ve Hyogo Vayası tarafından interneti sayfaları konuları acil bilgiler e-posta yoluyla ulaştırılıyor.

Normal zamanlarda da afet önleme ile ilgili bilgileri görüntülenmesi mümkün.

Kayıdına yönelik Kobe İl anayasasından "Afet Önleme Bilgileri" sayfasına (cep telefonundan "Boşta Durumunda Ne Yapmalı" sayfasına) girerek, Alternatif bir yöntem de <http://www.hyogo-np.go.jp> yazarak ve ekrandaki talimatlara uymak.

Normal zamanlarda

Tel

Kobe İl Güvenlik Bilgileri

1. Kobe İl Güvenlik Bilgileri Sayfasına Giriş
2. Telefon Numarası: 078-333-3333
3. Durumunuzu bildirmenizi istiyoruz.
4. Afet Önleme Merkezi

• E-posta ile duyuru yapabilirsiniz.
• "Afet Önleme" sayfasına giriniz.

Acil durumlarda

Tel

Kobe İl Güvenlik Bilgileri

1. Kobe İl Güvenlik Bilgileri Sayfasına Giriş
2. Telefon Numarası: 078-333-3333
3. Durumunuzu bildirmenizi istiyoruz.
4. Afet Önleme Merkezi

• E-posta ile duyuru yapabilirsiniz.
• "Afet Önleme" sayfasına giriniz.

1 EYLÜL AFET GÜNÜ

HYOGO EYALETİ TATBİKATI

- Tatbikatta eyaletteki tüm kamu kurumları ile sivil toplum kuruluşları görev alıyor.
- Denizde, karada ve havada sahip olunan tüm imkanlar seferber edilerek tatbikat yapıldı.
- Tatbikata bölge sakinlerinin katılımı iyi derecede gerçekleştiği bir organizasyon
- Yardımlaşma ve dayanışmanın üst düzeyde Kurumlar arası işbirliği ve organizasyon kültürü yerleşmiş.

1 EYLÜL AFET GÜNÜNDE
MAHALLE BAZINDA OKULDA YAPILAN TATBİKAT



Kobe Depremi'nin Yıl Dönümünde



Geceleyin okulda yatma tatbikatı

Overnight Evacuation Drill



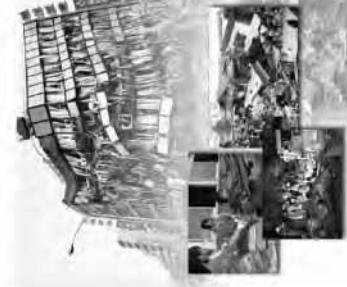
Eğitim şart!..

"November 13th" Earthquake Memorial (Lower Elementary School Level)
Preparation Stage Level: Preparing, Overcoming from Natural Disasters



"November 13th" Earthquake Memorial

Preparation Stage Level: Preparing, Overcoming from Natural Disasters



İTFAİYE GENEL MÜDÜRLÜĞÜ

- Acil durumlarda Eyaletler arasında İTFAİYELERİN koordinasyonunu sağlıyor.
- İtfaiye ile ilgili yasal mevzuatları hazırlıyor.
- Standartları oluşturuyor.



Halk Cankurtaranları Sistemi

- Normal hayat kurtarma dersi
- Kalp masajı dersi
- Yaraya ilk müdahale dersi
- Küçük çocuklar için ders

İlk yardım eğitimi ve teçhizatı yaygınlaştırılmalı.

Şehirçi Acil Müdahale İstasyonları Sistemi

Otomatik Harici Defibrilatör (AED) ve Acil Müdahale Seti (kalp masajı için ağzlık, üçgen örtü) ni birtakım koşulları sağlayan işletmeler ve mağazalara yerleştirmek. Bulduğuna dair levhaları asılmasını sağlamak.

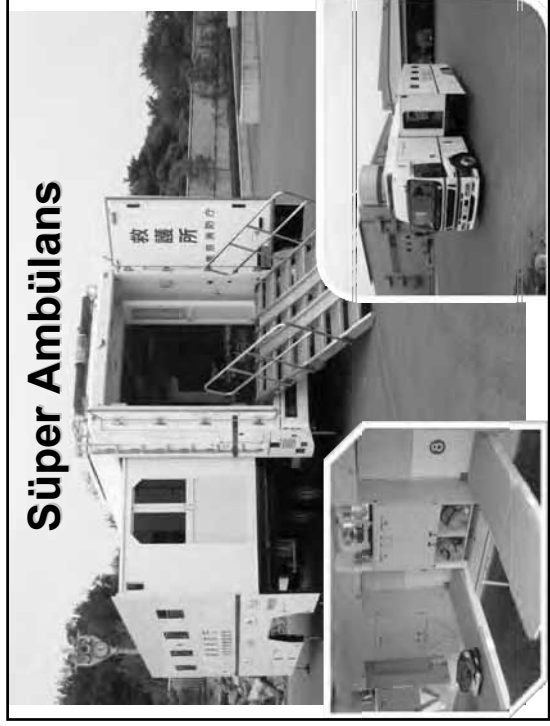
Tek yapmanız gereken açma düğmesine basmak! Geri kalan tek şey, sesli talimatlara uymak!

Algıtın sesli mesajlarına uyup

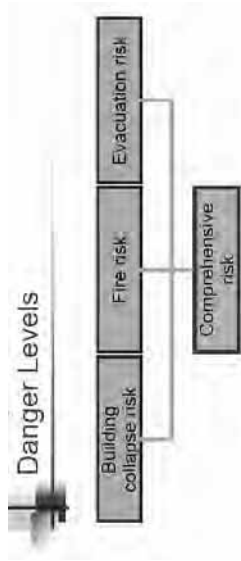
1. Elektrotları hastanın göğsüne yapıştırm
2. Alıcı işaretinin kalp ritmini otomatik olarak analiz eder
3. Elektrotok düğmesine basın

34

Süper Ambülans



İstanbul'da bina riskleri ile beraber yangın ve tahliye riskleri de belirlenerek afet müdahale planı geliştirilmeli



Study flow to measure area danger levels

•Kentsel Dönüşüm ve Şehir Planlama

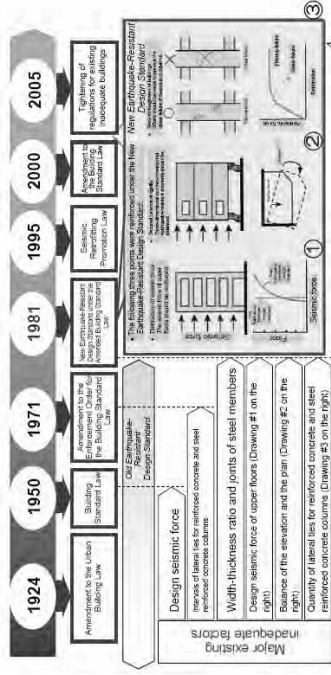
Şakir Aşık

Muzaffer Şahin

Deprem bölgesinde bitişik nizamdan vazgeçilmeli

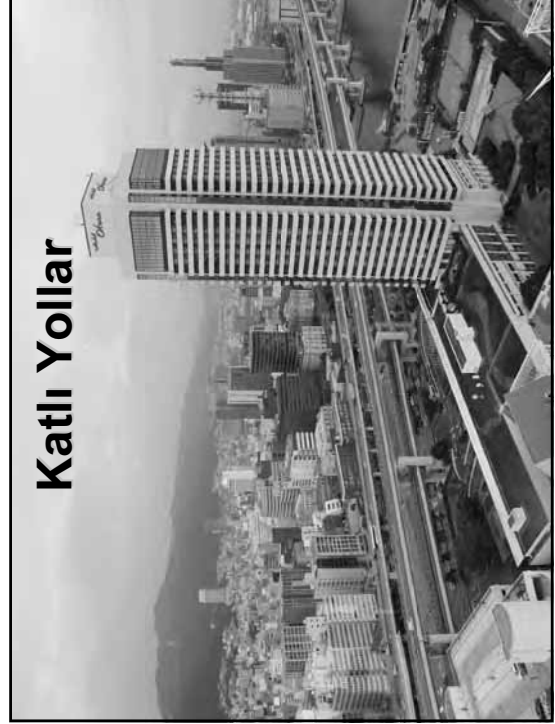


Güçlendirme



The ratio of Seismic Retrofitting (Housing and Public Building)

75%(2007) → 90%(2015)





Görme Engelliler için Özel Kaldırım Taşları



Direklere reklam, poster, vb. için kağıt yapılandırılmasını önleyen kaplama

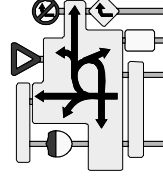


THINK

DEPREMDE EVE DÖNÜŞ HARİTASI

EL KİTABI

GENİŞ YOLLARI TERCİH EDELİM
PARK, OKUL, POSTANE...
SOMUT YERLER BELİRLEYELİM



- Eve dönmek ya da kalmak
- Dönmek için gereken zaman
- Eve dönüşte güvenli yollar
- Evine 10 saatten daha uzun sürede ulaşacaklar
- Eve Dönüşte Zorluk Çeken Kişi olarak adlandırılır.

Tachikawa Afet Üssü

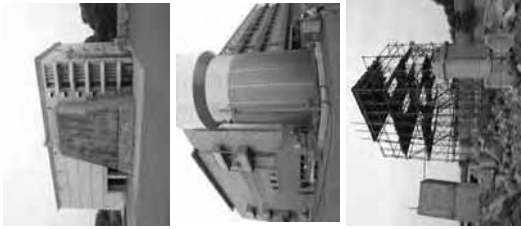
Üste bulunan ekipler:

- Su altı ve su üstü arama kurtarma ekibi
- Havadan Kurtarma Ekibi
- Enkaz Altı Arama Kurtarma Ekibi
- Yangın Ekibi
- Sağlık ve Paramedik Ekibi

Bu ekipler ulusal ve uluslar arası yardım çalışmalarına katılıyor. Rutin olaylara katılmıyor.

Eğitim Tesisleri

- Yangın simülasyon tesisleri
- Dar alan çalışma tesisi
- Kanallar
- Metro istasyonu ve taşıtı
- Raylı sistem
- Çok katlı bina yangınları eğitim tesisi
- Yüksek ve alçak alanlarda kurtarma operasyonlarına yönelik tesisler
- Enkaz eğitim alanı
- Suda kurtarma operasyonları için havuz
- Su altı arama kurtarma eğitimi için 20 m derinliğinde silindirik eğitim sarnıcı
- Helikopter pistleri



İSTANBUL İTFAİYESİ ÖNERİSİ

- Tachikawa afet müdahale üssüne benzer bir eğitim merkezinin çok acil olarak İstanbul İtfaiyesine kazandırılması.
- Bu merkezden Tokyo'da 4 tane bulunmaktadır.

AFET EĞİTİM MÜZESİ

- Yangın ve depremle ilgili eğitici bilgi, film, animasyon ve oyunların yüklü olduğu bilgisayarlar mevcut. (Değişik yaş gruplarına hitap ediyor)
- Deprem simülasyon odası, (Odanın dış kısmında bulunan bağımsız koridorda duvara yerleştirilmiş LCD ekranlarda depreme karşı alınacak tedbirlerle ilgili çizgi film izlenebiliyor.)



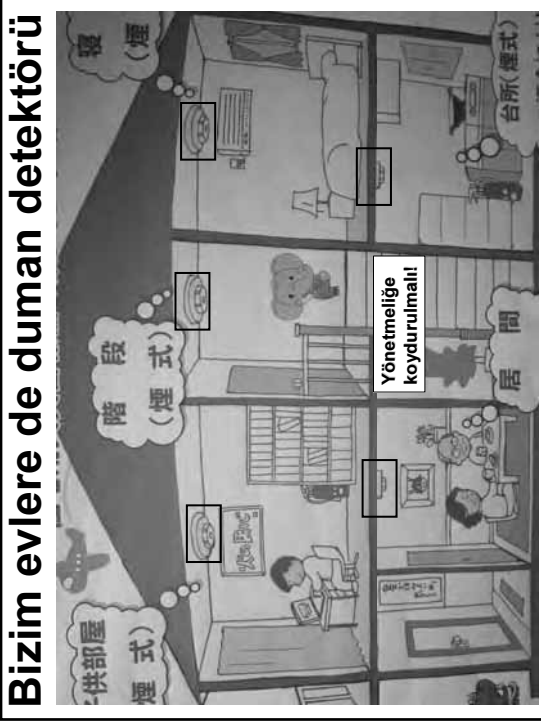
İSTANBUL İTFAİYESİ ÖNERİSİ

- Afet önlem müzesi içeriğine benzer hatta daha kapsamlı bir afet önleme müzesinin yapılması.

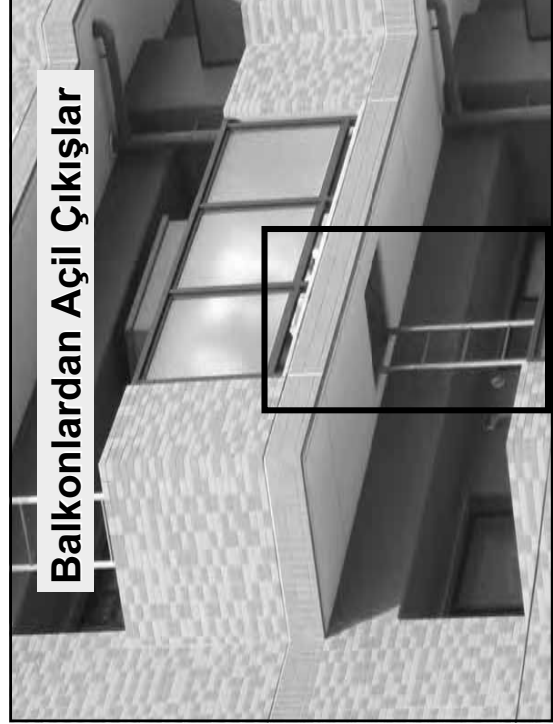




- İstanbul için 4 adet gezici temin edilmeli.



Bizim evlere de duman detektörü



Balkonlardan Açıl Çıkışlar

Mahalle Afet Gönüllüleri




- İtfaiye, polis teşkilatı, gönüllü kuruluşlar ve mahalle sakinlerinin katılımı ile oluşmuş olan afet müdahale ekiplerinin eğitim amaçlı tatbikatı



İSTANBUL İTFAİYESİ ÖNERİSİ

- İtfaiye Gönüllüleri mahalle bazında örgütlenip İstanbul genelinde hayata geçirilmelidir.
- Mahalle bazındaki çalışmalar periyodik tatbikatlarla desteklenmelidir.

**Sabrinız için
çok
teşekkürler!**

**REPUBLIC of TURKEY
 ISTANBUL
 METROPOLITAN MUNICIPALITY**

**STUDIES on
 DISASTER
 PREPAREDNESS**

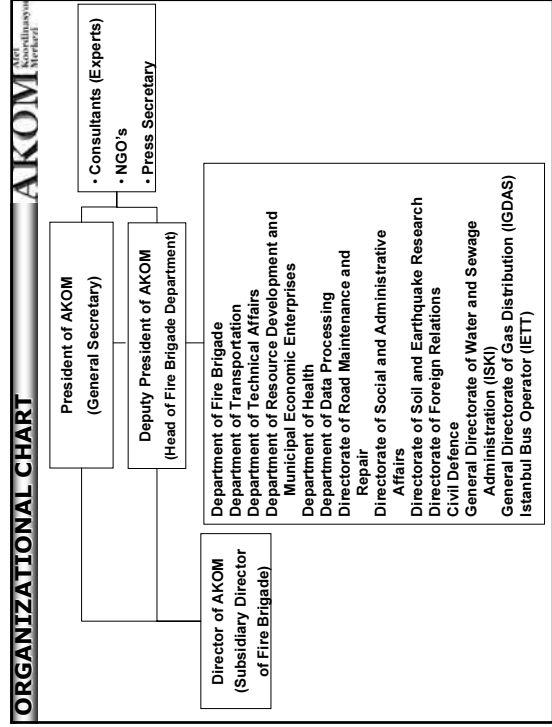
AKOM 2007

ESTABLISHMENT OF AKOM


- No: 7269 Disaster Law,
- No: 586 Decree Law,
- No: 5216 Metropolitan Municipality Law,
- 30.03.1998 / 98-403 Main Order of Istanbul Governorship,
- 12.12.2000 date and No: 686 Act of Istanbul Metropolitan Municipality Parliament

TASKS OF AKOM

- To provide coordination and cooperation between the related agencies and the units of Metropolitan Municipality to mitigate the effects of any type of damages before disaster, on disaster time and post disaster period.
- To coordinate the assignments of Metropolitan Municipality by the orders from the Mayor of IMM and Crisis Center of Province.
- To organize the search and rescue teams which are well trained, to be ready for any task which is under the responsibility of the Municipality.
- To prepare weekly, monthly and annual reports by monitoring the seismic activity in the World, Turkey and Marmara Region.
- To digitize the precipitation data's and to prepare the graphics of the meteorology regions of Istanbul and to inform the related units of the municipality.




BUILDING



In this building project, raft-foundation equipment which increases building resistance against earthquake has been chosen as basic equipment. On the other hand, by using high resistance reinforced concrete BS40, ironless concrete BS20, 150 dose rubble concrete, concrete steel BÇIII as iron reinforcement, concrete steel BÇ I in S iron and lateral reinforcement, dramix against to being cracked, super concrete plasticizer equipments and vibrator; the building structure was provided to work completely. It has been calculated that this building can resist on magnitude 8.3 in Richter Scale.

AKOM Building is constructed as a sample of the Disaster Management Center in Los Angeles , USA.

ELECTRONIC INFRASTRUCTURE OF AKOM



Display Systems :
Videowall System : It is formed of 32 cubes with 48 m² size which can show 128 different images from computer, network and video sources in different sizes at the same time.

ELECTRONIC INFRASTRUCTURE OF AKOM



Display Systems :
Plasma and LCD Systems: There are two Plasma systems (5x4 and 5x2 PDP Wall) and two LCD systems (2x2-twice). All videos coming from 128x128 video matrix can be displayed.

ELECTRONIC INFRASTRUCTURE OF AKOM



Display Systems :
Modis (LCD with remote control) : 30 times MODIS are placed in the meeting hall. 128 different images from computer, network and video sources can be displayed.



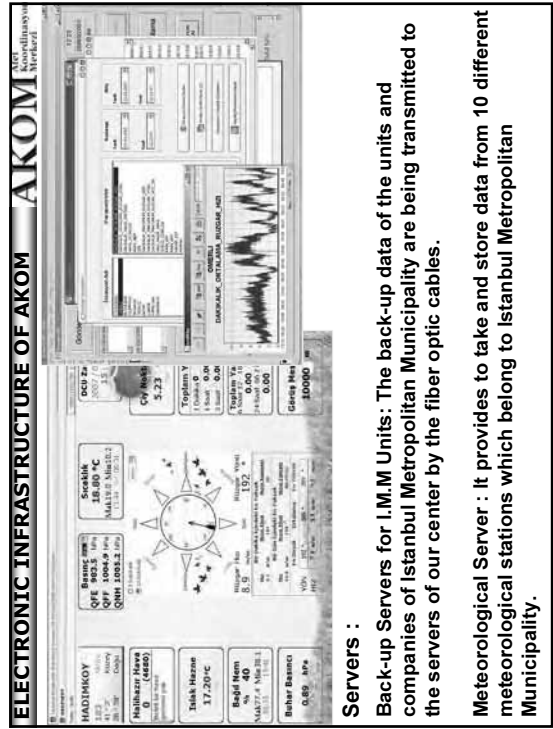
Display Systems :
67" Smart Board (Touchable screen)



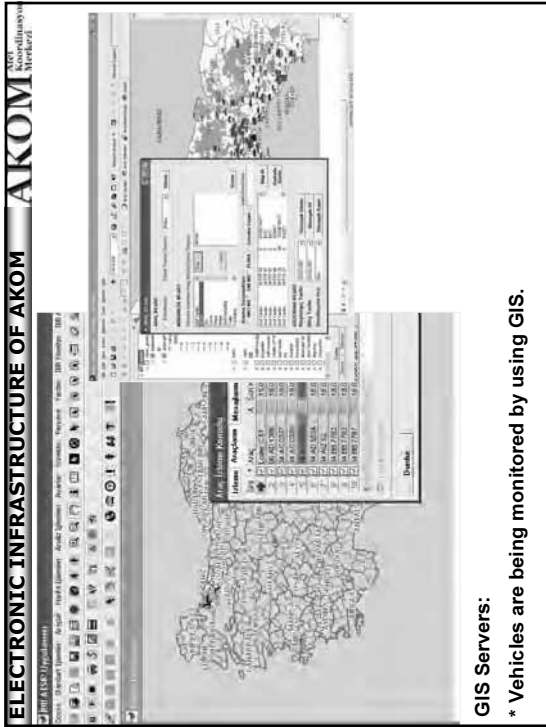
Audio System :
Microphone System : It is formed of wireless and cable microphone systems
Simultaneous System : It supports translation of two foreign languages
Audio Mixer : The audio signals coming from 16 different sources can be transferred to main audio system.



Control and Recording System:
Work Stations : 11 times work stations are used for controlling of video and audio systems.
Recording Devices: There are DVD, DVCAM, SVHS, VHS, VCD, DAT TAYP devices for recording video and audio. Records can also be edited and re-montaged for the distribution.
Matrix Systems : They are used for transferring the signals coming from different sources (like RGB, cameras, TVs) to different locations (like Videowall, PDP, etc.)

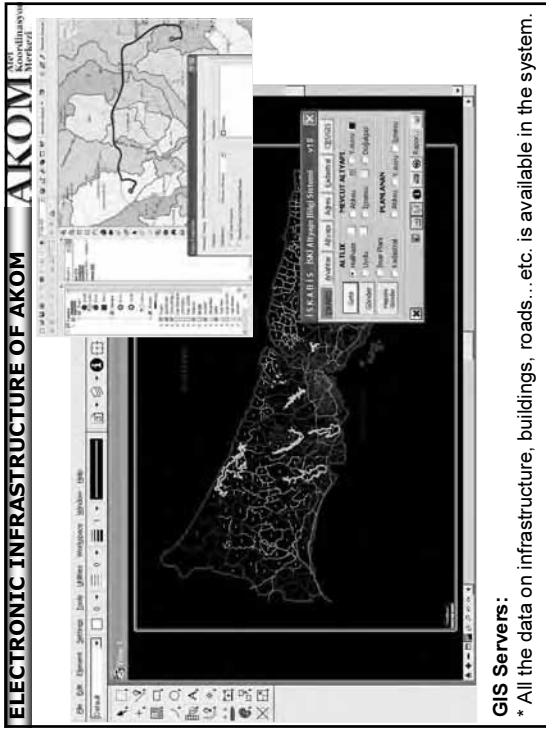


Servers :
Back-up Servers for I.M.M Units: The back-up data of the units and companies of Istanbul Metropolitan Municipality are being transmitted to the servers of our center by the fiber optic cables.
Meteorological Server : It provides to take and store data from 10 different meteorological stations which belong to Istanbul Metropolitan Municipality.



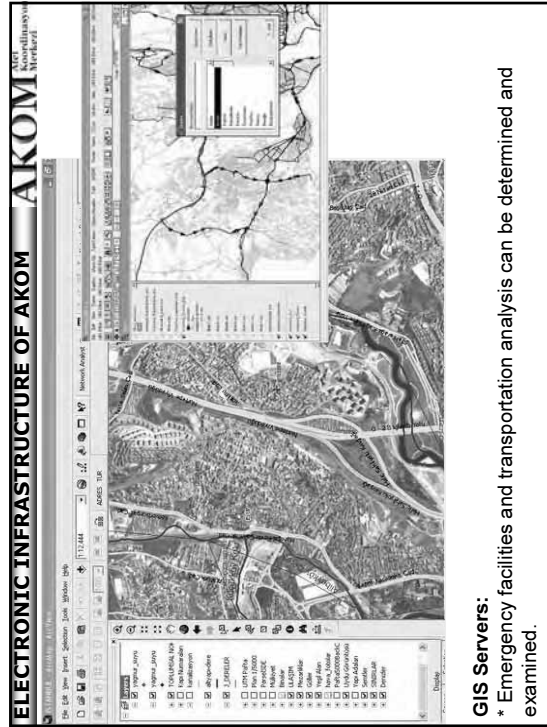
GIS Servers:

* Vehicles are being monitored by using GIS.



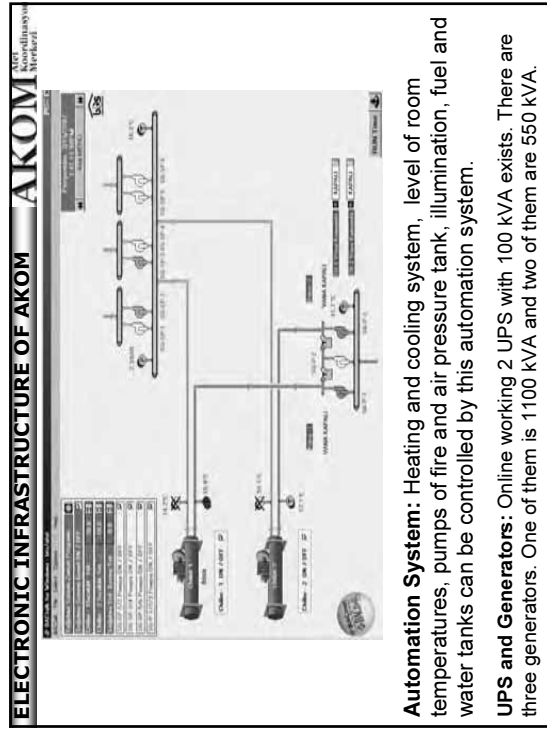
GIS Servers:

* All the data on infrastructure, buildings, roads...etc. is available in the system.



GIS Servers:

* Emergency facilities and transportation analysis can be determined and examined.



Automation System: Heating and cooling system, level of room temperatures, pumps of fire and air pressure tank, illumination, fuel and water tanks can be controlled by this automation system.

UPS and Generators: Online working 2 UPS with 100 kVA exists. There are three generators. One of them is 1100 kVA and two of them are 550 kVA.

ELECTRONIC INFRASTRUCTURE OF AKOM **AKOM** AKOM Koordinasi & Kontrol



IP Telephone System : CISCO IP Telephone System is available.

Video Conference System: Three video conference devices in different locations in AKOM provide communication between Istanbul Governorship, Istanbul Metropolitan Municipality, Istanbul Police Headquarter, Kandilli Observatory and AKOM.

ELECTRONIC INFRASTRUCTURE OF AKOM **AKOM** AKOM Koordinasi & Kontrol




SATELLITE COMMUNICATION
 There are 78 satellite phones from 2 different operators.
 (24 Stationary Satellite Phone)
 (54 Mobile Satellite Phone)

INTERNET
3 ways for internet access
 LocalNetwork 60 Mbit/s
 ATM 10 Mbit/s
 ADSL 2 Mbit/s



ELECTRONIC INFRASTRUCTURE OF AKOM **AKOM** AKOM Koordinasi & Kontrol

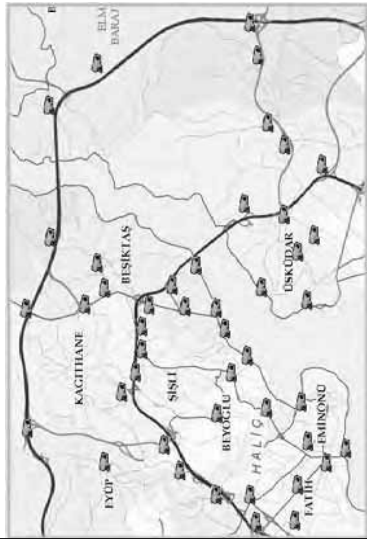


LIVE BROADCAST VEHICLE
 Mobile Live Broadcast vehicle was bought to serve for AKOM and other units in a potential disaster case.

MOBILE COMMAND VEHICLE
 Mobile Command Vehicle is for use of unusual conditions. The vehicle is equipped with newest communication devices (Telephone, Wireless phone, GPS, fax, server etc).


COMMUNICATION VEHICLES
 10 communication vehicles with 4 satellite phones were purchased.

ELECTRONIC INFRASTRUCTURE OF AKOM **AKOM** AKOM Koordinasi & Kontrol



TRAFFIC AND MULTI DIRECTIONAL CAMERAS
 The images of 175 important junction are transferred on live time. Also, directions of the cameras can be controlled from our center.


ELECTRONIC INFRASTRUCTURE OF AKOM **AKOM** AGI Koordinasi & Nirkabel



TRAFFIC AND MULTI DIRECTIONAL CAMERAS

10 cameras are established at the important locations of the city. These cameras will be used for affective response activities at a potential disaster.

ELECTRONIC INFRASTRUCTURE OF AKOM **AKOM** AGI Koordinasi & Nirkabel



TRAFFIC AND MULTI DIRECTIONAL CAMERAS

Fire brigade Cameras: 15 mobile teams are established and the images that are taken can be transferred to AKOM.

Mobese Cameras: According to the protocol, 350 Mobese camera images of Provincial Police Department can be monitored form AKOM.

STUDIES **AKOM** AGI Koordinasi & Nirkabel

AKOM CARRIES OUT THE STUDIES ON 5 MAIN TOPICS:


- 1- SCIENTIFIC AND TECHNICAL STUDIES
- 2- STUDIES ON BUILDING SAFETY
- 3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF
- 4- STUDIES ON COMMUNICATION AND INFORMATION TECHNOLOGIES
- 5- OTHER STUDIES

ELECTRONIC INFRASTRUCTURE OF AKOM **AKOM** AGI Koordinasi & Nirkabel

1- SCIENTIFIC AND TECHNICAL STUDIES

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URBAN GEOLOGY STUDIES

1/5000 scaled Land use maps for development plans, Geotechnical/Geological Mapping studies for Istanbul in 27 district are completed by Earthquake and Soil Investigation Directorate and are approved by General Directorate of Disaster Affairs.

1/25.000 scaled geology studies are completed in the whole province area which is defined by the law no.5216.

1- SCIENTIFIC AND TECHNICAL STUDIES



MICROZONING REPORT and PREPARATION OF MAPS

The studies that are going to be done in the "Southern part of European Side" project which covers 182 km² of Istanbul:

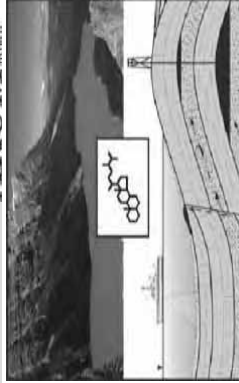
- . 1/2000 scale of Slope Map
- . 1/2000 scale of Geology and Engineering Geology Map
- . 1/5000 scale of Source water depth map
- . 1/5000 scale of Ground Shaking Map
- . 1/2000 scale of Liquefaction Map
- . 1/2000 scale of Landslide Map
- . 1/2000 scale of Flooding Map
- . 1/5000 scale of Vs (0-30) Shear Wave Velocity Map
- . 1/2000 scale of Ground Map according to the Earthquake Code
- . 1/2000 scale of Ground Suitability Map
- . 1/2000 scale of Ground Classification Map according to NEHRP

Also;

- . 1/25.000 scale of Earthquake Hazard Map for whole Istanbul
- . 1/2000 scale of Tsunami Hazard Map for whole Istanbul coast areas

**Microzoning studies for Anatolian side are targeted to start within this years.*

1- SCIENTIFIC AND TECHNICAL STUDIES



STUDIES ON FAULTS and LANDSLIDES

Researches on landslides and faults under the sea of Marmara is continuing with ITU and MTA


FORESIGHT

In cooperation with TUBITAK, Risk Management System for European Union Countries (FORESIGHT) Project under the European Union 6th Framework Program is completed.

EVALUATIONS OF REPORTS

"GROUND SURVEY REPORTS" of our Municipality and Districts for Urban Planning issues are being evaluated according to the existing code. 1200 report were evaluated in 2006.

1- SCIENTIFIC AND TECHNICAL STUDIES

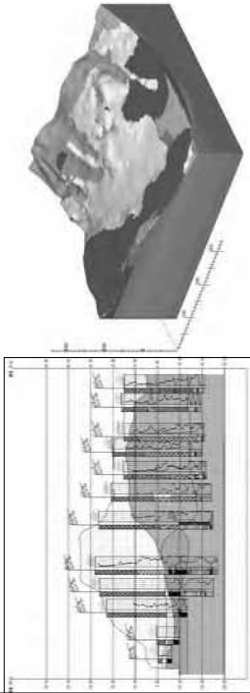


EARTHQUAKE STATIONS and EARTHQUAKE MONITORING PROJECT:

Earthquake Monitoring and Record Stations are established in cooperation with B.U. Earthquake Observatory for monitoring the micro earthquake activities.

In cooperation with TUBITAK, physical and chemical changes of the ground waters and daily radon gas changes are being monitored and the relation with a possible earthquake are being watched at the 16 hydraulic stations which are placed on the existing fault lines in Marmara Region.

1- SCIENTIFIC AND TECHNICAL STUDIES



DATABASE ON GROUND ENGINEERING

All of the ground engineering data prepared for Metropolitan area are digitised.

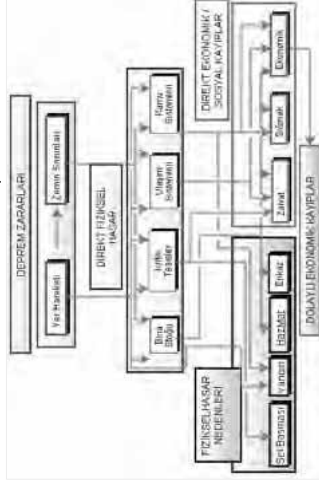
STUDIES ON GROUND CLASSIFICATION

In the scope of Earthquake analysis research project the microtremor Vs shear wave velocity will be estimated for the ground classification of Anatolian Side are implemented with TUBITAK and Kandilli Observatory.

1- SCIENTIFIC AND TECHNICAL STUDIES

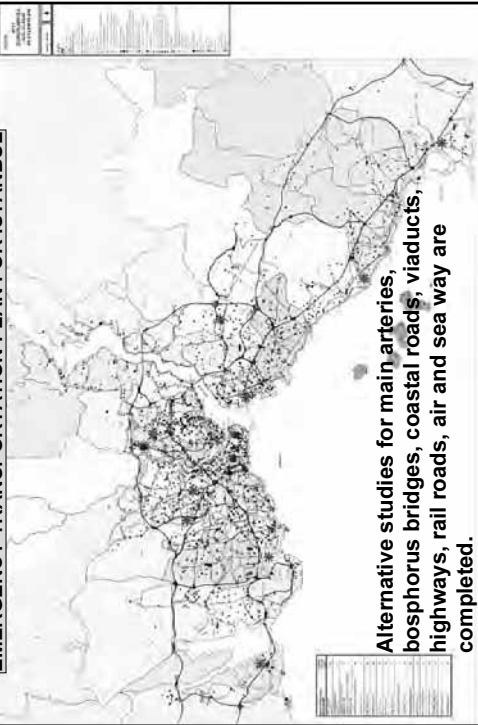
HAZTURK : To develop American FEMA patented HAZUS program to national scale of HAZTURK version for to use in pre-disaster, disaster time and post-disaster. The aim of the project which is in cooperation with SPO, TUBITAK and ITU is; emergency management, risk mitigation, planning, preparedness, response and rehabilitation.

Similar type of this program is being used in the world. The implementation of this program in Istanbul has an essential importance.



1- SCIENTIFIC AND TECHNICAL STUDIES

EMERGENCY TRANSPORTATION PLAN FOR ISTANBUL



Alternative studies for main arteries, bosphorus bridges, coastal roads, viaducts, highways, rail roads, air and sea way are completed.

1- SCIENTIFIC AND TECHNICAL STUDIES



AKOM MEETINGS AND ORGANIZATIONS

264 meeting on disaster were held in AKOM. Also, preparedness meetings on world wide organizations (NATO meeting, Formula 1, Final League of Championship, etc.) were done.



1- SCIENTIFIC AND TECHNICAL STUDIES

INTERNATIONAL MEETINGS AND PUBLICATIONS

- "2nd Earthquakes and Mega Cities Initiative" meeting was held in Istanbul by the sponsorship of municipality.
- "Istanbul Earthquake and Safe Buildings" meeting was held by the attendance of the academicians and specialists of Turkey, and the papers were compiled in a book.
- A symposium with the name of "Rehabilitation of Istanbul" was held.

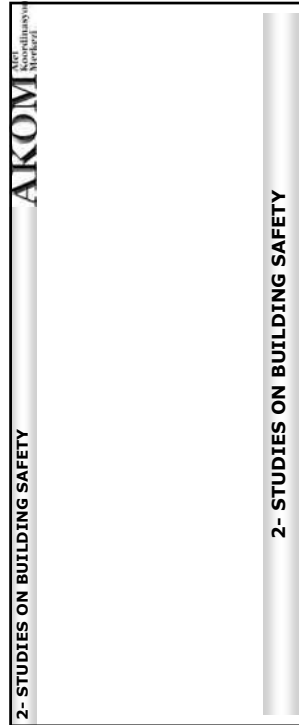


1- SCIENTIFIC AND TECHNICAL STUDIES



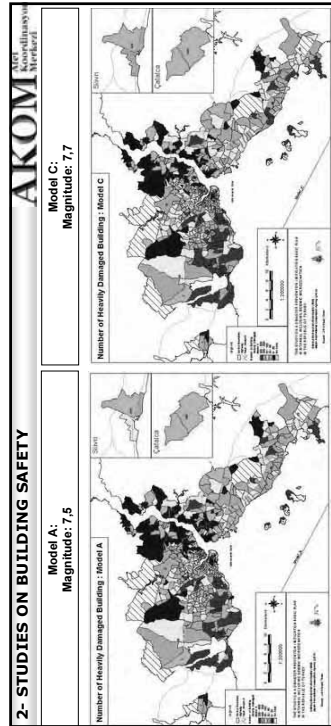
EDUCATION STUDIES

Fire Brigade – IBITEM, Directorate of Emergency and Rescue Services, Secretariat of Civil Defense, AKOM had trained 70.000 people on fire, rescue and first aid. In addition, for to make citizens conscious of earthquake different types of books and handbooks are distributed.



2- STUDIES ON BUILDING SAFETY

2- STUDIES ON BUILDING SAFETY



2- STUDIES ON BUILDING SAFETY

Model A:
Magnitude: 7,5

Model C:
Magnitude: 7,7

MICROZONING AND DISASTER PREVENTION/MITIGATION BASIC PLAN (DIAGNOSIS)

This project was done in cooperation with Japan Cooperation Agency. Sub-district based possible substructure and infrastructure damages were estimated according to 4 different scenario earthquakes.

2- STUDIES ON BUILDING SAFETY **AKOM**
AKOM Koordinasyon Merkezi

POSSIBLE DAMAGE AND LOSS ESTIMATION

ACCORDING TO IMM – JICA STUDY:

If an earthquake with 7.7 or 7.5 magnitude occurs;

Approximately 3.040.000 household (9.000.000 people) in 750.000 building will be affected !

- ✓ 50.000 - 60.000 heavily damaged buildings,
- ✓ 500.000 - 600.000 homeless people,
- ✓ 70.000 - 90.000 life loss,
- ✓ 120.000 to 130.000 heavily wounded, 400.000 slightly wounded people
- ✓ 1.000 - 2.000 water pipe damages,
- ✓ 30.000 natural gas service box damages,
- ✓ Rupture at 3%of the electricity lines,
- ✓ 140 million tons of debris,
- ✓ 40 billion US\$ economic loss are estimated,
- ✓ Rescue operations for 1.000.000 people,
- ✓ 330.000 tents.

2- STUDIES ON BUILDING SAFETY **AKOM**
AKOM Koordinasyon Merkezi

ISTANBUL EARTHQUAKE MASTER PLAN (EMPI)

The scope of Earthquake Master Plan for Istanbul comprised of works to be done in the following areas;

- Assessment of current situation
- Seismic assessment and rehabilitation of buildings
- Legal issues
- Land use issues
- Financial issues
- Educational issues
- Social issues
- Risk and disaster management issues

Studies that must be completed and planned under the above topics are continuing in stages under a programme.

2- STUDIES ON BUILDING SAFETY **AKOM**
AKOM Koordinasyon Merkezi

ISTANBUL EARTHQUAKE MASTER PLAN (EMPI)

is a social contract between

Identifying responsibilities commitments, methods of supervisory functions

2- STUDIES ON BUILDING SAFETY **AKOM**
AKOM Koordinasyon Merkezi

Heavily Damaged Districts

10 Risky District

EMİNÖNÜ
FATİH
BEYOĞLU
ZEYTİNBURNU
BAKIRKÖY
BAHÇELİEVLER
AVCILAR
BAYRAMPAŞA
K.ÇEKMECE
ADALAR

JICA-EMPI EVALUATION RESULTS

BUILDING RISK SURVEYS ARE STILL CONTINUING IN ISTANBUL

* 16.030 building is evaluated in Zeytinburnu

* Risk surveys of 38.580 building in Fatih, 60.938 building in Küçükçekmece is continuing.

Building survey will be completed with in 1,5 to 2 years.

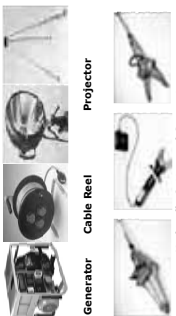
3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF **AKOM** AGI Kordunlarynň Merkezi

3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF



3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF **AKOM** AGI Kordunlarynň Merkezi

DEPARTMENT OF FIRE BRIGADE

- 62 Fire Brigade Station
- 4.271 fireman
- 476 different types of vehicle
- 2 chartered fire craft
- 3 rapid response helicopter
- 72 type of rescue equipment in every station



Generator Cable Reel Projector Hydraulic Cutter and Separator



3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF **AKOM** AGI Kordunlarynň Merkezi

DEPARTMENT OF FIRE BRIGADE

RESPONSE VEHICLE (No:3)

is a vehicle which has the following properties;

- Extinguishing,
- Cooling,
- Debris Removal,
- Evacuation,
- Ventilation,
- Demolition,
- RC drilling
- Crane etc.






3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF **AKOM** AGI Kordunlarynň Merkezi

DEPARTMENT OF FIRE BRIGADE

Vehicles Planned for Factoring (in 2007)

1- 6x6x6 Rescue Vehicle for Disaster	45
2- 6x6x6 Fire Extinguisher	45
3- Disaster Response and Extinguishing Vehicle	10



3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF AKOM

Municipality's Search & Rescue Team

- 49 search and rescue staff
- 6 rescue dog
- 5 4x4 Mercedes type rescue vehicle
- 8 different type of rescue vehicle
- 2 rescue boat
- 30 tent
- Wireless phones, satellite phones



3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF AKOM

ACTIVITIES OF SEARCH AND RESCUE TEAM OF MUNICIPALITY

- First Aid
- Search and Rescue
- Disaster Relief

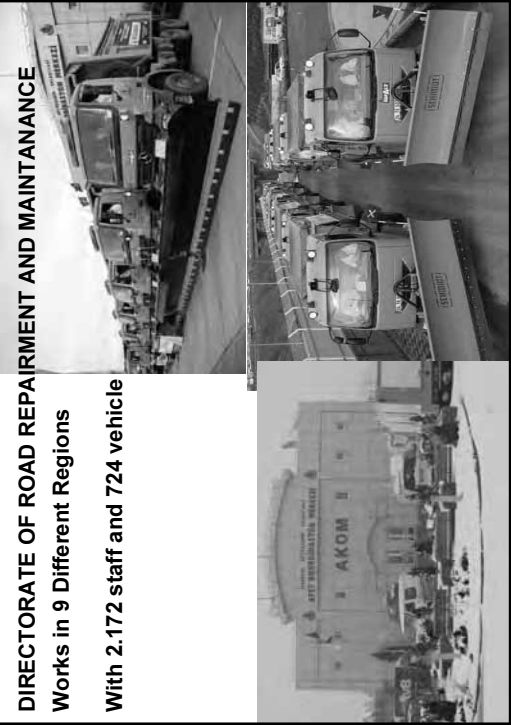


3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF AKOM

DIRECTORATE OF ROAD REPAIRMENT AND MAINTANANCE

Works in 9 Different Regions

With 2.172 staff and 724 vehicle



3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF AKOM

DIRECTORATE OF ROAD REPAIRMENT AND MAINTANANCE

<u>TYPE OF VEHICLE</u>	<u>NO</u>
➢ Snow Plow –Salt Sprinkle	: 216
➢ Vehicle with plow	: 191
➢ Loader	: 34
➢ Boschung	: 40
➢ Truck	: 63
➢ Pickup truck	: 35
➢ Solution Tanker	: 50
➢ Combined Vehicle	: 26
➢ Crane	: 69
Total	: 724



3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF

IGDAS (Istanbul Gas Distribution Company)

- 632 staff
- 60 emergency response team and equipment
- 157 vehicle
- 8 automatic shut off valves are installed for earthquake.
- 93 valves were installed to the locations where the ground conditions are different.
- Also regional regulators and service boxes has an automatic shut off system.



3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF

ISKI (Water and Sewage Company)

- Search and Rescue Team with 23 staffs
- Electrical and mechanical team with 16 staffs
- Network team with 13 staffs
- Supply pipe team with 12 staffs
- Purify team with 3 staffs
- Water porter team with 3 staff
- 1 full equipped search and rescue vehicle



3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF

HAMIDIYE COMPANY

All the necessary studies are completed for supplying the drinking water and 400 of civic water tank owners are informed. Water and sewage infrastructure installations are completed for the temporary settlement areas which are designated by Sub-district Governors and District Municipalities



3- STUDIES ON VEHICLE-EQUIPMENT AND RESCUE STAFF

DIRECTORATE OF SOCIAL AND ADMINISTRATIVE AFFAIRS

Haikali Logistical Support Center: The center with an area of 12.000 m² serves for a capacity of 100.000 person/day. Center has kitchens, and storages.

The center is used to store the disaster relief materials for international and national aids. Center has storages in the Anatolian side as well.

Also "Mobile Kitchen" is on service for serving for 20.000 person/day with two types of meal..



PUBLIC BREAD COMPANY

Is in charge of covering the bread demand with capacity of 2 million per day, in any case of disaster.

Continues to produce bread in 3 big factories at Kartal, Edirnekapi and G.O.Pasa.

The organization plan for bread distribution is completed. And will be able to produce bread for 1 week with LPG.

Studies on long lasting bread production is completed. Studies on the storage, distribution and production of 5 million of bread with high calorie and nutritional value is completed.



IETT (ISTANBUL BUS OPERATOR) AND OTHER COMPANIES

Preparations on the transportation of the public from earthquake region to other regions are completed. New vehicles are bought and rescue teams are established.

Also assigned for opening the isolated roads and debris removal works with own vehicles and subcontractors vehicles.



IDO (SEA BUSESSES CORPORATION)

- 81 pier,
- 25 sea bus,
- 8 ferry-boat,
- 32 ship for passenger,
- 15 ship for vehicle,
- 12 boat for passenger*
- 2 ship



Preparations to provide sea transportation for possible disaster are completed and supported by the newly bought vehicles and established rescue teams.

Health equipments are installed to the sea busses.

Studies to increase the number of sea piers are continuing.

DIRECTORATE OF CEMETERIES

Works on studies for post-disaster funeral operations.

- 81 funeral car
- 18 intercity funeral car (air-conditioned) (Special condition capacity: 5)
- 5 unit of normal wc (Total cabin number: 22)
- 5 normal morgue (Total funeral capacity: 76)
- 9 mobile wc
- 6 mobile morgue (Total funeral capacity: 120)
- 66.000 body bag
- 6.600 concrete graves (Pendik) are done.

Also;

- 10.000 unit of concrete graves are planned to be built in Ikitelli-Başakşehir.

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4- STUDIES ON COMMUNICATION AND INFORMATION TECHNOLOGIES

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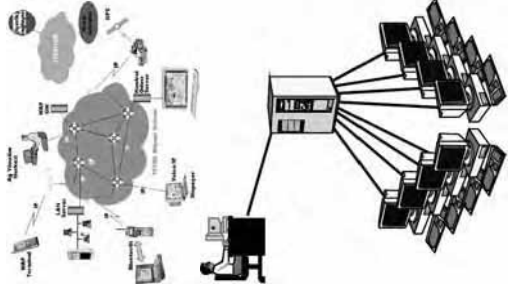
4- STUDIES ON COMMUNICATION AND INFORMATION TECHNOLOGIES

ISMEP PROJECT

In scope of ISMEP Project Components for Strengthening of Emergency Preparedness and Disaster Management are;

- 1..Improvement of Emergency Communication Systems
- 2..Establishment of Disaster Management Data System Studies

It is aimed to organize the communication infrastructure for metropolitan municipality and related agencies.



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5- OTHER STUDIES

5- OTHER STUDIES

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5- OTHER STUDIES

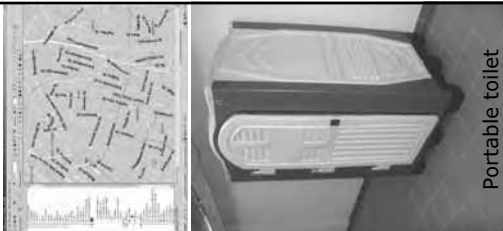
- Directorate of Emergency and Rescue Services, has established two storages for to store the medical materials in use of a potential disaster. The locations of Emergency stations are in European side and in Anatolian side materials for use in a potential disaster.
- 2500 unit of simple but effective Emergency Health Set has been prepared for to use at first stage of a crisis
- Health materials are placed to the sea buses that are related to Istanbul Sea Bus Company for the use of response to injured people.

AKOM AKOM Koordinasi dan Koordinasi

5- OTHER STUDIES

- Disaster based GIS studies are almost completed. The road inventory is completed.
- Public bread buffets, I.E.T.T. Bus Stops, Neighborhood Governorates, Police Stations, Water distribution points etc. are already shown on GIS.
- 410 portable toilets were bought for in use of emergency.
- 15 emergency response stations (formed of equipments and teams of Fire Brigade, İğdas, İski, Emergency Aid and Road Maintenance) are planned to be established to the various locations in Istanbul.




Portable toilet

AKOM AKOM Koordinasi dan Koordinasi

5- OTHER STUDIES

- 4,450 hydrants are located to the important roads and streets of Istanbul. Studies are continuing to increase the number.
- Fire Risk Map is done for Istanbul.
- 10 automatic meteorology stations are established for monitoring the weather situation more detailed.
- “AKOM Emergency Relief Plan” is prepared, data inputs are still continuing.
- “AKOMCELL” is implemented for alerting the public with messages of mobile phones for possible or on going events.
- Studies for constructing “Command Control Building” near AKOM Building is continuing.



AKOM AKOM Koordinasi dan Koordinasi

5- OTHER STUDIES

INDONESIA RELIF ACTIVITIES

- Health Services,
- Public Bread Services,
- Environment and Solid Waste Management,
- Road and Infrastructure Services,
- ISKI- Water Purification Services



AKOM AKOM Koordinasi dan Koordinasi


5- OTHER STUDIES

PAKISTAN RELIF ACTIVITIES

- Body Bag : 10,000 unit
- Life Container : 500 unit
- Long Lasting Bread : 10,000 unit
- Food Packet : 5,000 unit
- Cake : 1,200 unit
- Water : 1,000 package
- Flour : 10 ton
- Milk powder : 30 ton
- Boot : 30,000 unit
- Sweater : 30,000 unit
- Blanket : 10,000 unit
- T-Shirt : 4,200 unit
- Hat : 4,200 unit
- Bread Production Unit : 1 unit
- Generator : 1 unit
- Water Sanitation Unit : 3 unit

LEBANON RELIF ACTIVITIES

2 million YTL aid was done to the region after the Lebanon war




5- OTHER STUDIES

AKOM AKOM Koordinasyon Merkezi

RELIEF ACTIVITIES IN EAST AND SOUTHEAST OF TURKEY

2 million YTL of aid was done to Batman



In the relief activities;

- 99 staff,
- 2 sewage truck,
- 1 tepcin,
- 3 washing vehicle,
- 4 JCB are used.

AKOM AKOM Koordinasyon Merkezi

HAZIRLIKTA

İstanbul deprem katçısında yardım dışı.

AKOM AKOM Koordinasyon Merkezi

ISTANBUL METROPOLITAN MUNICIPALITY

AKOM AKOM Koordinasyon Merkezi

ISTANBUL BÜYÜKŞEHİR BELEDİYESİ

AKOM AKOM Koordinasyon Merkezi

RATHER THAN TO RESCUE PEOPLE FROM THE DEBRIS

OUR AIM

IS TO PREVENT PEOPLE FROM STAYING UNDER THE DEBRIS.

www.ibb.gov.tr/akom

