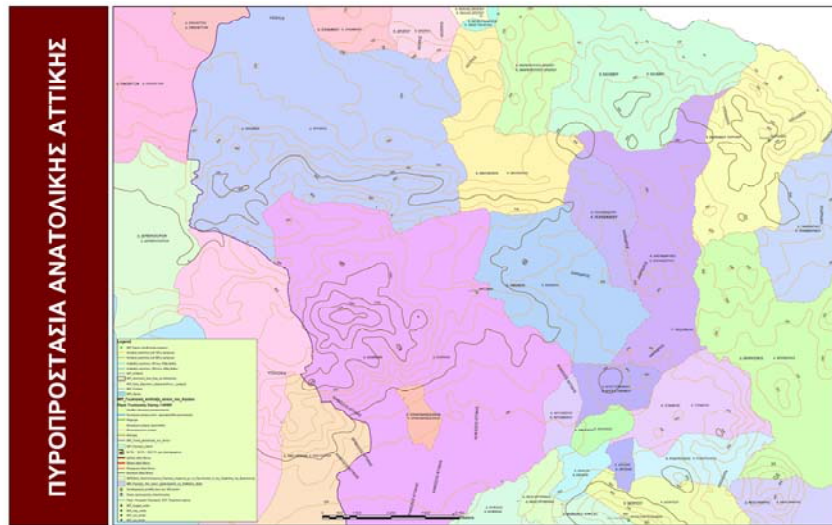


# «FIRE PROTECTION SYSTEM FOR EAST ATTICA»



The Project's goal was the development of a Integrated Information System for Fire safety & protection in the area of East Attica, that included the combined use of advanced technologies of:

- satellite pictures,
- ortho maps
- applications of geographic information systems (GIS),
- simulation models for the development of fire,
- meteorological data and
- digital telematic surveillance network for forest fires connected to the Geographic System

The project included actions of education and publicity, in the forest region of the Prefecture of East Attica, so that the region will be protected from further natural destructions and specifically fire, applying more effective measures for the prevention, the monitor of natural destructions and the operational readiness of the responsible institutions.

Objective of the Project was the effective protection of Eastern Attica from the natural destructions (fires), the aid of developmental management of the region and the contribution to the upgrade of the quality of life, the protection of the environment and the viable growth of the mountainous region of the Prefecture.

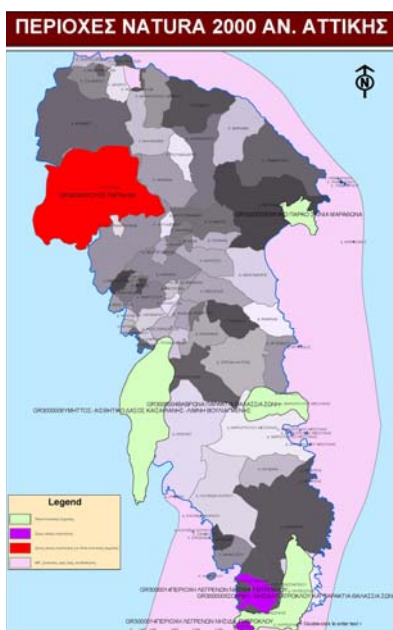
The Project contributed effectively to the prevention and confrontation of natural destructions and to the prevention of forest fires that are likely to be presented in the region, safeguarding the environment but also the unique aesthetic and natural values that entertains the region, and contributing to the



completed management of natural destructions. The system created the core for the completed management of crises in the Prefecture (with actions such as the evacuation of regions, the help mission, the co-ordination of operational forces, the planning of measures of re-establishment).

In this frame, the program with core the natural wealth of region, was structured in a Integrated System of Prevention, Confrontation and Control of Forest Fires, with the concretisation of coordinated actions of monitoring, convenient warning and management of the mountainous region, protection of natural environment and the whole region protection, as follows:

- Creation of topical, in detail and modern digital background with the supply of satellite pictures, the realisation of land measurements and the creation of ortho maps in the total region.
- Collection and digitalization of all the geographic and descriptive data of the wider region which were included in a Geographic System of Information.
- Collection and Development of forest data in the region, in order to:
  - Be created the model of fuel matter of the region
  - Be evaluated the dangerousness of the region, aiming at the mapping of fire occurrence parameters, the specification of high danger regions, of monitoring regions, of regions that are required to take direct forestry measures and of regions with increased anthropogenic activities



- Installation of telematic network of Surveillance and Warning in the points that were selected after the application study
- Installation of constant meteorological stations, in the points that were selected after the relative study
- Installation of the software for the prevention, confrontation and control of forest fires in the Operational Centre, with the following operations:
  - Estimation of Dangerousness and production of relative maps (daily, monthly, annual)
  - Forecast of Fire Development (development of simulation model) for the region
  - Provision of geographic coordinates of the point of incident with depiction on the digital maps, in case of fire appearance

- Calculation of access time for the intervention from the points of the departure of units in given points of incidents
- Mapping out the most optimal corridors for intervention of extinguishment forces
- Optimisation of Visibility Areas
- Analysis and categorisation of all fire background with base each new incident

- Creation and Management of thematic maps
  - Creation of bulletin for every new incident of fire
  - Assessment of destructions and support of planning measures for the re-establishment, after fires
  - Observation of Metadata elements
- Installation of essential equipment and software for the unhindered operation of the Operational Centre, the monitor of meteorological data in the region, the monitoring of the region and the monitoring of fire movement and fire-fighting departments
  - Installation of Information System, completed and operational
  - Training of essential personnel for the use and exploitation of completed information system for the protection of the region
  - Pilot operation and realisation of exercises
  - Actions of publicity of the Project, as follows:



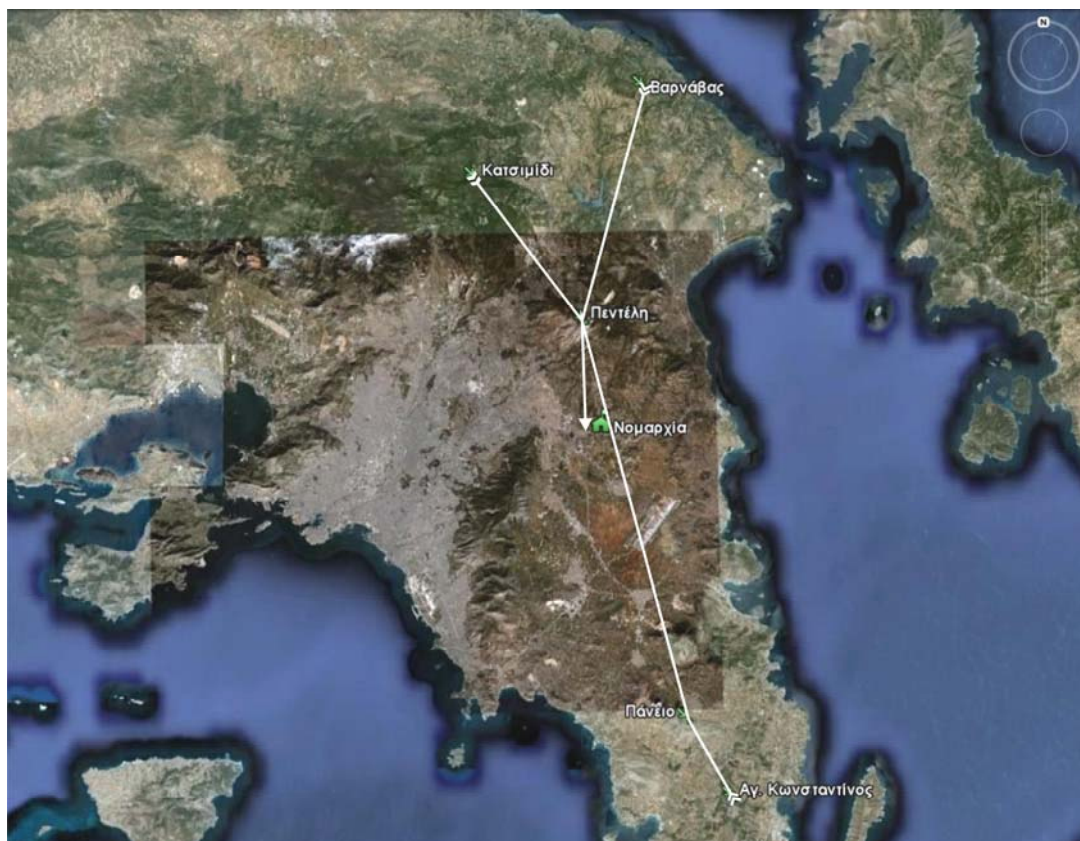
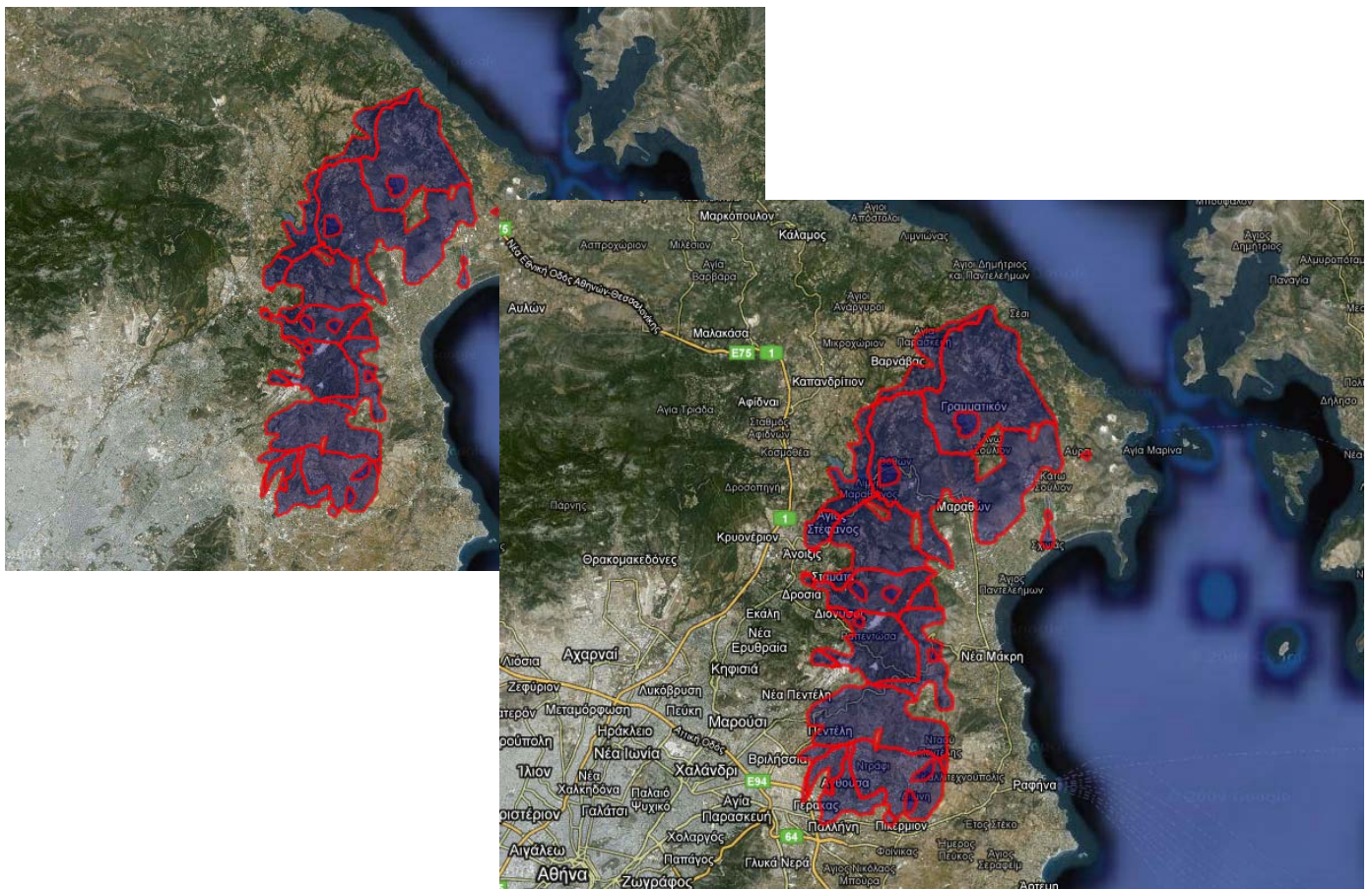
- There was organised the material of the Project and mainly the dynamic maps in the web gate that is connected (link) with the existing portal of the Prefecture, aiming at the provision of cartographic and descriptive information and services to Eastern Attica, the Region of Attica, the Forests Authority and the Fire Brigade, to local authorities of the region, to the responsible institutions for the management of natural destructions and to the potential visitors and investors of the region as well as the possibility of dynamic projection and creation of new maps with addition or abstraction of the existing levels (layers) from the permitted users.



- There were organised actions of briefing and sensitization of local population
- There was produced printed material for the publicity of the project

Also, the Project constituted the base of operational planning and contributed to the decision-making rational as well as to the active support of the responsible Authorities of Political Protection for the actions of confrontation of natural destructions, safeguarding of fauna and flora of the Prefecture

and rescue of residents, visitors and members of operational teams. Finally, the work contributed to the prevention of fires via the installation of surveillance network and the sensitization and information of residents and visitors, the projection of natural beauties of the region and the disengagement of objecting and also dangerous anthropogenic uses for the natural environment.



IMPETUS was also responsible for the establishment of the energy autonomous systems for the monitoring of forest fires in 5 different areas within the Prefecture of East Attica.

The systems were established in the areas of -

1. Penteli Mountain
2. Varnavas
3. Parnitha Mountai (location Katsimidi)
4. Paneio Mountain
5. Agios Konstantinos / Lavrio

