



GIS TAKES GOLD AT TURIN

WHILE SPECTATORS REMAINED FIRMLY FOCUSED ON THE ASPIRATIONS AND PERFORMANCES OF THE ATHLETES AT TORINO 2006, THE ORGANIZING COMMITTEE WORKED NON-STOP BEHIND THE SCENES TO ENSURE THAT SPORTING EVENTS AND RELATED ACTIVITIES WERE CONDUCTED WITH CLOCKWORK PRECISION.

Located near the foothills of the Italian Alps, the picturesque city of Turin was the ideal setting for the twentieth staging of the winter Olympics. For its beauty and its proximity to well-known ski areas, Turin is unsurpassed. However, the need to convey athletes, media, VIP, spectators, and equipment on a daily basis to various locations throughout the city and the local mountains was a logistical challenge of Olympic proportions for the event's organizers. Particularly since weather conditions often dictated transportation schedules.

Paolo Orione, GIS Project Manager at Torino 2006, successfully proposed to the organizers that they implement GIS as a strategic tool to manage transportation and other activities and thus was born the Torino 2006 GIS. Software products employed included ESRI's ArcInfo, ArcView, 3D Analyst, Spatial Analyst, and ArcPad.

The major challenge confronting Orione and his staff was the limited amount of time available to analyze the operational needs required to stage and sustain the Olympics and subsequently develop the appropriate GIS applications necessary to maintain the smooth running of the events.

The temporary nature of the Olympics added to the challenge of developing a GIS that worked smoothly from day one of the Games, ran for about 3 weeks in an intensely public environment, and was respon-

sive to a complex mix of professional and volunteer staff members that came from all over the world.

Commenting on the applications developed for Torino 2006 Orione said, "GIS was used extensively for transportation and environmental monitoring. Other GIS applications were developed for facility maintenance, waste disposal, ticketing services, and volunteer coordination."

In addition to use by Olympics staff members, the GIS was used to create event maps for the general public that were available online at kiosks located throughout the area including airports, train stations, hotels, tourist bureaus, parking facilities, and other locations. In addition to Olympic venues and tourist facilities, the maps highlighted public transportation lines, shuttle bus pickup locations, car parks, and the roads restricted to official Olympic vehicle use.

Because of unexpected changes in event schedules, venues, routes, and road conditions, the Torino 2006 GIS, in conjunction with GPS tracking systems, was invaluable in quickly registering and analyzing changes and producing updated maps and other communications for Olympics clients and spectators.

The necessary rapid development of the GIS also prompted the necessary procurement and development of relevant data. Continues Orione, "One of the first steps we did was to build close relationships

LESSON LEARNED



with the local and regional mapping agencies, who owned the data. However, due to the temporary nature of the Olympics and our specific needs, it sometimes proved to be faster to collect the data ourselves. For example, one of the most critical projects we worked on was accommodation. The Transportation department needed to know the specific location of all available housing in the area in order to plan and execute arrivals, departures, and local transport services. Because of the limited availability of hotels in the mountains, we used more than 1800 private accommodations for our clients, mainly media. So, it was necessary for us to build for the Transportation department a custom geodatabase with temporary housing locations, proposed occupants, and the planned transport services so that they could make the information available to the Olympics Operations staff"

Regarding the use of GIS in future large-scale public events Orione concluded, "What I see is the power of GIS being used as an integration tool. Big events are a huge business in terms of running capital, but the processes are not yet standardized. Every organizational committee develops its own business processes and procedures, wastes a lot of time in developing its procedures, and is constantly looking for the

latest data to apply to those procedures.

"Usually in the life cycle of these large-scale projects, there is a stage when it is necessary to severely cut costs. Traditionally, the easiest way to accomplish this is a top down budget resources cut, more or less across the board in respect to the many departments required to stage such an event. This kind of financial cost cutting strategy impacts on the organizational committee in a very difficult manner.

Because of my background in business analysis, I believe that a better alternative is to standardize as much as possible in the initial planning stages of an event and drive the business processes with a shared platform where all the involved planners have access to the same updated data. This will allow them to visualize their shared resources in such a way that both resource redundancy and conversely a lack of necessary resources are easy detectable. So, a corporate-wide integrated planning application with GIS as its backbone can provide substantial savings and better decision-making capabilities to organizing committees."

By Jim Baumann, ESRI

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