

Working on Node 3 A Retrospecti

Living in Torino, Italy, for the past three years provided a great opportunity to experience a different environment than my wife, Marty, and I had in all our previous assignments.

Torino is not one of the parts of Italy frequented by Americans, and English isn't spoken regularly. It was not easy for Marty and I to find our way with no English-speaking people to ask for

(Photos by Gerald Brandenburg, DCMA Southern Europe Italy –Torino).

for the International Space Station — We Look at Living and Working in Italy

*By Gerald “Jerry” Brandenburg,
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directions. It didn't take us long to find out that street signs are located on the sides of buildings. After dark, they are extremely hard to see, as most are unlit; however, following even the most detailed city map was no guarantee of finding your way. There was so much construction underway for the 2006 Olympics that street barricades, rerouted traffic and one-way streets usually led to getting lost.

One of our first tasks upon arrival was finding a place to live. We were fortunate to meet a nice woman who is a relocation specialist. She was extremely helpful and found us a house that suited our needs right away.

The house is in a small village named Caselette.

We were the first and only English-speaking people to live there. We were fortunate that our landlord who lived

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next to us had taken English in high school and was eager to practice her skills. She helped us with many of our questions.

The Ederle Army Post provided support for us, but it was located in Vicenza, 250 miles away. They provided us with brand new household appliances, kitchen cabinets — which we learned do not come with a house — lighting fixtures — also not installed in houses — and loaner furniture.

The distance from Torino to the base did present some inconveniences such as getting our mail and fuel coupons for 300 liters or 75.25 gallons per month, which are supplied to Department of Defense personnel to offset the high cost of fuel. We soon learned to deal with these and made arrangements as best we could for someone who was already going to the base to pick up everyone else's mail and coupons.

We also learned that the Italians do not pay a lot of attention to traffic signs and lights. They will make three or four lanes out of two and are always in a hurry. Running a red light when no cars are coming is quite common.

Trying to adapt to the custom of a late evening meal was not easy. Most Italian restaurants remain closed until 7:30 p.m. The only fast food available is from the occasional McDonald's. We quickly learned how to count and to order food. Once we accomplished that, we then began to feel like part of the crowd. Of course we were introduced to local wines, and after our first trip to a winery, we were convinced that Italy has the best wine in the world!

Working in Italy

Upon my arrival, I was met by the DCMA team lead, and she



Jerry Brandenburg in his office at DCMA Southern Europe Italy –Torino



Node 3, a life support center for the international space station, is relocated to another facility for further work.

introduced me to the program manager, product assurance manager and resident NASA liaison representative. They all spoke very good English, so I thought it was going to be an easy transition.

It only took the first daily meeting for me to realize that speaking and understanding Italian definitely would have been an asset. The Italians had an unwritten rule that if we did not attend the daily



Italian mountain highway

meetings, conducted in Italian, they would not provide us with a 10-minute briefing in English about what went on. Fortunately, I was able to hire a new employee who spoke and understood Italian. This was a great benefit, and I assigned the daily meetings to him. Working without any contractual authority had its disadvantages. We worked on node 3 — a life support center on the international space station that houses oxygen regeneration, air revitalization, waste management and water recovery systems — under bilateral agreements between NASA and the European Space Agency.

All the work we performed required approval by ESA and accomplishment on a non-interference basis. We could not affect corrective actions as we

could otherwise have done under a contractual basis. Therefore, we had to change our way of doing business. We soon learned that if we made a process improvement look like it was the contractor's idea, they would gladly implement whatever process changes were necessary. We got much more cooperation because of an opportunity for improvement than we did a corrective action request.

We developed an excellent working relationship with the ESA representatives. They eventually relied upon us to perform tasks that they might otherwise have had to do. When we encountered problems, we addressed them to the product assurance manager. In the beginning, this was a very difficult task and required a lot of tact and diplomacy. Our working relationship improved dramatically when we began working with ESA and the contractor on mandatory inspections that we were able to perform as a result of an amendment to the bilateral agreements. The contractor finally

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accepted us as part of the team. This was even more evident when ESA would delegate its inspections to the contractor with the proviso that DCMA be present.

The in-plant NASA engineer provided much help to us, especially in the beginning when he would tell us what went on in the daily meetings. He also helped us find drawings and procedures and provided advice for many of the non-conformances that we discovered. We worked closely with the resident NASA liaison and with her secretary, who provided great support in getting in-plant clearances and making hotel reservations for visitors.

We also worked closely with the vehicle integration and test team to ensure the quality of the manufacturing as well as the final closeouts of the interior and

exterior of the node and to ensure the requirements for safety and reliability for the astronauts.

The difference in time zones played a large part in our daily activities. We had to spend many evenings at the plant to attend scheduled phone conferences or after-hours meetings. During much of the testing, we worked around the clock to provide coverage. This entailed 12-hour shifts and work on the weekends.

Conclusion

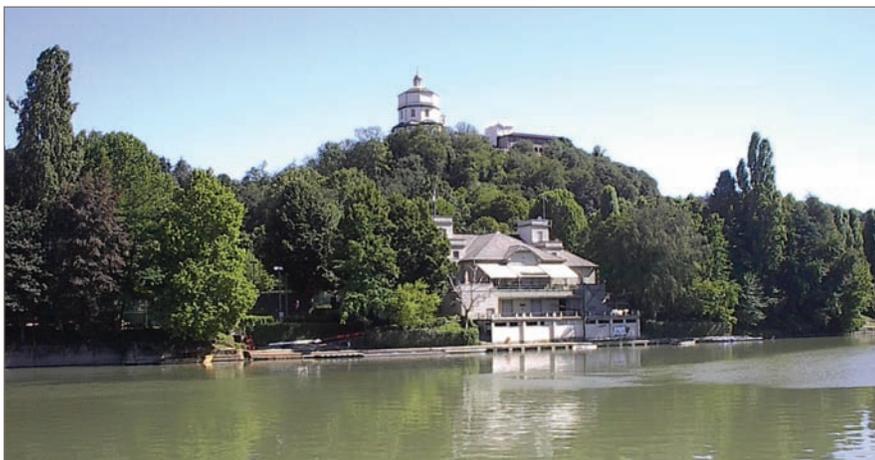
This was, by far, the most challenging position that I have held. Working with our international partners and all of the different visitors who came to do their parts on the node provided me with a great appreciation for the knowledge and skills possessed by each team member.



World War I monument

Now that node 3 is complete, I can look back with confidence that my teammates and I did our best to assure that this vital part of the international space station provides the required comfort and functional utility.

I know that node 3 will not present the problems encountered with node 2. I am very fortunate to have worked with the best people in the aerospace field and on what is destined to be one of humankind's greatest achievements. **C**



Along the Po River