

Where were you when you first heard about the attacks?

In Rosslyn, VA for Defense Messaging System meeting regarding the integration of cell phones. The Defense Information Systems Agency (DISA) was working on managing the networks between DOD bases. They were pulled out of the meeting and watched the news.

What was your professional status at the time?

USAF Major assigned as DISA program manager. She was defending their budget, specifically in regards to their work integrating cell phones into the DOD network. At the time, people wanted Palm/Blackberry devices integrated into the network, but the potential consequences had to be assessed by DISA first.

What were your initial reactions, and how did they evolve over the course of that day and the days ahead?

Professional reaction: Immediately after second plane hit, moved into accountability mode, trying to track down all of her section's employees (approx. 45 people), which took three days (see personal account #4). DISA, as a whole, was working on keeping the servers running in the Pentagon post-attack and keeping communications networks running. This is terrorism; who are we at war with- who represents them?

Personal reaction: First plane- accident. Second plane- attack. Felt violated, shocked alongside the in-your-faceness of an attack against civilian targets. The Pentagon, while the "seat" of American military power, is an office building. It felt so wrong. The attacks went against everything she as an American and a military officer perceived warfare to be. The lack of airplane noise in the D.C. area was unnerving (you don't notice the noise until it's gone). As time went on, realization set in that nothing would be the same again.

Did your professional life change because of the attacks? If so, how?

Not really. She remained in her job with DISA, which remained in its original mission. However, there was greater opportunity for deployment due to U.S. military action and the related need for IT support. However, that need for IT support had been pretty constant ever since the First Gulf War. War on Terror meant more, new places to go.

If you feel comfortable sharing any thoughts about how your personal life changed because 9/11, can you share these?

Col. Ramos did not share distinct personal changes, but she did mention air travel became and still is so much more difficult. Domestic terrorism around the same time changed how your mail was processed and received, plus there was fear following the D.C. sniper attacks.

What do you want the next generation of professionals in your field to know about 9/11?

Be prepared for emergencies. Develop Continuity of Operations (COOP) plans, practice them, and keep them updated. It might seem inconvenient, but old, unpracticed, obsolete plans don't do you any good in an emergency (see personal account #4). Consider how long it takes to retrieve backup data, especially during times of reduced transmission ability. COOP plans should be developed not just for IT, but all departments in an organization, and have established priorities. Don't assume that something can't happen.

Did the attacks of 9/11 and the subsequent response change your professional field, and, if so, how?

COOP importance was more prominent. Cyber/telecoms field: Pager spectrum got sold off to cell providers quickly. GPS added to phones. Iridium bailed out and given a guaranteed customer. However, a lot of change was already on the cusp- just accelerated by 9/11.

Do you have any photographs, letters, documents, or any other memorabilia that you would like to share with this project?

Picture of 147 W St. Verizon Hub damaged by WTC attack

Accounts aside from the questions:

1. DISA-managed servers in the basement of the Pentagon were damaged by firefighting efforts. DISA had to reroute network traffic and retrieve backups from separate sites. A lot of telecom outages occurred on the East coast due to damage to the 147 W St. Verizon Hub. DISA had to work on restoring DOD network service after its leased lines in the building were affected.
2. DISA brought cellular location technology to Ground Zero, where they searched for cell phones under the debris in hopes of finding survivors. These efforts were unsuccessful in finding survivors, however, did find remains which could be recovered. Post-9/11, legislation was passed which paved the way for GPS in cell phones. Of note: evolution of privacy concerns; past resistance to location services compared to now, where we volunteer our data.
3. Cellular networks overwhelmed by surge of usage (a self-inflicted DDOS attack). Some landlines went down. DOD networks were mostly fine due to their separate infrastructure and dedicated bandwidth. Blackberries continued working because they had access to bandwidth within the pager spectrum. This contributed to popularity of Blackberry devices post-9/11. Cellular protocols are much improved now. Cell phones typically were not personal, but

business. Military was concerned by this DDOS, even if its own networks were not affected. Iridium satellite phones gained importance and government funding.

4. Her DISA section did not have good recall rosters. Her section, since it dealt in finances, had flexible schedules and was never subject to emergency recall. Tracking down all her section members took three days amid the phone outages. Accountability on 9/11 was much different than it would be for something like a snow day. It took people in the Pentagon a lot longer to finish taking account of personnel.

5. Cyber critical infrastructure protection was no less or more important before or after 9/11, but there was a focus on the physical aspect. The Verizon hub wasn't the target of the WTC attack, but its damage was disruptive, nonetheless. Current physical protection measures, such as dedicated facilities and the security at data centers, are a development since 9/11.