THE JOURNAL interviews --
Admiral (Ret.) James A. Zimble
Navy Surgeon General during Desert Shield/Storm

by Ingeborg Sosa

JOURNAL: At what point of Desert Shield did the Navy become involved and consequently the Navy Medical Department?

ZIMBLE: As soon as President George Bush declared that we were going to respond by a show of arms and power to the Iraqi invasion of Kuwait, we had to send orders to our two hospital ships to get ready for deployment. This was even before the name Desert Shield was coined. Within five days, the US MERCY and US COMFORT were on their way via the Pacific and Atlantic oceans at 17 knots a day to the Persian Gulf. They arrived in that theater by mid-September, and although at that point they were only partially staffed and still missing some equipment, they were ready to treat patients from all three services.

JOURNAL: Was the Navy medical service actually the first US Medical Service in the area?

ZIMBLE: As a matter of fact, we did have the first medical support in the area because prior to the invasion of Kuwait, the Navy had already quite a sizeable presence in the Gulf to escort US tankers in the area and to provide some safety since several serious incidents had occurred in previous years. To give quality medical care to the members of the Navy, there was also a Medical Department presence afloat in the Persian Gulf. Every Navy ship was accompanied by either a physician or an independent duty corpsman.

In addition, every aircraft carrier had a surgeon and a general medical officer assigned. The carriers contained small 50-bed hospitals, flight surgeons, physician assistants, nurses and dental officers as well as a substantial staff of hospital

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Retired Admiral James A. Zimble was the Surgeon General for the Navy during Desert Shield/Storm. Presently he is the President of the Uniformed Services University of the Health Sciences.

corpsmen and dental technicians. We also had a small clinic attached to the Naval Support Activity in Bhahran. At the beginning of Desert Shield, we augmented that clinic with a surgical support team which we later replaced with a medical resuscitative team to be ready for actual combat.

JOURNAL: What training did you give your health care providers, both long-term and geared to the preparation for the armed conflict in the Gulf and to deal with that large number of casualties?

ZIMBLE: Of course, health care workers are in that unique position of doing to a very large extent, professionally during peacetime what they would be doing during combat--taking care of patients. Since certain types of injuries are more frequent during combat, we provide combat casualty training. This starts with numerous didactic lectures and seminar lessons where we stress combat surgery and how to take care of chemical and biological warfare agent injuries, triage and traumatic stress conditions. All of our personnel, just like the health care personnel of the Army and Air Force, routinely attend the C4 course which gives a very comprehensive orientation of combat casualty care. Additional training is provided to all personnel who move from a fixed hospital to a hospital ship. We acquaint them with life aboard ship and give them training in such basics as firefighting and various shipboard emergencies. Of course, all of our physicians are qualified in Advanced Trauma Life Support and Advanced Cardiac Life Support. We also have a fleet training center at Camp Pendleton, California, at the Marine Corps base. We have all our people, both active and Reserve, spend some training time at the fleet hospital so that they can become familiar with the equipment and working conditions on a ship.

JOURNAL: How did you prepare your staff for possible chemical and biological warfare, in regard to their own protection and in providing medical care to the casualties?

ZIMBLE: We always have a small cadre of specialized individuals who have been trained at the US Army Medical Research Institute of Chemical Defense at Edgewood Area, Aberdeen Proving Ground. We sent this group around to the various facilities to train our people in protective measures, such as effectively using antidotes against chemical and biological agents and in how to deal with the resultant casualties. Part of this team met the ships to be deployed to the Gulf region in Rota, Spain and accompanied them to the war zone, providing additional instruction along the route. The Navy was very concerned about mustard gas poisoning, since we had to presume that Iraq had large stocks of this poison left over from their war against Iran. Mustard gas not only causes blisters and lung damage, it also causes severe depression of the bone marrow. This caused us real concern. The Navy researchers had been working on a project to restore damaged bone marrow more quickly.

Our research was still experimental and had to go through the FDA and the NIH for appropriate investigation and approval as all new drugs are required to do. At the beginning of Desert Shield, we pooled our research with that done by Army research on the same subject and very quickly passed it through the approving channels. The pharmaceutical company then produced the drug for us, and as the air war started it was ready for use in Saudi Arabia to treat any mustard casualties that might have developed some bone marrow depression.

JOURNAL: Were Navy personnel, fighting in Southwest Asia, in the same danger of being exposed to chemical and biological warfare as were Army people.

ZIMBLE: The answer is definitely yes. We had Marine units assigned to the coast of Dhahran. Those marines would have been just as exposed as the forward Army units; as a matter of fact, they were involved in the early conflict that took place prior to the beginning of the ground war. Also, we had amphibious forces in the Gulf. Although they never made an amphibious landing, there was the potential that they would have had to go on land had there been an amphibious assault. They would have been in even greater danger of being contaminated. In addition, there are methods today by which chemical and biological contaminants can be dispersed onto ships. So we had to be as well prepared as the other coalition forces.

JOURNAL: How many hospital ships were involved in Desert Storm, and how many health care providers did you have in the region?

ZIMBLE: We had around 12-13,000 medical department people in the Gulf region, including physicians, nurses and corpsmen and other ancillary personnel. We took the medical personnel out of our facilities and later on they were augmented by the Reserves. We have two large hospital ships--the US MERCY and the US COMFORT. They are 894 feet in length with 105 foot beams (they will barely fit through the Panama Canal). The Naval Hospital at Bethesda was the sponsoring hospital for the COMFORT and the Naval Hospital at Oakland, California, was the sponsoring hospital for the MERCY. Whilst they have the capability to treat 1,000 patients, they were first staffed to be able to take care of about 500 patients each. However, by November, when word came down that there would be armed action, we used Reserves and medical elements of our allies, Canadian and Australian to flesh out the hospital ships so that we would have a full 1,000-bed capability. These hospital ships are, so to speak, mobile beds that can be dispatched fairly rapidly to just about any area of the world via sea. These ships not only represent rapidly available medical assets, they also carry a strong political message, that we are prepared to go into harm's way. Luckily, neither of them ever had more than 100 patients at one time on board during the combat. Each of the hospital ships

had 12 fully equipped operating rooms; they also had CAT-scan and decontamination capabilities for chemical and biological agents. They each could accommodate two helicopters at one time and off-load helicopters one at a time. The tri-service cooperation was demonstrated here in the most striking way. Army helicopters could bring in Marine and Air Force wounded that were taken care of by Navy personnel. The hospital ships really provide a marvelous environment during fierce combat to take care of the wounded.

In addition to the two hospital ships, we had seven amphibious assault ships (3 LHA's and 4 LPH's) in the theater, each of which could be converted into a 200-bed hospital with two to four operating rooms each. The three LHAs would actually first land the Marines for an amphibious assault, and then become casualty receiving ships with 300-bed capability and four operating rooms. We had a great number of medical personnel on these ships to back up the normal crew and to accommodate all casualties. Complaints surfaced in the media concerning Fleet Hospital 15--a sister facility of Fleet Hospital 5 near Al Jubayl. They were mainly about shortages of staff and outdated equipment. Those complaints were also made about our type of DEPMEDS hospitals. However, the alleged shortages would not have cost any lives. In regard to equipment, as technology moves along, it is very hard for the three services to store significant volumes of equipment in widely dispersed, prepositioned areas and to keep upgrading this technology from year to year to be ready to be used at a moments notice. What we shipped to the Gulf area was certainly better than what we had during any previous wars. My recommendation for the future is, of course, that any Fleet Hospital be kept at the latest state-of-the-art at all times, regardless of its mission, because we never know when a war is going to break out, and how long the medical services will have to provide support after the fighting has stopped. On the positive side, Fleet Hospital 5 provided care to 32,516 medical/surgical and 300 dental patients with a staff of 18 physicians. The injuries were mainly sports-related, but there were also 50 Americans wounded in action and we took care of quite a number of Iraqi prisoners of war. Fleet Hospital 5 was actually one of those that were prepositioned in Diego Garcia in the middle of the Indian Ocean at the Maritime Prepositioned Shipping and they were already in the combat theater by mid-September. The three fleet hospitals that were in fact DEPMEDS hospitals were 500-bed facilities. In November, we brought in two more fleet hospitals, one from Japan, the other from Norway, and staffed them with reservists.

We gained another 300 beds by staffing the host nation support hospital that was offered to us in Dhahran.

I would say that, by the start of hostilities, we had the right people and the right equipment in the places where we wanted them.

JOURNAL: How many reserves did you call up?

ZIMBLE: We called up about 10,000 Reserves. The Navy has no National Guard--it was all selected Reserves.

JOURNAL: How did the Reserves fit into the overall picture of your medical services? Did they seem satisfied with the expectations placed on them?

ZIMBLE: Like the other medical services, I can, of course, tell you some anecdotal stories. Since Korea, we had not called up the Reserves. They did not have to serve in Vietnam. We were geared to call up the Reserves should a major conflict occur in the European theater. So we learned some lessons and will have to do some tailoring for the future.

Initially, we had to call up people by entire units when we needed only about half of those people. We eventually got that sorted out and were able to call them up on an individual basis. We gave people some very short notice, and had problems with getting pay records straight. We also moved people around too much when there would have been a simple way to do it. For some of those called up, it created major private financial problems. But we noted all of these problems to avoid them in the future.

I had set myself the rule not to disrupt our training programs and not to mobilize any residents. I did not want them to have a break in their continuing education. Since, however, many of our teaching chiefs had been mobilized, I had to replace them by Reserve instructors. I applied this rule also to residents in the Reserves. Unfortunately, many other people were involved in the call-up process, and so we inadvertently collected about ten residents. Most of them were returned to their residency, about three were retained and a couple of them received credit for their service. One liked it so much, he stayed on after the war.

We tried to address problems as humanely and as individually as we could. Some people had simply the wrong expectations, others were of the sort that are never satisfied. They should not have been in the Reserves in the first place. Overall, the Reserves responded magnificently, they were a superb group working alongside the active duty personnel in a spirit of cooperation and friendship. It was to me a shining example of a success story, which was also recognized by the past Commandant and current Commandant of the Marine Corps.

JOURNAL: One of the big problems in Southwest Asia was the unusual terrain--a large desert with extremes of climate, heat and cold, sand, and monotony. Did the fact that your staff was mainly operating from hospital ships exclude some of the problems that the other services had to face, like poor sanitation, and preventive medicine problems such as diarrhea and shigella?

ZIMBLE: We did indeed have many of the same problems. We not only had many people on the ships, but we took care of the Marines who functioned under the same combat conditions as Army people did, and therefore experienced the same problems. Like the other services, we had the fewest problems with infectious diseases of any war. There were some problems with heat exhaustion, some diarrheal

disease and some dermatological problems. The preventive medicine teams were in the theater very early on during Desert Shield, and once our soldiers stuck to the discipline outlined by preventive medicine, the problems were very quickly eliminated.

The Navy also has an Infectious Disease Laboratory in Cairo that was quickly augmented by some researchers from the States. They formed a Navy Forward Laboratory that deployed to the front lines to serve the Marines. This Forward Laboratory linked up with our preventive medicine units and could perform numerous state of the art procedures like DNA probes using PCR technology. Both endemic infectious agents and potential bacterial and chemical warfare agents could have been detected with that technology. They also did some disease tracking, and infectious disease reporting. As a matter of fact, the Navy Forward Laboratory had the capability of becoming the reference laboratory for all the deployed forces.

JOURNAL: Did you also make tests for the Army and the Air Force since you had that big laboratory?

ZIMBLE: Yes, we certainly did. Early on, our hospital and the Fleet Hospital in Bhahran were the only referral facilities available for patient care. About 50% of our patient load was Army, 20% Air Force and the rest were Marines.

JOURNAL: What medical services was the Navy medical service prepared to render?

ZIMBLE: We were prepared to take care of trauma and we did take care of trauma cases resulting from sports injuries, automobile accidents and other injures that are always associated with large groups of young people. Since we had many military females in Saudi Arabia, we took care of the wide range of the usual type of female problems. It took a while until special equipment arrived, such as endoscopes, that one needs to deliver day to day medical care to such a large force out there in the desert. One factor that worked in our favor was that alcoholic beverages were prohibited in Saudi Arabia. That saved us from a lot of unnecessary accidents.

JOURNAL: Would you say that you had all medications and all equipment in the right place at the right time? How did you solve the logistical problems?

ZIMBLE: Yes, we found some glitches. One of our bigger problems resulted from a premature decision to go with a single supply center. That supply center, the MEDSOM, was not ready to take care of such a huge deployment at such short notice. It was overwhelmed for a while. Our fleet hospitals each had a 60-day supply and the hospital ships had a 30-day supply. Of course, since we did not have to take care of the expected number of casualties, we were in reasonably good shape. As a matter of fact, our problem was not so

great in regard to getting medical supplies, we had greater problems at first with food supplies. On the medical side, we wondered if we would have enough external fixators to handle the expected orthopedic cases in a worst case scenario. The Marines carried a 60-day supply of their own.

JOURNAL: How did you evaluate the help in terms of personnel, equipment and money given by the Allied and Arab coalition forces?

ZIMBLE: Overall, we worked very amiably with the Allied and Arab Coalition Forces. We got good support when we needed it. However, most of the coalition forces were in the west, so the marines who were on the eastern corridor had to be pretty much self-contained. We had good interaction with the British in the Bhahran area and the Japanese gave us some much needed vehicles and a CAT-scan. I think that during this first endeavor for so many nations to fight side by side, we proved that it can be done effectively.

JOURNAL: Were you impressed by the cooperation and sharing of resources with your sister services?

ZIMBLE: Yes, I was very impressed. The three Surgeons General met at least once a week and went over the issues on how we could exchange and help each other. We also met with the Assistant Secretary for Health Affairs, Dr. Enrique Mendez Jr., and the Chief of Staff to ensure that we all knew exactly what part we had to play in this huge deployment. In Southwest Asia, the Navy and the Marines did not interface that much with the Army and Air Force, since we were stationed in a different area. But when we interlocked, we worked almost as one team.

JOURNAL: Did you have any problems treating family and dependents? Where there enough resources left at home, and did you have support programs?

ZIMBLE: We had two waves of our active duty officers deployed to Saudi Arabia. Of course, there were those periods when we were very short of physicians and waiting on the reserves to backfill the hospitals and the teaching programs. We also had more CHAMPUS authorized by the Secretary of Defense to take care of the soldiers and dependents in the remote areas. Yet our CHAMPUS bill went up less than that of the Army or the Air Force. Primarily, however we depended on the reserves and they did a great job.

JOURNAL: Do you think that recent Congressional pressure to reduce the defense budget and personnel strength will ultimately effect the medical department's readiness posture in regard to future conflict?

ZIMBLE: So far, we are doing better than the rest of the military forces. There is a good understanding with Congress and the

military chiefs, that, even though the force structure decreases, the overall workload, the demand for medical care placed on the military medical departments, is not decreasing significantly. We never had enough resources to provide easy access to all, and there will be a rise in the total number of patients as the retired community becomes larger. Beneficiaries will join the retired community at a faster rate then retired members will be leaving that community. Of course, we still have a U.S. Navy, so we still have to place health care workers in operational assignments on those ships to take care of forces that are afloat. So whilst we will lose some people who are assigned to organic elements when those elements are closed or reduced, we have to have enough personnel to be ready at a moments notice to deploy should another contingency like Desert Shield/Storm occur. We may also be able to incorporate some of our beneficiaries into the coordinated care situation, but in-house medical care is still the cheapest way to go. Although the Soviet Union no longer poses a major threat, local conflicts continue to break out all over the globe. When the U.S. military forces are asked to intervene we must be able to meet our obligation to provide quick, quality medical care. So far we can demonstrate that the need for a strong, well-skilled Navy Medical Corps still exists.

JOURNAL: What are the major lessons learned by the Navy?

ZIMBLE: We are still collecting facts and figures about Desert Shield/Storm. But some of the most obvious problems were, for example related to connectivity. We have to have better systems for communication, and by that I mean voice communication and data transfer so that supplies can be replenished more quickly. I am not so sanguine about our ability to move patients from point A to point B. We still need more research and training on how to deal with chemical and biological agent casualties. We need to do better in mobilizing our Reserves and we must develop training programs for the Reserve personnel to familiarize them with specific combat conditions in unusual environments. We had anticipated a casualty situation which luckily did not occur, but in spite of this, we demonstrated our readiness and were able to test our capabilities. I feel very emotional and deeply grateful when I think of the many health care workers who were part of accomplishing the monumental task of deploying the Navy medical services to Southwest Asia and who assisted the military coalition forces to achieve such a victory. To all of them I know I speak for a grateful nation by simply saying thank you. •