NATIONAL MUSEUM OF THE UNITED STATES AIR FORCE

Wings & Things Guest Lecture Series

Six Months with a CCATT RN in Afghanistan

Lt. Col. Deborah Lehker speaks about her deployment to Kandahar, Afghanistan, as a Critical Care Air Transport Team (CCATT) nurse and the goal of enhancing patient care.

Lt. Col. Deborah Lehker: Good evening everyone. Can you hear me? Everyone hear me good? Hi. I'm very honored to be here tonight and to share my story, my career and my lifetime passion of being a nurse in the Air Force and in my civilian job. Before I get started, I want to let you know, I want to thank all of the people that served, that have family members serving out there, and those that will serve in our future. I have been blessed to be in the Air Force Reserves and I joined as an older nurse and it has been an exciting adventure and I'm going to share my story for you, for what it was like when I started there in Afghanistan, and how we go about picking up a critical care patient.

So everybody knows what CCATT is. You've heard of the Critical Care Air Transport Team, consists of a physician which is usually trauma or an anesthesiologist, a Critical Care Nurse, a Respiratory Therapist. It's a team of three. We can take up to six critical care patients, three which is on ventilators or breathing machines. So it can be a very busy mission, and you are the only team in the air. And if you think about it, in the hospital, if a patient gets bad, you call a team. Well, in the air there is nobody. You have to rely on each other, so, it's definitely a team effort.

This is one of my pictures. Also, do you know that CCATT teams, we don't just transport our own forces, we also transport coalition forces. About 40% of the patients I transported were all coalition forces; Romanian, Bulgarian, Brits, Germans and Canadians. This is Danny Scott. This is Danny Scott that I transported February 14th of last year, who came in to us with a pancreatic injury and we're sending him up to Germany for more care. I still keep in touch with him and his family today.

I do have some humor, as nurses, we all have humor. So, and especially being a nurse in the military, you wake up and done your U.S. Air Force combat uniform, complete with boots and dog tags, and you accessorize it with a stethoscope, trauma shears and a pen light, and feel more pride in that uniform than you do in hospital scrubs. This is the day I landed back in country, at March Air Force base, and I found out that I was going to be the chief nurse.

The 7 Meds. My team. Very blessed to have a wonderful team. On the right is Doc Ryan, in the middle is my Respiratory Therapist, which is Ruben, and then me on the left. We wear the mask, and I'll show you later on why we wear the mask, and we're in the back of a Humvee on our way up to Camp Bastion to pick up a patient. And you'll see why

we're wearing the mask, as you see in the dust in a few minutes. This is a turret. He is standing in a turret. Does everyone know what a turret is? This is where a lot of our injuries are coming from our patients that come in. you're supposed to be seated in that and buckled down. But then they can't see very well. So when they hit an IED, or a roadside bomb, they're usually thrown from those vehicles.

This is camp; this is where we camp every night. This is Camp Kandahar. How many of you know that camp Kandahar has fifty plus different countries in that base? So it's no hat, no salute, which is kind of nice, because you never know what rank is which, and you do learn very quickly. Bottles of water, because you're not allowed to drink the water out of the tap. You brush your teeth with that, and you drink that only, because you don't know! What's the best way to contaminate your troops, is through their water source. But we don't know what their purification system is, so most of it, you can shower, but you can't drink it.

This is my cubby. Imagine living in an 8x10 little cubby. There are six women to a room, and there are seven rooms in a mod, and there is one bathroom at the end. So do the math. 6 times 7 is 42, one bathroom, three showers, two toilets, and four sinks.

These are bunkers. And if you notice, they're all surrounded by the mods. We're very well protected, but when the alarms go off, you have two minutes to hit the floor. After two minutes you head to the bunkers. This is what they look like when they're empty, and this is what they look like when they're full. Sometimes you can stay in there for a long time, and sometimes you can clear, when they find it safe to get out. So we call them bunker parties. There're sometimes we would be in there, we actually sometimes had lawn chairs in there, and snacks and food and water, because you never know when it would be time to go out. And two and three hours is a long time to be sitting in there. So you get to know your tent mates and your bunker mates really quickly. And also if you're working in the hospital, you have to take all your patients out there too. You can't leave them in the hospital. The only ones left behind are the ones on ventilators or breathing machines, and it's usually a nurse and a tech that's left behind to watch them, in full gear.

This is our bathroom; this is what you use every day. And we don't have to clean them [laughter]. You know as a male trainers when showers become available and you comment that four minutes is a waste of time and three minutes is plenty of time. So those women that are out there, you decide whether you want to wash your hair that day, or you want to shave your legs that day. So you can take your pick. It's true. We also have to clean our mod. Mod gets very dusty. The dirt over there gets in everything, including equipment. You can clean that day, and the next day it's all muddy and dirty again. So we actually have to dust and vacuum and mop every day.

Stressors of flight. These are things as a nurse that I think about when my patients are flying. There's a lot of things when you fly in the air, because sometimes they're pressurized, and sometimes they're not, depending on their injury. You have to worry about pressures of oxygen, barometric pressure, the humidity, the temperature. If your patient's cold, they don't heal very well. You can start a whole coagulation cascade,

which can cause them to bleed out. You have the noise, you have vibration. Imagine being critically injured, and that plane is shaking and vibrating quite a bit, and you have casts or splints on, how painful that is. And G-forces. Landing and taking off. And a head injury patient. We had to think about how we're going to load them. We're going to load them head first, we're going to load them feet first on the plane. And increase of fatigues. Some of the times these kids are up for days at a time.

These are the kind of patients that we took care of and transported. Burn patients, head patients, blood discaries [phonetic]. We were exposed to the Crimean-Congo hemorrhagic fever, which is an Ebola virus, while we were there. Trauma patients, ventilated patients, chest tubes, cardiac and respiratory patients, a lot of patients had heart attacks out there in theater. Abdominal surgery, and cast management. With barometric pressures and partial pressures of air, people that have cast, you've had to bi-valve them, because as gas expands when in the air, and the cast is too tight, you can cause them further injuries. You have to make sure you bi-valve, which means splitting the cast up the side.

These are your typical burn patients that we have when we come in there. Some of the patients that we see are, most of them are our forces and coalition forces, some of the pictures are graphic. And it's not meant to exploit our troops at all. It's what we see day in and day out. It's what we do to take care of our patients and where we start and where we end up those. And why they come back to the state in some of the conditions they do.

Part of the burn patients you have, is like, when you have compartment syndrome. And you'll see in this picture right here, we have to do escharotomy, you have to relief the pressure because the skin is so tight. Otherwise you get compartment syndromes, because you could lose limbs. Things you have to think about for flying. Multiple burn patients. You can actually, in some of these pictures, look and see how many of you know we have helmets and flak vest? How many of you know where the flak vest usually end? They end right here. So take a look at where… what's burned and what's not burned on these patients. And actually it burns through their cloths and their shoes. We have chemical burns, too. Because remember, some of the bombs they have, they put whatever they can in there. How many of you think about flying shrapnel, you hear about they put bombs in animals and stuff on the side of the road, or suicide bombers? We know that our shots are up to date, right? But theirs aren't. How do you know they don't have hepatitis, HIV? So when our troops come back, we know that they've been exposed to a suicide bomber, we have to do a lot of testing on them, make sure that they're protected against HIV, Hepatitis A, Hepatitis B, and other diseases that are out there. Look again where his burns are. Can you see where the flash burns are? He actually did very well. Superficial burns, you can treat that very easily and you won't scar very well.

Another one. You can see where the back of his helmet was. Just where it ended and his arms were exposed. Now the new flak vest, a lot of them have the shoulders, and you'll see in some of the gunshot wounds that we have in here, why it's important to have those longer shoulder pads. This is another chemical burn that you have. He actually had his arm out the Humvee.

A lot of head injuries as well. Some troops, they get so hot out there, that they take their helmet off, and then they have to wipe their brow, well they're watching. So no matter how hot it is, you have to keep that helmet on and that is what we teach them. Sometimes too as they'll put the bandanas in their hats, to help with the sweat, because you get so sweaty. The helmets haven't changed much from years ago, where it still has the leather inside, that's still kind of ruff, so it still makes you sweat a lot. You need something to absorb that, so you leave that helmet on at all costs.

This patient is a patient that was actually in shrapnel. There were some before pictures in here. We have trauma surgeons that are phenomenal. This guy came in, we're going, "oh my gosh, it's terrible." The surgeons that we have, and do you know that coalition forces are operating on our surgeons and we're operating on their patients as well. They are… their technique is great. We have 98% survival rate now, and we're able to save pretty much anybody and everybody. They do a phenomenal job on saving our troops, and the techniques they have. And to work alongside a German surgeon one day, was just great. I learned a lot from her about Ostomy care.

Back at the head. How many of you have seen some of the other helmets where they're shorter? Now they're getting the new helmets out that are longer, because of the protection that they can give from the back of their heads. We have some great technology out there. We have CT scanners and X-rays. Everyone know what a CT scanner is, right? Everyone knows what an X-ray machines is, right? I had somebody ask me well why don't you have an MRI machine? A warzone, MRI? What happens with MRI? What does it attract? Metal. So I said we don't have any of those in theater. But you can see we can get better pictures with the CT scan on these patients to find out why they have, what's wrong with them, and get them fixed. Do they need a drain on their head? We don't have to wait anymore. We can actually start them in Kandahar and Bagram, get tubes and drains to drain any pressure on their head and get them on up to Germany. This is another. This is the new 3Ds that they have out there. Is that not cool? You can see exactly what's wrong with that and that's down in Kandahar as well and you can see what's wrong and where they might have shrapnel or something, before you take them to the OR.

Mass casualties. Mass casualties come in in droves, you never know if they're one or two. In my civilian hospital, when we have a mass casualty come in we just get on the phone and ask people to come in. When we have a mass casualty over there, they actually put a call in, everyone's page goes off, manpower, more people come out of the woodwork, pilots come out. Before, pilots would never come out. I have seen pilots come in to comfort patients, wash their face, sit and talk to them, and hold their hand. Which is truly heartwarming, it's truly, everybody's there to help everybody else out.

This is open heart massage, if you haven't seen this before, they do everything they can to save anybody. Shrapnel. Flying shrapnel pieces, that's actually a piece of bone from an animal that went flying. This is… how many know what an M60 is? This guy was hit with an M60 and he unfortunately, he did not make it, but they were trying to find out

where he was. Sometimes they can patch it but they just couldn't find and stop the bleeding in time on him.

Flying shrapnel again, pieces, everyone knows what a shrapnel is, correct? They fly, they actually cut through his clothes and through everything and just cut the whole top part of his leg off because it was just flying and you think of velocity and speed of stuff that's flying through the air. They go from being in there to the trauma surgeons and they actually, the trauma surgeons would actually go directly into the OR. This was actually the OR. suite and they have tourniquets. Everybody in theater, foot soldiers, Army, Navy, Air Force, Marine, all have these new tourniquets out that are on there and we all carry medical packs so everyone is taught self-aid and body care to put tourniquets on. And those tourniquets saved this guy's leg. Never use your own though.

X-rays. Another X-ray of a foot. The next couple of pictures are showing you why our troops are coming back with amputations. Some are salvageable and some are not. Some have external fixators which will show you, that can help realign but some of the vasculature is just so far gone that they can't manage it anymore. This is one of those I told you. It's just not, the limb was not viable so it's one of them unfortunately that lost a limb. This one was. This one was able to put an external fixator on and save them. You can see that it has multiple fractures. If you can see the other one up here, this guy had his hand and was trying to disarm something and he was too close. So they actually ended up sewing that wrist hand that closed.

Wound care is very important. How many of you know during the Vietnam and Korean War most of the troops died of wound infections because they didn't have anything? Nowadays the wound infection rate is 98%. That means only 2% get an infection of some type. Same kind of problems that we're fighting in the hospital. Everyone's heard of MRSA, VRE, center bacter [phonetic], same problems are occurring over there. When we did that wound care in there, there is no standard protocol that we're trying to initiate now in theater for correlation so since we're taking care of each other's troop just basic wound care is enough to decrease the infection rate another percent or two. So it might be a hundred percent decrease so it won't have any infections.

When you do a wound care, a lot of it is surveying the wound and looking to make sure there's no extra debris in there. Making sure that there's fractures. We have found fractures on patients just by doing basic wound care because when you do a first and second degree on a mass casualty you're looking for what's basically wrong with them. Sometimes you'll find something … the enlisted will find it. They'll do a great assessment on these patients, remove a dressing that didn't look very like it was something important, look underneath and found shrapnel stuck in them and they'll actually go to the OR. and debride it. And sometimes it can cause problems.

Premedication. How many of you know our troops don't like to have medication? [laughter]. They don't, you know they say "oh their wimps" or something like that. They're not. They think it's manly not to have their pain medication so we have to really convince them. Take your pain medication; you're not going to heal unless you have pain

medication. In-flight route is not the place to do a dressing change, a tube change, start an IV or intubate. Everyone knows to intubate a patient means put a breathing tube in them, because it's dark, there's no rooms on those planes which you'll see in a minute. The increase of contamination because you don't know what's in that plane and there's no place to put the dirty dressings when you're doing that. So we try to do infection control in there.

And weather and turbulence, how many of you have flown in planes especially in combat, it was my first experience as time as when you circle and then you dive again and trying to take care of a patient doesn't work really well. And the temperature inside. They're better now. From what I heard from some of the vets talking to them, the planes used to be really cold, very uncomfortable, now they're able to control at least the C-130s and C-17s. KC-135s? Not so much, but they're getting better at doing the weather control.

Part of my certification is I was actually doing some scalpel debridement, sharp debridement on a patient and the guys, the tech actually found this, said back there was Major Lake, he says Major Lake this guy is complaining his arm's still hurting. They had actually can see the circle debridement that he had in the OR. so I went and he actually had some more debridement that was festering and coming up. So I actually ended up cutting in a little bit more and removing some of that.

So you teach your Techs how to do dressing changes? Gunshot wounds, does anybody know what that is? An M-16 went through and through. This guy was really lucky, it went through here and back out the other side. But just to look at the wound and contamination on that. An M-16, a little bit bigger whole. He had his arm like this, getting ready to shoot and it went right through. He actually broke his humorous, which is the bone right here, and this is the external fixator I was telling you about. It's a temporary fix for the patient till he gets up. He'll have to have what's called another washout or another debridement as he gets to the next level of care. Which is usually Germany before they head back home. He was awake, alert, and oriented at that point. But again, pain medication was a problem getting him to take anything.

Chest X-rays, lot of Chest X-rays, getting a lot of gunshot wounds and they come through the side, okay? Or they fall out of the turrets or motor vehicle accidents which they do too when they hit a roadside bomb. You get a lot of broken ribs and anybody can spot, other then the one right here? Do you see any other broken ribs? See one way over there? So the 3D X-rays are great. And this right here, this long one, does anybody know what this is? Chest tube. Everybody know what Chest tube is? It's to help with relieve pressure on your chest, or its collapsed lung to help get it inflated again.

Gunshot wound again with an external fixator. Interesting exit wound on this one. This one is one of my favorite [laughter], happen to go to the OR. you laugh, it's funny. Do you know how many times…this book is in 2004, do you know when they first came out with that book? World War II. You betcha! And they've just evolved since as a CCATT nurse, I have to know that book too. As a CCATT nurse, I do chest tubes, needle crikes, surgical crikes, venous cut downs, A-line insertions, and pretty much a couple of other

things too. So we have to know that too. Or if the Doc's busy with the trauma patient on the flight, I have to be able to recognize something and be able to "Hey, you need to fix this over here on this patient," so it's kind of like it's definitely a team effort but it is pretty funny isn't it? There was, and I happen to be in there, there was an interesting vascular procedure in there and he knew he read it in the book. So he says, "go get my book", and we all carry those. Mine's got all these tabs on there but he found a way to bypass it and was with using some kind of special graft that they had, and that's when he remembered using it. So if you don't know, you use your resources, right? And that's his resource.

How many of you have seen a liver laceration? The flak vest especially for me, I'm tall and I have to wear a small, it only comes up to here. So what's right here? That's actually a liver laceration on that person. So stuff gets in there and pings around, and this is a Fasciotomy and that's actually somebody's leg. Does anybody know what that is? Fasciotomy? Remember in the burn patient we talked about an escharotomy with the pressure? When somebody fractures a long bone, what happens? It gets black and blue, it swells, right? Well, the skin is holding it. If it's a closed wound, the swelling, and swelling, and swelling, how many of you have your arm fall asleep, right? From something or you've had…we use to wear those knee socks with the rubber bands, your legs fell asleep? [laughter]. Dating myself. The fasciotomy is done on both sides of a leg or an arm, or sometimes your thighs to relieve that pressure. If the pressure's not relieved, blood will continue to build there and put pressure on your artery, nerves and veins. You can actually lose a limb. So it's actually a way to relieve pressure, do we create another wound? Yes. But did we save his limb? Absolutely!

Flying shrapnel. This is something that they pulled out of someone's belly. The velocity is just incredible. Now I'm going to show you, we're going to start with how the patients come in. We still use the same Helos that they've used the last few years and I tell you when you hear those come in, it's kind of emotional, and everyone's kind of waiting to see what comes off of it. When they call a mass casualty, our team has actually helped with a mass casualty because there was another trauma team that come in. When they come in, you wait to see if they're going to bring a man or they just leave them out on the tarmac. If they leave him out on the tarmac, it's very heart felling and very emotional for everybody. So they come in and they get triaged, but I want you to see who else is out there other than the U.S. uniforms. Does everyone see the different uniforms out here? Canadians, Aussies, they all take care of our own, of everyone else's troop. In Kandahar, the Navy runs it, there's Aussies, Brits, there's a French Surgeon and a German Surgeon there when I was there. Doesn't matter what uniform you have on.

This is what the Trauma bays look like. This is the old one. When I left there, they finally opened up the new hospital. Kind of archaic, kind of like a new modern MASH, it's in a wooden building. The OR suites were off to the right, but it's served their purpose. They go directly from there, to the OR., to the right hand side. They had two OR suites and if there wasn't any OR suites available someone needs to go they did it right there on the trauma bay. Okay, then after the patient…while the patient's usually in surgery and I know that we're going to be taking the patient, we usually actually carried cellphones and

we got alerted so we go to the AOT [phonetic] which is where we go get report, find out what's coming in, they're putting the patient into the JPMRC.

How do you guys know the patients get into the system? When a patient comes in, any Army, Navy, Air Force, Marine, and they need to go home or go to Germany; they're put into a system. We have a team of nurses and techs and a flight surgeon that oversees that. They start putting this information into the system, saying "hey, we need this person out right away." They're either categorized by urgent priority or routine. Urgent patients we have 12 hours to get them out of the theater. Priority patients we have 24 hours to get them out of the theater. It means they're critical but they're stable at the time and they'll be okay to wait. And then the routine ones are 72 like the gunshot wound, he's got good pulses in his hands, he'd meet a certain criteria, we have 72 hours to generate a mission to get him out of theater. So if you think that patient came in, went to the OR, I have 12 hours to get him out of theater. They alert us right away so we start gathering our gear, we look at the report, see what they need, and then right when they come out of the ORs we'll go to the ICU and we'll start packaging this patient up.

If they meet our criteria, which is a whole another thing, we will package them up which could take another hour because we have to make sure that they have certain criteria for us to fly. Because remember I said about not being able to put tubes and drains in the air? They have to have a tube in their nose to decompress their stomach. They have to have a Foley to decompress their bladder. If their airway is compromised or they're not able to breathe on their own, they have to have a breathing machine; they usually have to have a central line. Because how many of you had an IV in your arm? And they don't last very long sometimes and when you're trying to recover someone, and push fluids in, you need something that's going to be able to handle that. So we usually had a central line. And they had an arterial line. An arterial line is sometimes they had injuries on their arms and you couldn't monitor their blood pressure, an arterial line is a special line for us that goes on a monitor that we can see what their blood pressure and heart rate is every second.

So we get our report and the first thing I do is I make my bladder gladder before a flight. And you'll see, and I'll tell you why in a minute. This is our gear, CCATT people; we carry 800 pounds of our own gear. We carry enough gear to sustain 6 critical care patients, including ventilators, triple channel pumps, suction machines, O_2 equipment, extra equipment in the air if we have to do a crike, a chest tube in the air. Put in an extra line. We have everything in those bags to do it. And we carry them ourselves; we actually lift them and load them. So these are the equipment considerations that we have. The ambIT PCA pump that is a patient care analgesic pumps so some patients can push their own button. Striker nerve blocks, sometimes instead of giving them all the pain medications, they'll do a nerve block. If you've ever had orthopedic surgery or something where you have a really painful surgery, they'll put a block in that limb so you don't have a lot of pain.

External fixators we talked about that, CAS care, splints, cardiac and a zone monitor. Some patients are so unstable that sometime we have to have a cardiac monitor and you'll have to either…they'll code, you know what the word "code" means? We'll have

to jumpstart their heart, we have to carry that, but you have to tell the pilot before you jumpstart them because we were told that it could interfere with the plane. Triple channel pumps, that's the IV pumps and oxygen tanks. On a C-130, is everyone familiar with what they carry? They don't carry oxygen so we carry converters on there. We actually carry electrical converters on there. As a CCATT team, we have to look and see, this is what takes so long when we plan. We have to look and see how much O_2 they are they going to need from the time they're from the hospital to the plane, how much O_2 they're going to require on the plane, how much O_2 they're going to have from the plane to the hospital for ground? You have to tell the pilot how many amps you're going to pull on every piece of electrical equipment you're going to plug in. So he knows how much he's going to need when he starts that engine up.

This is the dock; we're on our way to package a patient up. How many of you know what a spine board is? Those orange things that usually the paramedics or EMTs and the civilian jobs put you on. Air Force has something better. That yellow thing, you're going to see it in a minute. It's called…it's a new spine board, vertebral spine board. It's fabulous. We have a patient we're going to go pick up on a spine board. We have to think, "okay, this patient, what we're going to put on the plane," we put on that truck. What we need to go package our patient up, we have to start thinking we're going to need a ventilator, we're going to need suction machine, we're going to need a Triple channel pump or 2 Triple channel pumps, we're going to need… Who knows what a wound VAC is? Sometimes they need a wound VAC. So we carry all that in to the hospital to start packaging our patient up.

Once you package the patient up, you put them on a litter; you put what's called a black smead [phonetic] over the top which we'll show you in another picture. You load all of that electrical equipment on top of that, and then you load them on a bus, and then you load them on a plane. Look how many people it takes to carry one. If you imagine that our average Marine, Army guy is about 200 pounds, and we're adding 70 plus more pound of gear on top of that to carry them.

I have a little video that we're going to show you. I actually have two of them that are pretty cool. This is carrying them on to the plane. This is the C-17 and we're going to lock him into the extension. How many of you have seen the inside of a C-17? And then there's the spaghetti mess on top which I call it. That's my R2. On a C-17, they have plug-in for oxygen and plug-in for electricity so I don't have to think a whole lot when I have to calculate O_2 and electricity. Thank god for AE, the aerial vac teams.

Now we're in the plane and we're flying out of Kandahar, this is what Kandahar looks like right outside the base. It's a lot of agriculture, and this is important, why? It's because every day about 5 or 6 o'clock we would get mortar attacked or something lobbed into the base. And rumor has it, from the secret squirrels I call them, is that the farmers would do their job, and then that they would be lobbing stuff into the base. And the story goes with that is that they are threatened by the Taliban to do it and we could always tell when it was farmer because it's usually right after farming time was over.

They would find stuff that was mortar or are launched into the base in wells and right outside their field and haystacks and stuff, so it's kind of like when we knew.

This is another great picture of the agriculture, naturally we get some of our food is from them, but we have to make sure it's washed and inspected before it comes into the base. Fruit and vegetables aren't really plentiful over there. You get them but when…like when they get bananas, if you're not there right when the DFAC opens, you can forget getting a banana.

Inside a C-130, you saw the inside of a C-17; look at the difference in this. This is at night, this is a night mission and when we take off, everything's got to be dark; does anybody know why? You're a sitting target even out those little windows. This is going to be a take-off. Look at what these kids go through. Look how bumpy that is. Pretty sedated for take-off. A lot of times they're sitting in the side of the C-130, and we have our feet up like this bracing to make sure it doesn't bounce as much. But look again at all the equipment and the tubing and the wires and stuff. The doc loved me because I have everything marked; I was real anal [laughter].

You always knew you were going someplace that wasn't really safe to pick up somebody that was really injured that couldn't make it to anything other than a FOB. And this is a Raven, is what I call them, there are as I call them secret squirrels. You knew when they were on your plane that was going someplace that wasn't going to be very safe. They get off the plane before you even do; they get out with their weapons loaded, and look and make sure it's safe. They escort you to wherever the tent or wherever the patient is to package them up and send them back. Shot at a couple of times but thank goodness they were bad aims.

This is on our way. How many of you have heard of the Helmand District, or Camp Bastion, or Leatherneck? This is on our way down to there to pick up patients. The topography is very interesting. This is all red and all of a sudden you can see like a demarcation that its mountains, kind of Biblical if you think about it. Remember the mask I told you we were wearing? This is why. We're in the back of that. They're coming to pick us up. That's what it looks like. And this is the end of the runway. We had to get off to the very end because other planes were coming in. So when you're sitting in the back of that and that's kicking up that dust, we were filthy dirty before we even got off to go get the patient so, but that's how we go get them.

The inside of a C-130, again, and just to show you that there's a team effort. This guy is watching, he was great! He used to come over and found him in a lot of our…he's actually a maintainer on the plane and he would always say "you need anything? You doing okay? Is the temperature, okay? You need a blanket?" No we're fine. Speaking of blankets, this blanket was made by some women on the East Coast. Thanks to your efforts and many other people, our troops are kept warm. How many of you have been…how many of you like wool? Oh good! Nobody else does! [laughter]. When you're injured, you're burned, you have really bad injuries, do you know when to come in as a trauma patient they cut your clothes off? So what do you have on? Not a whole lot. We

have had multiple people that have donated sweats, and t-shirts, and underwear, and socks so we can have something to put on them because their FOB could be how many hours away? For clothes to wear, and then the blankets. This is a quilting club from somewhere on the East coast and Virginia, a friend of mine and they did quilts and they wanted to help. And I said the blankets that they're sending us are too big, some people made some. But if you think you're on a litter and it's only this big, you just need something to cover, just the basic and it's not hanging off and in the way. And these quilts…and I made sure that they went home with these patients, they had their name on them and when I dropped them off in Bagram or in Germany, they made sure that they had a label on so the patient can carry that back with them and each one had a tag on it. Also had a Girl scout troop, some 7 and 8-year old girls made rag blankets and I took a picture of them and sent every…everyone that sent me a quilt got a picture and I sent it back to them via email that where there blankets were going.

Inside a C-130 when they're stacked up, there's actually three patients there. You can see the RN way in the back; he's taking care of a cardiac patient and another one here, another one here. So when you're on flight, and the patient's not doing well, you're supposed to be seated down but when you're not, guess who gets to stand up strapped next to the patient? It's always the nurse! [laughter]. It's always the nurse! But that usually everyone takes care of a patient.

This is a head injury patient. Most of the time you load your patient feet first but because of stressors of flight, this guy was loaded head first. Studies have shown that you load your head injuries head first just because it does better for their head for pressures in their brain.

This is why I go to the bathroom before we take off. This is a honey pot and it's not very conducive to women because well, you have to completely strip to go so…and how many times you take these off and it gets stripped and god knows whatever, because guys sometimes miss so it can kind of be very…all right, isn't it true? [laughter]. It's true! And there's only a little curtain there, and they like to play practical jokes on each other as you'll see in a minute so… And the C-130 as you know are the workhorse, and have been around for years, so this was made for guys. This is just like a little thing, about like that and there's just no way I can aim in there either.

This is a day mission and this is the same kid. This is Danny Scott, taking him on our way. We actually stopped in Bagram, now we are on our way to Germany. We stopped in Bagram with the patient. Bagram is an Air Force-run military hospital; it's called a Role 3. It's a little bit backwards in the Air Force because ours is a Level One Trauma; it's a level…or a Level 4 in the Air Force. So it kind of goes backwards a little bit. Germany is a Level 4 center. Bagram, Kandahar, and Balad are Level 3 so they have almost all the capabilities, but no MRI. Usually they have a cardiac surgeon, but not very often.

So you take the patient in there and I'm given reports. You have to give report to this patient even if you're going to pick them up and take them back in 2 to 3 hours which we did. This guy's going to get reassessed; he's going to go back to the OR, I told you for

another washout. When we were checking his leg on the other side in flight, he didn't have a very good pulse so they think he has a blood clot. So they're going to take him to the OR before we take the 7 to 9 hour flight to Germany to make sure we can save that leg and there's nothing wrong with it. They're going to go do another wash out.

I'm given the report and does it look like anybody's listening to you? They're not. They're not. I came up with the report sheet so on my report sheet, it has everything I did in that flight and so you should just make a copy and give it to the nurse and now they're still using that in theater because you're so busy, you only have certain amount of time, the ORs waiting for this patient, so the OR says "well what time did you give the medication? What time did you give this medication? When was his last bolus? What is his vitals in flight?" And they just knew that even if they weren't listening, that I'd leave a copy of my report so all they had to do was look. Because I know what it's like in the trauma room, the civilian sector, like no I'm not listening to the paramedics, I'm already starting my assessment, so then this is all the equipment on those three patients.

See those black things, these smeads? They slip right over, usually at the pelvis area of a patient on the litter but even though you may be picking those same patients back up, you have to start all over again. So we'll take all the patient equipment off, throw all the tubing, this is tubing for the ventilator, for the breathing machines, and all will be thrown away because we can't afford a cross-contaminate, right? So it's really dirty there so we'll start fresh, we'll pick up the same patients back up again. So it usually takes about an hour, an hour and a half to package up one patient, to get them transferred over, stabilized, their tubes and drains, I'd rather take the extra time, and make sure I know where everything is so when I'm in flight, I'm good to go.

Also the pharmacy. I'm also the Pharmacist on the plane. If they need meds, I usually have to mix them. In Kandahar, the Physicians we're…the Pharmacists we're great. I got…so I could just ask for meds because the less time I have to mix meds, and there's always that margin of error, always is, Pharmacists do it day in and day out, can probably do it blindfolded. What do you need Deb? Well I'm going to need this drug, this strip, I'm going to need a night [inaudible] drip, I'm going to need a nice statin drip, I need whatever I need, so she'll say "Okay, got it!" And 2, 3 minutes later she come back, label it the patient's name and a bag, it was great. How many of you know what Tylenol is? Do you know that the Brits and the Canadians have IV Tylenol? It's called Paracetamol, so when I went to Germany to drop of patients, I get chocolate and bring it back down, like in MASH, and we trade. Paracetamol for chocolate. But it works out great. They're actually studying in L.A., so there's going to be getting it soon.

Okay, you know your military nurse when you witness the pinning of a purple heart on an injured service member's hospital gown. He salutes from his bed and says thank you. Then when all the VIP's leave, he says to you, "This is one medal I never wanted to receive." How many of you have heard that before? Many times. A lot of times it's because they've lost a buddy, or a friend. Quick story: One of the patients in our turret we were transporting up, thirty minutes prior to their mission, before they got hit, he had traded places with his best friend on the turret, who was killed. And he felt guilty for

the…and probably he'll carry that forever with him. So, he got a purple heart, but he said he didn't deserve it, because he thought that he had killed his friend.

On that note, from the time that any U.S. soldier, or any soldier, but the U.S. particular, does not make it, they are revered. From that very moment that they pass away, they are given that same flag to follow them home. They're given the salute that they deserve, they've served their country well, and they're transported out. The most awesome experience I had was when you're in Kandahar, there is fifty plus countries in there and there are a thousand people out on that tarmac, from every single country, no matter what soldier from what country they're from. I can't tell you how… what that means. It's just… you get this overwhelming feeling that you're all in there together.

Some of the hazards that we fly in, is dust storms. So how many have heard of the Hoboob's in Arizona? That's where I live. And they go, Hoboob. I live there all the time. So it was nothing, but they still land and take off in that kind of weather. Our pilots are phenomenal. This is our last mission with our doc, and someone took our farewell picture. This is actually the Crimean-Congo hemorrhagic fever patient that we transported, and the red bag and stuff, so, we didn't convert. But three surgeons in Germany did, they actually came positive for the virus. They started them on anti-meds right away. The patient did not make it. He expired three days after we got him to Germany, where he had consumed all the blood products in Germany in three days that they actually had to call out for blood products, because they tried to do everything they can. If you think about it, something like an Ebola virus. In theater, you don't have the capabilities of diagnosing that. And it takes a while for those results to come back in, even in Germany.

Here's me diligently playing with the pumps, and I tell you, I hate those things. Dirt gets in them, you have to take them out, and you're pounding them and you're cleaning them. They're just a pain in the butt. But they work. But, this picture is significant. See that blue thing right there? Told you about those new spine boards? The new spine boards are laid flat, and you put the patient on it, and you cocoon them up, and you suck the air out of them. It's made with beads. You can pick them up just like you would on that spine board and every two hours you relieve it, and then you'll push them back up just to get the circulation back. We have no pressure also; does anybody know what a bed sore is? From those things. They've kept them; we've had not one complication with the spine boards. Our spines have remained stable the whole flight. These two patients on here are the two helicopter pilots that, I don't know if you heard that, crashed, and there were two survivors. And we had the two survivors on here.

And this is a better picture of the spine board, and someone said they wanted to see what my drug box looked like. Well, that's all my drugs in the black box. And that's one of the blankets from the Girl Scout troops. Also to… I am known to be a MacGyverette. A MacGyverette, this is a chest tube, but this patient we picked up back down in Bastion, and if you see he's in what's called skeletal traction. Where they put a pin through the knee, because he had a femur fracture, and he wasn't stable enough to go to surgery to repair it. So they incubated him, sedated, he had a bunch of chest traumas as well, so you

see the wire hanging off the end? And down the side? So I found a piece of metal, here at the very bottom, found it out back, we duct taped it to the end, and I hung it down, and that's IV bags. And that kept him in traction. We X-rayed him before he left, and X-rayed him when he got to Germany, it worked really well. The only thing is, you see where the dressing is by his toes, I had to put gauze here, so it didn't rub up against his toe. And it was swinging back and forth, so I used a litter strap to hold it [laughter]. Darn landing and take-off!

These are the spine boards again, but the C-17, you could exercise in that thing. But a lot of times they transported cargo with you. You hardly ever… fuel is fuel, if it was safe to transport with patients, they would put it on there. But, they will also generate a mission, for one U.S. soldier to get him out of theater if he needs to get out urgently. To get one patient out of theater, it takes an army. It's not just the CCATT team, and I want to make that clear. It takes the ground crew, the JPMRC; it takes people in Scott who's putting that patient in the system, to the maintainers on the ground who get the plane, to the pilots, to the air traffic controllers, to the people in the hospital. It's not just about the CCATT teams, it's a whole team, to get… we just happen to be next to the patient most of the time, but, but to get that one mission off, it takes an army, or an Air Force [laughter], full of people4 to get them out.

I just…taking pictures out… This is Kandahar in the winter time. They have some great… They could ski there. But they don't. But if you look down in goggles, there are a lot of villages down in there, where you can see better and remote areas and stuff.

We landed in Germany, and they wanted to take off in that, and the pilot goes, "no," the air traffic controller says "yes," and the pilot said "no," so the air traffic controller won initially, so that's a K-loader, that's a KC-135. That's usually how we got from Germany back down range. It was quicker; trip is two hours less than a C-17. It's usually seven hours. Six and a half hours on a KC-135, and about nine hours on a C-17. But the K-loader, you load it up, and you got in. So we just, guess what they decided, right when we loaded everything up? We're not going. So we had to unload everything back, and then you have to put it in the warehouse. So, then you have to turn your weapon back in, but we got to stay in Germany a night.

Some of the things we do, after the mission is over, we… everyone knows… have you ever heard what deadhead means? You deadhead back down range. A lot of times we're quick turned. So everyone knew that CCATT teams, we don't get crew rest, we did five missions in four days and two of them were to Germany and back. So you sleep when you can, and if we were heading back on a KC-135, and there is not a whole lot of bed space, the aero vac crew, and the crew on the planes made sure that the CCATT teams would lay down and sleep because they knew there was a possibility of getting quick turned. Truly a team effort.

Out of the four CCATT teams that we were in theater, there is only three girls. There we are. And how bizarre was that on our training, right before you deploy you have to go to Cincinnati shock trauma center for two weeks, and the three of us were all in the same

class, not knowing that we're all going to be in Afghanistan together. Those are two active duty girls on the side, Respiratory Therapist and Cindy Bond. Cindy Bond is now back in Kandahar again, and she's in Germany.

And you play with the kids [laughter]. So, we do. It's sense of humor, it's stress relief, especially after you've had a really busy mission and a busy day. We transport kids. We transport kids from Kabul. This is a five year old… the girl, that ended up with a really bad leg injury, we did grafting of muscle and flap on her legs, and skin grafted it about five weeks later, and sending her to Kabul, to be with her eleven year old brother, who will be her care taker. They lost their parents, and most of their other family members.

Things you do in your spare time. You run! This is the NATO gym. How many of you have seen an Army gym? Sweat tent, right? You actually… this thing is so clean and so nice, you had to bring an extra pair of shoes and they had to look at your shoes before you were allowed in. So it was always clean and nice, air-conditioned, TV's up on the wall. I have a general collection which reminds me, General [inaudible] my picture with you before we go [laughter]. I caught him right after he came out of the porta pot. So, he was a very nice guy that's interesting to talk to them, because they are human, like everybody else. Under the same stressors, different kind, to make sure missions get off okay, making sure things are running. So, I have a picture of nine generals so far. Any time anybody want anything, "Oh, Deb, go ask" and you'll see in a minute too. This is in Bagram, as a… as a friend and a confidant, knowing what we're going through emotionally and physically. You take care of each other, you make sure that they're coping; you make sure that they're doing okay. When she went to Kandahar, or if I came up there, we'd go for coffee while we're getting ready to pick up a patient and head back up range.

And the Frenchies [laughter] … The doc was intrigued by this vehicle. And it's a, let me see if I get it right. It's an aquatic vehicle as well as a land vehicle, and it's something that they use, it's very interesting, and they were all exited that we asked about it, so we all got our picture with them, including the doc, so... Very nice people and they spoke pretty good English. But after a while, we started to call their uniforms by ice cream, and to me it looks like pralines and cream.

And this is the gunner ship. How many of you know what a gunner ship is? When you hear that thing take off, you know that things aren't going well. Truly respect for those guys too. In our spare time, you make patches. We are called CCATT, right? If you can read that, it says: In the litter box. In Afghanistan, what's litter box made of? Sand. Warped sense of humor, sorry [laughter]. You covet those things. Those… those go for money out there. You can trade and get all kinds of stuff for that. I live in Arizona, this is in Afghanistan. To me I see, with the culture, I see a lot of similarities. Our Hispanic population are into color, they're into tassels, they're into all kinds of things. I see a lot of correlation, you talk to them, and there are some similarities.

They have a market on base, and they come and sell their wares. Lot of us medical people went there to talk to the kids and the culture, we handed out tooth paste, toothbrush,

shoes, shoes were real important. When these kids grow out of their shoes, they find them, or, if they are lucky, their parents can buy them another pair, coloring books, matchbox cars. One of the fathers had a really bad acne problem, we found him some face wash, which actually he was so grateful to have. And when you're over there, because of what you do, you… I personally got back in touch with myself, and spiritually, and it's one of your coping mechanisms and to be able to worship with multiple other countries, and you're all underneath the same roof, is also another very rewarding experience. At least for me it was, and many others.

Also, this is in the quad, it's a great big courtyard area where everybody meets and plays football, and there is like a subway, and some other coffee shops and stuff. It's a 9/11 to remember why we're there, and, who knows who this is? Yes! He was at concert there, on thanksgiving in 2009, and they are an awesome band. They were supposed to leave that night. The lines were so long for pictures and autographs, they stayed the night until every single person was satisfied, and had a picture and an autograph with him. I have a journal too from my last two deployments, and he actually signed my journal for me. And they opened this up right before I got there. And you know what? It just doesn't taste the same. It really doesn't.

Kandahar… we frequented this a lot. How many of you know that we can mail stuff out with no charge? So, I got a lot of cards, I bought lots of cards before I left, and had to be real careful on what I told my husband, you know, be nice to have, because he would mail it to me. I got a shop vac, a microwave, a toaster, a coffee pot. So you have to be really careful with what you ask. And you just leave it there. And other people are very grateful to have it.

And how many of you have people that are deployed? And they have internet, and you don't get to see them, or something's wrong, well, what's wrong with this picture? That's their electrical wiring system. Some days were good, and some days were bad. And you visit the poop pond. Nobody can go without visiting the poop pond. This is actually just a few hundred yards from the base, and this is where everything gets recycled. So you don't stay there long. There's a guy in the back, and I guess I asked there is the way sludge builds up, and they have to keep mixing stuff up. You talk about the world's worst jobs. It's got to be it. A lot of people volunteer to work in there. They use a lot of the city people that come in from Kandahar, they're actually checked before they come on base as workers, those who clean your bathroom, your porta-pots, there are a lot of contractors out there that are in harm's way as well.

And you enjoy Mother Nature. This is the picture that at the night we got to stay. We went for a walk in the snow after being in the dessert for so long, and it was just very nice to just relax and take a walk, and just reflect on everything and just not be where you needed to be that day. And I think that's it.

Oh, no! How many have heard of the burn pit? They burn everything over there, so you have to be really careful on where you walk, they're getting better by burning it further away, and controlling things that they burn.

And why people have hearing loss. We're loading a patient, and what's that in the background? Why you wear hearing protection and I don't know why people don't, but they don't, so that's why you need to wear your hearing protection, you never know. Because you're not going to stop that F-16 from taking off if they need to go, and I wouldn't want them too either. And "Combat Air Power for America: Right Here, Right Now" and that was truly our motto over there and truly a team effort.

END