

## 2016 Defense Health Information Technology Symposium

# Health IT: Enabling Medical Mission Command

**BG John M. Cho**

**MEDCOM G-1/4/6**



*“Medically Ready Force...Ready Medical Force”*

# Learning Objectives



- Clearly defining the “why” we exist
- Health IT as an enabler: solving problems
- Readiness as both capacity and capability
- Virtual when we can, Live when needed





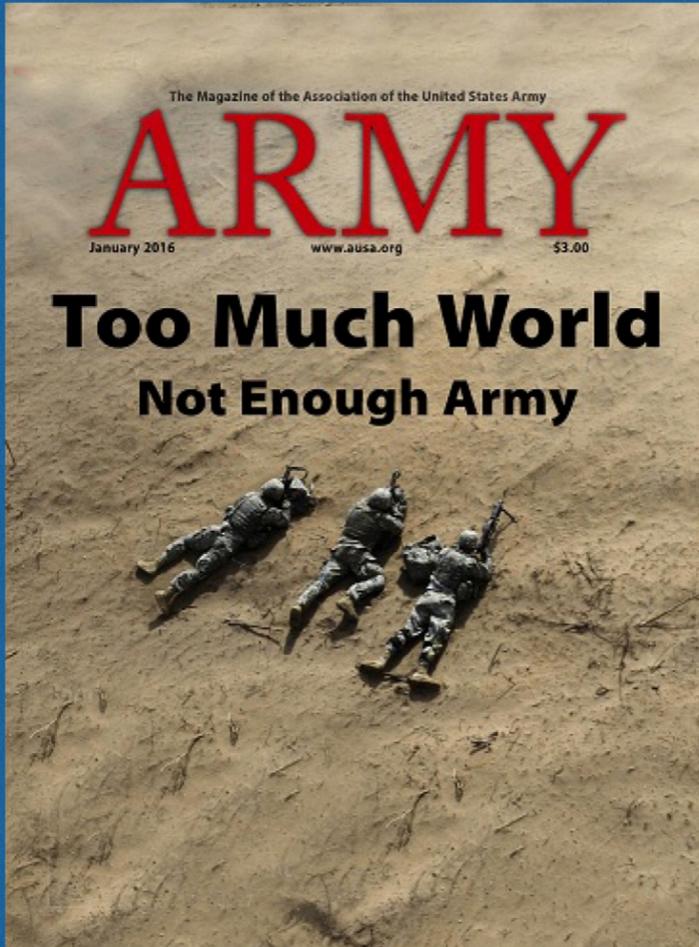


**“Winning Wars  
is what  
the United States Army  
is all about.”**

GEN MARK A. MILLEY 2016

**“Our number one priority  
is Readiness, and there  
is no other number one”**

GEN MARK A. MILLEY 2016



# Readiness

**Capacity**  
(size)

**Capability**  
(skill)





**RUSSIA**

**★ KIEV**

**UKRAINE**

**UKRAIN**

**CRIMEA**

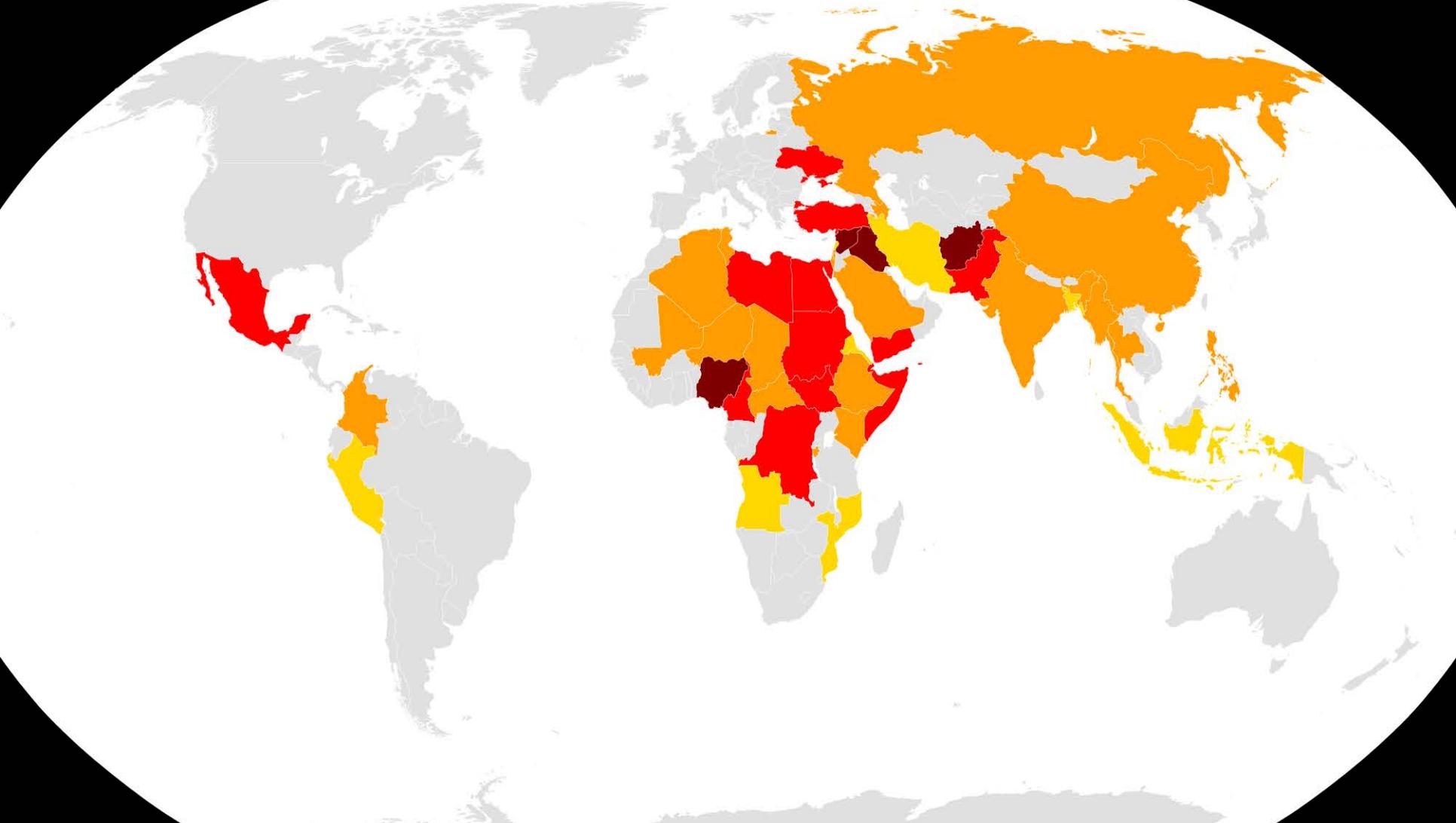
**RUSSIA**



● Port Used for Northern Sea Route Transit in 2013









A photograph showing a crowd of people holding rifles and a flag. The rifles are held vertically, and the flag is partially visible at the top. The scene suggests a protest or a demonstration of military power.

**We need**

**to think differently**

**to navigate a new complex world**

**Flexible**  
**networked**  
**Collaborative**  
**Adaptive**  
**Integrative**  
**Joint**  
**Agile**  
**Innovative**  
**Mobile**  
**Ready**





**“If we don’t get this right,  
it doesn’t matter what else  
we get right.”**

**LTG NADJA WEST**



The average age of a trauma surgeon is 48.



The average age of a combat medic is 22.



The number of years of school required to become a trauma surgeon: 16+



The number of years of school required to become an Army Medic: <1



CONUS transport time  
to the nearest ICU:

5 minutes

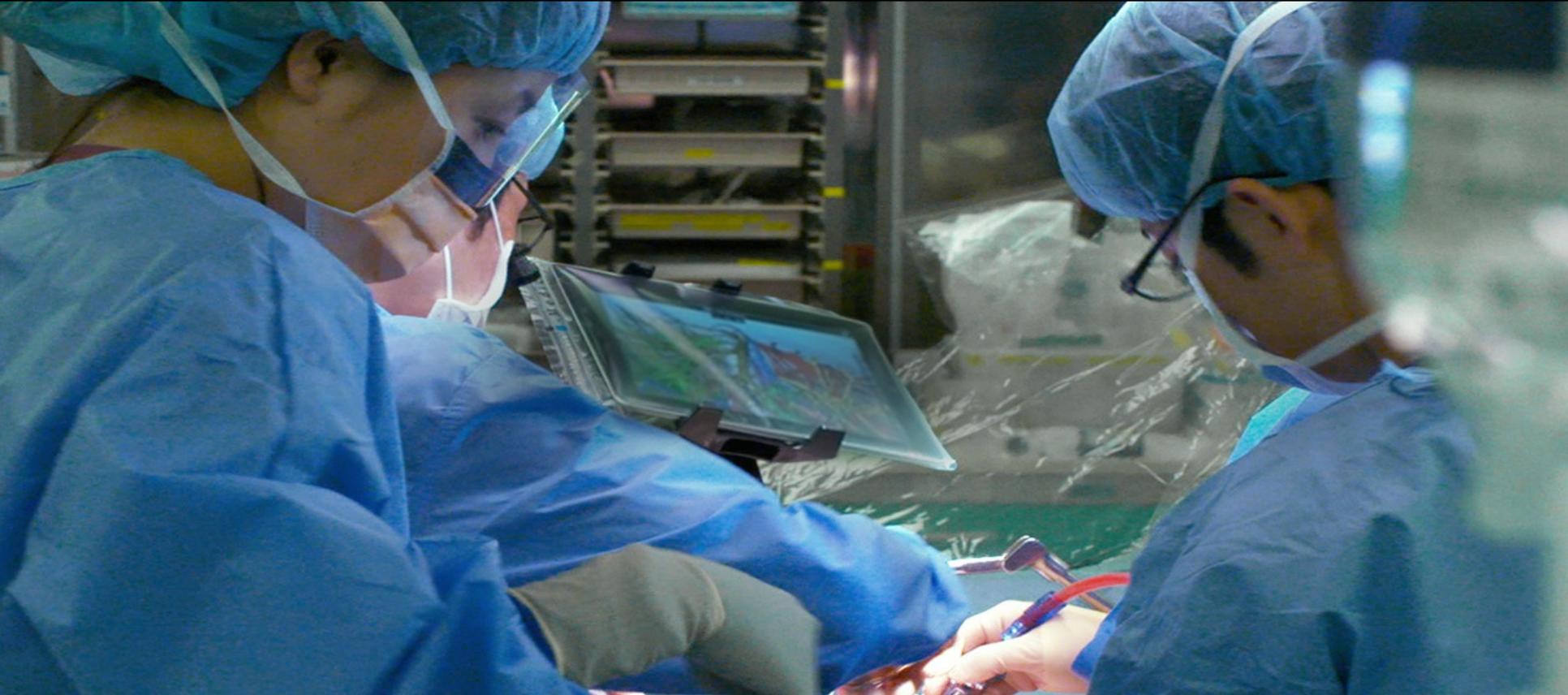


Forward deployed transport  
time to the nearest ICU:

+/- 1.5 days

Ambient decibel level while operating :

< 1 dB (pin drop)



Ambient decibel level while operating :

> 120 dB (loud rock concert)



Weight of surgeon's head gear:

< 4 oz



Weight of Medic's head gear:

> 8 pounds





Chances you are operating on a very close friend:

< 1%



Chances you are operating on a very close friend:

> 99%



*Shift*  
**Key**

# BlackBerry's Famous Last Words At 2007 iPhone Launch:



“We’ll Be Fine.”



# Army Hospital Rampdown



**55%** Reduction in fixed facilities since 1988



**1988**  
49 Hospitals



**1995**  
47 Hospitals

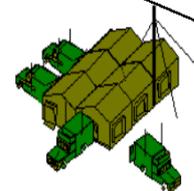


**2009**  
24 Hospitals

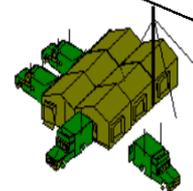


**2015**  
22 Hospitals

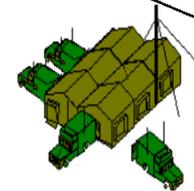
**1991**  
\*110 HOSPITALS  
AC 11  
RC 99



**2001**  
\*57 HOSPITALS  
AC 22  
RC 35



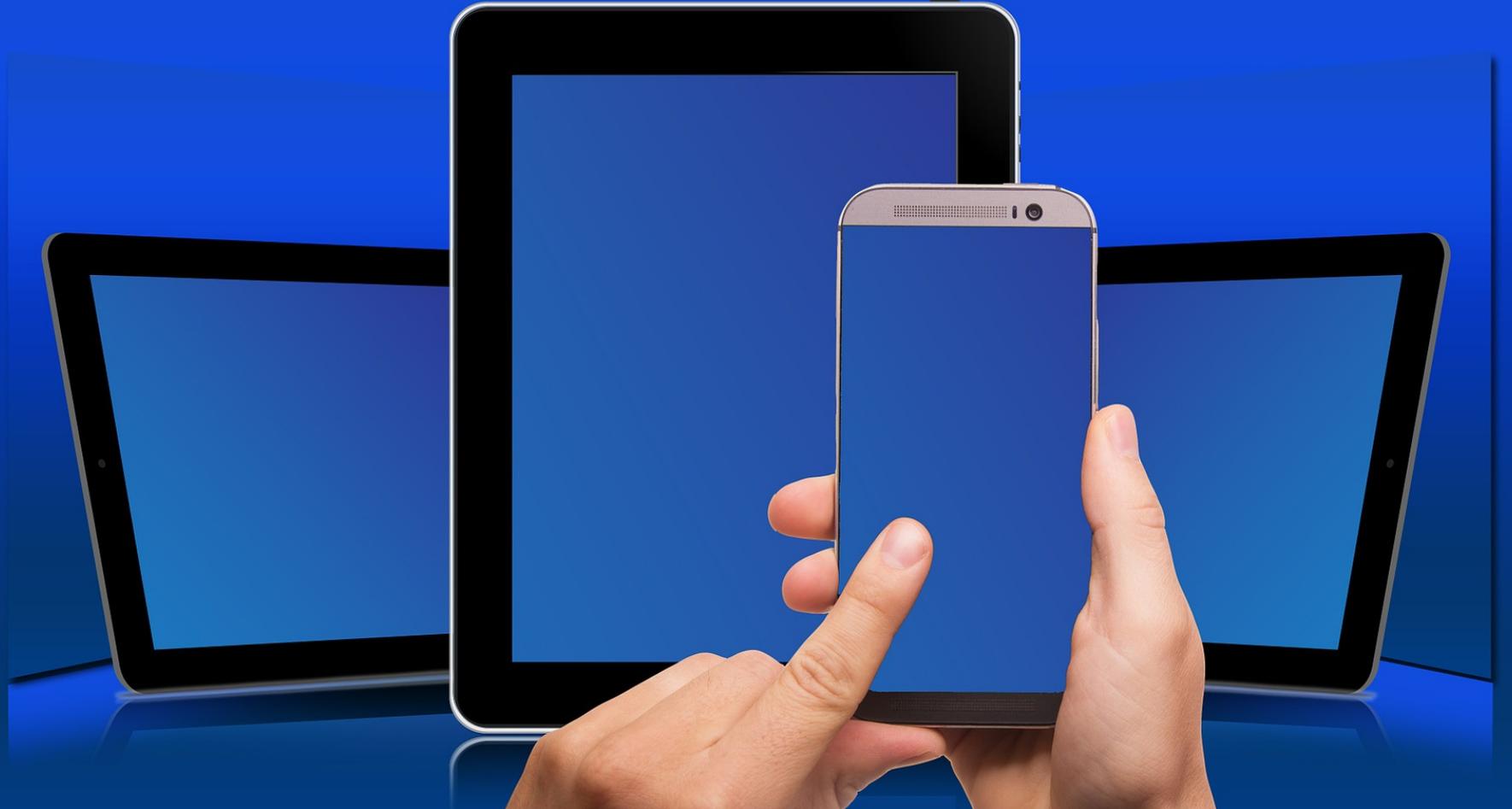
**2003**  
\*37 HOSPITALS  
AC 12  
RC 25



**2015**  
\*26 HOSPITALS  
AC 11  
RC 15

**76%** 84 operating force hospitals reduced in 24 Years

# Virtual When We Can





**Live When Needed**

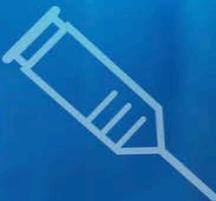


# MEDICAL

Health Care  
Doctor  
Hospital  
Pharmacist  
Nurse  
Dentist  
First Aid  
Surgeon  
Emergency



MEDICAL



Health Care  
Doctor  
Hospital  
Pharmacist  
Nurse  
Dentist  
First Aid  
Surgeon  
Emergency



Health Care  
Doctor  
Hospital  
Pharmacist  
Nurse  
Dentist  
First Aid  
Surgeon  
Emergency

# MEDICAL





**OPEN  
YOUR  
MOUTH  
AND  
SAY  
“AAH!”**







Form a Global Network so we can

**HIGH TECH**



**HIGH TOUCH**





## Case Western & Cleveland Clinic using augmented reality for medical education

New venture to help improve learning through bringing 3D content into the real world via augmented reality using the Microsoft HoloLens.



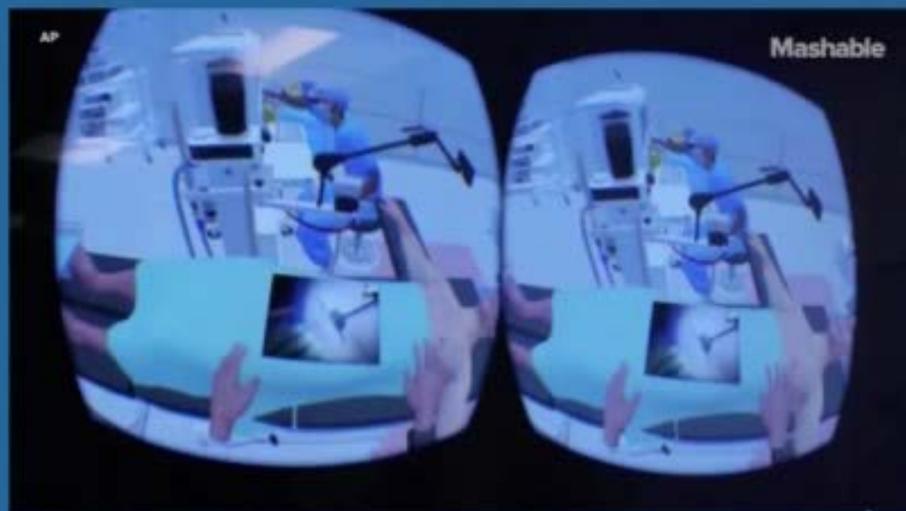
## Virtual reality app uses Oculus Rift to create virtual cadaver lab for trainees

A Swiss medical animation studio is testing a virtual reality app that creates a virtual cadaver lab to teach trainees human anatomy.



# Training / Simulation

## Virtual Reality









**“If we don’t get this right,  
it doesn’t matter what else  
we get right.”**

**LTG NADJA WEST**