Seahawk Project
MG James Peake, MC, USA
Commander, Madigan Army Medical Center

GENERAL PEAKE:
I bring you greetings from the great Northwest, where we have not only Mt. Rainier and beautiful country, but we also have a robust medical community. You have met some of the members of that community here over the course of the week. We have an academic community that includes the University of Washington, it includes the Oregon Health Science University, and it includes Madigan. We have a tri-service cooperative group that works very well together with Bremerton and Oak Harbor Naval Hospitals and the Air Force at McChord. We are a tri-service, TRICARE organization. We have the Federal system brought together with the Puget Sound Federal Health Council that was started by Les Burger when he was there. And, on top of this, we have Seahawk which superimposes the opportunity for telemedicine and teleradiology on this great community that I have talked about. [Slide 1] Seahawk represents the congressional intent to support this technology. They demonstrated this intent by appropriating around about ten million dollars in the 1994 Defense Appropriations bill.

What we are doing with this money is shown on this slide. [Slide 2] Four hundred thousand dollars has gone to communications infrastructure. With this we are connecting into the US West Sonet Ring that traverses the Puget Sound area and gives us access to the high bandwidth needed for telemedicine and teleradiology. Six and half million dollars is going to procure equipment and install it. That money, even though this is a 1994 appropriation, has only become available in December of 1994 and we have only this year to spend it. And what are we going to get with that? [Slide 3] You heard Dr. Kim on Monday talk about the demonstration of the Medical Diagnostic Imaging Support (MDIS) system and the connections between Madigan and the University of Washington. You heard about the capabilities of MDIS all Monday afternoon and Tuesday morning.

What we are talking about doing is linking all of these organizations that you see on this slide with the ability to translate digital images across all of those institutions. [Slide 4] Madigan will become a truly digitized hospital. We'll have the jukebox with the archiving capability, but it will be a technology that can move images back and forth across these installations.

If you look at the MDIS piece of it, what we are buying there is phosphor plate technology, to acquire images digitally for all of those places that I have mentioned. There are five different sets that will be going in, in addition to Madigan: two large spokes, three small, with at least one work station for each of those places. This is a significant investment in this kind of technology, and we are determined to see that this really works rather than just a nice demonstration which is what Dr. Kim was showing you on Monday. So, it's more than just a concept that we are trying to put together here.

On the telemedicine side, what we expect to have is eight different locations having a total of 25 to 30 work stations. [Slide 5] That will be dependent on the cost. Although we have not yet chosen a vendor for our workstations, our intent is link all of these facilities. You see the Navy Branch Clinics is here; we'll have one work station in each of those with the others spread around. In addition, on this slide you see the local Veterans' Administration Medical Centers. They are going to tie in to the federal network being developed, and so we expect the opportunity to look at telemedicine in a relatively medical-rich environment.

Now yesterday, I think it was Dr. Koop who talked about the doctor that sits in the shadow of the medical center that can feel just as isolated as the guy out in Montana. We have the opportunity to look at that, and this slide may be the most important of all for what we intend to do with Project Seahawk. [Slide 6] On the bottom is a concept phase, and we have Dr. Sid Sado from Madigan and Dr. Rob Ringler and Dr. Paul Savage from the Bremerton and Oak Harbor Naval Hospitals, respectively, who are working with physician work groups to define what the clinical practice will be - what Dr. Roadman was talking about. What is going to be the practice? Are we going to do store and forward? Are we going to schedule telemedicine appointments? Is the procedure going to be different for each clinic? We have got to figure that out so that we have a business plan going into this project. We are hiring the Seattle Institute of Biomedical and Clinical Research to help us survey, analyze and develop a sound plan.

Next will follow, of course, the installation phase, but
over the course of the whole project, we want to have the evaluation piece built into it so that we have on the evaluation tool built into the telemedicine workstation, so we know what has happened and not just have to second guess it afterwards, and say, did we do good or what did we do? And so we have an already existing Army contract with the Oregon Health Science University folks who really are involved in telemedicine are going to help us with this evaluation.

And on top of that, that Capstone is hopefully coming out with something that fits the kind of criteria that Dr. Roadman has so very nicely articulated for us.

This is our potential slide, if you will. [Slide 7] The University of Washington is tied in with the WAMI Project, which is a grant to support rural telemedicine in Washington, Alaska, Montana and Idaho. The VA is working with our Project Seahawk team to obtain funding for a regional telemedicine network. Our plan is to do a joint buy with them so we will have common equipment that will enhance communications. So we expect to be able to hook in with Walla Walla, Seattle, American Lake and Spokane in the VA network. Then, up in Alaska, there is a separate but related operation going on that will have the telemedicine installed at the Kodiak Coast Guard clinic, Adak Navy clinic, Basset Army Hospital and Elmendorf Air Force Medical Center. Finally, of course, Oregon Health Sciences University as I mentioned is already looking at telemedicine.

So we have the potential in the Northwest region, to really be able to try to get a handle on this and get our arms around it. [Slide 8]

What we see this doing, is leveraging Madigan, leveraging the cooperative efforts of our Federal system, to try to drive this concept towards a reality that is truly beneficial to our population. So we have great expectations for the future, but do owe you a "due out" in terms of reporting back what we are able to do with Project Seahawk.
Project Seahawk

Equipment & Installation

Communication Infrastructure

$6,500,000

$400,000
$6,500,000
Equipment and Installation

$1,500,000
Telemedicine

$4,500,000
Teleradiology
(MDIS-Loral)

Installation & Misc

Telemedicine

Teleradiology
Locations

Oak Harbor Naval Hospital

Navy Clinic
Bangor

Bremerton Naval Hospital

American Lake VA

Madigan Army Clinic

MEDCEN

US West
Sonnet Ring

98
Telemedicine Locations

Oak Harbor Naval Hospital

Navy Branch Clinics

Bremerton Naval Hospital

American Lake VA

McChord AFB Clinic

Everett Naval Clinic

Seattle VA

VA Facilities Separately Funded

US West Sonnet Ring

Evaluation - Clinical Telemedicine Cooperative Group

Installation

Planning - Seattle Institute of Biomedical and Clinical Research

Concept - Clinical Workgroups
Puget Sound
Seahawk Sites

Alaska Federal
Telemedicine Sites

Veteran's Affairs
Washington Sites

Pacific Northwest
Telemedicine

Oregon Health
Science University

University of
Washington / Western States
Sites

Project Seahawk
A Concept Moving
To Reality