



HaiVision hai1000 used by NASA for advanced medical procedures on NEEMO 12

May 9, 2007 - HaiVision Systems Inc. (Montreal, Canada) today announces that NASA, during its twelfth NEEMO (NASA Extreme Environment Mission Operations) mission, is transmitting the video required for interactive robotic telesurgery experiments using the hai1000 MPEG-4 AVC multi-stream low latency video codecs. The bi-directional video transmissions will be from NOAA's Aquarius underwater lab in Key Largo, Florida, to Cincinnati, Ohio and as well directly to the TATRC demonstration area at the American Telemedicine Association exposition in Nashville, Tennessee. At the ATA conference (May 13/14), a surgeon will perform live telesurgery experiments interacting directly with the NASA and University of Cincinnati personnel on Aquarius. The NEEMO missions enable astronauts to train within an environment analogous to actual space missions. The University of North Carolina at Wilmington operates Aquarius on behalf of NOAA.

The telesurgery experiments will use the HaiVision hai1000 codec to transmit multiple video streams from Aquarius including those from a stereo video camera enabling precise control of the robot by surgeons over 1000 miles away. In addition, the hai1000 will support bi-directional audio video communications. The high performance network video will be transported over the internet.

The hai1000 uses the latest MPEG-4 AVC / H.264 video compression allowing multiple video channels to be transmitted and received synchronously. MPEG-4 provides a 60% savings in bandwidth historically required by MPEG-2 to achieve the same DVD quality video. The hai1000 as well provides extremely low end to end latency, about 160 milliseconds.

"Sustained extreme low latency is important for communications such as telepresence, but is essential while trying to maintain hand-eye coordination while using a surgical robot remotely", states Dr. Timothy Broderick, a NEEMO 12 crewmember and Associate Professor of Surgery and Biomedical Engineering at the University of Cincinnati. "HaiVision has developed products that are ideal for advanced medical applications and has dedicated excellent engineering support to advance our research in telesurgery." Broderick also serves as is the Director of the University of Cincinnati's Advanced Center for Telemedicine and Surgical Innovation (ACTSI).

Datasheet Link - www.haivision.com/products/hai1000/.

Come see HaiVision at ATA 2007 in Nashville – Booth Number 918.

About HaiVision Systems Inc.

Based in Montreal, Canada, HaiVision Systems Inc. is a private company dedicated to improving the way people live and work through the use of advanced network video technology. HaiVision's interactive products are used in the foremost telepresence suites, boardrooms, and continuous presence distance education systems worldwide. They are used as well in the medical field supporting information and service delivery within hospital campuses and across nations. HaiVision's streaming products are also used extensively for video backhaul and distribution in broadcast, near broadcast, and IPTV applications. Please have a look at the product information, case studies, videos, and file samples available in the file download area of our web site.

For further information, please contact:

Ceicy Tsui

HaiVision Systems Inc.

Tel: (514) 334-5445, ext. 251

Email: [ctsui \(at\) haivision.com](mailto:ctsui@haivision.com)

Web: www.haivision.com