NAVAL AIR WARFARE CENTER

CASE STUDY

Customer
NAVAIR (Naval Air Warfare Center Weapons Division - China Lake, California)

Application
Monitoring and Surveillance

VBrick Equipment
VBrick Model 1911 and 2911 (ATM) encoders and decoders

Networks Employed
ATM (Asynchronous Transfer Mode)

THE CHALLENGE

The Naval Air Warfare Center Weapons Division (NAWCWD) conducts various weapons tests at the China Lake base and they needed a high quality, low cost application for monitoring these missile tests. Specifically, there was a need to take video from the missile plus video from the cameras on the ground and send them to various locations on base, as well as across the country to the program office in Patuxent River, MD. The video had to be high quality with full motion. Also, the devices had to be able to transport the video over NAWCWD's existing ATM network.

THE SOLUTION

The various video streams (from missiles and ground stations) are sent to the research, test and evaluation center over standard coax cable and are then fed into VBrick 1911 encoders for compression into MPEG-1 digitized video. Once digitized and compressed at 3 Mbps the VBrick 1911 places the video stream into ATM cells for transport over a nationwide encrypted ATM network.

At monitoring locations in China Lake, Maryland and across the country, VBrick 2911 decoders can accept the ATM cells and convert the compressed video back to standard NTSC video for viewing on standard TV monitors. In addition, missile tests can be recorded to tape at either location for viewing anytime, anywhere.

For some tests, the VBricks encoders in China Lake are used with quad split devices in order to send up to 4 videos within one stream. Each video source (for example - video from the missile and cameras at the target) is connected to the quad split which combines them into one picture. It then gets fed into the VBrick 1911 for compression and transport to viewing locations. In this fashion the observers can see results of the tests from different angles, all on one TV monitor.

THE BENEFIT

NAWCWD researched various solutions and finally chose VBrick for the quality of video, ease of use and low cost. It was important to use the existing encrypted wide area network (WAN) since it provides the communications on the bases, as well as between bases, and has the bandwidth to support compressed video. The VBrick ATM based units are a perfect fit for this application. Not only do they contain the ATM (OC-3 network interface) but they also provide the high quality, full motion video that NAVAIR required.

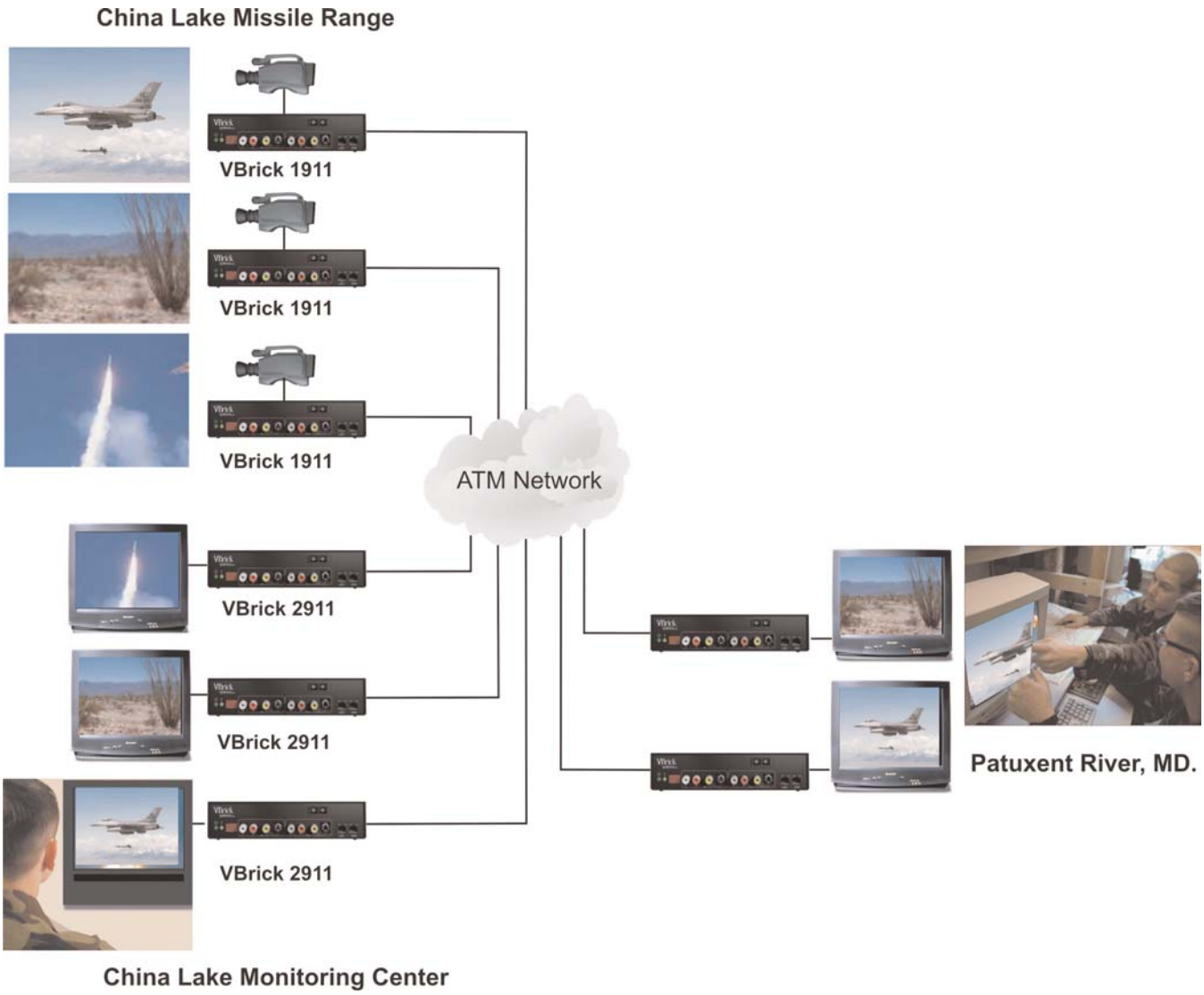
The VBricks have been working so well that they will also be used for monitoring tests of the new Predator drones. In addition, VBricks are also being used for briefings, videoconferences, and training between China Lake, Pt. Mugu, and Norfolk, Virginia.

VBrick systems, inc.

CASE STUDY

SPECIFICATIONS

VBrick network appliances enable the transmission and delivery of true television quality video and audio signals over standard switched Ethernet, ATM, T1/E1, xDSL, satellite, or microwave networks. VBricks are fully MPEG compliant, and support both NTSC and PAL video and stereo audio via standard composite or S-video connectors.



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