

# A LYYN® user with a clearer vision Van Meter Consulting



Using LYYN® video enhancement technology to map flooded coal mines in West Bengal, India



Steve Van Meter is one of the worlds most experienced underwater investigation consultants using VideoRay MicroROV's. Steve travels to destinations in all parts of the globe from his base in Florida, USA. Investigations covers all type of inspections, from searching for missing bodies to inspection of perished oil tankers.

In September 2008, Steve was commissioned by the Indian Institute of Technology to map an abandoned coal mine in a village located 250 km NW of Kolkata. The mine had been abandoned for some time and needed to be filled with sand to avoid the risk of ground-sinking, that could endanger the village built on top of the mine. Before starting the fill, it was vital to inspect and map the whole mine, no reliable drawings existed. Using divers to do the inspection was not an option due to the dangers involved.



Apart from the more practical issues, like sufficient power and working in very high temperatures, the biggest challenge was the access to the mine. The only access was a 50 meter deep and 35 cm wide bore hole. Steve was using a VideoRay Pro3, which he managed to lower into the hole to reach the actual mine 50 meters below. The ROV was equipped with a sonar and a LYYN video enhancement unit.

*"The combination of a sonar and the LYYN unit worked*

*very well together and allowed me to quickly map the mine and at the same time get good video images of the conditions of the tunnels.*

*The latter was important for the decisions later on of the best way to fill the mine in an efficient way. Without the LYYN unit it would have taken much longer time and without the good video images it would be more difficult to decide how to continue. After using the LYYN technology for over 2 years I am very happy with it and I never go on a job without it", says Steve.*



*The VideoRay control unit with the portable LYYN T38™ video enhancer standing between the laptop and the console.*



*Images from the inspection, enhanced in real-time with the LYYN T38™.*



# Want to see what **we** see?

## Enhancing Visibility in Real-time!



### The technology

It is called LYYN (V.E.T) Visibility Enhancement Technology. Visibility is enhanced in **real-time** in fog, dust, lowlight, snow, smoke, subsea, etc.

LYYN works on images and video from normal color cameras, but can also be used in processing saved material.

### Imagine the possibilities.

The pictures below are just still pictures that we have enhanced. The true power of LYYN is that this can be done in **real-time** in a live video stream, digital or analogue. This could have been the feed from a surveillance camera in a video security system. Air traffic control, for instance, would have a better view of the airfield.

They might even see that a plane is going down the wrong way in the fog...

### It is not magic.

It is mathematics, based on the knowledge of how the human brain interpret information from the eyes.

### Low cost.

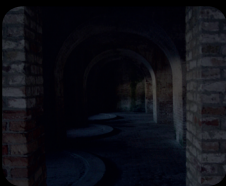
As LYYN can be integrated into existing systems as a "turbo charger", no expensive upgrade of complete systems is required.



FOG & HAZE – LYYN gives you a clearer vision



DUST – LYYN gives you a clearer vision



LOW LIGHT – LYYN gives you a clearer vision



SNOW – LYYN gives you a clearer vision



SMOKE – LYYN gives you a clearer vision



SUB SEA – LYYN gives you a clearer vision