



**ATA ASSOCIATES, INC.**  
**1301 GEMINI**  
**HOUSTON, TX 77058**

**EXPERTS IN LITIGATION SUPPORT**

**ATA ON THE ROAD**

- 9/17-9/20 CVSA Conference, Grapevine, TX – R. Swint, R. Cook, C. Pate
- 9/24-9/25 FMCSA Meeting, Washington, D.C. – R. Swint, R. Cook
- 10/11-10/13 TIDA Annual Seminar, Las Vegas, NV – R. Swint, R. Cook, A. Carr
- 10/13 HCSP Meeting, Houston, TX – L. Minyard, C. Pate
- 10/18 HCSP Driver Appreciation, Houston, TX – M. Ludeke
- 10/16-10/20 NPO Meeting, Warsaw, Poland – R. Cook, A. Yergin
- 12/8 HCSP Meeting, Houston, TX – M. Ludeke
- 2/7-2/9/2024 DRI Product Liability Conference, Denver, CO – R. Swint, R. Cook, A. Carr

**SERVICES OFFERED**

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- ◆ Expert Consulting
- ◆ Accident Reconstruction
- ◆ Engineering Analysis
- ◆ Technical Support
- ◆ Quick Response
- ◆ Laboratory Testing
- ◆ Vehicle Inspection
- ◆ Case/Project Management
- ◆ Standards Research
- ◆ Demonstrative Aids
- ◆ Computer Aided Design/Drafting
- ◆ Graphics/Animation
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**INTRODUCING THE AWARE PROGRAM AT CVSA CONFERENCE**

ATA Associates and Hungarian company PHARMAFLIGHT proudly unveiled their groundbreaking AWARE program at the Commercial Vehicle Safety Alliance (CVSA) Conference, held in Grapevine, Texas, from September 18-21, 2023. This innovative wellness program is designed to address stress and fatigue management, recognizing the unique challenges faced by the transportation sector in terms of driver well-being, safety, and performance.



Stress and fatigue among drivers can result in reduced alertness, an increased risk of accidents, and overall diminished health and job satisfaction. The AWARE test can be done in 8-minutes, is non-invasive, and provides an assessment of an individual's overall physiological state. Attendees at the CVSA Conference had the opportunity to undergo this test and received their results within 24 hours.

Rodolfo Giacoman, a Fatigue Management Specialist for CVSA, commented, "While the CVSA and the North American Fatigue Management Program (NAFMP) do not endorse any products or services, I personally found the test to be an excellent tool to help motor carriers manage fatigue. The NAFMP recommends that motor carriers implement a Fatigue Risk Management System that includes 'proactive' controls to identify and counteract fatigue hazards. The test conducted by ATA Associates not only serves as 'fit for duty' fatigue management technology but also as a proactive control to screen for potential health risk factors, such as sleep disorders, metabolic syndrome, and other fatigue-inducing conditions. The test report I received was accurate, providing not only a score but also a clear description of each finding. It also included useful recommendations to improve my risk factors. The return on investment for motor carriers that implement a fatigue management program with tools like this one is significant; you can explore the ROI calculator at [nafmp.org](http://nafmp.org)."

During our attendance at CVSA, we completed testing on ten volunteers. We treated the testing as simulation of what can take place on-site, ensuring the most accurate results. Each individual was tested in a private room, which was set with low lighting and provided ample space to conduct the test in a well-tempered environment. The results we obtained from the device, as well as the feedback from each subject, were all very positive.

The test assesses nine overall sections, and each subject is assigned a score to measure their performance in these areas: Mental Status, Physical Status, Fatigue Resistance, Readiness, Fatigue, Cardiovascular, Respiratory, Nervous System, and Stress. We believe that by evaluating all of these aspects together, we can gather enough information to create a comprehensive wellness plan and help individuals improve their overall quality of life.

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ATA Associates

## INTRODUCING THE AWARE PROGRAM AT CVSA CONFERENCE (cont.)

Name	Mental Status	Physical Status	Fatigue Resistant	Readiness	Fatigue	Cardiovascular	Respiratory	Nervous System	Stress
Subject 1	0.45	0.73	0.64	0.42	0.54	0.67	0.98	0.61	0.71
Subject 2	0.65	0.61	0.53	0.5	0.49	0.55	0.88	0.6	0.69
Subject 3	0.56	0.76	0.68	0.51	0.64	0.8	0.95	0.72	0.77
Subject 4	0.65	0.72	0.64	0.54	0.68	0.75	0.9	0.72	0.9
Subject 5	0.66	0.76	0.65	0.59	0.62	0.78	0.9	0.67	0.77
Subject 6	0.71	0.64	0.54	0.51	0.51	0.73	0.9	0.64	0.79
Subject 7	0.69	0.67	0.61	0.54	0.64	0.72	0.85	0.68	0.79
Subject 8	0.77	0.78	0.66	0.74	0.6	0.77	0.98	0.68	0.76
Subject 9	0.66	0.81	0.74	0.68	0.69	0.78	0.9	0.76	0.71
Subject 10	0.69	0.75	0.59	0.66	0.53	0.8	0.98	0.64	0.71

Figure 1: Results from CVSA Conference Volunteers

To better understand the results provided above, it's essential to grasp the system we use. Notice that everyone has a numerical score associated with each column, all of which are under 1.00. This is because 1.00 represents the maximum achievable score, akin to scoring 100 on a math test. However, in reality, the human body rarely reaches perfection, so it is unlikely to see a score of 1.00. On the other end of the scale, a score with .00 would be akin to scoring 0 on a test, also highly improbable as it would indicate a critical condition, something we aim to prevent through our AWARE program.

When examining the dataset we've collected, you can draw assumptions based on these numerical scores. For instance, consider Subject 1's mental status, which is rated at .45. While this may appear low and concerning, it is crucial to take the environment into account. In this case, Subject 1 was at a three-day convention, consistently engaging with people, listening, waking up early, and probably not getting enough sleep at night. Considering these circumstances, the lower score becomes more understandable. Now, extend this approach to each column, and you can derive assumptions about how the body is performing in a specific environment. The AWARE program can use this information to improve these scores within the context of a trucker's day-to-day activities.

If we were conducting this research on a larger scale, the representation of these numbers might be slightly different but would convey the same story. Below, in the Average table, you'll find the same scores as seen above, grouped together and assigned an overall power group ranking. This ranking is valuable for large-scale businesses, making it easy to assess how their employees are performing overall and how their rankings are improving.

	Mental Status	Physical Status	Fatigue Resistant	Readiness	Fatigue	Cardiovascular	Respiratory	Nervous System	Stress
Average	0.68	0.68	0.60	0.60	0.59	0.71	0.80	0.63	7.00
Standard Deviation	0.14	0.10	0.13	0.16	0.13	0.10	0.13	0.12	0.13
50 Percentile	0.69	0.68	0.59	0.61	0.59	0.73	0.85	0.64	0.70
Average Percentile	49	50	52	58	50	43	41	49	50

Figure 2: Overall Power Group Ranking

"ATA Associates is committed to the well-being of those in the transportation industry. The AWARE program represents our dedication to addressing the stress and fatigue that are all too common in this field," said Bob Swint, CEO of ATA Associates. "We were thrilled to introduce this program at the CVSA Conference, where we engaged with industry leaders and professionals who share our commitment to safety and health."

## NEW SOFTWARE

ATA Associates has two new pieces of software to improve the efficiency of our analysis for accident reconstructions. While we have had these capabilities in the past, the introduction of Pix4D and Virtual Crash into our software repertoire has increased production speed and reduced analysis time.

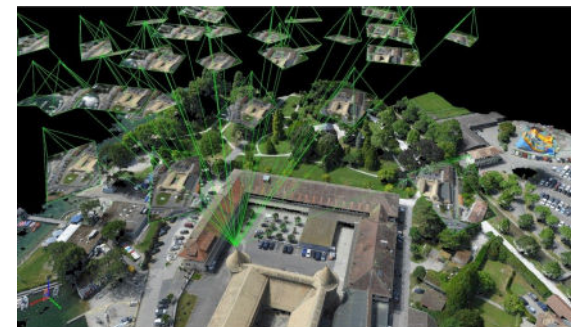


Figure 1: Example 3D Model Created by Pix4D  
Credit: Pix4D

**PIX4D** - Used to create 3D models and orthomosaics.

Pix4D can produce detailed models with centimeter-level accuracy of the individual components of an accident or entire accident scenes. Data is captured with a drone, camera or mobile phone, and then processed using Pix4D's software, which will generate a 3D model of the scene. Pix4D can also generate orthomosaics, which are high-resolution aerial images used to reconstruct large areas. We typically use orthomosaics to create detailed diagrams of the accident scenes, measure distances, and identify features in the scene like skid marks and debris.

**VIRTUAL CRASH** - Used to simulate and animate vehicle collisions.

Virtual Crash uses advanced physics simulation to create realistic models of vehicle collisions. This model takes into account factors such as vehicle speed, mass, acceleration and steering angle, as well as road conditions. With Virtual Crash, we can import and render 3D terrain models, allowing us to simulate accidents in real-world environments. ATA Associates can simulate a wide variety of collisions, including head-on collisions, rear-end collisions, and side-impact collisions. We can also simulate pedestrian impacts, like collisions between car-pedestrian or bicycle-pedestrian.

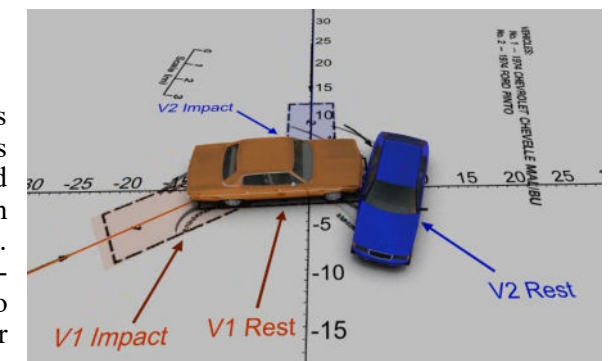


Figure 2: Example Simulation with Virtual Crash  
Credit: Virtual Crash

Utilizing the 3D models, orthomosaics, animations and simulations, our experts can determine the positions of vehicles, identify potential hazards that may have contributed to the accident, assess the damage to vehicles and other property, and reconstruct the sequence of events leading up to and during the accident. The analysis and derived conclusions are included in a written report and can be presented to the court as demonstratives to help the judge and jury understand how an accident occurred.

## A HOLIDAY MESSAGE



May the season bring you joy, peace, and good health.

A few tips to stay safe:

- Don't drink and drive.
- Be careful with holiday decorations, especially candles.
- Check on elderly neighbors and relatives.

***Have a safe and wonderful holiday season!***