



P.O. Box 21008, Roanoke, Virginia 24018, www.nightvisionassociation.org

Detrimental Effects of Chinese Night Vision Equipment Manufacturer's Involvement in U.S. Commercial Market Require Immediate Corrective Action

A problem has recently come to the attention of the Association of U.S. Night Vision Manufacturers (ANVM) concerning significant participation of Chinese manufacturers in the U.S. commercial night vision market. (To ensure clarity, "night vision" in the context of this paper means equipment that is based on at least one of the following technologies: image intensification, uncooled thermal imaging and low light level CMOS; and includes complete end-item products, individual sensors, mounts and accessories.) This problem has three main components:

- Chinese manufacturers are heavily subsidized financially by the Chinese Government thereby giving them a distinct cost advantage over U.S. manufacturers.
- Chinese manufacturers have blatantly violated intellectual property (IP) of U.S. manufacturers and are currently selling knock-off products in the U.S.
- U.S. customers are providing feedback to the U.S. companies selling the Chinese products regarding problems they are experiencing with the items they have purchased. This information is then provided to the Chinese manufacturers and is being used to improve the Chinese products. A direct beneficiary of the improvements are members of the Chinese People's Liberation Army (PLA).

Of these three, ANVM considers the last one to be of greatest importance. Over its 44-year history, ANVM has been focused, and in fact dedicated, to providing the latest and most technologically advanced night fighting equipment for U.S. Warfighters to enable them to operate effectively, efficiently and safely during night operations. In fact, "owning the night" by maintaining technological superiority/overmatch has long been the goal of ANVM member companies as well as the U.S. Government organizations which develop and procure this equipment. Enabling anything to degrade this overmatch in any way simply must be stopped.

Prior to starting discussion of the above three problems, it can be helpful to explain the three separate markets that exist in the U.S. for night vision equipment. These are: military, law enforcement and commercial. The military market is, by far, the oldest and largest. Equipping soldiers, sailors, airmen and marines with the best night vision equipment available will remain the Association's primary focus. Similarly equipping law enforcement officers is also a top priority. It is the commercial market that is most vulnerable to Chinese interference. Many different small companies (most are not ANVM members) located across the entire country exist to serve the private citizen hunters and other outdoor hobbyists who desire to use night vision equipment. While ANVM strongly supports this market and the right of U.S. citizens to own night vision equipment, it is this market that the Chinese products are primarily involved. In fact, more than half of the U.S. companies serving this market have ties to Chinese manufacturers by buying either complete products for re-sale or sensors to be used in the products they manufacture and/or assemble.

Now, regarding the three specific problems mentioned above. Concerning cost, major Chinese manufacturing companies are designated National High-Tech Enterprises. They receive this distinction as a result of being in knowledge- and technology-intensive industries as designated by the Chinese Government. Accordingly, they enjoy preferential tax policies, special government financial incentives, staff settlement bonuses and other

policy benefits that may include rent holidays for office space and wage support. These benefits enable these Chinese firms to develop products at artificially low prices and then export them into non-subsidized markets; thereby enabling Chinese companies to compete unfairly in the U.S. and other Western countries. (The source of this information is [Vermillion China](#), 25 Jan 2024. This is a periodical written for national security professionals who seek strategic analysis of U.S.-China competition.)

Regarding IP violations, at least two major U.S. products—the Ground Panoramic Night Vision Goggle (GPNVG) and the AN/PVS-31 Binocular Night Vision Device (BNVD) and a third—a German product sold in the U.S. by an American company-- the Dual Tube Night Vision System (DTNVS)--have been copied by Chinese manufacturers. The first two are prominently displayed on China-related websites and the third (DTNVS) was the subject of an eviction of its unauthorized Chinese copying manufacturer from a U.S. trade show held in Las Vegas in January 2024. U.S. Customs and Border Protection was involved in this incident. An example of the result of combining issues one and two concerns the BNVD which is sold by its U.S. manufacturer for \$14,000 while the Chinese copy is sold for \$5200 to \$5400. A second example is the GPNVG which is sold by its U.S. manufacturer for approximately \$40,000 while its Chinese copy is sold for \$22,000.

Price examples for similar, but not identical products, include a clip-on thermal imager which attaches to a night vision goggle and thermal imaging rifle sights. From its U.S. manufacturer, the clip-on device sells for \$10,500 while the Chinese copy sells for \$3,900. For the rifle sights, U.S. products sell for around \$7,000 while Chinese sights are available at \$4,500.

Further, there is hard data that Chinese manufacturers of thermal imaging microbolometers have openly violated the IP of U.S. manufacturers despite the Chinese sensors not being visible or even advertised in the finished equipment items in which they are used.

But the big issue is the third; U.S. citizens unknowingly helping Chinese manufacturers to improve their products. A very clear example of this activity is a statement from the website of a U.S. company active in the commercial market and connected to both an intermediary Canadian company, Opfor Night Solutions Corp. located in Richmond Hill, Ontario, and the original Chinese manufacturer, Argus Information Technology Co., Shandong, China. Opfor Night Solutions is believed to be the primary ingress point for Argus products to the U.S. market. The statement is as follows: “Our sister company in Canada (Opfor Night Solutions) has worked directly with Argus to improve and evaluate the BNVD-1431 series of products. Their feedback and recommendations led directly to many of the improvements made to this housing for the MK II.” (Ref: the same [Vermillion China](#) article cited above.)

In closing, any kind of support (financial, but especially related to product improvements) from U.S. citizens to Chinese night vision manufacturers supporting the Chinese PLA must be stopped immediately. As a first-step solution to this problem, ANVM is recommending a 100% tariff be applied to all imported night vision equipment from China (as defined above in the first paragraph of this paper) starting as soon as the tariff can be imposed. The U.S. must take direct action to stop any benefits that can accrue to Chinese armed forces that can benefit them in any future conflict with U.S. forces.

ANVM was founded in 1980, includes 41 member companies, and has supported U.S. Warfighters since then. It is committed to continuing this support for as long as the need for Warfighters exists. Further information or any questions concerning this paper can be directed to ANVM at its website, www.nightvisionassociation.org.

4 April 2024