Case Study

Gemini Stars in Philippine Drug Bust

Every month of every year, tons of illegal drugs move through a large part of Southeast Asia, known as the Golden Triangle. They are moved in part by the notorious Chinese-run Golden Triangle syndicate and other smuggling operations, destined for consignees with such innocuous names as Wealth Lotus Empire Corp.

The Golden Triangle is the area where the borders of Thailand, Laos, and Myanmar meet at the confluence of the Ruak and Mekong rivers. The "Golden Triangle" has been one of the largest opium-producing areas of the world since the 1950s. Most of the world's heroin came from the Golden Triangle until the early 21st century when Afghanistan became the world's largest producer.

'Shabu' - Old Enemy with a New Name

Now, a new drug known as 'shabu', which is really nothing more than methamphetamine with a new slang name, is increasingly trafficked through the region, including the adjacent Philippines. The **Philippine Drug Enforcement Agency (PDEA)** is working hard to stem the flow of shabu, but it's difficult. Shabu is easy to conceal and can be microtrafficked in small packages, disguised and mis-labeled as innocent substances, transported in barrels among other products or on small vessels from port to port. Now, the PDEA has a new ally in their efforts, the handheld Thermo Scientific[™] Gemini[™] analyzer. The Gemini analyzer is a handheld integrated Raman and FTIR instrument, capable of identifying more than 15,000 individual substances in an average of 30 seconds or less. It leverages both Raman and FTIR technology to address a broader range of samples

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than either technique alone. Fast, safe, and accurate, it identifies unknown solids and liquids, from narcotics to explosives and chemical warfare agents to industrial chemicals and precursors using a comprehensive onboard library. Often, the Gemini analyzer is used in conjunction with the Thermo Scientific TruNarc handheld narcotics analyzer, a smaller unit that is typically carried in the field by law enforcement agents, while Gemini is used at the nearby field office to deliver a more comprehensive analysis of substances identified as suspicious.

While a properly equipped lab can make a definitive analysis of an unknown substance, typical lab equipment does not lend itself to use by law enforcement personnel in the field because it is either too heavy, cumbersome, difficult to operate, or too expensive to distribute widely



to large numbers of law enforcement personnel. Because The Gemini analyzer can use its non-destructive analysis technique, Raman spectroscopic technology, it can precisely identify and analyze suspect substances. This identification can be accomplished 'on the spot' in seconds, even through packaging material such as plastic bags, so that the packages need not be opened, and law enforcement personnel don't need to risk contact with dangerous substances such as potent synthetic drug compounds such as fentanyl.



P1.8-billion Drug Bust

Recently, with the help of the Gemini analyzer, The PDEA seized a P1.8billion shabu shipment (Piso, the Philippine peso, is the official currency of the Philippines) at the International Container Port at Manila. And, once again, the PDEA tagged the notorious Golden Triangle syndicate as

the group behind the huge shipment. Bureau of Customs (BOC) officials were able to locate the container inside the Container Port and conducted an X-ray examination that revealed the presence of suspected drugs. When BOC officials opened the container, declared as containing plastic resin, they found 276 packs of shabu worth a total of P1.8 billion.

PDEA Director General Aaron Aquino said that the drugs were seized after PDEA's international counterparts provided a tip that a shipping container from Vietnam was arriving in Manila with a cargo containing a huge shipment of illegal drugs. This information became available after local police in Vietnam seized an estimated 300 kilos of shabu in Ho Chi Minh City that used similar packaging to that of the drug packaging recovered in Manila. The shabu was concealed in 276 packages of tea put in bags and then placed in sacks. The contraband was allegedly shipped from Vietnam, which is also part of the Golden Triangle.

Wake-up Call with Yaba

Shabu, as mentioned earlier, is a slang term for methamphetamine. The term is common in Japan, Hong Kong, Philippines, Malaysia and Indonesia. Ya ba, also called shabú (Philippines), are pills with a mixture of methamphetamine and caffeine. This combination is common throughout Asia. As a powerful stimulant, methamphetamine, even in small doses, affects the central nervous system and can increase wakefulness and physical activity and decrease appetite. Methamphetamine can also cause a variety of cardiovascular problems, including rapid heart rate, irregular heartbeat, and higher blood pressure. Methamphetamine itself is also known as meth, blue, ice, and crystal, among many other terms, and it takes the form of a white, odorless, bitter-tasting crystalline powder that easily dissolves in water or alcohol.

'Yaba', which means crazy medicine in Thai, is produced in Southeast and East Asia. The drug is popular in Asian communities in the United States and increasingly is available at raves and techno parties.

Director General Aquino said that the Golden Triangle syndicate was responsible for the shipment, which was in fact similar to drugs recovered a week earlier in Ayala Alabang Village in Muntinlupa City. Anti-narcotics operatives confiscated some P1.1 billion worth of shabu during a raid on a house inside that village and discovered more than 100 kilos of drugs concealed inside tea boxes and biscuit tins. The two shipments together were estimated to be worth more than P2.6-billion.

"The Golden Triangle has become the world's most active manufacturer and exporter of synthetic drugs."

The Gemini analyzer's nearly-instant analysis capability in the field recently enabled PDEA agents to arrest four suspects believed to be members of the Golden Triangle syndicate. Aquino's group first conducted a buy-bust operation outside a shopping mall in Alabang where three suspects were caught with more than 40 kilos of shabu. In a follow-up operation, operatives raided the house in Alabang where another foreign national was nabbed. Following such field testing, PDEA will also conduct purity testing to determine if the illegal drugs match seized drugs from other operations, helping agents establish connections and relationships between the traffickers involved.





Flows of methamphetamine tablet trafficking in the Mekong region, 2016-2018. Source: UNODC 2019 https://www.unodc.org/documents/southeastasiaandpacific/Publications/2019/2019_The_Challenge_of_Synthetic_Drugs_in_East_and_SEA.pdf

A Spreading Cancer

Aquino told local radio dzBB that the PDEA is alarmed by the billions of pesos worth of shabu smuggled into the country by foreigners. He noted that drug trafficking and smuggling into the Philippines "will never stop" as long as there is no death penalty in the country. The PDEA chief also noted that these foreigners "can buy judges, prosecutors and law enforcers," so that they can go freely back to their own countries. He added that the illegal drugs were likely intended to be distributed nationwide, from Metro Manila to the Visayas and even as far as Mindanao. And the beat goes on. In 2017, the BOC seized 604 kilos of shabu, hidden in metal cylinders, from two Valenzuela City warehouses.

With the Golden Triangle being the world's second-largest drug-producing region, the effects are being felt in Vietnam as well, even though Vietnam has some of the world's toughest drug laws. According to the annual report from the United Nations Office on Drugs and Crime (UNDOC) issued in March 2019, the number of amphetamine-type stimulants (ATS) and new psychoactive substances (NPS) seized in East Asia and Southeast Asia in 2018 reached a record of 116 tons, an increase of 210 percent compared to five years ago. In Vietnam, large quantities of methamphetamine perceived to have originated from the Golden Triangle have increasingly been smuggled and trafficked across Vietnam's border to and from its neighbors, including Cambodia, China, and Laos. The Golden Triangle has become the world's most active manufacturer and exporter of synthetic drugs.

thermo scientific

Increased confidence with complementary and confirmatory results

Dual technologies:

complementary and confirmatory

Raman and FTIR are highly specific and reliable identification methods, each with strengths and limitations. By integrating both into a single analyzer, operators harness the power of each technology while enabling a broader range of chemical identification. The Gemini analyzer allows you to quickly switch between analysis techniques. Get robust analysis information quicker than ever, without the need to sacrifice capability for weight.

FTIR

- Colored samples
- Fluorescent samples

FTIR and RAMAN

- Identify light colored samples
- Complementary and confirmatory analysis for many samples.
- 70% overlap for confirmatory results.

RAMAN

- Aqueous solutions
- Point-and-shoot through
 semi-translucent containers



Designed for survivability

From extreme climates to aggressive handling, Gemini has been certified to the latest military standards for ruggedness—drop, shock, vibration, temperature, immersion and much more.

Intuitive operation

The graphical interface ensures that minimal training is required for proficiency. For new users, the Scan Assist feature guides technology selection with a series of easy questions. The consistent interface and workflow across technologies ensure that experienced operators can easily proceed with sampling.





Sources:

- 1. PDEA tags Golden Triangle, Romina Cabrera (The Philippine Star) March 24, 2019; https://www.philstar.com/headlines/2019/03/24/1903975/pdea-tags-golden-triangle;
- 2. Vietnam and the Mekong's Synthetic Drug Epidemic, Hai Thanh Luong with Evelyn Macairan, (The Diplomat), May 2019, https://thediplomat.com/2019/05/vietnam-and-the-mekongs-synthetic-drug-epidemic/

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