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CRITICAL FACTORS ANALYSIS APPLIED TO THE DRUG WAR

by

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The contents of this paper reflect my own views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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15. Abstract: In 1997 we have entered into a renewed commitment to the war on drugs, and seek to develop relevant, effective course of action to implement the National Drug Control Strategy (1997). Critical Factors Analysis--deriving courses of actions by examining the critical strengths, critical weaknesses, critical vulnerabilities, and center(s) of gravity of a potential enemy--is a highly valuable analytical tool that has applicability in planning actions for the war on drugs. The enemy in the drug war is the illegal drug industry, which by its nature as an industry has the typical functions for a transnational industry, except for its illegality. Courses of action in the drug war should be designed to defeat this enemy's center(s) of gravity by exploiting its critical vulnerabilities. After examining all primary functions of the illegal drug industry, there are several critical vulnerabilities: illicit crops, 2 specific precursor chemicals, demand at the street dealing level, and money laundering at the point just before cash loads enter the legitimate banking system. Centers of gravity are the drugs profitability as a product, the productive capacity of drug producers, and accumulated wealth to recapitalize any temporary setbacks. Courses of action derived from this analysis support the National Drug Control Strategy, while giving added relevancy because they are designed to ultimately defeat the adversary, the illegal drug industry, by employing this operational art concept of critical factors analysis.			
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Abstract of

CRITICAL FACTORS ANALYSIS APPLIED TO THE DRUG WAR

General Barry McCaffrey's appointment as Director, Office of National Drug Control Policy in 1996 signalled a renewed commitment to the war on drugs by the current administration, Congress, and the counterdrug enforcement community in the U.S. The comprehensive approach of the *National Drug Control Strategy* document and record high funding for the next 2 fiscal years underscores the need to develop effective, well-conceived courses of action to implement the stated strategy. The operational art concept of *critical factors analysis*-- deriving courses of action from the examination of critical strengths, critical weaknesses, critical vulnerabilities, and center(s) of gravity--is a powerful analytical tool that can be applied to the war on drugs in order to develop rational, relevant courses of action to implement the *Drug Control Strategy*.

The *enemy* in the drug war is the illegal drug industry, viewed as a transnational industry with three drug sectors (cocaine, heroin, and marijuana). Examining critical factors in each functional area of the industry--supply, labor, production, inventory, transportation, distribution, retailing, marketing, and finance--reveal critical vulnerabilities in the areas of illicit crops, several key precursor chemicals, demand at the U.S. street level, and money laundering at the point before cash enters the banking system. The centers of gravity of the drug industry are its profitability, production capacity, and accumulated wealth.

The courses of action derived from this critical factors analysis support the stated goals of the *National Drug Control Strategy*. These courses of action are essential to the success of the strategy in that they are founded on key operational tenets: attack critical vulnerabilities to defeat the enemy's center of gravity.

The critical factors analysis of the illegal drug industry demonstrates the powerful analytical value of this operational art tool when developing courses of action for complex national security issues.

CRITICAL FACTORS ANALYSIS APPLIED TO THE DRUG WAR

Since the enactment of the Anti-Drug Abuse Act of 1988, the United States has been engaged in a "war on drugs" and has published the *National Drug Control Strategy* each year from the Director, Office of National Drug Control Policy (ONDCP) to provide an assessment and strategic goals in the conduct of this war. Each *Drug Control Strategy* has been comprehensive in scope, addressing all facets of the illegal drugs problem: the precursor crops, chemical refinement, trafficking, distribution, illicit dealing, use and abuse, drug-induced crime and social ills, and money laundering. But admittedly, the *execution* of the strategy, in terms of fiscal commitment and in the development of various courses of action, has not been comprehensive, and in fact has migrated from a "supply reduction", criminal enforcement emphasis to a "demand reduction", education/rehabilitation emphasis¹. Since the appointment of General Barry McCaffrey as Director, ONDCP in 1996, the war on drugs has taken on a truly comprehensive character, with counter-drug efforts addressing both sides of the supply-demand equation and Congress appropriating over \$16 billion to the war on drugs for fiscal year 1998, an all time high². In the context of this renewed commitment to defeat the illegal drug industry, the counter-drug community has been challenged to reassess the illegal drug threat and develop the most effective courses of action to carry out the multifaceted *Drug Control Strategy*. The operational art concept of *critical factor analysis*-- identifying and analyzing critical strengths, critical weaknesses, critical vulnerabilities, and the center(s) of gravity of an adversary-- provides a valuable analytical method to assess a threat situation and develop effective courses of action to counter the threat. By applying critical factors analysis to the war on drugs, new courses of action may be discovered while previous courses of action may be validated or refuted. The result would be a rational plan, based on sound analysis, to implement the national strategy. The analysis may also be useful in evaluating proposed counterdrug initiatives for their relevancy in addressing the essential critical factors in the drug threat.

Critical Factors Analysis: An Analytical Tool

Critical factors analysis is part of the Joint Professional Military Education (JPME) curriculum. In the practice of joint operations planning, critical factors analysis is applied in the development of a Commander's Estimate of the Situation (CES). Within the CES process, the enemy's critical factors are identified and analyzed to develop courses of action to achieve one's own objectives, while one's own critical factors are likewise identified and analyzed to develop potential enemy courses of action toward his likely objectives³. The idea is to design courses of action that avoid the adversary's strengths, attack the weaknesses, and exploit the vulnerabilities in order to get at the adversary's center(s) of gravity⁴. After testing the courses of action for adequacy, feasibility, and acceptability, the CES process continues by analyzing the opposing courses of action (gaming) and otherwise comparing the alternative courses of action to ultimately decide on the best choice⁵. Critical factors analysis is thus a simple yet powerful analytical tool which can be applied to develop viable courses of action in our nation's quest to accomplish the *Drug Control Strategy* goals.

Definitions⁶. *Critical strengths* are those enemy capabilities considered vital for the accomplishment of enemy objectives. *Critical weaknesses* are those capabilities that are qualitatively or quantitatively inadequate by themselves to ensure accomplishment of enemy objectives. For example, in the drug trade, easy access to raw materials might be a critical strength, while difficult supply routes might be a critical weakness. *Critical Vulnerabilities* are those critical weaknesses that are directly related to the enemy's center of gravity and are open to attack or exploitation by our forces. Sometimes critical strengths can also be critical vulnerabilities if they are insufficiently protected and open to attack. *Centers of gravity* are those critical strengths that are the enemy's primary sources of power or leverage-- its hubs of strength. Centers of gravity can be tangible or intangible, and a single enemy can have more than one center of gravity. In order to identify critical strengths, critical weaknesses, critical vulnerabilities, and centers of gravity of the enemy, the first step is to place some bounds on the drug problem so as to define *who is the enemy*.

The Enemy Is An Entire Industry

The illegal drug problem is foremost an *industry*, an illegal industry. As an industry, the drug trade has all the functional trappings of a commercial enterprise: supply, labor, production, inventory, transportation, distribution, retailing, marketing, and finance⁷. The illegal drug industry's marketplace is comprised of illegal buyers and sellers; both groups are considered "criminals" in the legal sense. The *Drug Control Strategy*, makes it clear that the buyers are not "the enemy" in our war on drugs:

"...the United States does not wage war on its citizens, many of whom are the victims of drug abuse. These individuals must be helped, not defeated. It is the suppliers of illegal drugs, both foreign and domestic, who must be thwarted."⁸

The enemy, then, includes all those who participate or have a stake in the commercial enterprise of the illegal drug industry. The search for critical factors in the analysis should include all those identifiable within the entire gamut of the commercial enterprise. At face value, one might thus conclude that our resulting courses of action will be limited to "supply reduction" initiatives. This is not the case for several reasons. First, critical factors lead to viable courses of actions *in the context of our own objectives*; since the *Drug Control Strategy* sets distinct goals to reduce illegal drug demand, our courses of action must meet these goals. Secondly, if drug users (buyers) and other "victims" of illegal drug abuse are not the enemy, then they can be considered our own "casualties", and the *Drug Control Strategy* can be interpreted as having a goal to minimize casualties. Thirdly, courses of action that are "demand reduction" oriented have the effect, from the enemy point of view, of denying potential new markets, reducing established markets, or both. A critical factors analysis would in fact add validity to demand reduction efforts by demonstrating, beyond the moral underpinnings of "taking care of our victims", that these efforts *make sense* in our quest to defeat the enemy in this drug war-- the illegal drug industry. The critical factors analysis in the following paragraphs seeks to provide insights to effective courses of action against the gamut of the illegal drug industry's major functions (i.e., the enemy's operations): supply,

labor, production, inventory, transportation, distribution, retailing, marketing, and finance. For brevity and focus, the "industry" will be confined to the cocaine/heroin/marijuana trade in the western hemisphere.

Analysis of Illegal Drug Industry Functions

Supply. The objective of the supply function in any industry is to get the raw materials and necessary tools and equipment to the production site(s). The drug trade requires coca, poppy, and cannabis plants, precursors, reagents, solvents, vats, drums, filters, heating elements (ovens, space heaters, blowers), and packing materials. A critical strength for the drug industry is the ready abundance of these items throughout the Americas; except for the plant matter, all are easily obtained on the open market⁹. Even coca is not illegal *per se* in Peru, while in Bolivia it is controlled but not completely outlawed¹⁰. The ease of cultivating coca, poppy, and cannabis coupled with the generous prices they command provide plenty of incentive for poor farmers in the Andes region and Mexico to cultivate these crops vice legitimate cash crops. As a result, over half a million people in Peru and Bolivia are involved in coca production, harvesting enough coca annually to produce 760 metric tons of cocaine, over twice as much cocaine as the annual U.S. consumption¹¹.

However, there are some critical weaknesses in the drug industry's supply lines. Getting coca leaves or coca paste to illicit refining sites in Colombia requires extensive transportation across the Andes Range, either by small general aircraft or through the Amazon tributaries, then overland. These shipments have been vulnerable to interdiction by the Peruvian Air Force and by military riverine patrols during the past two years, resulting in an 80% drop in coca prices in some regions of Peru¹², and a *voluntary* 18% reduction of coca cultivation in 1996¹³. The drug industry subsequently responded by increasing coca cultivation within Colombia by 32%¹⁴, and coca prices rebounded in many parts of Peru as smugglers increased riverine and overland transport of coca where able. Additionally, within the cocaine industry, the availability of acetone and ether is a critical weakness; these two chemicals are needed to make cocaine base into cocaine HCl, and neither are produced within

Colombia, where the vast majority of cocaine HCl refinement takes place. These chemicals, produced in huge quantities in the U.S. and other industrialized nations, must be imported illegally by the drug producers or otherwise diverted from legal imports within Colombia. Ether, in particular, has few legitimate uses within the Colombian economy, making it more difficult to smuggle or import undetected¹⁵.

Crop cultivation is another, potentially vulnerable, critical weakness. Crop fields, to provide an output of sizeable amount to be profitable to the coca, poppy, or cannabis farmer, need to be sizeable-- at least 1 hectare (2 1/2 acres)¹⁶. This makes the fields highly visible from aircraft and thus vulnerable to aerial spray eradication. The coca crop is particularly vulnerable because it is adapted to grow in a specific region, the Andes Range, and the bulk of it, 70%, is located within the country of Peru¹⁷. Additionally, coca takes two years to reach maturation after planting, although once planted, it produces three to four harvests of leaves annually for years without replanting¹⁸. Poppy and marijuana are less vulnerable because their maturation occurs in less than one year after planting, and they grow in a variety of climates and conditions; this more than doubles the required eradication efforts compared hectare to hectare with coca.

Labor. The objective of the labor function is to maintain a sufficient base of loyal labor forces that are adequately skilled in all the tasks required for the industry to thrive. In this function, the illegal drug industry has several critical strengths. First, the great majority of the tasks required in the industry don't demand a high degree of skill, with airplane pilots, ship captains, and financial accountants being the notable exceptions. Even the chemistry involved in production, complicated as it sounds, is easily learned and mastered quickly with practice¹⁹. This assists with recruitment, since established producers, smugglers, and dealers can "buy" loyal work forces among the unskilled poor with generous compensation. Traffickers, distributors, and dealers typically pay their workers with product instead of cash, which helps to reinforce loyalty to the trade and also helps to further entrench the local market. Additionally, the drug industry, due to its illegality, is highly compartmented, not by design as

much as by nature. People are compulsively secretive in the drug trade to the point that most traffickers, distributors, and dealers don't know much about those immediately up or down the chain, nor about potential rivals or competitors²⁰. The drug trade is by no means a vertically integrated monolith-- even the cocaine "cartels" are actually drug export cooperatives²¹. The U.S. marijuana trade is as ad hoc a business as one could find anywhere, with users acting as distributor/dealers on behalf of fellow users who are also friends²². This "free enterprise" nature of the drug trade makes the dismantling of trafficker organizations a difficult task.

Production. The objective of the production function is to convert raw materials, via tools, equipment, supplies and labor, into a *profit generating* product, and package it for shipping. A truly profit generating product not only covers actual production costs, but also covers all related costs *throughout the industry*, including compensation for everyone in the industry and an acceptable return for investors. The profitability of the product is essential to the viability of the industry, otherwise, the industry will wither away component by component as people find more lucrative endeavors in which to invest their time. For the drug industry, profitability of the products is a critical strength, indeed a *center of gravity* throughout the industry. There is such an enormous difference between the end price of illegal drugs, (\$100,000 per kg of cocaine when sold by the dose on U.S. streets)²³, and the farmer's cost to cultivate the crops needed to produce the drugs (requires half an acre plot of coca costing about \$100 in Peru)²⁴, that the entire illegal drug industry thrives worldwide despite the incredible costs associated with every step of the criminal enterprise. The profitability of illegal drugs covers the myriad of atypical criminal costs such as black market prices for raw materials, graft, corruption, bribery, weapons and associated violence, trafficking costs, interdiction, legal support, and money laundering; it covers the premium compensation expected by all industry participants for their risks operating within a criminal enterprise; it also bankrolls the grotesque wealth of the industry leaders.

Another critical strength of production within the illegal drug trade is that the drug production processes are fairly simple. Marijuana's production cycle is nothing more than the cultivation, harvesting, and baling of cannabis itself. Cocaine, with a three stage production process (paste, base, HCL) seems complex, but in fact Colombian cocaine refiners have demonstrated over the years an ability to keep most processing labs one-step ahead of Colombian law enforcement efforts, mainly by bugging out of lab locations immediately prior to the arrival of authorities. In 1996, the Colombian National Police destroyed over 850 cocaine labs (record high) without any noticeable effect on the availability of cocaine on the world market. Many of these labs revealed a new capability to recycle some of the chemical solvents, helping to reduce the labs' "footprints" from chemical shipments²⁵.

The illegal drug industry has also shown subtle, but important diversity and adaptation over the years to sustain itself. Mexican and U.S. grown cannabis has dramatically increased since 1990 while Colombian drug producers concurrently shifted emphasis to cocaine. Mexican produced heroin had dominated the U.S. heroin market for decades; today, Colombia has overtaken Mexico in net poppy cultivation and heroin production, with most of the Colombian heroin being produced by traditional cocaine producers²⁶. Competitive market forces, consistent demand, and law enforcement efforts have combined to motivate these adaptations, with the net result being more drugs available at stable prices with more profitability for the criminals.

Inventory. The inventory function has the objective of acting as a product buffer between production and retailing, so that the industry can consistently meet demand. Inventory in the drug industry seems to be kept to a minimum at the production and trafficking level; drugs get shipped out of the source country as soon as an economically viable amount is produced, and are quickly parcelled out by the wholesale distributors upon reaching the destination country. While multi-ton interdictions of cocaine and marijuana occur periodically, they are rare enough to be considered anomalies. Inventory control appears to be a critical strength in the drug industry.

Transportation. The transportation function has the objective of getting the product from the production sites to the distribution centers in the importing country. This is the heart and soul of organized crime in the drug trade. The transportation (trafficking, smuggling) elements of the drug industry bear the brunt of interdiction, criminal investigative efforts, and law enforcement. This is where the majority of the risk in the industry resides, and as a consequence, is the most lucrative function in the industry. The drug "kingpins" are virtually all traffickers²⁷.

A critical strength in the trafficking elements of the drug trade is that traffickers have fed on their successes to become more diverse and more sophisticated in their methods and routes, thus reducing the overall risk to the industry. The traffickers have "reinvested" a great deal of their accumulated wealth to acquire better technology, employ bribery and corruption to their advantage, generate intelligence against interdiction and law enforcement, and expand the number of routes available to them²⁸. Hand in hand with their wealth is the traffickers' transborder freedom of movement; traffickers can buy access and safe haven, they can blend in with the rest of the legitimate arena, they can establish legitimate fronts.

As a consequence of constant interdiction pressures since the beginning of the drug war, traffickers are currently employing the types of routes and methods that interdiction forces have the most difficulty interdicting. We are victims of our own past successes. The current marijuana trade in the U.S. is an excellent example of how our successes have created new problems; by interdicting the Colombian cannabis farmers out of business, U.S. law enforcement forces have driven over half of the U.S. marijuana supply to a cottage industry *within* the continental U.S., resulting in a stealthier, less interdictable trafficking system.

A critical weakness in the trafficking function is that the traffickers, despite having a more than adequate rate of success in the current picture, are running out of options. The law enforcement community is becoming much more transnational, making it more difficult for traffickers to find or buy safe haven. About two-thirds of all three major drugs coming into the U.S. do so via the U.S./Mexico border²⁹; the rest mostly come through the Caribbean, an

ever tightening gauntlet of multi-national interdiction forces. All the other traditional routes have been constricted or rendered useless over time due to exploitation by interdiction forces.

Distribution. The objective of distribution is to receive shipments from producers, via transportation, and disperse it to local retailers. The drug industry has some of its distribution vertically integrated with the trafficking organizations, some vertically integrated with local retailers, and some as independent mediators. There is potential for violence in this function, notably in the cocaine and heroin sectors, as organized crime syndicates compete for shares of regional markets³⁰. This is also the level that deals with the most cash, and therefore must work through the finance function to launder money for the industry. This functional group within the drug trade operates in a compartmented fashion; the retailers who are supported by an individual distributor typically don't know how much product the distributor handles and they don't know how many retailers he handles either³¹.

Because distributors are connected to specific regional areas, they are individually vulnerable to criminal investigations, which may be a critical weakness within the drug industry. However, despite robust criminal investigative activities against drug rings over the years at the local, state, and federal levels, the drug trade seems to thrive, demonstrating exceptional resiliency.

Retailing and Marketing. The objectives of the retailing and marketing functions are to sell the product to consumers at the best price the market will allow, and to maintain and expand the consumer base for the industry products. For the illegal drug industry, both of these functions are done primarily by the local drug dealers found on the streets, schools, and workplaces. Many workers within the trafficker organizations are paid in product instead of cash, so these people also dabble in local dealing to convert their "paycheck" into cash.

A critical strength for the dealers is that they typically enjoy close ethnic, cultural, language, or racial affinity to their clients. Dealers in poor sections of cities have wealth as a status symbol, providing an ironic legitimacy to their "profession". Young adults and teens

who grow up surrounded by poverty may see the local drug dealer as "one of their own beating the system".

Additionally, the target audience for the dealers' marketing efforts is the youth. Our nation's youth are impressionable, willing to test established norms (i.e., to try things for themselves and evaluate it on their own terms), subject to tremendous peer pressure, and generally endure more life stressors on a daily basis than any generation of youth before. These same youth are hearing clear signals of ambivalence within our mainstream society regarding marijuana (e.g., admissions of drug use by political figures, the referendums in California and Arizona, public debate about legalization); as a consequence marijuana use has actually rebounded since 1992, mostly thanks to a surge in marijuana use by teens, including a significant drop in the mean age of "first time users"³². Marijuana is acknowledged by drug abuse experts as a "springboard drug", a drug encouraging later experiment with harder drugs like cocaine, heroin, or meth.

Fortunately there are some weaknesses in the dealers' functions. The drug culture is a counterculture, with mainstream society taking a fairly clear stand that illegal drugs are inherently bad. Furthermore, the societal ills from drugs have become readily apparent to most people over the years, particularly those young growing up in areas where drug abuse is prevalent. Dealers' efforts are vulnerable to robust information operations targeting our youth to reject drugs and to appreciate the health risks of drugs (including marijuana). Schools provide parents and teachers a well controlled environment to campaign against drug abuse.

Another critical weakness is that the cocaine and heroin consumer populations are dwindling to a small core of chronic abusers and addicts, vice a wide gamut of casual users³³. The hard core users are also aging and dying out, as indicated in emergency room admission reports³⁴, placing a lot of uncertainty on the future of illegal drug demand. If the U.S. can make serious inroads in reducing drug abuse by our youth, then overall drug demand may become so limited as to put the illegal drug industry in serious jeopardy within the next several years.

Finance. The objective of this function is to manage the conversion of sales proceeds back into the industry. The proceeds going back into the industry have three important functions in an industry: they provide the industry's working capital to keep the industry operating; they settle any accounts receivable that are linked to sales proceeds; they provide the return on investment to those with a stake in the proceeds. In the drug industry, finance deals mostly with money laundering. Dealers collect tons of cash from sales, mostly operate in cash, and obtain more sales product from distributors by cash transaction. Some dealers with large operations may have their own money laundering scheme and pay distributors through non-cash payment vehicles. The distributors generally end up with cash from dealers and are the primary entry point into the money laundering process, operating some cash conversion scheme or hiring a money laundering entity to perform the task³⁵. Some trafficking organizations have a direct stake in their distribution channels (e.g., the Cali Cartel in New York and the Medellin Cartel in Florida)³⁶; the distributor and the money launder are compensated by the trafficker in these cases, and the bulk of the proceeds end up back in control of the trafficking organization. Often, money laundering is done by other traditional organized crime segments, such as ethnic mafias, and laundered funds are provided back to the drug industry at agreed upon discounts³⁷.

Money laundering schemes are often intricate and based on legitimate business if the organizations have had a successful presence in an area over time. The main concept is to get cash into the banking system via legitimate businesses or nonbank financial institutions, then use a series of electronic funds transfers and other banking vehicles to make an indecipherable train of transactions that provide ready access to stakeholders in the funds³⁸. Front companies involved in money laundering employ tactics such as overreporting trade, reporting notional trade, false invoicing, overbilling, unreported cash compensation, providing check cashing services, or operating businesses across the border where auditing and regulations are lax³⁹. The scope of wealth generated from illegal drugs makes the development of front

companies and schemes seemingly limitless; some front companies help recover the costs of money laundering through legitimate earnings.

The critical weakness in the financial function is the initial cash transactions *before* depositing into banks or nonbank insitiutions⁴⁰. Drug dealers and distributors, as the entities handling bulky cash, are vulnerable to criminal investigations that use a "follow the money" strategy to start link-associate analyses into workings of their money laundering schemes. Asset seizure and forfeiture laws make anti-money laundering regulation and criminal investigation potentially lucrative endeavors for governments, making it ever increasingly difficult for money launderers to buy government or bank industry complicity through bribery or corruption.

Critical Vulnerabilities

The drug producing crops (coca, poppy, and cannabis) are collectively a critical vulnerability to the illegal drug industry. If the crops could be eradicated, abandoned, or replaced with other crops *en masse*, the entire industry would grind to a halt⁴¹. Chemical supply lines for the cocaine sector are also vulnerable, specifically for acetone and ether. Even if these chemicals cannot be interdicted, targeting their supply trails (chemical footprints) may lead to a greater vulnerability of the cocaine production labs. Within the marketplace, the U.S. streets, the money laundering function and distribution networks have a critical vulnerability at the points where cash changes hands: from dealers to distributors, and from distributors to banks. Finally, the street dealers' retailing and marketing functions have a critical vulnerability in its consumer base. If the youth of America can be *denied* to the dealers (both sales *and* marketing efforts), then the overall demand from illegal drugs will be in significant trouble in as few as four years, the time most teens spend in high school.

Centers of Gravity

The illegal drug trade's stubborn resiliency and power hinges on two factors that relate to any highly successful industry: Illegal drugs are a superlatively *profitable product*, and the illegal drugs industry has a robust *productive capacity* (drug labs) to exploit that profitability.

Furthermore, truly diligent efforts to specifically target this productive capacity (i.e., seeking and destroying cocaine and heroin labs in Colombia and Mexico) have been unsuccessful, not in raw numbers of destroyed labs, but in the desired effect of reducing production or productive capacity. Another, perhaps lesser center of gravity is the accumulated wealth of drug producers and drug traffickers. Their vast wealth helps the industry to rebound from setbacks and capitalize extensive supply, production, transportation (trafficking), and financial (money laundering) infrastructures.

Courses of Actions Derived From Critical Factors Analysis

A key tenet in developing courses of action is to focus on accomplishing the missions⁴², which in this case are the five enumerated goals in the *Drug Control Strategy* document. The purpose of critical factor analysis is to employ another key tenet: Attack critical vulnerabilities to defeat the center(s) of gravity⁴³. Applying both of these key tenets, what follows are each of the five *Drug Control Strategy* goals with associated courses of actions derived from the critical factors analysis.

Goal 1: Educate and enable America's youth to reject illegal drugs as well as alcohol and tobacco. Courses of action include all those specified objectives in the *Drug Control Strategy* that help to deny drug dealers access to America's youth⁴⁴. All of these actions contribute to an all-out attack against the drug industry's critical vulnerability in its customer base. Damaging the drug industry's consumer base will slow down sales, slow down cash flow, and lower profitability-- one of the two primary centers of gravity. This will either force a downsizing of production within the drug industry, the other primary center of gravity, or cause the industry to seek new markets elsewhere.

Goal 2: Increase the safety of America's citizens by substantially reducing drug-related crime and violence. This goal relates to the dismantling of drug distribution rings, dealers and money laundering organizations in the U.S. The critical factors analysis suggests focusing on exploiting dealer-to-distributor connections and cash heavy transactions within the High Intensity Drug Trafficking Areas (HIDTAs) to make inroads to money

laundering schemes. Regulatory efforts to expand anti-money laundering rules and laws beyond the banks to include nonbank financial institutions (brokerage houses, investment institutions, even check cashing service firms) would help to limit the number of viable means for dealers and distributors to convert their cash holdings without detection. The underlying purpose is to detect and seize drug funds to reduce the industry's profitability, and to deny wealth to affected organizations (a tertiary center of gravity).

Goal 3: Reduce health and social costs to the public of illegal drug use. This goal relates to reducing the number of chronic users and addicts in the illegal drugs consumer base. The critical factors analysis suggests emphasis on programs that provide effective treatment or improve existing treatment so as to undermine the drug industry's remaining reliable customer pool--hard core abusers and addicts. As long as that support base is large enough to generate an acceptable profit for the drug industry, the industry will remain viable.

Goal 4: Shield America's air, land, and sea frontiers from the drug threat. This goal relates to interdiction efforts against the transportation function of the drug industry, trafficking. The critical factors analysis did not reveal any critical vulnerabilities in drug trafficking, but clearly, interdiction forces have continually disrupted trafficking methods and schemes over the years. Today, the trafficking threat is confined to two well established corridors, through Mexico across the southwest border under the control or assistance of Mexican trafficking organizations, or through the Caribbean basin to Puerto Rico or Florida.⁴⁵ Concentrated efforts by detection, monitoring, and interdiction forces on these two corridors will make trafficking a greater risk to the industry that could perhaps damage its profitability.

Goal 5: Break foreign and domestic sources of supply. This goal relates to international efforts against the supply, production, interdiction, and finance functions of the illegal drug industry. Critical factor analysis suggests several important efforts in pursuit of this goal. A significant, *net* reduction of the coca, poppy, and cannabis crop through a combination of eradication efforts, shifting to new crops, or outright abandonment of illicit

crop fields for other economic pursuits would have a significant effect on drug industry production. As cocaine remains the main focus of the drug war effort, and coca reduction has the most dramatic effect on production capability, top priority should be given to continue eradication in Colombia, expand it in Bolivia, and implement it where politically feasible in Peru⁴⁶ (perhaps in unlicensed, unsanctioned fields, or in areas under extensive Sendero Luminoso insurgents' control). U.S. foreign aid and economic development programs could encourage more economically viable alternatives to illicit drug crop production while acknowledging the politically sensitive aspects of forced crop eradication⁴⁷. Another critical vulnerability related to this strategy goal is the precursor chemical supply lines. A viable course of action is to embark on an international, cooperative campaign to specifically track the export of acetone and ether to South American countries. In 1996, DEA announced new federal requirements for chemical exporting companies in the U.S. to provide DEA 15 days notice before exporting specified drug precursor and processing chemicals to Colombia, including an affidavit stating that the chemicals will be used for legitimate purposes⁴⁸. Providing chemical shipment information to the Colombian National Police may support their efforts to disrupt cocaine production via lab interdictions. Another course of action in the international arena that would attack the drug industry's profitability is a concerted effort to combat money laundering in the world's banking systems. Specifically, more universal controls on the reporting and verification of large cash deposits would deny more safe havens for money launderers to unload cash, attacking their critical vulnerability. Since 1994, international efforts to secure cooperation of the world major banking institutions have made a great deal of progress, while multilateral efforts to identify and seize drug industry funds and break up money laundering schemes have had several major successes under the 26-nation Financial Action Task Force⁴⁹.

Conclusion

Critical factors analysis is a powerful tool, adapted from operational art and joint operations planning, that can be used to examine a national security issue, such as the drug

war, and develop effective courses of action to achieve our strategic goals. The resulting critical factors analysis provides keen insights to the most relevant aspects of a complex problem, such as the illegal drug industry; it reduces the scope of effort needed to develop courses of action by focusing on the exploitation of critical vulnerabilities to defeat the centers of gravity. Critical factors analysis has relevancy beyond military applications, in planning courses of action to implement national strategies.

NOTES

¹Bryon York, "Bill's Four Star General", American Spectator, May 1996, 2.

²Executive Office of the President, Office of National Drug Control Policy, The National Drug Control Strategy, 1997 (Washington: U.S. Govt. Print. Off., 1997), 63.

³Naval War College, Joint Military Operations Department, Commander's Estimate of the Situation (NWC 4111B)(Newport, RI: September 1997), 3-1 to 4-3.

⁴Milan Vego, Naval War College, Joint Military Operations Department, On Operational Art (NWC 1035)(Newport, RI: September 1997), 121.

⁵Naval War College, (NWC 4111B), 5-1.

⁶Vego, (NWC 1035), 121-122. All definitions contained in the paragraph headed "*Definitions*" were derived from the cited work.

⁷Francisco Thoumi, Political Economy & Illegal Drugs in Colombia (London: Lynne Rienner 1995), 133.

⁸Executive Office of the President, Office of National Drug Control Policy, 5.

⁹Thoumi, 131.

¹⁰Department of State, Bureau for International Narcotics and Law Enforcement Affairs, International Narcotics Control Strategy Report (Washington: March 1997), 4-5.

¹¹General Accounting Office, Drug Control: How Drug-Consuming Nations Are Organized for the War on Drugs, Report to the Chairman, Permanent Subcommittee on Governmental Affairs, U.S. Senate (Washington: 1990), 46.

¹²Clifford Krauss, "Pentagon to Help Peru Stop Drug Traffic on Jungle Rivers", The New York Times, 3 February 1997.

¹³General Barry McCaffrey, Director, Office of National Drug Control Policy, "Hemispheric Drug Control, Fighting Drug Production and Trafficking," Speech to the 21st Regular Session of the Inter-American Drug Abuse Control Commission, Organization of American States, Washington: 9 April 1997. Text printed by Vital Speeches of the Day, Vol. LXIII, No. 14, 1 May 1997, 418-421.

¹⁴Department of State, 10.

¹⁵Thoumi, 132.

¹⁶Edmundo Morales, Cocaine, White Gold Rush in Peru (Tucson AZ: University of Arizona 1989), 52-55.

¹⁷Executive Office of the President, Office of National Drug Control Policy, 54.

¹⁸Edmundo Morales, 54-55.

¹⁹Thoumi, 131.

²⁰Ibid, 135, 141.

²¹Ibid, 145.

²²Executive Office of the President, Office of National Drug Control Policy, 22.

²³McCaffrey, 419.

²⁴Morales, 52-53.

²⁵Department of State, 86.

²⁶Ibid, 3.

²⁷Thoumi, 142.

²⁸Ibid, 145.

²⁹William Mendel and Murl Munger, Strategic Planning and the Drug Threat, (Fort Leavenworth, KS: Strategic Studies Institute August 1997), 5.

³⁰Thoumi, 146.

³¹Ibid, 141-2.

³²Executive Office of the President, Office of National Drug Control Policy, 13.

³³Ibid, 11.

³⁴Ibid, 16.

³⁵David A. Andelman, "The Drug Money Maze", Foreign Affairs, July/August 1994, 95-96.

³⁶Thoumi, 145.

³⁷Department of State, 514-515.

³⁸Andelman, 99-100.

³⁹Ibid, 95.

⁴⁰Ibid, 95.

⁴¹Department of State, 4.

⁴²Naval War College, (NWC 4111B), 4-4.

⁴³Vego, (NWC 1035), 121.

⁴⁴Executive Office of the President, Office of National Drug Control Policy, 33-34.

⁴⁵Ibid, 50.

⁴⁶Department of State, 4-5.

⁴⁷Ibid, 4-5.

⁴⁸Christopher Wren, "U.S. Curbs Export of Chemicals to Colombia Used in Refining Cocaine", N.Y. Times News Service, 27 March 1996,
<<http://www.latinolink.com/news/0327col.html>>

⁴⁹Andelman, 101-103.

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