



**EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF NATIONAL DRUG CONTROL POLICY**

Washington, D.C. 20503

May 5, 2006

The Honorable Charles E. Grassley
Chairman
Caucus on International Narcotics Control
U.S. Senate
Washington, D.C. 20510

Dear Senator Grassley:

Thank you for your April 21, 2006 letter. I welcome this opportunity to respond in depth to your questions regarding drug data and drug policy. As always, I am deeply appreciative of your continued attention to the critical issue of U.S. drug policy effectiveness. I further value your hard work in support of Plan Colombia, and remain convinced that an effective, cooperative partnership between my office and Congress is the most powerful way to drive down drug use in America.

Your letter asks for clarification about statements from my office regarding "the price, purity, and availability of cocaine and heroin in the United States and how they correlate to the achievements of Plan Colombia."

Since the focus of your questions is on drug availability as reflected in the drug market of the United States, some discussion of the wider context of our policy actions is first in order. At the outset, let me reiterate that measures of Plan Colombia's policy effectiveness are many, and encompass political and economic developments in Colombia, as well as the impact on the United States.

Moreover, in our balanced strategy, a wide array of policy actions is being coordinated against the threat that illegal armed groups present to the viability of Colombia as a nation. In addition to eradication activities, such efforts include law enforcement and interdiction efforts, organizational attack activities, economic development strategies, and extended government control. Each of these has an important role to play in defeating the threat of narco-terrorism and narco-trafficking, and denying drug producers the proceeds and power that flow from their control and distribution of cocaine and heroin.

In the following, I have attempted to explain what is admittedly a very complex set of issues, in the hope that you will conclude that our analyses are valid and factually supported.

I would like to clarify the nature of the drug data sets used, the statistical interpretation of those data, and the results derived therefrom.

Though I will respond to each of your questions individually, some general observations are appropriate. The first regards use of the DEA STRIDE database. Though your letter characterizes STRIDE as providing "data which was already determined by ONDCP to be unacceptable as a primary source," this is not our position.

Since 1992, ONDCP has produced a drug price and purity time series using data from the STRIDE database. STRIDE is a drug evidence inventory, which makes it a convenience sample, and not a proper probability sample. This weakness notwithstanding, STRIDE is a very large database with a long, continuous time frame. It contains a great deal of information, and statistical methods can be used to compensate for its inadequacies. For many years, STRIDE data have been examined, with appropriate caveats, for strategic evidence of changes in the drug market. Though not designed for this purpose, STRIDE data can be shown to reflect changes in the drug market derived from other databases.

Moreover, STRIDE data are the best source of information currently available on drug prices and purities. STRIDE data are routinely used by researchers examining the relationship of drug purities and prices, and are widely utilized in published, peer-reviewed literature. Analysts have been able to show interpretable associations between STRIDE and other data indicators.

To be sure, we are currently instituting measures to establish superior databases that measure price and purity changes with greater precision and appropriate probability features to develop a more powerful and nationally representative portrait of changes in the cocaine market in the United States. This does not mean, however, that conclusions derived from STRIDE data are consequently misleading or invalid.

The STRIDE database is extensive and can be analyzed using various statistical methods. Yet the price/purity analysis that we presented in November, 2005 is a feature of the data found regardless of which of various statistical methods was brought to bear. Importantly, the inflection point and trajectory of the data do not just reflect methodological assumptions, but appear to represent a genuine feature of the data, detected by all analytic methods.

In sum, two separate analyses of the STRIDE data were produced by IDA, one using a "weighted median" methodology, and one with an "expected value methodology" (comparable to RAND's previous analysis), each with differing assumptions and methodological choices, and each revealed the same price/purity trajectory that we announced in November, 2005. In fact, the steepest decline in retail level purity was found using the assumptions of the "expected value methodology," 16.9 percent vice the 15 percent found when the "weighted median methodology" was applied.

Finally, though the particular price/purity value found for the starting point of any analysis is somewhat unique, for the above reasons, any one of the methods can be selected to either backcast or forecast the data found by any other method, demonstrating commensurability across methods. In other words, each method replicates the analyses of the others with regard to trends, without distortion.

Though the STRIDE data sets are not perfect, clearly they do have value. We should note, in addition, that those who criticize Plan Colombia, and who find STRIDE data authoritative when impugning the effectiveness of the program, now find themselves in the position of impugning the STRIDE data itself when it reflects the opposite conclusion. Certainly, we do believe that fluctuations in price and purity are attributable in part to law enforcement patterns both here and

interdiction, prevention, treatment, and judicial sanction. We do not believe it would be prudent to discount coca eradication efforts because measures of success might be jointly shared with others.

The data that we presented covered an eight-month period (not six months) and while preliminary in nature, was of particular interest in that it represented a clear reversal of both price and purity trends from the more extended previous time period characterized by steady declines in price and increases in retail cocaine purity. We continue to believe that the preceding long-term trend of declining cocaine prices and increasing purities observed during those months was most likely driven by an abundant supply inventory of available cocaine. We thus found the utilized STRIDE data especially significant in that prior price and purity measures had been inconsistent with other, very robust data sets (such as those indicating interdiction success or cultivation reductions). The most recent data available to us, and upon which we based our conclusions, was now fully consistent with those other measures, suggesting some corroborative evidence of market impact.

Finally, I want to address the critique that our press release was potentially misleading by referring to an 8 percent reduction in cultivation in the traditional growing area, compared year-to-year. Your letter indicates that "overall, cultivation continues to rise as a result of coca being grown in new areas not being targeted by eradication." We do not know that the additional coca surveyed in the 2005 expanded growing area is new, or that it results from movement away from eradicated areas. It is likely that much of the newly-surveyed coca was already present in past years, and better intelligence led to its recent observation. Hence, our press statement discussed the impact of eradication in both the traditional and previously surveyed growing areas (i.e., the 8 percent decline in cultivation) as well as indicating the impact of the expanded growing area survey, which, though covering an area 81 percent larger than previous surveys, resulted in only a 26 percent increase in cultivation between 2004 and 2005 (10.95 million hectares was expanded to 19.8 million hectares for 2005).

Consequently, we are confident that our data sets and the analyses derived therefrom are valid and reliable. Drug production is, by its nature, a covert activity which must be aggressively investigated and pursued if we wish even to find it, let alone make an impact. Throughout this process, our methods have been improving, and we have made significant progress in numerous areas. The increased survey in the most recent Plan Colombia eradication report is the result of more comprehensive information regarding coca cultivation, and we deliberately took advantage of this to improve our estimates. The results of the effort to render a more complete analysis are encouraging, and should be interpreted as progress- not losing ground. As we have made improvements in our understanding, this analysis has become somewhat more complicated. But the process is, we believe, demonstrably more accurate. The suspicion expressed in your letter that these changes have been an effort to mislead Congress I hope you will see are unjustified beyond question.

Plan Colombia represents the best efforts of a host of parties in government and law enforcement agencies both here and in Colombia. We believe strongly that the policies embodied in Plan Colombia, especially when administered in conjunction with other drug control policies, are

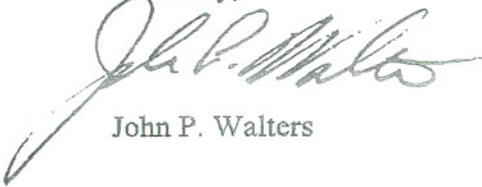
sound and effective, and provide a real, substantial and measurable benefit to the American people.

The level of confusion surrounding our use and interpretation of STRIDE data is extremely unfortunate, and I am especially thankful for this opportunity to provide additional explanation. I continue to be greatly appreciative of your commitment to reducing the use of illegal drugs in the United States, and I am equally grateful for your concerns about Plan Colombia. If you have additional questions, on any drug control issue, please do not hesitate to contact me. I, or any of my staff, would be more than happy to assist you.

Finally, you pose many specific questions, the answers to which are provided below.

Thank you, very much, for your time and consideration.

Sincerely,



John P. Walters

RESPONSES TO SPECIFIC QUESTIONS

Comment 1: "...ONDCP's April 14th press release regarding coca cultivation in Colombia referenced an eight percent reduction in those areas in 2005 that also were imaged in 2004. This is potentially misleading since it includes the areas that were heavily sprayed, which likely resulted in growers leaving those areas and moving to other areas."

Response 1: The April 14th press release reference to an 8 percent reduction in areas that fell in the survey area in both 2004 and 2005 provides the only meaningful trend data concerning the amount of coca under cultivation in Colombia in 2005. After the completion of the 2004 coca cultivation estimate, the Crime and Narcotics Center (CNC) received data from the Colombian National Police, the United Nations, and other sources indicating an unknown but potentially consequential amount of Colombian coca was being grown in areas outside the defined growing region and, therefore, was not counted in previous estimates. In the 2005 estimate, the size of the growing area studied expanded by 81 percent over the size of the 2004 growing area, in an effort to incorporate the previously uncounted fields.

In the 2004 survey area, the U.S. Government estimates that 105,400 hectares of coca were under cultivation in 2005, a reduction of 8 percent. In addition, 38,600 hectares were discovered under cultivation in newly surveyed areas. We cannot determine how many of these fields existed in 2004 and thus cannot directly compare total cultivation. We are sure that cultivation in the 2004 growing area was reduced by 8 percent largely due to the eradication program, an interpretation bolstered by the fact that in growing regions known to have experienced eradication, the cultivation decline was even greater, reaching at least a 10 percent reduction.

Following the start of large-scale eradication of coca fields under plan Colombia, some movement of coca farmers did occur, especially from the Putumayo to the Narino growing areas in the south. There are no reported large-scale movements of the coca labor force reported for 2004 or 2005. It is critical to the success of the eradication program that coca is subject to eradication wherever it is found, discouraging the movement of the labor force to areas where the risk of eradication is lower. Moreover, growers will expand production for reasons other than eradication pressure, and can be observed extending their planting even in the absence of eradication, in an apparent desire to gain greater income.

The impact of coca eradication has been difficult to measure in a dynamic environment like Colombia, where the Government of Colombia and the Department of State airwing are eradicating strategically significant quantities of coca each year. We do, however, know that evaluating it is more complicated than simply comparing the hecterage footprint of cultivation from one year to the next. Overall production is a critical variable. Factors that need to be considered are the maturity of the fields, their size and economy of scale, location and access to transportation, and yield per hectare. All of these trends are favorable for drug control. Field size is shrinking, plants are increasingly immature and lower yielding, and plantings are in increasingly isolated regions of the country—delaying and complicating the transformation of coca leaf into cocaine. Further, there are positive byproducts of the eradication efforts. The presence of the Colombian Army in regions of the country it has not previously controlled, often

in connection with security for coca and opium poppy eradication, cuts the lines of supply for narco-terrorist organizations and reduces profit, increases cost, and delays production.

Comment 2: With respect to the November release of the IDA price / purity assessment, "please explain the term 'normalized price' as used in the graph on page 2 of the presentation regarding South American price and purity levels."

Response 2: "Normalized" refers to the conversion of cocaine street price to price per pure gram. Further, please note that the STRIDE data showed an increase in both the "raw" (non-normalized) price for cocaine, as well as for the normalized price per pure gram.

Comment 3: (Continued from the previous comment) "If the prices are not reported in 2002 dollars (as used in the STRIDE data), please explain the change and provide the prices in 2002 dollars."

Response 3: Please see answer to Comment number 8.

Comment 4: "Please provide documentation of the methodology used that led to the determination that the six-month period between July 2003 and September 2005 was a 'first time decline' and that cocaine and heroin availability is being controlled and reduced."

Response 4: Declines in purity and increases in price are not unprecedented in the history of STRIDE data over time, which contain several upward and downward excursions. The context of the comment was that our new data showed, for the first time over the last five years, a decline in purity and increase in price for powder cocaine at the retail level. Our argument was that the STRIDE data provided evidence of an impact on the cocaine inventory that was now consistent with data showing reductions from other sources, such as cultivation decreases and record seizures.

Comment 5: "Please explain why only two years of data were used for comparison (in the IDA price/purity assessment) when two decades of data is available in the STRIDE report."

Response 5: The two decades of data referred to had already been analyzed and released as a publication in November, 2004. There had been no subsequent analysis of the data after the

second quarter of 2003. Hence, we began our new series at that point. We ended at September, 2005 (third quarter), because that was the last quarter for which data cells were sufficiently populated that we could consider the data reliable. Importantly, that two-year period was of policy interest in that it included the inflection point representing a change in the trend of price and purity.

Comment 6: "Please provide information on any updated or subsequent analysis related to this topic (the IDA price/purity assessment with data ending OCT 2005)."

Response 6: Normally, we expect several quarters of data to be filled before subjecting the trend to statistical analysis. We do intend to analyze and report updated STRIDE powder cocaine retail price and purity as soon as the data are sufficiently stable that they can present a reliable signal. The analysis presented on November 17th addressed data from the first three quarters of 2005.

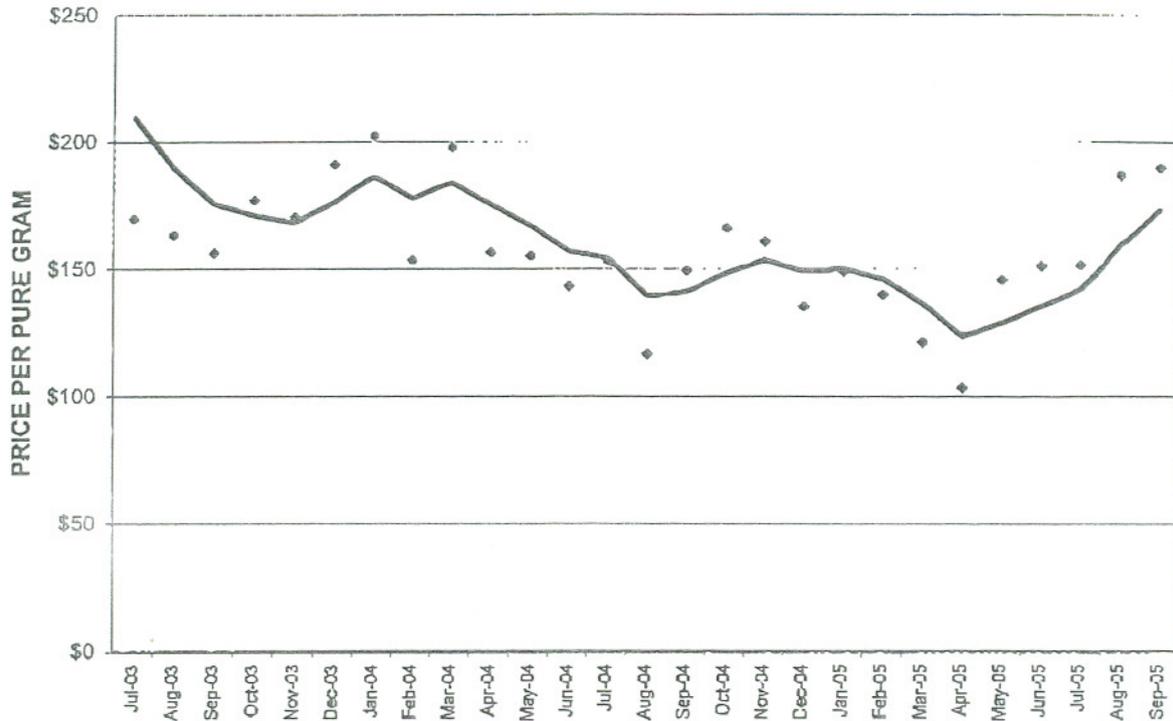
Comment 7: When comparing the 'Price and Purity of Illicit Drugs: 1981 Through the Second Quarter of 2003' vs. the November 2005 press release, "Please explain the \$100 increase in the price of pure cocaine and the 10% decrease in cocaine purity for STRIDE reporting purposes between the first and second half of 2003."

Response 7: The "Price and Purity of Illicit Drugs; 1981 Through the Second Quarter of 2003" was based on a study conducted by RAND's Drug Policy Research Center using an expected value methodology to weight and assess domestic cocaine price and purity. The November 2005 press release was based on a separate study conducted by IDA using a weighted median approach. While the two assessments are based on similar datasets, they utilize two distinctly different methodologies to identify indicators of specific changes within the illicit drug markets. It is inappropriate to attempt to compare a point value from one assessment to another without understanding the unique methodologies within each. Due to the distinct nature of the two assessments and filters used within each, the two assessments cannot be compared side-by-side other than used as a reference for trends.

Comment 8: "If the price for the period from July 2003 to September 2005 (of the IDA price / purity assessment) are not based on 2002 dollars, please explain the change, recalculate, and provide the prices in 2002 dollars."

Response 8: The IDA graph below provides an adjusted-dollar analysis. However, adjusting the IDA weighted-medians approach to 2002-dollars will not assist in comparison with the RAND expected value analyses. Please note that CPI adjustment for dollar value between 2002 and 2005 will not improve our understanding of internal data trends within any particular analysis, nor will it serve to make different methods commensurate.

RETAIL COCAINE PRICE PER PURE GRAM (<= 2 grams, weighted medians)
 IDA used STRIDE through 30 SEP 2005 (updated)



Comment 9: With respect to the IDA price / purity assessment, “please provide justification for not referencing or explaining the sharp decline in price between April 2004 and September 2004.”

Response 9: From the November 2005 press release, shifts in normalized “price” are not independent indicators of price shifts. The line being referenced to is actually a “Normalized Price per Pure Gram.” Any change in purity will cause an inverse-representative change in the price-purity line. During that period, the purity value increased in conjunction with a slight decrease in the unweighted retail price, resulting in a corresponding decrease in the overall price per pure gram. Please see answer to Comment 10, below.

Comment 10: “Please explain why the significant increase in purity levels between August 2003 and February 2005 was not addressed.”

Response 10: The 19 month purity increase from August 2003 to February 2005 was an extension of 48 month purity increases that had been climbing since January 2001. The levels of retail purity directly coincide with wholesale purity increases from the source zone. Retailers traditionally “cut” wholesale cocaine with adulterants and diluents to increase their bulk and increase their overall profit margin. During that time, increases in efficiency and production methods at the source zone have resulted in an overall increase in available purity at the

wholesale and retail level. STRIDE data at the wholesale level show declines and recoveries in purity during the time prior to 2003 that many analysts find coincident with precursor chemical shortages in Colombia that were subsequently solved by producers. The STRIDE data appear to reflect this phenomenon quite well. Further, the overall rise in purity between January, 2001 and February, 2005 appears to be a consequence of steeply increased cocaine production in Colombia that led to inventory build-up. Between the years 2000 and 2002, an estimated 1,815 potential metric tons of pure cocaine were produced in Colombia. Eradication-driven declines in cultivation have had to overcome this substantial inventory.

Comment 11: “If different methodologies were used to determine both price and purity numbers, please explain the methodologies and provide a single comparison of price and purity numbers from 1981 to September 2005.”

Response 11: The same methodology was used by IDA to calculate both price and purity. IDA will prepare an explanation, as requested.

Comment 12: (Based on previous statements from the GAO on the validity of STRIDE dataset) “Please explain the reason for using data which was already determined by ONDCP to be unacceptable as a primary source.”

Response 12: As discussed in the letter above, STRIDE is the most encompassing dataset we have of illicit drug seizure and purchase events within the United States. The cocaine purchase program is supported within the STRIDE dataset. Using regional weighting, filtering, and price normalization, it is possible to use STRIDE to represent trends for the domestic retail market. STRIDE is a more problematic tool for determining wholesale price, yet at the retail level of analysis it does have utility.

STRIDE, while it is imperfect and does not accurately reflect the wholesale market, does provide some measure of accuracy for modeling the domestic retail market. To date, STRIDE has over 384,896 cocaine and 120,652 heroin related events. As imperfect as the dataset may be, it is, at this time, the most encompassing dataset that we have to model illicit drug use.

Comment 13: “Please explain why data that ‘cannot be generalized to the United States’ was used for that very purpose in the November 17th press statement.”

Response 13: ONDCP does not agree with the GAO statement on the above subject. Moreover, the GAO report on transit zone interdiction does not specifically address the STRIDE retail cocaine price/purity analysis that was presented on November 17, 2005.

Comment 14: With respect to the September 18, 2005 press conference between David Murray and the Boston Herald, “please explain how drug collection limitations listed by DEA were

utilized to determine changes in price, purity, and availability of South American heroin in Boston.

Response 14: We recognize the difficult effort by law enforcement to secure retail samples of illicit drugs and appreciate the findings that can be extracted from that limited pool. Understanding the consistent methodologies used for sampling the retail market, it is possible to extrapolate the activity for a metropolitan region. The Boston region has traditionally consumed South American heroin; a decision rooted in personal habits, demographics, and trafficking patterns. When reviewing law enforcement statements and available consumption/seizures models, we stand behind our previous comments on Boston heroin availability. Please note that the heroin price/purity determination that referenced Boston was not based on an analysis performed by ONDCP. Rather, the data are derived from the DEA Domestic Monitoring Program, and represent an analysis performed by the DEA. During the press interview, our office pointed out the conclusions of that DEA analysis.

Comment 15: "Is it an acceptable practice to extrapolate price per gram by multiplying the price per milligram by 1000, as you did in the November 2005 presentation? If so, please explain why STRIDE price per gram numbers are half that of what were used for the same period."

Response 15: The retail heroin price and purity figures reported in the November 2005 brief were based on the DEA report: 2004 Domestic Monitor Program. Table 2 in that report shows that there is a wide variance in prices. For the brief, these prices were a simple mean of the DMP data, which was reported in dollars per milligram, multiplied by 1000 to yield dollars per gram. These figures are different from the ONDCP report "The Price and Purity of Illicit Drugs Nov 2004)" for several reasons. The ONDCP report was an expected-value methodology, which reported retail heroin prices at 400 milligrams. A different base would have yielded a different price series.

Comment 16: With respect to the Boston Herald / Murray interview and the DEA 2005 Domestic Monitoring Program (DMP) statements on metropolitan Boston heroin availability that stated, "Heroin availability in metropolitan Boston was common in 2004. Extensive availability and relative affordability of the drug supports its continued popularity in the city and surrounding region. Please explain why Mr. Murray's statement directly contradicts DEA comments in DMP regarding the availability of heroin in Boston."

Response 16: There is no contradiction. The DEA commentary notes that the availability of heroin in Boston is "common." Our statement was that heroin was less pure. Moreover, our statement was that there had been no increase in heroin availability in 2004 seen in the data. The DEA commentary only notes that there is "extensive availability," and makes no comparison whatsoever between one year and the next. Again, there is no contradiction with the claim of "no increase."

Comment 17: With respect to the Boston Herald / Murray interview, "please also explain why ONDCP used DMP data for statements about heroin price and purity when STRIDE also contains data on heroin price and purity."

Response 17: The DMP is one of many tools that we have at our disposal for measuring illicit drug activity, in this case heroin. While STRIDE can be used to measure domestic activity, the DMP contains information specific to several metropolitan regions. STRIDE data are not as useful in making city-specific metropolitan assessments as are data from the DMP, which are drawn from, and apply to, particular cities in the sample. Further, our concern was with a specific type of heroin, that identified by signature as South American heroin. The principle reason for utilizing the DMP data is that the DMP exhibits are subject to signature analysis, enabling a source-area determination. Non-DMP heroin exhibits in STRIDE are not routinely subject to source-area signature determination.

Comment 18: With respect to the Boston Herald / Murray interview and the DEA 2005 Domestic Monitoring Program (DMP) statements on metropolitan Boston heroin, "please explain how the other market factors listed by DEA (including enhanced federal/state/local law enforcement efforts, increased market competitive pressures, geographical expansion of the market area, and deliberate attempts to increase profit margin by increasing total weight with additional diluents) were utilized to determine accurate changes in price, purity and availability of South American heroin in Boston."

Response 18: Changes in the price and purity of heroin are no doubt shaped by many variables, including those you list. However, for none of the variables listed does DEA provide a quantitative measurement, which would be necessary for an assessment of attributable impact on market changes. Further, there is no consistent evidence presented in the DMP that there were changes in these variables which would be temporally coincident with the detected changes in heroin purity and price in Boston during the time period in question. On the other hand, data that are quantitatively calibrated, such as the decline in opium cultivation in Colombia, are coincident with changes in the price and purity of South American heroin in the United States. Hence, we stress the likelihood that some combination of factors, including the overall heroin inventory, was involved in market alterations.

Comment 19: With respect to the 2005 Colombian coca cultivation report that has production up by 26 percent over the previous year, "what steps are being taken at ONDCP to fix the problem with the CNC numbers? We have been concerned about the accuracy of the numbers for years due to their methodology. How do we even know that these numbers are accurate?"

Response 19: Following publication of the Interagency Assessment of Cocaine Movement (IACM) for 2004, ONDCP established an interagency work group to address trends that were increasingly difficult to reconcile in several key data sets that precluded a precise estimate of cocaine flow. Problematic trends included (1) the level of estimated coca cultivation and potential cocaine production, (2) documented cocaine loss and movement amounts, and (3) the estimated worldwide demand for cocaine. At that time, a three-year decline in estimated global

potential cocaine production and continued record seizures had not visibly affected price, availability, or consumption in global markets.

In an effort to reduce the ambiguity in the IACM estimate, the Director of ONDCP established the Cocaine Trends Working Group, co-chaired by CNC and DEA, under the auspices of the IACM Steering Committee. The working group was asked to accomplish the following:

- Identify the assumptions underlying the various data sets that compose the IACM flow estimate, challenge these assumptions, and, where possible, analyze the sensitivity of the data to possible errors in assumptions;
- Where possible, quantify the uncertainties involved in the various estimates;
- Identify collection tasks that could provide more timely indicators of illicit drug market conditions;
- Identify other initiatives that could improve the data and reduce uncertainty.

CNC presently is coordinating a classified draft paper in the Intelligence Community that summarizes the conclusions to date of this Working Group. Several process changes to improve our understanding of cultivation, production, movement, the large uncertainties in consumption estimates, and seizure accountings have already occurred, including significant changes to CNC methodology for estimating cultivation.

The efforts of the Work Group continue. The Director has approved a CY 2006 work plan for the CTWG that includes the following:

- At the next scheduled meeting of the CTWG, CNC will update the interagency on process changes in crop estimation, DEA will provide information for intensified Operation Breakthrough research in Colombia (Operation Breakthrough provides data concerning four of the five factors required to calculate potential cocaine production), and NAS Bogotá will provide the methodology for measuring the impact of eradication. The Work Group will compare NAS ground truth data with CNC cultivation data.
- The U.S. Ambassador to Colombia will host a conference in Bogotá that will assemble an international team of experts in coca yield, growth cycles, harvesting practices, and cultivation estimation to improve our understanding of these issues.
- CNC will lead an interagency effort to identify factors that affect the precision of cocaine potential production estimates and provide options and cost estimates for improving those estimates.

It is our hope that these efforts to dramatically improve our understanding of coca cultivation, production, and consumption will be substantially complete in CY 07.

Comment 20: "In 2002, ONDCP made a number of recommendations to improve the coca cultivation data provided by both the Crime and Narcotics Center (CNC) and the Office of Aviation in Colombia. Were these recommendations followed? If not, why not? And, why are further modifications being made just three years after changes were supposedly made to improve the process of determining cultivation numbers?"

Response 20: CNC has implemented most of the recommendations made following the 2002 study. The major recommendation involved pursuing new technologies and methods including the use of high spatial resolution, multi-spectral remote sensor data, and making greater use of commercial imagery. The review also recommended that CNC more fully utilize GIS with the aim of mapping the illicit crop so more accurate sampling could be conducted, and conduct a comprehensive error analysis utilizing accuracy assessment procedures commonly used in the remote sensing community.

- CNC's Geo Tools methodology currently in use in Afghanistan and Colombia (and to be used for key Peruvian growing areas in 2006) is an advanced imagery-based area frame-sampling methodology that uses moderate-resolution commercial multi-spectral imagery in conjunction with high-resolution classified imagery to quantify and map illicit cultivation more accurately than previous methods. In Latin America, Geo Tools was first tested in southern Colombia in 2003, and used for the entire country beginning in 2004.
- For other estimates, CNC is using commercial multi-spectral imagery and GIS techniques to help draw growing-area boundaries. CNC continues to explore other technologies such as hyper-spectral and radar imagery, and automatic feature-recognition software that could in the future help assess more precisely the presence or health of illicit crops.
- The major recommendation CNC has not been able to implement involves the accuracy assessment. Following extensive consultations with an outside expert, CNC determined that security concerns preclude collection of sufficient ground-reference data to conduct a statistically valid accuracy assessment. However, CNC has utilized State Department spray data to verify that both entities are calling the same fields "coca," providing a qualitative assessment of accuracy.

The changes in the 2005 coca cultivation estimate were not methodological in nature, and therefore cannot be compared with those made following the 2002 study. CNC applied the same methodology as in 2004 using the enhancements described above but applied it to a larger survey area. Adjustments to growing-area boundaries occur every year although this year's 81-percent increase was by far the largest such change, driven primarily by CNC's gaining access for the first time to UN/SIMCI data. Such adjustments will almost certainly occur in the future as cultivation patterns in Colombia continue to change, although CNC does not anticipate that they will be nearly as large. Indeed, use of the commercial imagery and GIS techniques recommended in 2002 make it easier for CNC to adjust the boundaries on a more regular and accurate basis. Given the dynamic nature of coca cultivation in Colombia, failure to make modifications every year would result in considerably less accurate estimates.

In addition, as technology evolves and new information becomes available, CNC will not hesitate to make further methodological and technological changes to the estimates, if such changes will produce more accurate and useful results.

Comment 21: With respect to the 2005 Colombian coca cultivation report that has production up by 26 percent over the previous year, "how will this new cultivation data impact the data for cocaine flows to the US and the upcoming IACM which, from my understandings, must also be reworked this year because precise data for last year's report was unavailable?"

Response 21: The IACM work group will meet soon to consider the Colombia cultivation estimate and its impact on the overall estimates of Andean cocaine potential production and cocaine movement. Recommendations concerning CY 05 estimates of cocaine movement will be provided to the IACM Steering Group by early June.

Comment 22: With respect to the 2005 Colombian coca cultivation report that has production up by 26 percent over the previous year, "how will the increase in cultivation alter the allocation of transit zone aerial and maritime assets, given that the estimates for overall potential production for 2005 will likely increase, and will change comparisons to exportation and seizure totals during last year?"

Response 22: The Consolidated Counterdrug Data Base (CCDB), which provides the raw data for much of the IACM, also provides important cocaine movement information to the interdiction operational community on a quarterly basis to support interdiction planning. CCDB data does not indicate any increase in cocaine flow. No significant restructuring of interdiction forces is envisioned at this time.

Comment 23: With respect to the 2005 Colombian coca cultivation report, "in addition to Colombian coca cultivation, what is ONDCP's strategy for addressing the possible 'massive' increase in coca cultivation in Bolivia, and possibly in Peru, due to political changes in those countries?"

Response 23: We have made clear to Bolivian President Morales that we are encouraged by his stated desire to clamp down on illegal drug manufacturing and trafficking, and that we are prepared to cooperate with him in a mutually productive way. At the same time, we have informed him that we will follow his actions and will protect our interests if he should move in a way to increase the production of illegal drugs in Bolivia. In Peru we have had a strong cooperative relationship with the Toledo government and would expect to maintain that with the successor government.

Comment 24: With respect to the 2005 Colombian coca cultivation reports and NSDUH coca consumption estimates, "how does ONDCP reconcile the apparent disparity in the information being reported about cultivation and cocaine price/purity with the trends in cocaine consumption, as reported in the National Survey on Drug Use and Health?"

Response 24: NSDUH has not yet produced its estimate of cocaine and crack prevalence for 2005. We will use the 2005 NSDUH report and other demand indicators to judge the impact of changes in price and purity in 2005. We do believe, however, that the decrease in cocaine

prevalence probably diminishes the market impact from decreased Andean potential production of cocaine since consumption and production were declining at the same time. In 2004, for ages 12 and older, there were significant decreases in past year use compared to previous years. Past-month use for crack in the same age category also decreased from 2003–2004.

Because of significant time lags in reporting prevalence or consumption data, we cannot yet compare U.S. consumption data with CNC estimates of significant reductions in cocaine production. The NSDUH provides prevalence data, not consumption estimates. ONDCP routinely contracts a study, called *What Americas Users Spend On Illegal Drugs (WAUSD)*, to develop estimates of consumption. The WAUSD Study uses the NSDUH as one data input, in addition to many other data sets, such as the Treatment Episode Data Set (TEDS), the Arrestee Drug Abuse Monitoring (ADAM) Program, Drug Abuse Warning Network (DAWN), Monitoring the Future (MTF) and STRIDE. It is necessary to integrate all of these inputs to mitigate the single dimension view of each data set (for example, NSDUH measures occasional drug use in a household population).

The last consumption estimates developed by the WAUSD analysts were for 2003. A contract is in development to update these estimates. Consumption estimates depend on data bases that have an 8-to-18 month time-lag. For example, the 2005 NSDUH results are not anticipated until early September, 2006. The 2004 TEDS was just recently released. We are attempting to improve the timeliness of data that provide the basis of drug control policy-making. We are gathering real-time indicators as surrogate measures for consumption and improving our understanding of such real-time but raw, unweighted data.