U.S. International Trade Commission

Evaluation of Modifications to the Harmonized Tariff Schedule

OIG-ER-12-08

June 13, 2012

Office of Inspector General

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UNITED STATES INTERNATIONAL TRADE COMMISSION

OFFICE OF INSPECTOR GENERAL

WASHINGTON, DC 20436

June 13, 2012 OIG-KK-08

Chairman Okun:

This memorandum transmits the Office of Inspector General's final report, *Evaluation of Modifications to the Harmonized Tariff Schedule,* OIG-ER-12-08. In finalizing this report, we analyzed management's comments to our draft report and have included those comments in their entirety as Appendix A.

This evaluation focused on whether the Commission accurately reflected changes to the Harmonized Tariff Schedule. We reviewed two Presidential Proclamations and two updates resulting from 484(f) Committee meetings and evaluated whether the required modifications to the Harmonized Tariff Schedule were made completely and accurately.

This report contains eight recommendations for corrective action. In the next 30 days, please provide me with your management decisions describing the specific actions that you will take to implement each recommendation.

Thank you for the courtesies extended to the evaluators during this review.

Philip M. Heneghan
Inspector General

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Results of Evaluation

The objective of this evaluation was to answer the following question:

> Does the Commission accurately reflect changes to the Harmonized Tariff Schedule of the United States in a timely manner?

No. The Commission did not accurately reflect changes to the Harmonized Tariff Schedule of the United States in a timely manner.

We analyzed four documents that required modifications to be made in the Harmonized Tariff Schedule (HTS). Of the 423 required changes, 45 were either omitted or made incorrectly in the Harmonized Tariff Schedule. We also identified typographical errors, such as punctuation discrepancies and misspellings. In addition, we identified inconsistencies in the Harmonized Tariff Schedule information provided to the public on the Commission's website.

We identified two problem areas associated with the inaccurate modifications to the Harmonized Tariff Schedule: (1) The Commission did not have a documented, standard procedure for making changes to the Harmonized Tariff Schedule; and (2) the Commission did not have a supervisory process to review and approve changes made to the Harmonized Tariff Schedule.

In addition, the evaluation identified two other problem areas that compromise the integrity and transparency of the Harmonized Tariff Schedule information provided through the public website: (3) The Commission did not track corrections made to the Harmonized Tariff Schedule; and (4) the Commission presented inconsistent versions of the Harmonized Tariff Schedule on the Commission's website.

Problem Areas and Recommendations

Problem Area 1:
The Commission Did Not Have a Documented, Standard Procedure for Making Changes to the Harmonized Tariff Schedule

To ensure the quality and integrity of tariff data, the Commission must have a standard procedure for making changes to the Harmonized Tariff Schedule. A standard procedure ensures that changes made to the Harmonized Tariff Schedule are completed in a consistent manner and provide a means to reduce the chance of human error.

Changes to the Harmonized Tariff Schedule are triggered by Presidential Proclamations, 484(f) Committee decisions, trade agreements, and miscellaneous tariff bills. These modifications are completed within the Commission's Office of Tariff Affairs and Trade Agreements (TATA). This office had six nomenclature analysts who were assigned to specific chapters of the Harmonized Tariff Schedule, and each analyst was responsible for ensuring required changes were made to their respective chapters when necessary.

The Commission did not provide the analysts with a documented standard procedure to follow when making these changes. As a result, each nomenclature analyst developed and followed his or her own undocumented process to modify the Harmonized Tariff Schedule. Any guidelines or "rules" for making changes were either sent through email correspondence as reminders or communicated orally.

The lack of a documented, standard procedure resulted in inconsistent processes for making changes to the Harmonized Tariff Schedule. By not formally documenting the procedures and formatting requirements for making changes to the Harmonized Tariff Schedule, the process the Commission followed allowed for an increased risk of human error. In addition, without written procedures, the Commission did not have a clear way to train future analysts to ensure continuity of operations when personnel change jobs or leave the Commission.

Recommendation 1: The Commission create and document a standard procedure for updating the Harmonized Tariff Schedule.

Problem Area 2:

The Commission Did Not Have a Documented Supervisory Review Process for Changes Made to the Harmonized Tariff Schedule

Any change to the Harmonized Tariff Schedule should undergo a supervisory review process to ensure modifications to the Harmonized Tariff Schedule are reflected accurately.

During the evaluation, we found the Commission processes did not include an independent review of the changes made to the Harmonized Tariff Schedule. Instead, whenever a change was deemed necessary, the analyst assigned to the affected chapter would make the change. Normally, the analyst began the process to make the change by modifying the chapter version of the WordPerfect document. During the drafting process, each chapter was protected so that only the analyst making changes had access to it. Once the analyst was finished making changes to the chapter document, it was uploaded to the shared drive and made available to the web publisher.

The web publisher was tasked with converting the WordPerfect documents into PDF files and then uploading the PDF files to the Commission's website. In the event that an analyst was not available when changes needed to be made, the updates were completed by other analysts on the shared directory from the latest version of the WordPerfect document.

The web publisher performed a cursory review during the conversion of the WordPerfect files to the PDF files for obvious formatting mistakes; however, this examination did not systematically review the modifications to the Harmonized Tariff Schedule for accuracy. The result was that the accuracy of each modification was solely dependent upon the analyst that made the change.

We identified 33 errors in the required changes from Presidential Proclamation 4276. These errors could have been avoided if the Commission had a supervisory review process in place to verify that the changes made to the Harmonized Tariff Schedule were accurate.

Recommendation 2: The Commission create and implement a standard quality review process for changes made to the Harmonized Tariff Schedule.

Problem Area 3:
The Commission Did Not Track Corrections Made to the Harmonized Tariff Schedule

To provide transparency in the Harmonized Tariff Schedule process, the Commission should track changes by internally documenting all changes made to the Harmonized Tariff Schedule and notify the public when substantive corrections are made.

The Commission is statutorily required to produce a printed copy of the Harmonized Tariff Schedule. The printed version is usually produced annually, but quickly becomes outdated because of the timing of legislative changes and other corrections. In order to provide the public with updated tariff information in a timely manner, the Commission provides the Harmonized Tariff Schedule in several electronic formats on their website. The electronic Harmonized Tariff Schedule files are updated and reposted on a continual basis throughout the year such as when legislation is passed, Presidential Proclamations and Federal Register Notices are issued, or when errors have been identified and corrected.

In order to provide transparency, the Commission should inform the public whenever a significant change is made to the Harmonized Tariff Schedule. We found that the Commission only provides notification to the public when a mandated change is made and does not provide notification when substantive errors have been corrected. For example, on March 15, 2012 the Commission uploaded a revision of the Harmonized Tariff Schedule to their website and provided notification that the changes were associated with the new free trade agreement with Korea; however, after this update, an additional 47 Harmonized Tariff Schedule documents were uploaded to the Commission's website. The Commission did not provide any information to inform the public of significant changes to the Harmonized Tariff Schedule or inform users that the documents had even been updated since the March 15, 2012 revision.

Without notification of substantive corrections, the public was unaware that any significant changes may have occurred and might still have relied on an incorrect earlier version of the Harmonized Tariff Schedule. Since the public relies on the Commission's online version of the Harmonized Tariff Schedule, it is important to provide notification to the public when substantive corrections are made.

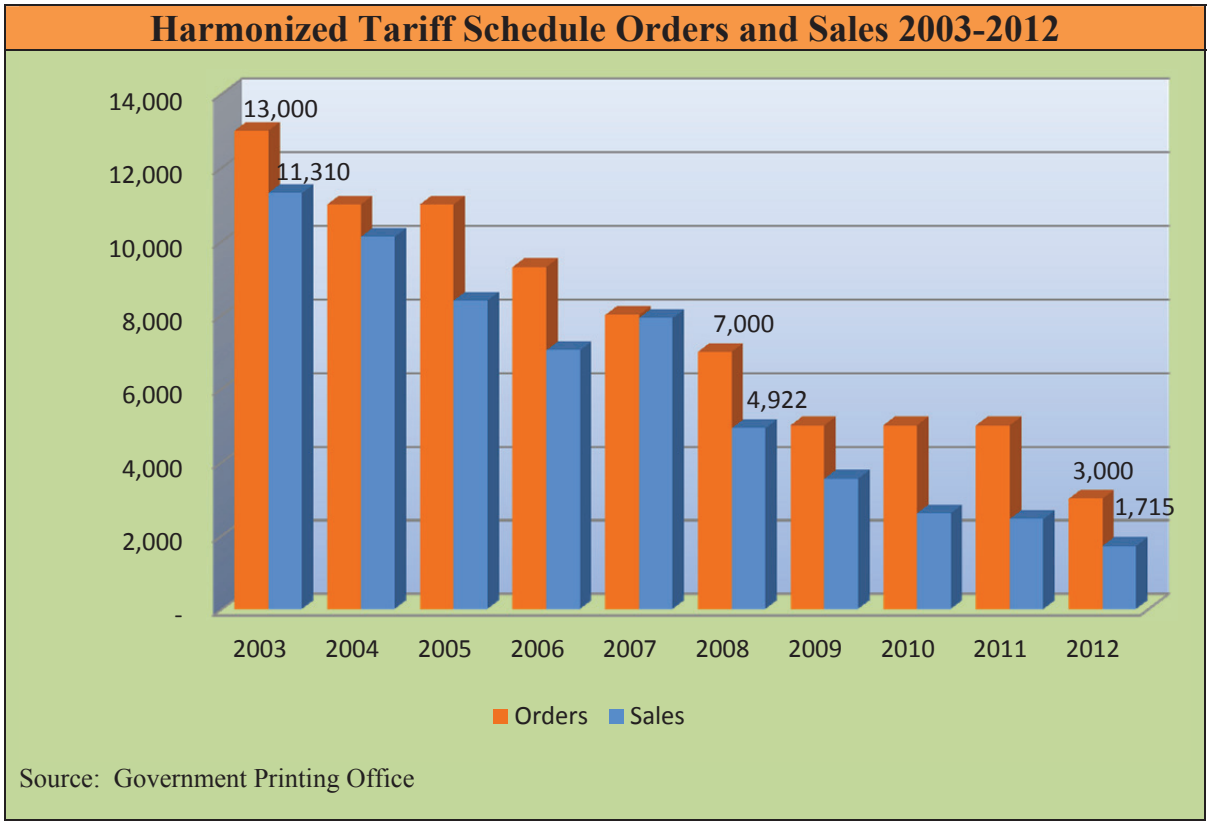
In addition, the Commission did not document or categorize the different types of corrections made to the Harmonized Tariff Schedule. As a result, management was unaware of the frequency or types of changes made to the Harmonized Tariff Schedule throughout the year. Keeping a written record of corrections would create a way to track

and measure the accuracy of the Harmonized Tariff Schedule, build an atmosphere of accountability, and ensure that the Commission is not making systemic errors.

During this evaluation, many of the staff members interviewed referred to the statutory requirement to publish a printed version of the Harmonized Tariff Schedule as a burden to the Commission and a driving force for how the Harmonized Tariff Schedule is maintained.

As you can see from the chart below, demand for the printed version of the Harmonized Tariff Schedule has decreased significantly over the past ten years from 11,310 to 1,715 copies sold.

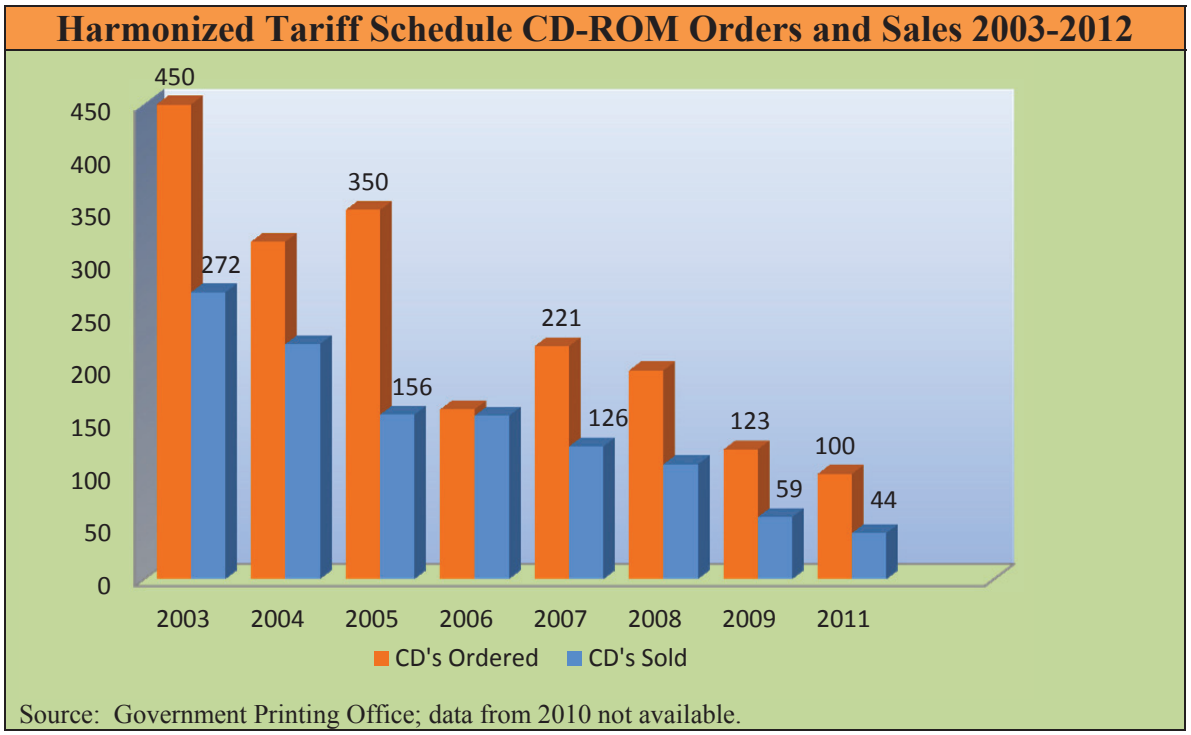
Chart 1: Harmonized Tariff Schedule Orders and Sales 2003-2012



To prepare the Harmonized Tariff Schedule for printing and to order the setup of a printing run costs the Commission more than $42,000. Eliminating the requirement to print the Harmonized Tariff Schedule would save the Commission these funds.

Sales of the CD ROM version showed a similar decrease over the same time period, going from 272 in 2003 to 44 in 2011.

Chart 2: Harmonized Tariff Schedule CD-ROM Orders and Sales 2003-2012



It is important to note that the controlling statutory language regarding the Harmonized Tariff Schedule permits the Commission to recommend to the President modifications that will alleviate "unnecessary administrative burdens[1]."

Recommendation 3: The Commission establish a process to document all corrections made to the Harmonized Tariff Schedule.

Recommendation 4: The Commission develop a process to categorize the types of corrections made to the Harmonized Tariff Schedule.

[1] 19 USC 3005 (a)(4)

Recommendation 5: The Commission develop a process to provide the public with notification of substantive corrections including the date when the corrected electronic versions of the Harmonized Tariff Schedule are uploaded on the website.

Recommendation 6: The Commission recommend to the President that the requirement for printing the HTS be eliminated.

Problem Area 4:

The Commission Presented Inconsistent Versions of the Harmonized Tariff Schedule on the Commission's Website

The Commission maintained many different electronic files as part of updating and publishing the Harmonized Tariff Schedule and related files. The Office of Tariff Affairs and Trade Agreements maintained numerous Word Perfect and Adobe electronic files and the Office of the Chief Information Officer maintained electronic files in different formats including Delimited Text, XML, and Oracle Database files. In addition, the two offices used separate processes to update the electronic formats of the Harmonized Tariff Schedule. All of these documents are presented as the Harmonized Tariff Schedule to the public on the Commission's website.

The following table identifies the different electronic formats and locations of the various Harmonized Tariff Schedule electronic files maintained by the Commission.

Table 1: Formats and Locations of Harmonized Tariff Schedule Files

Formats and Locations of Harmonized Tariff Schedule Files				
	Personal Directory	Shared Directory	Public Website	CIO
WordPerfect – By Chapter	X	X		
WordPerfect – Full Edition		X		
Adobe – By Chapter		X	X	
Adobe – Full Edition		X	X	
Delimited Text Files		X	X	X
XML Files				X
Oracle Database			X	X

As a result of the multiple formats and processes, there was confusion managing the different inputs, controlling the numerous versions, knowing when to provide supervisory review, and where in the process could approval of changes to the Harmonized Tariff Schedule be made. This confusion resulted in misleading Harmonized Tariff Schedule information being provided on the Commission's website and a lack of clarity for users.

The Commission should use a single database to manage the Harmonized Tariff Schedule to ensure consistency, version control, and accountability.

The separate electronic formats and different processes used to update the Harmonized Tariff Schedule resulted in inconsistent information presented on the website. We found significant inconsistencies between the WordPerfect files and the XML file (the 'Tariff Search Tool'). For example, the statistical suffixes changed in the January 484(f) Committee Minutes for subheading 7215.50.00 were changed in the WordPerfect formats, but not in the XML format.

As a result, if someone was using the Tariff Search Tool to see if a pending request for a statistical change had been approved, this change would not show up on the search, and the individual would have received incorrect information.

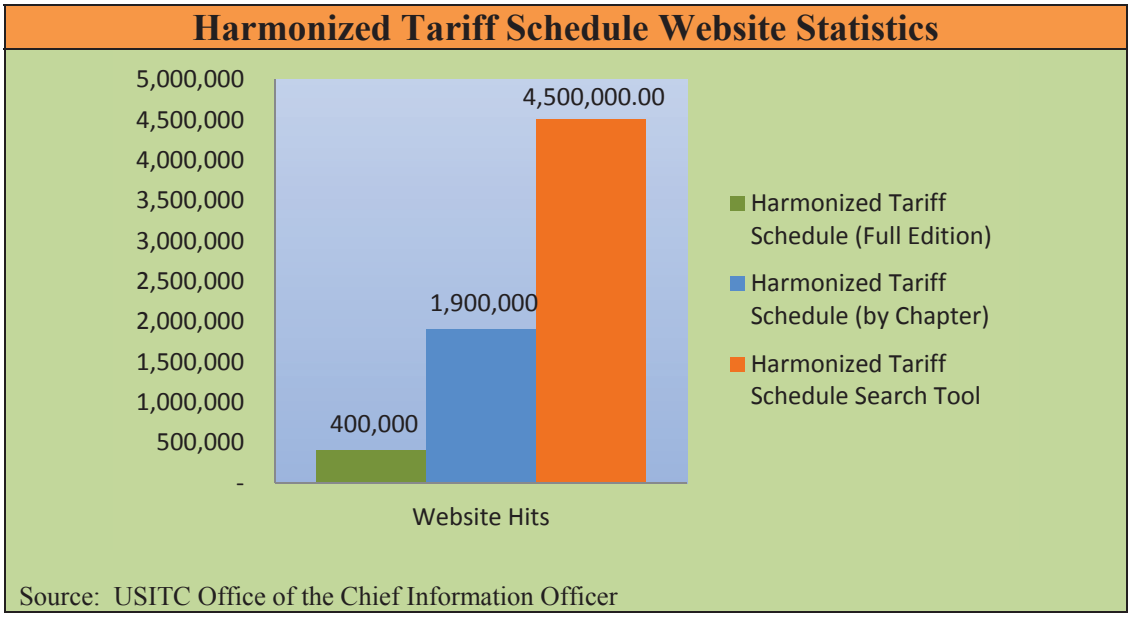
Another example was identified in U.S. Notes 3-7 to Subchapter VIII of Chapter 99 where the XML file had not been updated since 2009 and the WordPerfect formats were only updated through 2011; however, the Presidential Proclamation we evaluated had this information updated through 2012.

The differing online versions of Harmonized Tariff Schedule information with various discrepancies are used by numerous parties: the Commission's internal staff, other government agencies (e.g., Customs), and the public. The errors in these products could detract from the public impression of the Commission's integrity, but more importantly could hurt the U.S. economy by providing inaccurate information that is used by companies to make business decisions on whether or not to import items.

The Harmonized Tariff Schedule is the most frequently visited site on the Commission's website. Looking at the gross numbers of visits to the different versions of the Harmonized Tariff Schedule posted on the website it is clear that different users approach the Harmonized Tariff Schedule differently.

The Harmonized Tariff Schedule search tool on the Commission's website was used almost four and a half million (4,500,000) times last year to search for tariff rates. The "by chapter" was used 1,900,000 times and the entire Harmonized Tariff Schedule was used 400,000 times.

Chart 3: Harmonized Tariff Schedule Website Statistics

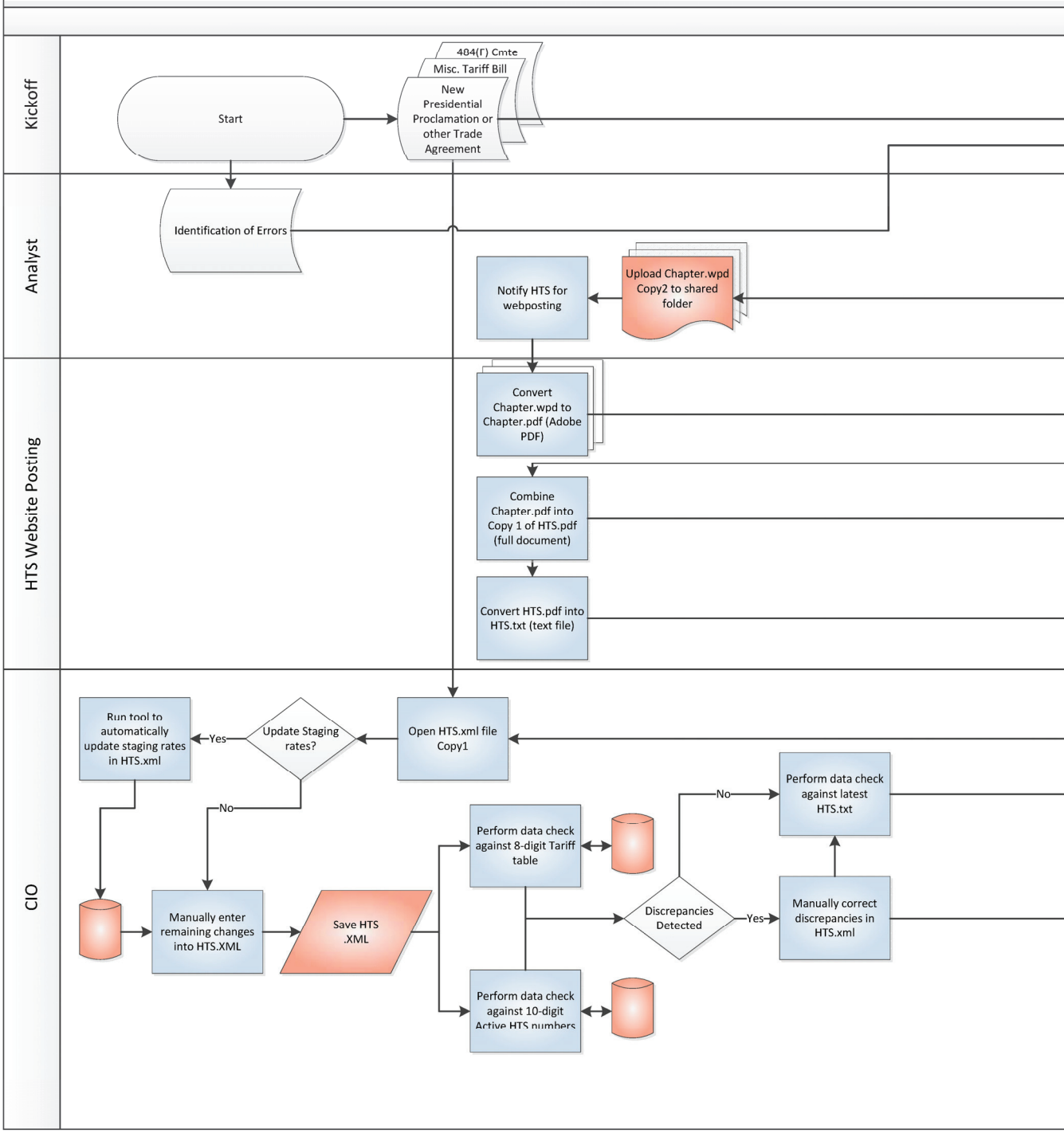


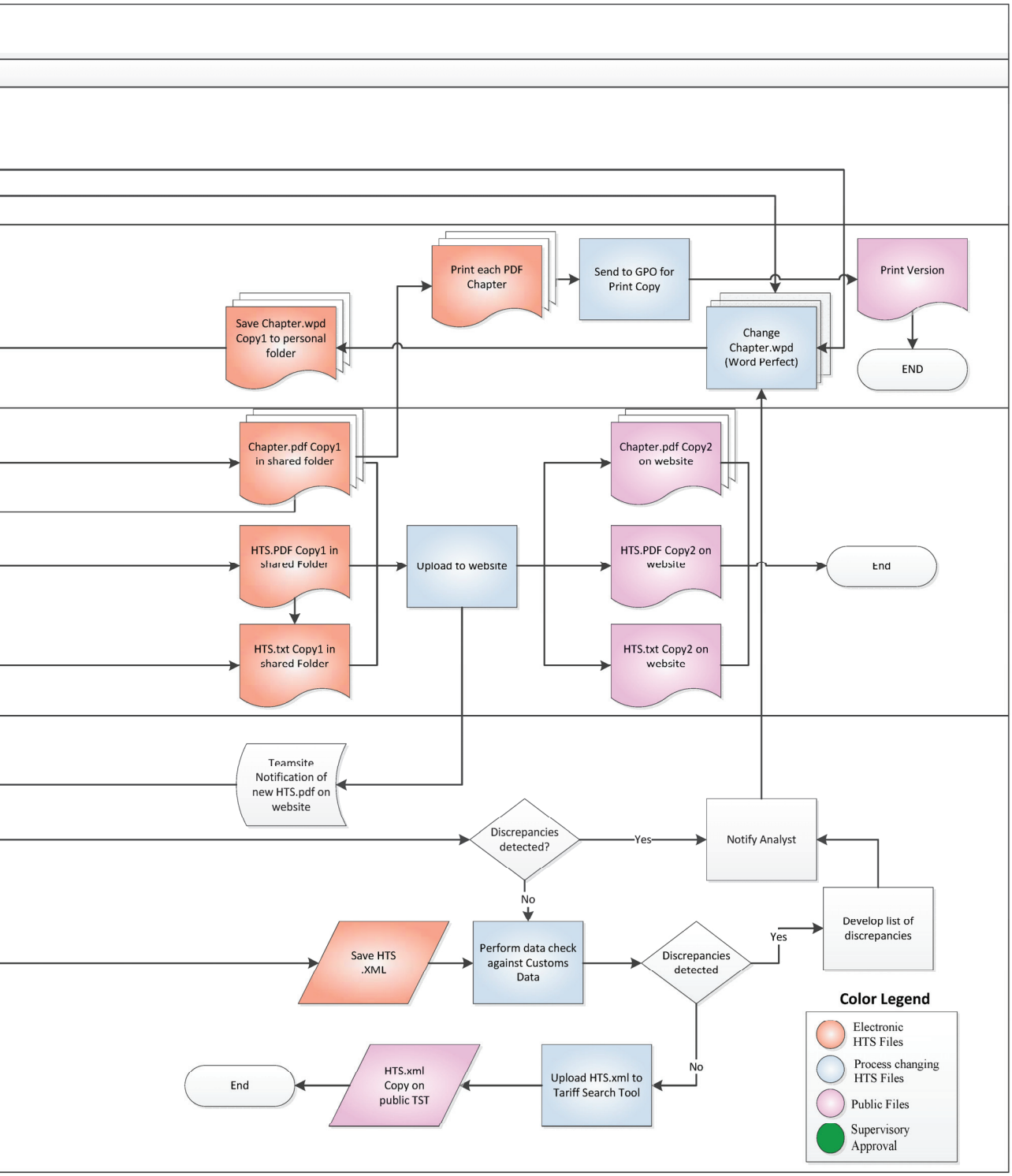
It is important to note that the controlling statutory language regarding the Harmonized Tariff Schedule permits the Commission to recommend to the President modifications "to ensure that the Harmonized Tariff Schedule is kept up-to-date in light of changes in technology[2]."

We developed a flowchart (Figure 1) to illustrate our understanding of the processes used by the Commission to maintain and publish the Harmonized Tariff Schedule. The flowchart is based on interviews and input from staff members of the Office of Tariff Affairs and Trade Agreements and the Office of the Chief Information Officer. The flowchart shows (in orange) the number of different electronic files that need to be produced and maintained as part of the current process and the blue shows the number of different processes that act on those electronic files. The flowchart does not show any green because there is no supervisory approval of changes made to the Harmonized Tariff Schedule.

[2] 19 USC 3005 (a)(3)

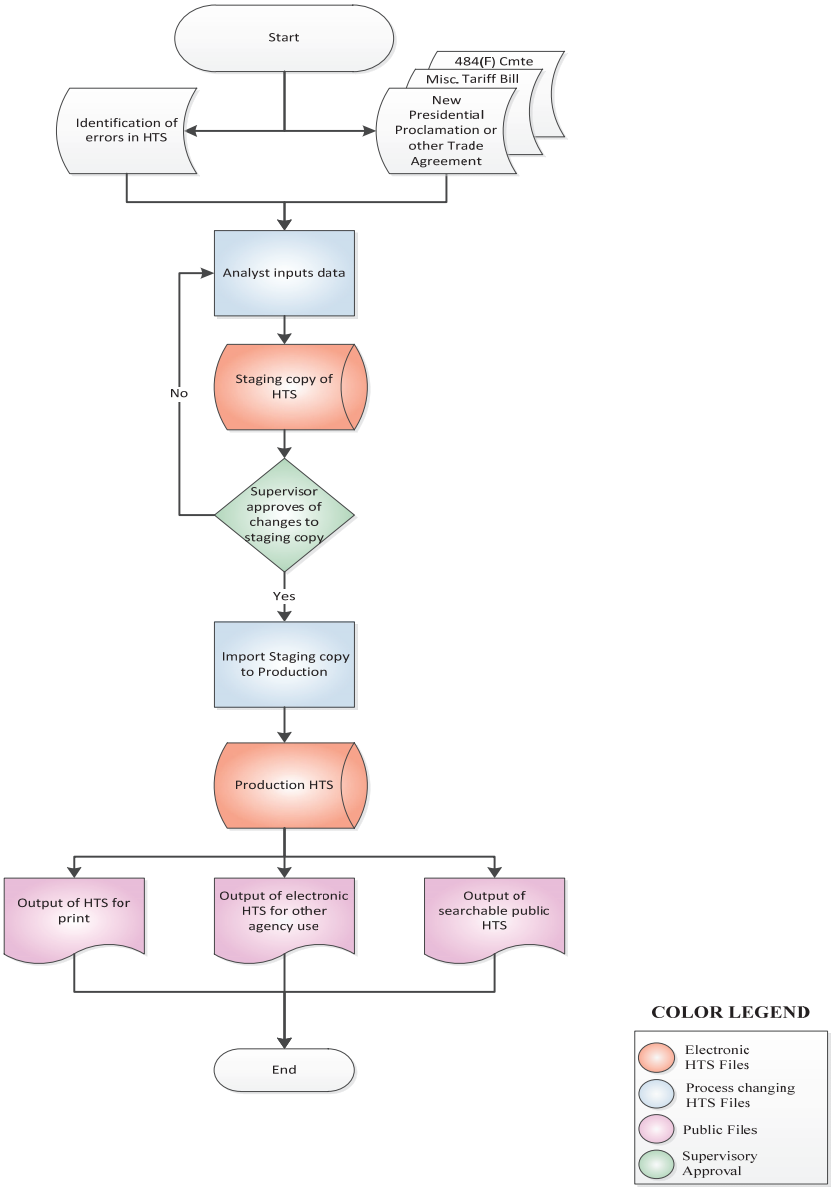
Figure 1: Flowchart of Harmonized Tariff Schedule Processes




Print each PDF Chapter
Send to GPO for Print Copy
Print Version
Save Chapter.wpd Copy1 to personal folder
Change Chapter.wpd (Word Perfect)
END
Chapter.pdf Copy1 in shared folder
Chapter.pdf Copy2 on website
HTS.PDF Copy1 in shared Folder
Upload to website
HTS.PDF Copy2 on website
End
HTS.txt Copy1 in shared Folder
HTS.txt Copy2 on website
Teamsite Notification of new HTS.pdf on website
Discrepancies detected?
Yes
Notify Analyst
No
Develop list of discrepancies
Save HTS .XML
Perform data check against Customs Data
Discrepancies detected
Yes
Color Legend
Electronic HTS Files
Process changing HTS Files
Public Files
Supervisory Approval
No
End
HTS.xml Copy on public TST
Upload HTS.xml to Tariff Search Tool

The process to produce and revise the Harmonized Tariff Schedule should be redesigned and should leverage modern technological tools to provide a single repository for raw Harmonized Tariff Schedule data that has the characteristics of single input, version control, and supervisory review and approval of changes to the database. An example of an alternative process using a single repository and including supervisory approval is shown below in Figure 2.

Figure 2: Flowchart of Alternate Harmonized Tariff Schedule Processes



A single database would ensure that changes are made one time and in one place. It would also aid in developing a standard procedure for making changes, ensuring that supervisory review occurs, and documenting and publishing corrections made to the Harmonized Tariff Schedule. The data stored in the database could be automatically output into a number of required formats, including a searchable Internet database, electronic formats required for Customs and other agencies, and for print publication (or printing by the public). In addition, posting an Internet-accessible, machine-readable version of the HTS would allow the public to build front-end applications for themselves or for others.

An upgrade like this will result in a system that minimizes the effort to input data into Harmonized Tariff Schedule, reduces errors from data entry, and would allow many parts of the Harmonized Tariff Schedule to update automatically. Instead of having to enter in staged duty rates from free trade agreements by hand, the database could update staged rates automatically. The database could also, for example, automatically flag tariff lines and make appropriate changes when Miscellaneous Tariff Bills expire.

Recommendation 7: The Commission develop and implement a single database to manage the Harmonized Tariff Schedule.

Recommendation 8: The Commission determine whether changes to the law with regard to formatting and applying new technology should be recommended to the President.

Management Comments and Our Analysis

On June 4, 2012, Chairman Deanna Tanner Okun provided management comments on the draft report.

The Chairman agreed with the findings of our evaluation.

Objective, Scope, and Methodology

Objective:

Does the Commission accurately reflect changes to the Harmonized Tariff Schedule of the United States in a timely manner?

Scope:

The scope of this evaluation was focused on the changes made in the two most recent 484(f) Committee Minutes and in the two most recent Presidential Proclamations:

- May 18, 2011, 484(f) Committee Minutes
- November 2, 2011, 484(f) Committee Minutes
- Presidential Proclamation 8770
- Presidential Proclamation 4276

For purposes of this evaluation, the term accurate was defined as meaning that all changes were completed correctly, including punctuation and spelling. The term timely was defined as meaning that the modifications were provided accurately to the public on or before the effective date. If the modifications were provided to the public on or before the effective date, but were not accurate, then they did not meet the definition of timely.

For purposes of this evaluation, changes counted are related specifically to the number of lines that were to be changed in the Harmonized Tariff Schedule, and do not include the number of changes required to each line. For example, a single line could require multiple changes in the Harmonized Tariff Schedule. Regardless of whether a line contained one or multiple errors, it was counted as a single error.

Methodology:

- We interviewed the Office of Tariff Agreements and Trade Agreements staff members.
- We interviewed relevant staff in the Office of the Chief Information Officer who worked with the XML file and the 'Tariff Search Tool.'
- We acquired printed copies of the Minutes for the 484(f) Committee meeting of May 18, 2011, the Minutes for the 484(f) Committee meeting of November 2, 2011, Presidential Proclamation 8770, Presidential Proclamation 4276, and the 2012 Official Harmonized Tariff Schedule of the United States.
- We reviewed both Presidential Proclamations and the November 2, 2011, 484(f) Committee Minutes by checking the printed documents against the printed

version of the Harmonized Tariff Schedule. We also checked these documents against the online versions of the Harmonized Tariff Schedule.

- The May 18, 2011, 484(f) Committee Minutes were checked against the online edition of the first revision to the 2011 Harmonized Tariff Schedule.
- A document was created that described the results. The print version of the Harmonized Tariff Schedule was highlighted if the changes were made accurately and marked in pen where the changes were made inaccurately.
- A fact-checker then reviewed the documents created to ensure their accuracy.

Appendix A: Management Comments on Draft Report

Chairman

UNITED STATES INTERNATIONAL TRADE COMMISSION

WASHINGTON, DC 20436

CO76-KK-021

June 4, 2012

MEMORANDUM

TO: Philip M. Heneghan, Inspector General

FROM: Deanna Tanner Okun, Chairman

SUBJECT: Management Response to the Inspector General's Draft Report, "Evaluation of Modifications to the Harmonized Tariff Schedule"

I am in receipt of the Inspector General's draft report, *Evaluation of Modifications to the Harmonized Tariff Schedule*, dated May 16, 2012. I appreciate the opportunity to review the draft report and to provide comments.

The Inspector General's draft report found that the Commission did not accurately reflect changes to the Harmonized Tariff Schedule of the United States in a timely manner. The report identified four problem areas: (1) The Commission did not have a documented, standard procedure for making changes to the Harmonized Tariff Schedule; (2) the Commission did not have a supervisory process to review and approve changes made to the Harmonized Tariff Schedule; (3) the Commission did not track corrections made to the Harmonized Tariff Schedule; and (4) the Commission presented inconsistent versions of the Harmonized Tariff Schedule on the Commission's website.

We agree with the findings. The Commission is dedicated to ensuring that modifications to the Harmonized Tariff Schedule are complete and accurate and that information on the Commission's website is accurate and consistent. Thank you for reviewing the Commission's process and making the recommendations to improve the process.

"Thacher's Calculating Instrument" developed by Edwin Thacher in the late 1870's. It is a cylindrical, rotating slide rule able to perform complex mathematical calculations involving roots and powers quickly. The instrument was used by architects, engineers, and actuaries as a measuring device.

To Promote and Preserve the Efficiency, Effectiveness, and Integrity of the U.S. International Trade Commission

U.S. International Trade Commission
Office of Inspector General
500 E Street, SW
Washington, DC 20436

Office: 202-205-6542
Fax: 202-205-1859
Hotline: 877-358-8530
OIGHotline@USITC.gov