

**The Internal Revenue Service's Process  
for Controlling Filing Season Computer  
Programming Changes Does Not  
Ensure Critical Changes Are  
Effectively Implemented**

**May 2000**

**Reference Number: 2000-40-069**

**This report has cleared the Treasury Inspector General for Tax Administration disclosure review process and information determined to be restricted from public release has been redacted from this document.**



DEPARTMENT OF THE TREASURY  
WASHINGTON, D.C. 20220

INSPECTOR GENERAL  
for TAX  
ADMINISTRATION

May 9, 2000

MEMORANDUM FOR COMMISSIONER ROSSOTTI

A handwritten signature in black ink that reads "Pamela J. Gardiner".

FROM: Pamela J. Gardiner  
Deputy Inspector General for Audit

SUBJECT: Final Audit Report - The Internal Revenue Service's Process for  
Controlling Filing Season Computer Programming Changes  
Does Not Ensure Critical Changes Are Effectively Implemented

This report presents the results of our review of the effectiveness of the process used by the Internal Revenue Services' (IRS) Submission Processing functions to control computer programming changes needed for the 2000 Filing Season. We evaluated the procedures used to control computer programming changes and the adequacy of the IRS management information system to monitor these changes. In addition, we conducted tests to follow up on audit findings reported in a prior Treasury Inspector General for Tax Administration (TIGTA) report.<sup>1</sup>

In summary, we found the IRS does not have a comprehensive process for controlling computer programming changes. The IRS' current process does not document all critical activities from the point the IRS identifies the need for a computer programming change until the program is implemented. In addition, the IRS needs to ensure critical programming changes receive priority over non-critical changes and all IRS offices use the same process to control requests for programming changes.

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<sup>1</sup> *The Internal Revenue Service Needs To Improve Information Systems Quality Assurance Over Key Tax Law Changes for the 2000 Filing Season* (Reference Number 199920066, dated September 1999)

To ensure that all requests for computer programming changes are effectively controlled, we recommend that the IRS improve its process for managing computer programming changes and providing accurate management information. This should include documenting all critical activities within the RIS process as well as validating information in the existing RIS databases before it is combined into a centralized database. We also recommend the IRS develop written criteria for prioritizing RISs to ensure the RIS inventory is prioritized correctly for the filing season and publish standardized request procedures to assure that computer programming changes are effectively controlled for all IRS offices.

The IRS agreed with our findings and recommendations and is initiating corrective action. In their response, the IRS also stated that a noteworthy initiative involved creating a database that the IRS believes was instrumental in the monitoring of placeholders and final RISs.

However, our analysis of the database showed the information it contained was incomplete for effectively monitoring computer changes from inception to actual implementation. It also contained numerous data discrepancies that made the database unreliable as a tracking tool. Based on this assessment and the IRS' plan not to consolidate the database into the RIS Tracking and Reporting System, we question it as being an instrumental initiative. Management's comments have been incorporated into the report where appropriate, and the full text of their comments is included as an appendix.

Copies of this report are also being sent to the IRS managers who are affected by the report recommendations. Please contact me at (202) 622-6510 if you have questions, or your staff may call Walter E. Arrison, Associate Inspector General for Audit (Wage and Investment Income Programs), at (770) 455-2475.

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## **Executive Summary**

The Internal Revenue Service (IRS) faces significant challenges as it prepares to process an estimated 128 million individual tax returns during the 2000 Filing Season. These challenges include recruiting and training employees, programming computer systems to implement new tax law changes, and modifying existing systems to effectively process tax returns for the Calendar Year 2000 date change.

To assess the IRS' effectiveness in meeting these challenges, the Treasury Inspector General for Tax Administration (TIGTA) is conducting a series of reviews to evaluate the effectiveness of the IRS' process for preparing for the 2000 Filing Season. In separate audit reports, the TIGTA will provide readiness assessments for several important filing season activities, such as the process the IRS uses for preparing tax forms and publications and for ensuring quality customer service.

The objective of this review was to assess the effectiveness of the process used by the IRS' Submission Processing functions to control computer programming changes needed for the 2000 Filing Season. This is a critical process since the IRS has determined that over 250 computer programming changes are needed for the 2000 Filing Season. Although the scope of this review extends into Information Systems due to a cross-functional sharing of key databases, our focus is on the functions responsible for processing tax returns and their ability to ensure the effective preparation for upcoming filing seasons.

## **Results**

The IRS does not have a comprehensive process for controlling computer programming changes. Its current process does not document all critical activities from the point the IRS identifies the need for a computer programming change until the program is implemented. As a result, the IRS does not have a high degree of assurance that critical computer programming changes will be implemented before each filing season begins. Specifically, the IRS does not ensure that:

- Requests for computer programming changes are effectively controlled.
- Critical programming changes receive priority over non-critical changes.
- All IRS offices use the same process to control programming changes.

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Although this review did not identify any requested programming changes that were not being addressed, we attribute this to the dedication of IRS employees who took the initiative to ensure that the changes were addressed.

Additionally, the IRS has recognized the need to improve the Request for Information Services (RIS) process. It chartered a study group (the Operations RIS Task Group) that recently issued a report listing 10 recommendations. While we concur with the improvements cited in this report, the IRS should also address the conditions identified during our review. Resulting process improvements will provide the IRS with an assurance that critical programming changes will be addressed for future filing seasons.

### **The Internal Revenue Service Should Ensure that Requests for Computer Programming Changes Are Effectively Controlled**

The IRS uses the RIS process to request, control, and monitor most programming changes. After an IRS office identifies the need for a programming change, it prepares a RIS that is forwarded to the Information Systems Division for programming.

The process for controlling these programming changes should include documenting key activities. The absence of adequate documentation of key activities makes it difficult for the IRS to ensure that it has effectively implemented necessary programming changes. We determined the IRS has not assured that procedures for monitoring programming changes adequately address documenting the following key activities:

- Pre-coordination to decide whether a programming change should be made and, if so, the scope of those changes.
- Document clearance to obtain comments from the IRS offices impacted by the programming change.
- Quality review to ensure that the RIS is accurately prepared.
- Acceptance of computer programming changes to ensure that the completed programming change meets the needs of the IRS user.

Although the RIS process requires that requested programming changes be included in automated databases for monitoring and control purposes, the information is not reliable because the IRS has not linked these two key databases or assured the information they contain is consistent.

These two databases contain RIS information for use by different IRS offices. The first is primarily used to track the status of both RIS requests and RIS placeholders (a RIS placeholder alerts Information Systems that an IRS office is evaluating the need for a programming change). The second database is intended to monitor the status and progress of RISs as they are addressed and implemented during the process. However,

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we determined the IRS does not maintain documentation explaining the information that is recorded in the databases or the rules for inputting to each data field. As a result, we were unable to assess the validity of the database information.

The Operations RIS Task Group supported combining these two key databases into a centralized tracking system to help improve the process. We identified the following omissions and inconsistencies that should be corrected prior to centralizing the database to ensure that the new database will contain accurate and complete information:

- In 91 instances, RIS requests were listed on 1 of the databases but not found on the other. These appeared to be final RISs and should have had a matching record in the other database.
- In 35 instances, RIS placeholders were listed with control numbers in a database field that made them appear to be RIS requests rather than placeholders.
- Completion dates for key activities were included on only one of these key databases. However, in 48 instances, these completion dates were unreliable because they were inconsistent with the dates found on an alternative listing.

Such errors reduce the IRS' ability to effectively monitor programming changes and provide accurate management information.

## **The Internal Revenue Service Should Ensure that Critical Programming Changes Receive Priority Over Non-Critical Changes**

Although the IRS recognized the need to prioritize RISs for the 2000 Filing Season, it did not assure that the most critical programming changes were made first. The Chief Operations Officer issued a memorandum to the Assistant Commissioners for Operations with instructions for prioritizing RISs into six categories. However, it did not include written criteria outlining what should be included in each of the categories.

To determine whether critical programming changes were consistently assigned, we selected a judgmental sample of 15 filing season programming changes and assigned each of them to a priority category. We used the priority guidelines that the Operations RIS Task Group established for the six categories as our basis, due to the absence of written criteria. Our results showed category assignments that did not agree with the IRS' assignments for 20 percent (3 of 15) of these filing season changes. This is an example of how local guidelines within the IRS can be interpreted differently causing the priority for programming changes to be inconsistently assigned.

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### **The Internal Revenue Service Should Ensure that All Internal Revenue Service Offices Use the Same Process to Control Programming Changes**

The IRS does not require all of its offices to use the RIS process to control requests for computer programming changes. For example, changes to the Electronic Federal Tax Payment System (EFTPS) were not controlled on the RIS system.

The IRS uses the EFTPS to electronically process federal tax deposits and other business and individual tax payments. Computer programming changes to the EFTPS were initiated using a Change Request (CR) instead of a RIS. A CR is similar to a RIS, and the process for implementing a CR is similar to the process for implementing a RIS. However, CRs are not controlled on the RIS databases or monitored as part of the filing season programming changes to ensure they are implemented.

The IRS cannot readily assess implementation risks for programming changes if all requests are not required to be controlled through the RIS process.

### **Summary of Recommendations**

To ensure that all requests for computer programming changes are effectively controlled, we recommend that the IRS improve its process for managing computer programming changes and providing accurate management information. This should include documenting all critical activities within the RIS process as well as validating information in the existing RIS databases before it is combined into a centralized database. We also recommend the IRS develop written criteria for prioritizing RISs to ensure the RIS inventory is prioritized correctly for the filing season and publish standardized request procedures to assure that computer programming changes are effectively controlled for all IRS offices.

Management's Response: The IRS agreed with our findings and recommendations. The Chief Operations Officer issued newly developed interim RIS procedures in November 1999 and final procedures are expected to be issued in May 2000. The IRS has also taken action to ensure that the process to request computer changes for the EFTPS is the same as the RIS process used by other IRS offices.

Two other initiatives are being implemented to address our recommendations. The first, initiated in July 1999, consolidates four databases used by different functional areas into a blended database effort, the RIS Tracking and Reporting System. This will provide IRS with a comprehensive, centralized tracking of any computer changes that are agreed to, accepted, programmed, and released into production. The second initiative, the Service-Wide Requirements Management Integrated Product Team, which began in December 1999, is developing a Service-wide methodology for planning, developing, tracking,



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managing, and prioritizing requirements across all IRS business units. Management's complete response to the draft report is included as Appendix VII.

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## Objective and Scope

*We performed audit work in the National Office to assess the effectiveness of the process used by the Submission Processing functions to control computer programming changes for the 2000 Filing Season.*

The overall objective of this review was to assess the effectiveness of the process used by the Internal Revenue Service's (IRS) Submission Processing functions to control computer programming changes needed for the 2000 Filing Season. Although the scope of this review extended into Information Systems due to a cross-functional sharing of key databases, our focus was on the functions responsible for processing tax returns and their ability to ensure the effective preparation for upcoming filing seasons.

We evaluated the procedures used to control computer programming changes and the adequacy of the IRS management information system to monitor these changes. In addition, we conducted tests to follow up on audit findings reported in a prior Treasury Inspector General for Tax Administration (TIGTA) report.<sup>1</sup> The results of these follow-up tests are included on page 3 of this report.

Our audit was designed to provide the Congress and the IRS management with reasonable assurance that critical changes made to the IRS computer systems are being appropriately controlled and implemented through the current Request for Information Services (RIS) process. We conducted testing in the Offices of the Chief Information Officer and the Chief Operations Officer between June 1999 and September 1999. This audit was performed in accordance with *Government Auditing Standards*.

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<sup>1</sup> *The Internal Revenue Service Needs To Improve Information Systems Quality Assurance Over Key Tax Law Changes for the 2000 Filing Season* (Reference Number 199920066, dated September 1999)

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Details of our audit objective, scope, and methodology are presented in Appendix I. Major contributors to this report are listed in Appendix II.

### Background

*The IRS expects to process an estimated 128 million individual tax returns during the 2000 Filing Season.*

The IRS faces significant challenges as it prepares to process an estimated 128 million individual tax returns during the 2000 Filing Season. These challenges include recruiting and training employees, programming computer systems to implement new tax law changes, and modifying existing systems to effectively process tax returns for the Year 2000 date change. This is a critical process since the IRS has determined that over 250 computer programming changes are needed for the 2000 Filing Season.

The IRS uses the RIS process to request, control, and monitor these programming changes. After an IRS office identifies the need for a programming change, it prepares a RIS that is forwarded to the Information Systems Division for programming.

The current RIS Process Lifecycle consists of six stages:

1. Define and prioritize the IRS offices' needs.
2. Develop an initial notice (RIS placeholder) to inform Information Systems and the other IRS offices of a pending computer change.
3. Negotiate the RIS placeholder with Information Systems to determine if the change can be completed.
4. Complete the document clearance process and prepare the final RIS memorandum.
5. Prepare and negotiate the final RIS response.
6. Complete the programming changes required and implement the RIS.

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Any error in the IRS' implementation of computer programming changes could negatively impact many of the estimated 128 million individual tax returns the IRS plans to process for the 2000 Filing Season.

### Results

*The IRS does not have a comprehensive process for controlling computer programming changes, and this could negatively impact returns processing for the Year 2000.*

The IRS does not have a comprehensive process for controlling computer programming changes. The IRS' current process does not document all critical activities from the point the IRS identifies the need for a computer programming change until the program is implemented. As a result, the IRS does not have a high degree of assurance that critical computer programming changes will be implemented before the filing season begins.

Specifically, the IRS does not ensure that:

- Requests for computer programming changes are effectively controlled.
- Critical programming changes receive priority over non-critical changes.
- All IRS offices use the same process to control programming changes.

Although this review did not identify any requested programming changes that were not being addressed, we attribute this to the dedication of IRS employees who took the initiative to ensure that the changes were addressed.

The IRS has recognized the need to improve the RIS process. During reviews to evaluate the effectiveness of the IRS' actions to implement legislative changes affecting the 1999 Filing Season, the TIGTA reported on conditions related to deficiencies in the RIS process, and the IRS implemented corrective actions. In addition, the IRS implemented corrective actions in response to the prior TIGTA report previously cited. Descriptions of the conditions identified in these reviews and

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*The IRS recognized the need to improve the RIS process and chartered a study group to address this need. It issued a report listing 10 recommendations.*

management's corrective actions are included in Appendix V.

The IRS recognized the need for a standard RIS process and chartered a study group (the Operations RIS Task Group) that recently issued a report listing 10 recommendations. A detailed description of the 10 recommendations is included in Appendix VI. While we concur with the improvements cited in this report, the IRS should also address the conditions identified during this review. The resulting process improvements will provide the IRS with an assurance that critical programming changes will be addressed for future filing seasons.

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### **The Internal Revenue Service Should Ensure that Requests for Computer Programming Changes Are Effectively Controlled**

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The RIS process directly impacts the IRS' ability to effectively manage the implementation of computer changes. Accordingly, the IRS must ensure the RIS process is reliable and that critical programming changes will be adequately controlled.

The General Accounting Office (GAO) *Standards for Internal Control in the Federal Government* state that transactions and other significant events should be clearly documented, and the documentation should be readily available for examination. In addition, the documentation should facilitate tracing the event and related information from before it occurs, through its processing, to after it is completed.

### **The RIS Process Should Document All Key Activities**

The IRS uses the Requirements Management Request for Information Services (Document 9473) as a method to document requested programming changes. However, this document does not detail key activities within the RIS process. We determined the IRS has not

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*Documentation of key IRS activities will improve the IRS' accountability and overall management of the RIS process.*

assured that procedures for monitoring programming changes adequately address documenting the key activities. For example:

- The pre-coordination activity used to decide whether a programming change should be made, rejected, or withdrawn showed insufficient documentation to substantiate these decisions.
- The document clearance activity used to obtain comments from the IRS offices impacted by the programming change provided little evidence to show that all affected offices were notified.
- The quality review activity used to ensure that the RIS is accurately prepared is not formally required by the IRS because of an informal review process. Additionally, documentation for these reviews is not maintained.
- The acceptance activity used to ensure that the completed programming change meets the needs of the IRS user does not require formal certification by the requestor.

*If a computer programming change cannot be made, a manual fix may be implemented. However, the IRS does not monitor the status of these manual fixes.*

During the pre-coordination activity it may be determined that not all proposed programming changes can be made due to limited resources. If so, the IRS may choose to use a manual fix to implement a change before the filing season begins; however, the IRS does not document this decision or require national monitoring of such fixes. We attempted to identify an alternate source to evaluate manual fixes by sampling 15 filing season RIS requests and placeholders that had been rejected or withdrawn from the pre-coordination activity. However, we were unable to complete this test because the activities were insufficiently documented.

The absence of adequate documentation of key activities makes it difficult for the IRS to ensure that it has effectively implemented necessary programming changes.

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### The RIS Process Should Provide Accurate Management Information

The GAO *Standards for Internal Control in the Federal Government* state that data entered into systems should be subjected to edit checks and matched to approved control files. Such a system would provide accurate and current information on the status of each RIS, allowing IRS managers to make informed decisions throughout the process.

Although the RIS process requires that requested programming changes be included in automated databases for monitoring and control purposes, the information is not reliable because the IRS has not linked these two key databases or assured the information they contain is consistent.

These two databases contain RIS information for use by different IRS offices. The first is primarily used to track the status of both RIS requests and RIS placeholders (a RIS placeholder alerts Information Systems that an IRS office is evaluating the need for a programming change). The second database is intended to monitor the status and progress of RISs as they are addressed and implemented during the process.

We determined the IRS does not maintain documentation explaining the information that is recorded in the databases or the rules for inputting to each data field. As a result, we were unable to assess the validity of the database information.

*We identified omissions and inconsistencies in the two key databases that should be corrected prior to centralizing the database.*

The Operations RIS Task Group has supported combining these two key databases into a centralized tracking system to help improve the process. However, we identified the following omissions and inconsistencies that should be corrected prior to centralizing the database to ensure that the new database will contain accurate and complete information:

- In 91 instances, RIS requests were listed on 1 of the databases but not found on the other. These

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*Errors reduce the IRS' ability to effectively monitor programming changes and provide accurate management information.*

appeared to be final RISs and should have had a matching record in the other database.

- In 35 instances, RIS placeholders were listed with control numbers in a database field that made them appear to be RIS requests rather than placeholders.
- Completion dates for key activities were included on only one of these key databases. However, in 48 instances, these completion dates were unreliable because they were inconsistent with the dates found on an alternative listing.

Such errors reduce the IRS' ability to effectively monitor programming changes and provide accurate management information.

### **Recommendation**

To ensure that requests for computer programming changes are effectively controlled, we recommend the IRS:

1. Document all critical activities within the RIS process. Such documentation should also be provided for data fields in the proposed centralized database. This would include appropriate validation checks for critical information fields, as well as validating information in the existing RIS databases before it is combined into a centralized database.

Management's Response: The IRS is testing the RIS Tracking and Reporting System (RTRS) which consolidates the four current RIS databases:

1. The Business Systems Requirements Office (BSRO) and the Filing Season Project Office (FSPO) database,
2. The Systems Development database,
3. The Project Tracking System Database (Product Assurance & National Transmittal Center (Testing))
4. The RIS Section database.



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This new database will blend the RIS placeholder, status tracking, and report information, maintained on these various databases, with the RIS information maintained on the RIS Section database. It will also track the test updates from the Project Tracking System Database and the National Transmittal Center's production dates.

Full documentation exists for the requirements, design, and data dictionary phases of this project and will be updated as necessary as testing is completed. Appropriate data validation checks have also been incorporated into the RTRS. Any conflicting information that might still exist in the Filing Season and RIS databases is being resolved through the current joint testing effort. A detailed User's Guide has also been developed to help people navigate through the RTRS system. The RIS blending effort will provide the IRS with a comprehensive, centralized tracking of the baseline (any application and/or systems changes that are agreed to, accepted, programmed and released into production) changes to the computer systems.

All other critical RIS process activities are either included in Information Systems' (IS) RIS Procedures (Document 9473) or the draft Operations' RIS Procedures.

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### **The Internal Revenue Service Should Ensure that Critical Programming Changes Receive Priority Over Non-Critical Changes**

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*The IRS process used to prioritize RISs does not ensure that the most critical changes were made first.*

Although the IRS recognized the need to prioritize RISs for the 2000 Filing Season, it did not assure that the most critical programming changes were made first.

The Chief Operations Officer issued a memorandum to the Assistant Commissioners for Operations with instructions for prioritizing RISs into six categories. However, it did not include written criteria outlining what should be included in each of the categories.

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Without written criteria, employees may inconsistently assign priority categories to RISs.

To determine whether critical programming changes were inconsistently assigned, we selected a judgmental sample of 15 filing season programming changes and assigned each of them to a priority category. We used the priority guidelines that the Operations RIS Task Group established for the six categories as our basis, due to the absence of written criteria.

Our results showed category assignments that did not agree with the IRS' assignments for 20 percent (3 of 15) of these filing season changes. This is an example of how local interpretations of national guidelines can cause the priority for programming changes to be inconsistently assigned.

### **Recommendation**

To ensure that critical programming changes receive priority over non-critical changes, we recommend the IRS:

2. Develop written criteria for prioritizing RISs to ensure the RIS inventory is prioritized correctly for the filing season. This criteria should include such variables as taxpayer impact, potential cost, and resource commitments.

### Management's Response:

- The Operations RIS Task Group developed interim RIS procedures that clarified the categories of RISs and provided guidance in determining the critical versus non-critical status of RISs for Filing Season 2001. The Chief Operations Officer issued these procedures on November 2, 1999.
- Within Operations' Submission Processing business area, placeholders are prioritized in a two phased approach. Phase I is the placeholder prioritization within the division. Although only discretionary (program enhancement) placeholders were

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prioritized, all RISs in the stay-in-business (legacy) and legislative categories were deemed essential. Placeholders were prioritized by the: (1) burden on taxpayers and (2) impact to the IRS. A report was generated and copies were provided to the Operation's functional areas and IS.

Phase II of the process required negotiating with IS in a series of meetings to finalize the placeholder prioritization. Place holders were prioritized by: (1) IS available resources and (2) IS staffing and programming hours. This approach allowed discussion between the business area and IS, and resulted in programming of some key program enhancements.

- The IRS has created the Service-Wide Requirements Management (SRM) Integrated Product Team (IPT) to improve the processes for developing, tracking, managing, and prioritizing requirements across the organization. The goal of the IPT is to analyze all current requirements management initiatives in both Legacy and Modernization areas, create integrated procedures to manage the requirements, and create a mechanism to prioritize them by categories.

The IRS will use Requirements Taxonomy<sup>2</sup> to classify requirements and give them measurable criteria that can be used to prioritize critical versus non-critical changes. This classification system can also be used to negotiate system requirement priorities between Business Operating Divisions as they are phased in, and make investment decisions based on organizational priorities and impacts.

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<sup>2</sup> Study of the general principals of scientific classification.

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### The Internal Revenue Service Should Ensure that All Internal Revenue Service Offices Use the Same Process to Control Programming Changes

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The GAO *Standards for Internal Control in the Federal Government* state that internal controls should provide for an assessment of risks. However, the IRS cannot readily assess implementation risks for programming changes because it does not require the use of a common RIS process to control all change requests.

*The IRS does not require all programming changes, such as changes to the EFTPS, be controlled on the RIS system.*

For example, the IRS uses the Electronic Federal Tax Payment System (EFTPS) to electronically process federal tax deposits and tax payments. Any computer programming changes to the EFTPS are initiated using a Change Request (CR) instead of a RIS request. The EFTPS developed this process of recording *internally* requested and implemented changes when it was a self-contained TaxLink prototype in the Atlanta Service Center.

Later, when the EFTPS came under the Cash Management System Project Office within Information Systems, it retained its CR process. A CR is similar to a RIS, and the process of implementing a CR is similar to the process for implementing a RIS. However, CRs are not controlled on the RIS databases or monitored as part of the filing season programming changes to ensure they are implemented.

### Recommendation

To ensure all IRS offices use the same process to control programming changes, we recommend the IRS:

3. Publish standardized request procedures to assure that computer programming changes are effectively controlled for all IRS offices.

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Management's Response: The issue of the EFTPS project using CRs instead of RISs has been addressed. The EFTPS business owners now adhere to the previously published standard procedures contained in the IS' RIS Procedures (Document 9473) and issues RISs for their internal changes.

### Conclusion

The IRS cannot be assured that all critical computer programming changes will be implemented prior to the beginning of the 2000 Filing Season. The IRS is at risk that critical changes are not being controlled as part of the filing season RIS inventory. In addition, the IRS cannot rely on the data that is contained in two key databases used to monitor the RIS process.

*The IRS needs to also address the conditions we have identified to help further improve the RIS process to ensure all critical programming changes are effectively implemented.*

The IRS has recognized the need to improve the RIS process as evidenced by the Operations RIS Task Group's 10 recommendations to strengthen the process. The Chief Operations Officer is in the process of implementing these recommendations. However, the IRS needs to also address the conditions we have identified to help further improve the RIS process to ensure all critical programming changes are effectively implemented.

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## Appendix I

### Detailed Objective, Scope, and Methodology

The overall objective of our audit was to assess the effectiveness of the process used by the Internal Revenue Service's (IRS) Submission Processing functions to control computer programming changes needed for the 2000 Filing Season. In addition, we conducted testing of the Filing Season Project Office's (FSPO) planned corrective actions in response to a prior Treasury Inspector General for Tax Administration report.<sup>1</sup> Specifically, we:

- I. Determined if the corrective actions planned or implemented by the Information Systems organization adequately addressed the issues reported in the prior audit.
  - A. Obtained copies of all new, revised, or proposed procedures implemented or planned to ensure the issues reported in the prior audit were addressed.
  - B. Evaluated the changes made to the current Request for Information Services (RIS) procedures for RIS responses, RIS amendments, and data validation to determine if the changes will prevent the same conditions previously reported from occurring during the 2000 Filing Season.
    1. Obtained a copy of the RIS Section database and identified 126 filing season RISs. We calculated the number of days to respond to a RIS from the "Date to the Supplier" field to the "Interim" and/or "Final Response Date" field for all of the 126 RISs. The 70 RISs that had a response over 30 days old or did not have an interim and/or final response on the RIS Section database were validated to the Information Systems Developers database to determine if the responses were actually late.
    2. Identified 28 filing season RISs with 35 amendments from the RIS Section database. The number of RIS amendments that had declined as a result of adding the expectation to pre-coordinate could not be determined because the previous audit did not identify the total population of RIS amendments.

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<sup>1</sup> *The Internal Revenue Service Needs To Improve Information System Quality Assurance Efforts Over Key Tax Law Changes for the 2000 Filing Season* (Reference Number 199920066, dated September 1999)

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3. Obtained copies of proposed corrective actions from the prior audit and evaluated them to determine whether the FSPO was provided reasonable assurance that the status information received from other functional areas was accurate.
  - C. Analyzed changes made to the milestone dates for "Documentation to SAT" (Systems Acceptability Test) on the May 6 and June 10, 1999, Schedule and Status Reports to determine if the changes had been authenticated in accordance with procedures described in the Information Systems response to the previous audit.
  - D. Reviewed current Product Assurance document files for five program problems being monitored for resolution. We determined whether the procedures used to monitor the problems provided for more prompt reporting and monitoring through resolution.
  - E. Reviewed the new procedures for tracking Product Assurance test plan milestones to determine whether the procedures would be implemented by the proposed implementation date. We also determined whether the new procedures would ensure milestones were reported and validated at the earliest opportunity.
- II. Determined if the procedures used by the National Director, Submission Processing; the National Director, Electronic Tax Administration (ETA); and the Assistant Commissioner, Program Management and Architecture, to control and monitor computer changes ensured all needed changes had been requested and implemented prior to the beginning of the 2000 Filing Season.
- A. Contacted Submission Processing, the ETA, and the Electronic Management System (EMS) Project Office to determine how the National Directors and the Project Office Director identified the need for a computer change.
  - B. Contacted Submission Processing, the ETA, and Information Systems to determine whether the process used to pre-coordinate a computer change with Information Systems informed all the affected functions of the proposed changes and gave them an opportunity to provide input.
    1. Selected a judgmental sample of 15 (9 Submission Processing and 6 ETA) RISs for the 2000 Filing Season from the FSPO/Business Systems Requirements Office (BSRO) database to determine if the RISs had been pre-coordinated. These RISs were in rejected or withdrawn status.

## **The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented**

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- C. Analyzed the procedures used by the National Directors, Submission Processing and the ETA, to draft and submit a formal RIS. To accomplish this objective, we identified who was responsible for drafting, reviewing, and approving the formal RIS package. We also:
  - 1. Determined the number of 2000 Filing Season RISs from the RIS Section database submitted after the February 28, 1999, cut-off date. We identified 20 (13 Submission Processing and 7 ETA) and reviewed them to determine the average number of days they were overdue.
  - 2. Reviewed all 11 filing season RISs on the RIS Section database (7 Submission Processing and 4 ETA) that were submitted after May 15, 1999, to determine if they would be completed and ready for testing prior to the End-to-End testing in October 1999.
  - 3. Analyzed all 19 filing season RISs on the FSPO/BSRO database (8 Submission Processing and 11 ETA) with a submission date of April 1, 1999, or later and a status of approved, tentative agreement, or pending to determine if the National Directors, Submission Processing and the ETA, had submitted the RISs timely enough to ensure consideration for the scheduled July 1999 SAT.
  - 4. Determined whether RISs had been submitted for the six electronic filing enhancements for the 2000 Filing Season discussed in a March 17, 1999, ETA conference call.
- D. Reviewed the procedures used by the National Director, ETA, to draft a formal RIS for changes to the EMS.
- E. Analyzed the effectiveness of the procedures used to prioritize system change requests for inclusion in the Information Systems inventory.
  - 1. Identified how the RISs were prioritized and evaluated the criteria used in prioritizing the RIS inventory.
  - 2. Selected a judgmental sample of 15 RISs (8 Submission Processing and 7 ETA) on the May 27, 1999, Year 2000 RIS Universe List with a status of tentative agreement, approved, or pending and independently prioritized them. The ratio of Submission Processing to ETA RISs was computed based on a weighted average of Submission Processing and ETA RISs in our universe.



## **The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented**

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- F. Evaluated the procedures used by Information Systems to ensure code changes accurately reflect the changes requested in the RIS. We contacted Information Systems, Submission Processing, and the ETA to determine what testing is completed, what type of documentation is kept, how information is validated, and what controls are in place to ensure changes transmitted to the processing centers are actually implemented.
  - G. Evaluated the effectiveness of Submission Processing's and ETA's alternative procedures for RISs that will not make production.
    - 1. Evaluated the adequacy of these procedures and the criteria used to implement requested changes that will not be put into production using a RIS.
    - 2. Reviewed a judgmental sample of 15 withdrawn or rejected filing season RISs (9 Submission Processing and 6 ETA) on the FSPO/BSRO database to determine if Submission Processing and the ETA were developing alternative procedures when needed.
  - H. Assessed the effectiveness of the tracking tools used by the National Directors, Submission Processing and the ETA, and the Assistant Commissioner, Program Management and Architecture, to monitor the progress of RISs from inception through implementation. All the tools used to track the RIS inventory for the 2000 Filing Season along with who is responsible for adding, deleting, updating, and approving changes to these tracking tools were identified. We then attempted to match the various tracking tools to determine if the tracking system was complete and accurate. Inconsistencies in the way the database fields were structured prevented us from being able to complete this test.
  - I. Evaluated the information captured in the various tracking tools to determine if the tracking tools could effectively be used to ensure computer changes were completed accurately and implemented timely.
- III. Evaluated the adequacy of the IRS' management information system used to control and monitor the implementation of computer changes for the 2000 Filing Season.
- A. Reviewed the RIS elements captured in each of the tracking tools identified in Sub-Objective II.I to evaluate the usefulness of this information in making program decisions. We also determined if the IRS could identify overall costs associated with computer changes for the filing season, trends in the processing systems being changed, and the effectiveness of the RIS document in the overall RIS process.

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- B. Analyzed the location of the persons currently responsible for monitoring computer changes to determine if the information is being tracked at the most effective level organizationally.
- C. Determined if all potential users have access to information about changes to IRS computer systems.

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**Appendix II**

**Major Contributors to This Report**

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**Appendix III**

**Report Distribution List**

Deputy Commissioner Operations C:DO  
Chief Operations Officer OP  
Deputy Chief Operations Officer OP  
Director, Business Systems Requirements Office OP:B  
Director, Office of Program Evaluation and Risk Analysis M:O  
Assistant Commissioner (Electronic Tax Administration) OP:ETA  
Assistant Commissioner (Forms and Submission Processing) OP:FS  
National Director for Electronic Program Enhancements OP:ETA:E  
National Director for Electronic Program Operations OP:ETA:O  
National Director for Submission Processing OP:FS:SP  
National Director for Legislative Affairs CL:LA  
Office of Management Controls M:CFO:A:M  
Office of the Chief Counsel CC  
Audit Liaison:  
    Chief Operations Officer OP

# The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented

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## Appendix IV

### Outcome Measures

This appendix presents detailed information on the measurable impact that our recommended corrective actions will have on tax administration. These benefits will be incorporated into our Semiannual Report to the Congress.

#### Finding and recommendation:

The Internal Revenue Service (IRS) does not ensure that:

- Requests for computer programming changes are effectively controlled.
- Critical programming changes receive priority over non-critical changes.
- All IRS offices use the same process to control programming changes.

As a result, the IRS does not have a high degree of assurance that critical computer programming changes will be implemented before each filing season begins (see page 3).

To ensure that all requests for computer programming changes are effectively controlled, we recommend that the IRS improve its process for managing computer programming changes and providing accurate management information. This should include documenting all critical activities within the Request for Information Services (RIS) process as well as validating information in the existing RIS databases before it is combined into a centralized database (see page 7). We also recommend the IRS develop written criteria for prioritizing RISs to ensure the RIS inventory is prioritized correctly for the filing season and publish standardized request procedures to assure that computer programming changes are effectively controlled for all IRS offices (see pages 9 and 10).

#### Type of Outcome Measure:

Protection of resources/reliability of information - potential

#### Value of the Benefit:

We determined that the IRS does not have a comprehensive process for controlling computer programming changes. The process does not document all critical activities from the point the IRS identifies the need for a computer programming change until the program is implemented. The IRS is at risk that critical changes are not being controlled and monitored as part of the filing season RIS inventory. In addition, the IRS cannot rely on the data that is generated by the two key databases.

**The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented**

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The RIS process directly impacts the IRS' ability to effectively manage the implementation of computer changes. Accordingly, the IRS must ensure the RIS process is reliable and critical programming changes will be adequately controlled. Any errors in the IRS' implementation of computer changes could negatively impact many of the 128 million individual tax returns the IRS plans to process in the 2000 Filing Season. This is a potential outcome that cannot be accurately measured until the filing season begins and the impact to taxpayers can be identified.

Methodology Used to Measure the Reported Benefit:

Projections by the IRS' Research and Statistics of Income Office (Document 6187) show that up to 128 million taxpayers will file individual tax returns for the 2000 Filing Season.

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**Appendix V**

**Conditions Related to Deficiencies in the Request for Information Services Process Previously Reported by the Treasury Inspector General for Tax Administration**

The Treasury Inspector General for Tax Administration's (TIGTA) prior report identified the following conditions:<sup>1</sup>

- **The IRS Needs to Ensure the Status of Programming Changes for the 2000 Filing Season Is Adequately and Effectively Monitored**
- **The Product Assurance Division Needs to Ensure the Status of System Acceptability Testing Is More Completely, Accurately, and Timely Reported**

Management's Response: For the 2000 Filing Season, Information Systems management evaluated and updated the Filing Season Project Office's procedures related to information gathering and reporting to more effectively monitor and document milestone date changes and the impact on the Product Assurance Division's testing and filing season implementation. Each Product Assurance Branch will create a matrix to consistently track the relevant milestone dates for the filing season. Project milestones which affect test schedules will be reported through the Product Assurance Division's various reporting mechanisms, such as weekly filing season meetings held at the Assistant Commissioner and Director level.

Product Assurance management began monitoring compliance to the Division's various reporting mechanisms through the filing season weekly status meetings, performance reviews with Division management, and review of the Division's Weekly Exception Report. Product Assurance management, however, stated that none of the program testing delays cited in the report led to production delays. In addition, management did not believe it would be appropriate to raise all program problems to the Executive Steering Committee (ESC).

Office of Audit Comment: We do not believe monitoring the compliance to Product Assurance Division's various reporting mechanisms alone will ensure that the ESC is timely informed of late legislative changes to programs that may affect Systems

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<sup>1</sup> *The Internal Revenue Service Needs to Improve Information Systems Quality Assurance Over Key Tax Law Changes for the 2000 Filing Season* (Reference Number 199920066, dated September 1999)

## **The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented**

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Acceptability Test schedules or possible program implementation delays for the 2000 Filing Season. As reported, we found that program delays were not consistently or timely reported using these mechanisms during the 1999 Filing Season. Therefore, we believe that all program changes or problems that may have an impact on milestone completion dates need to be discussed with the customer and the ESC.

- **Issues Reported During the Review and Responded to by IRS Management**

In a memorandum dated October 19, 1998, we recommended that Information Systems management assign responsibility for establishing a process to reduce the time to complete Requests for Information Services (RIS) responses and ensure responses are issued as quickly as possible to avoid delays. The Filing Season Project Office agreed and implemented several processes to facilitate faster responses for the 2000 Filing Season RISs.

Five memoranda were issued on the following conditions during two prior TIGTA reviews to evaluate the effectiveness of the IRS' actions to implement legislative changes affecting the 1999 Filing Season.<sup>2</sup>

- **Refunds Are Not Being Frozen on Returns Requiring Recertification for the Earned Income Credit**

Management's Response: The recertification program was corrected. To ensure the correction will effect the desired results, Service Center Examination is identifying and tracking returns that meet recertification requirements.

- **Earned Income Credit Modified Adjusted Gross Income Request For Information Services Needs to be Modified to Ensure Proper Implementation of Legislation Affecting the 1999 Filing Season**

Management's Response: An amendment to the RIS has been submitted to Information Systems requesting that tax-exempt interest be included in the modified Adjusted Gross Income (AGI) calculation. If the programming change cannot be made for the 1999 Filing Season, instructions will be included in the Internal Revenue Manual (IRM).

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<sup>2</sup> *The Internal Revenue Service Could Enhance the Process for Implementing New Tax Legislation* (Reference Number 2000-40-029, dated January 2000)

*Taxpayers and the Internal Revenue Service Experienced Problems With Some New Tax Provisions* (Reference Number 2000-40-045, dated March 2000)



**The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented**

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- **Estimated Tax Penalty Changes Request for Information Services Needs to be Modified to Ensure Proper Implementation of Legislation Affecting the 1999 Filing Season**

Management's Response: An amendment was written to the RIS to ensure that both the documentation and programming will correctly reflect the law.

- **New, Second IRA Deduction Adjusted Gross Income Phase-Out Range for Married Taxpayers Filing Jointly Not Considered in the Request for Information Services Affecting the 1999 Filing Season**

Management's Response: A RIS will be submitted to request programming that will increase the upper AGI limitation for married filing joint taxpayers. A pen and ink change will be issued to IRM 3.12.3 to ensure that taxpayers will receive their full deduction.

- **Requests for Information Services Need to be Written or Modified to Implement Legislation Affecting the 1999 Filing Season**

Management's Response: RISs were developed and submitted to Information Systems for the necessary actions. In addition, a RIS will be submitted in the latter part of 1998 when the new Return of U.S. Persons with Respect to Certain Foreign Partnerships (Form 8865) is finalized.

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**Appendix VI**

**Operations Request for Information Services Task Group  
Final Report Recommendations**

As a result of its work, the Operations Request for Information Services (RIS) Task Group recommended improvements in nine areas. An additional recommendation was added to fulfill the joint partnership of Taxpayer Treatment and Service Improvement (TSI) and the Internal Revenue Service (IRS) Restructuring and Reform Act of 1998 (RRA 98)<sup>1</sup> RIS review.

1. **Establish Placeholders for All RISs.** Placeholders (PH) contain all available information relevant to the Business Area's requirement for new information technology or modifications to existing information technology functions. Within the RIS lifecycle, PHs serve as the first notification of a requirement and can serve as an impetus to discussion within the Business Area about its requirements and between the Business Area and the Information Systems (IS) organization on scope, resources, and schedule. PHs clarify and document business needs, help IS plan for the resources needed to meet business needs, and may eliminate unnecessary up-front work.
2. **Provide Access to the RIS Unit and Filing Season Project Office (FSPO)/Business Systems Requirements Office (BSRO) Databases.** The ability to monitor the status of PHs and RISs is a critical tool for all parties involved in the development process. Currently, the RIS Unit and the FSPO/BSRO databases track the status of all PHs and all RISs.

The Task Group recommends that the owners of these databases provide read-only access to the major stakeholders in the RIS process. These databases provide a central, reliable source for information about the status of PHs and RISs that can also be used in reporting to management.

3. **Standardize Numbering Methodology.** A consistent numbering methodology allows efficient and reliable matching of a PH with its corresponding RIS in the databases. Otherwise, it would be impossible to match the two without physically examining the contents in the two documents. The numbering system as proposed also provides high-level information on the status of a particular action and can be used to improve document version control.

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<sup>1</sup> Pub. L. No. 105-206, 112 Stat. 685

## The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented

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4. **Standardize and Document RIS Process, Roles, and Responsibilities.** The primary purpose of the Task Group was to produce a documented, repeatable process for developing, tracking, and submitting requirements to the IS organization. A documented process provides all stakeholders a source of information for the process, roles, and responsibilities. It establishes one way of doing business that everyone understands and can execute. This, in turn, makes it easier to consistently improve the process, to determine where training is needed, and to align the process with the overall goals of the IRS.
5. **Establish a Standard Template for the RIS Process.** The RIS customers are currently using three different forms (the RIS PH, the Draft RIS, and the Final RIS) for developing PHs and RISs. The Task Group recommends that the RIS lifecycle use a single, standard template. As the requirements develop, the form becomes a historical record of the development of the RIS.
6. **Establish a BSRO Mailbox.** The Task Group recommends that the BSRO establish an electronic mailbox to serve as the central point for collecting and submitting all PHs and RISs to the FSPO, IS, and other stakeholders. The BSRO would receive RISs through the mailbox and then forward them to the RIS Unit and other stakeholders, such as the Chief Financial Officer, when necessary. The RIS Unit, in turn, would disseminate the RISs to the appropriate IS Developers.
7. **Standardize RIS Priorities and Prioritization Methodology.** Resources to implement RIS requirements are limited. Therefore, resources must be allocated to those requirements that have the highest priorities. To ensure that priorities are assigned consistently, the Task Group recommends the adoption of standard priorities with clear definitions.
8. **Develop RIS Process Performance Measures.** The baseline of the standardized RIS process must be established and its performance must be monitored through performance measures. The Task Group has established three performance measure categories: quality, timeliness, and customer satisfaction. The quality measure is concerned with how useful the RIS process is to produce quality RISs and PHs. The timeliness measure looks at the effects of the RIS process on timely preparation, clearance, submission, and processing. The customer measure gauges how the RIS process customers perceive the RIS process.
9. **Promote BSRO's Strategic Functions in the RIS Process.** Although the BSRO's overall roles and responsibilities are still evolving, it is recommended that the BSRO, working in partnership with the FSPO, the RIS Unit, and the Business Areas, assume at least four major strategic functions in the RIS process: customer representation, RIS process ownership, support, and central gatekeeper.

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- 10. Implement RRA 98 RIS Review Recommendations.** A multi-functional team consisting of representatives from TSI, IS, and the BSRO conducted a comprehensive review of all RRA 98 provisions. The team recommended creating an independent RIS review and validation process for all major tax legislation and clearly defining RISs that are legislatively mandated.

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Appendix VII

Management's Response to the Draft Report



COMMISSIONER

DEPARTMENT OF THE TREASURY  
INTERNAL REVENUE SERVICE  
WASHINGTON, D.C. 20224

April 17, 2000

MEMORANDUM FOR TREASURY INSPECTOR GENERAL FOR TAX ADMINISTRATION

FROM:

*for* Charles O. Rossotti  
Commissioner of Internal Revenue *Robertenzel*

SUBJECT:

Treasury Inspector General for Tax Administration (TIGTA) Draft Report – The Internal Revenue Service's (IRS) Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented (Audit No. 19990075)

I appreciate the opportunity to respond to your draft report on our process for controlling computer-programming changes for the 2000 filing season. I see this review as an opportunity to improve and standardize our process for controlling and prioritizing computer-programming changes.

I agree in general with the majority of observations and findings. I also agree with your recommendations and appreciate the time taken to assist us in improving our Request for Information Services (RIS) process.

Prior to the review, we started to make improvements to the RIS process. We documented current RIS procedures and provided recommendations for improvement. The Chief Operations Officer issued newly developed interim RIS procedures in November 1999 with final procedures expected in May 2000. Other organizations in the IRS are also considering using these procedures.

A noteworthy initiative, we would like to bring to your attention, is the database created by Submission Processing. This database was instrumental in effectively monitoring the placeholders and final RISs. Working with RIS templates from Submission Processing and Statistics of Income, the RIS Task Group developed a standard electronic template for Operations.

## The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented

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We have taken actions to ensure business owners of the Electronic Federal Tax Payment Systems (EFTPS) Issue RISs to request internal changes rather than Change Requests (CRs) as they had been doing in the past. Two other initiatives are underway that address the recommendations in this report.

- The first, initiated in July 1999, consolidates four databases used by different functional areas. This new blended database, the RIS Tracking and Reporting System (RTRS), will provide the IRS with a comprehensive, centralized tracking of any computer applications and/or computer systems changes that are agreed to, accepted, programmed, and released into production.
- The second initiative, the Service-Wide Requirements Management (SRM) Integrated Product Team (IPT), which began December 1999, will develop a Service-wide methodology for planning, developing, tracking, managing, and prioritizing computer system requirements across all IRS business units.

This initiative will be phased in, as follows:

- Phase 1, Determine Approach, March 2000 to July 2000;
- Phase 2, Incremental Plan Execution, August 2000 to March 2001; and,
- Phase 3, Service-Wide Implementation, March 2001 to May 2001.

One or more Business Operating Divisions (BODs) will conduct the pilot for the requirements management methodology for Filing Season 2002. The resulting methodology will integrate all current and developing requirements management processes within the IRS. The criteria for administering requirements will be used to ensure the RIS inventory is prioritized accurately for Filing Season 2003.

We are confident the RIS process will capture the computer system requirements for Filing Season 2001 and beyond. This effort will be one of many that will enable the IRS to move from the Capability Maturity Model Level 1, where the environment is initially ad hoc and chaotic resulting in a high risk corporate environment, to Level 2, where there are repeatable defined processes and then on to Level 3, where the defined processes are institutionalized, resulting in more productivity and higher quality work.

We hope to continue working with you and gain your confidence through the success of our initiatives. We will ensure the IRS computer programming changes are effectively controlled and our filing season is never at risk.

# The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented

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Our comments on the specific recommendations in this report are as follows:

## **IDENTITY OF RECOMMENDATION #1**

Document all critical activities within the RIS process. Such documentation should also be provided for data fields in the proposed centralized database. This would include appropriate validation checks for critical information fields, as well as validating information in the existing RIS databases before it is combined into a centralized database.

## **ASSESSMENT OF CAUSE(S)**

TIGTA found there were discrepancies between the existing RIS Section database and the Filing Season Project Office (FSPO) database. These databases were built to track different information. The FSPO database was built to supplement and extract information from the RIS database to enable IRS to track RIS placeholders and statuses. One of the reasons the RTRS database was created was to incorporate information contained on both of these databases. Since part of the FSPO database procedures call for weekly extracts from the RIS Section database, there will be times when these databases show different RIS information. The FSPO and the Business Systems Requirements Office (BSRO) procedures have also evolved over the past 2 years to define more consistent numbering systems for the RIS placeholders, making it easier to match RISs and RIS placeholders.

## **CORRECTIVE ACTION(S)**

The IRS is testing the RTRS, which consolidates the four current RIS databases:

- (1) the BSRO and FSPO database,
- (2) the Systems Development database,
- (3) the Project Tracking System Database (Product Assurance & National Transmittal Center (Testing)), and
- (4) the RIS Section database.

This new database will blend the RIS placeholder, status tracking, and report information, maintained on these various databases, with the RIS information maintained on the RIS Section database. It will also track the test updates from the Project Tracking System Database and the National Transmittal Center's production dates.

Full documentation exists for the requirements, design, and data dictionary phases of this project and will be updated as necessary as we complete testing. Appropriate data validation checks have also been incorporated into the RTRS.

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Any conflicting information that might still exist in the Filing Season and RIS databases is being resolved through the current joint testing effort. We have also developed a detailed User's Guide to help people navigate through the RTRS system. The RIS blending effort will provide the IRS with a comprehensive, centralized tracking of the baseline (any application and/or systems changes that are agreed to, accepted, programmed and released into production) changes to our computer systems.

All other critical RIS process activities are either included in Information Systems' (IS) RIS Procedures (Document 9473) or the draft Operations' RIS Procedures.

#### **IMPLEMENTATION DATES:**

Proposed: July 31, 2000

#### **CORRECTIVE ACTION(S) MONITORING PLAN**

The IRS is currently testing the RTRS and expects to finish in May-June 2000. When testing has been completed and the system is ready for live use, the RTRS will be implemented as a live production system and will provide any necessary documentation for its customers.

#### **RESPONSIBLE OFFICIAL(S)**

Chief Information Officer (IS)  
Deputy Chief Information Officer (Systems) (IS)  
Director, Program Management and Architecture (IS:PM)

#### **IDENTITY OF RECOMMENDATION #2**

Develop written criteria for prioritizing RISs to ensure the RIS inventory is prioritized correctly for the Filing Season. These criteria should include such variables as taxpayer impact, potential cost, and resource commitments.

#### **ASSESSMENT OF CAUSE(S)**

Although the IRS recognized the need to prioritize RISs for the 2000 Filing Season, the process did not assure we made the most critical programming changes first. Instructions for prioritizing RISs into six categories did not include criteria outlining what should be included in each of the categories. Using the priority guidelines the Operations RIS Task Group established for the 6 categories, TIGTA selected a judgmental sample of 15 Filing Season programming changes and assigned a priority category to each one. TIGTA's results showed category assignments that did not agree with the IRS' assignments for 20 percent (3 of 15) of these Filing Season changes.



# The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented

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## CORRECTIVE ACTION(S)

2a. The Operations RIS Task Group developed interim RIS procedures that clarified the categories of RISs and provided guidance in determining the critical vs. non-critical status of RISs for Filing Season 2001. The Chief Operations Officer issued these procedures on November 2, 1999.

2b. Within Operations' Submission Processing business area, placeholders are prioritized in a two phased approach:

Phase I is the placeholder prioritization within the division. Although only discretionary (program enhancement) placeholders were prioritized, all RISs in the stay-in-business (legacy) and legislative categories were deemed essential. We prioritized placeholders by the: (1) burden on taxpayers and (2) impact on the IRS. We generated a report and provided copies to the Operation's functional areas and IS.

Phase II of the process required negotiating with IS in a series of meetings to finalize the placeholder prioritization. We prioritized placeholders by: (1) IS available resources and (2) IS staffing and programming hours. This approach allowed discussion between the Submission Processing business area and IS, and resulted in programming of some key program enhancements.

2c. The IRS has created the SRM IPT to improve the processes for developing, tracking, managing, and prioritizing requirements across the organization. The goal of the IPT is to analyze all current requirements management initiatives in both Legacy and Modernization areas, create Integrated procedures to manage the requirements, and create a mechanism to prioritize them by categories.

We will use Requirements Taxonomy to classify requirements and give them measureable criteria that we can use to prioritize critical versus non-critical changes. We can also use this classification system to negotiate system requirement priorities between BODs as they are phased in, and make investment decisions based on organizational priorities and impacts.

## IMPLEMENTATION DATES:

2a. Completed: November 2, 1999

2b. Completed: August 1, 1998

2c. Proposed: May 31, 2001

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## **CORRECTIVE ACTION(S) MONITORING PLAN**

2c. Senior executive sponsors for the SRM IPT will review the milestones and deliverables of the IPT to assure they are addressing the concerns in this draft report.

## **RESPONSIBLE OFFICIAL(S)**

- 2a. Chief Operations Officer (OP)
- 2b. National Director, Submission Processing (OP:FS:S)
- 2c. Presently, the SRM IPT is reporting to both the Chief Operations Officer and the Deputy Chief Information Officer (Systems). However, the Chief Operations Officer organization will not exist when the new BODs stand up after September 30, 2000.

## **IDENTITY OF RECOMMENDATION #3**

Publish standardized request procedures to assure that computer-programming changes are effectively controlled for all IRS offices.

## **ASSESSMENT OF CAUSE(S)**

The TIGTA found the EFTPS in IS was using CRs instead of RISs to initiate internal computer-programming changes. While this method of using CRs was similar to using RISs, the CRs were not controlled on the RIS database. Even though the EFTPS project would be monitored as part of the Filing Season projects undergoing change, there would be no record of the requested changes on the RIS database or the FSPO database.

## **CORRECTIVE ACTION(S)**

We have addressed the issue of the EFTPS using CRs instead RISs. The EFTPS now adheres to the previously published standard procedures contained in the IS RIS Procedures (Document 9473) and issues RISs for their internal changes.

## **IMPLEMENTATION DATES:**

Completed: December 1999

## **CORRECTIVE ACTION(S) MONITORING PLAN**

The Systems Resource Planning Division (SRP) will monitor the submission of requirements to IS. If any office uses nonstandard procedures to submit requirements, SRP will work with them to ensure they use the correct RIS procedures.

## **RESPONSIBLE OFFICIAL(S)**

Chief Information Officer (IS)  
Deputy Chief Information Officer (Systems) (IS)  
Assistant Commissioner for Systems Development (IS:S)  
Director, Systems Resource Planning Division (IS:SR)

**The Internal Revenue Service's Process for Controlling Filing Season Computer Programming Changes Does Not Ensure Critical Changes Are Effectively Implemented**

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If you have any questions or need additional information, please call me, or a member of your staff may contact Bernie Zycherman, Acting Director, Business Systems Requirements Office at 202-874-0649 or Brad Strohecker, Acting Director, Systems Resource Planning Division at 202-283-1708.

bcc: Chief Operations Officer  
Chief Information Officer  
Deputy Chief Information Officer (Systems)  
Director, Program Management and Architecture  
Director, Systems Resource Planning Division  
Director, Business Systems Requirements Office  
Assistant Commissioner, Forms and Submission Processing  
National Director, Submission Processing