

National Aeronautics and  
Space Administration

George C. Marshall Space Flight Center  
Marshall Space Flight Center, AL 35812



JAN 11 2001

Reply to Attn of: DA01

TO: Distribution

FROM: DA01/A. G. Stephenson

SUBJECT: Minutes of the MSFC Quality Council Meeting

The MSFC Quality Council (MQC) met on Tuesday, December 12, 2000. The meeting began at 2:50 p.m. in Building 4203, Conference Room 6002. The roster of attendees is attached as Enclosure 1. The presentation charts are included as Enclosure 2.

AGENDA REVIEW (S. SAUCIER/DE01)

The agenda for the meeting is on chart No. 2 of Enclosure 2. There was one (1) correction to the agenda. Don Miller/QS10 will present MQC Action Items Status.

OPENING REMARKS (S. SAUCIER/DA01)

Mr. Stephenson/DA01 asked the attendees: Are we ready to start VPP? Mr. Stephenson stated he wanted the group to think about that. It is a part of our Quality System. Are we ready to go full scope?

Mr. Saucier/DE01 stated that would be discussed at the close of the meeting. There is a recommendation concerning full scope and the Management System that will be a part of closing comments.

Mr. Stephenson/DA01 asked if all the center documents are under the ISO System/Marshall Management System. There was discussion concerning the process that all documents are located in the Marshall Integrated Document Library (MIDL).

Mr. Saucier provided a status for each of the challenges identified during the last MQC meeting.

There is a need to continue to develop a strong "continuous process improvement" effort that is an integral part of our ISO 9000 process. Organizations have been encouraged to consider improvements to processes in conjunction with other revisions. A formal continuous improvement process will be developed for compliance with ISO 9001:2000. This is one of the basic fundamental requirements of new standard.

We are making progress in recognizing the importance of ISO at the working and mid-management levels. The Internal audit results continue to improve. There is an increased understanding of directive requirements by organizations/projects. We are seeing more activities/requests from the various disciplines to ensure they are meeting requirements and initiation of waivers/deviations where necessary.

General training for specific groups/all employees has been requested. Organizations have identified a need for training on sixteen (16) specific directives. All request have been completed or ongoing as needed. We do recognize that, out of PEP Survey, there is a need for more safety training. We have improved the attendance in scheduled training. Progress in this area will be covered in the Internal Audit status.

We proved our readiness for the surveillance audit in August 2000. We were recommended for continued registration, with only one minor nonconformance and one observation.

We've seen significant improvement with management/employee commitment to planned audits. There are some minor problems, however, very much improvement has been made during the past six (6) months. Many of these improvements noted are a result of Directorate/Office Management attention. Our momentum has gone through peaks and valleys. After the decision to delay full scope, we've had some decline in momentum. We feel that most organizations are ready for full scope certification. With the implementation of revision of ISO 9001:2000, we feel there will be an increase in momentum.

There was discussion on a question from Mr. Stephenson/DA01 concerning our process for continuous improvement as referred to in ISO 9001:2000 revision.

The presentation charts are included as pages 4-6 of Enclosure 2.

#### NQA SURVEILLANCE STATUS (M. DEMURRAY/HEI)

Status of NQA August 1999 Surveillance Audit Findings. There were three (3) findings and one additional generic nonconformance issued by MSFC. The three (3) NQA findings have been closed to date. The one MSFC generic nonconformance remains open. We are lacking approved instructions in TD for computer back-ups.

Mr. Stephenson/DA01 asked why TD has not closed this issue. There was much discussion on this issue.

**\*MQC-0037: Re-assign the task to someone else and get generic nonconformance related to back-up procedures closed.  
(D. Smith/TD01, Due: January 15, 2001)**

Status of NQA August 2000 Surveillance Audit Findings. There were two (2) findings. One observation and one minor nonconformance. Corrective Action has been completed on both findings.

The presentation charts are included as pages 8-10 of Enclosure 2.

MQC ACTION ITEMS STATUS (D. MILLER/OS10)

MQC-0020 – Review of the Internal Task Agreement process at the Center.

The draft MPG 1230.1 was submitted for DCB cycle review in September. There were several comments. Some have been resolved. The comments not resolved relate to controversial process issues. Dave Bates has asked the Business Management Council to review the comments. Sharal Huegele/RS30 stated this is a priority for Office of Chief Financial Officer (CFO). This is being worked with two other organizations. CFO will finish the responses and complete the document revisions as soon as the Business Management Council approves. Mr. Stephenson/DA01 asked if CFO had talked about the lessons learned from this process. He stated that perhaps it would be helpful to others if they could hear the lessons learned.

MQC-0035 – Organizations are to review their delinquent category 1 equipment lists and either re-categorize equipment, send equipment to the calibration laboratory for calibration, or correct any errors on the list by July 28, 2000. A status will be provided to the Center Staff meeting in two weeks.

A status was provided at the Center staff meeting. Results are monitored at each ISO Implementation Team meeting and will continue. It is evident there is vast improvement (see chart No. 14). We went from 749 items listed as late as the last MQC. As of December 11, 2000, there were 13 items listed. The ISO Implementation Team will continue to monitor this issue in its bi-weekly meeting.

**\*Recommendation for closure of MQC-0035. Mr. Stephenson/DA01 agreed to close action.**

MQC-0036 – Look into providing a method for notifying supervisors of the requirement to identify training requirements and develop a training plan for new employees.

When MSFC new employees are hired, the Human Resources office will send a letter to the organization manager for training requirements and plan to be included in the new employee performance plan. The letter from Human Resources Office is subject to new employees or employees who have recently had a change in his/her assignment. Employee must be consulted in identifying critical job elements and setting performance standards per "NASA Employee Performance Communication System". Any skill or task requiring training for this new position must be documented on MSFC Form 4333 or substantial equivalent per MPG 3410.1 (i.e., Individual Development Plan which can be developed in AdminStar if desired)

**\*Recommendation for closure of MQC-0036. Mr. Stephenson/DA01 agreed to close action.**

The presentation charts are included as pages 12-15 of Enclosure 2.

INTERNAL QUALITY AUDIT REPORT (W.WOODS/OS 10)

There have been eight (8) Internal Audits since the last MQC. Staffing is much less of a problem. However, audit planning meeting attendance remains an issue. The 2000 Internal Audit Schedule was completed last week. We are making improvements with NCR closures. As shown (see chart No. 19) at the last MQC, there were 70 NCRs open and 50 of those were late. As of December 11, 2000, there were 31 NCRs open and 13 of those were late. Late items are typically due to missed target completion dates or auditor verification for closure is overdue.

As shown (see chart No. 19) the average age of an NCR continues to be high. There is at least one NCR that is 450 days old. Mr. Stephenson/DA01 asked what are the old NCRs. Mr. Woods was not sure exactly what those NCRs were but told Mr. Stephenson he would get that information to him.

**\*MQC-0038: Provide a list of excessively old NCRs to the Center Director and to the responsible Organization.  
(W.Woods/QS10, Due: January 15, 2001)**

As shown (see chart No. 20) we are seeing significant results from the Internal Quality Audit Program. Our biggest hitters are Document and Data Control and Quality Records. Specifics are documented in charts No. 21 and No. 22. Mr. Stephenson requested that we review charts.

There was discussion on the lack of awareness of the MSFC Management System (Directives and Guidelines). Mr. Stephenson asked Mr. Woods to be more specific as to what this means. There was discussion on the philosophy of this statement. There are people around the center who have the general knowledge of the location of their organizations documentation, however, they have little knowledge of how to locate the Center's documents. There are "pockets" of people who have limited knowledge of the general Marshall Management System. There are cases where the Organizations have made improvements/modifications to their processes but had not updated respective documents. The organizations are following their "improved" processes but failed to document the process as adapted.

The issue of Document and Data Control is very prevalent throughout the center. There are several references in documents that are not up-to-date. There is a general lack of awareness of document content. A number of those audited are aware of organizational Master List but not familiar with the MSFC Master list.

We have a much better grip on metrology. Actions taken in the past 6 months have resolved the negative trends identified in the last MQC.

We do have a problem with Control of Quality Records. Quality records are being maintained as required, however, we are finding that there are several people who are

maintaining records but fail to identify them as such. There appears to be a lack of awareness of what constitutes a quality record. A number of organizations are maintaining their quality records as defined, however, they are failing to implement the disposition aspect of their requirements. (For example, if a document says you will destroy records after 3 years, we are finding people who still have records that are 5 years old.) The problem is that organizations are not following the disposition process as documented. There was much discussion on quality records and who determines how long you are to keep them and what happens to those records after the retention time. There are federal regulations for handling some quality records. Retention and disposition of those records are also documented in the NPG 1441.1. The identity of other records, retention schedules and disposition are at the discretion of the owner, however, it must be documented.

During the 2000 Internal Audit Schedule, we incorporated safety as an element for review. This was the first year that we have used safety experts to assist in the internal audit program. From this effort, it is evident that most people are generally unaware of safety requirements. A. Goodson/QS01 emphasized that this process was used as an education tool to assist organizations in becoming more familiar with Center requirements concerning safety.

A. Stephenson/DA01 stated that safety is important and he encouraged all managers to bring up safety and talk about it in their meetings. Mr. Stephenson suggested that all organizations develop a plan for making sure employees are aware of safety requirements.

There was discussion on whether NQA could audit the center concerning safety. The question was asked, if we are auditing safety during the internal audit, are we subjecting ourselves to being audited by NQA for safety. No we are not subjecting ourselves. NQA can/will only audit the center to the current scope. That is flight hardware, flight software and ground support equipment. If safety requirements are in those documents, then we are subject to a nonconformance if we are not following them. The issue with respect to NQA is following in-scope procedures.

The presentation charts are included as pages 17-22 of Enclosure 2.

#### CORRECTIVE AND PREVENTIVE ACTION PROGRAM (W. WOODS/QS10)

We currently have 17 Recurrence Control Action Requests (RCARs) and 15 of those are open. As shown (see chart No. 24), there is a trend in closing RCARs. There appears to be a push to get them closed each time NQA comes for a surveillance audit. In an effort to curb this trend, we will status the RCAR system at Implementation Team Meetings. There have been three Quality Comments (QualComs) written since the last MQC. There were two written in appreciation to the Office of the Chief Council/LS. One (1) from NASA Headquarters and another from the United States Attorney's Office in Birmingham. Also, there was an internal QualCom written from Engineering Directorate/ED to the Customer and Employee Relations (CaER) Organization in appreciation for their hard work in executing actions.

The presentation chart is included as page 24 of Enclosure 2.

CLOSING REMARKS (S. SAUCIER/DE01)

Next Surveillance – First Triennial Re-Certification Audit is February 2001. All flight projects are subject to the audit. Elements to be audited:

- 4.1 Management Responsibility
- 4.2 Quality System (including revision history of directives)
- 4.4 Design Control
- 4.14 Corrective and Preventive Action
- 4.16 Control of Quality Records
- 4.17 Internal Quality Audits
- 4.20 Statistical Techniques
- Customer complaints
- Use of the NQA logo

Challenges ahead are to continue to develop a strong “Continuous Process Improvement” effort that is an integral part of our ISO 9000 process. Recognize the importance of ISO at the working and mid-management levels. Mr. Saucier took the opportunity to recognize Mr. Jim Blanche/ED10 who will be retiring in January. Mr. Saucier extended his appreciation to Mr. Blanche for his continued leadership and support of ISO from its implementation to the present.

We need to continue training on new/revised directives. Mr. Saucier says he feels the center is very much ready for the next surveillance audit in February 2001. We need to start looking toward implementation of ISO 9001 Rev 2000. ISO 9001:2000 is to be published on December 15, 2000. New emphasis on:

- Continuous Improvement
- Customer Satisfaction
- Resource Management
- Processes vs. Elements
- Management Responsibility

There was much discussion concerning the implications of proceeding with the implementation of ISO 9001:2000.

Mr. Kennedy/ED01 asked what happens to the 20 elements. (see chart No. 29) Mr. Kennedy asked if there would be major overhaul with the documents. Mr. Blanche/ED10 stated that the numbering system is not by ISO element, thereby, it won't make that much of an impact. Mary DeMurray/HEI stated that industry wide, the new standard is considered a minor revision. Most of the OPRs will have minor to no changes. There are a couple of OPRs that will have some major work. However, the vast majority of Directives will have little to no changes.

There was discussion on the standards consideration of customers. Who are they? They can be internal or external. M. DeMurray/HEI explained that the standard has changed

the view of supplier and organization. How an organization deals with their external customer is determined by the standard and monitored through customer satisfaction/feedback and continuous improvement processes. How we deal with our internal customers is Marshall driven.

Mr. Saucier/DE01 gave the Implementation Team's recommendation concerning revision and full scope. Recommendation:

Pre-assessment Audit to Full Scope and ISO 9001:2000 - May 2001

Registration Audit to Full Scope and ISO 9001:2000 – November 2001

Mr. Saucier stated that the Revision 2000 standard has softened up to handle "Mom and Pop" operations. He recommended that we continue with our way of doing business and not "soften up" our scope.

Mr. Tom Dollman/SD40 stated, due to other responsibilities, he is not sure that their organization can handle this in the time frame presented.

Mr. Saucier suggested that we should do this now and do it all at one time. He stated that M. DeMurray/HEI has done a preliminary review of how the revision will impact our documents. Meetings have already been held with the OPRs to get them working on the documents to bring them in line with the revision.

There was much discussion concern the recommendation.

Mr. Jim Kennedy/ED01 presented concerns for moving into full-scope & Rev. 2000. He asked about the three (3) years to get registered. Mr. Kennedy suggested we use the proposed schedule for full-scope and still have 2 years to upgrade to 2000 version.

There was other discussion on the recommendation and the options.

Mr. Stephenson/DA01 presented the question to council. Do we go to the ISO 9001:2000 revision on the proposed schedule? There was discussion on this question. Mr. Kennedy/ED01 and others questioned are we ready. Mr. Blanche/ED10 stated he felt we were ready.

Mr. Stephenson stated we have a recommendation, now we need to talk to our organizations. Mr. Stephenson stated, we should talk to our organizations and come back at another setting like this and make a decision. Since we are not sure of the impact, perhaps we should go on this schedule for full scope and make a decision later on the schedule for ISO 9001:2000.

M. DeMurray/HEI stated that the OPRs have a deadline date of January 15, 2001 to identify changes that need to be made to their documents. When the OPRs respond on this date, we can get a better feel of what the impact will be.

**\*MQC-0039: Using January 15, 2001 as a target date, OPRs are requested to work on their documents and assess the impact of the revised standard to their document.**

**After this has taken place, a meeting of the MQC is to re-convene to decide whether to proceed with the implementation and registration of ISO 9001:2000. Meanwhile, managers should be discussing the impact with their organization.**

**(All Organizations, OPRs and M. DeMurray/HEI, Due: January 15, 2001)**

There was a question of training employees. How do we re-educate them of the revision? Mr. Hamm verbalized a possible web-based training or a paper document to communicate the impact of the standard revision.

**\*MQC-0040: Create a process/document to educate the workforce of the impact of ISO 9001:2000.**

**(T.Hamm/QS10, Due: January 15, 2001)**

Implementation Team is considering the IAQS 9100:2000 Certification. This standard is based on ISO 9001:1994 & ISO 9001:2000. It includes Aerospace Industry Requirements with emphasis on flow-down of requirements from customers and regulatory authorities in contracts and procedures. The emphasis is on "Key Characteristics", Configuration management and planning. This is only under consideration. The team plans to propose a decision by the end of January.

Implementation Team recommended that the council change emphasis from "ISO" to the "Marshall Management System" (MMS). It is the way we do business. It removes the perception that ISO is something extra. It concentrates on what we need, not just the minimum requirements of ISO. ISO just gives us a foundation. The MMS approach facilitates "Full Scope" which includes all activities at MSFC (i.e., safety, research, additional administration, etc.). The reality is: we are in control of our requirements. There is a perception today that ISO is driving most of our requirements, not we ourselves. It gives us a sense of ownership. We can quit blaming our problems on ISO.

Mr. Stephenson said the "new look" (see chart No. 34) looks good, however, ISO needs to be prominent. Replace "The way we do business" with "ISO 9000 Certified".

The presentation charts are included as pages 26-34 of Enclosure 2.

#### OTHER COMMENTS (S. SAUCIER/DE01)

Mr. Stephenson/DA01 made the following comments:

Continuous improvement is very important. We need to document those processes that have improved. We need to communicate those continuous improvement process. We need to award those people who have implemented those process.

**\*MQC-0041: Identify those continuous improvement processes throughout the center. Select three (3) of those processes and have the employee/or manager who came up with the process come and present those processes. Allow those individuals an opportunity to show their innovative hard work.**

**(S.Saucier/DE01, Due: January 15, 2001)**

Customer satisfaction is also important. How are we grading ourselves? How are we documenting this? What matrix are we using? Shuttle has an excellent program. We can learn from them. We should use their model in creating a system for documenting customer satisfaction.

No other items for record were discussed at the meeting. MQC Minutes recorded by Kerry Warner/QS10.

A handwritten signature in black ink, appearing to read 'A. G. Stephenson', with a long horizontal line extending to the right.

A. G. Stephenson  
Chairman  
MSFC Quality Council

Enclosures

Distribution:  
Council Members  
Meeting Attendees

# ISO 9000 MSFC QUALITY COUNCIL MEETING

DATE: TUESDAY, December 12, 2000 LOCATION/ TIME: BLDG. 4203/6002, 2:45 p.m.

MEETING ATTENDANCE: [Please Check (X) Next to Your Name to Record Meeting Attendance.]

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE</u>	<u>FAX</u>
Director's Office			
<input checked="" type="checkbox"/> Art Stephenson	DA01	544-1912	544-5228
<input type="checkbox"/> James W. Bilbro	DA01	544-3467	544-8345
<input type="checkbox"/> Bob L. Sackheim	DA01	544-1938	
<input type="checkbox"/> Carolyn Griner	DD01	544-1914	544-7580
<input checked="" type="checkbox"/> Sid Saucier	DE01	544-1919	544-7920
Center Operations Directorate			
<input type="checkbox"/> Jim Carter	AD01	544-6630	544-7920
<input type="checkbox"/> Sheila Cloud	AD01	544-0120	544-5893
<input type="checkbox"/> Linda Carpenter	AD02	544-8236	544-5867
<input checked="" type="checkbox"/> Dan Adams	AD10	544-1614	544-8259
<input type="checkbox"/> Clark Boaz	AD20	544-4923	544-4435
<input checked="" type="checkbox"/> Michael W. Haynes	AD23	544-7933	544-8890
<input type="checkbox"/> Lana Cucarola	AD30	544-0096	544-8752
<input type="checkbox"/> Annette Tingle	AD30	544-4522	544-8752
<input type="checkbox"/> Amanda Rasco	AD33	544-4511	544-8752
<input type="checkbox"/> Lisa Adkins	AD40	544-7546	544-6570
<input type="checkbox"/> Polly Edwards	AD50	544-4536	544-2101
Customer & Employee Relations Directorate			
<input type="checkbox"/> Susan Cloud	CD01	544-5377	544-2610
<input checked="" type="checkbox"/> Tereasa Washington	CD01	544-7491	544-6420
<input type="checkbox"/> Pat Shultz	CD20	544-7559	544-4809
<input type="checkbox"/> Caroline Wang	CD30	544-3887	544-6030
<input checked="" type="checkbox"/> VCM	CD50		
Engineering Directorate			
<input checked="" type="checkbox"/> Jim Kennedy	ED01	544-1000	544-4100
<input type="checkbox"/> Bill Kilpatrick	ED01	544-1001	544-5896
<input checked="" type="checkbox"/> Jim Blanche	ED16	544-3707	544-0900
<input checked="" type="checkbox"/> Terry Roberts	ED16	544-3717	544-0900
<input type="checkbox"/> Rod Stallworth	ED23	544-7189	544-8838
<input type="checkbox"/> Jim Lindsay	ED27	544-1301	544-0236
<input type="checkbox"/> Dawn Cross	ED36	544-1835	544-5877
<input type="checkbox"/> Richard Lamb	ED37	544-1037	544-4307
<input checked="" type="checkbox"/> Sonya Hutchinson	ED42	544-3312	544-5178
<input checked="" type="checkbox"/> Toan Vu	ED43	544-6585	544-9614
<input type="checkbox"/> Karen Iftikhar	ED44	544-3653	
Flight Projects Directorate			
<input type="checkbox"/> Jan Davis	FD01	544-0455	544-7580
<input checked="" type="checkbox"/> Axel Roth	FD01	544-0451	544-7580
<input checked="" type="checkbox"/> Jackie Steadman	FD10	544-1940	544-5590
<input type="checkbox"/> Jack Stokes	FD22	544-1764	544-5194
<input type="checkbox"/> Michael Nelson	FD41	544-2059	544-9353

Chief Counsel

_____ Jim Frees	LS01	544-0123	544-5867
<i>WAD</i> _____ Bill Hicks	LS01	544-0010	544-0258
_____ Abbie Johnson	LS01	544-0014	544-0258

Space Shuttle Projects Office

_____ Alex McCool	MP01	544-0718	544-2432
_____ Jodie Singer	MP01	544-0612	544-4155
_____ Jeff Spencer	MP21	544-7498	544-7713
<input checked="" type="checkbox"/> _____ John Pea	MP71	544-8437	544-5799

Equal Opportunity Office

_____ Charles Scales	OS01	544-4927	544-2411
_____ Billie Swinford	OS01	544-0087	544-2411

Procurement Office

<i>log</i> _____ Steve Beale	PS01	544-0257	544-3214
_____ Byron Butler	PS01	544-0253	544-4400
<i>ROW</i> _____ Ray Woods	PS10	544-0384	544-3223
_____ Jerry Williams	PS10	544-0295	544-4401

Safety and Mission Assurance

_____ Jim Ellis	QS01	544-0721	544-3893
<i>ab</i> _____ Amanda H. Goodson	QS01	544-2353	544-2053
_____ Ron Mize	QS01	544-2485	544-8101
<i>TH</i> _____ Terry Hamm	QS10	544-7402	544-3241
<input checked="" type="checkbox"/> _____ Don Miller	QS10	544-8361	544-4857
_____ Mark Strickland	QS10	544-7432	544-4155
<input checked="" type="checkbox"/> _____ Kerry Warner	QS10	544-7350	544-8585
<input checked="" type="checkbox"/> _____ Warren Woods	QS10	544-2275	544-5685

Office of Financial Officer

_____ Dave Bates	RS01	544-0052	544-0635
_____ Sandy Coleman	RS01	544-0795	544-3536
_____ Frank D. Mayhall	RS01	544-7266	544-4479
_____ Peggy Williamson	RS24	544-3357	544-5863
<i>Shh</i> _____ Sharal Huegele	RS30	544-7286	544-9055

Science Directorate

<i>TF</i> _____ Tom Fleming	SD01	544-3962	544-5975
<i>FR</i> _____ Frank Rose	SD01	544-7721	544-9243
_____ Ann Whitaker	SD01	544-2481	544-5877
_____ James Grisham	SD01	544-9607	544-8369
_____ Robin Henderson	SD10	544-1738	544-8639
_____ Lloyd Love	SD20	544-7702	544-2559
_____ Roger Chassay	SD30	544-1969	544-5975
_____ Rex Geveden	SD30	544-9335	544-5975
_____ Clark Darty	SD40	544-2728	544-5892
_____ Tom Dollman	SD40	544-6568	544-8500
_____ Mike McCollough	SD50	544-4368	544-5800
_____ Ed Reichmann	SD50	544-7603	544-5800
_____ Tim Miller	SD60	922-5882	922-5823
_____ Diane Samuelson	SD60	922-5832	922-5723
_____ Joe Stroud	SD70	544-3529	544-2659
_____ Roy Young	SD70	544-4965	544-2659
<i>DW</i> _____ Don Thurman	SD80	544-1908	544-9243
_____ Wes Darbro	SD92	544-7742	544-2559



# ***Marshall Quality Council***

**December 12, 2000**



## **Agenda**

- **Opening Remarks (Art Stephenson, Sid Saucier)**
- **NQA Surveillance Status (Mary DeMurray)**
- **MQC Action Items Status (Sid Saucier)**
- **Internal Quality Audit Report (Warren Woods)**
- **Corrective and Preventive Action Program  
(Warren Woods)**
- **Closing Remarks (Sid Saucier)**
- **Other**

# ***Opening Remarks***

Art Stephenson – Sid Saucier



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## **Opening Remarks**

### ***Status of Challenges from Last MQC – Sid Saucier***

- **Continue to develop a strong “Continuous Process Improvement” effort that is an integral part of our ISO 9000 process**
  - **Organizations have been encouraged to consider improvements to processes in conjunction with other revisions.**
  - **A formal continuous improvement process will be developed for compliance with ISO 9001:2000**
- **Recognize the importance of ISO at the working and mid-management levels**
  - **Audit results continue to improve**
  - **Increased understanding of directives requirements by organizations/projects (more activities/requests to ensure they are meeting requirements and initiation of waivers/deviations where necessary)**



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## **Opening Remarks**

### ***Status of Challenges from Last MQC (cont) – Sid Saucier***

- **Training on new/revised Directives**
  - Organizations have identified a need for training on 16 specific Directives
    - All completed or ongoing as needed
  - General training for specific groups/all employees has also been requested
  - Improved attendance in scheduled training
- **Readiness for our next surveillance audit in Aug. 2000**
  - Recommended for continued registration, with only one minor nonconformance and one observation



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## **Opening Remarks**

### **Status of Challenges from Last MQC (cont) — Sid Saucier**

- **Continued Management/Employee commitment to planned audits**
  - **Some minor problems however, very much improved during the last 6 months**
  - **Improvements noted as a result of Directorate/ Office Management attention**
  
- **Maintaining our momentum**
  - **Most organizations are ready for full scope certification**
  - **Revision of ISO 9001:2000 will increase momentum**

***Status of NQA Aug. 1999 and Aug. 2000  
Surveillance Findings***

Mary DeMurray



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## **Status of NQA Aug. 1999 Surveillance Findings**

**Mary DeMurray**

- **NQA Surveillance Audit Findings**

<b>Observations</b>	<b>2</b>
<b>Minor Nonconformances</b>	<b>1</b>
<b>Total Findings</b>	<b>3</b>

- **One additional generic nonconformance issued by MSFC**
- **Three (3) NQA findings have been closed to date**
- **The one MSFC generic nonconformance remains open**
  - **Lacking approved instructions in TD for computer back-ups.**



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**Status of NQA August 2000 Surveillance Findings**

*Mary DeMurray*

- **NQA Surveillance Audit Findings**

<b>Observations</b>	<b>1</b>
<b>Minor Nonconformances</b>	<b>1</b>
<b>Total Findings</b>	<b>2</b>

- **Corrective Action has been completed for both findings**



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***NQA Surveillance Findings - August 1999 & August 2000***

***Mary DeMurray***

## ***Backup Chart***

- **The system backup procedure is not a controlled document. (Generic issue - Open)**
- **The corrective action plan for RCAR # 88 has been revised but the data base records have not been updated to reflect these changes. (Closed)**
- **PRACA # A17604 does not indicate the correct Interim Closure in the Miscellaneous "H" field. The requirements associated with this field are not clearly defined in procedure QS10-R-005 R/B. (Closed)**

# ***MQC Action Items Status***

Sid Saucier



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**MQC Action Items Status (cont)**

**MQC-0020 - Sid Saucier**

**MQC-0020 - Review the Internal Task Agreement process at the Center.**

- **Status - The draft MPG 1230.1, “Center Resources Management Process” was submitted for DCB cycle review in September. There were many comments. Some have been resolved. The comments not resolved relate to controversial process issues. Dave Bates has asked the Business Management Council to review the comments. CFO will finish the responses and complete the document revisions as soon as the Business Management Council approves.**



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**MQC Action Items Status (cont)**

**MQC-0035 - Sid Saucier**

**MQC-0035 – Organizations are to review their delinquent category 1 equipment lists and either re-categorize equipment, get equipment to the calibration laboratory for calibration, or correct any errors on the list by July 28, 2000. A status will be provided to the Center Staff meeting in two weeks.**

- **Status - A status was provided at the Center staff meeting. Results are monitored at each ISO Implementation Team Meeting and will continue. Good progress continues to be made.**
- **Recommend closure of MQC Action (see next chart)**



**MQC Action Items Status (cont)**

**MQC-0035 - Sid Saucier**

Org	12/17/99	5/30/00	6/18/00	7/14/00	8/14/00	9/5/00	10/30/00	11/13/00	12/11/00
AD	No Data	51	33	45	11	11	29	8	6
QS	No Data	0	0	0	0	0	0	0	0
ED	No Data	591	277	67	72	59	77	47	3
FD	No Data	0	0	0	0	0	2	0	0
MP	No Data	0	1	0	1	1	0	0	0
SD	No Data	0	4	3	2	2	0	0	4
TD	No Data	323	411	10	2	4	22	2	0
Misc	No Data	23	23	22	0	0	0	0	0
Totals	5,500+	988	749 *	147	88	77	130	57	13

\* - Latest results shown at last MQC when action was given



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**MQC Action Items Status (cont)**

**MQC-0036 - Sid Saucier**

**MQC-0036 – Look into providing a method for notifying supervisors of the requirement to identify training requirements and develop a training plan for new employees.**

● **Status:**

When MSFC new employees are hired, the Human Resource office will send a letter to the organization manager for training requirements and plan to be included in the new employee performance plan.

The letter from Human Resource Office is subject to new employees or employees who has recently had a change in his/her assignment. Employee must be consulted in identifying critical job elements and setting performance standards per “NASA Employee Performance Communication System”. Any skill or task requiring training for this new position must be documented on MSFC Form 4333, or substantial equivalent per MPG 3410.1 (i.e., Individual Development Plan which can be developed in AdminStar if desired)

**Recommend Closure of this MQC action**

# ***Internal Quality Audit Report***

Warren Woods



## ***Internal Quality Audit Report***

***Audit Status - Warren Woods***

- **Eight Internal Audits since the last MQC.**
- **Staffing is much less of a problem. However, Audit planning meeting attendance remains an issue.**
- **2000 round of Internal Audits were completed last week.**
- **Status of Open NCR's (See next chart)**
  - **31 Open Non-Conformance Reports (NCR's)**
  - **13 are late**



**Internal Quality Audit Report**

**Backup Chart**

**Auditor Support - Warren Woods**

	AD	CD	ED	FD	LS	MP	OS	PS	QS	RS	SD	TD	VS	Total
Requested	5	3	12	6	1	4	1	3	3	3	7	9	1	58
Provided	3	2	18	6	1	4	1	1	9	2	7	12	1	67
UI*	5	2	14	4	1			4	2	2	2		1	37
Experts	4								11					15
Total	12	4	32	10	2	4	1	5	22	4	9	12	2	119
Trained	4	0	17	17	0	2	0	7	7	2	10	3	1	70

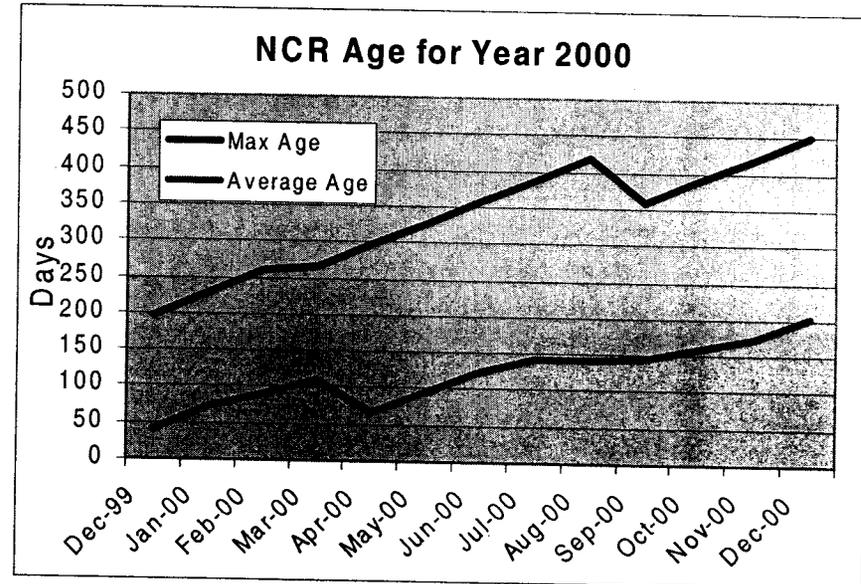
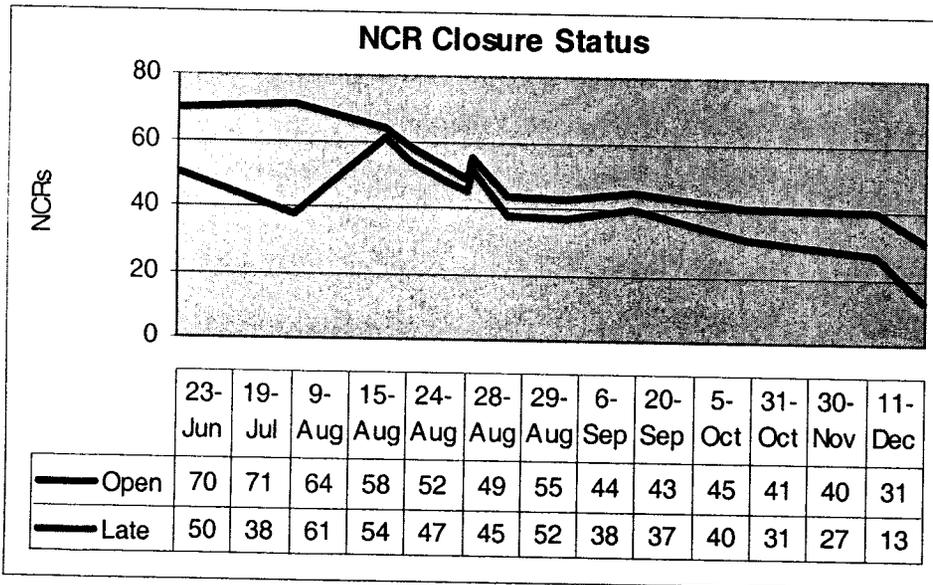
\*UI = Under Instruction

**Internal Audit support for 2000 has improved over the last year due to increased awareness and Management support.**



# Internal Quality Audit Report

## Audit Status - Warren Woods



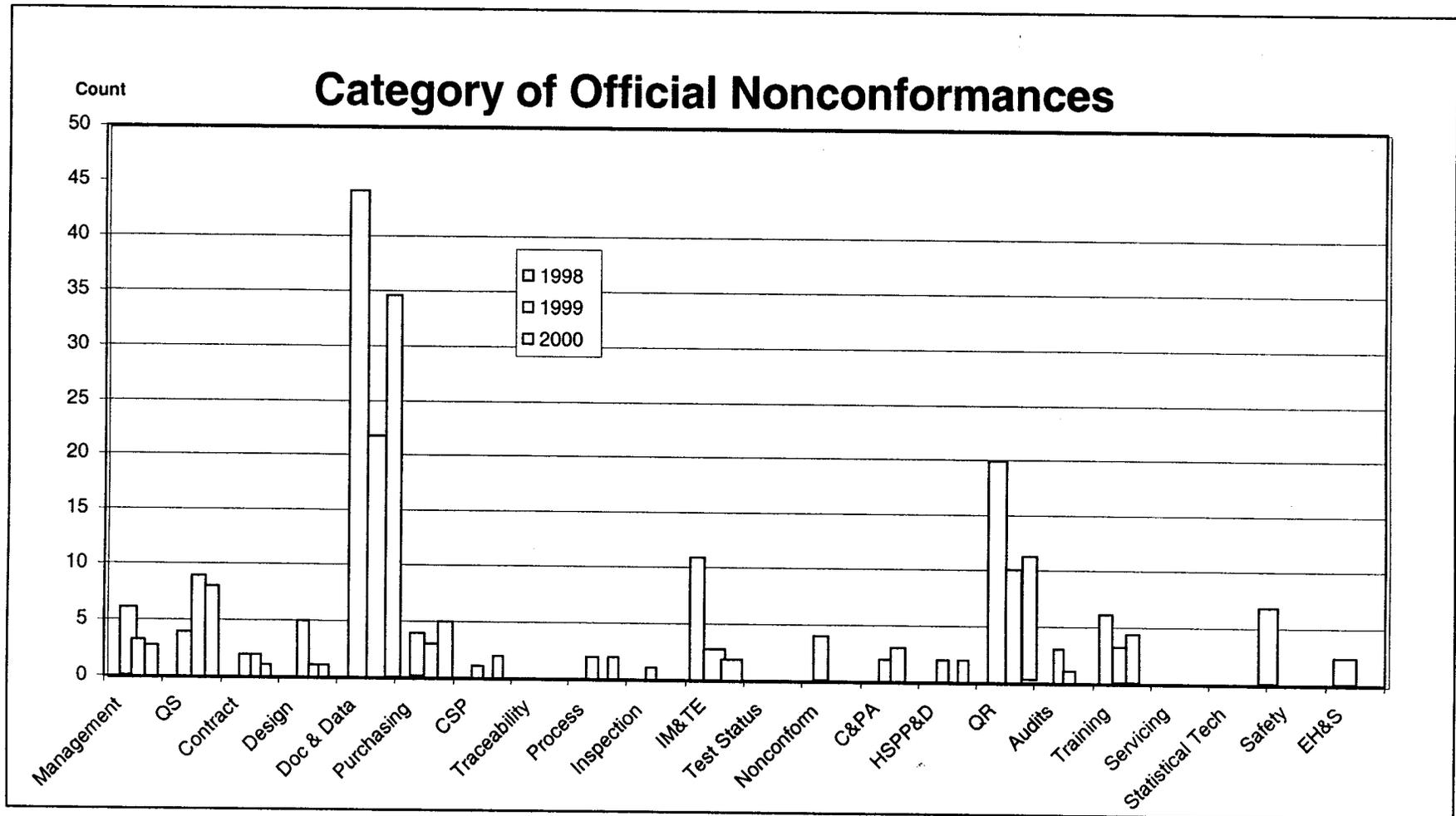
**Late Items:**

1. Missed target completion dates
2. Auditors verification for closure is overdue



# Internal Quality Audit Report

## Program Results - Warren Woods





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**Internal Audit Findings – Warren Woods**

- **4.2 Management System**
  - **Lack of awareness of the MSFC Management System (Directives and Guidelines)**
  - **Organizations have made improvements/modifications to their processes but had not updated respective documents**
- **4.5 Document and Data Control**
  - **References in documents not kept up to date**
  - **General lack of awareness of document content**
  - **Aware of organizational Master List but not the MSFC Master List**



***Internal Audit Findings – Warren Woods***

- **4.11 – Metrology, actions taken in the last 6 months have resolved the negative trends identified in the last MQC**
- **4.16 Control of Quality Records**
  - **Quality records not being maintained as required**
  - **Quality records not identified as such**
  - **Lack of awareness of what constitutes a quality record**
- **4.21 Safety**
  - **First year to audit Safety Issues. Generally unaware of Safety requirements**

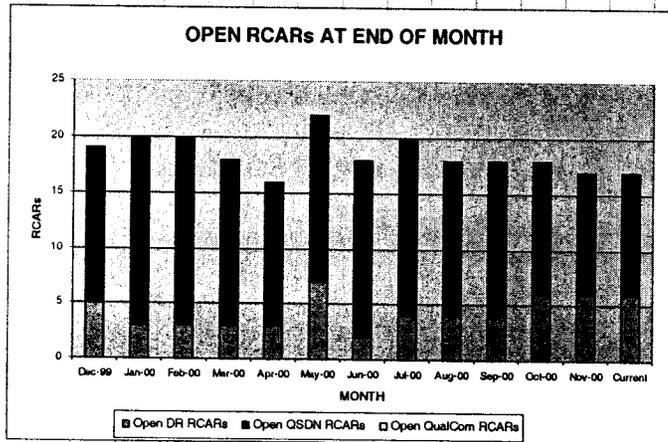
# ***Corrective & Preventive Action Program***

Warren Woods



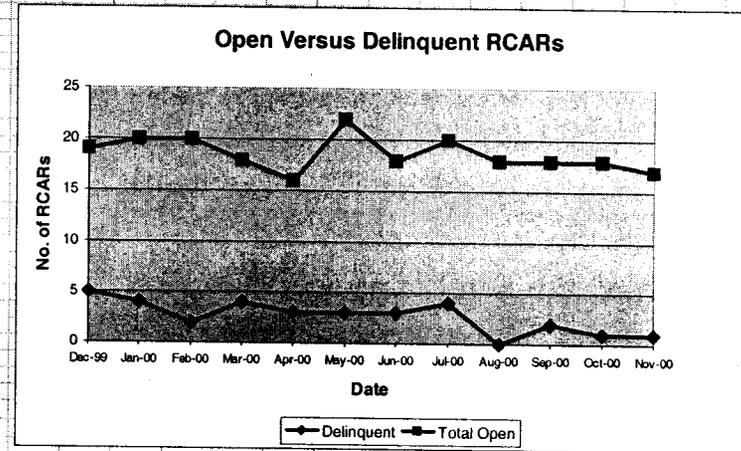
## Corrective & Preventive Action Program

### Status - Warren Woods



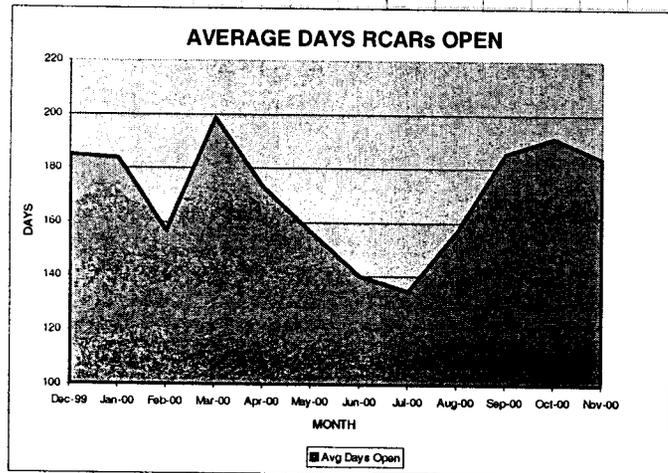
Open DR RCARs:	5	3	3	3	3	7	2	4	4	4	6	6	6
Open QSDN RCARs:	14	17	17	15	13	15	16	16	14	14	12	11	11
Open QualCom RCARs:	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Open RCARs:	19	20	20	18	16	22	18	20	18	18	18	17	17

HEJ McPherson 12/1/00



Delinquent Responses:	5	4	2	4	3	3	3	4	0	2	1	1
Total Open RCARs:	19	20	20	18	16	22	18	20	18	18	18	17
Percent Delinquent:	26%	20%	10%	22%	19%	14%	17%	20%	0%	11%	6%	6%

HEJ McPherson 12/1/00



Average Days Open:	185	183.9	156.7	198.8	172.9	156.4	140.3	134.9	156.6	185.7	191.6	183.6
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HEJ McPherson 12/1/00

	TOTAL Since 10/97	Made to RCARs	TOTAL Since 6/1/00	Made to RCARs
DR	207	37	51	5
QSDN	98	70	12	6
QualCom	29	0	3	0
<b>TOTAL</b>	<b>334</b>	<b>107</b>	<b>66</b>	<b>11</b>

# ***CLOSING REMARKS***

Sid Saucier



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***Next Surveillance – First Triennial Re-Certification Audit  
February 2001 – Sid Saucier***

- **All flight projects are subject to audit**
- **Elements to be Audited**
  - **4.1 Management Responsibility**
  - **4.2 Quality System (including revision history of Directives)**
  - **4.4 Design Control**
  - **4.14 Corrective and Preventive Action**
  - **4.16 Control of Quality Records**
  - **4.17 Internal Quality Audits**
  - **Customer complaints**
  - **Use of the NQA logo**



***Challenges Ahead — Sid Saucier***

- **Continue to develop a strong “Continuous Process Improvement” effort that is an integral part of our ISO 9000 process**
- **Recognize the importance of ISO at the working and mid-management levels**
- **Training on new/revised Directives**
- **Readiness for our next surveillance audit in February 2001**



***Challenges Ahead – Sid Saucier***

- **Implementation of ISO 9001 rev 2000**
  - **ISO 9001:2000 publication on December 15**
  - **New Emphasis on:**
    - **Continuous Improvement**
    - **Customer Satisfaction**
    - **Resource Management**
    - **Processes vs. Elements**
    - **Management Responsibility**



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# ***New Clauses of ISO 9001:2000 Backup chart***

- 1. Scope**
- 2. Normative Reference**
- 3. Terms and Definitions**
- 4. Quality Management System**
- 5. Management Responsibility**
- 6. Resource Management**
- 7. Product Realization**
- 8. Measurement, Analysis and Improvement**



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## ***ISO 9001 Revision and Full Scope***

### ***Recommendation***

- **Pre-assessment Audit to Full Scope and ISO 9001:2000**
  - May 2001
- **Registration audit to Full Scope and ISO 9001:2000**
  - November 2001



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## ***IAQS 9100:2000 Draft, Quality Systems – Aerospace Under Consideration***

- **Obtain IAQS 9100 certification**
- **Based on ISO 9001:1994 & ISO 9001:2000**
- **Includes Aerospace Industry Requirements**
  - **Emphasis on flowdown of requirements from customers and regulatory authorities in contracts and procedures**
  - **Emphasis on “Key Characteristics”**
  - **Configuration management**
  - **Planning**
- **Propose a decision by the end of January**



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## ***Back-up***

- **Key Characteristics** - (definition from previous chart)

**The features of a material, process, or part whose variation has a significant influence on product fit, performance, service life, or manufacturability.**

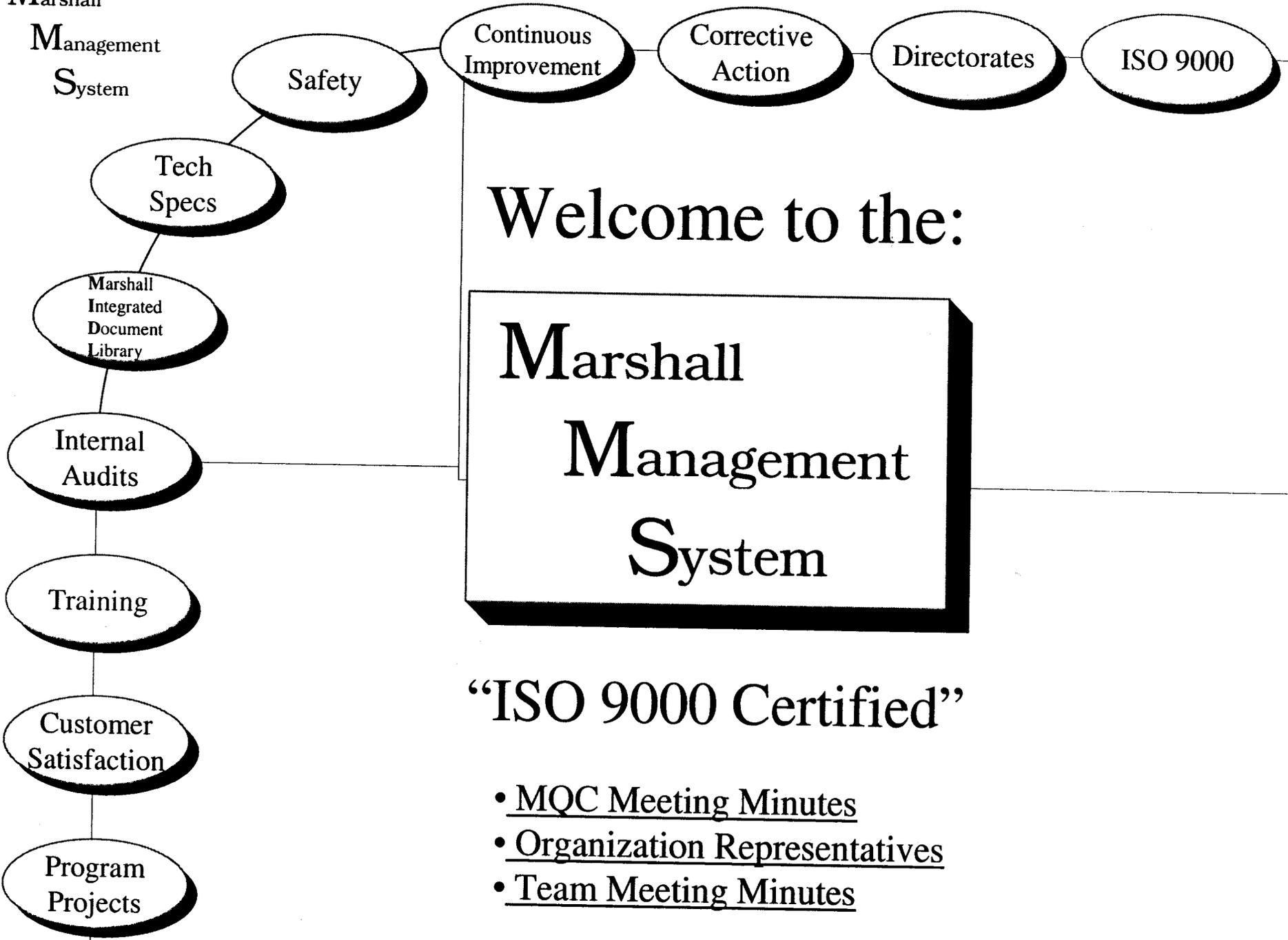


## ***Recommendation***

### ***Change emphasis from “ISO” to the “Marshall Management System” (MMS)***

- **The way we do business**
- **Removes the perception that ISO is something extra**
- **Concentrates on what we need, not just the minimum requirements of ISO. ISO just gives us a foundation.**
- **The MMS approach facilitates “Full Scope” which includes all activities at MSFC (i.e., safety, research, additional administration, etc..)**
- **The reality is: we are in control of our requirements (There is a perception today that ISO is driving most of our requirements, not we ourselves)**
- **It gives us a sense of ownership (quit blaming our problems on ISO)**

Marshall  
Management  
System



Welcome to the:

Marshall  
Management  
System

“ISO 9000 Certified”

- MQC Meeting Minutes
- Organization Representatives
- Team Meeting Minutes

***OTHER***

Sid Saucier