

National Aeronautics and
Space Administration

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



Reply to Attn of: DA01

SEP 8 1997

TO: Distribution

FROM: DA01/J. Wayne Littles

SUBJECT: Minutes of the MSFC Quality Council Meeting

The MSFC Quality Council held its first meeting on Thursday, September 4, 1997. The meeting which began at 1:00 p.m., was held in building 4200, conference room P1 10. The roster of attendees for the meeting is attached as Enclosure 1. The agenda for the meeting is included as Enclosure 2.

The meeting was called to order and the ISO 9000 Management Representative presented a brief summary of the ISO 9000 activity at MSFC as follows:

The implementation effort began in June 1996. Representatives from all the major elements at MSFC were carefully selected for the Implementation Team. Development of ISO Documentation began to recast the existing Center documents into the ISO 20 element context without unnecessary new documentation.

The entire quality system for ISO is managed by the Quality Council which was established by MM 1150.1 A, August 18, 1997. The council is responsible for assessing the ISO 9001 implementation and the continuing suitability and effectiveness of the overall MSFC Quality System in satisfying the Center's quality policy and objectives. The duties of the council are noted in the ISO Management Review document, MSFC-P01.1, August 1997 (Draft 4), paragraph 6.2.

The membership of the council as defined in paragraph 5 of MM 1150.1A is as follows:

*Center Director	Chair
*Deputy Director	
*Associate Director	
*Associate Director, Technical	ISO Management Representative
*Director, Science & Engineering	
*Director, Safety & Mission Assurance Office	

Manager, Shuttle Projects Office
Director, Program Development
Center CFO, Office of Chief Financial Officer
Manager, Flight Projects Office
Director, Institutional & Program Support
Manager, Observatory Projects Office
Manager, Microgravity Research Program Office
Director, Human Resources & Administrative Support Office
Manager, Space Transportation Programs Office
Director, Procurement Office

*Meetings will be scheduled to insure annotated members presence.

CENTER DIRECTOR COMMENTS REGARDING THE SCOPE OF MSFC ISO-9001

The MSFC Scope for ISO 9000 was presented to the group and discussed by the Council Chairman. Each Director, Manager or Office Chief is responsible for knowing what part of their area is “in-scope” and what part is “out of scope.” Everyone should read the MSFC Quality Manual and The Mini-Guide to ISO 9000 (Rabbitt/Bergh) which was distributed to all employees earlier this summer. This cannot be delegated. A copy of the “updated” scope is included as Enclosure 3.

Balloon and sounding rocket flights are not in-scope, nor are the MSFC resident offices.

The Management Representative was asked to meet concurrently with all Project Managers and Laboratory Directors to reach a common understanding of what the Center is doing to implement ISO 9000.

ACTIONS:

Read the MSFC Quality Manual and The Mini-Guide to ISO 9000 (Rabbitt/Bergh). (MQC-0001, All Managers/Directors, Complete: by 09-18-97)

Management Representative meet with all Project Managers and Laboratory Directors and derive a common approach to scope, and how the Center is implementing ISO 9000. (MQC-0002, R. Schwinghamer/DA01, Due: 09-18-97)

Each Director, Manager, and Office Chief is personally responsible for assuring that each of their employees understands their role in implementation of ISO 9001. (MQC-0003, All Managers/Directors/Office Chiefs, Due: 09-H-97)

MANAGEMENT REPRESENTATIVE ISO-900Q STATUS BRIEFING

ISO-9001 status can be found in the attachment, enclosures 4-8..

In the status briefing, enclosure 5, three areas are shown to have the internal audit “deleted.” The Financial Office (BC), Chief Counsel (CC), and the Technology Transfer Office (LA) are shown as out of scope. Because of the work related to the Space Act Agreements in the Technology Transfer Office, that group has been added back to the list to be audited internally. A copy of the chart with details of the audit activities is included as Enclosures 5 through 8.

CORRECTIVE ACTION DIVERSITY/NON-UNIFORMITY DISCUSSION BY E. KIESSLING/CR01

Currently at the Center there are 10 separate Corrective Action Systems in place. This presents a major issue of concern for the Quality Management System of ISO 9000. A meeting is scheduled in the Safety and Mission Assurance Office this afternoon to initiate proceedings to reduce the 10 systems to a single one. (See Enclosure 9)

ACTION:

Reduce the existing 10 Corrective Action Systems in place at the Center to one. Provide progress reports at Implementation Team Meetings. (MQC-0004, E. Kiessling/CR01, Due: 09-H-97)

DOCUMENT CONTROL BOARD (DCB) DISCUSSION BY D. MILLER/CR10

The Document Control Board (DCB) has been formed to baseline the Center’s documents. Relevant documents are written by the Office of Primary Responsibility (OPR) and submitted for review. The DCB members review the documents and indicate their disposition electronically. After all comments have been addressed, the OPR electronically recommends approval of the document to the DCB Secretariat. The Secretariat electronically notifies the approving authority that the document is ready for final approval. (See Enclosure 10)

ACTION:

Provide for Center Director electronic approval of the following documentation: 1) MSFC Quality Manual; 2) MSFC-PO1.1 Management Review; 3) MSFC-P02.1 Quality Planning; 4) MSFC P03.1 Contract Review; 5) Revoke MSFC-P04.1 Design Control from approved list until signed by Center Director. (MQC-0005, Don Miller/CR10, Due: 09-12-97)

POSITIVE RESULTS TO DATE

The Management Representative gave some examples of positive results documented during the ISO 9000 Implementation activities to date. (See Enclosures 11 and 12)

CENTER DIRECTOR'S CLOSING COMENTS

All managers were reminded that the ISO 9000 Implementation activity at the Center is everyone's responsibility. Reading and understanding the documentation and what is, and is not, in scope cannot be delegated. Registration in February 1998 is an achievable goal but it will not be possible without extra effort.

ACTION ITEMS

The Action Items are re-capped in the attachment as an action item log, which is an ISO-9001 requirement and a Quality Record. (Enclosure 13)

The next Quality Council Meeting will be set by the Center Director.



J. Wayne Little
Chairman
MSFC Quality Council

cc:

Council Members
Meeting Attendees

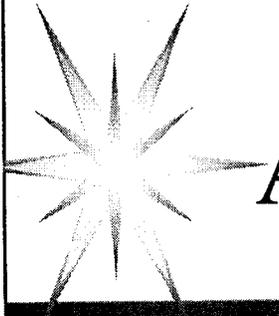
MEETING ATTENDEES

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE</u>	<u>FAX</u>
R. J. Arnold	HR01	922-5861	544-5772
Mike Allen	RA30	544-56 11	544-4130
Pete Allen	AB01	544-7909	544- 1693
Paul R. Allison	DA01	544-5697	544-7920
Rick Bachtel*	RA01	544-7210	544-96 14
David Bates*	BC01	544-0052	544-3635
Steve Beale*	GPO1	544-0257	544-32 14
Jack Beasley	CR10	544-0630	544-8470
Al Bellingrath	TA11	544-0572	544-5858
Donald Bishop	PP01	544-0582	544-9614
Jim Blanche	EB13	544-3707	544-0900
Larry Brandon	PD11	544-0472	544-4225
Sherry Bushmann	RA10	544-3404	544-32 14
Byron Butler	GP20	544-0253	544-4400
Mary Chamblee	RSSC	544- 1342	544-4470
Charlie Chesser	CR50	544-0107	544-8460
Sheila Cloud*	AA01	544-0120	544-5893
Susan Cloud	cc01	544-5377	544-26 10
Dan Clough	AA01	544-925 1	544-5893
John Cole	RA10	544-4290	544-3214
Ernestine Cothran	ES01	544-0649	544-9243
Parker Counts	SA3 1	544-1292	544-1 178
Wilda Davis	RA40	544-0040	544-0040
Carmine DeSanctis	PS01	544-0618	544-6669
Tom Dollman	LA10	544-6568	544-8500
Jim Ellis	AA01	544-072 1	544-5893
Jim Frees	cc01	544-00 17	544-0258
Harvey Golden	EO01	544-2024	544-4393
Rich Gladwin	CR50	544-9407	544-9 190
Carolyn Griner * *	DD01	544-1914	544-7580
Amanda Harris* *	CR01	544-2353	544-2053
David Harris	EP01	544-0057	544-3960
Rick Helmick	AI01	544-3460	544-5842
Keith Henson	SA5 1	544-3535	544-4277
Bill Hicks	cc01	544-0010	544-0258
Terry Hopper	RA02	544-0610	544-96 14
George Hopson	SA21	544-1735	544-9193
Charles Houston	AI01	544-5772	544-5842
Uwe Hueter	RA10	544-8492	544-3214
Robert J. Jackson	MG20	544-6582	544-5848
Sherman Jobe**	EA01	544-1000	544-5896
Lee Jones	EP01	544-7094	544-3960
Joel Kearns*	MG01	544-5506	544-8369
Jim Kennedy	SA41	544-2656	544-5896
Ed Kiessling	CR10	544-742 1	544-2053

Arthur S. Kirkindall	MG01	544-723 3	544-5892
Sally Little	LA01	544-4266	544-1815
Wayne Littles**	DA01	544-1910	544-5228
Paulette Lovingood	DE01	544-9 17 1	544-5228
Garry Lyles	RA10	544-9203	544-32 14
Roy Malone	CR50	544-0506	544-9 190
Dick Marmann*	JA01	544-1883	544-5590
Alex McCool*	SA01	544-07 18	544-2432
Rebecca McCaleb	AE01	544-4367	544-8259
Don Miller	CR10	544-836 1	544-4857
Hank Miller	EE11	544-9279	544-583 1
Mike Milsted	RA02	544-0101	544-06 14
Ron Mize	CR20	544-2485	544-8101
Marc Osborne	TA11	544-2300	544-5858
Emill Posey	GP40	544-0430	544-2432
Linda Posey	RA02	544-9722	544-5799
Ben Powers	CR75	544-5580	544-4333
John Pea	SA7 1	544-8437	544-5799
Harlan Pratt	EP11	544-7069	544-3960
Steve Richards	RA50	544-7053	544-7378
Axel Roth*	PA01	544-045 1	544-7580
Dean Russell	EM01	544-1984	544-5444
Larry Russell	ES91	544-3606	544-7128
Sid Saucier	DE01	544-0171	544-7920
R. J. Schwingamer**	DA01	544-1001	544-7580
Charles Scales	CEO1	544-4927	544-24 11
Harvey Shelton	JA64	544-6600	544-6806
Jody Singer	SA3 1	544-06 12	544-1 178
E. C. Smith	EB01	544-3279	544-8345
Susan Smith**	DE01	544-1919	544-7920
Jeff Spencer	EE24	544-7498	544-7713
David Stephenson	EE41	544-02 11	544-5840
Bill Taylor	EA01	544-66 14	544-5896
John B. Taylor	CA01	544-003 1	544-5852
Don Thurman	PD01	544-1908	544-5861
Ronald Young	RA02	544- 1745	544-28 12
G. R. Wallace	EL01	544-4359	544-4 13 1
Tereasa Washington*	coo1	544-749 1	544-6420
Jerry Wheeler	RA02	544-0555	544-32 14
Walt Whitacre	EP61	544-0047	544-3960
Ann Whitaker	EH01	544-248 1	544-5877
Ricky Wilbanks	ED72	544- 1099	544-0236
Fred Woj talik*	TAO1	544-0647	544-5858
Warren Woods	E046	544-2275	544-5685
R. G. Zagrodzky	EL02	544-3293	544-0242

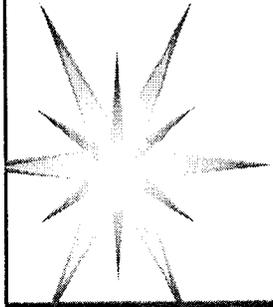
* MSFC QUALITY COUNCIL MEMBER

** MQC MEMBER REQUIRED TO ATTEND THE COUNCIL MEETING



AGENDA

- Prologue
- Scope
- ISO 9000 Status
- Correction Action Diversity/Non-Uniformity
- Document Control Board (DCB)
- Positive Results to Date
- Council Recommendations
- Action Items



Scope

MQM

MSFC SCOPE for ISO 9000

This quality manual (QM) establishes a quality management system (QMS) to ensure consistent quality of NASA MSFC products and services. The QMS "SHALL" apply to all onsite processes and operations for procurement, design, development, ^{and onsite} production, ~~and testing of flight hardware~~, servicing of flight hardware, flight software, protoflight units, qualification units, *and* associated ^{interfacing with flight hardware and software,} ~~flight and ground~~ support equipment, for which MSFC has responsibility.

Enclosure 3



ISO Status

- ▶ Documentation (26 out of 31)
- ▶ Training (98%)
- ▶ Internal Audits (Charts 8A,B,C &D)

enclosure 4

MSFC ISO 9000 INTERNAL AUDIT SCHEDULE

ORG(s) to be Audited	ORG. REP.	Lead Auditor	1997				
			Jun	Jul	Aug	Sept	Oct
AA, AR, AB	Michael Haynes	Don Miller				8-Sep	
BC	John Howell	Dale McElyea				Deleted	
DA, DD, DE, DS	B. Schwinghamer	Jeff Spencer			25-Aug		
CC	Gray Marsee	Lisa Blue				Deleted	
CN	Annette Tingle	Richard Lamb			25-Aug		
CM (CO)	Pat Schultz	Rex Geveden				3-Sep	
CR	Ed Kiessling	Hank Miller		28-Jul			
EA, EM	Hank Miller	Annette Tingle				8-Sep	
EB	Jim Blanche	Mark Strickland	23-Jun				
ED	Ricky Wilbanks	Rich Wegrich			25-Aug		
EH	Rich Wegrich	Bob Zagrodsky			18-Aug		
EL	B. Zagrodzky	James Niblett		21-Jul			
EO	Warren Woods	Dr. Whitacre				29-Sep	
EP	David Harris	Ray Moye		14-Jul			
ES	Roslin Hicks	Dr. Whitacre			18-Aug		
GP	Byron Butler	William Till			18-Aug		
JA	H. Shelton	Ed Reichman				8-Sep	
LA	T. Dollman	John Pea				Deleted	
MG	S. Kirkindall	Donald Andrews				15-Sep	
PA	Don Thurman	Jerome Collins			11-Aug		
RA	Dennis Smith	Wyane Gamewell				29-Sep	
SA	John Pea	Jimmy Cobb		28-Jul			
TA	Marc Osborne	Lee Foster				29-Sep	
Registrar							21-Oct

R n o l a s s e S

Audit Activities

- 12 of 22 First Round Audits Complete. Audits Intended to:
 - Train auditors and MSFC personnel audited
 - Identify system nonconformances
 - Motivate organizations to complete compliance effort
- Systemic Nonconformances Include (Top 7):
 - Document Control - Lack of OWI control procedures, Use of uncontrolled/superseded documents
 - Quality Records - Failure to identify quality records, Failure to identify storage and retention requirements
 - Quality System - Lack of knowledge of Quality Management System
 - Training - Training requirements not identified, Expired certifications
 - Measuring and Test Equipment - Procedure not followed (Equipment Categorization and Calibration Contact duties)
 - Process Control - Incomplete OWIs or non-existent OWIs
 - Control - Non-conforming Product - Failure to properly document nonconformances, Incorrect use of reporting forms

Measure 6

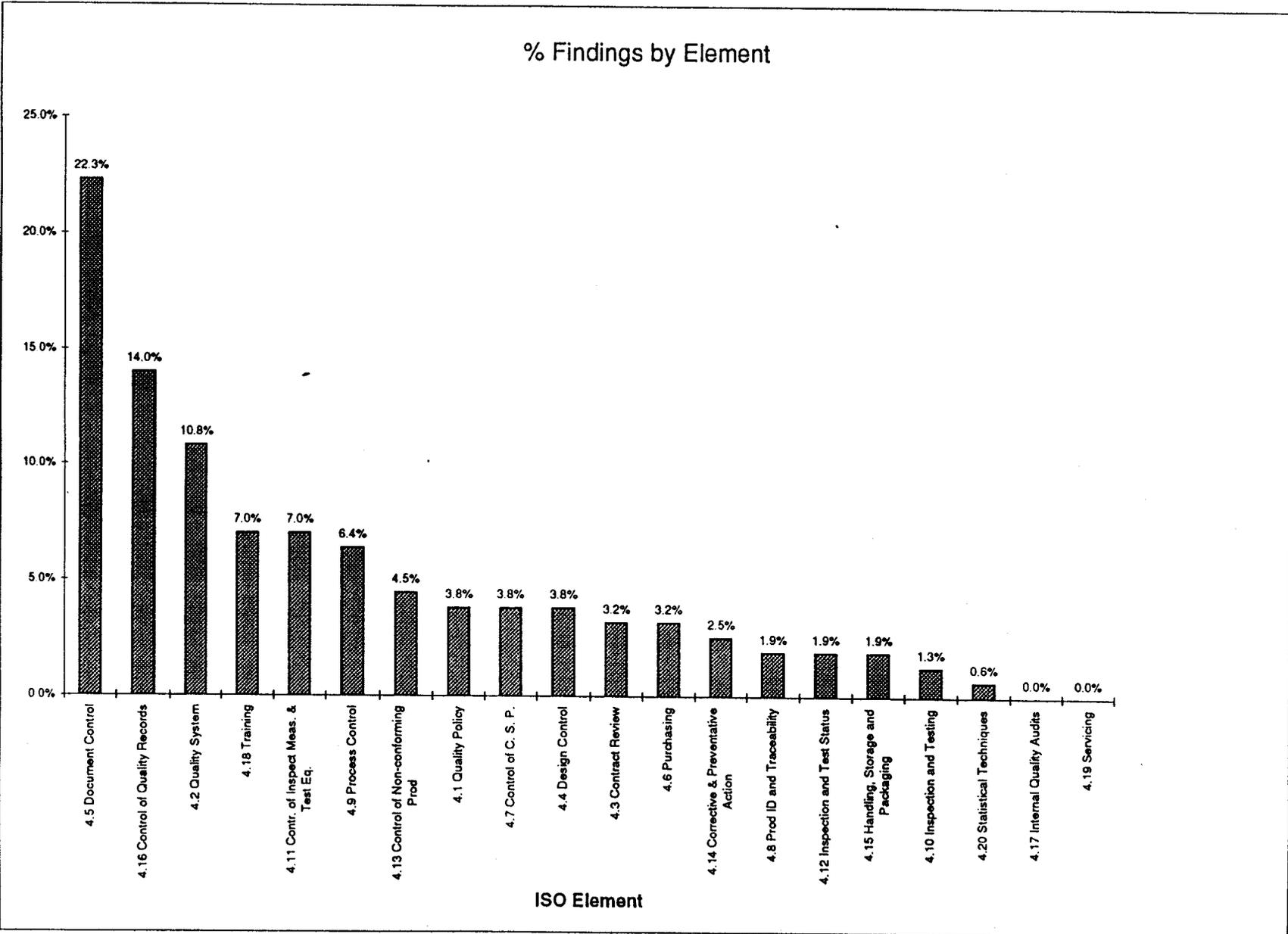
Audit Results for First 10 Audits

ISO 9000 Element

ISO 9000 Element	A1		A2		A3		A4		A5		A6		A7		A8		A9		A10		Total MAJ by Element	Total MIN by Element	Total Findings by Element	% Findings by Element
	MAJ	MIN																						
4.5 Document Control	1	1	1	2	3	1	0	3	4	2	0	1	2	3	0	1	1	7	0	2	12	23	35	22.3%
4.16 Control of Quality Records	1	2	1	1	1	0	3	1	2	0	0	0	4	3	1	0	1	1	0	0	14	8	22	14.0%
4.2 Quality System	2	1	2	2	1	0	0	0	0	0	1	1	1	0	1	0	3	0	1	1	12	5	17	10.8%
4.18 Training	1	0	1	0	1	0	1	0	2	0	0	0	0	0	2	0	0	3	0	0	8	3	11	7.0%
4.11 Contr. of Inspect Meas. & Test Eq.	1	2	0	0	3	0	1	1	0	0	0	0	3	0	0	0	0	0	0	0	8	3	11	7.0%
4.9 Process Control	1	1	1	0	1	0	0	0	1	1	0	0	0	3	1	0	0	0	0	0	5	5	10	6.4%
4.13 Control of Non-conforming Prod	0	0	0	0	3	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	3	4	7	4.5%
4.1 Quality Policy	0	0	1	0	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	1	2	4	6	3.8%
4.7 Control of C. S. P.	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	3	6	3.8%
4.4 Design Control	0	2	1	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	3	6	3.8%
4.3 Contract Review	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	1	2	3	5	3.2%
4.6 Purchasing	0	0	0	0	1	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	4	1	5	3.2%
4.14 Corrective & Preventative Action	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	2.5%
4.8 Prod ID and Traceability	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	3	1.9%
4.12 Inspection and Test Status	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1.9%
4.15 Handling, Storage and Packaging	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	3	1.9%
4.10 Inspection and Testing	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1.3%
4.20 Statistical Techniques	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.6%
4.17 Internal Quality Audits	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
4.19 Servicing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Total NCRs by Audit (MAJ, MIN)	9	12	13	9	15	3	7	11	13	4	1	3	11	11	7	5	6	11	1	5				
Total NCRs by Audit (MAJ and MIN)		21		22		18		18		17		4		22		12		17		6	83	74	157	

Bmc 7

Audit Results for First 10 Audits



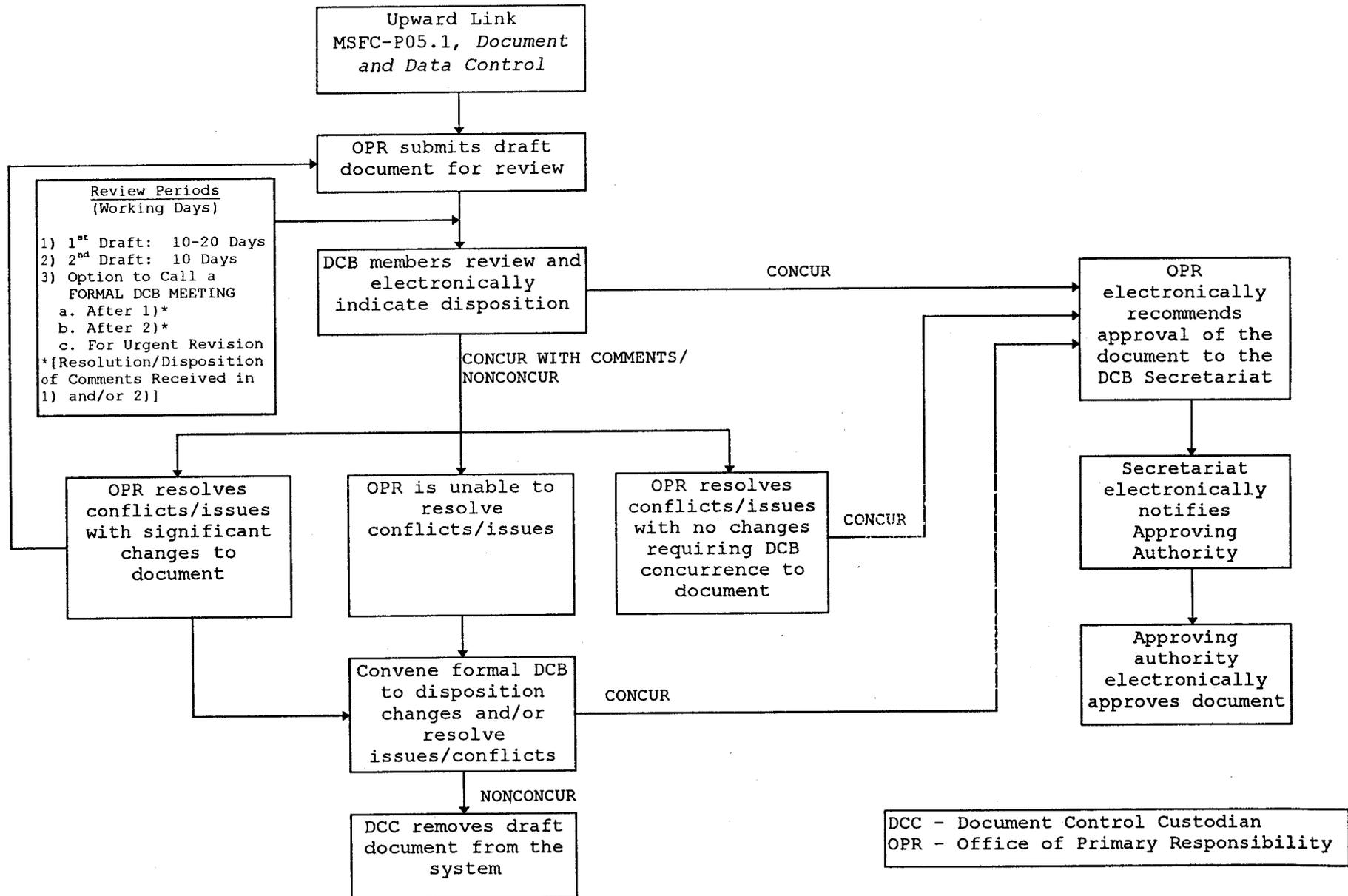
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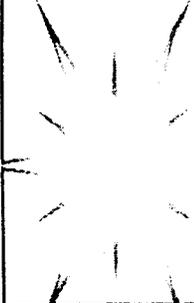
Corrective Action Diversity/Non-Uniformity

- Corrective Action for Hardware Problems
- Corrective Action for Quality Management System Issues
- Computer-based form preparation and processing

DOCUMENT CONTROL BOARD (DCB) PROCESS
 (REFER TO MSFC-P05.1-C04, DOCUMENT CONTROL BOARD [DCB])



Enclosure 10



- Positive Results to Date

- ▶ Procurement documentation down 70%
- ▶ Consolidation of documentation on like items (i.e., Clean rooms, corrective action programs, control of quality records)
- ▶ PCH handling requirements being made more user friendly
- ▶ Three projects found without baseline requirements document and configuration management plan

Enclosure 11



Positive Results to Date (con't)

- Numerous pre-ISO MSFC documents not being followed - re-assessing for current relevance as well as compliance
- Auditors & Auditees getting a feel for ISO requirements
- All Electronic documentation system developed, used by ISO Documentation Control Board - greatly expedites perusal and approval

Reference 12

**ISO 9000 MANAGEMENT COUNCIL
ACTIONS LOG**

[OPEN ACTIONS ONLY]

- MQC-0001 (O) Read the MSFC Quality Manual and The Mini-Guide to ISO 9000
09-04-97 (Rabbitt/Bergh).
(All Managers/Directors, Complete: by 09-18-97)
- MQC-0002 (O) Management Representative meet with all Project Managers and
09-04-97 Laboratory Directors and derive a common approach to scope, and
how the Center is implementing ISO 9000.
(R. Schwinghamer/DA01, Due: 09-18-97)
- MQC-0003 (O) Each Director, Manager, and Office Chief is personally responsible
09-04-97 for assuring that each of their employees understands their role in
implementation of ISO 9001.
(All Directors/Managers/Office Chiefs, Due: 09-18-97)
- MQC-0004 (O) Reduce the existing 10 Corrective Action Systems in place at the
09-04-97 Center to one. Provide progress reports at Implementation Team
Meetings.
(E. Kiessling/CR01, Due: 09-18-97)
- MQC-0005 (O) Provide for Center Director electronic approval of the following
09-04-97 documentation: 1) MSFC Quality Manual; 2) MSFC-P01.1
Management Review; 3) MSFC-P02.1 Quality Planning;
4) MSFC P03.1 Contract Review; 5) Revoke MSFC-P04.1
Design Control from approved list until signed by Center Director.
(Don Miller/CR10, Due: 09-12-97)