

National Aeronautics and  
Space Administration

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



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 Monday, June 24, 2002. The meeting began at 2:15 p.m., in Building 4200, Conference Room P110. The roster of attendees for the meeting is attached as Enclosure 1. The presentation charts for the meeting are included as Enclosure 2.

OPENING REMARKS (A. ROTH/DE01):

The agenda for the meeting was reviewed. The Customer Satisfaction Success Story that had been scheduled has been postponed due to the presenter, Sam Ortega/MP51, being on travel.

The agenda for the meeting is included on page 3 of Enclosure 2.

CONTINUAL IMPROVEMENT SUCCESS STORY (D. HIGHTOWER/CD10):

Danny Hightower presented a success story on continual improvement of the staffing and recruiting function through implementation of NASA STARS (NASA's automated Staffing And Recruitment System). NASA STARS is an automated off-the-shelf staffing and recruiting system, and is used for both internal and external hiring. Processing time has been reduced from 55 days to 30 days, so far.

There was some discussion about the time savings that have been realized through the use of this system for all parties from the applicant to the hiring supervisor.

The presentation charts are included as pages 5-6 of Enclosure 2.

SUCCESS STORY FOR COLLABORATIVE EFFORT WITH ORGANIZATIONS  
OUTSIDE OF MSFC (B. KAUFFMAN/ED03):

Billy Kauffman presented a success story on a collaborative effort with Code S on the Living With a Star: Space Environment Testbeds (SET) Program and Code R on the

Space Environments and Effects (SEE) Program. Two different requests for proposals from different programs were combined in one NASA Research Announcement (NRA).

The presentation charts are included as pages 8-11 of Enclosure 2.

CONTINUAL LEARNING (J. HEATH/CD20):

John Heath provided an update on continual learning at MSFC. The Employee & Organizational Development Department continues to foster an environment conducive to continual learning. In FY 2001 center training opportunities were increased by 85% over the previous year. The center provided more than 4,000 offerings in FY01 compared to 2,100 the year before.

Several new initiatives will continue to support continual learning efforts at the center this fiscal year. These include:

E-Learning:

The center deployed a new e-learning library on May 29. This ushers in a new era of on-demand learning to center employees, with more than 2,000 programs available at work or home whenever employees need them. Many of the programs are being approved for college credit.

Improved Needs Survey:

To enable the center to better plan, prioritize and budget for future developmental requirements the center will be enhancing its online training survey this year. A cross-center focus group was convened in April to discuss improvement opportunities. Development is currently underway to implement these changes with the survey scheduled to take place in the July timeframe.

Expanded Organizational Development & Leadership Survey:

The recently expanded Organizational Development (OD) team is working closely with center organizations to promote organizational learning through customized performance improvement interventions. Among the most visible programs underway is the leadership development program. This 9-day program focuses on both individual and organizational leadership skills. Additionally, a cultural roadmap is being finalized outlining a variety of activities designed to reinforce the Marshall Values.

Increased Cost Control Training:

The center is in the process of rolling out significant training efforts in the areas of cost control, systems engineering and program management. Already more than 183 people have been trained in these core areas, with several new offerings on the horizon, including a recently revised systems engineering course to be conducted by the Systems Management Office staff.

Axel Roth commented that the systems engineering course will be extended from the one-day offering previously conducted to a one-week course.

The Employee & Organization Department (EODD) recently completed a comprehensive benchmarking assessment with the American Society of Training & Development (ASTD). The center training and organization program was compared to 400 government and commercial entities from around the world in 16 core areas. In 13 of the 16 areas, the center program was rated above average when compared against US Government, US Large Industry and Non-US participants. In 3 of the 16 areas, the center commitment to training and organization development was rated as world-class (top 10% in the world).

The presentation chart is included as page 13 of Enclosure 2.

Art Stephenson thanked the group for the success stories presented. We need to continue to focus on these types of presentations. We talk about continual improvement and continual learning, and these presentations allow us to see where it's really happening.

MQC ACTION ITEMS STATUS (A. ROTH):

The presentation charts for the MQC Action Items Status are included as pages 15-18 of Enclosure 2.

MQC – 0049 – Define the stoplight colors used for the Executive Summaries and provide in the report at the next MQC meeting.

The Agency Program Management Council has established common stoplight criteria, and these are now being used for the monthly Executive Summary reports. The criteria are included in the charts. This action was closed.

D. Kross/TD01 commented that the criteria doesn't address rate of change, so his organization is also measuring this. Rate of change is very important to watch so that you don't end up surprised by going from yellow to red overnight.

MQC-0050 – The Marshall Values, Quality Policy, and Safety Policy should all be posted in each of the Center's conference rooms. (The static cling posters should not be used for this.)

All conference rooms have been checked, and the specific items have been posted. This action was closed.

PROCESS PERFORMANCE AND PRODUCT CONFORMITY (A. ROTH/DE01):

The data from the Monthly Executive Summaries submitted by ED, MP, FD, TD, and SD has been compiled for July 2001 through May 2002. The numbers on the charts designate the number of projects that are being reported on monthly. The registrar, National Quality Assurance, USA (NQA) has seen these charts and thought they were useful; however, the Systems Management Office (SMO) is going to look to see if there's a better, more definitive way to depict how we are doing. We will continue the monthly Executive Summary reports, but will look into a better way of reporting in this forum.

The Executive Summary Charts are included on page 20 of Enclosure 2.

The status of the Marshall Directives was also provided as a measure of our processes. There are currently four active waivers against three of the 185 Directives that are in place today. The documented system appears to be adequate. The status is provided on page 21 of Enclosure 2.

INTERNAL QUALITY AUDIT REPORT (W. WOODS/QS40):

Warren Woods presented the status of the internal audit program. Of the fifteen audits currently planned for this year, two are of MSFC resident offices, and one is a focused audit in response to audit findings by NQA on calibration.

The top four categories of findings include control of quality records, document control, lack of awareness of quality objectives, and various safety issues. There has been some improvement in awareness of quality objectives and understanding by individuals of how they contribute to the objectives; however, this is a continuous process that needs to be worked. The NQA lead auditor indicated to us during the last surveillance that he sees this as a maturity issue, and that everyone is dealing with the same problems right now since it is a new requirement.

The status chart for internal nonconformance reports (NCRs) was discussed. As of today, there are six open NCRs that are late. This is an ongoing area of emphasis. Reminders are sent to organizations just prior to NCRs going late, and number of days late and age are also tracked. Items with long lead times for corrective action are also verified to ensure that the target dates are reasonable.

The presentation charts are included as pages 23-28 of Enclosure 2.

At this point, Axel Roth suggested that we skip to the discussion of the findings from the last NQA audit, due to the fact that Art Stephenson would need to be leaving soon for another meeting

STATUS OF NQA FINDINGS (M. DEMURRAY/HEI):

Mary DeMurray provided a brief description of the eleven findings that resulted from the last surveillance audit of MSFC by NQA on May 30-31. Corrective action responses are in progress, and should be provided to NQA by the due date of June 28. After further investigation, most of the findings have been determined to be isolated incidents and limited in scope.

The presentation chart is included as page 35 of Enclosure 2.

CENTER DIRECTOR'S CLOSING REMARKS (A. STEPHENSON/DA01):

Art Stephenson urged the group to keep after looking for ways to improve. Until you understand what it is and why you do it, you can't improve it. He stated that he is seeing evidence of improvement in our meetings.

The Freedom to Manage initiative was also discussed. There is a group looking at whether or not the centers will have the freedom to go the wrong way with ISO. Mr. Stephenson stated that he was shocked that the agency would be doing this. As far as this center is concerned, we're going to stay with ISO until we see that there's something better.

We should be interested in finding the stupid things we are doing, change the processes, and improve the way we manage. We need to be working harder at identifying these things. We will be looking at Freedom to Manage at MSFC as well as at NASA. You will be hearing more on this soon.

We need to change what we have to make it better. We need to empower employees to come forward with changes, and remember Rule #1.

MSFC Rule #1 is: Do not complain, criticize, or condemn people or organizations. Attack processes, not people or organizations.

CORRECTIVE AND PREVENTIVE ACTION PROGRAM (J. MCPHERSON/HEI):

The corrective and preventive action programs are being employed by the center, with a marked improvement in customer feedback activity at the center level. There have been 74 customer feedbacks input into the system in the past six months. This is 2/3 of the total response since the inception of the system.

The presentation charts are included as pages 30-31 of Enclosure 2.

CUSTOMER SATISFACTION & CONTINUAL IMPROVEMENT (D. MILLER/QS40):

Don Miller provided a brief demonstration of the Balanced Scorecard website in the absence of Michael McLean/CD40. There are 170 metrics with a green status, 14 metrics with a yellow status, and one metric for which a status has not been provided.

There are 78 metrics associated with customer satisfaction. There is also a link from the Balanced Scorecard website to the Customer Satisfaction website. Organization statuses will be reported at the next meeting.

CLOSING REMARKS (A. ROTH/DE01):

The last surveillance audit by NQA resulted in more findings than we've been used to, but the auditors were pleased overall. They continue to "raise the bar" with each audit.

The next NQA surveillance audit will be conducted on November 5-7. All MSFC activities are subject to audit; however, emphasis will continue to be on those activities providing products/services to external customers. Everyone is encouraged to visit the

providing products/services to external customers. Everyone is encouraged to visit the ISO web page for self-assessment checklists and other information about the upcoming audit.

There are no significant changes to the MMS at this time. There is some flap at headquarters about ISO 9000 being a "Dan Goldin idea," and some individuals may be trying to get away from it. Mr. Roth stated that he fully supports Art Stephenson on his position to maintain our ISO registration. We have an outside set of eyes looking at us. If we didn't have that, we'd go right back to where we used to be.

Organizations need to continue implementation of their customer satisfaction systems and educating individuals on their role in supporting quality objectives.

Overall, the suitability, effectiveness, and adequacy of the Marshall Management System appear to be acceptable. No major problems have been identified by any means, including internal and external audits, and customer satisfaction indicators are positive overall. The system is in pretty good shape. Let's keep doing what we're doing.

The presentation charts are included as pages 37-40 of Enclosure 2.

No other items for record were discussed at the meeting. M. DeMurray/HEI kept the meeting minutes.



A. G. Stephenson  
Chairman  
MSFC Quality Council

Enclosures

- 1 Attendance Roster
- 2 MQC Presentation Charts

Distribution:  
Council Members  
Meeting Attendees

## ISO 9000 MSFC QUALITY COUNCIL MEETING

DATE: Monday, June 24, 2002 LOCATION/ TIME: BLDG. 4203/1201, 2:15 – 4:15 p.m.

MEETING ATTENDANCE: [Please initial next to your name to record meeting attendance.]

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE</u>	<u>FAX</u>
<b>Director's Office</b>			
<i>WS</i> _____ Art Stephenson	DA01	544-1912	544-5228
_____ James W. Bilbro	DA01	544-3467	544-8345
_____ Bob L. Sackheim	DA01	544-1938	
_____ Jim Kennedy	DD01	544-1914	544-5896
<i>AR</i> _____ Axel Roth	DE01	544-0451	544-5590
<b>Center Operations Directorate</b>			
_____ Sheila Cloud	AD01	544-0120	544-5893
<i>JW</i> _____ Jim Carter	AD01	544-6630	544-7920
_____ Linda Carpenter	AD02	544-8236	544-5867
_____ Dan Adams	AD10	544-1614	544-8259
_____ Allen Elliott	AD10	544-0662	
_____ Lucy Boger	AD21	544-0320	
<i>MSH</i> _____ Mark Hyder	AD22	544-8821	
_____ Lana Cucarola	AD30	544-0096	544-8752
_____ Annette Tingle	AD30	544-4522	544-8752
_____ Amanda Rasco	AD33	544-4511	544-8752
_____ Deborah Wills	AD33	544-4525	544-8610
_____ Lisa Adkins	AD40	544-7546	544-6570
_____ Polly Edwards	AD50	544-4536	544-2101
<b>Customer &amp; Employee Relations Directorate</b>			
_____ Tereasa Washington	CD01	544-7491	544-6420
<i>SC</i> _____ Susan Cloud	CD01	544-5377	544-2610
<i>JH</i> _____ Pat Shultz	CD20	544-7559	544-4809
_____ Caroline Wang	CD30	544-3887	544-6030
_____ Steve Durham	CD40	544-0390	544-0007
_____ Michael McLean	CD40	544-0397	544-0007
<b>Engineering Directorate</b>			
<i>WRC for</i> _____ Bill Kilpatrick	ED01	544-1001	544-5896
_____ Pat Layky	ED12	544-3481	544-3098
_____ Terry Roberts	ED16	544-3717	544-0900
_____ Jim Lindsay	ED20	544-1301	544-0236
_____ Craig Garrison	ED27	544-7197	544-8838
_____ Rich Wegrich	ED35	544-2626	
_____ Richard Lamb	ED37	544-1037	544-4307
<i>MS</i> _____ Herb Shivers	ED43	544-8903	544-9614
_____ Margaret Alexander	ED44	544-6964	
<b>Flight Projects Directorate</b>			
<i>S. Croomes for</i> _____ Jan Davis	FD01	544-0455	544-7580
<i>JD</i> _____ Jackie Steadman	FD10	544-1940	544-5590
_____ Jack Stokes	FD22	544-1764	544-5194
_____ Steve Meacham	FD30	544-0241	544-4393
_____ Mike Kearney	FD40	544-2029	
_____ Bill Mordan	FD40	544-2011	

**Chief Counsel**

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

**Space Shuttle Projects Office**

<u>Alex McCool</u>	MP01	544-0718	544-2432
<u>Jodie Singer</u>	MP01	544-0612	544-4155
<u>Jeff Spencer</u>	MP21	544-7498	544-7713
<u>John Pea</u>	MP71	544-8437	544-5799

**Equal Opportunity Office**

<u>Charles Scales</u>	OS01	544-4927	544-2411
<u>Willie Love</u>	OS01	544-0088	544-2411
<u>Billie Swinford</u>	OS01	544-0087	544-2411

**Procurement Office**

<u>Steve Beale</u>	PS01	544-0257	544-3214
<u>Byron Butler</u>	PS01	544-0253	544-4400
<u>Ray Woods</u>	PS10	544-0384	544-3223
<u>Jerry Williams</u>	PS10	544-0295	544-4401
<u>Jim Young</u>	PS10	544-0362	544-3223

**Safety and Mission Assurance**

<u>Amanda H. Goodson</u>	QS01	544-2353	544-2053
<u>Roy Malone</u>	QS01	544-0506	
<u>Ron Mize</u>	QS01	544-2485	544-8101
<u>Terry Hamm</u>	QS10	544-7402	544-3241
<u>Jack Beasley</u>	QS40	544-0630	
<u>Don Miller</u>	QS40	544-8361	544-4857
<u>Kerry Warner</u>	QS40	544-7350	544-8585
<u>Warren Woods</u>	QS40	544-2275	544-5685

**Office of Financial Officer**

<u>Dave Bates</u>	RS01	544-0052	544-0635
<u>Frank D. Mayhall</u>	RS01	544-7266	544-4479
<u>Peggy Williamson</u>	RS24	544-3357	544-5863
<u>Sharal Huegele</u>	RS30	544-7286	544-9055

**Science Directorate**

<u>Ann Whitaker</u>	SD01	544-2481	544-5877
<u>Tom Fleming</u>	SD01	544-3962	544-5975-9243
<u>Robin Henderson</u>	SD10	544-1738	544-8639
<u>Steve Lambing</u>	SD12	544-2277	
<u>Lloyd Love</u>	SD20	544-7702	544-2559
<u>Wes Darbro</u>	SD22	544-7742	544-2559
<u>Roger Chassay</u>	SD30	544-1969	544-5975
<u>Cassandra Thompson</u>	SD30	544-3993	
<u>Clark Darty</u>	SD40	544-2728	544-5892
<u>Tom Dollman</u>	SD40	544-6568	544-8500
<u>Melanie Bodiford</u>	SD44	544-2067	
<u>Mike Purvey</u>	SD44	544-3592	
<u>Mike McCollough</u>	SD50	544-4368	544-5800
<u>Ed Reichmann</u>	SD50	544-7603	544-5800
<u>Tim Miller</u>	SD60	922-5882	922-5823
<u>Diane Samuelson</u>	SD60	922-5832	922-5723
<u>Roy Young</u>	SD70	544-4965	544-2659
<u>Tommy L. Thompson</u>	SD72	544-3489	544-2659





George C. Marshall  
Space Flight Center

# Marshall Quality Council

June 24, 2002



# Opening Remarks

Art Stephenson – Axel Roth



- Continual Improvement
  - Customer Satisfaction Success Story (Sam Ortega – MP51) – Postponed (on TDY)
  - Continual Improvement Success Story (Danny Hightower – CD10)
  - Collaborative Efforts with Organizations Outside of MSFC (Bill Kauffman – ED03)
  - Continual Learning - (John Heath - CD20)
- MQC Action Items Status (Axel Roth – DE01)
- Process Performance and Product Conformity (Axel Roth - DE01)
- Internal Quality Audit Report (Warren Woods – QS40)
- Corrective and Preventive Action Program (John McPherson - HEI)
- Customer Satisfaction & Balanced Scorecard (Don Miller – QS40)
- Status of NQA Findings (Mary DeMurray - HEI)
- Closing Remarks (Axel Roth – DE01)
  - Changes That Could Affect the MMS
  - Issues & Recommendations
  - Assessment of the suitability, adequacy, and effectiveness of the MMS
- Other



# Continual Improvement Success Story

## Danny Hightower

# MARSHALL SPACE FLIGHT CENTER CUSTOMER & EMPLOYEE RELATIONS DIRECTORATE



## *MSFC HUMAN RESOURCES DEPARTMENT NASA STARS – A CONTINUOUS IMPROVEMENT SUCCESS STORY*

- **WHY:** Staffing and recruiting function labor intensive
  - “Hard copy” applications
  - “Hard copy” files
  - Manual rating/ranking/referral
- **WHAT:** NASA Staffing and Recruiting System (NASA STARS)
  - IFMP Pathfinder Project
  - Automated commercial off-the-shelf software
  - Outside hiring and internal placement
- **CHALLENGES:**
  - Aggressive schedule
  - “Culture Change”



# MARSHALL SPACE FLIGHT CENTER CUSTOMER & EMPLOYEE RELATIONS DIRECTORATE



## *MSFC HUMAN RESOURCES DEPARTMENT NASA STARS – A CONTINUOUS IMPROVEMENT SUCCESS STORY*

- **HOW:** Communication and Teamwork
  - HRD Staff
  - Internal communications
  - IFMP NASA STARS Project Office
  - MSFC IFMP Institutional Support Team
  - MSFC Administrative Officers
- **RESULTS:**
  - Roll-out on schedule
  - Positive response
  - Reduced processing time
  - Government-wide recognition





# Success Story for Collaborative Effort with Organizations Outside of MSFC

Billy Kauffman ED03



Success Story for Collaborative Effort with Organizations Outside of MSFC

A large, semi-transparent logo for the SEE program is centered in the background. It is a circular emblem with a yellow starburst border. The text "SPACE ENVIRONMENTS AND EFFECTS" is written around the top inner edge, and "Developing Tomorrow's Space Technology Today" is written around the bottom inner edge. In the center, there is a stylized globe and a satellite dish.

***NASA's Space Environments and Effects (SEE) Program***

**Billy Kauffman**

**(256) 544-1418**

**billy.kauffman@msfc.nasa.gov**

NO.8

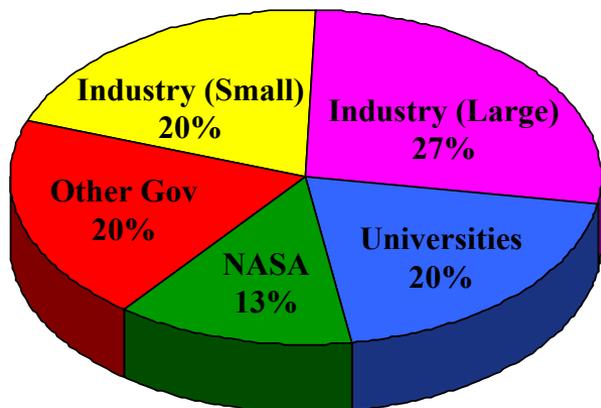


- **July 12, 2001:** Released NRA8-31 solicitation for proposals involving the Living With a Star: Space Environment Testbeds (SET) Program and the Space Environments and Effects (SEE) Program; ~ \$2M combined;
- **Unique:** The LWS:SET Program is a Code S Program and the SEE Program is primarily a Code R Program; 1<sup>st</sup> time anyone can recall that 2 different request for proposals from different Programs in one NRA; Seamless transition between programs....working as one to avoid duplication;
- **Partnering/Leveraging:** The SEE Program was developing its own NRA and included the SET request to save NASA resources; SEE was scheduled to manage contracts if solicitation came out of GSFC/HQs; Utilized one set of Procurement resources (MSFC) which saves time/labor and use of experience;
- **Relief:** SET would have lost the resources due to '02 President's budget to other Code S science programs which would have hurt the space environment engineering design community;
- **Success:** Released NRA in July; all have been awarded;
- **Publicity:** This joint NRA helps solidify the SEE Program as NASA's "one stop" for the space environment and effects engineering design community.



## LWS/SET

(15 Proposals)



**NRA Resources: ~\$800K (received plus-up to bring total to ~\$880K)**

**Resource Restriction: ≤\$125K per year**

**Contract Restrictions: 1 Year only**

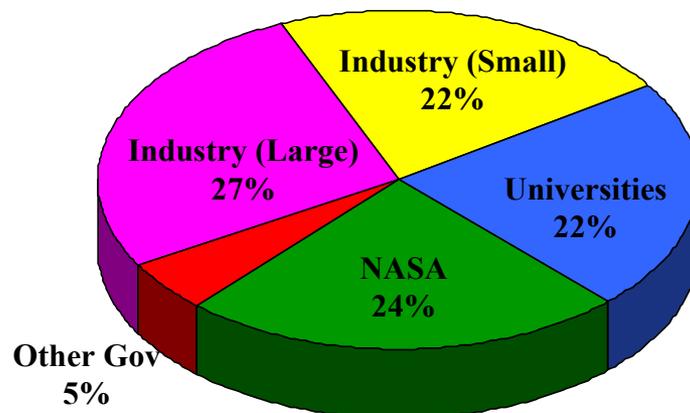
**NRA Resources: ~\$1.1M**

**Resource Restriction: ≤\$150K per year**

**Contract Restrictions: 1,2,3 Years w/options**

## SEE

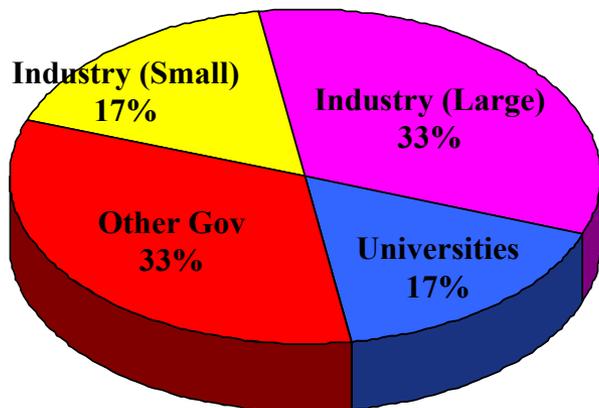
(37 Proposals)





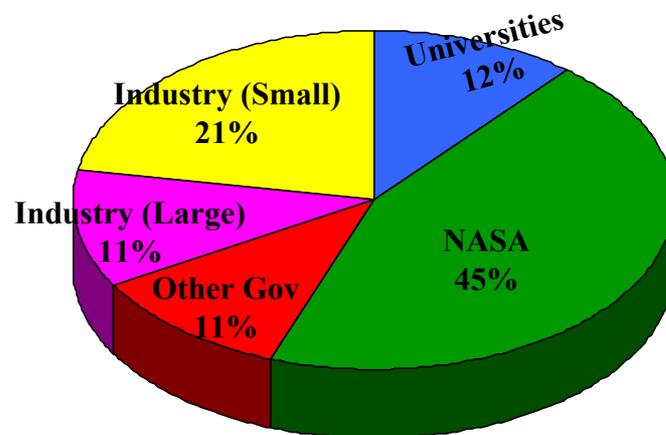
## LWS/SET\*

(8 Proposals awarded)



## SEE

(9 Proposals awarded)



\* NASA did not receive any funding in the LWS/SET portion of the awards.



# Continual Learning

John Heath/CD20

In FY2001, center training opportunities were increased by 85%. This growth was led by a 193% increase in technology-assisted learning.

## Major FY2002 initiatives:



Expand e-learning program.



Improve training needs survey.



Expand OD & leadership development program.



Increase cost control, system engineering and program management training.



# MQC Action Items Status

Axel Roth



MQC-0049 – *Define the stoplight colors used for the Executive Summaries and provide in the report at the next MQC meeting.*

- Discovered that stoplight criteria were not being utilized consistently during the reporting of the monthly health statuses
- A memo was sent out on April 3, 2002 (from Axel Roth, DE01)
  - Determined as an Agency problem as well
  - Agency Program Management Council (PMC) established common stoplight criteria
  - Memo requested that all MSFC projects/programs utilize new criteria
  - New criteria listed on next two slides
- Recommend closure of this action



## *Agency Stoplight Criteria*

- Green represents: *Progress according to Plan*
  - Meeting management plans \* or commitments
  - No action required
- Yellow represents: *an Area of concern \*\**
  - Deviation from plans or commitments, but approved contingency/reserves exists to recover and successfully complete the program/project as approved \*
  - Needs attention. Problem can be resolved within the reporting organization.



## *Agency Stoplight Criteria (cont)*

- Red represents: *a Significant problem* \*\*
  - Deviation from plans or commitments, with insufficient approved contingency/reserves to recover and successfully complete the program/project as approved\*
  - Needs action. Help required beyond the reporting organization to address the problem
- \* - In Implementation, the appropriate document is the approved program/project plan. If used in Formulation, report against appropriate approval document (e.g. FAD or equivalent).
- \*\* - Any “Yellow” or “Red” assessment requires a brief explanation of the problem and and action plan.



MQC-0050 – *The Marshall Values, Quality Policy, and Safety Policy should all be posted in each of the Center’s conference rooms. (The static cling posters should not be used for this.)*

- All items have been posted in most conference rooms with a few remaining being worked
- Recommend closure of this action

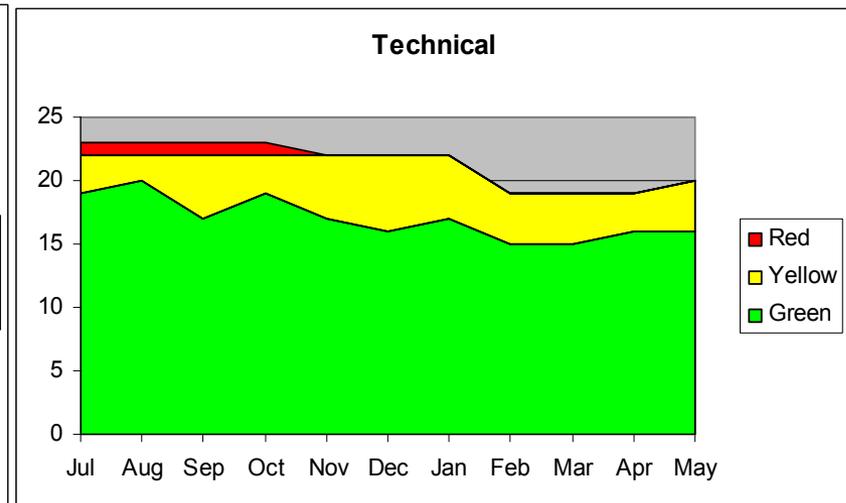
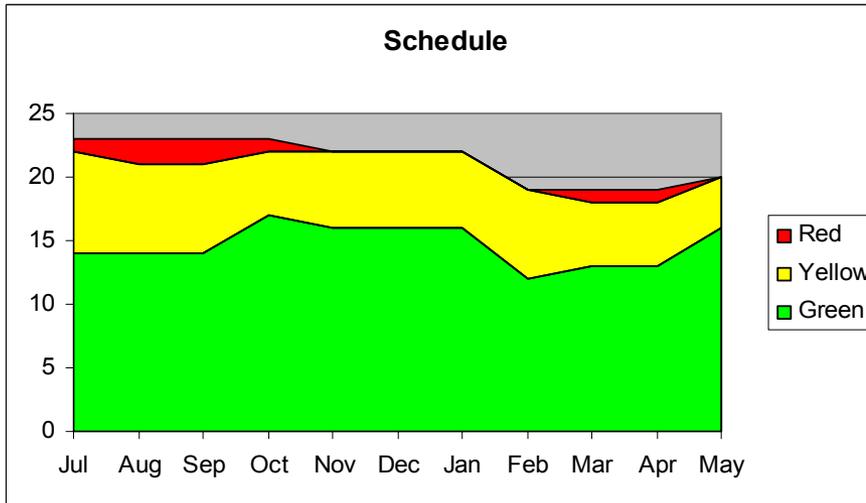
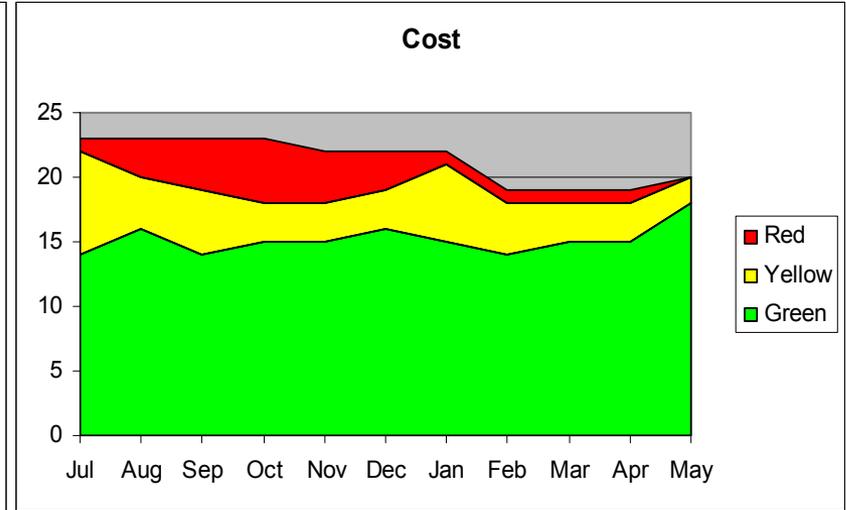
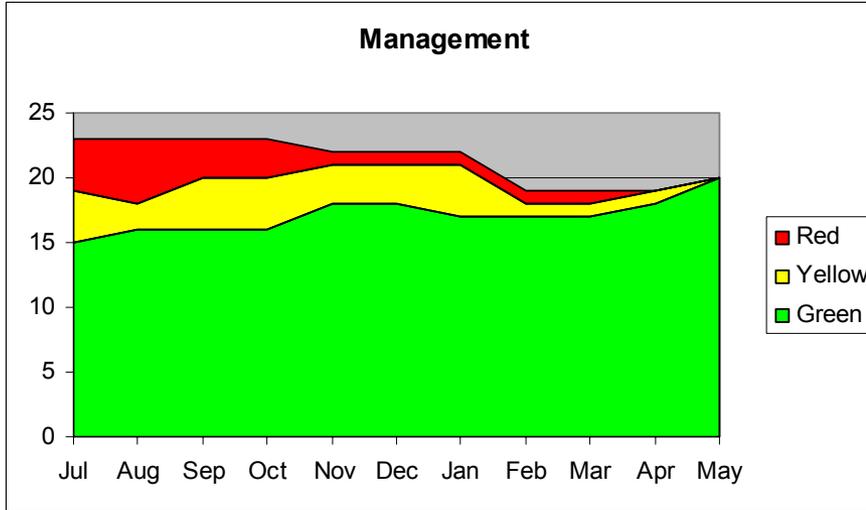


# Process Performance and Product Conformity

Axel Roth



## July 2001 – May 2002 Executive Summaries



**Issues/Common Themes:**

Notes: No data beginning in Nov. for X-38 DPS (being transferred to JSC)

No data beginning in Feb. for GRC, JPL, and JSC Microgravity Programs (transferred responsibilities)



Process Performance and Product Conformity (cont) – Axel Roth

- 185 Directives
- 4 active Waivers against 3 Directives
  - MPG 5000.1 - Purchasing (OPR: PS) - 1 Waiver
  - MWI 5113.1 – Credit Card Operating Procedures – 2 Waivers
    - *Rules for use of credit cards to purchase flight hardware have been re-evaluated. If accepted at the next DCB meeting, off-the-shelf flight hardware purchases using Government Purchase Cards will be allowed, as long as any quality requirements are documented by a QA Representative prior to the order being placed by the Project*
  - MWI 7120.6 - Program/Project Risk Management (OPR: QS) - 1 Waiver
- The documented system appears to be adequate. (It is assumed that personnel seek deviations/waivers where necessary.)



# Internal Quality Audit Report

Warren Woods



Internal Quality Audit Report – Warren Woods

- Completed ten internal audits since the last MQC
- Completed the 2001 internal audit schedule in December
- Fifteen internal audits are planned for 2002
  - Twelve regular internal audits
  - One special on site audit (calibration)
  - Two audits of resident offices
- Eight are completed or are near completion
  - Seven regular audits
  - One resident office (KSC)



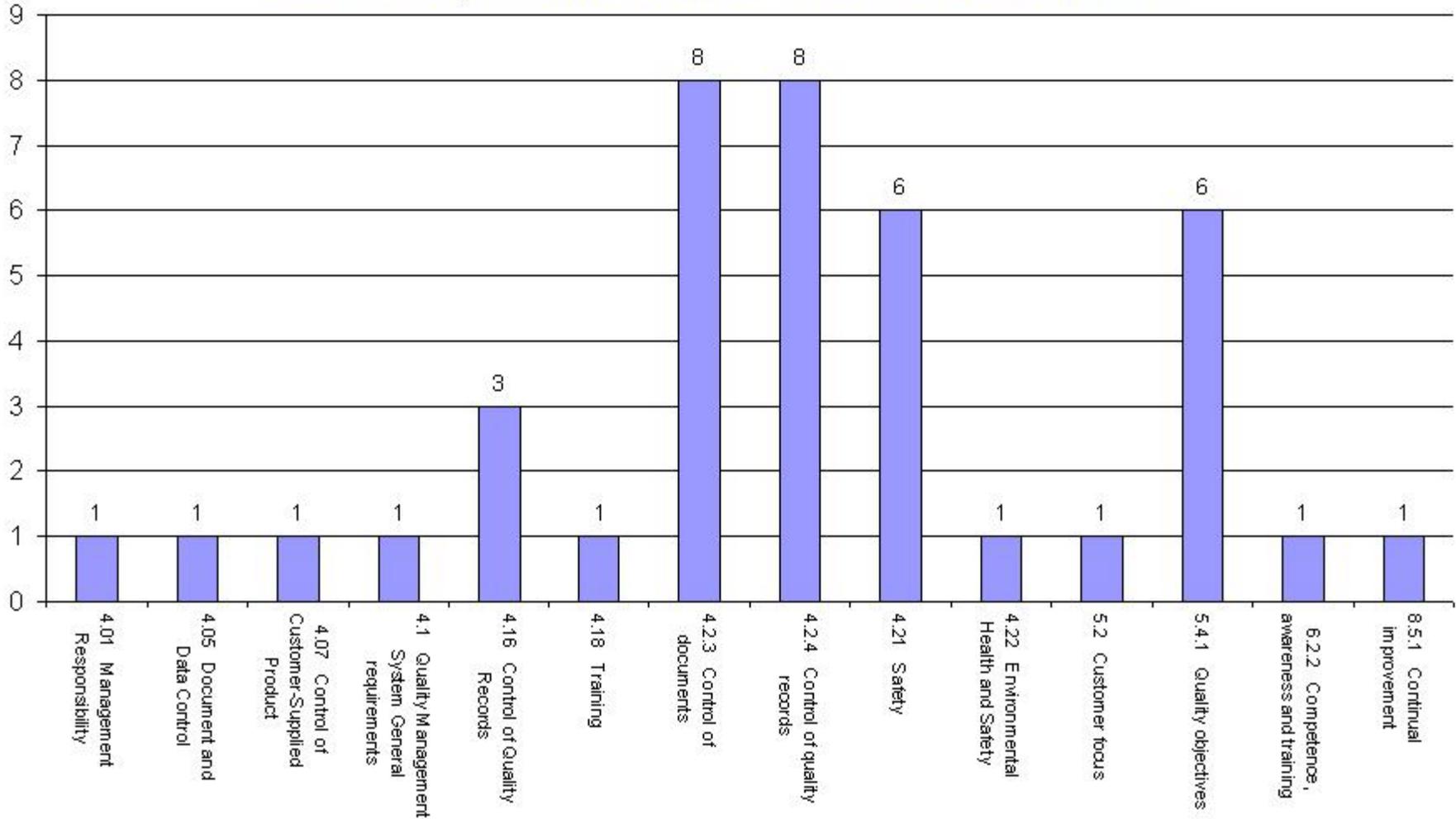
- Top Four Findings

- Quality Records – Lack of approved draft records plans, missing or unidentified records
- Document and Data Control – References not kept up-to-date or obsolete
- Lack of awareness of quality objectives
- Safety issues



Internal Quality Audit Report – Warren Woods

Total Major and Minor Nonconformances

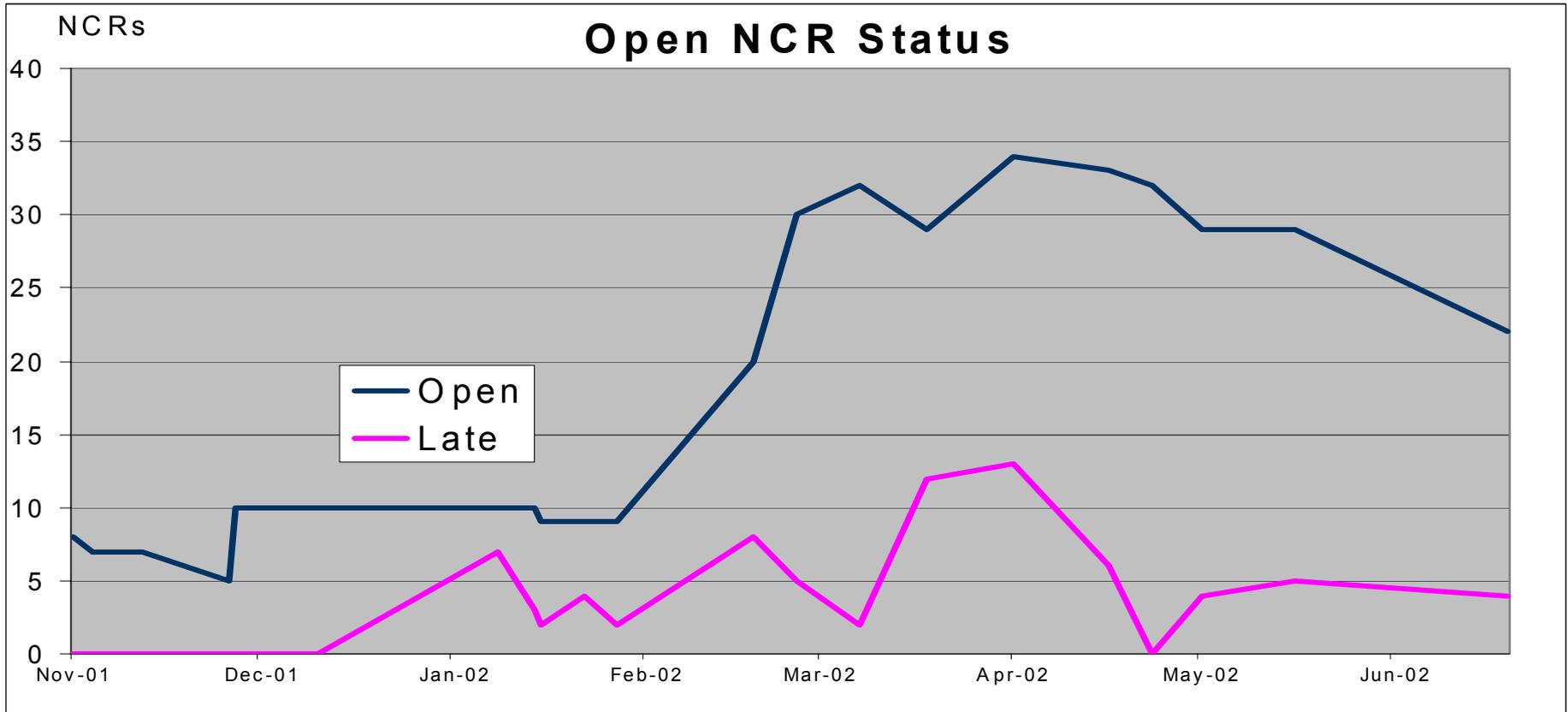




- Status of Open NCRs (See next chart)
  - 22 Open Nonconformance Reports (NCRs)
  - 4 are late as of 6/20/02
  
- Schedule
  - Remaining audits include the audit of TD, Calibration, SD, CD, FD, AD, and the Resident Office at SSC
  - All audits should be completed before Thanksgiving



Internal Quality Audit Report – Warren Woods



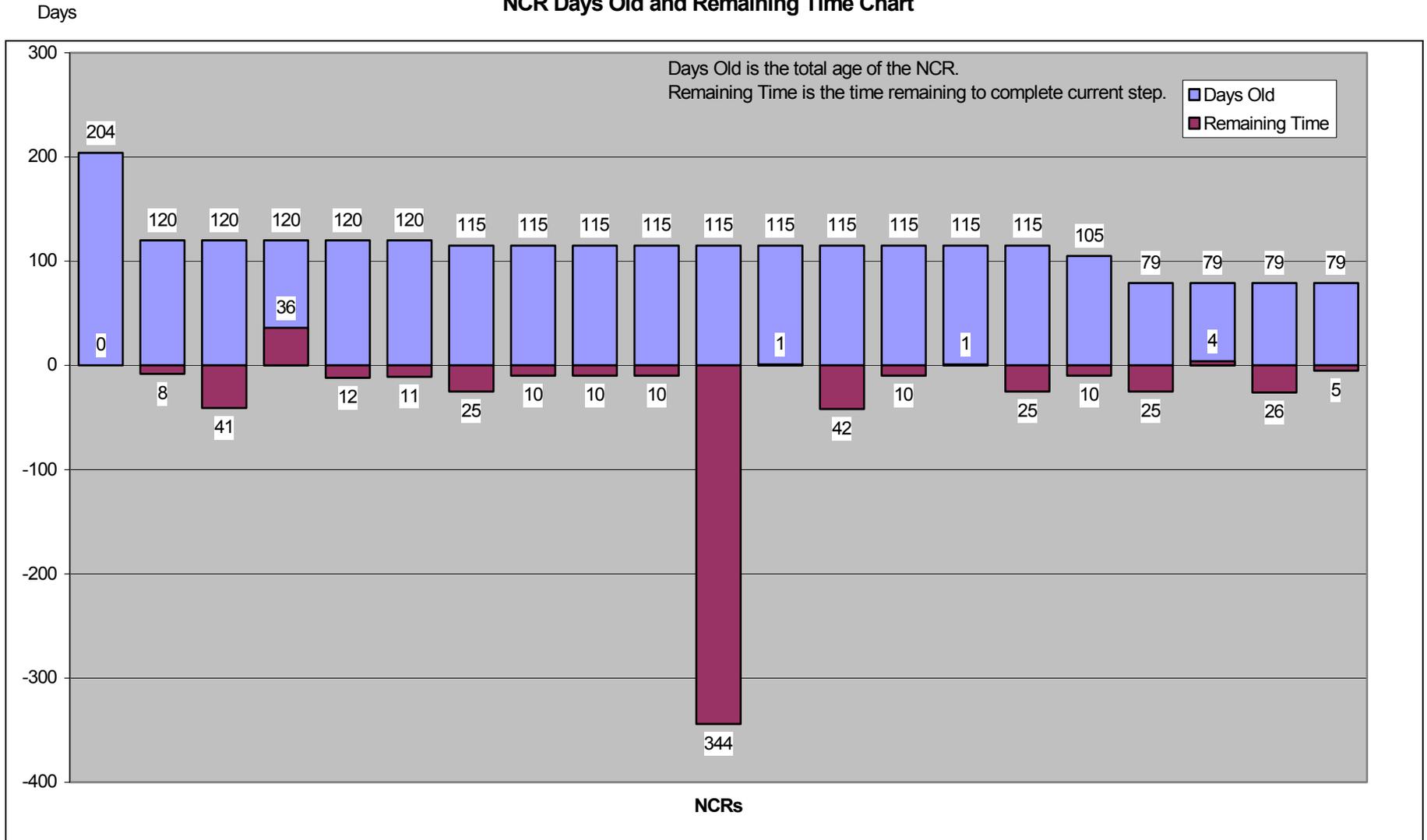
Primary reasons for most late items:

1. Missed target completion dates
2. Late Lead Auditor approval of corrective actions



## Internal Quality Audit Report – Warren Woods

### NCR Days Old and Remaining Time Chart



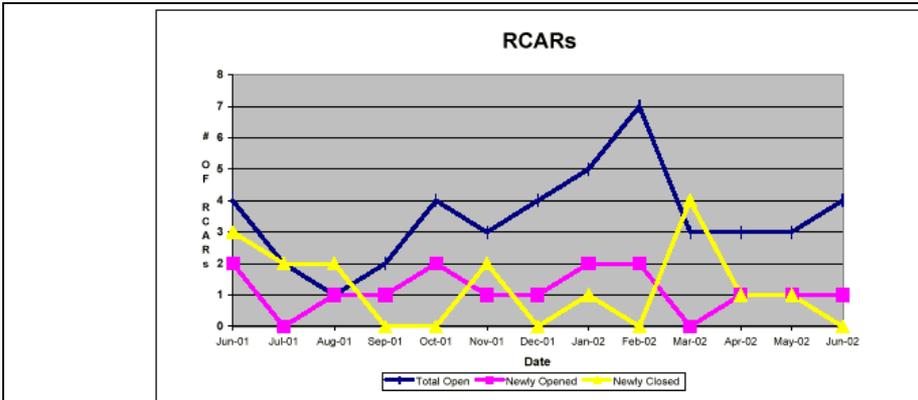


# Corrective & Preventive Action Program

John McPherson

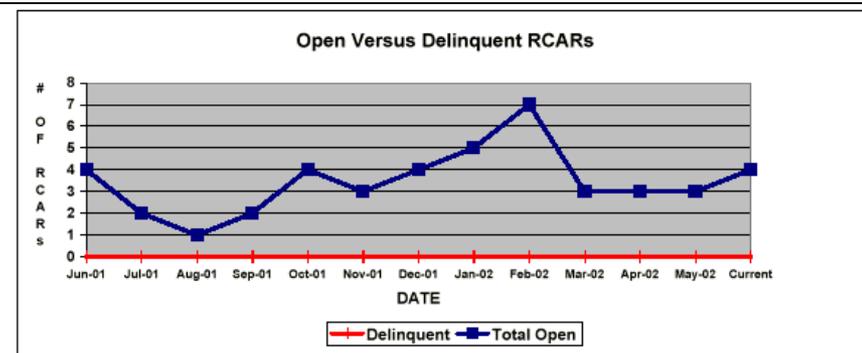


## Corrective & Preventive Action Program – John McPherson



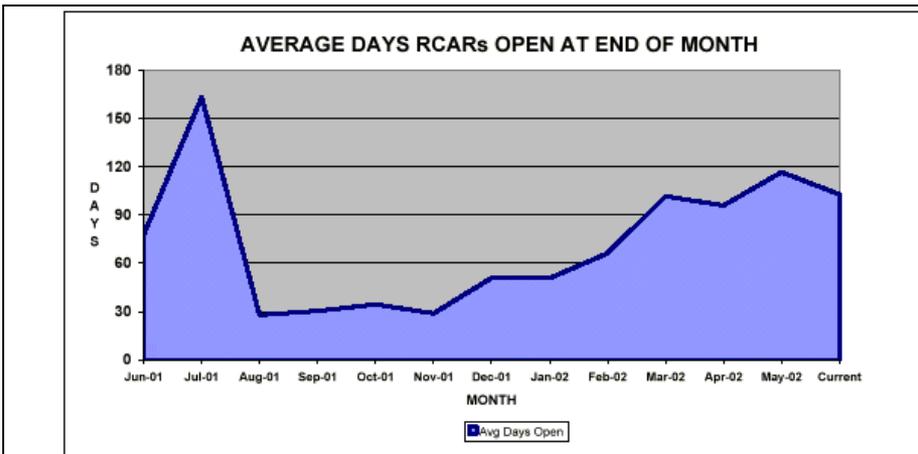
Total Open RCARs:	4	2	1	2	4	3	4	5	7	3	3	3	4
Newly Opened RCARs:	2	0	1	1	2	1	1	2	2	0	1	1	1
Newly Closed RCARs:	3	2	2	0	0	2	0	1	0	4	1	1	0

HEI/J McPherson 6/19/2002



Delinquent Responses:	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Open RCARs:	4	2	1	2	4	3	4	5	7	3	3	3	4
Percent Delinquent:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

HEI/J McPherson 6/19/2002



Average Days Open:	78	164	28	31	35	29	51	51	66	102	96	117	103
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HEI/J McPherson 6/19/2002

	TOTAL Since 10/97	Made to RCARs	TOTAL Since 11/01/01	Made to RCARs
DR	382	51	106	6
QSDN	110	74	5	2
Cust Fdbk	116	1	74	1
<b>TOTAL</b>	<b>608</b>	<b>126</b>	<b>185</b>	<b>9</b>

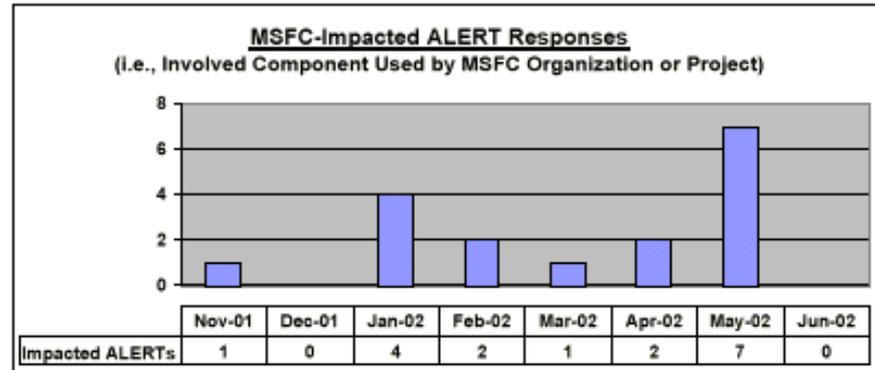
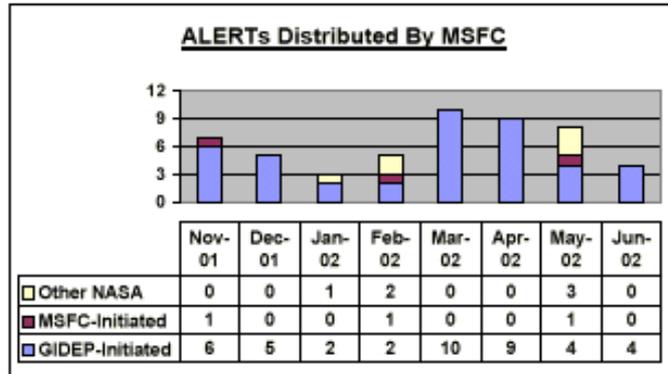
HEI/J McPherson 6/19/2002



## Preventive Action Program – John McPherson

### Corrective/Preventive Action Notifications (CANs) – NONE Issued

### GIDEP and NASA ALERTs and Parts Advisories



#### MSFC-Initiated ALERTs

NA-MSFC-02- Slotted, Hexagonal Nut Manufactured from 01: Incorrect Material (KO AM Machine Products)
NA-MSFC-02- NAJ6C 22-55 Cable Connectors (Amphenol Bendix) 02:
NA-MSFC-02- MP 35 N Material - Mixed Material, Bolt, Shear, High 03: Strength (SPS Technologies)

#### MSFC-Impacted ALERTs

NA-MSFC-02-01 Slotted Hexagonal Nut Manufactured from Incorrect Material (KO AM)	ET (LMMSS)
C6-P-01-01 Fitting Lubrication, Zerk Type (Stewart-Warner Alemite Corp)	EG&G/ AD23
K4-P-01-01 Connector, Plug Electrical, Bayonet Coupling (Amphenol Corp)	SUBSA/ PFM
VV-A-02-01 EMI Filter (RFI Corp)	SUBSA/ PFM
AAN-U-00-11 Tin Plating, Whisker Growth	SUBSA/ PFM
NA-KSC-2002-02 Transistor Intermetallic Growth - Purple Plague (Raytheon)	USA-SRB
NA-MSFC-02-02 Cable Connector (Amphenol Bendix)	USA-SRB
DZ-S-02-01 Unauthorized Manufacture of Oxygen Hoses (Western Coupling)	ED30
DZ-P-02-01 Broken Chair Seat Frame (Herman Miller)	Cortez III and S&MA Q850
QL-A-02-01 Connector, Plug Electrical, Bayonet Coupling (Amphenol Corp)	USA-SRB
NA-MSFC-02-03 MP 35 N Material - Mixed Material, Bolt, Shear, High Strength (SPS Technologies)	ET (LMMSS) and USA-SRB
VV-P-02-02 Diodes, Power Rectifiers, Standard & Fast Recovery, Axial & Surface Mount	MSRR-1: Electrical, MC/VB, TECS, and VAS (Cortez III)



# Customer Satisfaction & Balanced Scorecard

Don Miller



## **Balanced Scorecard Demo and Results**



# Status of NQA May 2002 Surveillance Audit Findings

Mary DeMurray



Status of NQA May 2002 Surveillance Audit Findings - Mary DeMurray

- NQA Surveillance Audit Findings

Observations (1 Carry-Over)	2
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Minor Nonconformances	9
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Total Findings	<u>11</u>
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- The corrective action response is due to NQA by June 28, and is in work

# Closing Remarks

Axel Roth



- Next Surveillance Audit November 5-7, 2002
- All MSFC activities are subject to audit
- Emphasis will be on activities providing products/services to external customers
- Self-Assessment Checklists will be provided on the [ISO web site](#) for reference



ISO 9001 Clauses Selected for November Surveillance Audit – Axel Roth

4.2.1/4.2.2	Quality Manual
4.2.4	Control of Quality Records
5.4.1	Quality Objectives
5.6	Management Review
7.1	Planning of Product Realization
7.2	Customer-related Processes (including Communication)
7.3	Design and Development

7.5.1/ 7.5.3	Control of Production & Service Provision/ Identification & Traceability
8.2.1	Customer Satisfaction
8.2.2	Internal Audit
8.3	Control of Nonconforming Product
8.5.1	Continual Improvement
8.5.2/ 8.5.3	Corrective/Preventive Action

Notes: Control of Documents will be included as it pertains to the selected clauses.



Signifies clauses that will be reviewed each visit



Changes That Could Affect the MMS, Issues & Recommendations - Axel Roth

- Changes That Could Affect the MMS
  - There are no other significant changes at this time
- Issues & Recommendations
  - Organizations need to continue educating individuals on their role(s) in supporting quality objectives
  - Recommend everyone visit the ISO web site
  - Organizations need to continue to implement their Customer Satisfaction systems



Overall Status of the Marshall Management System – Axel Roth

- Overall, the suitability, effectiveness, and adequacy of the Marshall Management System (MMS) appear to be acceptable
  - Internal and external audits indicate no major problems with the MMS
  - Only 2 waivers have been approved since the last MQC
  - Customer Satisfaction indicators are positive overall