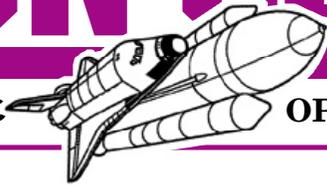


MISSION SUCCESS[®]

February 16, 2001

MICHOU



OPERATIONS

BULLETIN

February 16, 2001

Dennis R. Deel
President & General Manager

My fellow employees,

The beginning of 2001 presents a number of opportunities and challenges for Michoud Operations to continue improving our level of operational excellence.

The External Tank project will support eight Space Shuttle flights during the year, with six International Space Station assembly missions, one Hubble Space Telescope servicing mission and one research mission. Other significant Mission Success events include a Hybrid 250K motor firing, a Hybrid sounding rocket ground test and a Hybrid sounding rocket flight demonstration before year's end.

As always, we must maintain our unblemished record of 100 percent Mission Success on the Space Shuttle and other programs. This unmatched record of success is the foundation for both our past and our future achievements.

We must elevate our safety attitude, awareness and performance. Although our safety record typically exceeds industry standards, we can and must improve in this vital area. We must make use of the existing MAF safety program, focus on 'at risk' behavior, and emphasize near miss reporting. Executive management will continue to be visible on the floor, looking for safety issues and observing safety behavior.

We must employ the LM21 tools made available to us to improve processes across the facility. The Sixth Buy contract and increased corporate flow-down costs have made it imperative that we achieve operational excellence. Although ET production is a fertile area for Lean and Six Sigma process improvement activities, other candidates can be found in virtually every department. It is up to each of us to examine our repetitive processes to look for opportunities for substantive improvement and cost reduction.

As process improvements take hold, ET schedule and cost performance, and award fee ratings will improve as well. These too are critical to our present and future success.

By achieving operational excellence, we also will increase our chances of winning new business. Currently, we are awaiting decisions from NASA on proposals that would allow us to build metal liquid hydrogen tanks for the X-33 program, play a significant role in the Crew Return Vehicle and participate in important initiatives for second generation reusable launch vehicles. Decisions on these programs are expected within the next few months. Success in these areas is vital to our near-term stability and potential future growth. We will also leverage our technology investments to pursue business opportunities in adjacent aerostructures markets on programs such as the Joint Strike Fighter.

By achieving 100 percent Mission Success, working safely and increasing our operational excellence, we will regain a high level of customer confidence and meet our financial commitments to the corporation. With your dedication and support, 2001 will be an important year in assuring Michoud Operations' continued success. I look forward to working with you to make that a reality.

Sincerely,

A handwritten signature in black ink that reads "Dennis R. Deel". The signature is written in a cursive, flowing style.

Be an energy miser...

Savings come as employees see the light — and turn it off

When temperatures drop, most of us respond by turning up the thermostat at home — until those skyrocketing utility bills arrive.

Those brutal energy prices are forcing us to find ways to reduce consumption in our homes in order to bring costs down.

Felix Rosiere, Michoud Operation's Energy manager, faces the same problems we do at home. "With Michoud's recent monthly utility bills at a staggering \$1 million, it's imperative that employees be energy misers."

There are many ways to conserve energy at Michoud. "A flick of your finger can save \$30 a year, simply by turning off your desk or office light at the end of the day," Rosiere points out. "It may not sound like much, but we're talking about 12,000 fixtures at a savings of \$360,000 a year!"

Does your area really need to light up like a casino? Then call the Facilities Help Desk at 7-4357

to remove some of those bulbs from the ceiling.

How often do you walk into a large office area and see every computer screen saver on in the room? So maybe it looks like you're on the Space Station deck, but it doesn't take a rocket scientist to figure out you're burning more energy than the shuttle. Every computer that's left on after hours eats up \$200 a year, and with 2,000 computers on the facility that's a whopping \$400,000.

And you can't use the excuse that

or you share equipment with groups that work a later shift, it's not an ITS requirement for you to leave your computer equipment on after hours," said Tom Graham, manager, ITS Operations Support.

All right, so your job requires that you leave your computer on after hours, but turning off your monitor will still save an extra \$30 a year. By the way, that DOESN'T include your printer or copier — add another \$60 savings a year for each one Lockheed Martin uses, and, well, you get the picture.

If you're the last person out, take a moment to turn the lights off in your area. Each employee's monthly share for electricity and gas averages \$380. "So it's very important we all work together to reduce costs,"

Energy Conservation Committee

NASA	Ernie Graham, Chair	7-2604
Facilities & Envir Ops	Felix Rosiere, Co-Chair	7-2578
Program Mgmt & Technical Ops	Ned Coletta	7-2082
Product Assurance	Harry Nelson	7-3281
Human Resources	Gene Hartley	7-3702
Materiel Sourcing	Joe Corona	7-1290
Production Ops	Dick Clavin	7-1634
Business Ops	Emory Hodges	7-3762
	Lisa Buller	7-1361

Information Technology Systems (ITS) requires you to leave your computer on all the time.

"Unless we have a special request for employees to leave their computers on for software updates,

Rosiere reminds us.

Check with your Energy Conservation Committee member to learn more about reducing energy costs.

Saving energy at work and at home benefits everyone.



Two at Marshall receive Snoopy Award

Astronaut Jeff Wisoff (center) recently awarded the Silver Snoopy to Dani Jo Davis (left) and David Newman of Huntsville Technical Operations. Wisoff cited Davis for outstanding performance as test conductor for the Hot Gas Aerothermal Test Facility, and Newman for superior achievement as quality engineer for the ET Composite Nose Cone Production Program.



Astronaut candidates inspect future flight hardware
General foreman Benny Robinson (left center) points out flight hardware to a group of astronaut candidates from the class of 2000. Seventeen candidates visited Michoud recently to learn about the External Tank.

MAF implements on-line technical reporting

During 2000, Michoud Operations spent hundreds of thousands of dollars to resolve technical issues that could have affected the entire inventory of External Tanks. These issues included production, inspection, supplier, tooling items and engineering.

To our NASA customer, these incidents are interpreted as production slips or inattention to detail. The results can affect Mission Success, our reputation as a high quality contractor and program award fees.

The most disturbing point of all is that many of the issues raised in 2000 had been noted previously, but not officially documented up through the technical organization for resolution.

In order to avoid future occurrences, a new on-line Technical Problem Reporting System has been created as a safety net when the normal systems such as Non Conformance Documents and liaison calls have been exhausted or do not seem appropriate to address the concern.

When an issue is received electronically through the problem reporting system, it is reviewed by a committee from the Michoud technical community led by **Gene Horak**, director, Mission Success. The originator - when identified - will receive acknowledgement and disposition status of the item from the committee.

"If you have a technical issue or question that needs to be resolved, use the Technical Problem Reporting System," said Horak. "We all share Mission Success responsibility, and your input is important."

So, when you just can't shake that feeling that something "might" be technically wrong, go to http://maflm503/3000/tp_r_home.htm

A moment of your time on-line may make a difference in achieving 100 percent Mission Success.

Employee Television (Etv) to premier on EWS with splashy graphics

Uh, oh. It may be time to put that TV back on EWS.

On March 5 the Communications department is preparing to unveil **Etv** (Employee Television), a new system that radically expands the capabilities of video programming on EWS.

Etv will go beyond EWS's traditional text-based display by incorporating splashy high impact color graphics, Power Point slides, video, multimedia elements and sound.

Employees will see Space Systems news, Lockheed Martin

stock quotes, local and national news highlights, Mission Success events and employee activities just to name a few.



"Etv will be an exciting new employee information vehicle at Michoud," said **Marion LaNasa**, director, Communications. "I think everyone will enjoy the new look and content."

Etv can be seen on over 50 televisions throughout the facility and will expand to web applications in the future.

For more information on Etv, call Video Services at 7-5523.

Michoud prepares for ISO audit

British Standards Institution (BSI) auditors will check Michoud's ISO 9001 Quality Management System for effectiveness and suitability March 12-14. Auditors will also conduct the Continuing Assessment at Huntsville Technical Operations at MSFC on March 15 & 16 and at KSC on March 20.

Internal Audit will help prepare

departments for the audit by conducting a "clean sweep" assessment of BSI interested areas. Remember, though, BSI's audit trail can lead to any Michoud area.

Training is available for anyone wishing to take a refresher ISO 9001 course. Just contact your ISO representative. Michoud became ISO-certified in November 1999.

Explorers learn how to become “big wheels”

Building on their experiences from last year’s competition, high school and college students from Engineering Explorer Post 314 are gearing up for the 8th Annual Great Moonbuggy competition at Marshall Space Flight Center on April 7 & 8.

For the past three months, both Lockheed Martin-sponsored student teams have worked industriously to complete final designs, build soft tooling, and start fabrication on three moonbuggies they plan to enter in the competition.

“This year we introduced CAD (computer aided design), along with other electronic media to assist students in their designs,” said **Harry Nelson**, Michoud Operations design engineer. “They will also participate in the written presentation portion of the competition for the first time. The paper must explain how and why they developed their product.”

“We are teaching the students basic engineering skills that can be applied to a practical application like the moonbuggy,” summed up **Gordon Dyer**, Michoud’s Community Relations coordinator.

To give the students a taste of real world engineering, corporate sponsor Hayes Brakes who supplied



Explorer scout Greg Forest peers through the sprocket of a moonbuggy as he and his fellow high school students gear up for the Great Moonbuggy Competition at MSFC. Greg is the son of Michoud engineer Bruce Forest.

the braking systems provided an analysis form. Students applied design criteria they developed on the form to determine braking requirements.

“Throughout the entire project, Michoud advisors constantly reinforce to the kids, why we decide to proceed a certain way, or what was the rationale for a particular decision,” Dyer said. This approach paid off last year when the students answered the judge’s questions on their designs with confidence and knowledge, unlike some teams who had to turn to their advisors for answers.

“This is a hands-on project,” explained Michoud engineer **Hale**

Davidson. “The kids are really excited now that they’re out of the chalkboard stage and in the craftsman phase. They’re having a blast applying what they’re learning and seeing it materialize before their eyes.”

In addition to more volunteer advisors, the number of corporate sponsors who have donated materials have more than doubled. And Avis Rent-A-Car and La Quinta Inns have signed on for the second year in a row.

Hopefully, all these resources will translate into an enhanced vehicle design, giving students the chance to make a strong showing in the moonbuggy competition.



Process warriors in training

Thirty Michoud Operations employees recently completed a one-week LM21 Green Belt instruction course in order to serve as facilitators / project leads for Lean and Six Sigma projects across the enterprise. Cost and schedule benefits of continuous process improvement are a priority on the External Tank and other Michoud programs.

Space Shuttle missions in 2001

After the successful February 7th launch of STS-98 that carried the *Destiny* science lab to the International Space Station (ISS), NASA has scheduled seven more shuttle missions in 2001 – five to ISS, one research mission and a Hubble Space Telescope servicing mission.

Date	Flight / ET	Orbiter	Payload
March 8	STS-102 (ET-107)	Discovery	Leonardo Multi-Purpose Logistics Module; swap ISS crew
April 19	STS-100 (ET-108)	Endeavour	Raffaello Multi-Purpose Logistics Module to ISS
June 8 NET*	STS-104 (ET-109)	Atlantis	ISS Airlock
July 12 NET	STS-105 (ET-110)	Discovery	Multi-Purpose Logistics Module; swap ISS crew
Oct. 25 U/R**	STS-107 (ET-93) LWT	Columbia	Research Mission
Nov. 1 NET	STS-108 (ET-111)	Endeavour	Multi-Purpose Logistics Module; swap ISS crew
Nov. 29 U/R	STS-109 (ET-112)	Columbia	Hubble Space Telescope Servicing Mission

*No Earlier Than **Under Review

Abusers beware !

NASA computer policy strictly enforced

Over the past year Information Technology Systems (ITS) has noticed an increase in the amount of Internet traffic. Often, the amount of traffic has slowed legitimate business transactions.

NASA provides off-site communication lines to the Internet and most computer workstations at MAF. NASA policy requires that Michoud monitor activities and take action against anyone misusing government equipment. Lockheed Martin Corporation is involved in similar activities.

"After looking at the cause of the delays, we found a lot of non business-related use," said **Steve Stefancik**, manager, ITS.

Michoud formed a committee to review data, gauge appropriate usage and determine what actions should be taken against those misusing the Internet. Tom Fierke, general counsel, Legal; Karen Weldon, director, ITS; and Hugh Farabaugh, director, Human Resources comprise the committee.

Lockheed Martin isn't the only company investigating computer abuse. Last year Dow fired 50 employees for misusing the Internet. Xerox terminated 40 workers and the *New York Times* and Compaq Computer fired about two dozen employees each.

"We're not trying to be Big Brother, but we are trying to make sure our systems are used in an appropriate manner to support our business," Stefancik said.

"Employees should read carefully

"After looking at the cause of the delays, we found a lot of non business-related use."

the warning notice that appears on their screen as they log in daily.

"The data we receive allows us to review any site on the Internet that any person on this facility has visited. We look at how long they were there, what information they downloaded, how many times they went to the site and the time of day. We can tell if they play games on their computers or run executables like 'frog in a blender' or animated greeting cards."

A common problem is that some employees sit on websites that require continuous action over the Internet like stock market tickers, weather maps or weather channels that constantly feed back and forth. "This uses a lot of our bandwidth," Stefancik said.

WWL-TV, CNN, *USA Today*, weather sites and Ebay rank high in Internet popularity. But some employees are visiting chat rooms and sexually explicit and hate speech sites. That's against NASA and Lockheed Martin policy. It's also against company policy to visit gambling sites or conduct side businesses via e-mail.

"New NASA and Lockheed Martin policies require that we review activities in these areas and impose disciplinary action if misuse is determined," Stefancik said.

Michoud now regularly sends a letter to the top 20 Internet users whose sites are suspect, letting them know that their computer use is being monitored and that disciplinary action may be taken. A copy of the letter is sent to the employee's supervisor.

"If an employee is conducting legitimate company business, they need to reply to the letter," Stefancik said. "If they are not, then they should revise their computer and Internet usage immediately and permanently."

"Since we started this, usage on the Internet has dropped significantly, but still not to the level where it should be," Stefancik added. "We are required to continue to monitor activities."

EMPLOYEE NEWS

Savings Plan info on Web

Employees may now access their savings plan account information at <http://benefits1.external.lmco.com>. To gain access, employees must call 800-444-4015, enter their SSN and PIN, and activate Internet access. Employees can check fund performance, change contribution amounts and investment options or perform loan modeling.

Adoption assistance available

Lockheed Martin has introduced adoption assistance for employees who want to adopt a child. Access the Corporate Policy Statement webpage at <http://policy.global.lmco.com/p3/lockmart/cps/structure/index.html> or call Human Resources at 800-537-9917 for more information.



Meet your new EVO Board for 2001

The Employee Volunteer Organization Board for 2001 includes from left, Holly Carter, secretary; Linda Williams; Bill Burtch; Marlene Crews, ex-officio president; Rob Carey, president; John Spencer; Brenda Retif; and Dee Geraci, treasurer. Not pictured is Marc Church, vice president.

MILESTONES

Employees celebrating anniversaries with Lockheed Martin in January and February:

40 years

Gene Horak
Joe Marcus

30 years

Robert Pecquet

25 years

Viola Blouin
Joseph Carbo
David Rawson
Mililenet Richardson
Timothy Richmond
Stephen Robbins

20 years

Deborah Brown
Thomas Davis
James Hill
Tim Knowles

Jim McAllister

Vicki Seymour

15 years

Stephen Bloomer
Robert Carroll
Jerome Centanni
Eugene Flores
Roland Jones
David Ladner
Lamar Lavergne
Mohammad Masoodi
Michael McBain

Tom Mott

Paula Peres
Brian Scott
Kenneth Warner
Evelyn Wicker
John Windham

10 years

Tammy Bourgeois
Jerry Greenwood
Kenneth Kelly
Paul McKean

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