### NOTICE IG-98-038

This report contains material legally exempt from release to the public under exemption (b)(5) of the Freedom of Information Act, 5 USC 552(b)(5) (attorney/client privileged communications). However, NASA has decided to make a discretionary release of this material in accordance with policy issued by President Clinton and Attorney General Reno on October 4, 1993.

W	September 30, 1998
TO:	DA01/Center Director, Marshall Space Flight Center
FROM:	W/Assistant Inspector General for Auditing
SUBJECT:	Final Report on the Commercial Use of the Santa Susana Field Laboratory Assignment Number A-HA-98-033 Report Number IG-98-038

This subject report is provided for your use. Please refer to the executive summary for the overall audit results. Your comments on the draft report were responsive to our recommendations. We request that you provide estimated completion dates for recommendations 1 and 3. We consider recommendations 2 and 4 to be closed.

If you have questions concerning the report, please contact Mr. Chester A. Sipsock, Program Director for Financial and Environmental Management Audits, at (216) 433-8960, or Ms. Ellen Norris, Auditor-in-Charge, at (818) 354-9756. We appreciate the courtesies extended to the audit staff. The report distribution is in Appendix G.

#### [Original signed by]

Russell A. Rau

Enclosure

cc: **B**/Chief Financial Officer G/General Counsel H/Acting Associate Administrator for Procurement JM/Director, Management Assessment Division M/Associate Administrator for Space Flight

**IG-98-038** 

# AUDIT REPORT

## COMMERCIAL USE OF THE SANTA SUSANA FIELD LABORATORY

**SEPTEMBER 30, 1998** 

**OFFICE OF INSPECTOR GENERAL** 



National Aeronautics and Space Administration

### ADDITIONAL COPIES

To obtain additional copies of this report, contact the Assistant Inspector General for Auditing at 202-358-1232.

### SUGGESTIONS FOR FUTURE AUDITS

To suggest ideas for or to request future audits, contact the Assistant Inspector General for Auditing. Ideas and requests can also be mailed to:

Assistant Inspector General for Auditing NASA Headquarters Code W 300 E St., SW Washington, DC 20546

### NASA HOTLINE

To report fraud, waste, abuse, or mismanagement, contact the NASA OIG Hotline by calling 1-800-424-9183, 1-800-535-8134 (TDD), or by writing the NASA Inspector General, P.O. Box 23089, L'Enfant Plaza Station, Washington, D.C. 20026. The identity of each writer and caller can be kept confidential, upon request, to the extent permitted by law.

### ACRONYMS

CSLA	Commercial Space Launch Act
FAR	Federal Acquisition Regulation
MSFC	Marshall Space Flight Center
SSFL	Santa Susana Field Laboratory

## **TABLE OF CONTENTS**

EXECUTIVE SUMMARY	1
INTRODUCTION	3
FINDING AND RECOMMENDATIONS	4
MSFC AUTHORIZATION OF RENT-FREE USE	4
APPENDIX A - OBJECTIVES, SCOPE, AND METHODOLOGY	12
APPENDIX B - ASSISTANT ADMINISTRATOR FOR PROCUREMENT LETTER	14
APPENDIX C - ASSOCIATE GENERAL COUNSEL LETTER	19
APPENDIX D - CALCULATION OF RENTAL CHARGES	23
APPENDIX E - MANAGEMENT'S RESPONSE	25
APPENDIX F - AUDIT RESPONSE TO GENERAL COMMENTS	29
APPENDIX G - REPORT DISTRIBUTION	32

## COMMERCIAL USE OF THE SANTA SUSANA FIELD LABORATORY

### **EXECUTIVE SUMMARY**

#### BACKGROUND

The Rocketdyne Division of Boeing North American, Inc., has operated the Santa Susana Field Laboratory (SSFL) facility as a Government-owned, contractor-operated facility since 1962. Rocketdyne performs rocket engine testing at the SSFL for the Air Force, NASA, and other customers. The Federal Acquisition Regulation (FAR) and the SSFL facility contract provisions require Rocketdyne to pay NASA rent for commercial use of Governmentowned facilities.

Rocketdyne's commercial use of the NASA-owned, SSFL facility began when a portion of Rocketdyne's work under the Air Force's launch vehicle program became commercial. As a result of the Commercial Space Launch Act (CSLA) of 1984, the Air Force began expanding its procurements to include launch vehicles intended for commercial use. The CSLA promotes the commercialization of launch vehicles by facilitating and encouraging private sector use of Government-developed space technology. Rocketdyne's commercialization effort at the SSFL has been performed under subcontracts with McDonnell Douglas and General Dynamics (subsequently renamed Martin Marietta and currently called Lockheed Martin), the Air Force's prime contractors for the Delta and Atlas/Centaur launch vehicles. Rocketdyne subcontracts began in January 1986 and May 1989, respectively.

**OBJECTIVES** The overall objective of the audit was to determine whether the Agency has been receiving adequate reimbursement for commercial use of NASA-owned SSFL facilities. Specifically, we determined whether:

- Rocketdyne received reimbursement from its commercial customers associated with the commercial use of the facility;
- NASA authorized Rocketdyne's use of the facility for commercial business; and
- Rocketdyne adequately reimbursed NASA for commercial use of the facility.

Additional details on the audit scope and methodology are in Appendix A.

**RESULTS OF AUDIT** Rocketdyne had not received reimbursement from its commercial customers associated with the commercial use of the facility. Rocketdyne's contracts with these customers did not include rental costs.

The Marshall Space Flight Center (MSFC) inappropriately authorized Rocketdyne to use NASA-owned facilities at the SSFL on a rent-free basis for commercial business, rather than charging Rocketdyne rent.<sup>1</sup> NASA's Assistant Administrator for Procurement notified MSFC that the authorizations were inconsistent with NASA Headquarters policy; however, MSFC did not revise them. MSFC allegedly never received the notification from the Administrator. As a result, Rocketdyne has not adequately reimbursed NASA for its commercial use of the facility. NASA could collect about \$3.1 million in rent from Rocketdyne through the year 2003.<sup>2</sup>

- **RECOMMENDATIONS** We recommend that MSFC withdraw its existing authorizations and contract provisions, charge Rocketdyne rent for its future commercial use, and recover rent for past commercial use.
- **MANAGEMENT** Management concurred with our recommendations. **RESPONSE**

<sup>&</sup>lt;sup>1</sup> We identified this condition during the audit of "Cost Sharing for Santa Susana Field Laboratory Cleanup Activities," (Report No. IG-98-024, dated August 18, 1998).

<sup>&</sup>lt;sup>2</sup> Because Air Force programs may have been similarly affected, we have referred this issue to the Department of Defense Inspector General.

### INTRODUCTION

The SSFL, in eastern Ventura County, California, is divided into four areas (Areas I, II, III, and IV). Although Rocketdyne owns the majority of the facility, NASA owns a portion of the facility, including Area II, which includes several buildings and four rocket engine test stands. NASA acquired its portion of the SSFL from the Air Force in 1973 for use on various contracts, including the most recent Space Shuttle Main Engine program. The Air Force owned Area II before 1973. However, in 1962, the Air Force and NASA entered into an agreement for joint use of the facility. Since 1962, NASA has provided the facility to Rocketdyne through two separate facility contracts for its use in performing NASA contracts. MSFC, Huntsville, Alabama, manages the NASA facility contracts.

### FINDING AND RECOMMENDATIONS

The MSFC improperly authorized Rocketdyne to use NASA-**MSFC** owned SSFL Area II facilities on a rent-free basis in support of **AUTHORIZATION OF** Rocketdyne's commercial launch vehicle effort. In addition, MSFC **Rent-Free Use** files do not adequately document its authorizations. MSFC inappropriately based its authorizations on the CSLA of 1984, which essentially provides rent-free use of launch property to support the commercialization of launch vehicles. However, the Area II facilities are production-type property and, therefore, do not fall under the CSLA definition of launch property. Instead, they fall under the FAR. NASA could collect about \$3.1 million from Rocketdyne for commercial use of the SSFL through the year 2003. **Contractual Requirements** FAR Part 45 provides policies and procedures for contractor use and FAR Guidelines of Government-owned property. Part 45.102 states that contractors ordinarily use their own property to perform

contractors ordinarily use their own property to perform Government contracts. Yet in some circumstances, addressed by FAR 45.302, the Government provides property to contractors. When providing Government-owned property, contracting officers must eliminate any competitive advantage that might arise from the contractor's use of the property. FAR 45.201 states that this is done by adjusting the contractor's offer by applying an evaluation factor equal to the rent that would have been charged. FAR 45.202-2 and 45.203 state that the competitive advantage is to be eliminated by charging rent if the application of the evaluation factor is impractical or the contract has already been awarded. However, FAR 45.404(c) states that rent-free use can be provided if the contracting officer has obtained adequate consideration.<sup>3</sup> FAR 45.401 provides that, in general, Government use is rent-free, and non-Government use is on a rental basis.

MSFC's two facility contracts, NAS8-5609(F), effective in August 1962, and NAS8-39236(F), effective in July 1992, both contain the "Use and Charges" clause. This clause, prescribed by FAR 45.302-6(c), states that the terms of the contractor's use of Government-owned facilities, whether on a rental or rent-free basis, must either be authorized by the contracting officer in

<sup>&</sup>lt;sup>3</sup> Consideration can mean reduced contract price or other compensation.

writing or be specified in contracts. Consistent with this clause, both contracts contain specific provisions allowing the contractor rent-free use of the Area II facilities for certain production contracts and for other contracts as authorized in writing by the contracting officer or his authorized representative.

MSFC Approves Rent-<br/>Free Use for CommercialBecause Rocketdyne's past launch vehicle effort was strictly for<br/>the Government, Rocketdyne's use of the Area II facility was on a<br/>rent-free basis. Yet MSFC officials continued to authorize<br/>Rocketdyne's rent-free use when its commercial work began in<br/>the late 1980's. The MSFC contracting officer cognizant over the<br/>facility contract and his authorized representative provided the<br/>first series of authorizations. These authorizations were provided<br/>from 1987 through 1990, covering various contract performance<br/>periods from August 1987 through December 1993.

The authorizations allowed Rocketdyne's rent-free use for commercial business, except for one authorization issued by the contracting officer in 1988. That authorization allowed use on a rental basis for the contract performance period of December 1989 through February 1992. However, the NASA Resident Office Manager, a delegated representative of the contracting officer, for the same period, issued subsequent rent-free use authorizations to Rocketdyne. As a result, the rental basis authorization was essentially superseded.

Rocketdyne's Director of Contracts and Pricing told us that Rocketdyne did not pay rent since the Government received benefits in the form of facility upgrades and reduced engine system prices. However, we found no documentation evidencing NASA's acceptance of these benefits as consideration received in lieu of rent. The NASA Resident Office Manager, however, stated in a December 1990 internal memorandum that the Government is receiving a price break on launch services, based on the rent-free use of the Government facilities. Yet, he made no contact with NASA procurement officials responsible for procuring launch vehicle services to determine whether NASA, in fact, received price breaks.

In late 1990, MSFC officials began to take the position that the commercial use of Area II was covered under the authority of the CSLA. In August 1991, MSFC issued two rent-free use

authorizations on the basis of the CSLA. MSFC's Assistant Director for Policy and Review issued the authorizations, with the concurrence of MSFC's Center Director, Procurement Officer, and Assistant Chief Counsel, among other MSFC officials.

The authorizations were not directed to Rocketdyne, but to its prime contractors, General Dynamics and McDonnell Douglas in accordance with their CSLA agreements with NASA. In 1987 and 1988, respectively, NASA Headquarters signed agreements with these two prime contractors in support of the commercial Atlas/Centaur and Delta launch vehicle programs. However, the General Dynamics CSLA agreement was not consistent with the CSLA, because the agreement included production facilities, including the SSFL Area II facilities. Yet, the CSLA is applicable only to launch property. Nonetheless, NASA renewed the agreement with General Dynamics in 1993 and removed all references to production facilities, including Area II.

MSFC made reference to the agreements with the two prime contractors in the current facility contract with Rocketdyne upon its execution in July 1992. Section G.7 of NASA Contract NAS8-39236(F) states that Rocketdyne is authorized to use the facility on a rent-free basis for commercial launch vehicle production covered under current NASA agreements. As a result, Rocketdyne is still using the authorizations as current authority for rent-free use.

The Commercial SpaceThe CSLA (originally 49 U.S.C. 2601-23, now 49 U.S.C. 701)Launch Actallows agencies to provide the use of Government launch property<br/>and/or launch services in support of commercial space launch<br/>activities.<sup>4</sup> The CSLA does not specifically authorize rent-free use.<br/>Section 70111(b) (originally 2614(b)(1) of the CSLA) requires<br/>reimbursement of direct costs that are unambiguously associated<br/>with the commercial launch effort and that the Government would<br/>not incur if there was no commercial launch effort. The Use and<br/>Charges clause in NASA's facility contract with Rocketdyne bases<br/>the rent calculation on NASA's acquisition cost of the facility. In<br/>May 1998, NASA's Associate General Counsel (Commercial) told<br/>us that NASA does not allocate its facility acquisition cost on a

<sup>&</sup>lt;sup>4</sup> Section 2603(3) of 49 U.S.C. defines launch property as "propellants, launch vehicles and components thereof, and other physical items constructed for use in launch preparations or launch of a launch vehicle."

per-use basis. Therefore, the Agency cannot unambiguously associate that cost with its users. In addition, a March 1993 guidance letter issued by NASA's Associate General Counsel (Contracts) also stated that, in practice, facility wear and tear costs resulting from commercial use are often minimal. Therefore, the CSLA essentially provides rent-free use of launch facilities.

In December 1992, NASA's Assistant Administrator for Procurement issued a letter to the MSFC Procurement Officer, stating that the August 1991 authorizations are inconsistent with NASA Headquarters policy (see Appendix B). The Assistant Administrator's letter stated that the CSLA applies only to launch property and, therefore, does not include production facilities. Because the Area II facility is a non-CSLA facility, its use should be charged under the Use and Charges Clause of the FAR. The Assistant Administrator requested MSFC to review the authorizations and either revise or withdraw them. The Assistant Administrator added that the authorization of rent-free use for commercial purposes is unusual and that justification should be well documented.

The Assistant Administrator for Procurement also took exception to MSFC issuing the authorizations to the Air Force's prime contractors, rather than to Rocketdyne through its facility contract provisions. Specifically, the Assistant Administrator pointed out that there is no direct use of the facilities by either of the prime contractors and that NASA has no direct contractual relationship with the two contractors. In addition, NASA cannot provide the facility to the prime contractors, as the facility is accountable to Rocketdyne under the facility contract and, therefore, is not in NASA's possession.

In March 1993, NASA's Associate General Counsel (Contracts) issued guidance to all NASA Installation Chief Counsels (see Appendix C). The purpose of the guidance was to provide a "consistent interpretation and application of authorities for making NASA property available to contractors engaged in commercial launch activities." The guidance provides a clear definition of the CSLA term "launch property." The guidance states that production property was deliberately omitted from the CSLA's definition of launch property, because FAR guidelines cover the commercial use of this type of property. The Associate General

#### NASA Headquarters Position on Use of the SSFL

Counsel's guidance states that production property cannot be made available under the authority granted by the CSLA. Instead, the contractor must pay rent in accordance with the Use and Charges clause.

MSFC officials have not revised or withdrawn the rent-free authorizations to Rocketdyne, claiming that they had not received the Assistant Administrator for Procurement's December 1992 letter. Officials from the Assistant Administrator's office stated that they did not recall receiving a reply from MSFC. In addition, MSFC officials claim they had no knowledge of the Associate General Counsel's 1993 guidance.

Unfair CompetitiveBecause MSFC did not charge rent for Rocketdyne's commercial<br/>use of Area II, Rocketdyne and its prime contractors may have<br/>received an unfair competitive advantage from their use of the<br/>Government property. We estimated Rocketdyne's cost savings<br/>associated with the rent-free use at about \$3.1 million (see<br/>Appendix D).

This savings could have affected both Rocketdyne's and its prime contractors' ability to win commercial launch vehicle contracts. In accordance with FAR, contracting officials should have eliminated any competitive advantages gained by the rent-free use of the Government-owned property. Because the launch vehicle program is procured under Air Force contracts, we do not have insight into whether competitive advantages were eliminated. As a result, we have referred the matter to the Department of Defense Inspector General.

*Contract Files at MSFC* The official facility contract files at MSFC contain no documentation on the authorizations for Rocketdyne's rent-free use of the SSFL. As a result, we had to obtain the majority of the documentation from Rocketdyne and from MSFC's Legal Office. However, because those files are not the official files, we cannot be assured that the documentation we received is complete.

The FAR requires the contracting officer and his representatives to adequately document decisions in the facility contract files. FAR 4.801 requires sufficient documentation to provide a basis for informed decisions, to support actions taken, to provide information for reviews and investigations, and to furnish essential facts in the event of litigation or congressional inquiries. FAR 4.805(b) prescribes minimum retention periods for 13 types of documents. Although FAR does not specifically describe documents pertaining to the contractor's use of a Government facility, FAR 4.805(b)(11) requires that documents other than those specified are to be retained for at least 6 years and 3 months after final payment of the contract. In this case, final payment on facility contract NAS8-5609(F) has not yet been made, and contract NAS8-39236(F) is still current.

- Conclusion The rent NASA should have received by Rocketdyne for its commercial use of the Area II facilities is significant. In 1990, Rocketdyne estimated the rental value at \$420,000 for a 5.5 year Delta performance period, and a 2-year Atlas/Centaur performance period. Rocketdyne based this estimate on a 36 percent Delta commercial share and a 25 percent Atlas/Centaur commercial However, since Rocketdyne's 1990 estimate, the share. performance period has expanded to 14 and 17 years and the commercial share has increased to 57 and 60 percent, for the two programs, respectively. As a result, we recalculated an estimated rent to reflect these changes (see Appendix D). We estimated that the rent associated with Rocketdyne's commercial Delta and Atlas/Centaur use of the Area II facility is about \$3.1 million for the entire launch vehicle production period. These funds could be put to better use if NASA collects rent associated with Rocketdyne's commercial use of the Area II.
- **RECOMMENDATION 1** The Director, MSFC, should withdraw existing authorizations and contract provisions, eliminating the CSLA as the authority for rent-free use of the NASA-owned Area II facilities.
- MANAGEMENT'SConcur. The MSFC Center Director or authorized delegate will<br/>ensure that any improper authorizations currently in effect, which<br/>site the CSLA as authorization for rent-free use of the NASA-<br/>owned Area II facilities are withdrawn. The complete text of<br/>management's comments is in Appendix E.

Evaluation of Management's Response	MSFC's planned action is responsive to the recommendation. Although management's response refers to authorizations, it is not clear that the response also covers contract provisions. We believe that facility contract provisions should also be revised to remove references to the CSLA, because the CSLA is not applicable to any of the SSFL facilities under the NASA facilities contract.
<b>RECOMMENDATION 2</b>	The Director, MSFC, should charge Rocketdyne rent for its future commercial use of the NASA-owned Area II facilities, in accordance with FAR.
Management's Response	Concur. The contracting officer will ensure that rent or other adequate consideration is received from Rocketdyne for its future use of the NASA-owned Area II facilities.
Evaluation of Management's Response	MSFC's planned action is responsive to the recommendation.
<b>RECOMMENDATION 3</b>	The Director, MSFC, should pursue recovery of rent for Rocketdyne's past commercial use of the NASA-owned Area II facilities.
Management's Response	Concur. The contracting officer will take recovery action with respect to unauthorized use of Government facilities. However, management noted that any legal basis to collect rent for use of production facilities during the period that the Government authorized use under the CSLA is at best tenuous. The report suggests that there is evidence the Government may have received consideration in exchange for use of the production facilities. Prior to seeking recovery of rent, an analysis will have to be accomplished to determine whether adequate consideration was, in fact, obtained by the Government. In the event that it is determined adequate consideration was not obtained, recovery action will be undertaken.
Evaluation of Management's Response	MSFC's planned action is responsive to the recommendation. We agree that such an analysis is essential to MSFC's recovery process. We suggest that the analysis be promptly completed by the contracting officer so that recovery efforts can take place as soon as possible.

<b>R</b> ECOMMENDATION 4	The Director, MSFC, should direct MSFC to document and retain its official contract files as prescribed by the FAR.
Management's Response	Concur. The Director, MSFC, will ensure that the MSFC official contract files are documented and retained as prescribed in accordance with the FAR.
Evaluation of Management's Response	MSFC's planned action is responsive to the recommendation. Additionally, Appendix F contains other comments from management concerning the presentation of the finding and our responses to those comments.

## **OBJECTIVES, SCOPE, AND METHODOLOGY**

### **OBJECTIVES**

The overall objective of the audit was to determine whether NASA has been receiving adequate reimbursement for commercial use of NASA-owned SSFL facilities. Specifically, we determined whether:

- Rocketdyne received reimbursement from its commercial customers associated with the commercial use of the facility.
- NASA authorized Rocketdyne's use of the facility for commercial business.
- Rocketdyne adequately reimbursed NASA for use of the facility for commercial business.

## SCOPE AND Methodology

We reviewed both Agency and Rocketdyne records associated with the commercial use of the SSFL facilities. The records included facility contracts NAS8-5609(F), effective in August 1962, and NAS8-39236(F), effective in July 1992, and their associated contract files; Rocketdyne requests and agency authorizations for facility use; and Rocketdyne solicitations for its commercial work. We also reviewed applicable laws and regulations, including the FAR and the CSLA.

We interviewed officials at MSFC, including officials of the Chief Counsel's Office, Chief Financial Officer's Office, past and present procurement officers, contracting officers, and other officials who had authorized Rocketdyne's use of the SSFL. At Rocketdyne, we interviewed the Director of Contracts and Pricing and the Property Administrator. We also interviewed Defense Contract Management Command contract administration officials. At NASA Headquarters, we interviewed the Deputy Director and Senior Procurement Analyst from the Office of the Director of Procurement, members of the General Counsel's office, and the Director of Expendable Launch Vehicle Requirements from the Office of Space Flight.

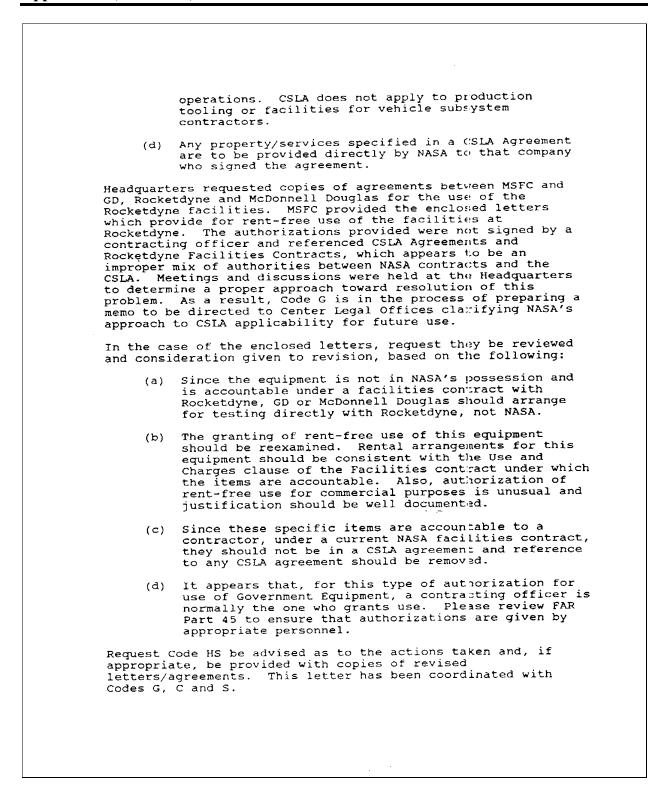
Management Controls Reviewed	We reviewed MSFC's process for authorization of commercial use of Government property to determine whether controls were adequate to ensure conformance with appropriate laws and regulations. In general, we found that MSFC's controls need improvement, based on the finding addressed in this report.
Audit Field Work	We performed field work from April through June 1998 at Rocketdyne's De Soto and Canoga facilities and at MSFC. The audit was performed in accordance with generally accepted

Government auditing standards.

### Appendix B

# ASSISTANT ADMINISTRATOR FOR PROCUREMENT LETTER

	National Aero Space Admini		
	Washington [ 20546	DC	
ار، او Atte	HS/5117MS		,1992
	то:	Marshall Space Flight Center Attn: Charles E. Henke Procurement Officer	
	FROM:	Assistant Administrator for Procurement	
	SUBJECT:	MSFC Agreements for Commercial Use of NASA Facilities	Test
	authoriza manner th policy. authoriza	ome to our attention that MSFC has provided ations for third party use of NASA facilities hat is inconsistent with current NASA Headque This letter will request that MSFC review th ations given and consider revision or withdre ummary of the Headquarters policy provided he	irters Ne Wal, based
	terms and Launch Ac NASA engi Rocketdyn Douglas.	s negotiations with General Dynamics (GD) ove d conditions of a new Headquarters Commercial ot (CSLA) Agreement, a key issue has been GD ine test facilities maintained under contract ne. The same situation appears to exist with The NASA Headquarters position on the autho of this equipment is:	Space access to with McDonnell
	(a)	Use of the facilities to test motors for GE McDonnell Douglas' launch vehicle programs accomplished through arrangements directly Rocketdyne, especially since there is no di of the facilities by either GD or McDonnell Since Rocketdyne performs the testing and d tested products to their customers, GD and Douglas, these relationships are covered th their own contractual arrangements and the Charges clause of the FAR. NASA has no dir relationship with either GD or McDonnell Do these cases and should not be involved.	should be with rect use Douglas. lelivers McDonnell brough Use and rect
	(b)	Use of the non-CSLA facilities, such as the stands at Rocketdyne, to support commercial like GD's and McDonnell Douglas', will be c under the Use and Charges clause of the FAR the direct cost provisions of the CSLA.	programs harged
	(C)	NASA has interpreted the CSLA as limited to	



Any questions should be directed to Harold Nelson, Code HS, at (202) 358-0440. G. Bush Don Enclosures ÷ . 3 4 - A . A . A . A

National Aeronautics and Space Administration George C. Marshall Space Flight Center ٠ Marshall Space Flight Center, Alabama 35812 AC(205)544-2121 AUG 3 0 1991 DR01 Anter to Arts of Mr. James Jones Subcontract Administrator McDonnell Douglas Space Systems Company Delta II Follow-on Program 5301 Bolsa Avenue Huntington Beach, CA 92647 Dear Mr. Jones: In accordance with the terms of the Agreement Between NASA and McDonnell Douglas Corporation for Support to the Commercial Delta Program, Agreement Number 1042-007, you are hereby authorized rent-free use of government-owned facilities and manufacturing equipment accountable under Facilities Contract NASS-5609(F) and NASS-40000 at the Santa Susana field Laboratory and Canoga Park SSME manufacturing facility. Use shall be on a noninterference basis with NASA programs and other government programs authorized by NASA. These facilities and equipment are to be used only for the Commercial Delta Program. All of the terms and conditions contained in the agreement remain in full force and are applicable to the use of the specified facilities and equipment. Please acknowledge receipt of this letter below and return to my office. Sincerely, • .-Sman (ila Susan Cloud Assistant Director for Policy & Review Acknowledged receipt on\_ Ву\_\_\_

	National Aeronautics and Space Administration	MVZV
	George C. Marshell Space Flight Center Marshell Space Flight Center, Alabama 35812 AC(205)544-2121	
Hughy III Alth al.	DRO1 AUG 30 1	199
	Mr. M. L. Griffith Procurement Administrator General Dynamics Space Systems Division P. O. Box 85212	
	San Diego, CA 92186-5212	
	Dear Mr. Griffith:	
	In accordance with the terms of the Agreement Between NAS General Dynamics Corporation for Private Sector Operation Atlas/Centaur Expendable Launch Vehicles, Agreement Number 100-003, you are hereby authorized rent-free use of government-owned facilities and manufacturing equipment accountable under Facilities Contract NASS-5609(F) and NASS-40000 at the Santa Susana Field Laboratory and Canop SSME manufacturing facility. Use shall be on a moninteri- basis with NASA programs and other government programs authorized by NASA. These facilities and equipment are to used only for the private sector operation of Atlas/Cents expendable launch vehicles.	n of er ga Park ference to be
	All terms and conditions contained in the agreement rema: full force and are applicable to the use of the specified facilities and equipment.	ln in j
	Please acknowledge receipt of this letter and return to a office.	ру
	Sincerely,	
	Susan Cloud Assistant Director for Policy 5 Review	
	Acknowledged receipt on	
	By	
	· · · ·	

## Appendix C

# ASSOCIATE GENERAL COUNSEL LETTER

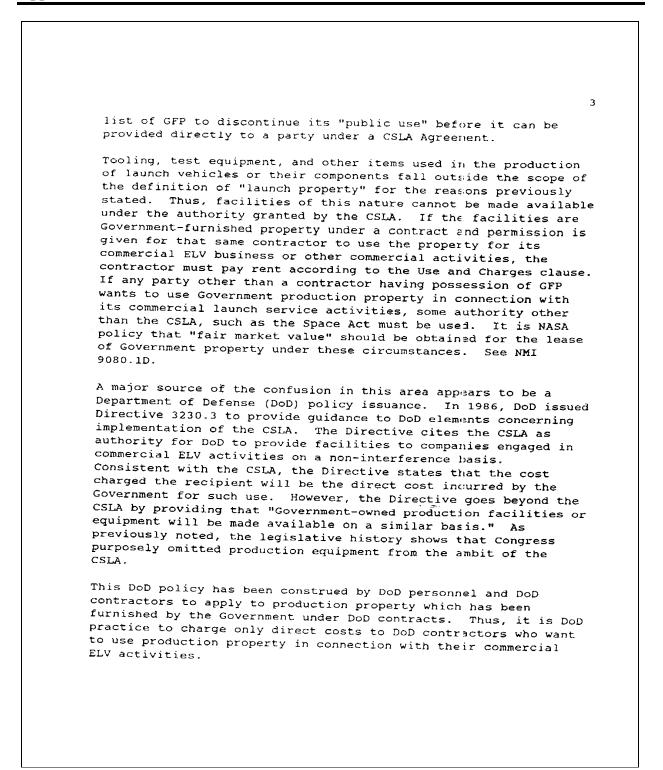
	Aeronautics and Iministration
Washing 20546	on DC
GK	March 10, 1993
то:	NASA Installations Attn: All Chief Counsels
FROM:	GK/Associate General Counsel (Contracts)
SUBJECT	: Commercial Use of NASA Facilities
1984, t Governm service two agr questio we migh authori	the enactment of the Commercial Space Launch Act (CSLA) in there has been disagreement and confusion about the use of ent property by contractors providing commercial launch s. This situation has led to the execution of at least elements at NASA centers, which in our view appear hable. The guidance in this memorandum is offered so that t have consistent interpretation and application of the ties for making NASA property available to contractors in commercial launch activities.
growth of facilit; technolo NASA is property	the primary purposes of the CSLA is to encourage the of the U.S. expendable launch vehicle (ELV) industry by ating the commercial use of Government-developed ELV ogy. (49 U.S.C. App. 2602). To carry out this policy, authorized to lease to the private sector "launch of the United States which is not needed for use," i.e., on a non-interference basis. (49 U.S.C. App.
equal t and dama esult c osts" i e unamb ould no hese co	es, the statute directs the amount of the payment to be o the direct costs (including any specific wear and tear ge to the property) incurred by the United States" as a f the lease. (49 U.S.C. App. 2614(b)). The term "direct s defined in this section as "the actual costs that can iguously associated with a commercial launch effort" and t otherwise be incurred by the Government. In practice, sts are often minimal, resulting in essentially rent- of "launch property" by contractors.

A critical issue in this discussion centers around the definition of the term "launch property." In 49 U.S.C. App. 2603(3), "launch property" is defined to include three categories of items. These are (1) "propellants"; (2) "launch vehicles and components thereof"; and (3) "other physical items constructed for or used in the launch preparation or launch of a launch vehicle." The legislative history of the CSLA provides helpful clarification as to what types of property are excluded from this definition. More specifically, the accompanying report states that "any reference to 'tooling' of a launch vehicle and items used in the 'manufacture' of a launch vehicle" were deliberately omitted from the definition. The report explains that such production property is likely to have multiple ard mixed uses. Since the FAR contains specific guidelines to cover this situation, the report concludes that it would be inappropriate to include ELV production property in the concept of "launch property" for purposes of the CSLA. (Sen. Rep. 98-656, Oct. 3, 1984).

2

As recognized by the Congress, FAR Subpart 45.4 contains policy and guidance concerning the commercial use by contractors of Government-owned equipment. As provided in FAR 45.401, non-Government or commercial use of Government property in the possession of contractors and subcontractors is on a rental basis. The purpose of this policy requiring the payment of rent is to prevent conferring a competitive advantage on Government contractors in their commercial activities by virtue of the fact that they have Government property in their possession. This policy is carried out by the insertion of the Use and Charges clause, FAR 52.245-9, in contracts. The amount of rent is computed pursuant to the clause and is generally related to the prevailing commercial rate. (Note that under special circumstances, rent-free use may be authorized. FAR 45.404.)

Given this background, it seems clear that only property which meets the statutory definition of "launch property" may be leased to contractors under the authority of the CSLA on a direct cost basis. Moreover, NASA provides access to property, which validly qualifies as launch property, by entering into "CSLA Agreements" <u>directly</u> with the user or company engaged in ELV work. Therefore, if launch property happens to be in the possession of a NASA contractor under a contract, it must be deleted from the



4 In our view, this practice contravenes the CSLA, as discussed in the legislative history, and constitutes a deviation from the FAR. As a general matter, our interpretation maintains a clear distinction between CSLA Agreements and the FAR. There is, however, another more specific and compelling reason for not adopting DoD's policy. The CSLA is intended to cover launch activities and launch range operations, not launch vehicle production. The licensing and insurance/indemnification provisions of the CSLA apply only to those activities. By assessing direct costs for the use of Government production property, it appears that the CSLA is being applied to launch vehicle production activities. Thus, it can be argued that the indemnification provisions of the CSLA also extend to production activities. This interpretation, if accepted, would dramatically expand the Government's exposure to third party claims for loss or damage to persons and property. It is, therefore, important to avoid any suggestion that the CSLA extends to the production of vehicles. When contractors who have operated under the DoD policy deal with NASA, they expect the same results. In the interests of saving money, they will bring pressure to bear on our contracting officers to be charged direct costs rather than normal rental fees for the use of tooling, special test equipment, and other production property. I hope the foregoing information helps you provide advice concerning the proper authority and the correct charges for the use of Government facilities in support of commercial launch activities. Please feel free to contact David Gayle or myself if you have any questions concerning this subject.

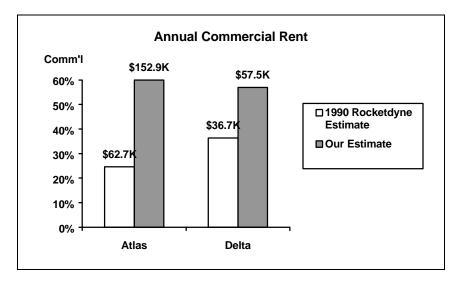
WW

David P. Forbes Associate General Counsel (Contracts)

cc: G/Mr. Frankle GS/Ms. Edwards

## **CALCULATION OF RENTAL CHARGES**

In 1990, Rocketdyne performed an estimated rental calculation, preceding MSFC's 1991 decision to authorize rent-free use of the SSFL Area II facility under the authority of the CSLA. At that time, Rocketdyne based its calculation on an estimated commercial business percentage and performance period for the Atlas Centaur and Delta programs. Rocketdyne did not subsequently recalculate the estimate, even though the commercial percentages increased significantly and the performance periods have been extended. In June 1998, Rocketdyne provided us with updated commercial percentages and performance periods. Using Rocketdyne's 1990 calculation, we recalculated rent attributable to the commercial programs using the increased commercial percentage and extended performance periods. The chart shows both Rocketdyne's and our estimates:



The details of Rocketdyne's and our calculations are as follows:

#### **Commercial Atlas/Centaur Program**

**1990 Rocketdyne Estimate:** Rocketdyne estimated that the total Atlas rental expense (for both Government and commercial use)<sup>5</sup> for a 66-month period was \$1,401,866 (which equates to \$254,885 annually). Rocketdyne estimated the commercial percentage for this period from March 1989 through December 1995 to be 24.59 percent. As a result, Rocketdyne's calculated rent for its commercial Atlas program for the 66-month period totaled \$344,719 (which equates to \$62.676 annually).

<sup>&</sup>lt;sup>5</sup> Rocketdyne calculated the estimated rental expense using labor hours, acquisition value of property, and FAR rental rate specified in the Use and Charges Clause of NASA's contract NAS8-39236(F) with Rocketdyne.

• **Our Estimate:** We recalculated the rental expense attributable to Rocketdyne's commercial Atlas use, using Rocketdyne's 1990 estimated rental expense, but applying Rocketdyne's 1998 estimated commercial share and extended performance period. According to Rocketdyne, 60 percent of its engines are attributable to the commercial Atlas program for the entire program performance period of May 1989 through September 2003.<sup>6</sup> Applying this 60 percent to Rocketdyne's estimated annual rental expense of \$254,885, we estimated the annual rent attributable to the commercial Atlas program at \$152,931.<sup>7</sup> For the 14-year performance period, we estimated the rent at \$2,141,034.

#### **Commercial Delta Program**

- **1990 Rocketdyne Estimate:** Rocketdyne estimated that the total Delta rental expense (for both Government and commercial use, see footnote 5) for a 25-month period was \$210,313 (which equates to \$100,950 annually). Rocketdyne estimated the commercial percentage for this period from May 1988 through January 1991 to be 36.36 percent. As a result, Rocketdyne's calculated rent for its commercial Delta program for the 25-month period totaled \$76,470 (which equates to \$36,706 annually).
- **Our Estimate:** We recalculated the rental expense attributable to Rocketdyne's commercial Delta use, using Rocketdyne's 1990 estimated rental expense, but applying Rocketdyne's 1998 estimated commercial share and extended performance period. According to Rocketdyne, 57 percent of its engines are attributable to the commercial Delta program for the entire program performance period of January 1986 through the year 2002.<sup>6</sup> Applying this 57 percent to Rocketdyne's estimated annual rental expense of \$100,950, we estimated the annual rent attributable to the commercial Delta program at \$57,542.<sup>7</sup> For the 17-year performance period, we estimated the rent at \$978,214.

Program:	Period of Performance	<b>Commercial %</b>	<b>Estimated Rent</b>
Atlas/Centaur	May 1989 - Sept. 2003	60%	\$2,141,034
Delta	January 1986 - 2002	57%	\$978,214
		Total:	\$3,119,248

The following table shows a summary of our estimate:

<sup>&</sup>lt;sup>6</sup> Rocketdyne's 1998 estimated commercial share percentage is an average over the entire performance period. Percentages for individual years varied, ranging from approximately 25 percent in earlier years to as much as 73 percent in later years.

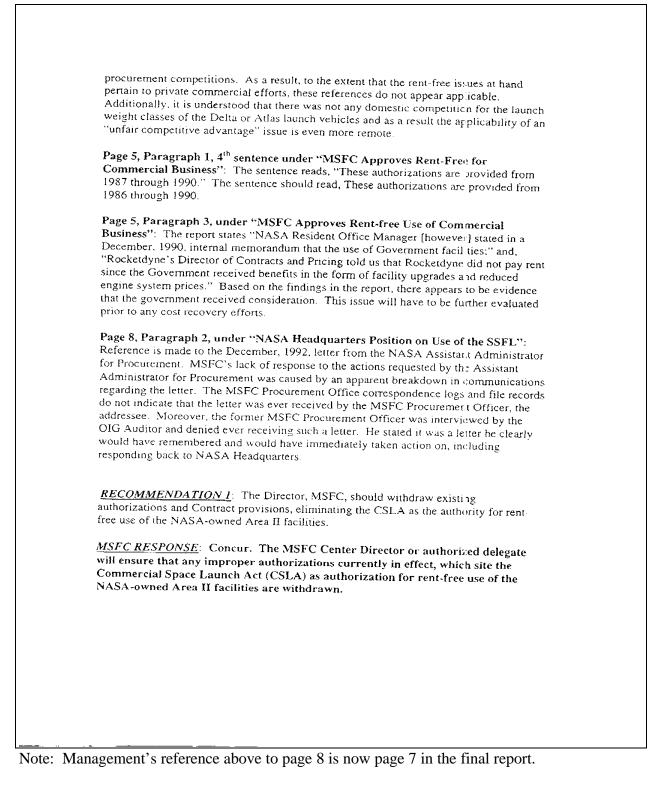
<sup>&</sup>lt;sup>7</sup> Our estimated annual rent does not consider any changes in the factors Rocketdyne used to estimate its rental expense. In addition, our estimated annual rent is an annual average; rental rates for each year may vary, depending on the actual commercial percentage for a particular year.

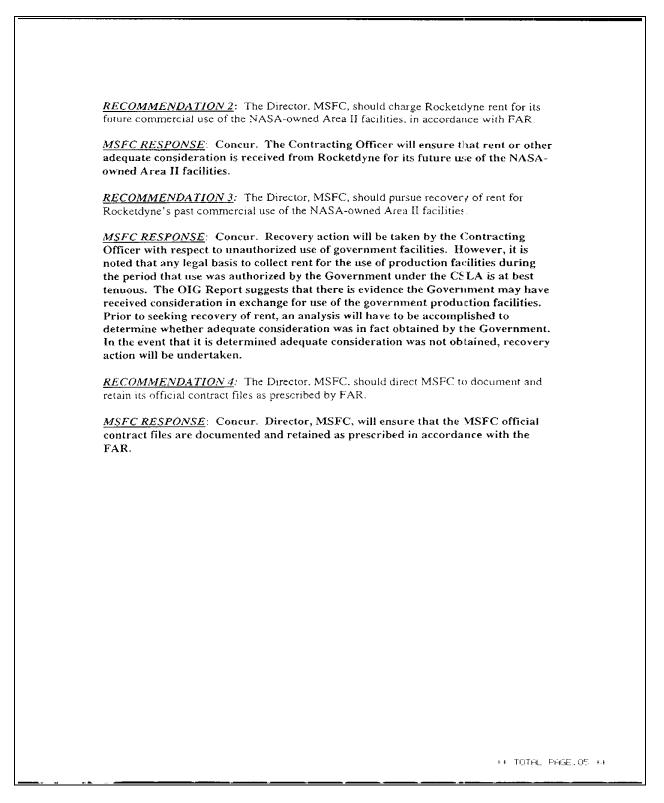
#### Appendix E

## **MANAGEMENT'S RESPONSE**

National Aeronautics and Space Administration George C. Marshall Space Flight Center Marshall Space Flight Center, AL 35812 SEP 2 5 1998 DE01 Reply to Attribi TO: Office of Inspector General Attn: W/Russell A. Rau FROM DE01/Sidney P. Saucier SUBJECT: OIG Draft Report on the Commercial Use of the Santa Susana Field Laboratory, Assignment No. A-HA-98-033 -. · We have reviewed the subject report and our detailed comments are enclosed. If you have any questions or need additional information regarding our comments, please contact BJ01/Danny Walker at 256-544-0100. Sidney P. Saucier Associate Director Enclosure

### MSFC RESPONSE TO OIG DRAFT AUDIT REPORT ON COMMERCIAL USE OF SANTA SUSANA FIELD LABORATORY, ASSIGNMENT NO. A-HA-98-002 GENERAL COMMENTS The report states that MSFC inappropriately authorized Rocketdyne to use NASA owned facilities at the SSFL on a rent-free basis. At the point in time that rent free use was authorized by MSFC, it was operating under the then current interpretation of the Commercial Space Launch Act (CSLA). In fact, the underlying CSLA Agreement executed by NASA Headquarters included production facilities. Section G.7 of the July, 1992, NASA Facilities Contract authorized use on a rent free basis for commercial launch vehicle production covered under current NASA agreements. [i.e. during the time of HQ CSLA agreement.] Page 2, Paragraph 2 under "RESULTS OF AUDIT": With respect to the, 1993, letter issued by the General Counsel's Office, it was reviewed by the MSFC Chief Counsel. There is no indication that it was or was not further disseminated outside the Office of Chief Counsel. The statement that "NASA's Office of General Counsel notified MSFC that the authorizations were inappropriate ... " is not accurate. The NASA General Counsel's Office did issue guidance to all Offices of Chief Counsel which analyzed the CSLA and concluded that CSLA did not include production equipment. It referred to agreements at more that one center ["...at least two agreements at NASA centers".] Further, it noted the diverse interpretations of the CSLA. The very purpose of the memowas to eliminate "disagreement and confusion" and offer "guidance" and have "consistent interpretation and application ...." As a result, it did not single out the MSFC agreements as inappropriate. After reading the Associate General Counsel's letter. MSFC is in agreement with the rationale contained therein that the CSLA does not apply to production equipment. However, it is submitted that at the time that rent free use was authorized this was not the current interpretation. Even DOD had issued guidance that the CSLA could include production equipment which is noted in the Associate General Counsel's memo. It should also be noted that the original authorization was actually concurred in by the MSFC Chief Counsel. The report suggests that only the Assistant Chief Counsel concurred in the action. Page 3, Second sentence, under "INTRODUCTION": The sentence reads "... NASA owns a portion of Area II..." The sentence should read NASA owns all of Area II. Page 4, under "Contractual Requirements and FAR Guidelines": The report references FAR 45.201, 45.202-2, and 45.203 pertaining to competitive advantage that may be obtained by a contractor receiving rent-free use of government facilities. It is submitted that these citations deal with competitive advantage on government





#### Appendix F

## **AUDIT RESPONSE TO GENERAL COMMENTS**

MSFC management provided the following general comments in its response to our draft report. Our responses to the comments are also presented.

- **Management's Comments**. At the point in time that rent free use was authorized by MSFC, the Center was operating under the then current interpretation of the CSLA. In fact, the underlying CSLA Agreement executed by NASA Headquarters included production facilities. Section G.7 of the July 1992 NASA Facilities Contract authorized use on a rent-free basis for commercial launch vehicle production covered under current NASA agreements.
- **Audit Response:** First, we found no indication that MSFC's authorizations provided from 1987 through 1990 were based on the authority of the CSLA. It was not until August 1991 that MSFC officials based their authorizations on the CSLA and NASA Headquarters' agreements. Although NASA's agreements at that time were inconsistent with the CSLA, they also contained language that acknowledged the requirement that NASA comply with public law and Agency policy when making facilities available. In making the Area II facilities available, MSFC is likewise constrained by those requirements. To the extent that the MSFC authorizations were inconsistent with a correct interpretation of the CSLA and the FAR, NASA did not have the authority to extend the authorizations.

Section G.7 of the current facility contract arguably authorizes rent-free use for the Area II facilities from July 1992 through the expiration of the original NASA agreements. However, NASA entered into new CSLA agreements in 1993, removing all references to production facilities. Therefore, after 1993, Rocketdyne's use of the Area II production facilities no longer fell under the portion of the clause that authorizes rent-free use pursuant to current NASA agreements. Instead, use of the production facilities falls under the last sentence of the clause, which states:

Rent bearing use on commercial contracts not covered under the Commercial Space Launch Act may also be authorized in the same manner with rent calculated as shown in FAR.

Therefore, after 1993, MSFC's authorizations are not only contrary to law (as noted previously), but are also inconsistent with the terms of the current facility contract.

- **Management's Comments:** The MSFC Chief Counsel reviewed the 1993 letter issued by the General Counsel's Office. There is no indication that it was or was not further disseminated outside the Office of Chief Counsel. It is not true that NASA's Office of General Counsel notified MSFC that the authorizations were inappropriate. The NASA General Counsel's Office did issue guidance to <u>all</u> Offices of Chief Counsel which analyzed the CSLA and concluded that CSLA did not include production equipment. The guidance referred to agreements at more than one Center, noted the diverse interpretations of the CSLA, and did not single out the MSFC agrees that the CSLA does not apply to production equipment. However, at the time that rent-free use was authorized, this was not the current interpretation. It should also be noted that the MSFC Chief Counsel concurred in the original authorization.
- Audit Response: The "Results of Audit" section of our report has been corrected, referring to the December 1992 Assistant Administrator for Procurement letter rather than to the March 1993 Office of General Counsel's guidance. It was the December 1992 letter that directly addressed the issue at MSFC, stating that MSFC's authorizations were inconsistent with NASA Headquarters policy.
- **Management's Comments:** The report references Federal guidelines pertaining to a competitive advantage that may be obtained by a contractor receiving rent-free use of Government facilities. These citations deal with competitive advantage on Government procurement competitions. As a result, to the extent that the rent-free issues at hand pertain to private commercial efforts, these references do not appear applicable. Additionally, it is understood that there was domestic competition for the launch weight classes of the Delta or Atlas launch vehicles and, as a result, the applicability of an unfair competitive advantage issue is even more remote.
- **Audit Response:** As stated in the "Background" paragraph in the Executive Summary, the commercial launch vehicle production activity was included in Air Force procurements. Therefore, FAR citations that deal with competitive advantage on Government procurement competitions are applicable to the use of Government facilities addressed in this report. In any event, we have referred this issue to the Department of Defense Inspector General for review.
- **Management's Comments:** The report states inaccurately that the authorizations were provided starting in 1987 instead of in 1986.
- **Audit Response:** We understand the difference in dates is attributable to an MSFC authorization dated October 30, 1986, that we did not include in our finding. Although neither MSFC nor Rocketdyne had a copy of the authorization letter, Rocketdyne told us that this authorization was in response

to a prior October 1, 1986, Rocketdyne rent-free use request, which unlike subsequent requests, did not indicate that commercial use was anticipated. As a result, we could not include the 1986 MSFC authorization in the finding that MSFC continued to authorize Rocketdyne's rent-free use when commercial work began.

- **Management's Comments:** Reference is made to the December 1992, letter from the NASA Assistant Administrator for Procurement. MSFC's lack of response to the actions requested by the Assistant Administrator for Procurement was caused by an apparent breakdown in communications regarding the letter. The MSFC Procurement Office correspondence logs and file records do not indicate that the letter was received by the MSFC Procurement Officer, the addressee. Moreover, the former MSFC Procurement Officer denied ever receiving such a letter.
- **Audit Response:** Representatives of the MSFC Procurement Office told us that they had no record of the letter, and as management stated, the former MSFC Procurement Officer claimed never to have seen the letter. However, MSFC General Counsel's Office files had a copy of the letter, as well as Rocketdyne's Director of Contracts and Pricing, evidencing the actual issuance of the letter.

#### Appendix G

## **REPORT DISTRIBUTION**

#### National Aeronautics and Space Administration (NASA) Headquarters

Code A/Office of the Administrator Code AI/Associate Deputy Administrator Code AE/Chief Engineer Code AF/Chief Technologist Code AO/Chief Information Officer Code B/Chief Financial Officer Code C/Associate Administrator for Headquarters Operations Code E/Associate Administrator for Equal Opportunity Programs Code F/Associate Administrator for Human Resources and Education Code G/General Counsel Code H/Acting Associate Administrator for Procurement Code I/Associate Administrator for External Relations Code J/Associate Administrator for Management Systems and Facilities Code JM/Director, Management Assessment Division Code L/Associate Administrator for Legislative Affairs Code M/Associate Administrator for Space Flight Code P/Associate Administrator for Public Affairs Code Q/Associate Administrator for Safety and Mission Assurance Code R/Associate Administrator for Aeronautics and Space Transportation Technology Code S/Associate Administrator for Space Flight Code U/Associate Administrator for Life and Microgravity Sciences and Applications Code W/Assistant Inspector General for Inspections, Administrative Investigations and Assessments Code Y/Associate Administrator for Earth Science Code Z/Acting Associate Administrator for Policy and Plans

#### **NASA Field Installations**

Director, Marshall Space Flight Center

#### **NASA Offices of Inspector General**

Ames Research Center Dryden Flight Research Center Goddard Space Flight Center Jet Propulsion Laboratory Lyndon B. Johnson Space Center John F. Kennedy Space Center Langley Research Center Lewis Research Center George C. Marshall Space Flight Center John C. Stennis Space Center

#### Non-NASA Federal Organizations and Individuals

Assistant to the President for Science and Technology Policy Deputy Associate Director, Energy and Science Division, Office of Management and Budget Budget Examiner, Energy Science Division, Office of Management and Budget Associate Director, National Security and International Affairs Division, General Accounting Office Special Counsel, House Subcommittee on National Security, International Affairs, and Criminal Justice Professional Assistant, Senate Subcommittee on Science, Technology, and Space Administrator, Office of Federal Procurement Policy Defense Contract Audit Agency, Los Angeles Regional Office

#### **Chairman and Ranking Minority Member - Congressional Committees and Subcommittees**

Senate Committee on Appropriations Senate Subcommittee on VA, HUD and Independent Agencies Senate Committee on Commerce, Science and Transportation Senate Subcommittee on Science, Technology and Space Senate Committee on Governmental Affairs House Committee on Appropriations House Subcommittee on VA, HUD and Independent Agencies House Committee on Government Reform and Oversight House Committee on Science House Subcommittee on Space and Aeronautics

#### **Congressional Member**

Honorable Pete Sessions, U.S. House of Representatives

## MAJOR CONTRIBUTORS TO THIS AUDIT

Chester A. Sipsock	Program Director, Financial and Environmental Management Audits
Ellen J. Norris	Auditor-in-Charge, Jet Propulsion Laboratory
Fredrick E. Angle	Auditor, Marshall Space Flight Center