

# **Exhibit C**

## **Consideration**

Exhibit C-1  
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# Exhibit C-2

## Services and Cost Sharing Methodologies For Federal Agencies

(Institutional Shared Pool applied to Temporary Use Areas)  
(Reviewed for revision every 5 years)

**SERVICES AND COST SHARING METHODOLOGIES FOR  
RESIDENT AGENCIES**

**NASA Ames Research Center  
Moffett Field, California**

**Developed by  
NASA Ames Research Center  
And  
The Federal Resident Agencies Steering Committee**

**Revision Date: September 2005**

**SERVICES AND COST SHARING METHODOLOGIES FOR  
RESIDENT AGENCIES**

**NASA Ames Research Center  
Moffett Field**

This document has been developed as a cooperative effort by staff of NASA Ames Research Center and members of the Federal Steering Committee representing Resident Agencies. The undersigned Federal Executive Committee members have reviewed and approved this document as representing an accurate description of the cooperatively developed policies, methods and procedures for FY-2006 as of September, 2005.

Future modifications to this document shall be reviewed by the Steering Committee and a revised document issued upon approval of the Federal Executive Committee.

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## **Services and Cost Sharing Methodologies for Resident Agencies NASA Ames Research Center, Moffett Field**

### **I. INTRODUCTION**

#### **Background**

The installation at Moffett Field, formally known as Moffett Federal Airfield, was managed by the Navy until July 1994. Federal installation responsibility of Moffett Field was transferred to NASA Ames Research Center (ARC) at Moffett Field. NASA, the largest stakeholder, coordinated with the other Federal stakeholders, also known as Resident Agencies (FRA) to form a Federal Steering Committee (FSC). The FSC has worked together to identify the services needed at the installation and to determine an acceptable mechanism for sharing the costs of those services among users. The finished document was known as the 1993 *Bluebook*. This present document, (*05 Bluebook*) is the Federal Executive Committee (FEC) revision of the 93 *Bluebook* and will serve as a living document for describing common services and the cost sharing methodology for operating the *Moffett Complex*. The Federal Executive Committee is made up of the heads (or their official representatives) of military and federal civilian organizations having authority to make decisions for those federal agencies residing at Ames Research Center, Moffett Field, California.

#### **Purpose, Scope, and Future Changes**

The purpose of this document is to describe the services NASA will provide to agencies that occupy facilities or use assets at Ames Research Center and Moffett Field. The weighting factors for each building type and rate calculation methodology are also provided.

The actual shared pool costs and the data used to calculate those costs (i.e. normalized square footage) can be found in a separate Cost Sharing Addendum that will be approved annually by the FEC.

Upon completion of the review process this document will reflect the consensus of the FSC as constituted in September, 2005. The services and functions identified in the document are those common services that are necessary for operating Moffett Field and Ames Research Center. The functions and levels of effort were derived from historical usage and expenses and are provided by NASA Ames Research Center, FSC, and functional personnel.

In accordance with Federal Regulations, FRA funds will be applied to the estimated or actual costs of goods and services. NASA will provide status reports to the FSC during each fiscal year to reflect actual work and expenditures. In the event actual expenditures are less than estimated, the FSC will, no later than 60 days before the end of fiscal year, recommend disposition of the remaining funds. For each subsequent year, the services, levels of service and costs will be adjusted based on the experience of three previous years as far as practicable, FSC decisions regarding future requirements, and NASA forecasted expenditures. NASA will revise and re-issue the Cost Sharing Addendum to

reflect these changes each fiscal year. NASA, with the concurrence of the FSC, will make minor revisions annually and re-issue this document to reflect past changes every 5 years. While NASA and the FSC wish to maintain the stability and practicability of these methodologies, the Committee will review them from time to time to determine if changes would be beneficial.

### **Pool Costs and Services**

Services provided for general operation and for the benefit of all users of Moffett Federal Airfield (MFA) and Ames Research Center (ARC) have been grouped into three "pools." The Institutional Shared Pool (ISP), Moffett Federal Airfield Pool (MFAP), and the Central Steam Pool (CSP).

The ISP includes the procurement cost for fire and security protection, infrastructure maintenance, and environmental and safety services that are common to both Ames and MFA. Portions of the services that are solely related to Ames Research Center requirements were identified and removed from the common services ISP cost. The ISP costs will be shared among Ames, FRAs, and all other resident organizations (e.g. NASA Research Park Partners).

In addition to the ISP, the FRAs and other entities utilizing The Moffett Federal Airfield services will be sharing the cost of MFAP. The MFAP includes air traffic control, crash /fire/ rescue, and airfield security, and flight operation and maintenance.

The Central Steam Plant Pool includes the operation and maintenance of boilers, and system lines and valves in the west and east side plants. FRAs, benefiting from that system, will share in the costs to operate and maintain it in addition to the ISP and MFAP.

This document includes a description of the services to be provided and the algorithm by which costs will be shared for each of the three pools (ISP, MFAP and Central Steam).

### **Other Services and Costs**

Services described below are not included in the pools.

1. Equipment buys - Major, single-occurrence purchases needed to establish or maintain a satisfactory level of pool services. Costs for purchasing this equipment are shared among all FRAs, which benefit. These are described in the sections that follow the description of services, costs, and sharing algorithms for each major pool.
2. Direct costs and demand services –  
Direct cost is the cost for services provided for the sole benefit of a user and paid for by the individual user. In some instances NASA is the mandatory, sole source provider (e.g., electricity).

Other services are provided at the request of the FRA, which may choose to use NASA's services or an alternate source (e.g., maintenance, facility design). These are called "demand services". Sample rates for these demand services are included in Appendix B

3. Coff/MILCON - Major upgrades, repairs or construction of new facilities required for provision of pool services. Only requirements that are greater in scope than can be paid out of the amount included in the pool for minor repairs are included in this category. Any such costs would be described in separate documentation and addressed with the FSC on a case-by-case basis.

4. Civil Service staff - The management and oversight of Moffett Field operations requires 18 work-years of effort by NASA Ames civil service staff at a cost of approximately \$2.5 million. NASA shall not share the costs of these civil service staff with FRAs; therefore, these costs are excluded from cost build-up of the ISP, MFAP, and CSP.

#### **Cost Sharing:**

The algorithms for determining units-of-benefit and cost sharing were developed jointly by NASA with the FSC and Executive Committee. These bodies originally included representatives of agencies which have historically been users of Moffett Field during its operation by the Navy, and which remain as FRA's since NASA took over operation. The Committees have been expanded to include federal agencies that have become residents since NASA became the host.

#### **Final Notes**

The services and descriptions contained in this document represent support areas offered by NASA, and available to FRAs under the conditions set forth in this ISP/MFAP agreement. Furthermore, it serves to supplement the Specific Provisions section of Inter-agency Agreements, detailing the support categories and levels of service to be provided. NASA and FRAs may enter into individual agreements for separate Demand Services as required. The FSC will review and update the Cost Sharing Addendum on an annual basis.



## **II. Institutional Services Pool**

Institutional services are those required to maintain and operate installation facilities, other than services attributable to operation of the airfield. Costs for these common services constitute the Institutional Shared Pool (ISP). All FRAs, which occupy facilities, will pay a share of the ISP as determined by the sharing algorithm explained near the end of this section. They will also pay certain direct costs (e.g., utility usage) and will pay for operation and maintenance of their assigned facilities to the standard established in their Inter-Agency Agreement with NASA. These latter costs are not part of the ISP. Some FRAs will also participate in a separate Central Steam Plant Pool (CSP) if their facilities benefit from that system.

The Institutional Shared Pool contains five major service categories. They are Fire Protection, Security/Emergency Services, Environment Services, Safety, Health and Medical Services, and Infrastructure Operation & Maintenance.

1.0 Fire Services cover provision of fire protection, prevention, emergency medical first response and hazardous materials first response.

2.0 Security/Emergency Services cover law enforcement, physical security, emergency services other than fire suppression and HAZMAT first response.

3.0 Environmental Services include application for and maintenance of required permits, environmental monitoring, hazardous waste, and regulatory compliance oversight.

4.0 Safety, Health and Medical Services

5.0 Infrastructure Operations and Maintenance:

Services provided include operation, maintenance, and minor repairs to the utility systems, grounds and roads. This category also includes the direct costs of operating and maintaining buildings needed to provide institutional services. Routine maintenance (inspection, calibration and maintenance) and minor repair activities to infrastructure systems will be paid from the pool. There is a designated "minor repair" element to cover more significant repairs, which can be anticipated because of the size and age of Moffett. This fund may be insufficient to cover unforeseen major repairs or catastrophic emergencies.

Separately, FRAs and NRP Partners will be required to pay for operation and maintenance of their assigned facilities, including maintenance, repair or upgrade to utility systems "inside" the boundaries defined for their facilities. These boundaries are detailed in the sections that describe each infrastructure system. FRAs will also be required to pay for utility usage attributable to their individual use. For electrical, water, and gas utilities, FRAs will pay for installation of meters in their assigned facilities and will pay separately for the direct costs of these utilities. This is considered a direct cost.

For a few small facilities with low utility usage, it may not be economical to install meters. In these cases, the FRA may accept NASA's estimate of utility consumption, to be calculated using an agreed upon algorithm, rather than install a meter.

Because the steam system does not provide benefit to all buildings, it is excluded from the final cost totals for the Infrastructure Pool. Similarly, the cost of operating and maintaining infrastructure, which serves the airfield, is carried in the MFAP.

## **Institutional Shared Pool (ISP) Service Descriptions**

### **1.0 Fire Services:**

The Fire Protection Pool covers fire suppression, hazardous material (HAZMAT) first response, emergency medical first responder, fire inspections, a fire prevention program, arson investigations, fire hazard engineering, code compliance, building plans review, and compliance inspections. Suppression services will be provided 24 hours per day. In the event of an incident, local fire districts will be notified and asked to provide assistance services as needed, under a mutual aid agreement between the local districts and NASA. Structural fire services cover the entire installation and, at the request of the Army,-Army Base housing areas located adjacent to NASA.

Fire Extinguishers and annual maintenance are provided by each FRA for their respective facilities.

First Response medical by the fire department does not include transportation to the hospital. NASA contracts with a local ambulance service to provide medical transportation.

Fire prevention, engineering, and compliance services will be provided by NASA support service contractors.

Cost basis: Costs include contractor labor, suppression equipment, vehicles, training and certification, travel, facilities operation and maintenance direct costs and expendables.

What is not covered:

- 1) Cost for medical transportation will be paid by the individual needing the service.
- 2) Fire extinguishers and maintenance.

## **2.0 Security/Emergency Services:**

### **2.1 Law enforcement:**

This element includes developing and implementing programs and activities for crime prevention and deterrence, preservation of life, protection of property, traffic enforcement, defense of personal rights, and enforcement of all applicable Federal, State, and local laws and regulations. Personnel providing these services are armed and have Federal Arrest authority granted under Section 304 (e) of the Space Act of 1958, as amended.

Basic services will be provided 24 hours per day. A Communications Center (including Emergency 911 service) is in operation 24 hours per day. Investigative services are provided during normal business hours and on an on-call basis during non-business hours. Records and documentation of activities and incidents will be maintained as part of the service. Services are provided by NASA support contractors.

Cost basis: Costs include contractor labor, training, vehicles, and certification, travel, expendables, facilities operation and maintenance direct costs.

### **2.2 Physical/Technical Security and Access Control:**

This element covers physical security services to control perimeter gates and other access points and to provide surveillance, inspection, security guidance and services, and law enforcement. FRAs will be responsible for coordinating employee badging and access requirements with the Protective Services Office. Visitor processing/badging will be provided by the Visitor Reception/Badging Office. Other physical/technical security services include periodic assessment of the security posture of Moffett Field, evaluating vulnerabilities, establishing physical barriers/clear zones, coordinating/managing security alarm and electronic access control system requirements, and providing information and coordination to assure that all Moffett Field activities and special events are planned and performed in compliance with established procedures and requirements. Statistical data will be maintained and recommendations may be made to improve security. Costs for providing additional security services for special events or special requirements will be borne by the sponsoring agency on a cost reimbursable basis. Services will be provided by NASA support contractors.

Cost basis: Cost includes labor, training and certification, travel, and expendables.

### **2.3 Emergency Services:**

This element covers emergency preparedness planning, which will be provided by NASA support service contractors. Other emergency services (hazardous material first response

and emergency medical response) are provided as part of their fire suppression services, and costs for these services are included in the Structural Fire.

Cost basis: Costs include labor, training and certification, travel, contract management, and expendables.

### **3.0 Environmental Services:**

NASA will provide a full range of environmental compliance services to assure that operation of Moffett Field conforms to applicable Federal, State and local laws and regulations. This includes maintaining permits for storm water discharge, industrial wastewater, and hazardous waste generation; coordinating air pollution permits; reviewing hazardous materials storage permits; reviewing building-specific spill response plans; developing the spill prevention control and countermeasure plan, hazardous waste contingency plan, oil spill response plan, and hazardous waste minimization plan; conducting PCB quarterly inspections and preparing an annual report; and preparing the hazardous waste annual and biennial reports. Appropriate sampling and analysis costs are also included.

Required environmental compliance audits will be performed. NASA will develop natural resources/ cultural resources management plans to ensure stewardship of these resources. NASA will review the NEPA documentation of RAs to ensure compliance. Activities related to complying with the National Historic Preservation Act are also included.

The pool also covers costs for packaging and disposal of hazardous waste generated by operation and maintenance of infrastructure systems and other institutional shared pool activities, and for industrial hygiene and safety support of these activities.

Cost basis: The cost for environmental compliance is based on work years for environmental services, work year for safety engineer review and inspections including industrial hygiene for institutional shared pool services, and costs for sampling, analysis, and permit fees. An additional amount is included in the pool to cover disposal of hazardous waste associated with institutional services provided as part of the ISP.

ISP costs do not include the cost for hazardous waste pickup, packaging, transportation and disposal for FRAs. These are direct costs; each FRA will pay for the actual cost of the hazardous waste program.

#### **4.0 Safety, Health and Medical Services**

In compliance with current regulations of the Department of Labor, Occupational Safety and Health (OSHA) Standards, National Fire Protection Association and the Ames Health and Safety Manual, NASA will coordinate Safety and Health related inspections for buildings prior to occupancy and resolve building related safety and health (S&H) issues. This cost element includes conducting H &S related surveys establishing and updating Building Emergency Action Plans; provision of construction safety oversight in compliance with the NASA Research Park Health and Safety Plan via thorough construction permit evaluation. Perform construction and maintenance contract inspections on a daily basis. Additionally provide Certified Lead and Asbestos Consultants for assessment and oversight of projects including maintenance activities which pose a potential or actual disturbance of materials which contain lead or asbestos, informing occupants of regulatory changes, evaluations and recommendations to minimize impacts to the entire Moffett Field. Respond physically to the ER site and the incident commander (typically the Ames Fire Chief)

Provide safety and health information, compliance assistance, Personal Protective Equipment recommendations, emergency preparedness planning activities, training, practice drills and general safety.

## **5.0 Infrastructure Maintenance and Operation:**

### **5.1 Utilities Infrastructure maintenance:**

#### **5.1.1 Electrical**

The electrical part of the infrastructure pool includes operation and maintenance of the backbone electrical distribution system, including the 115,000 volt, 12,000 volt, and 2400 volt system and site street lighting, feeder stations, 2.4 KV step-down transformers, distribution substations, transformers and meters (except individual RA meters as described below). Pool costs will cover operation and maintenance; meter reading; routine inspection and maintenance of meters and transformers; inspecting equipment for deterioration; pumping manholes; inspection of cable racks, hardware for proper mounting and corrosion; inspection of cable racks and splices for proper fireproofing; and checking transformers for oil leaks and contamination. High voltage system insulator cleaning, thermography, and impedance inspections are also included.

FRAs and non-federal Partners will be required to pay for installation of meters for their assigned facilities. If it is not economical to install a meter, a mutually agreed upon engineering estimate will serve as a basis for electrical consumption. If no meter is installed, then the maintenance boundary is considered to be the facility side of the end-of-line transformer.

FRAs are responsible for repairs and upgrades to the system beginning at the end-of-line transformer, into the building, and all internal wiring. They will have *financial responsibility* for any work beyond routine visual inspections of end-of-line transformers, such as remediation of PCB's, repairs and upgrades. If an end-of-line transformer needs repair, upgrade, or remediation but supplies more than one FRA, then the cost of any repair or upgrade work will be divided among the agencies concerned, based on demand history from that transformer.

Services will be provided by NASA support contractors.

Cost basis: Fixed price cost for system O&M. % share to NASA and ISP/MFAP as approved in the addendum.

#### **5.1.2 Water**

This system provides potable water and water for fire suppression.

This element costs cover inspection and maintenance of the system, exercising of valves, flushing fire hydrants, inspection and reading of meters, checking main water meter vault and performing minor leak repairs.



The infrastructure includes the system up to and including meters. FRA's and Partners will be required to pay for installation of meters for their assigned facilities or an engineering estimate of water consumption if it is not economical to install meters. If no meter is installed, then the maintenance boundary is considered to be five feet out from the exterior wall of the building (parcel boundary in the case of NRP Partners). FRA's will similarly be responsible for repair and upgrade of the system based on the same boundary.

Service will be provided by NASA support contractors.

Cost basis: Fixed price cost for system O&M. % share to NASA and ISP/MFAP as approved in the addendum.

### **5.1.3 Sanitary Sewer**

This element will cover costs of operating and maintaining lift stations, barminutor, and minor repairs, up to five feet from the building boundary. Within that boundary, FRAs will be responsible for maintenance and repairs.

Services will be provided by NASA support contractors.

Cost basis: Fixed price cost for system O&M. % share to NASA and ISP/MFAP as approved in the addendum.

### **5.1.4 Storm Drain**

Costs include operating and checking pumps. Catch basins will be cleaned and flushed annually.

FRAs and Partners will be responsible for maintenance and repair of the system for their facilities up to five feet from the building boundary (or parcel boundary), except that all parking lot drainage is included in the pool.

A portion of the costs attributable to the sub-basin which drains the airfield is included in the Moffett Federal Airfield Shared Pool, as a part of the "Maintenance" element, and is excluded from the Institutional Service Pool.

Services will be provided by NASA support contractors.

Cost basis: Fixed price cost for system O&M. % share to NASA and ISP/MFAP as approved in the addendum.

### **5.1.5 Natural Gas**

Service for the natural gas delivery system will include packing valve glands, lubricating valves, checking and reading meters, inspecting the piping for leaks and electro-dialysis damage and inspecting and maintaining the main line pressure regulator system.

FRA's and Partners will be required to pay for installation of meters for their assigned facilities or an engineering estimate of gas consumption if it is not economical to install a meter. If no meter is installed, then the maintenance boundary is considered to be the facility side of the pressure regulator. FRA's will similarly be responsible for repair and upgrade of the system on the facility side of the meter or, if there is no meter, the facility side of the pressure regulator.

Services will be provided by NASA support contractors.

Cost basis: Fixed price cost for system O&M. % share to NASA and ISP/MFAP as approved in the addendum.

### 5.3 Grounds

Grounds include all interstitial areas between buildings, as well as open areas in Shenandoah Plaza and Chase Park. These open areas comprise the majority of grounds area, and it has proven impracticable to separate out the smaller grounds areas around individual buildings and attribute them to the building occupants. Therefore, the pool will cover the cost of maintaining all the grounds.

In addition to Ames Research Center grounds, this includes care of 1,500 trees, 40 acres of lawn (of which ten acres is playing field), 40 acres of vegetation needing control, and 95 acres of bare ground.

Typical tasks would be to cut and irrigate grass, gather cuttings, sweep up leaves, prune trees and shrubs, control weeds, insects and rodents, and spread fertilizer. Any minor maintenance of the perimeter fence is also included.

All services will be provided by NASA support contractors.

FRAs are encouraged to provide upgrades to landscaping and additional tree planting as part of building renovations, consistent with requirements of the National Historic Preservation Act and native planting guidelines contained in the NRP Design Guide (where applicable).

Cost basis: Fixed price cost for system O&M. % share to NASA and ISP/MFAP as approved in the addendum.

## **5.4 Operations and Maintenance:**

### **5.4.1 Infrastructure maintenance: Roads / Parking Lots**

The roads element includes all base thoroughfares, their associated sidewalks, curbing, driveways and parking lots. Service will consist of monthly sweeping of roads and quarterly sweeping of parking lots. Street markings and marked curbs will be painted as required and minor potholes and cracks in roadways will be filled. Services will be provided by NASA support service contractors.

Pathways within an NRP Parcel, exterior steps and building foundations and walks up to and including the first expansion joint are considered part of the building; maintenance and repair will be the responsibility of the FRA or Partner.

FRA's and Partners are encouraged to repair and re-stripe parking lots when renovating their buildings. Designation of dedicated parking spaces will be done through an agreed approval process. A certain percentage of parking spaces may have to be dedicated to carpool parking as part of the FRA's employer trip reduction plan. Cost of painting such designations will be a demand charge.

Cost basis: Cost Fixed price cost for system O&M. % share to NASA and ISP/MFAP as approved in the addendum.

### **5.4.2 Infrastructure Services: Communications**

Communications services include voice communications, data communications, video, messaging, radio frequency management, audio support, alarms, and cable plant management.

This element of the pool will cover costs for obtaining and operating telephone, radio, data, and video communications needed in support of ISP activities; coordination and management of radio frequencies; and cable plant management and repair. NASA will manage the Trunking Radio system, register all frequencies, and coordinate new frequencies with the NIST. NASA will also maintain drawings and configuration control of the cable plant, make minor repairs and plan any upgrades. Costs for these activities are in the pool. The total cost for data communications, frequency management, and cable management has been apportioned between the MFAP and ISP. All video costs are in the ISP because there will be no video services to airfield buildings.

The demand element of these services are listed in the section "Direct Costs and Demand Services" at the end of the section on "Institutional Services." Costs for these services for FRAs are excluded from the pool. Costs for providing voice (telephone) communications, including basic Pacific Bell service charges, PBX maintenance and repair, and DSN line charges will be charged as part of direct charges for telephone service. These costs are therefore excluded from this pool. The costs for these services

for buildings used to support the infrastructure are included in this element. Unsecured central FAX services are part of this pool.

Cost basis: Costs are for support service contractors and parts needed for emergency repairs, the portion of the total cost for data communications, frequency management, and cable plant management attributable to the ISP, direct costs for telephones in infrastructure buildings, and video costs are included in this element.

### **5.5 ISP Buildings Utilities**

This element covers the estimated cost of utilities for the normal operation of the buildings associated with ISP, such as the Protective Services Office bldg, maintenance operations bldg, maintenance parts warehouse, etc. It also includes the cost of utilities for operations of street lighting, storm water pumping stations, sewage, lift stations, fire hydrant flushing, etc.

Cost basis: Actual cost of utilities

### **5.6 ISP Buildings Operations and Maintenance**

This element covers the cost of maintenance of the ISP buildings, such as Protective Services Office bldg (fire station, security buildings), maintenance operations bldg (shops), etc, and the costs to maintain storm water pump house, the sewage lift station, the electrical sub-stations, etc..

Cost basis: Estimated building operations and maintenance cost per square foot for infrastructure buildings.

### **5.7 Facility Planning:**

This element covers the cost to perform required real property management, such as Records, Agency Data Calls, and documentation, Agreement Reviews, Required Real Property Inventory and Inspections (President's Management Agenda OMB and NASA HQ real property data on buildings, structures and land use data, land and bldg. valuation data, master planning, historic preservation assessments and coordination with outside interests as required (e.g. Caltrans, County and Cities). Schedule and coordinate utility outages. Maintain facility service managers lists/data base; Facility Utilization, Measurement of spaces (gross and net), Red Line Drawings, Project Completion Design Drawings, Utility Drawings, Permit Assistance, and Inspection for Navy Environmental Construction Projects.

## **5.8 EPRO Operations:**

This element covers The NASA Ames Electric Power Office (EPrO) provides multiple services in support of the operations of the NRP and Eastside Airfield electrical power system. These include: 1. Maintaining and collecting data from the Ames Power Monitoring System meters on the main Eastside incoming power lines. 2. Performing regular protective relay maintenance tasks for 159 relays every 3 years. 3. Providing protective relay trouble-shooting/coordination. 5. Supplying technical help on an as-needed basis to High-Voltage electricians on Moffett system issues. 6. Managing the electrical power service interagency agreements with the Western Area Power Administration (part of DOE).

**ISP Cost and Rate Calculation Methodology:**

The procurement costs of the services described above are captured in the Table 1 and are shown as a sample. The actual ISP procurement cost will be negotiated and approved annually by the Executive Steering Committee and will be published annually as the Cost Sharing Addendum. The first column describes the service categories that are consistent with ISP service description. The second column shows the total procurement cost for the function. The next column identifies costs that either are Ames unique or belong in other pools. The portion of each function's cost remaining in the ISP is shown in the "adjusted procurement" column. The cost per square foot (rate) is obtained by dividing the total ISP costs by the normalized square footage of buildings. "Normalized square footage" is obtained by multiplying building actual square footages by the weighting factor appropriate for the building type and is shown in the Cost Sharing Addendum.

**Table 1: Institutional Service Pool Cost and Rate sheet**

CALCULATION OF PROPERTY-WIDE (ARC/NRP/MC) ISP RATE FISCAL YEAR 2005					
Service	Procurement Only	Adjustment	Adj. Procurement	Cost PSF	Notes
<b>Fire Services</b>	<b>6,249,390</b>	<b>(3,133,544)</b>	<b>3,115,846</b>	<b>\$ 0.66</b>	
- Fire & Crash Fire Rescue	6,139,390	(3,133,544)	3,005,846		Removed 42% for CFR & \$555K for C
- Fire Prevention	110,000	-	110,000		
<b>Security/Emergency Svcs</b>	<b>10,667,871</b>	<b>(479,000)</b>	<b>10,188,871</b>	<b>\$ 2.15</b>	
- Law Enforcement/Sec	8,695,547	-	8,695,547		
- Operations	923,077	-	923,077		
- Emergency Services	305,580	-	305,580		
- Financial Services	139,667	-	139,667		
- DHS Admin	77,000	(77,000)	-		Removed Ames Only Services
- Crows Landing	18,000	(18,000)	-		Removed Ames Only Services
- Export Control	272,000	(272,000)	-		Removed Ames Only Services
- CI Support	79,000	(79,000)	-		Removed Ames Only Services
- DART	125,000	-	125,000		
- Contr Investigations	33,000	(33,000)	-		Removed Ames Only Services
<b>Environmental Services</b>	<b>3,712,000</b>	<b>(2,253,000)</b>	<b>1,459,000</b>	<b>\$ 0.31</b>	
- Air Quality Oversight	213,000	(199,000)	14,000		Removed Ames Only Services
- Hazardous Waste	869,000	(776,000)	93,000		Removed Ames Only Services
- Waste Water Discharge Mgmt	290,000	(150,000)	140,000		Removed Ames Only Services
- Storm Water Discharge Mgmt	200,000	-	200,000		
- Spill Prevention Mgmt	128,000	-	128,000		
- Environmental Training	120,000	-	120,000		
- Drinking Water Sampling	23,000	-	23,000		
- NEPA and NHPA Mgmt	120,000	-	120,000		
- Environmental Audits	108,000	-	108,000		
- Building Emergency Action Plan	120,000	(120,000)	-		Removed Ames Only Services
- PCB Management	79,000	-	79,000		
- Hazardous Materials	461,000	(444,000)	17,000		Removed Ames Only Services
- Natural and Cultural Resources	226,000	-	226,000		
- Hydrogeologic Services	494,000	(344,000)	150,000		Removed Ames Only Services
- Pollution Prevention	120,000	(120,000)	-		Removed Ames Only Services
- Data Mgmt System	141,000	(100,000)	41,000		Removed Ames Only Services
<b>Safety, Health and Medical Svcs</b>	<b>2,534,000</b>	<b>(1,717,000)</b>	<b>817,000</b>	<b>\$ 0.17</b>	
- Industrial Hygiene	466,000	(288,000)	178,000		Removed Ames Only Services
- Health Physics	132,000	(116,000)	16,000		Removed Ames Only Services
- Training	120,000	-	120,000		
- Medical	799,000	(769,000)	30,000		Removed Ames Only Services
- EAP	54,000	(54,000)	-		Removed Ames Only Services
- Fitness Center	99,000	(99,000)	-		Removed Ames Only Services
- Emergency Response	101,000	(99,000)	2,000		Removed Ames Only Services
- Fire Protection Engineering	132,000	-	132,000		
- Explosive Safety	124,000	-	124,000		
- Construction Safety	120,000	-	120,000		
- Occupational Safety	387,000	(292,000)	95,000		Removed Ames Only Services
<b>Infrastructure Maintenance</b>	<b>5,533,266</b>	<b>(538,218)</b>	<b>4,995,048</b>	<b>\$ 1.05</b>	
- Utilities Infrastructure Maint	869,730	-	869,730		
- Steam	538,218	(538,218)	-		Removed; Steam Share Pool
- Grounds	750,924	-	750,924		
- Operation & Maintenance	991,000	-	991,000		
- ISP Building Utilities	253,000	-	253,000		
- ISP Building Ops & Maint.	1,215,544	-	1,215,544		
- Facilities Planning	340,000	-	340,000		
- EPR Operations	574,850	-	574,850		
<b>TOTAL</b>	<b>28,696,527</b>	<b>(8,120,762)</b>	<b>20,575,765</b>	<b>\$ 4.35</b>	
		Total Normalized	4,735,203		
		ISP Rate	\$ 4.35		
		Handling Fee @	\$ 0.26	\$ 0.26	
		Total ISP Rate	\$ 4.60	\$ 4.60	



### Weighting Factor Derivation:

The FSC determined that the use of some buildings would place fewer demands on some services in the ISP than other buildings and that these "low demand" buildings ought to be charged some lesser amount than "regular" or "high demand" uses. Therefore, a building square footage weighting system was developed to account for these differences. Each building/facility was assigned a weighting factor based on the type of use of that building. Because these weights are used as multipliers in the cost calculations, a building with a weighting factor of 0.50 would pay half (on a per square foot basis) of what is charged to a building weighted 1.00.

The 1993 Blue Book gives details, background and methodology of the cost-sharing algorithm and is included in the Appendix A. There were ten weighting factors ranging from administration to ordnance square footage and three sub-pools (fire, security/emergency services, infrastructure). While, this methodology provided higher fidelity in capturing the true cost for each building, it proved to be cumbersome and resource straining with the new NASA Integrated Financial Management system. ARC was able to mathematically obtain similar results with three weighting factors. A wind tunnel footprint weighting factor was also added to the building type list. During the August 2005 meeting, the Federal Executive Committed changed the Security/Emergency service contribution from maintenance, hangar, and storage building type from 0.9 (from 1993 blue book) to 0.5.

Building Type Code	Structural Fire	Security/ Emergency Services	Infrastructure
Administration	1.00	1.00	1.00
Maintenance	1.00	0.50*	0.50
Hangar	0.50	0.50*	0.50
Storage	0.50	0.50*	0.50
Covered Pad	0.50	0.50	0.50
Dormitory	1.00	1.00	1.00
Deactivated	0.00	0.00	0.00
Army dedeed	0.80	0.05	0.02
Ordnance	0.20	0.10	0.30
Less than 500 SF	0.00	0.00	0.00

(NOTE: The building type code has been agreed to by the FSC and is shown in the Building Information Evaluation Report database (BIER)

\* Change of Factor from .9 to .5 agreed to by Executive Committee during meeting August 12, 2005.

The four new weighting factors were calculated and shown below.

Building Type	Weighting Factor
Office/Admin/Dorm	1.000
Maintenance/Hangar/Storage	0.552
Wind Tunnel footprint	0.3
Ordnance	0.2

Table 2 outlines the new methodology for calculating the new weighting factors.

As outlined in the 1993 Blue Book, the FSC agreed that "full occupancy" of area outside of Ames campus would be 95 percent of the total square footage. This un-billable portion is then subtracted from the summation of square footage of both Ames campus and in the Moffett research park.

The calculation to determine the ISP cost for a given building is:

$$\text{Cost} = (\text{Gross Building square feet} \times \text{building factor}) \times \text{ISP Rate}$$

$$\text{ISP Rate} = \text{Total ISP Pool} / \text{Sum of (building square feet} \times \text{Building factor)}$$

**Table 2: The Average and Composite weighting factors**

ISP Cost Allocation  
By Square Feet  
Combined (ARC+MC) Total SF

Weight Calculation								
Building Type	Fire	Security	Infra	Average	% of Cat	Weighted Av.	Comp. Wght.	
Office/Admin	1.000	1.000	1.000	1.000	100%	1.000	1.000	1.000
Maintenance	1.000	0.500	0.500	0.667	31%	0.207		
Hangar	0.500	0.500	0.500	0.500	68%	0.340		
Storage	0.500	0.500	0.500	0.500	1%	0.005	0.552	
Wind Tunnel Circuit*	0.300		0.200	0.300	100%	0.300	0.300	0.300
Ordnance	0.200		0.100	0.300	100%	0.200	0.200	0.200

Normalization for Moffett Complex SF			
Type	Weight	SF	Normalized SF
Office/Admin.	1.000	1,032,578	1,032,578
Maint./Hangar/Storage	0.552	1,388,296	765,870
Ordnance	0.300	22,337	3,701
<b>Total</b>		<b>2,443,198</b>	<b>1,802,149</b>

Less: Vacancy Factor	(90,107)
Net Normalized SF in Moff Complex	1,712,042
Add: Ames Campus Gross SF	2,713,607
<b>Total SF</b>	<b>4,425,649</b>

\* Tunnel Circuit in Ames Gross SF

### **Administration/Management**

1993 blue book ISP cost allowed cost for resource, financial, legal and administration of the provided services. In this proposal, these costs have been removed from the ISP cost build-up. Instead, these costs will be covered in the proposed 6% administration/management fee for NASA AMES overhead costs and do not include any Headquarters fees.

## Appendix A: 1993 Blue Book Weighting Factors Methodology and Cost Sharing

### Sharing Algorithm:

The general principle for sharing institutional pool costs is that an agency which is assigned 10 percent of the facilities (based on square footage) will pay 10 percent of the total pool costs.

This general principle was substantially refined by the Federal Steering Committee into a cost-sharing algorithm which takes into account the following issues.

1. The FSC determined that the use of some buildings would place fewer demands on some services in the ISP than other buildings and that these "low demand" buildings ought to be charged some lesser amount than "regular" or "high demand" uses. Therefore, they agreed to split the ISP into three sub-pools, and to "charge" each building separately for each sub-pool.

Each building/facility was given a weight for each of the three sub-pools, based on the type of use of that building. Because these weights are used as multipliers in the cost calculations (see below), a building weighted 0.50 would pay half (on a per square foot basis) of what is charged to a building weighted 1.00. The weights for each sub-pool and type of use are as follows:

Building Type Code	Structural Fire	Security/ Emergency Services	Infrastructure
Administration	1.00	1.00	1.00
Maintenance	1.00	0.9*	0.50
Hangar	0.50	0.9*	0.50
Storage	0.50	0.9*	0.50
Covered Pad	0.50	0.50	0.50
Dormitory	1.00	1.00	1.00
Deactivated	0.00	0.00	0.00
Army deeded	0.80	0.05	0.02
Ordnance	0.20	0.10	0.30
Less than 500 SF	0.00	0.00	0.00

(NOTE: The building type code has been agreed to by the FSC and is shown in the Building Information Evaluation Report database (BIER), which is accessible to FRA's.

\* This factor changed to 0.5 during Executive Committee Meeting 8/12/05

**1993 Sharing Algorithm (cont):**

In determining these weights, two groups of buildings were assigned 0.00 for all three sub-pools: Buildings less than 500 square feet (considered to be insignificant) and buildings, which are "deactivated" by NASA (generally unusable due to hazard of some type). The effect of these 0.00 weights is to exclude these two categories of buildings from all calculations.

2. The FSC agreed that "full occupancy" of Moffett Field would be 95 percent of the usable space. Therefore, in apportioning cost, the total square footage used in the calculation would effectively be reduced by 5 percent.

The calculation to determine the ISP cost for a given building is:

$$\text{Building A cost} = \text{Building A fire sub-pool cost} + \text{Building A S/ES sub-pool cost} + \text{Building A infrastructure sub-pool cost}$$

The sub-pool costs for each building are calculated as follows, using the fire sub-pool as an example:

$$\text{Building A fire sub-pool cost} = [(\text{Building A square footage} \times \text{fire sub-pool weighting factor for that building}) / (\text{sum of fire sub-pool weighted square footage for all buildings} \times 0.95)] \times \text{Total cost for fire sub-pool}$$

### **III. AIRFIELD SERVICES**

Airfield services will be provided for FRAs which use Moffett Field for flight operations, irrespective of whether the FRA otherwise occupies facilities at Moffett Field. The Moffett Federal Airfield Pool (MFAP) includes costs for providing required services to operate and maintain the airfield. Services include air traffic control, crash /fire/ rescue, and airfield security. Operations and *maintenance covers* the two runways (14L/32R, 14R/32L), taxiways, ramp/apron, NAVAIDS, and weather observation equipment. The pool also includes costs to operate, maintain, and provide utilities to air traffic control and crash/fire /rescue buildings.

The level of airfield fire protection required is determined by NFPA and OSHA regulations.

Aircraft fuel is available from the Defense Fuel Supply Command as a demand service. Transient aircraft servicing, fueling, and parking are also demand services, in accordance with Ames policy. Transient aircraft sponsored by FRAs will not incur parking costs.

#### **Moffett Federal Airfield Operations Pool- Service Descriptions**

##### **1. Fire Services: Crash/Fire/Rescue**

Airfield crash/fire /rescue (CFR) services will be provided 24 hours per day, 7 days per week. This includes HAZMAT and emergency first response. Service is provided via NASA Support Services Contract.

Cost basis: Costs include labor, fire suppression equipment, vehicles, training and certification, travel, expendables and facilities accountable to the crash vehicles and a percentage of the dual qualified firefighters. Level of coverage is based on current estimate of number and type of aircraft.

##### **2. Airfield Operation**

###### **2.1 TERPS (Terminal Area Procedures)**

Provides instrument-flight arrival and departure procedures for Moffett Federal Airfield. Services include continuous procedure development and recurring flight inspection for currency and FAA certification of the airfield's approaches (Runway 32 Right ILS, DME for Runway 14 left and TACAN for Runways 32 Left and 32 Right) and departures (HOOKS, SOUTHLAND and WOODSIDE).

## **2.2 Base Operations**

Provides airfield logistics, operations, dispatch, control, maintenance, planning and ground support services for Resident Agencies and transients using the airfield. Services include airfield runway and safety inspection, ground to air communications, flight scheduling, daily review of NOTAMs, coordination of runway repairs, administration of BASH program, consolidation/reconciliation of all flight requests, and management of noise complaints.

### **2.2.1. Communications**

This element covers a portion of the infrastructure cost for data communications, frequency management, and cable management attributable to the airfield (see explanation in the ISP for "Communications"); telephone service to all buildings associated with the airfield; dedicated telephone lines ("shout-down phones"); provision of radios, pagers, and related communications equipment required for operation and maintenance activities; and telephone lines to the ILS. (This excludes equipment needed for tower communications with aircraft). NASA support service contractors will provide these services.

Cost basis: Labor costs and estimated direct costs for telephones and radios.

## **2.3 Air Traffic Control**

Air traffic control services include sequencing of IFR and VFR arrival and departure aircraft, traffic information, over-flights, and weather information. Service will be provided 16 hours per day, 7 days per week. Operations outside these standard operating hours may be allowed with prior permission. In the event of a structural fire incident at Moffett Field, the airfield may be closed and traffic diverted to alternate fields. Air Traffic Control services are provided by the California Air National Guard, under the terms of their agreement with NASA.

Services for aircraft include a precision approach procedure (FAA Category I ILS) to runway 32R. Non-precision approach procedures include a localizer approach to runway 14L, TACAN approaches to runways 32L and 32R, and circling procedures to other runways. Standard instrument departure procedures will be published in accordance with FAA requirements; radar departures may be available subject to coordination with Bay TRACON. A Precision Approach Path Indicator (PAPI) will operate for runway 32R/14L. Current weather observation and other airport information will be provided continuously by a FAA certified ASOS system and ATIS.

Cost basis: Costs include labor, equipment, vehicles, training and certification, travel, and expendables.

## **2.4 Airfield Service Building Operation and Maintenance**

This element covers the costs associated with the buildings, facilities and infrastructure needed to operate the airfield (e.g., control tower, storage facilities, part of fire station for CFR and structural fire protection for airfield buildings). A part of the costs are the Institutional Shared Pool charges for these buildings. The mechanism for determining the ISP charges for buildings is explained in the "Sharing Algorithm" section of the ISP part of this document. Other costs include direct operation and maintenance of the buildings. NASA support service contractors will provide these direct services.

Cost basis: Costs are the percentage of the Institutional Shared Pool costs for the airfield buildings and the operation and maintenance costs for those buildings.

## **2.5 Emergency Services**

This element covers emergency preparedness planning, which will be provided by NASA support service contractors. Other emergency services (hazardous material first response and emergency medical response) are provided as part of their fire suppression services, and costs for these services are included in the Structural Fire. This element is split between the Institutional Shared Pool and the Airfield Pool

Cost basis: Costs include labor, training and certification, travel, contract management, and expendables.

## **3. Airfield Security**

Airfield security will be provided by roving patrols 24 hours per day. Services are provided by the California Air National Guard, under the terms of their agreement with NASA. ARC law enforcement officers provide law enforcement services.

Cost basis: Costs include labor, equipment, vehicles, training and certification, travel, and expendables.

## **4. Airfield Maintenance**

This element includes inspection and maintenance of the airfield paved areas, grass areas, and lighting. Rubber removal and painting will be done on a 5-year cycle or as necessary based on usage. Patch repairs will be made as needed. The grass area will be mowed as required to maintain a safe operational zone. Repairs will be made as necessary.

This element also includes a portion of the cost for maintaining the storm drain system that is attributable to the airfield (see further explanation under "Storm Drain" in the ISP part of this document). NASA support service contractors will provide these services.

This element also includes costs for managing maintenance and repair activities and contractor overhead.



Cost basis: Costs include on-site labor subcontracted repairs, painting and rubber removal, materials, tools, administrative overhead for these activities and the portion of storm drain maintenance attributable to the airfield.

#### **5. Airfield Environmental Services:**

The following environmental services are split with the Institutional Shared Pool:

Storm water, spill prevention, and hazardous materials compliance

Hazardous waste and PCB management

Wildlife conservation

6. In addition to these environmental services, this element provides environmental coordination with the airfield BASH program.

#### **7. Utilities**

The element covers costs for natural gas, electricity, and water provided to buildings associated with operating the airfield and for lighting the field and Highway 237 approach. It also covers electrical costs for operating NAVAIDS.

Cost basis: Estimated direct costs for utilities.

#### **8. Contingency**

The Airfield Shared Pool will contain a 5% contingency for response to unforeseen, emergency events requiring immediate action for safety or to facilitate continued operations. Airfield users will decide what use will be made (if any) of funds remaining in this category no later than 60 days prior to 30 September of each year.

**Table 3: Moffett Federal Airfield Operation Expense and Rate Schedule**

**MOFFETT FEDERAL AIRFIELD  
OPERATING EXPENSE AND RATE SCHEDULE  
FISCAL YEAR 2006**

**OPERATING EXPENSE**

Service	Procurement Only	Adjustments	Net
<b>Crash Fire Rescue</b>	\$ 2,578,544	\$ -	\$ 2,578,544
<b>Operations</b>	\$ 1,711,713	\$ (182,000)	\$ 1,529,713
- TERPS	20,565	-	20,565
- Base Operations	481,000	(182,000)	299,000
- ATC Tower	1,164,618	-	1,164,618
- ISP Building Alloc.	22,000	-	22,000
- Emergency Services	23,530	-	23,530
<b>Airfield Security</b>	\$ 906,904	\$ -	\$ 906,904
<b>Airfield Maintenance</b>	\$ 761,975	\$ -	\$ 761,975
<b>Environmental</b>	\$ 138,000	\$ -	\$ 138,000
- Wildlife Management	87,000	-	87,000
- Storm Water Compliance	8,000	-	8,000
- Spill Prevention Compliance	2,000	-	2,000
- Haz Mat Compliance	2,500	-	2,500
- Wildlife Conservation	17,000	-	17,000
- Haz Waste Mgmt	20,000	-	20,000
- PCB Management	1,500	-	1,500
<b>Utility</b>	87,000	-	87,000
<b>Contingency (5%)</b>			300,107
<b>TOTAL</b>	\$ 6,097,136	\$ (182,000)	\$ 6,302,243

**Sharing Algorithm:**

The procurement costs of the services described above are captured in the Table 3 and are shown as a sample. The actual MFAP procurement cost will be negotiated and approved annually by the Executive Steering Committee and will be published annually as the Cost Sharing Addendum. Moffett Federal Airfield is limited to 25,000 flight operations per year for environmental impact reasons. (An operation, for this purpose, is defined as a take off or a landing.) This number of operations, therefore, is the maximum capacity of the airfield. The cost of operating the field is shared based on the portion of capacity encumbered by each user. (Table 3 shows the FY-06 Moffett Federal Airfield cost pool budget.) For example, if the airfield operating cost is \$6 Million and an organization uses 6,250 operations (25% of capacity), that user would pay \$1.5 Million for the year. Cost

shares will be estimated for the upcoming year based on historical usage and any major changes planned for the upcoming year.

Two categories of airfield user have been established which do not fully participate in the pool. The first category is Airfield Interim Resident. These are agencies which desire to use facilities and the airfield for a short time (less than 5 years). NASA may negotiate short-term agreements, including costs, with these users, provided such use of the airfield is compatible with other FRA operations. Such agreements will be made without guarantee of renewal. The revenue resulting from Airfield Interim Residents' use of the airfield will offset NASA's costs for unused capacity.

The second special category of user is Airfield Non-Resident User. This category accommodates agencies which desire an agreement to use the airfield to meet mission requirements, but which otherwise do not occupy facilities. NASA may enter into agreements with such agencies if their airfield usage is compatible with airfield use by FRAs. NASA will set the rate of reimbursement for such users. Due to the inherent uncertainty of such funds over time, the revenue will not be used to defray recurring operating costs. Rather, revenues from these users will be used for airfield repairs, upgrades, equipment purchases or other one-time expenses, which would otherwise be shared with FRA airfield users.

## **ADDITIONAL AIRFIELD SERVICES**

### *Direct Costs and Demand Services*

#### **Fuel:**

Jet fuel is available from a contractor of Defense Energy Supply Agency (DESC) to all military aircraft at times determined by DESC. Fuel for other than military aircraft requirements may be negotiated with NASA or DESC in advance.

Cost: Availability and cost is determined by the DESC.

#### **Transient Aircraft:**

Transient aircraft control, parking, servicing and fueling will be provided in accordance with NASA-Ames policy. Visiting aircraft hosted by FRAs, which participate in the ISP, will be handled as regular aircraft from the FRA.

#### **Wash Rack**

The wash rack is located northeast of Hangar 3.

Cost: No cost to FRAs

#### **IV. Central Steam Services and Cost Methodology**

Many, but not all, of the Moffett Federal Airfield buildings are served by a central steam system. The majority receives hot water and building heating from the central steam plant in building 10. The buildings are served by an underground steam and condensate return pipe system. The building 10 boiler is a high pressure vessel requiring careful monitoring by qualified boiler mechanics. This pool contains the cost of staffing and maintaining the boiler and underground piping system as well as the cost of utilities (gas and water) for boiler operation.

Hangars 2 and 3 are served by a boiler plant located between the two structures. This is a low-pressure system not requiring attendance.

Only organizations whose buildings receive steam service participate in the steam pool. The costs are shared based on the proportion of total steam use. For cost sharing purposes, the amount of steam used by each building is based on engineering information created by Moffett Naval Air Station public works when they operated the system. The costs and sharing proportions are shown in the annual services and cost-sharing addendum.

## **V. Direct Costs and Demand Services**

### **Direct costs to be paid by FRA's and Partners include:**

Electricity (meter or engineering estimate)  
Water (meter or engineering estimate)  
Natural Gas (meter or engineering estimate)  
Sanitary sewer (80% percentage of water use)  
Steam  
Hazardous waste pickup and disposal  
Construction Permit Fees

### **Demand services available include:**

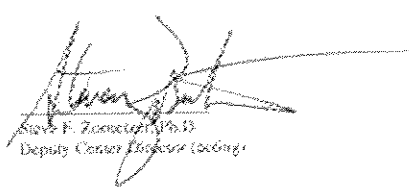
Gaseous oxygen (breathing)  
Liquid oxygen  
Compressed air  
Sampling and analysis required by permits/in response to chemical spills (other than covered by Pool)  
SR&QA review of high-risk operations  
Industrial hygiene services for RAs  
Protective escorts for VIPs and/or critical operations  
Emergency repairs to buildings (trouble calls)  
Maintenance, minor repairs of buildings, parcel infrastructure and janitorial services  
Trash collection and recycling  
Pest control  
Moving office furniture and equipment  
Painting of parking areas/dedicated parking spaces  
Design for construction and repair projects  
Assessment of assigned facilities  
Engineering studies, including preparation of "PES," "PER," and "FRD" equivalents (advocacy and design for Coff/MILCON) and review of designs for new construction  
Configuration management for drawings of FRA buildings  
Trouble-Calls  
Minor construction and repair  
Construction inspection  
Project management for construction projects  
Multi-featured analog telephones  
Speakerphones  
Multi-line phones  
Phone mail  
Modem capability  
Fax capability  
STU-III (secure) phones  
Conference phones  
Priority line capability  
LAN design

LAN consultation services  
Specialized network design  
LAN installation  
Video equipment installations  
Video equipment maintenance  
Trunk Land radios  
Pagers  
COMSEC (Communications security)  
In-building intercom and paging systems design and installation  
Special event support (A/V, video feeds, podiums, platforms)

## Appendix B: ARC Institutional Pool and Demand Services Rates

### ARC FY 2006 and Forward Pricing Rate for Resident Agencies and other Partners

Service	Unit	2005	2006	2007	2008	2009
ISP* (annual)	Sq Ft	4.50†	N/A	N/A	N/A	N/A
Institutional Water Pool						
NRP* (annual)	Sq Ft					
NASA Research Park	Standard Premium Estate	22.00 24.00 25.00	N/A	N/A	N/A	N/A
Agency Corp. G&A on Reimbursable Income	Flt \$	6.0	6.0	6.0	6.0	6.0
<b>Demand Services Full Cost Rates</b>	<b>Units of Measure</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Bioprinting Services (SERV E)	Sq Ft	142.92	147	150	156	161
Manufacture and Machining (SERV M)	Sq Ft	126.6	130	134	138	142
Facility Services (SERV F) IT Support (SERV I)	\$ + Actual cost	0	0	0	0	0
Wind Tunnel†	SCattering Foot	4,500	N/A	N/A	N/A	N/A
Procurement Fee‡	Flt \$	10	10	10	10	10

  
 Steve F. Zemanek, Ph.D.  
 Deputy Center Director (Academy)

Effective December 13, 2005

\* Approved ISP rate for agencies identified on the 2005 Blue Book. 100% cost passback.  
 † NRP rate based on fair market value plus overhead ISP, plus other services (McGraw Hill, 1-800-424-4771).  
 ‡ Test operations fee: Printer and special test preparation costs are additional.  
 \* Fee charge for Procurement rate through

Exhibit C-3  
Services and Cost Sharing  
Methodologies for Resident Agencies,  
FY 09

Services ands Costs, Cost Sharing  
Addendum

(Revised Annually)



SERVICES AND COST SHARING METHODOLOGIES FOR

RESIDENT AGENCIES

NASA Ames Research Center  
Moffett Field, California

**FY-09 Services and Costs  
Cost Sharing Addendum**

## FY-2009 SERVICES AND COST SHARING ADDENDUM

### RESIDENT AGENCIES

#### NASA Ames Research Center Moffett Field

The Services and Cost Sharing Methodologies for Resident Agencies and NASA Ames Research Center agreement establishes the common institutional and airfield services received by all participants and the methodology used for sharing the cost of these services. The Services and Cost Sharing Addendum is developed and agreed upon annually to document the sharing pool budgets for the coming fiscal year. Also, the total weighted square footage of participating buildings is updated at this time. This addendum for Fiscal-Year 2009 has been reviewed and approved by the undersigned federal Resident Agencies and NASA, Ames Research Center:

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STEVEN F. ZORNETZER, PhD  
NASA Ames Research Center

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AMOS BAGDASARIAN, Colonel, CA ANG  
Commander, 129th Rescue Wing

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James Chevallier, Colonel  
Garrison Commander, US Army  
Wescoat, Berry Court

---

Scott Simpson, DeCA West  
Director

---

Barry Lakinsmith  
Director, US Army  
Aeroflightdynamics Directorate

---

Daniel Vargas  
63D RSC, Chief of Staff

---

Jeffrey Anongos  
FEMA  
Supervisor, Logistics Manager  
Specialist

---

Steve Bancroft  
Director, NFAC (Acting)  
AIR FORCE AEDC

---

Kevin Riedler, Colonel  
Commanding Officer, US Army  
Installation Management Command  
Combat Support Training Center  
(Orion Park)

**FY 2009**  
**ISP Cost Allocation**  
**By Square Feet**  
**Combined (ARC+MC) Total SF**

Building Type	Fire	Security	Infra	Average	% of Cat.	Weighted Av.	Comp. Wght.
Office/Admin	1.000	1.000	1.000	1.000	100%	1.000	1.000
Maintenance	1.000	0.50	0.50	0.67	30%	0.20	
Hangar	0.500	0.50	0.50	0.50	56%	0.28	
Storage	0.500	0.50	0.50	0.50	14%	0.07	0.55
Ordnance	0.200	0.100	0.30	0.20	100%	0.20	0.20

Normalization for Moffett Complex SF		Moffett	Moffett
Type	Weight	SF	Normalized SF
Office/Admin. (Type I)	1.00	971,138	971,138
Maint./Hangar/Storage (Type II & III)	0.55	1,257,587	691,673
Ordnance (Type III)	0.20	12,337	2,467
<b>Total</b>		<b>2,241,062</b>	<b>1,665,278</b>
		<b>Less: Vacancy Factor (5%)</b>	<b>(83,264)</b>
		<b>Net Normalized SF in Moff Complex</b>	<b>1,582,014</b>
		<b>Add: Ames Campus SF</b>	<b>2,709,609</b>
		<b>Total SF</b>	<b>4,291,623</b>

**INSTITUTIONAL SHARED POOL (ISP) RATE  
FISCAL YEAR 2009**

Service	Cost	Subtotal	Cost/PSF
<b>Fire Services</b>	<b>\$ 3,890,832</b>	<b>\$ 3,890,832</b>	<b>\$ 0.91</b>
- Fire & Crash Fire Rescue	3,605,434		
- Fire Prevention	285,398		
<b>Security/Emergency Svcs</b>	<b>\$ 8,256,749</b>	<b>\$ 8,256,749</b>	<b>\$ 1.92</b>
- Law Enforcement/Sec			
- Perimeter Security	2,938,766		
- Law Enforcement	2,377,420		
- 911 Dispatch	993,120		
- Physical/Technical Security	28,808		
- Personnel Security & Receiving	-		
- Operations	1,751,239		
- Equipment and supplies	-		
- Patrol/Police vehicle costs	-		
- Administrative consumables	-		
- Emergency Services	44,396		
- EOC Coordinator	-		
- Training	-		
- Technical Specialist	-		
- Response Coordination	-		
- DART	125,000		
<b>Environmental Services</b>	<b>\$ 1,794,556</b>	<b>\$ 1,794,556</b>	<b>\$ 0.42</b>
- Air Quality Oversight	22,841		
- Hazardous Waste	259,609		
- Waste Water Discharge Mgmt	158,938		
- Storm Water Discharge Mgmt	203,235		
- Spill Prevention Mgmt	130,993		
- Environmental Training	128,920		
- Drinking Water Sampling	25,378		
- NEPA and NHPA Mgmt	126,890		
- Environmental Audits	121,814		
- Building Emergency Action Plan	-		
- PCB Management	81,252		
- Hazardous Materials	47,367		
- Natural and Cultural Resources	218,567		
- Hydrogeologic Services	225,265		
- Pollution Prevention	-		
- Data Mgmt System	43,487		
<b>Safety, Health and Medical Svcs</b>	<b>\$ 1,337,344</b>	<b>\$ 1,337,344</b>	<b>\$ 0.31</b>
- Industrial Hygiene	373,101		
- Health Physics	20,649		
- Training	257,760		
- Medical	83,807		
- EAP	-		
- Fitness Center	-		
- Emergency Response	1,191		
- Fire Protection Engineering	173,758		
- Explosive Safety	155,403		
- Construction Safety	151,733		
- Occupational Safety	119,942		
<b>Infrastructure Maintenance</b>	<b>\$ 4,688,622</b>	<b>\$ 4,688,622</b>	<b>\$ 1.09</b>
- Utilities Infrastructure Maint	1,440,100		
- Grounds	900,000		
- Operation & Maintenance	425,000		
- ISP Building Utilities	239,474		
- ISP Building Ops & Maint.	633,048		
- Facilities Planning	420,000		
- HazMat Activities	-		
- EPRO Operations	631,000		
<b>JT Communications</b>	<b>\$ 155,000</b>	<b>\$ 155,000</b>	<b>\$ 0.04</b>
-Commo backbone maintenance	155,000		
<b>TOTAL</b>	<b>\$ 20,123,103</b>	<b>\$ 20,123,103</b>	<b>\$ 4.69</b>
<b>Total Normalized SF</b>	<b>4,291,623</b>		
<b>ISP Rate</b>	<b>\$ 4.69</b>		
<b>Mgt/Administration Fee @ 6%</b>	<b>\$ 0.28</b>		
<b>Total ISP Rate</b>	<b>\$ 4.97</b>		

**MOFFETT FEDERAL AIRFIELD POOL (MFAP)  
FISCAL YEAR 2009**

<b>Service</b>	<b>Cost</b>	<b>Subtotal</b>	<b>% of Total</b>
<b>Crash Fire Rescue</b>	<b>\$ 2,918,475</b>	<b>\$ 2,918,475</b>	<b>47%</b>
<b>Operations</b>	<b>\$ 1,602,214</b>	<b>1,602,214</b>	<b>26%</b>
- TERPS	40,000		
- Base Operations	301,258		
- ATC Tower	1,237,798		
- ISP Building Alloc.	23,158		
- Emergency Services	-		
<b>Airfield Security</b>	<b>\$ 335,689</b>	<b>\$ 335,689</b>	<b>5%</b>
<b>Airfield Maintenance</b>	<b>\$ 734,953</b>	<b>\$ 734,953</b>	<b>12%</b>
<b>Environmental</b>	<b>\$ 170,659</b>	<b>170,659</b>	<b>3%</b>
- Wildlife Management	114,000		
- Storm Water Compliance	9,940		
- Spill Prevention Compliance	1,988		
- Haz Mat Compliance	2,982		
- Wildlife Conservation	14,910		
- Haz Waste Mgmt	24,851		
- PCB Management	1,988		
<b>Airfield Utilities</b>	<b>\$ 86,600</b>	<b>\$ 86,600</b>	<b>1%</b>
<b>Airfield Contingency (5%)</b>	<b>\$ 387,460</b>	<b>\$ 387,460</b>	<b>6%</b>
<b>TOTAL</b>	<b>\$ 6,236,050</b>	<b>\$ 6,236,050</b>	<b>100%</b>

## Steam Pool Costs Sharing

Boiler, steam and condensate line operation	\$ 546,000
Gas and water utilities consumption	\$ 281,000
	<u>\$ 775,268</u>
Bldg. 55 boiler annual maintenance	\$ 51,732
<u>Boiler Pool Costs total</u>	<u>\$ 827,000</u>

Buildings served by Central Steam

3, 6,10,12,14,16, 17, 19, 29, 45, 67, 109, 126, 567, Hangar 1

Hangars 2 and 3 Served By boiler House 55

### Current Listing of Buildings Actively Served by Steam

	BTUH*	% share	\$ share	
3	470,471	5.39%	\$ 41,819	NASA
6	closed		\$ -	
10	300,000	3.44%	\$ 26,666	NASA
12	717,301	8.22%	\$ 63,759	Commissary
14	closed		\$ -	
16	583,704	6.69%	\$ 51,884	NASA
17	closed		\$ -	NASA
18	286,749	3.29%	\$ 25,488	NRP
19	1,991,752	22.84%	\$ 177,041	NRP
45	112,469	1.29%	\$ 9,997	NASA
67	120,021	1.38%	\$ 10,668	USPS
109	3,658,559	41.95%	\$ 325,199	NASA
126	180,895	2.07%	\$ 16,079	NRP
567	300,000	3.44%	\$ 26,666	NASA
46	closed		\$ -	NASA
47			\$ 51,732	CANG
<b>total</b>	<b>8,721,921</b>		<b>\$ 827,000</b>	

\*=based on 11/21/2005 boiler house 10 load assessment



**MOFFETT FEDERAL AIRFIELD POOL (MFAP)  
FISCAL YEAR 2009  
AS OF SEPTEMBER 30, 2008  
SUMMARY OF ESTIMATED CHANGES**

Service	FY08 Initial Procurement Only Cost	Add. BB Changes	Revised FY08 MFAP Procurement Only Cost	FY08 MFAP Procurement Only Cost	Delta Change 2008 v 2009	Delta Change % 2008 v 2009	Notes
<b>Crash Fire Rescue</b>	\$ 2,918,475	\$ -	\$ 2,918,475	\$ 2,712,616	\$ 205,859	7.59%	
<b>Operations</b>	\$ 1,810,816	\$ (208,602)	\$ 1,602,214	\$ 1,617,076	\$ (14,862)	-0.92%	
- TERPS	40,000		40,000	40,000	\$ -	0.00%	
- Base Operations	533,018	(231,760)	301,258	291,070	\$ 10,188	3.50%	Adjusted to remove Ames specific services.
- ATC Tower	1,237,798		1,237,798	1,237,798	\$ -	0.00%	
- ISP Building Alloc.	-	23,158	23,158	23,158	\$ -	0.00%	Added from ISP.
- Emergency Services	-	-	-	25,050	\$ (25,050)	-100.00%	
- Admin/Budget	-	-	-	-	\$ -		
<b>Airfield Security</b>	-	\$ 335,689	\$ 335,689	\$ 500,000	\$ (164,311)	-32.86%	
<b>Airfield Maintenance</b>	\$ 570,642	\$ 164,311	\$ 734,953	\$ 734,953	\$ -	0.00%	
<b>Environmental</b>	\$ 114,000	\$ 56,659	\$ 170,659	\$ 170,505	\$ 153	0.09%	
- Wildlife Management	114,000	-	114,000	113,508	\$ 494	0.44%	
- Storm Water Compliance	-	9,940	9,940	10,000	\$ (60)	-0.60%	Added from ISP.
- Spill Prevention Compliance	-	1,988	1,988	2,000	\$ (12)	-0.60%	Added from ISP.
- Haz Mat Compliance	-	2,982	2,982	3,000	\$ (18)	-0.60%	Added from ISP.
- Wildlife Conservation	-	14,910	14,910	15,000	\$ (90)	-0.60%	Added from ISP.
- Haz Waste Mgmt	-	24,851	24,851	25,000	\$ (149)	-0.60%	Added from ISP.
- PCB Management	-	1,988	1,988	2,000	\$ (12)	-0.60%	Added from ISP.
<b>Airfield Utilities</b>	-	\$ 86,600	\$ 86,600	\$ 87,000	\$ (400)	-0.46%	
<b>Airfield Contingency (5%)</b>	-	\$ 387,460	\$ 387,460	\$ 387,460	\$ -	0.00%	Added for consistency with current practice.
<b>TOTAL</b>	\$ 5,413,933	\$ 822,117	\$ 6,236,050	\$ 6,209,614	\$ 26,439	0.43%	