

# 2002 – 2003 – 2004



## **INTERAGENCY CALL-WHEN-NEEDED HELICOPTERS**



PROJECT: CALL-WHEN-NEEDED MEDIUM AND  
HEAVY-LIFT HELICOPTER SERVICES

LOCATION: NATION-WIDE

CONTRACTOR: VARIOUS

AWARDING OFFICE: USDA FOREST SERVICE AND  
OFFICE OF AIRCRAFT SERVICES  
NIFC

[www.nifc.gov/contracting](http://www.nifc.gov/contracting)

Updated 9/1/02

**NFES 2168**

**CALL-WHEN-NEEDED**  
**MEDIUM AND HEAVY-LIFT**  
**NATIONAL HELICOPTER SERVICES**

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USDA FOREST SERVICE

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Contracting Officer  
National Interagency Fire Center  
Boise, ID 83705

(208) 387-5347

OFFICE OF AIRCRAFT SERVICES

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This document and contract herein will remain valid until the end of the year 2004.

This document is published to assist helicopter managers in administering call-when-needed (CWN) contracts. Whereas it contains the standard specifications for all CWN aircraft awarded at the time of publication, it may not reflect all CWN aircraft or contracts awarded. Aircraft and contracts not listed herein should be administered in accordance with the awarded contract which contractors are required to have aboard the aircraft at all times. Any questions concerning aircraft or contracts not listed should be referred to one of the Contracting Officers.

Refer to Section G, pages 62-63 for Helicopter Manager authorities and duties.

***Additional copies of this document may be ordered from:***

National Interagency Fire Center  
ATTN: Supply  
3833 S. Development Avenue  
Boise, ID 83705-5354

Order NFES #2168

Fax (208) 387-5573

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**United States  
Department of  
Agriculture**

**Forest Service NIFC**

**National Interagency  
Fire Center  
3833 S. Development  
Boise, ID 83705**

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Reply To: 6320  
Date: April, 2002

**Call-When-Needed Helicopter Contractors:**

The referenced contract with your firm is written to provide Call-When-Needed (CWN) Type I and II Helicopter services to the USDA Forest Service and United States Department of the Interior Bureaus and Agencies. The primary purpose of the service is for firefighting activities. However, administrative use may also be ordered. You will note that two contract numbers are shown on each contract. A contract number beginning with the numerical 55 denotes a Forest Service contract and will be used for all services performed on National Forest lands or State lands where the Forest Service has fire suppression responsibilities. A contract number beginning with the numerical prefix 1406 denotes an Office of Aircraft Service contract and will be used for all services performed on lands under the jurisdiction of the Department of Interior Bureaus of Agencies.

All requests for services under this contract will be ordered by the National Interagency Coordination Center (NICC) in Boise, ID. The call-up and dispatch of Helicopters will be based on the criteria specified in contract clauses F.4, Ordering Services. This clause fully describes the procedures that we will follow to order an aircraft. It is your responsibility to keep the aircraft desk at NICC informed on the location and availability of your Helicopter(s) for fire assignments. The phone number for NICC is 1-800-994-6312. We will assume that if you have not kept the aircraft desk currently informed on the location and status of your aircraft, that they are not available for work under the contract.

As you are aware, the contract are for the use of either "standard" category or "limited/restricted" category Helicopters. The standard category Helicopters can be used for all purposes indicated on the Helicopter Data Card. The use of limited category Helicopters is confined to hauling cargo and performing bucket work. Passengers are not to be carried in either limited or restricted category Helicopters with the following exception: Contractor personnel necessary to the operation of the Helicopter; i.e., mechanic, may be carried on ferry flights to the site of the fire or other project sites. Seats may be installed for this purpose; however, the seats must be removed prior to the beginning of work on a fire or other project. We do not anticipate using a large number of limited/restricted category Type II Helicopters. Consequently, these aircraft may not be inspected and carded until an actual need develops.



## CWN Helicopter Contractors

Orders for service will be placed by NICC at the National Interagency Fire Center. When an order is placed and you can respond, please insure that the Helicopter and Pilot furnished is approved for use under the contract. At the beginning of each usage, you will be asked to show the Helicopter and Pilot cards that indicate the necessary approvals.

Each time a Helicopter is furnished, a Government Helicopter manager (foreman) will be assigned to direct use, assist the Contracting Officer in field administration of the contract, and to approve availability and flight times. The Helicopter Manager is not authorized to change or waive contract terms (see contract clauses G.19). The manager is authorized to designate inspectors to assist him/her in management of the Helicopter and administration of the contract.

Responsibility for contract administration rests with me as Contracting Officer. However, procedural matters relating to the usage of the Helicopter and payment processing will be handled by myself and Bob Carr of the Office of Aircraft Services, Department of Interior. I will handle those matters relating to Forest Service usage and Bob will handle those relating to usage by Department of Interior Agencies, Bureaus, and Offices.

Two paying offices for the National Contracts will be used for contract payment. Payment for services provided to the Forest Service will be requested by submitting Form FS-6500-122, Flight Use Report, at the interval stated in the contract to:

USDA Boise National Forest  
Attn: Fiscal & Accounting  
1249 Vinnell Way, Suite 20  
Boise, ID 83709

Payment for services provided to US Department of Interior Bureaus and Agencies will be requested by submitting Form OAS-23, Aircraft Use Report, at the intervals stated in the contract to :

USDI Office of Aircraft Services  
PO Box 15428  
Boise, ID 83715-5428

When filling out the Form OAS-23, show the **Office of Aircraft Services** contract number.



**CWN Helicopter Contractors**

***The original and one copy of the payment forms will be given to the Helicopter Pilot by the Helicopter Manager.*** As the Contractor, you are responsible for submitting the forms for payment to the payment offices listed above. Some Department of Interior Bureaus may want to retain the original copy to add authorization coding and correction of errors before submitting to OAS.

Flight invoices originated by the Contractor will not be paid. Additional billing for services and supplies will have to be accomplished on a Company invoice with appropriate receipts and/or documentation attached.

**A copy of the contract and all modifications are to be maintained in each Helicopter during its use under this contract.**

Prior to putting a CWN Helicopter into service, the manager has been directed to:

1. Review the aircraft log book, in particular, looking for the following:
  - a. 100-hour inspections or periodic inspections completed within the applicable time limits;
  - b. Entries indicating a change of major component and the reason for change; and
  - c. Entries indicating damage to the aircraft.
2. Conduct a thorough walk-around inspection to ascertain that all items of equipment required are installed and operative. Some examples are:
  - a. High visibility paint on main rotor blades
  - b. Seat
3. Request a power check to ascertain that engines are operating within prescribed limits. Procedures outlined in appropriate flight or maintenance manuals, in addition to contract clause C.13 (10) will be used.

Based on our experiences with previous CWN contracts, we request your help as follows:

1. Make sure that a copy of the contract is in each Helicopter when it is called up for use.
2. Fully orient your Pilots to the work performance requirements and the payment terms and processes that are contained in the contract and this letter. Timely payment can be made only if the payment forms are correctly prepared.



**CWN Helicopter Contractors**

3. Helicopter module personnel have been given general training in the management, operation, and use of Helicopters. However, they may not be familiar with the make, model, specific configuration, and operating envelope or the aircraft furnished for the contract work. Also, they may not be familiar with applicable company procedures regarding the operation of your Helicopter. Accordingly, it is requested that each of your Pilots give the module member assigned to them a complete familiarization briefing about the items listed herein.

Additional copies of the contract may be requested by the Company as needed.

Sincerely,

FRANK GOMEZ  
Contracting Officer

Enclosure

cc: Contracting-Regions 1,2,3,4,5,6,8,9  
Fire and Aviation-Regions 1,2,3,4,5,6,8,9  
J.P. Johnston-NIFC  
OAS-Contracting  
NICC-NIFC  
BNF-F & A

## FLIGHT USE REPORT DISTRIBUTION/INSTRUCTIONS

The following instructions are to be adhered to in making distribution of Flight Use Report Forms (FS-6500-122 and OAS-23).

- (1) ORIGINAL AND ONE COPY - give to Helicopter Pilot. Contractors are responsible for submitting originals to the following paying offices:

**FS-6500-122**

USDA Boise National Forest  
Attn: F&A  
1249 S. Vinnell Way, Suite. 200  
Boise, ID 83705

**OAS-23**

USDI Office of Aircraft Services  
PO Box 15428  
Boise, ID 83709-5428

- (2) ONE COPY - for the Helicopter Manager.

- (3) XEROX COPIES - for fire records maintained by Planning Section Chief Unit. When the Helicopter is released to ferry to another fire, and there will be a change in Helicopter Manager, the receiving fire will document the ferry time between fires. Coordination between fires shall be accomplished to prevent duplicate entries. Coordination can be accomplished by an appropriate note in the "Remarks" block of the Flight Use Report Form.

When the Helicopter is released to ferry home, agree to an estimated ferry time with the Pilot and document the agreement in the "Remarks" block of the Flight Use Report Form. The Pilot can then show actual times when the ferry flight is completed. The paying office will verify the reasonableness of the time claimed.

Your assistance in legibly completing the Flight Use Report Forms with all required information is requested. As a part of the information to be supplied, the person signing the form on behalf of the Government, is to show the following information in the "Remarks" blocks of each form.

1. Printed Name
2. Home Unit
3. Home Office

**BEFORE USING ANY HELICOPTER, THE HELICOPTER MANAGER SHALL DETERMINE THAT THE PILOTS AND AT LEAST ONE MECHANIC HAVE BEEN INSPECTED AND APPROVED AS EVIDENCED BY THE APPROVAL CARDS ISSUED FOR THIS PURPOSE.**

# Aircraft Use Report

## OAS-23

### Instructions

**AIRCRAFT USE REPORT**

												RECEIVED DATE				
1 COMPANY NAME & ADDRESS			2 CONTRACT/OA/NO.			3 ITEM NO.		4 AIRCRAFT MAKE&MODEL			5 PILOTNAME(PE)		SERV	AGMT NO.	AC CONTROL NO.	
			6 AIRCRAFT DESIGNATED BASE (CITY/ST)			7 FAA REGISTRATION NO.			8 PILOT NAME(2nd pic)			9 AGENCY ORDER NO.				
			10 HELD (DATE& TIME)			11 RELEASED (DATE& TIME)			12 OTHER CREW MEMBER							
DATE MO/D/YR	LOCATION IDENTIFIER FROM TO		METER READS START STOP		ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD PAK CARGO		PILOT INITIAL	BILLIE CODE NO.	USE CODE	USER ORGANIZATION AND CHARGE CODE		SIGNED RECEIVED	TAX CODE	
1	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
OTHER CHARGES/CREDITS & INFORMATION:																
25																
<b>OAS COPY (ORIGINAL)</b>																
I CERTIFY THAT THE ABOVE RECORD OF SERVICE IS CORRECT AND NO PAYMENT HAS BEEN RECEIVED.						I CERTIFY THAT THE ABOVE SERVICES WERE RECEIVED.						AGENCY TELEPHONE NO. (COMM)		AGENCY:		
26						27								AGENCY ADDRESS:		
SIGNATURE OF CONTRACTOR/AGENCY/NOT:						SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE:										
NAME:						NAME:										
DATE:						DATE:										

1 COMPANY NAME & ADDRESS				2 CONTRACT/BOANO.		3 ITEM NO.	4 AIRCRAFT MAKE & MODEL		5 PILOT NAME (PIC)		SERV. AGENCY
6 AIRCRAFT DESIGNATED BASE (CITY/ST)				7 FAA REGISTRATION NO.		8 PILOT NAME (2nd PIC)		9 AGENCY			
10 HIRED (DATE & TIME)				11 RELEASED (DATE & TIME)		12 OTHER CREW MEMBER					
DATE MO/DY/YR	LOCATION IDENTIFIER	METER READING	ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD PAY CARGO	PILOT DUTY	BILL CODE	USE CODE	USER ORGANIZATION AND CHARGE CODE	SIGNED RECEIVED	TAX CODE
13	14	15	16	17	18	19	20	21	22	23	24
10											
11											
12											
13											
14											
15											
OTHER CHARGES											
25											
<b>OAS COPY (ORIGINAL)</b>											
I CERTIFY THAT THE ABOVE RECORD OF SERVICE IS CORRECT AND NO PAYMENT HAS BEEN RECEIVED.				I CERTIFY THAT THE ABOVE SERVICES WERE RECEIVED.				AGENCY TELEPHONE NO. (COMM)		AGENCY:	
26				27						AGENCY ADDRESS:	
SIGNATURE OF CONTRACTOR/AGENT/NOT.				SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE:							
NAME:		DATE:		NAME:		DATE:					

Enter the OAS Contract Number. This is available from either the vendor, or the contract itself.

Enter an Item Number if the aircraft is one of several awarded under the contract. The Item Number can be obtained from the contract or the aircraft data card

Enter the Name of the PIC.

Enter the name of additional pilots used.

Enter the name and address of the company

Enter the aircraft make and model

Enter the FAA Registration Number (N#).

Enter the names of additional authorized crewmembers used for which payment is authorized. Use the "other Charges/Credits" block to explain.

Enter the time and date the aircraft was hired. Record using a 24 hour time clock.

Enter the aircraft's designated base. This can be obtained from the contract. Note that payment for flight is made only from the designated base. In certain cases, alternative arrangements may be worked out with the Contracting Officer if the aircraft departs from or is ferried from a location other than the designated base.

**AIRCRAFT USE REPORT**

													RECEIVED DATE			
COMPANY NAME & ADDRESS <b>1</b>			CONTRACT/BOANO. <b>2</b>			ITEM NO. <b>3</b>	AIRCRAFT MAKE & MODEL <b>4</b>			PLOT NAME(P/E) <b>5</b>		SERV.	AGMT NO.	AC CONTROL NO.		
			AIRCRAFT DESIGNATED BASE (CITY/ST) <b>6</b>			FAA REGISTRATION NO. <b>7</b>			PLOT NAME(2nd p/c) <b>8</b>		AGENCY ORDER NO. <b>9</b>					
			HRED (DATE & TIME) <b>10</b>			RELEASED (DATE & TIME) <b>11</b>			OTHER CREWMEMBER <b>12</b>							
DATE MO/D/YR	LOCATION IDENTIFER FROM TO		METER READING START STOP		ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD PAK CARGO		PLOT INITIAL	BILLEE CODE NO.	USE CODE	USER ORGANIZATION AND CHARGE CODE		SIGNED RECEIVED	TAX CODE	
1 13	14		15	16	17	18	19		20	21	22	23		24		
2																

**FLIGHT TIME.** Record elapsed flight time based upon the recorded start/stop time as recorded on the hobbs meter or approved recording device. Flights shall be individually recorded and the appropriate use code entered.

**SPECIAL CHARGES.** Special Charges such as hazardous materials permits, rental car charges, etc. are entered in whole dollars and are rounded to the nearest dollar. I.e.. A special charge of \$215.52 should be entered as 2.16 with a pay item code of SC.

**SERVICE TRUCK MILES.** Enter mileage traveled for official business only. This should be rounded up to the nearest mile. A charge for 125 miles should be recorded as 1.25 with a pay item code of SC.

**DAILY AVAILABILITY.** Enter 1.00 for each day of availability. To reflect unavailability, deduct 1/14 for each hour or portion thereof that service is unavailable. I.e. If the aircraft is unavailable for 2.2 hour during a day, availability should be recorded as .79 with pay item code of AV and .21 with pay item code of UA. Make sure to document the reason the aircraft was unavailable if unavailability occurs.

I CERTIFY THAT THE ABOVE RECORD OF SERVICE IS CORRECT AND NO PAYMENT HAS BEEN RECEIVED		I CERTIFY THAT THE ABOVE SERVICES WERE RECEIVED.		AGENCY TELEPHONE NO. (COMM)		AGENCY:	
<b>26</b>		<b>27</b>				AGENCY ADDRESS:	
SIGNATURE OF CONTRACTOR/AGENT/NOT:		SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE:					
NAME:	DATE:	NAME:	DATE:				

**AIRCRAFT USE REPORT**

RECEIVED DATE	
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Enter the month, day, and year on each line.

Log flight time from an approved hour meter. Log non-flight time standby periods (I.e. Extended Availability) in 24 hour clock time.

LINE NO.	DATE			LOCATION IDENTIFIER		METER READING		ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD		PLOT INITIAL	BILLET CODE NO.	USE CODE	USER ORGANIZATION AND CHARGE CODE	SIGNED RECEIVED	TAX CODE
	MO	DAY	YEAR	FROM	TO	START	STOP			PAK	CARGO						
1	13	14				15	16	17	18	19		20	21	22	23	24	
2																	
3																	
4																	
5																	
6																	

Note: These fields must not contain more than six characters. For location identifiers, enter one of the following:

- 3 Character FAA Identifier or location if the aircraft is located at a helibase that is not at an airport with an FAA identifier.

For flights that takeoff or land at locations without identifiers, enter the following:

- FIR for missions which depart from or to a fire, or for missions within the fire itself.
- INC for missions which depart from or to a non-fire incident
- PRJ for missions which depart from or to a project, or missions within a project itself.

For non-flight pay item codes and line item entries, enter either the FAA identifier, FIR, INC, or PRJ as applicable for the location where the line item charge is incurred. For standby, per diem, Guarantee, Availability, enter the 3 character in both to and from blocks.

For service truck miles, enter the location where mileage started and ended.

**AIRCRAFT USE REPORT**

													RECEIVED DATE			
1 COMPANY NAME & ADDRESS			2 CONTRACT/BOANO.			3 ITEM NO.	4 AIRCRAFT MAKE & MODEL			5 PLOT NAME (PIC)		SERV.	AGMT NO.	AC CONTROL NO.		
			6 AIRCRAFT DESIGNATED BASE (CITY ST)			7 FAA REGISTRATION NO.			8 PLOT NAME (2nd PIC)		9 AGENCY ORDER NO.					
			10 HRED (DATE & TIME)			11 RELEASED (DATE & TIME)			12 OTHER CREWMEMBER							
	DATE MO/DY/YR	LOCATION IDENTIF FROM TO		METER READING START STOP		ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD PAK CARGO		PLOT INITIAL	BILLEE CODE NO.	USE CODE	USER ORGANIZATION AND CHARGE CODE		SIGNED RECEIVED	TAX CODE
1	13	14		15	16	17	18	19		20	21	22	23		24	
2																
3																
4																
5																
6																

AVAILABILITY. Enter the availability as described on a previous page.

EXTENDED STANDBY. Enter the hours of extended standby (1 hour equals 1.0).  
When the contract so states, enter separate line entries for each crewmember's extended standby indicating the amount of time in hours standby was provided - rounded up to the nearest hour (2.3 hours = 3.0 EP).

25		<b>OXS COPY (ORIGINAL)</b>	
I CERTIFY THAT THE ABOVE RECORD OF SERVICE IS CORRECT AND NO PAYMENT HAS BEEN RECEIVED.		I CERTIFY THAT THE ABOVE SERVICES WERE RECEIVED.	
26		27	
SIGNATURE OF CONTRACTOR/AGENT/NOT:		SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE:	
NAME:	DATE:	NAME:	DATE:
		AGENCY TELEPHONE NO. (COMM)	
		AGENCY:	
		AGENCY ADDRESS:	

**AIRCRAFT USE REPORT**

													RECEIVED DATE			
1 COMPANY NAME & ADDRESS				2 CONTRACT/BOANO.			3 ITEM NO.	4 AIRCRAFT MAKE & MODEL			5 PILOT NAME (1st)		SERV.	AGMT. NO.	AC CONTROL NO.	
				6 AIRCRAFT DESIGNATED BASE (CITY/ST)			7 FAA REGISTRATION NO.			8 PILOT NAME (2nd ptc)		9 AGENCY ORDER NO.				
				10 Hired (DATE & TIME)			11 RELEASED (DATE & TIME)			12 OTHER CREWMEMBER						
DATE MO/D/YR	LOCATION IDENTIFIER FROM TO		METER READING START STOP		ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD PAK CARGO		PILOT INITIAL	BILLET CODE NO.	USE CODE	USER ORGANIZATION AND CHARGE CODE		SIGNED RECEIVED	TAX CODE	
1	13	14		15	16	17	18	19	20	21	22	23		24		
2																
3																
4																

Enter the use code in the space provided. Use codes are entered for flight time only. Standard use codes are on the back cover of the OAS-23 Book. Enter the use code that specifically identifies or most closely identifies the mission. As previously stated, the Manger must track hour meter readings of the various missions the helicopter performs on a given day. Uses are then individually totaled and the start/stop and elapsed time are entered for each type of use.

The following is BLM specific direction on Use Codes. It should be used not only by BLM, but also by other managers completing OAS-23s for BLM incidents or projects.

- Do not enter any of the 3-series Use Codes (Local Fire Suppression). Always use the 2-series use codes for Interagency Fire Suppression.
- There is not a 2-series use code for Fire Reconnaissance; use IR.
- Use 3A, Helitack/initial attack for transport of the helicopter crew to the incident; use 3H for the return.
- Use 9P only for administrative point-to-point travel (must meet OMB A-126 cost comparison requirements).
- Do not use 4A, 5F, 5X, or 9X.
- See OAS-23 Book for use codes.

**AIRCRAFT USE REPORT**

													RECEIVED DATE										
1 COMPANY NAME & ADDRESS				2 CONTRACT/BOANO.			3 ITEM NO.	4 AIRCRAFT MAKE & MODEL			5 PLOT NAME(PE)		SERV.	AGMT.NO.	AC CONTROL NO.								
				6 AIRCRAFT DESIGNATED BASE (CITY/ST)				7 FAA REGISTRATION NO.			8 PLOT NAME(2nd prc)		9 AGENCY ORDER NO.										
				10 HIRED (DATE & TIME)				11 RELEASED (DATE & TIME)			12 OTHER CREWMEMBER												
DATE MO/DY/YR	13 LOCATION IDENTIFER FROM TO		14		15 METER READING START STOP		16	ELAPSED TIME OR QUANTITY	17	PAY ITEM CODE	18 PAYLOAD PAK CARGO		19	PLOT INITIAL	20	BLLER CODE NO.	21	USE CODE	22	23 USER ORGANIZATION AND CHARGE CODE		24 SIGNED RECEIVED	TAX CODE
1	13		14		15		16	17	18	19		20	21	22	23		24						
2																							

An Agency Order Number for BLM flights is the Document Control Number to process billings by OAS through the Denver Service Center. A Document Control Number consists of a one-digit state identifier, a 3 digit Office Code, and a 2-digit entry identifying the Document type and fiscal year, and a 4-digit month number.

1. STATE. 1-digit alpha State Code as follows:  
 Alaska: L Idaho: I Oregon: H Washington Offices: P  
 Arizona: A Montana: E Utah: J  
 California: B Nevada: F Wyoming: K  
 Colorado: C New Mexico: G NIFC: R
2. Office. 3-digit numeric code of the Office (Organization) submitting the OAS-23. This will usually be a District or State Office, or a division of NIFC or the Washington Office.
3. Document Type. 1-digit alpha. Always enter "8" for Aircraft Use.
4. Fiscal Year. 1-digit numeric. Enter last digit of the fiscal year in which the flight was taken.
5. Sequential Month Number. 4-digit numeric. Enter the month in which the OAS-23 will be mailed to OAS. Numeric month codes begin with 0001 for October and proceed through 0012 for September. Month 0013 is assigned to all OAS-23's sent to OAS after Sept. 30 for flights taken during the fiscal year ending Sept. 30 but are not mailed until after the fiscal year.

All zeros in the month entry must be entered. All fields should be separated by "-" (dash).

**PAYLOAD.** Passengers (PAX) and internal cargo may be entered on the same line, however, Pax and external cargo loads are not to be entered on the same line.

**PAX.** Enter the number of passengers for the Pay Item and Use Code. Information is available from the load calculations and manifests. Internal cargo that is incidental to the transport of passengers is entered under cargo and entered in pounds.

**CARGO.** Enter pounds of cargo delivered with the appropriate use code. Enter gallons of water, foam, or retardant delivered on separate line entries with the appropriate use code. Do not enter both pounds and gallons for the same item.

1	10		11			12							
	DATE MO/DY/YR	LOCATION IDENTIFER FROM TO	METER READING START STOP	ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD PAX	CARGO	PILOT INITIAL	BILIE CODE NO.	USE CODE	USER ORGANIZATION AND CHARGE CODE	STORED RECEIVED	TAX CODE
1	13	14	15	16	17	18	19	20	21				
2													
3													
4													
5													
6													
7													
8													
9													
10													

After Helicopter Manager makes line item entries, the pilot reviews and initials each line

When charges are incurred and are payable under the terms of the contract, a separate entry is required of each applicable Pay Item using the codes listed on the inside cover of the OAS-23 Book.

OTHER CHARGES/CREDITS AND INFORMATION:

25

**OAS COPY (ORIGINAL)**

I CERTIFY THAT THE ABOVE RECORD OF SERVICE IS CORRECT AND NO PAYMENT HAS BEEN RECEIVED.	I CERTIFY THAT THE ABOVE SERVICES WERE RECEIVED.	AGENCY TELEPHONE NO. (COMM)	AGENCY:
26	27		AGENCY ADDRESS:
SIGNATURE OF CONTRACTOR/AGENT/P. PILOT:	SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE:		
NAME: DATE:	NAME: DATE:		

**AIRCRAFT USE REPORT**

RECEIVED DATE	
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COMPANY NAME & ADDRESS <b>1</b>			CONTRACT/BOANO. <b>2</b>		ITEM NO. <b>3</b>	AIRCRAFT MAKE & MODEL <b>4</b>		<div style="border: 1px solid black; padding: 5px;"> <b>AGENCY SPECIFIC ENTRY.</b> Enter the specific Charge Code that the line item will be billed to.             </div>							
			AIRCRAFT DESIGNATED BASE (CITY/ST) <b>6</b>		FAA REGISTRATION NO. <b>7</b>										
			Hired (DATE & TIME) <b>10</b>		RELEASED (DATE & TIME) <b>11</b>										
DATE MO/D/YR	LOCATION IDENTIFER FROM TO		METER READING START STOP		ELAPSED TIME OR QUANTIFY	PAY ITEM CODE	PAYLOAD PAK CARGO		PLOT INITIAL	BILLEE CODE NO.	USE CODE	USER ORGANIZATION AND CHARGE CODE		SIGNED RECEIVED	TAX CODE
1 13	14		15	16	17	18	19		20	21	22	23		24	
2															
3															
4															

GENERAL. OAS assigns a Billee Code to a unit as a mechanism for billing the charges for an OAS-23 line entry. The unit whose billee code is entered will receive a detail of those charges which will be paid through the IPAC System for all federal agencies (OAS has usually already paid the vendor).

Different Billee Codes can be assigned for different line items.

FIRE BILLINGS. The entry made under “user organization and charge codes” must be the charge code of an agency whose billee code was entered.

YOU CANNOT ENTER A BLM BILLEE CODE, AND USE A FOREST SERVICE “P” NUMBER OR VICA VERSA.

If a BLM contract aircraft is used on a USDA-FS fire, a BLM Billee Code and charge code shall be entered.

If a USDA-FS Billee Code and charge code were entered, then OAS would bill the USDA-FS, which is contrary to the master agreement.

**AIRCRAFT USE REPORT**

RECEIVED DATE

COMPANY NAME & ADDRESS <b>1</b>		CONTRACT/EOANO. <b>2</b>	ITEM NO. <b>3</b>	ARCR
		ARCRFTDESIGNATED BASE (CIWSY) <b>6</b>	FAA	
HRED (DATE&TIME) <b>10</b>		RELEASED <b>11</b>		
LAPSED TIME OR QUANTITY <b>17</b>	PAY ITEM CODE <b>18</b>	PAYLOAD PAK <b>19</b>	PLUT DUTIAL <b>20</b>	CODE NO. <b>21</b>
		CARGO		USE CODE <b>22</b>
				USER OR ORGANIZATION AND CHARGE CODE <b>23</b>
				SIGNED RECEIVED <b>24</b>
				TAR CODE

Manager signs or initials in the "Signed Received" block after verifying all the information is correct. To meet OMB A-123 internal control requirements, the individual initialing this block cannot be the same person who signs the bottom right block.

In the "Other Charges/Credits" block, managers should document any additional charges, the reason for periods of unavailability, etc. However, Your Daily Diary should provide your primary means of documentation.

The Contractor's representative, usually the pilot, shall complete and sign these blocks to certify the record of services is accurate and complete.

Local aviation manager or other approved government representative reviews line entries, signs, and dates each OAS-23. The using unit should, if possible date stamp each OAS-23 on the date it is received. To ensure prompt payment, the white original OAS-23 must be forwarded to OAS no more than 2 days after the use period ends. All OAS-23's must be processed through the using unit's aviation manager prior to being sent to OAS.. They are Not to be sent directly to OAS. CWN managers are responsible for ensuring that the OAS-23's are delivered to the local unit aviation managers or dispatch office. During extended use periods, the OAS-23's may be signed and mailed every two weeks, usually on the 1st and the 16th of each month.

OAS COPY (ORIGINAL)

I CERTIFY THAT THE ABOVE RECORD OF SERVICE IS CORRECT AND NO PAYMENT HAS BEEN RECEIVED. <b>26</b>	I CERTIFY THAT THE ABOVE SERVICES WERE RECEIVED. <b>27</b>	AGENCY TELEPHONE NO. (COMM)	AGENCY:
SIGNATURE OF CONTRACTOR/AGENT/NOT. NAME: DATE:	SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE. NAME: DATE:	AGENCY ADDRESS:	





1 WORK NUMBER <b>1234567</b>		2 DATE OF FLIGHT <b>1 / 1</b>		3 CONTRACT NUMBER - REMIND	
4 USER CODE		5 PROJECT FIRE FLIGHT OR RESCUE ORDER NAME OR NUMBER		6 FAA IDENTIFIER	
7 USER UNIT		8 FROM		9 TO	
10 USER UNIT		11 FROM		12 TO	
13 USER UNIT		14 FROM		15 TO	
16 USER UNIT		17 FROM		18 TO	
19 USER UNIT		20 FROM		21 TO	
22 USER UNIT		23 FROM		24 TO	
25 USER UNIT		26 FROM		27 TO	
28 USER UNIT		29 FROM		30 TO	
31 USER UNIT		32 FROM		33 TO	
34 USER UNIT		35 FROM		36 TO	
37 USER UNIT		38 FROM		39 TO	
40 USER UNIT		41 FROM		42 TO	
43 USER UNIT		44 FROM		45 TO	
46 USER UNIT		47 FROM		48 TO	
49 USER UNIT		50 FROM		51 TO	
52 USER UNIT		53 FROM		54 TO	
55 USER UNIT		56 FROM		57 TO	
58 USER UNIT		59 FROM		60 TO	
61 USER UNIT		62 FROM		63 TO	
64 USER UNIT		65 FROM		66 TO	
67 USER UNIT		68 FROM		69 TO	
70 USER UNIT		71 FROM		72 TO	
73 USER UNIT		74 FROM		75 TO	
76 USER UNIT		77 FROM		78 TO	
79 USER UNIT		80 FROM		81 TO	
82 USER UNIT		83 FROM		84 TO	
85 USER UNIT		86 FROM		87 TO	
88 USER UNIT		89 FROM		90 TO	
89 USER UNIT		91 FROM		92 TO	
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91 USER UNIT		95 FROM		96 TO	
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93 USER UNIT		99 FROM		100 TO	
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97 USER UNIT		107 FROM		108 TO	
98 USER UNIT		109 FROM		110 TO	
99 USER UNIT		111 FROM		112 TO	
100 USER UNIT		113 FROM		114 TO	
101 USER UNIT		115 FROM		116 TO	
102 USER UNIT		117 FROM		118 TO	
103 USER UNIT		119 FROM		120 TO	
104 USER UNIT		121 FROM		122 TO	
105 USER UNIT		123 FROM		124 TO	
106 USER UNIT		125 FROM		126 TO	
107 USER UNIT		127 FROM		128 TO	
108 USER UNIT		129 FROM		130 TO	
109 USER UNIT		131 FROM		132 TO	
110 USER UNIT		133 FROM		134 TO	
111 USER UNIT		135 FROM		136 TO	
112 USER UNIT		137 FROM		138 TO	
113 USER UNIT		139 FROM		140 TO	
114 USER UNIT		141 FROM		142 TO	
115 USER UNIT		143 FROM		144 TO	
116 USER UNIT		145 FROM		146 TO	
117 USER UNIT		147 FROM		148 TO	
118 USER UNIT		149 FROM		150 TO	
119 USER UNIT		151 FROM		152 TO	
120 USER UNIT		153 FROM		154 TO	
121 USER UNIT		155 FROM		156 TO	
122 USER UNIT		157 FROM		158 TO	
123 USER UNIT		159 FROM		160 TO	
124 USER UNIT		161 FROM		162 TO	
125 USER UNIT		163 FROM		164 TO	
126 USER UNIT		165 FROM		166 TO	
127 USER UNIT		167 FROM		168 TO	
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147 USER UNIT		207 FROM		208 TO	
148 USER UNIT		209 FROM		210 TO	
149 USER UNIT		211 FROM		212 TO	
150 USER UNIT		213 FROM		214 TO	
151 USER UNIT		215 FROM		216 TO	
152 USER UNIT		217 FROM		218 TO	
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154 USER UNIT		221 FROM		222 TO	
155 USER UNIT		223 FROM		224 TO	
156 USER UNIT		225 FROM		226 TO	
157 USER UNIT		227 FROM		228 TO	
158 USER UNIT		229 FROM		230 TO	
159 USER UNIT		231 FROM		232 TO	
160 USER UNIT		233 FROM		234 TO	
161 USER UNIT		235 FROM		236 TO	
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163 USER UNIT		239 FROM		240 TO	
164 USER UNIT		241 FROM		242 TO	
165 USER UNIT		243 FROM		244 TO	
166 USER UNIT		245 FROM		246 TO	
167 USER UNIT		247 FROM		248 TO	
168 USER UNIT		249 FROM		250 TO	
169 USER UNIT		251 FROM		252 TO	
170 USER UNIT		253 FROM		254 TO	
171 USER UNIT		255 FROM		256 TO	
172 USER UNIT		257 FROM		258 TO	
173 USER UNIT		259 FROM		260 TO	
174 USER UNIT		261 FROM		262 TO	
175 USER UNIT		263 FROM		264 TO	
176 USER UNIT		265 FROM		266 TO	
177 USER UNIT		267 FROM		268 TO	
178 USER UNIT		269 FROM		270 TO	
179 USER UNIT		271 FROM		272 TO	
180 USER UNIT		273 FROM		274 TO	
181 USER UNIT		275 FROM		276 TO	
182 USER UNIT		277 FROM		278 TO	
183 USER UNIT		279 FROM		280 TO	
184 USER UNIT		281 FROM		282 TO	
185 USER UNIT		283 FROM		284 TO	
186 USER UNIT		285 FROM		286 TO	
187 USER UNIT		287 FROM		288 TO	
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189 USER UNIT		291 FROM		292 TO	
190 USER UNIT		293 FROM		294 TO	
191 USER UNIT		295 FROM		296 TO	
192 USER UNIT		297 FROM		298 TO	
193 USER UNIT		299 FROM		300 TO	
194 USER UNIT		301 FROM		302 TO	
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203 USER UNIT		319 FROM		320 TO	
204 USER UNIT		321 FROM		322 TO	
205 USER UNIT		323 FROM		324 TO	
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207 USER UNIT		327 FROM		328 TO	
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209 USER UNIT		331 FROM		332 TO	
210 USER UNIT		333 FROM		334 TO	
211 USER UNIT		335 FROM		336 TO	
212 USER UNIT		337 FROM		338 TO	
213 USER UNIT		339 FROM		340 TO	
214 USER UNIT		341 FROM		342 TO	
215 USER UNIT		343 FROM		344 TO	
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217 USER UNIT		347 FROM		348 TO	
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221 USER UNIT		355 FROM		356 TO	
222 USER UNIT		357 FROM		358 TO	
223 USER UNIT		359 FROM		360 TO	
224 USER UNIT		361 FROM		362 TO	
225 USER UNIT		363 FROM		364 TO	
226 USER UNIT		365 FROM		366 TO	
227 USER UNIT		367 FROM		368 TO	
228 USER UNIT		369 FROM		370 TO	
229 USER UNIT		371 FROM		372 TO	
230 USER UNIT		373 FROM		374 TO	
231 USER UNIT		375 FROM		376 TO	
232 USER UNIT		377 FROM		378 TO	
233 USER UNIT		379 FROM		380 TO	
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235 USER UNIT		383 FROM		384 TO	
236 USER UNIT		385 FROM		386 TO	
237 USER UNIT		387 FROM		388 TO	
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239 USER UNIT		391 FROM		392 TO	
240 USER UNIT		393 FROM		394 TO	
241 USER UNIT		395 FROM		396 TO	
242 USER UNIT		397 FROM		398 TO	
243 USER UNIT		399 FROM		400 TO	
244 USER UNIT		401 FROM		402 TO	
245 USER UNIT		403 FROM		404 TO	
246 USER UNIT		405 FROM		406 TO	
247 USER UNIT		407 FROM		408 TO	
248 USER UNIT		409 FROM		410 TO	
249 USER UNIT		411 FROM		412 TO	
250 USER UNIT		413 FROM		414 TO	
251 USER UNIT		415 FROM		416 TO	
252 USER UNIT		417 FROM		418 TO	
253 USER UNIT		419 FROM		420 TO	
254 USER UNIT		421 FROM		422 TO	
255 USER UNIT		423 FROM		424 TO	
256 USER UNIT		425 FROM		426 TO	
257 USER UNIT		427 FROM		428 TO	
258 USER UNIT		429 FROM		430 TO	
259 USER UNIT		431 FROM		432 TO	
260 USER UNIT		433 FROM		434 TO	
261 USER UNIT		435 FROM		436 TO	
262 USER UNIT		437 FROM		438 TO	
263 USER UNIT		439 FROM		440 TO	
264 USER UNIT		441 FROM		442 TO	
265 USER UNIT		443 FROM		444 TO	
266 USER UNIT		445 FROM		446 TO	
267 USER UNIT		447 FROM		448 TO	
268 USER UNIT		449 FROM		450 TO	
269 USER UNIT		451 FROM		452 TO	
270 USER UNIT		453 FROM		454 TO	
271 USER UNIT		455 FROM		456 TO	
272 USER UNIT		457 FROM		458 TO	
273 USER UNIT		459 FROM		460 TO	
274 USER UNIT		461 FROM		462 TO	
275 USER UNIT		463 FROM		464 TO	
276 USER UNIT		465 FROM		466 TO	
277 USER UNIT		467 FROM		468 TO	
278 USER UNIT		469 FROM		470 TO	
279 USER UNIT		471 FROM		472 TO	
280 USER UNIT		473 FROM		474 TO	
281 USER UNIT		475 FROM		476 TO	
282 USER UNIT		477 FROM		478 TO	
283 USER UNIT		479 FROM		480 TO	
284 USER UNIT		481 FROM		482 TO	
285 USER UNIT		483 FROM		484 TO	
286 USER UNIT		485 FROM		486 TO	
287 USER UNIT		487 FROM		488 TO	
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290 USER UNIT		493 FROM		494 TO	
291 USER UNIT		495 FROM		496 TO	
292 USER UNIT		497 FROM		498 TO	
293 USER UNIT		499 FROM		500 TO	
294 USER UNIT		501 FROM		502 TO	
295 USER UNIT		503 FROM		504 TO	
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297 USER UNIT		507 FROM		508 TO	
298 USER UNIT		509 FROM		510 TO	
299 USER UNIT		511 FROM		512 TO	
300 USER UNIT		513 FROM		514 TO	
301 USER UNIT		515 FROM		516 TO	
302 USER UNIT		517 FROM		518 TO	
303 USER UNIT		519 FROM		520 TO	
304 USER UNIT		521 FROM		522 TO	
305 USER UNIT		523 FROM		524 TO	
306 USER UNIT		525 FROM		526 TO	
307 USER UNIT		527 FROM		528 TO	
308 USER UNIT		529 FROM		530 TO	
309 USER UNIT		531 FROM		532 TO	
310 USER UNIT		533 FROM		534 TO	
311 USER UNIT		535 FROM		536 TO	
312 USER UNIT		537 FROM		538 TO	
313 USER UNIT		539 FROM		540 TO	
314 USER UNIT		541 FROM		542 TO	
315 USER UNIT		543 FROM		544 TO	
316 USER UNIT		545 FROM		546 TO	
317 USER UNIT		547 FROM		548 TO	
318 USER UNIT		549 FROM		550 TO	
319 USER UNIT		551 FROM		552 TO	
320 USER UNIT		553 FROM		554 TO	
321 USER UNIT		555 FROM		556 TO	
322 USER UNIT					

1	WORK NUMBER 1234567	2	DATE OF FLIGHT / /	3	CONTRACT NUMBER - REMIND
4	USER CODE PROJECT FIRE FLIGHT OR RESCUE ORDER NAME OR NUMBER	5	FAA IDENTIFIER FROM	6	MISSION CODE 3000 AM
7	USER UNIT	8	START	9	STOP
10	DATE	11	REG IORAL	12	DATE

**22. RATE:** Enter the rate as appropriate. For extended standby, or like situations, when two or more crew members are paid, increase the rate to reflect the additional crewmembers. Example: 3 crewmembers are authorized ES for 1 hour, rate per crewmember is \$32 /HR., enter \$96 in the rate block.

**BLOCK 11, MISSION CODE:** Enter the two-digit code that best describes the use of the aircraft (See coding instructions.) Example: For an air tanker on standby, enter 10 in mission code block, and SB in pay code block.

**OTHER ACTIVITIES**

18	Personnel Transport, Administrative
19	Survey / Observation
20	Ferry - Use for time spent repositioning aircraft for mission readiness
21	Wildlife / Animal Count
22	Search and Rescue
23	Law Enforcement / Investigation
24	Research
25	Air Quality Monitoring
26	Fire Management
27	Prescribed Burning (including delivery of retardant / water / foam)
28	Spray projects
29	Cargo Transport, other than FIRE
30	Aerial Photography
31	Infrared Imagery, normal activities
32	Aerial Ignition, normal activities
33	Accident Investigation
34	Other, normal activities
35	Reserved
36	Reserved
37	Reserved
38	Reserved
39	Training - Other than Pilot
40	Soil and Fertilization
41	Mutivac

**AVIATION MANAGEMENT ACTIVITIES**

01	Aircraft, Pilot, Unit Inspections
02	Pilot Training
03	Aircraft Maintenance
04	Reserved

**FIRE SUPPRESSION ACTIVITIES**

05	Personnel Transport, Fire Suppression
06	Reconnaissance (flights for gathering intelligence)
07	Detection (flights for detecting wildfire)
08	Air Attack Operations
09	Leadplane Operations
10	Retardant/Water/Foam Delivery
11	Smokejumper Operations
12	Helitack Operations
13	Rappeller Operations
14	Equipment/Supply Transport Operations
15	Infrared Imagery Operations
16	Aerial Ignition Operations
17	Other, Fire Suppression

USDA FOREST SERVICE

**13. PILOT NAME(S):** Enter the last name, first name of the PIC, Co-Pilot/IP if any.

**14. PASSENGERS AND OTHER CREW MEMBERS:** Enter the number of passengers, and other nonpilot crew members, exclusive of pilot(s) listed in block 13.

**15. CARGO TYPE:** Enter type of cargo transported; P = Paracargo, S = Slingload (less than 50 ft. line), L = Longline (more than 50 ft. line), C = All Other.

**16. CARGO LBS.:** Enter the number of pounds of cargo delivered.

**17. RETARDANT:** Enter the appropriate letter indicating the type used: F = Foam, W = Water, L = Liquid Based, S = Solid Based.

**12. PAY CODE:** Enter the two-digit code that best describes the purpose of the charges, i.e. NA (nonavailability) with a mission code (block 11) of 12 for helitack operations.

**BLOCK 12 - PAY CODE**

AV	Availability	JC	Job Contract
CH	Other Charges	NA	Non-Availability
CN	Cancel Dispatch	NF	Other Non-Flight
CR	Other Credit	ON	Overnight
DO	Mandatory Day Off	SB	Standby
ES	Extended Standby	SP	Special Passengers
FT	Flight Time	ST	Service Truck
GU	Guarantee	TX	Taxes

**18. USER UNIT**

USER UNIT	MISSION CODE	PAY CODE	LOCATION	NO. OF PEOPLE
27	ST	ST	AMES	
28	CI	CI	DESCRIBE	
29	CR	CR	DESCRIBE	
30				
31				
SUBTOTAL				
TOTAL OF ALL CHARGES				

**19. PASSENGERS AND OTHER CREW MEMBERS:** Enter the number of passengers, and other nonpilot crew members, exclusive of pilot(s) listed in block 13.

**20. CARGO TYPE P.L.C. OR LBS.**

**21. RETARDANT: F.M.S.**

**22. CARGO LBS.**

**23. RETARDANT: F.M.S.**

**24. EXERCISE TAX**

**25. EXERCISE TAX**

**26. EXERCISE TAX**

**27. SERVICE TRUCK CHARGES**

**28. OTHER CHARGES**

**29. OTHER CHARGES**

**30. EXERCISE TAX**

**31. EXERCISE TAX**

**32. TOTAL OF ALL CHARGES**

**33. NAME OF GOVERNMENT OFFICIAL (PLEASE PRINT)**

**PHONE NUMBER**

**14. I CERTIFY THAT THE SERVICES LISTED ABOVE HAVE BEEN RECEIVED AS SHOWN AND TITLE OF FOREST SERVICE OFFICIAL**

**15. I CERTIFY THAT THE SERVICES LISTED ABOVE HAVE BEEN RECEIVED AS SHOWN AND TITLE OF VENDOR AGENT**

**USDA - FOREST SERVICE - FLIGHT REPORT - FS 8500-122 (06/91)**

**PREVIOUS EDITION OF THIS FORM IS OBSOLETE**

**9. PROJECT, FIRE, FLIGHT, OR RESOURCE ORDER NAME OR NUMBER:** Enter a project, fire, flight, or resource order number or name that corresponds to the user on that leg.

1	2	3	4	5	6	7	8	9	10	11	12
USER UNIT	USER CODE	PROJECT FIRE FLIGHT OR RESOURCE ORDER NAME OR NUMBER	FAA IDENTIFIER	FROM	TO	ELAPSED TIME					

**10. FAA IDENTIFIER:** Enter the FAA airport identifier; examples: Boise = BOI, Roosevelt Helibase = Z58. Use FIR for landing on fires, HLB for unlisted helibases, HSP for non-fire unlisted helispots, and BCS for unlisted airstrips. (4 characters are allowed if needed.)

**8. USER CODE:** Enter the two-digit user code from the coding instructions that identifies the administrative unit/function using the aircraft.

- 01 Aviation and Fire Management
- 02 Administrative Management
- 03 Administrative Services
- 04 Civil Rights
- 05 Computer Services
- 06 Engineering
- 07 Experiment Stations
- 08 Fiscal and Accounting Management
- 09 Forest Pest Management
- 10 Human Resource Management
- 11 Lands
- 12 Land Management Planning
- 13 Law Enforcement
- 14 Mineral and Geology
- 15 Office of General Council
- 16 Office of Information
- 17 Personnel Management
- 18 Program Planning and Budget
- 19 Range Management
- 20 Recreation Management
- 21 Regional Forester / Forest Supervisor
- 22 State and Private Forestry
- 23 Timber Management
- 24 Watershed and Air Management
- 25 Wildlife and Fisheries
- 26 Other Agency or Cooperator
- 27 Other (explain in remarks block)

**21. ELAPSED TIME:** Enter the elapsed time in hours and hundredths for any "time" entry, regardless of the meter type or activity. If CLOCK time, see conversion table in coding instructions. If HOUR METER, enter whole hours and two digits on right side of decimal (example: 2.3 hours would be entered as 2.30 hours). When, for payment purposes, fractions of an hour are rounded to the next full hour, enter the whole hour, not the fraction.

**Block 21 - ELAPSED TIME.**  
Minutes to hundredth conversion

(Formula used to convert is: "Minutes" divided by 60)  
MINUTES = 100th

1=02	11=18	21=36	31=62	41=68	51=86
2=03	12=20	22=37	32=53	42=70	52=87
3=05	13=22	23=38	33=55	43=72	53=88
4=07	14=23	24=40	34=57	44=73	54=90
5=08	15=25	25=42	35=58	45=75	55=92
6=10	16=27	26=43	36=60	46=77	56=93
7=12	17=28	27=45	37=62	47=78	57=95
8=13	18=30	28=47	38=63	48=80	58=97
9=15	19=32	29=48	39=65	49=82	59=98
10=17	20=33	30=50	40=67	50=83	60=100

21	22	23
ELAPSED TIME	ELAPSED TIME	ELAPSED TIME

1 INVOICE NUMBER <b>1234567</b>	2 DATE OF FLIGHT / /	3 DATE OF FLIGHT / /	4 USER CODE 1	5 PROJECT FISCAL YEAR 1	6 SERVICE ORDER NUMBER 1	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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**23. LEG TOTAL:** Enter the sum of charges for each line.

**19. METER TYPE:** Enter C for clock, or H for hour meter.

**18. RETARDANT GALLONS:** Enter the gallons delivered by the aircraft.

**26. REMARKS:** Use this block to clarify or document any entry on the form. Attach additional sheets if necessary.

**NOTE:** When entries are made in blocks 26-29, and 31, a USER UNIT and MISSION CODE must be entered. Assign a USER UNIT that used or required the service corresponding to these charges. Assign a MISSION CODE that corresponds to the most significant activity for the day.

**20. TIME OR METER READING:** Enter the start and stop time of the activity being recorded (flight time, duty day, extended standby, etc.). Only two digits on left side of decimal are required, the entire hour meter reading is NOT required; (example: enter 41.2 if meter reads 5341.2). Regardless of elapsed time (block 21) being recorded in hours and hundredths, if hour meter used records in hours and tenths, only one digit on right side of decimal is required in this block. Use 24-hr. clock for clock time entries; (example: if time is 8:15 PM, enter 1815 in start / stop time block).

**26. OVERNIGHT CHARGES:** Enter USER UNIT, MISSION CODE, location, number of people, rate, and total. **NOTE:** not applicable to CWN connectors.

**27. SERVICE TRUCK CHARGES:** Enter USER UNIT, MISSION CODE, miles driven, rate, and total.

**24. ACCOUNTING SUMMARY:** Enter the NIFC fund code, unit, management code, fiscal year, budget object code, and total applicable charges. (The FS budget object code for aviation operations is 2541 and would normally be used for all charges recorded on this form.)

PREVIOUS EDITION OF THIS FORM IS OBSOLETE

USDA FOREST SERVICE FLIGHT REPORT FS 850-132 (REV. 5)

1 INVOICE NUMBER  
1234567

2 DATE OF FLIGHT  
/ /

3 CONTRACT NUMBER - ITEM NO  
/

4 AC REGISTRATION #

5 VENDOR NAME

6 USER UNIT CODE

7 LEG NUMBER

8 STATE CODES

9 USER UNIT CODE

10

11

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13

14 ACCOUNTING SIB

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**BLOCK 7-B, USER UNIT CODE: Enter the FS unit code, or non-FS agency code of the unit or agency USING THE AIRCRAFT.**  
*(If Non-Forest Service Unit, enter organization code from attached list)*

STATE CODES	Minnesota Div. of Forestry	MDF	Bureau of Land Management	BLM
MT	Montana Division of Forestry	MTDF	BLM-Alaska State Office	BLM-ALAK
NE	Nebraska Division of Forestry	NDF	BLM-Arizona State Office	BLM-AZ
NV	Nevada Division of Forestry	NMFR	BLM-California State Office	BLM-CA
NH	New Hampshire	SPFC	BLM-Colorado State Office	BLM-CO
NJ	New Jersey	WDNR	BLM-Eastern States Office	BLM-DE
CA	New Mexico	TFS	BLM-Idaho State Office	BLM-ID
CO	New York	WSF	BLM-Montana State Office	BLM-MT
DE	N. Carolina	WSF	BLM-Nevada State Office	BLM-NV
DC	N. Dakota	CAKC	BLM-New Mexico State Office	BLM-NM
FL	Ohio	CALAC	BLM-Oregon State Office	BLM-OR
GA	Oklahoma	GAOC	BLM-Utah State Office	BLM-UT
HI	Oregon	CARC	BLM-Wyoming State Office	BLM-WY
IL	Pennsylvania	CASDC	Department of Defense	DOD
IN	Rhode Island	CAYC	DOD-Air Force	USAF
IA	S. Carolina	PR	DOD-Army	DODA
KS	Tennessee	USDA	DOD-Marine Corps	USMC
KY	Texas	DOE	DOD-Navy	DODN
LA	Utah	EPA	Fish and Wildlife Service	FWS
ME	Vermont	FAA	FWS-Region 1 Reg Office	FWSH1
MD	Virginia	DOI	FWS-Region 2 Reg Office	FWSH2
MA	Washington	OAS	FWS-Region 3 Reg Office	FWSH3
MI	West Virginia	BIA	FWS-Region 4 Reg Office	FWSH4
MN	Wisconsin	BIAA	FWS-Region 5 Reg Office	FWSH5
MS	Wyoming	BIAAB	FWS-Region 6 Reg Office	FWSH6
MO		BIAB	FWS-Region & Reg Office	FWSH7
<b>OTHER NON-FOREST SERVICE</b>				
Alabama Forestry Commission	AFC	National Park Service	NPS	
Alaska Division of Forestry	ADF	NPS Mid-Atlantic Region	NPS-MA	
AZ State Land Development	ALD	NPS Midwest Regional Office	NPS-MW	
Florida Div. of Forestry	FDL	NPS N. Atlantic Reg. Office	NPS-NA	
Idaho Department of Lands	IDL	NPS Pacific Northwest Region	NPS-PN	
		NPS-Rocky Mountain Reg. Office	NPS-RM	
		NPS-Southwest Region	NPS-SW	



## **FLIGHT FOLLOWING PROCEDURES**

When the helicopter and module are ready to depart for the incident, the pilot must file a flight plan or do flight following while in transit.

At each fuel stop, the module manager, or pilot if the module manager is not aboard, should call in to NICC on the toll free phone number 1-800-994-6312 and give the aircraft desk a situation report.

Ground support shall do the same every four hours.

## **INSPECTION AND APPROVAL INFORMATION**

**In order to expedite the approvals and carding of aircraft and pilots for Forest Service and Department of Interior work, there are a few things that need to be considered before the USFS/OAS inspectors arrive at your site.**

- (1) Please have your pilots complete the Pilot Qualifications and Approval Record Form, and have their log books and pilot records available.
- (2) Please allow ample time in your pilot's schedule for the testing and safety briefing portion of our inspection. . .up to 1.0 hours.
- (3) Please allow ample time in your schedule for the flight check. . .up to 1.5 hours.
- (4) Please have any appropriate equipment installed on the aircraft prior to inspection and flight check, i.e., **dual controls**, radios, water buckets, etc. A long-line of at least 50' and a suitable weight should be available.
- (5) Please have maintenance records up to date and available for the aircraft avionics and maintenance inspectors.
- (6) Please have a copy of your contract with each aircraft offered.
- (7) Please have maintenance personnel available to open and close cowlings and access panels.
- (8) The fuel servicing vehicle will be inspected at this time.

## **DOCUMENTS REQUIRED FOR PILOT CERTIFICATION**

- [ ] 1. Complete Pilot Qualifications and Approval Record.
- [ ] 2. Copy of pilot's licenses.
- [ ] 3. Copy of pilot's medical certificate.
- [ ] 4. Copy of pilot's FAR 135 Airman Competency/Proficiency Check (FAA from 8410-3). For limited use helicopters, an equipment check endorsement by the chief pilot.
- [ ] 5. Copy of FAR 133 competency indorsement.
- [ ] 6. Signed Forest Service/OAS Pilot Safety Briefing.

**If you have questions regarding inspections,  
please call (208) 387-5621.**

### HELICOPTER & SERVICE TRUCK PRE-USE CHECKLIST

GENERAL		
DATE	AIRCRAFT MAKE/MODEL	FAA REGISTRATION #
CONTRACTOR		
PILOT(S) NAME(S):		
CARD EXPIRATION DATE(S):		
PILOT(S) CARGED FOR INTENDED MISSION(S): ( ) YES ( ) NO		
A/C CARD EXPIRATION DATE		A/C CARGED FOR INTENDED MISSION(S):
DEPT. BASE	DEPARTURE HCBSB READING	ARRIVAL HCBSB READING

LOGBOOK REVIEW		
90/100-HR. PROGRESSIVE OR OTHER INSPECTION PROGRAM UP-TO-DATE?	( ) YES	( ) NO
ENTRIES INDICATING DAMAGE TO AIRCRAFT?	( ) YES	( ) NO
POWER CHECK COMPLETED/RESULTS SATISFACTORY?	( ) YES	( ) NO
COMMENTS ON LOGBOOK:		

CONDITION OF HELICOPTER					
ITEM	OK	SCRATCHES	DENTS	TEARS	LEAKS
Skin and Exterior					
Windows					
Doors					
Upholstery					
Cargo Compartment					
Skids/Wheels					
Fuel Tank					
Bucket					
COMMENTS:					

REQUIRED HELICOPTER EQUIPMENT INSTALLED AND OPERATIVE (CONSULT CONTRACT)						
ITEM	YES	NO	ITEM	YES	NO	
Seat Belts and Harnesses			Strobe Lights			
Hi-Visibility Paint On Main Rotor Blades			Survival Kit			
9600-Channel Radio			First Aid Kit			
VHF-AM 720-Channel			Fire Extinguishers			
Parrotet Adapter			Cargo Hook			
Loran/GPS			Convex Mirror			
High Slid Gear			Bucket			
Mine-Pin Plug			Other:			
COMMENTS:						

REQUIRED SERVICE TRUCK EQUIPMENT INSTALLED AND OPERATIVE (CONSULT CONTRACT)						
ITEM	YES	NO	ITEM	YES	NO	
Score Set Of Filters			Filter Change Date Placarded			
Fire Extinguishers Current			Ground Cables			
Hazmat Marking and Placards			Fuel Quality Control Log			
Inspection Sticker			Absorbent Materials For Spills			
COMMENTS:						

SIGNATURE OF INSPECTING REPRESENTATIVE	PRINT NAME	DATE
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HELICOPTER SERVICES  
 HOURLY FLIGHT RATES, FUEL CONSUMPTION, AND WEIGHT REDUCTION CHART  
 JANUARY 15, 2002 FUEL SURVEY  
 EFFECTIVE FEBRUARY 16, 2002  
 (Applicable for Initial Contracts Awarded in 2002 – CWN/Exclusive Use)

Revision 4  
04/23/2002

COMPANY	AIRCRAFT TYPE	FUEL CONSUMPTION (gal/hr)	HOURLY FLIGHT RATE	LOAD CALCULATION Weight Reduction (lbs)
AEROSPATIALE	SA-315B	58	\$1,052	180
	SA-316B	58	\$1,052	170
	SA-318C	56	\$995	80
	SA-319B	55	\$1,009	NOT ESTABLISHED
	AS-330J	179	\$2,540	N/A
	SA-332L-1	160	\$2,770	N/A
	SA-341G	56	\$978	170
	AS-350B	45	\$647	130
	AS-350B-1	46	\$647	160
	AS-350B-2	48	\$653	160
	AS-350B-3	50	\$687	175
	AS-350D	38	\$651	130
	AS-355F-1	58	\$807	140
	AS-355F-2	58	\$807	140
	AS-365N-1	87	\$1,338	275
	EC-135	64	\$841	220
BELL:	47/SOLOY	23	\$390	120
	204B (UH1 Series)	88	\$951	200
	205A-1	89	\$992	260
	UH-1B	88	\$951	N/A
	UH-1F	85	\$965	N/A
	TH-1L	88	\$972	N/A
	UH-1H	89	\$975	N/A
	206B-II	25	\$482	100
	206B-III	27	\$489	130
	206L-1	32	\$590	150
	206L-3	38	\$608	180
	206L-4	38	\$605	180
	212	100	\$1,127	390
	214B	160	\$1,540	380
	214ST	133	\$1,993	NOT ESTABLISHED
	222A	70	\$1,201	NOT ESTABLISHED
	222B	83	\$1,242	NOT ESTABLISHED
	222UT	83	\$1,218	NOT ESTABLISHED
	407	45	\$670	155
412	110	\$1,290	OGE 390	
412HP	110	\$1,290	OGE 390	
BOEING:	BV-107	180	\$2,539	N/A
	BV-234	405	\$4,507	N/A
HILLER:	*SL-3/4	21	\$395	90
	H-1100B	22	\$516	130
	UH-12/SOLO	23	\$447	100
KAMEN:	H43-F	85	\$1,045	N/A
	K-MAX	85	\$1,023	N/A
MBB:	BO105CBS	55	\$784	180
	BK-117	77	\$1,109	160
McDONNELL-DOUGLAS:	500C	23	\$514	110
	500D/E	28	\$516	120
	520N	32	\$540	100
	530F	34	\$585	120
	600N	41	\$640	155
	900/902	69	\$858	210
SIKORSKY:	S-55T	47	\$727	170
	S-58D/E	83	\$1,107	N/A
	S-58T/PT6T-3	115	\$1,383	OGE 000
	S-58T/PT6T-6	115	\$1,383	OGE 000
	CH 54/S 64	525	\$4,634	N/A
	S-61N	170	\$2,415	N/A
	S-62A	70	\$831	300
	S-70	160	\$2,186	N/A
<b>AVERAGE GALLON PRICE:</b>		<b>JET FUEL</b>	<b>\$2.57</b>	

## ADDITIONAL INFORMATION FOR TYPE I & II CWN HELICOPTERS

### ADDITIONAL CONTRACT RATES -

1. Extended Standby Rate - per authorized crew member: **\$37.00/hr.**  
(G.5, page 48)
2. Additional Personnel (G.6, Page 48): Personnel ordered by the Government in excess of the indicated compliment will be considered "additional personnel," and will be paid the rate of \$400.00 per day. **\$400.00/day**
3. Airport Use Costs (G.9, page 49): **Actual Costs**
4. Payment for Retardent Concentrate (G.13, Page 50): **Actual Costs**
5. Payment for Fuel Servicing Vehicle Mileage (G11, Page 49):  
**\$2.40 per mile** - where the carrying capacity of aircraft fuel is 1,500 gallons or more.  
**\$1.90 per mile** - where the carrying capacity of aircraft fuel is at least 750 gallons, but less than 1,500 gallons.  
**\$1.35 per mile** - where the carrying capacity of aircraft fuel is at least 350 gallons, but less than 750 gallons.  
**\$.90 per mile** - where the carrying capacity of aircraft fuel is less than 350 gallons.
6. Overnight Allowance not applicable.

### COMPLEMENT OF PERSONNEL -

- TYPE I:** Complement of personnel to be provided with each Type I Helicopter is specified in the following helicopter information charts.
- TYPE II:** Maximum complement of personnel to be provided with each Type II Helicopter is three, unless additional personnel are ordered by the Government.

Blue Pages

**\_MINIMUM PERFORMANCE REQUIREMENTS  
(TYPE II - LIMITED AND STANDARD) -**

Turbine or piston engine.

Seating capacity (**standard only**) - a minimum of 9 passengers (turbine engine only when carrying passengers).

Capability of hovering-out-of-ground effect (HOGE) at 5,000 feet MSL and 30 c with a minimum payload of 1,600 pounds as computed on form FS-5700-17, Helicopter Load Calculation (see Section J), using actual 200 pounds for each required crew member and 1.5 hours of fuel on board.

**MINIMUM PERFORMANCE REQUIREMENTS  
(TYPE I - LIMITED AND STANDARD) -**

Turbine engine.

Seating capacity (**if applicable**) –for a minimum of 16 passengers

Capability of hovering-out-of-ground effect (HOGE) at 5,000 feet MSL and 30 c with a minimum payload of 4500 pounds as computed on form FS-5700-17, Helicopter Load Calculation (see Section J), using actual 200 pounds for each required crew member and 1.5 hours of fuel



## **SECTION C - DESCRIPTION/SPECIFICATION WORK STATEMENT**

### **C.1 SCOPE OF CONTRACT**

(1) The intent of this solicitation and any resultant contract is to obtain services of Standard and Limited use Type I and Type II Helicopters, (see Section J, DEFINITIONS OF CONTRACT TERMS) fully operated by qualified personnel and equipped to meet specifications for use in administration and protection of Public Lands.

(2) The Helicopter furnished will be used for fire support, project, law enforcement, and administrative flights. The Contractor must agree in writing to law enforcement flights (see Section J, DEFINITIONS OF CONTRACT TERMS).

(3) The Government has Interagency and cooperative agreements with State Agencies and private landholders and may dispatch aircraft under this contract for such cooperative use.

(4) When authorized by the Contractor (see SCHEDULE OF ITEMS), work under the contract may be performed utilizing a qualified Government Pilot.

(5) Performance of services may involve work and/or residence on Federal/State/Private property. Contractor employees are expected to follow the rules of conduct established or implemented by the manager of such work location that apply to all (both Government or non-Government) personnel. The Contractor may be required to replace employees who are found to be in noncompliance with Government facility rules of conduct.

### **C.2 CERTIFICATION AND OPERATIONS**

### **C.3 GENERAL (STANDARD AND LIMITED USE)**

(1) Contractors must be currently certificated under Federal Aviation Regulations (FAR) Part 133 (External Load Operations) and Part 137 (Agricultural Aircraft Operations).

**NOTE: FAR 137 certification is not required when the equipment offered is being used for 133 (external load operations) project work only.**

(2) Helicopters may be required to carry hazardous materials. Such transportation shall be in accordance with exemption DOT-E-9198 and the Department of Interior or USDA-FS Aviation Transport of Hazardous Materials Guide. A copy of the exemption and handbook must be aboard each aircraft operating under the provisions of this exemption. It is the Contractor's responsibility to ensure that each employee that may perform a function subject to this exemption receives training on the requirements and conditions of this exemption. Documentation of this training shall be retained by the company in the employee's records and made available to the Government inspector as required.

(3) To provide adequate fuel reserve all operations should comply with FAR 91.151 for VFR and FAR 91.161 for IFR operations.

(4) Flight Plans. Pilots shall file and operate on a FAA, ICAO, or Agency flight plan. Contractors flight plans are not acceptable. Flight plans shall be filed prior to takeoff when possible.

(5) Flight Following. Pilots are responsible for flight following with the FAA, ICAO, and/or in accordance with the Agency procedures.

(6) Military or other low visibility paint schemes are unacceptable. Other variations may be approved by the Contracting Officer.

#### **C.4 HELICOPTERS Awarded As Standard Use**

(1) Contractors shall hold a current FAA Aircarrier Certificate. Any Helicopter offered shall be listed by make, model, and series on the operators 135 Certificate. Aircraft operated under 14 CFR Part 135 shall be listed as required by 14 CFR 135.63 unless authorized by the Contracting Officer. The Contractor may be required to furnish a copy of the company Part 135 operating specifications manual to the Contracting Officer prior to the start of work.

(2) Helicopters shall conform to their approved type design, be maintained and operated in accordance with the requirements of the FAR (14 CFR 135.1 Subparagraph (b) not withstanding) and the aviation regulations of the States in which the Helicopter may operate except those requirements specifically waived by the Contracting Officer.

(3) 14 CFR 135.99 not withstanding, flights with ten (10) or more passengers may be made with a single pilot provided a qualified Helicopter Manager or Foreman is on board during the flight and operation specifications are being met. (Does not apply to USDI when aircraft are utilized for project use).

(4) Helicopters must be certificated in normal or transport category.

(5) Helicopters shall carry their fully rated capacity of passengers and cargo allowable as determined by the Standard Interagency Load Calculation method when ordered to do so by the Contracting Officer irrespective of the minimum requirements stated in the SCHEDULE OF ITEMS. Load calculations shall be performed on Form USDA-FS 5700-17 or Form DOI-67.

(6) A Government Helicopter Manager may ride in a Type I standard category Helicopter during point-to-point flights at altitudes above 500 ft. AGL subject to the following conditions:

(A) FAA approved passenger or crew seat with an FAA approved restraint system. This seat must be in conformity with the Helicopter's type certificate.

(B) The use of the observer position (jump seat) is not approved.

(C) Authorization to ride in a Standard Category Type I Helicopter will be noted on the Aircraft Approval Form (A/C Data Card).

**Note: The Government may elect not to utilize individual standard category aircraft for passenger transport. Such aircraft will be carded for cargo and external loads only. Offerors are encouraged to submit Daily Availability rates that when divided by 14 result in whole dollars not cents. Rates not divisible by 14 will be rounded up to the next whole number by the Government for the purpose of paying availability or deducting unavailability.**

### **C.5 HELICOPTERS Awarded As Limited Use**

(1) Helicopters must be certificated in normal, transport, or restricted category.

(2) Helicopter managers may not ride in any restricted category Helicopter.

(3) Helicopters shall have been issued a Standard or Restricted Airworthiness Certificate.

(4) Helicopters which are configured from aircraft types which have FAA Type Certificates obtained by the aircraft manufacturer must incorporate the manufacturer's designated changes to bring the aircraft into conformity with their type design, excluding passenger configuration requirements. All applicable Airworthiness Directives and manufacturer service bulletins must be accomplished.

(5) Helicopters which are configured from former military aircraft, which have FAA Type Certificates based upon military operation in lieu of a manufacturer's type certificate, must have all applicable Time Compliance Technical Orders (TCTO's) or Navy/Army Service Bulletins accomplished. This includes any directives which refer to later models of the same type which were issued after the earlier models had left the military inventory. If FAA approvals establish more restrictive limits, they will prevail

(6) Helicopters shall carry their fully rated capacity of cargo or suppressant/retardant as determined by use of the approved weight and balance and performance data (down load not required). Only external cargo loads may be carried.

(7) All internal passenger seats shall be removed during performance under this contract except seats for Contractor's personnel on ferry flights.

(8) A placard, stating "NO PASSENGERS" with letters at least 2 inches in height shall be displayed on the cabin door(s).

## **C.6 GOVERNMENT FURNISHED PROPERTY**

The Government will deliver to the Contractor the following Government-furnished property at the time of call-up. (See Section I, GOVERNMENT FURNISHED PROPERTY). The Contractor will be required to sign a property receipt document when receiving Government furnished property.

(1) Personal fire shelter for Contractor field personnel and instruction on deployment.

(2) Department of Interior or USDA-FS Aviation Transport of Hazardous Materials Guide.

(3) The Government may provide an Auxiliary VHF-FM Portable Radio (AUX-FM), if available (see Section C, CONTRACTOR FURNISHED AVIONICS SYSTEMS).

## **C.7 AIRCRAFT GENERAL REQUIREMENTS**

The Helicopter and accessories shall be in operable condition and present a neat and clean appearance. Upholstery, paint, and plexiglass shall be in good condition.

(1) Center of Gravity -

(A) All aircraft shall be configured so that the center of gravity will remain within the FAA-approved Flight Manual published limits for all load requirements and full range of fuel conditions, including ferry with minimum crew without subtraction or addition of ballast.

(B) All aircraft shall be loaded such that the center of gravity will remain within allowed limits during the flight. Actual weights will be used for flight calculation.

(C) If the equipped weight of the aircraft as noted by registration number in the SCHEDULE OF ITEMS changes, the Contractor must notify the Contracting Officer of the change and a new weight and balance as required by the Federal Aviation Regulations (FAR) must be submitted.

## **C.8 AIRCRAFT EQUIPMENT**

In aircraft designed for a single occupant (KMAX for example), any reference to observer, co-pilot or check pilot does not apply except where the intent of the requirement is applicable to a single occupant aircraft. In these instances, the requirement shall be followed substituting the word Pilot for observer, co-pilot or check-pilot.

## **C.9 GENERAL EQUIPMENT (STANDARD AND LIMITED USE)**

Helicopters shall be configured with the equipment required by applicable FAR's and approved for make and model furnished.

- (1) Instrumentation required by the type certificate and applicable FAR's for use with the make and model furnished.
- (2) Free-air temperature gauge.
- (3) Approved aircraft lighting for night operation in accordance with FAR 91.209, plus instrument lights.
- (4) One set of individual lap belts for each occupant.
- (5) First Aid Kit - In accordance with Section J, LIST OF ATTACHMENTS. Must be installed in the cabin area.
- (6) Survival Kit - In accordance with Section J, LIST OF ATTACHMENTS.
- (7) One cargo hook that may be loaded and locked in a single motion with one hand, and is rated at the maximum lifting capacity of the aircraft.

Helicopters for which an automatic locking cargo hook is not available are exempt from this requirement provided the cargo hook which is provided complies with the FAR applicable to the model aircraft.

The cargo hook and associated systems shall be completely disassembled, inspected, lubricated, if required, and subjected to an operations check in all operating modes at two year intervals. The inspection and maintenance shall be accomplished in accordance with the manufacturers operating and maintenance instructions as supplemented by this requirement.

(8) Helicopters shall be provided with adequate tie-down straps, nets, or other devices for securing cargo in the cabin or cargo compartment. These devices shall be simple in function and have the capability of being installed quickly.

(9) FAA approved double-strap shoulder harness with automatic locking inertia reels for each front seat occupant. Shoulder straps and lap belts shall fasten with one single-point, metal-to-metal, quick-release mechanism. (Standard factory shoulder harnesses are acceptable for Aerospatiale and Bell transport category Helicopters. Military style harnesses are acceptable).

(10) One variable capacity bucket commensurate with the maximum lifting capabilities of the aircraft.

Environmental operating conditions may dictate the need for more than one size bucket. Use of a water bucket at a quantity less than the manufacturer's minimum adjustment level is not authorized.

Capacity at each position or adjustment level will be marked on the bucket. Collapsible buckets with cinch straps will only be adjusted to the marked graduations. Attempts to establish intermediate graduations or capacities below manufacturer recommendation (tying knots, etc.) is prohibited as this results in estimated capacities and may interfere with the release mechanism. No partial dips are authorized.

Helicopters equipped with electronic helicopter hook load measuring systems (load cells) that provide a cockpit readout of the actual external load and a bucket that is equipped with a gating system that allows part of the load to be dispensed while retaining the remainder of the load are approved.

The bucket gate open/close switch(es) shall be spring loaded to the "OFF" position, and except for reciprocating engine-powered helicopters with twist grip throttles, shall be mounted on the collective. The switch shall be of a different design and shall be mounted in such a way as to not easily be confused with the RPM Control [Beep] switch.

The Jettison arming switch shall be in the armed position during dropping operations.

NOTE: When a bucket is attached directly to the cargo hook, it is critical to measure the maximum length of the extended bucket from the shackle on the control head to from the extended dump valve/fire sock, making sure that it is at least 6 inches less than the distance from the belly hook to the closest possible point on the tail rotor. Lines attached between the cargo hook and the bucket shall extend the bucket past the outside arc of the tail rotor.

(11) On Type II Helicopters, a convex mirror for observation of sling loads and landing gear.

(12) Dual controls are required for pilot performance evaluations. Dual controls need not be removed from Type I and II aircraft; however, during flight operations the front seat not occupied by the pilot may only be occupied by a co-pilot, qualified Helicopter manager, or a briefed and authorized aerial observer. The pilot shall instruct that individual in proper conduct applicable to a pilot station.

External load operations from other than the manufacturers designated pilot station are allowed only with approved operations specifications, applicable STC's, and appropriate designation on the aircraft interagency data card. The pilot shall occupy the manufacturer's designated pilot station during all but external load operations unless otherwise authorized by the FAA.

(13) High visibility markings on main rotor blades (See Section J, LIST OF ATTACHMENTS).

(14) One or more independently-switched white or white and red strobe light(s) mounted on top of the Helicopter or otherwise visible from above. If the aircraft certification requires the anticollision light to be aviation red, then a white strobe light with an independent activating switch shall be provided in addition to the red strobe.

(15) A complete set of current aeronautical charts covering area of operations.

(16) Contractor may provide equipment to store, inject, and mix fire suppressant/retardant materials in the delivery vessel while in flight. The system shall only require the pilot to select a mix ratio and to start the mix sequence, all other functions shall be automatic.

The Government will supply the suppressant/retardant concentrate. The Contractor, at his/her option, may furnish the suppressant/retardant. In which case, the Government will replace the quantity used or reimburse the Contractor at cost. Mix ratios will vary from 2/10th of one percent to one percent. Written operating procedures shall be provided for the pilot. These instructions shall include charts and/or tables for part load operations.

Each system shall be approved by the Contracting Officer prior to use. Contractors are expected to use due care in designing the equipment and in the selection of construction materials. See Section H.

(17) The fire extinguisher(s) as required by 14 CFR 135 shall be a hand-held bottle, with a minimum of 2-B:C rating and mounted with a quick release attachment accessible to the flight crew while seated. The fire extinguisher shall be maintained in accordance with NFPA 10 or the Contractor's 135 Operations Manual.

#### **C.10 EQUIPMENT - HELICOPTERS AWARDED AS STANDARD USE**

(1) One digital hour meter shall be installed in a location visible from the cockpit. The meter shall be wired in series with a switch on the collective control, and a switch activated by engine or transmission oil pressure or equivalent system, to record flight time only.

(2) Helicopters with a floor height greater than 18 inches shall have an approved personnel access step to assure safe entrance and exit from each door of the Helicopter. A section of external cargo rack may be utilized as a step by providing a clear space covered with non-skid material.

(3) FAA-approved extended height landing gear. (Helicopters for which this landing gear is not available are exempt from this requirement.)

(4) Accessory Power Source (TYPE II HELICOPTERS). A power connector (MS3112E12-3S) protected by a 5-amp circuit breaker connected to the avionics or main aircraft power buss. The connector shall be permanently mounted in a location convenient to the passenger compartment. Pin A shall be +24 VDC in 24 volt aircraft, Pin B shall be aircraft ground, and Pin C shall be +12 VDC in 12 volt aircraft. NEVER apply power to both pins A and C simultaneously. See FS/OAS A-16; STANDARD CONNECTORS, section J, List of attachments.

### **C.11 EQUIPMENT - HELICOPTERS AWARDED AS LIMITED USE**

(1) One digital hour meter shall be installed in a location readily accessible. The meter shall be wired in series with a switch on the collective control, and a switch activated by engine or transmission oil pressure or equivalent system, to record flight time only.

### **C.12 AIRCRAFT AVIONICS**

(1) General.

(A) The following required avionics systems shall be furnished, installed, and maintained by the Contractor in accordance with the manufacturer's specifications and the installation and maintenance standards of Section. C.12 (6).

(B) A complete set of schematic and wiring diagrams, covering all installed avionics systems, shall be carried aboard each aircraft or the aircraft's dedicated service vehicle.

(2) Communications systems:

(A) One Emergency Locator Transmitter (ELT). An automatic-portable/automatic-fixed or automatic-fixed ELT utilizing an external antenna and meeting the same requirements as those detailed for airplanes in 14 CFR 91.207 (excluding section f.), shall be installed per the manufacturer's installation manual, in a conspicuous or marked location.

NOTE: ELT's certified under TSO-C91 will not be acceptable after January 1, 2005. Acceptable ELT's shall be certified under TSO-C91a and TSO-C126.

(B) One panel mounted VHF-AM aeronautical transceiver (VHF-1), operating in the frequency band of 118.000 to 135.975 MHz, with a minimum of 720 channels in no greater than 25 kHz increments, and a minimum of 5 watts carrier output power.

NOTE: One (minimum) 760 channel VHF-AM aeronautical transceiver operating from 118.000 to 136.975 MHz shall be required on January 1, 2005.

(C) One aeronautical VHF-FM radio transceiver (FM-1).

1. The transceiver shall operate from 150 to 174 MHz, permit the operator to program any usable frequency within that band while in flight, provide operator selection of both wide-band (25 kHz bandwidth/5 kHz modulation) and narrow-band (12.5 kHz bandwidth/2.5 kHz modulation) operation by channel for MAIN and GUARD operation.
2. Carrier output power shall be 10 watts nominal. The transceiver shall be capable of displaying receiver and transmitter operating frequency. Shall provide both receiver and transmitter activation indicators for MAIN and GUARD. Simultaneous monitoring of both MAIN and GUARD (168.6250 MHz) is required. Scanning of GUARD is not acceptable.
3. A CTCSS sub-audible tone encoder with a minimum of 32 standards selectable tones shall interface with the above radio. The encoder shall be capable of encoding a 110.9 Hz tone on all GUARD transmissions.
4. The transceiver's operational controls shall be mounted in a location that is convenient to both pilot and co-pilot/observer. The transceiver shall meet the specifications provided in Section J, FS/OAS A-24; AVIONICS OPERATIONAL TEST PROCEDURES
5. Aircraft having two or more aeronautical VHF-FM radio transceivers need only have a GUARD receiver in the first transceiver (FM-1) unless one is Project 25 digital compliant and the other is not.
6. Aeronautical VHF-FM radio transceivers currently accepted.

Eureka Radio Systems (ERS)	ERS-96000NB*
Northern Airborne Technology	NPX-138N-050 & NTX-138-050
Technisonic Industries	TFM-138 (serial # 1540 & up), TFM-138B/C/D, TDFM-136, & TFM-500
Wulfsburg Electronics	Flexcom II, RT-138*, & RT-9600*

\* Require narrowband modification installation.

(D). Provisions for an auxiliary VHF-FM (AUX-FM) portable radio:

1. The Contractor shall provide the necessary interface for installing and properly operating an auxiliary VHF-FM portable radio through the aircraft's audio control system(s). The interface shall consist of the appropriate wiring from the audio control system, terminate in an MS3112E12-10S type connector and utilizing the contact assignments as specified by drawing FS/OAS-17, Section J, List of Attachments.

2. One weatherproof, external, broadband antenna (Comant type C1177 or equal) covering the 150-174 MHz band, with associated RG-58A/U (or equivalent) coaxial cable and connector, terminated in a bulkhead-mounted, female BNC connector adjacent to the above 10-pin connector.

3. Mounting facilities, in accordance with the specifications of FAA Advisory Circular AC 43.13-2A, for secure installation of the auxiliary VHF-FM portable radio in the cockpit shall be provided. The location of the mounting facilities shall be such that, when connected with an 18-inch adapter cable, allows the co-pilot/observer full and unrestricted movement of the radio's controls.

4. Positive-polarity microphone excitation voltage shall be provided to the AUX-FM system from the aircraft DC power system through a suitable resistor network. A blocking capacitor shall be provided to prevent the portable radio microphone excitation voltage from entering the system. Sidetone for the AUX-FM shall also be provided (NAT AA34, Premier PA-34, or equivalent).

5. In lieu of the above AUX-FM requirements, the Contractor may substitute one aeronautical VHF-FM radio transceiver (FM-2) which meets the same requirements as FM-1 unless the second aeronautical VHF-FM radio transceiver (FM-2) is specifically required. When two aeronautical VHF-FM radio transceivers are required, the AUX-FM is also required.

(3) Navigation systems:

(A) Global Positioning System (GPS). One panel-mounted GPS shall be permanently installed in the aircraft. The GPS shall reference latitude and longitude coordinates for aircraft positioning, utilize an approved, fixed, external aircraft antenna, and be powered by the aircraft electrical system. The GPS unit must have the ability for manual entry of waypoints in flight. The GPS shall have a data base (VFR and in route units not over one (1) year old and for IFR Approach units not over 28 days old) covering the continental United States and Alaska. Handheld and/or marine type equipment is not acceptable.

(B) One Transponder and Altitude Encoder. ATC transponder and altitude reporting system(s) must meet the requirements of 14 CFR 91.215 (a) and (b), 14 CFR 91.413 and be tested and inspected every 24 calendar months as specified by 14 CFR Part 43, appendix F.

(C) One Static Pressure System, Altimeter Instrument System, and Automatic Pressure Altitude Reporting System (Static System). The aircraft's static system(s) shall be maintained in accordance with the IFR requirements of 14 CFR 91.411, and inspected and tested every 24 calendar months as specified by 14 CFR Part 43, appendix E.

(4) Audio Control System(s).

(A) General.

1. LIMITED USE. An audio control system shall be provided for the pilot and check/co-pilot. The system shall provide controls for selection of multiple receiver audio outputs and transmitter microphone/PTT audio inputs. The system shall also provide separate controls for adjustment of both Intercommunication System (ICS) and receiver audio output levels.

Note: ICS not required for aircraft designed for a single occupant (i.e. K-MAX).

2. STANDARD CATEGORY. Two audio control systems (which may be combined in a single unit) shall be installed providing the pilot and observer/co-pilot separate systems. Each system shall provide pilot and observer/co-pilot with separate controls for selection of multiple receiver audio outputs and transmitter microphone/PTT audio inputs. Each system shall also provide pilot and observer/co-pilot with separate controls for adjustment of both ICS and receiver audio output levels.

(B) Transmitter selection and operation.

1. LIMITED USE. A transmitter selection control shall be provided for the microphone/PTT inputs of the pilot and check/co-pilot. The system shall be configured so that the pilot or check/co-pilot may select and utilize a transmitter via their microphone/PTT. Whenever a transmitter is selected, the companion receiver audio shall automatically be selected. Transmitter sidetone audio shall be provided for the operator as well as for cross monitoring.

2. STANDARD CATEGORY. Separate transmitter selection controls shall be provided to the microphone/PTT inputs of both the pilot and observer/co-pilot. The system shall be configured so that the pilot and observer/co-pilot may each simultaneously select and utilize a different transmitter (or PA system when installed) via their respective microphone/PTT. Whenever a transmitter is selected, the companion receiver audio shall automatically be selected for the corresponding earphone. Transmitter sidetone audio shall be provided for the user as well as for cross monitoring via the corresponding receiver selection switch on the other audio control system.

(C) Receiver selection and operation.

1. LIMITED USE. Separate controls shall be provided for selection of audio from one or any combination of available receivers.

2. STANDARD CATEGORY. Separate controls shall be provided for both pilot and observer/co-pilot to select audio from one or any combination of available receivers. The aft exit passenger positions shall monitor the receiver(s) as selected by the observer/co-pilot (two positions minimum).

(D) Radios and systems.

1. As a minimum, the audio control system(s) shall provide for selection of all installed radios and PA systems.

(E) Earphones and microphones - STANDARD CATEGORY.

1. The audio system shall be designed for operation with 600-ohm earphones and carbon-equivalent, noise-canceling boom-type microphones (Gentex electret type Model 5060-2, military dynamic type M-87/AIC with CE-100 TR preamplifier, or equivalent) with U-92A/U type connector plugs. The pilot's position only may be configured for low impedance (dynamic) operation.

2. All earphone/microphone jacks in the aircraft shall be U-92A/U type, which will accept the U-174/U type plug.

(F) Push-to-talk (PTT) operation.

1. LIMITED USE. Separate PTT switches shall be provided for radio transmission and ICS microphone operation at the pilot and check/co-pilot positions.

2. STANDARD CATEGORY. Separate PTT switches shall be provided for radio transmitter and ICS microphone operation at the pilot and observer/copilot positions. The pilot's PTT switches shall be mounted on the cyclic control. The observer/co-pilot's PTT switches shall be mounted on the cord to the earphone/microphone connector or utilize a foot switch-operated PTT system. In aircraft requiring two pilots the observer/co-pilot's PTT system may be on the cyclic control. The aft exit passenger positions shall be equipped with an ICS PTT switch mounted on the cord to the earphone/microphone connector (two positions minimum).

(5) Intercommunications System (ICS).

(A) LIMITED USE. An ICS system shall be provided for the pilot and check/co-pilot. ICS audio shall mix with, but not mute, selected receiver audio. An ICS audio level control shall be provided for each position above. Adjustment of the ICS audio level at any position shall not affect the level at any other position. A "hot mic" capability, controlled via an activation switch or voice activation (VOX), shall be provided. ICS sidetone audio shall be provided for the earphone corresponding with the microphone in use.

Note: ICS not required for aircraft designed for a single occupant (i.e. K-MAX).

(B) STANDARD CATEGORY. An ICS system shall be provided for the pilot, observer/co-pilot, and the aft exit passenger positions (two positions minimum). ICS audio shall mix with, but not mute, selected receiver audio. An ICS audio level control shall be provided for each position above. Adjustment of the ICS audio level at any position shall not affect the level at any other position. A "hot mic" capability, controlled via an activation switch or voice activation (VOX), shall be provided for the pilot and observer/co-pilot. ICS sidetone audio shall be provided for the earphone corresponding with the microphone in use.

(6) AVIONICS INSTALLATION AND MAINTENANCE STANDARDS.

(A) All avionics systems used in or on the aircraft for this contract and their installation and maintenance shall comply with all manufacturers' specifications and applicable Federal Aviation Regulations contained within 14 CFR.

(B) Strict adherence to the recommendations in FAA AC 43.13-1B Chapter 11, "Aircraft Electrical Systems", and Chapter 12, "Aircraft Avionics Systems", as well as AC 43.13-2A Chapter 1, "Structural Data", Chapter 2, "Radio Installation", and Chapter 3, "Antenna Installation", is required.

(C) All avionics systems requiring an antenna shall be installed with a properly matched aircraft-certified, broadband antenna unless otherwise specified.

(D) Antennas shall be polarized as required by the avionics system and have a VSWR less than 2.5 to 1.

(E) Required avionics systems and contractor offered avionics/communication equipment must meet the performance specifications as specified in Section J, FS/OAS A-24; AVIONICS OPERATIONAL TEST PROCEDURES.

(F) Labeling and marking of all avionics equipment shall be clear, understandable, legible, and permanent. Electronic label maker marking is acceptable.

(G) Avionics equipment mounting location and installation shall not interfere with passenger safety, space, and comfort. Avionics equipment will not be mounted under seats designed for deformation during energy attenuation. In all instances, the designated areas for collapse shall be protected.

### C.13 AIRCRAFT MAINTENANCE

(1) The Contractor shall be capable of providing field maintenance support to each Helicopter for extended periods during heavy use.

(2) Helicopters shall be operated and maintained in accordance with applicable Federal Aviation Regulations and manufacturer's recommendations. Special equipment and/or modification of the Helicopter to meet requirements of this contract will be inspected, repaired, and altered in accordance with AC 43.13-1A and AC 43.13-2A and, if required, be FAA approved. All "time change" components, including engines, shall be replaced upon reaching the factory recommended time, or FAA approved extension if applicable. Aircraft operated with components and accessories on approved TBO extension programs are acceptable, provided the Contractor who provides the aircraft is the holder of the approved extension authorization (not the owner if the aircraft is leased), and shall operate in accordance with the extension.

(3) Compliance with mandatory manufacturer's Bulletins, FAA Airworthiness Directives (AD), and the correction of maintenance deficiencies shall be accomplished prior to the start and during the period of contract performance.

(4) All maintenance performed shall be recorded in accordance with FAR 43 and FAR 91 including Helicopter time-in-service and hour meter reading.

(5) A copy of the current maintenance record required by FAR 91.417 shall be in the Helicopter or kept at the Base of Operations.

(a) Maintenance of aircraft records shall be in accordance with the Federal Aviation Administration Advisory circular No. 43-9C as amended.

(6) The Contractor shall immediately notify the Contracting Officer of any change of an engine, power train, control, or major airframe component and circumstances inducing the change.

(7) Routine maintenance including pre- and post- flight inspections shall be performed before or after the daily standby or as approved by the Contracting Officer.

(8) The aircraft's required weight and balance data shall be determined by actual weighing of the aircraft within 24 calendar months preceding the starting date of the contract, or renewal period, and following any major repair or major alteration or change to the equipment list which significantly affects the center of gravity of the aircraft.

All weighing of aircraft shall be performed on scales that have been certified as accurate within the preceding 24 months. The certifying agency may be any accredited weights and measures laboratory.

A list of equipment installed in the aircraft at the time of weighing must be compiled. Items which may be easily removed or installed for aircraft configuration changes (seats, doors, radios, cargo hook, baskets, special mission equipment, etc.) shall also be listed including the name, the weight and arm of each item. Each page of the equipment list must identify the specific aircraft weighed by at least serial number or registration number of the aircraft. Each page of the equipment list will also be dated indicating the last date of weighing or computation. The weight and balance must be revised each time new equipment is installed or old equipment is removed. Weight and balance procedures under 14 CFR Parts 135.23(b) and 135.185 are acceptable.

(9) A maintenance check flight shall be performed at the Contractor's expense following overhaul, repair, and replacement of any engine, power train, rotor system or flight control equipment, and following any adjustment of the flight control systems before the Helicopter resumes service. The result of the check flight shall be recorded in the aircraft records by the Pilot.

(10) Turbine Engine Power Assurance Checks. The first day of operation and after each 10 (ten) hours of operation, a power assurance check shall be accomplished in accordance with the Helicopter flight manual. The results shall be recorded on form HMC-4 that is provided by the Government. A trend of these power checks shall be maintained on form FS-5700-23. The results of each power check shall be provided to the Helicopter Manager for recording in the daily log. Helicopters with power output below the minimum published performance charts shall be removed from service. The low power condition must be corrected before return to service.

#### **C.14 FUEL SERVICING VEHICLE SPECIFICATIONS**

#### **C.15 FUEL SERVICING VEHICLE GENERAL**

(1) An approved fuel servicing vehicle (truck, trailer, pumphouse) shall be provided with each Helicopter. The fuel servicing vehicle shall be inspected annually by the Government and shall be stationed at the Base of Operation unless dispatched by the Contracting Officer. Vehicle shall display a current USDA-FS or USDFOAS inspection sticker.

(2) The fuel servicing vehicle shall be capable of transporting fuel over rough mountainous terrain to include grades of up to 9 percent or more.

(3) Fuel servicing vehicles shall be properly maintained, clean, and reliable. Tanks, plumbing, filters, and other required equipment shall be free of rust, scale, dirt, and other contaminants. Trailers used for storage and transport of fuel shall have an effective wheel braking system.

(4) Spare filters, seals, and other components of the fuel servicing vehicle filtering system shall be stored in a clean dry area. A minimum of one set is required to be with the vehicle.

(5) The fuel tank capacity shall be sufficient to sustain 8 hours flight. Barrels are not acceptable. The fuel servicing vehicle manufacturers' gross vehicle weight (GVW) with a full fuel tank shall not be exceeded.

(6) All tanks will be securely fastened to the truck bed and shall have a sump or sediment settling area of adequate capacity to provide uncontaminated fuel to the filter.

(7) A 10-gallon-per-minute flow rate delivered by the filter and pump from the nozzle is the minimum size acceptable. Filter and pump sizes shall be compatible with the Helicopter being service.

(8) A filter manufacturer's Operating, Installation and Service Manual shall be with the fuel servicing vehicle. Filters shall be changed in accordance with the manual's instructions.

(9) Gasoline engine driven pumps shall have shielded ignition system and Forest Service approved spark arrestor. Other exposed terminal connections shall be insulated to prevent sparking in the event of contact with conductive material.

(10) All refueling pumps regardless of power source shall be listed for use with petroleum products (e.g. UL, FM etc.).

#### **C.16 FUEL SERVICING VEHICLE EQUIPMENT**

(1) Each aircraft fuel servicing tank vehicle shall have two fire extinguishers, each having a rating of at least 20-B:C with one extinguisher mounted on each side of the vehicle. Extinguishers shall comply with NFPA 10 Standards for Portable Fire Extinguishers.

(2) Fuel tanks shall be designed to allow contaminants to be removed from the sediment settling area.

(3) Only hoses designed for dispensing of the type of Aviation fuel being utilized will be used. Hoses that comply with API BULL 1529 hose Type C, Type F and Type CT are known to meet this requirement. Hoses shall be kept in good repair and stored on a mechanized reel on the fuel servicing vehicle. .

(4) Fuel nozzle shall include a 100 mesh or finer screen (except for closed circuit nozzles), a dust protective device and a bonding clip or plug. No hold-open devices will be permitted.

(5) An accurate fuel metering device for registering quantities in U.S. gallons of fuel pumped shall be provided. The meter shall be positioned in full view of the fuel handler while fueling the Helicopter.

(6) Fuel servicing vehicle shall have adequate bonding cables.

(7) Fuel servicing vehicle shall comply with Department of Transportation and Environmental Protection Agency requirements for transportation and storage of fuel, and shall carry sufficient petroleum product absorbent pads or materials to absorb or contain up to a 5 gallon petroleum product spill. The Contractor is responsible for cleanup of all product spills and disposal of all products used in the cleanup of a spill in accordance with the EPA, CFR 40 Part 261 and 262..

### C.17 FUEL SERVICING VEHICLE MARKINGS

(1) Each fuel servicing vehicle shall have "NO SMOKING" signs with 3-inch minimum letters visible from both sides and rear of vehicle.

(2) Each vehicle shall also be conspicuously and legibly marked to indicate the nature of the fuel. The marking shall be on each side and the rear in letters at least 3 inches high on a background of sharply contrasting color such as Avgas by grade or jet fuel by type.

**EXAMPLE: Jet-A white on black background, Avgas 100 white on green background.**



(3) All fuel servicing vehicles must be placarded in accordance with 49 CFR 172

### C.18 FUEL SERVICING VEHICLE FILTERING SYSTEM

(Three-Stage or Single-Stage is acceptable)

(1) The first and third stage elements of a three-stage system and the elements of a single-stage system shall be new and installed by the Contractor during the annual inspection and witnessed by the Government Inspector. The separator element (Teflon screen) of the three-stage system shall be inspected and tested as prescribed by the manufacturer during the inspection. The filter assembly shall be placarded with that data.

(2) If equipped with a drain, the bottom of the filter assembly shall be mounted to allow for draining and pressure flushing into a container. If the unit is drained overboard, the fuel shall not come in contact with the exhaust system or the vehicle's wheels. If the unit is equipped with a water sight gauge, the balls shall be visible.

(A) Three-Stage (filter, water separator, monitor) System: Fueling systems shall utilize a three-stage system such as a Facet Part Number 050970-M2 for 20 gallon per minute pump, or equal. A Facet Part Number 050971-M2 for a 10 gallon-per-minute (g.p.m.) pump, or equal. An acceptable third stage (monitor) unit is Velcon C.F. 220K for 20 g.p.m. flow or Velcon C.F. 210K for 10 g.p.m. systems.

(B) Single-Stage System or Three-in-One Filter Canister: Fueling systems shall utilize a single element system such as a Velcon filter canister with Aquacon cartridge of a size compatible with pumps flow rate. Differential pressure gauge(s) shall be installed and readable.

**EXAMPLE: Velcon™ VF-61 canister with an ACO-51201C cartridge.**

## C.19 FUELING

(1) All aircraft fuel shall be supplied by the Contractor unless the Government exercises the option of providing fuel. All fuel provided by the Contractor will be commercial grade aviation fuel. Only fuel meeting the specifications of American Society for Testing and Materials (ASTM) D-1655 (Type Jet A, A-1, or B), MIL T-5624 (Grade JP-4 or JP-5) for turbine engine powered aircraft and ASTM D-910 (Avgas Grade 80, 100, or 100LL) for reciprocating engine powered aircraft are authorized for use. Copies of purchase documents will be kept until the completion of the contract period or 30 days after the delivery date of the fuel, whichever comes first.

(2) Fueling operations, including storage and handling, shall comply with the airframe and engine manufacturer's recommendations and all applicable FAA standards. [ NFPA Standard No. 407, Aircraft Fuel Servicing, shall be followed except that no passengers may be on board during fueling operations.] Additionally, if storage facilities contain more than 1,320 gallons in total or any one single container contains more than 660 gallons, then the regulations of the Environmental Protection Agency (EPA) shall apply; see Title 40, Code of Federal Regulations, Part 112 (40 CFR 112).

(3) Fuel shall pass through a filtering system, as outlined in Section C, FUEL SERVICING VEHICLE FILTERING SYSTEM, in accordance with the filter manufacturer's recommendations.

(4) If requested by the government and the contractor has been approved, Rapid Refueling of Helicopters is permitted in accordance with NFPA 407 5-21. There are two approved methods of Rapid Refueling:

(1) **Closed Circuit Refueling (CCR).** This method of refueling uses a CCR system designed to prevent spills, minimized fuel contamination, and prevent escape of flammable fuel vapors.

(2) **Open Port.** This method of refueling allows flammable fuel vapors to escape.

Rapid refueling of helicopters is permitted if requested by the Government, and the Contractor meets the following requirements:

Rapid refueling procedures in accordance with NFPA 407 -21 are contained in the Contractor's FAA approved Operations Specifications and the type of "rapid refueling" is specified on the aircraft approval card.

Notwithstanding NFPA 407 5-21.2(b), a pilot is seated at the controls of the aircraft during refueling operations.

The aircraft is shut down every 2 ½ hours of continuous operation.

Personnel providing onsite fire protection are briefed on the Contractor's rapid refueling procedures.

(5) Government personnel shall not refuel Contract aircraft unless the pilot requests Government assistance due to an emergency situation; or when the Government provides the fuel servicing system and dispensing personnel.

(6) Fuel quality control procedures are outlined in Section J, LIST OF ATTACHMENTS.

(7) All smoking is prohibited within 50 feet of fuel servicing vehicles and aircraft.

## **C.20 PERSONNEL SPECIFICATIONS**

### **C.21 PILOT REQUIREMENT GENERAL**

The Contractor shall furnish pilots as specified in the SCHEDULE OF ITEMS.

(1) At time of carding, each pilot shall display:

(A) Commercial or Airline Transport Pilot Certificate with appropriate rating (Rotorcraft-Helicopter) and a valid Class I or Class II FAA medical certificate.

(B) Written evidence of qualification to transport external loads.

(C) Standard Use Helicopters: Written evidence of passing an FAA annual flight check as required by FAR, Part 135 in the aircraft make and model furnished.

(2) Pilot shall display upon demand to any official involved in flight operations:

(A) An Agency Pilot Qualification Card issued by a designated inspector of Pilots.

(3) At the Contracting Officer's discretion, each pilot shall pass an Agency flight check in make, model, and series over typical terrain.

(4) Pilots may function as mechanics providing:

(A) The pilot meets all the requirements for a mechanic as listed in Section C, Mechanic Requirements.

(B) The normal pilots duty limitations will apply to the pilot when functioning as a mechanic.

(C) During unavailability, mechanic duties in excess of 2 hours will apply as flight time on a one-to-one basis toward flight hour limitations.

(D) A mechanic, other than the pilot, shall perform 50-hour, 100-hour, or progressive inspections.

(5) Pilots may, in accordance with FAR 43.3(h), 43.5 and 43.7, perform preventive maintenance on the aircraft.

(6) Pilots must speak English fluently.

## C.22 PILOT EXPERIENCE REQUIREMENTS

(1) All Activities. Pilots shall have accumulated as Pilot-in-Command the minimum flight times listed below. Flight time shall be determined from a certified Pilot log. Further verification of flight hours may be required at the discretion of the Contracting Officer.

<b>MINIMUM</b>	<b>FLIGHT HOURS</b>
	-----
Helicopter	1,500
Helicopter, preceding 12 months	100
Weight Class <u>1</u> /	100
Turbine Engines <u>2</u> /	100
Reciprocating Engines <u>3</u> /	200
Make and Model,	50 4/
Make, Model and Series, Preceding 12 months	10 5/
Helicopter, last 60 days	10
Mountainous Terrain <u>6</u> /	200
Mountainous Terrain in Make and Model	10

**FOOTNOTES:**

- 1/ Weight Class -  
 Type I: No less than 16 seats (including Pilot), 5000 lbs. Card weight capacity, and 700 gallons retardant capacity.  
 Type II: 9-15 seats, 2500-4999 lbs card weight capacity, and 300-699 gallons retardant capacity.  
 Type III: 5-8 seats, 1200-2499 lbs card weight capacity, and 100-299 gallons retardant capacity.  
 Type IV: 3-4 seats, 600-1199 lbs card weight capacity, and 75-99 gallons retardant capacity.
- 2/ Applicable if turbine engine Helicopters are offered.
- 3/ Applicable if reciprocating engine Helicopters are offered.
- 4/ Pilot flight hour requirements in make and model may be reduced by 50 percent if pilot shows evidence of satisfactorily completing the manufacturer's approved ground school and flight checkout in the make, model, and series offered.
- 5/ A list of aircraft make, model, and series is provided in Section J. This list does not specifically follow the FAA guidelines as it relates to 14 CFR 135.293 competency.
- 6/ Pilot in command mountainous terrain experience is defined as: Experience in maneuvering a Helicopter at density altitudes of over 5000 feet to include numerous take off and landings in situations indicative to difficult mountainous terrain. This terrain consists of abrupt, rapidly rising terrain resulting in a high land mass projecting above its surroundings, wherein complex structures in which folding, faulting, and igneous activity have taken part. These mountainous areas produce vertical mountain winds, turbulence associated with mountain waves, producing abrupt changes in wind direction often resulting in up flowing or down flowing air currents
- (2) Equipment Experience. Pilots shall display evidence of experience in using all equipment specifically identified in Section C for performance of contract work (bucket, fixed tank operations, GPS, etc.), as well as equipment identified in Section B. Pilots may be required to demonstrate proficiency with equipment during an Agency evaluation.

**C.23 PILOT FLIGHT AND DUTY LIMITATIONS**

- (1) All pilots will be limited to the following tours of duty and flight hours. All revenue-producing flying time, whether under this contract or not, will count toward the limitations.
- (A) Flight time shall not exceed a total of 8 hours per day.
- (B) Flight time shall not exceed a total of 42 hours in any 6 (six) consecutive days.

(C) Pilot accumulating 36 or more hours of flying in any 6 (six) consecutive days shall be off duty the next day. After any one full day off, pilots begin a new six consecutive day duty period for the purposes of this clause, providing the requirements of paragraph (F) of this clause are not exceeded.

(D) Duty of any kind shall not exceed 14 hours in any 24 hour period. Within any 24-hour period, pilots shall have a minimum of 10 consecutive hours off duty immediately prior to the beginning of any duty day. Local travel up to a maximum of 30 minutes each way between the work site and place of lodging will not be considered duty time.

(E) Duty includes flight time, ground duty of any kind, and standby or alert status at any location.

(F) During any 14 consecutive days, pilots shall be off duty for two(2) full calendar days except as noted below. Days off duty need not be consecutive.

Note: Pilots crewing a dual-pilot Type I aircraft, may offer on the schedule of items to work a 14 days on, 7 days off schedule. Under this schedule after any 14 consecutive duty days pilots shall be off duty for a minimum of 7 consecutive days. If the schedule is offered it is applicable to all company personnel attached to the aircraft (i.e. mechanics, fuel service vehicle drivers, etc.) and must remain in effect for the duration of the contract.

(G) During times of prolonged heavy fire activity, Federal Agencies may issue a notice reducing the pilot duty day and/or increasing days off on a geographical or Agency-wide basis.

(2) Flights point-to-point (airport to airport, heliport to heliport, etc.) with a pilot and co-pilot shall be limited to 10 (ten) hours per day. (A Helicopter that departs airport A, flies reconnaissance on a fire, then flies to airport B, is not point-to-point).

(3) Pilots flying missions covered in the above paragraph, who are also flying other missions, shall also be limited to the flight hour limitations in Section C, PILOT REQUIREMENTS, FLIGHT AND DUTY LIMITATIONS.

(4) When the available flight hours within the limitations of paragraphs (1) or (2) above are reduced due to non-contract flying, the payment will be reduced as provided in the contract.

(5) Pilots may be relieved from duty for fatigue or other causes created by unusually strenuous or severe duty before reaching duty limitations.

(6) Relief or substitute pilots reporting for duty under any contract may be required to furnish a record of all duty and revenue producing flight time during the previous 14 days.

## **C.24 CO-PILOT QUALIFICATIONS**

Co-pilots (second in command) must meet requirements of operators certificate. They are not issued Agency qualification cards.

## **C.25 MECHANIC QUALIFICATIONS**

(1) The mechanic must have a valid FAA mechanic certificate with airframe and power plant ratings. The mechanic must have held the certificate or foreign equivalent certificate with both ratings for a period of 24 months. The mechanic must have been actively engaged in aircraft maintenance as a certificated mechanic for at least 18 (eighteen) months out of the last twenty-four (24) months immediately preceding the start date of the contract.

(2) The mechanic shall have 12 months experience, as an A&P or foreign equivalent, in maintaining Helicopters (3 months must have been in the last 2 years).

(3) The mechanic must also show evidence of maintaining a Helicopter of the same make and model as offered under "field" conditions for at least one (1) full season. (Three consecutive months maintaining the Helicopter away from Contractor's Base of Operations with minimal supervision will meet this requirement.)

(4) Mechanics must have satisfactorily completed a manufacturer's maintenance course or an equivalent FS or OAS approved Contractor's training program for the make and model of Helicopter offered or, show evidence that he/she has 12 months maintenance experience on a Helicopter of the same make and model offered.

(5) Each mechanic shall furnish upon demand an Interagency Mechanic Qualification Card issued by a designated USDA-FS or USDI inspector or mechanic.

## **C.26 AVAILABILITY OF MECHANICS**

(1) Mechanic shall be available to maintain the Helicopters in satisfactory flying condition. The mechanic shall be provided by the Contractor and shall be in addition to the pilot(s).

(2) When the mechanic serves as the fuel servicing vehicle driver, the more stringent of the duty limitations apply.

## **C.27 MECHANICS DUTY LIMITATIONS**

Mechanics will be limited to the following tours of duty.

(1) Within any 24-hour period, personnel shall have a minimum of eight (8) consecutive hours off duty immediately prior to the beginning of any duty day. Local travel up to a maximum of 30 minutes each way between the work site and place of lodging will not be considered duty time.

(2) Mechanics will have two (2) full calendar days off duty during any 14-day period.

Note: mechanics crewing dual pilot Type I Helicopters must work the same days off schedule as the pilots assigned to the aircraft. See C.23 (F)

(3) Duty includes standby, work, or alert status at any location.

(4) Mechanics may be removed from duty for fatigue or other causes created by unusually strenuous or severe duty before reaching duty limitations.

(5) The mechanic will be responsible to keep the Government apprised of his/her ground duty limitation status.

(6) Relief or substitute mechanics reporting for duty under any contract may be required to furnish a record of all duty time during the previous 14 days.

### **C.28 FUEL SERVICING VEHICLE DRIVER QUALIFICATIONS**

(1) The Contractor shall furnish a fuel servicing vehicle driver for each day the Helicopter is required to be available and supply a relief driver for the fuel vehicle driver's day off.

(2) Each driver will be expected to demonstrate an acceptable knowledge of correct fueling procedures and fueling and safety equipment installed on the fueling vehicle.

### **C.29 FUEL SERVICING VEHICLE DRIVER DUTY LIMITATIONS**

(1) Fuel servicing vehicle drivers shall comply with Department of Transportation Safety Regulation Part 390-399, including duty limitations. It is the Contractors responsibility to insure that employees comply with Department of Transportation Regulations.

(2) Duty includes Standby, Work, or Alert status at any location.

(3) Fuel servicing vehicle drivers may be removed from duty for fatigue or other causes created by unusually strenuous or severe duty before reaching duty limitations.

(4) The fuel servicing vehicle driver will be responsible to keep the Government apprised of his/her ground duty limitation status.

(5) Notwithstanding Department of Transportation Safety Regulation Part 390-399, the fuel servicing vehicle driver shall have a minimum of two (2) full calendar days off duty during any 14-day period. Off duty days need not be consecutive.

Note: fuel service vehicle driver assigned to a Type I helicopter must work the same days off schedule as the pilots assigned to the aircraft. (See C.23 (F))

### C.30 PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

The following personal safety equipment shall be furnished by the Contractor, be operable, maintained in good repair, and shall be required on all revenue producing flights.

(1) Aviators flight helmet, consisting of a one-piece hard shell made of polycarbonate, Kevlar, carbon fiber, or fiberglass, must cover the top, sides (including the temple area and to below the ears), and the rear of the head. The helmet shall be equipped with a chinstrap and shall be appropriately adjusted for proper fit. Flight helmets for helicopter usage must conform to a national certifying agency standard, such as DOT, Snell, SFI, or an appropriate military standard, or appropriate equivalent standard, and be compatible with required avionics. "Shorty" (David Clark™ style) helmets are not approved.

Flight helmets currently meeting this requirement are known to include the SPH-3, SPH-4, SPH-5, SPH-8, HGU-56 & HGU-84.

Helmets designed for use in fixed wing aircraft do not provide adequate protection for helicopter occupants and are not approved for helicopter use.

(2) Head Protection, Additional Contractor Personnel - Contractor personnel while flying under this contract shall wear a protective flight Helmet with chinstrap fastened.

#### (3) Fire-resistant Clothing

(A) All crew members and additional crew members shall wear long-sleeved shirt and trousers (or long-sleeved flight suit) made of fire-resistant polyamide or aramide material, leather boots and leather, polyamide, or aramide gloves. The shirt, trousers, boots, and gloves shall overlap by at least 2 inches when the Pilot is manipulating the controls. Personnel shall not wear clothing made of synthetic material under the fire-resistant clothing described herein.

(B) Nomex™ or other material proven to meet or exceed specifications contained in MIL-C-83429A may be worn. Currently, the following "other" materials meet this specification:

1. FRT Cotton Denim Cloth, MIL-C-24915
2. FRT Cotton Chambray Cloth, MIL -C-24916

(C) Clothing not containing labels identifying the material either by Brand Name or MIL-Spec will not be acceptable.

(4) Personal Flotation Device - A personal flotation device shall be worn by each individual on board the Helicopter when conducting operations beyond power-off gliding distance to shore, and during all hovering flight operations conducted over water sources such as ponds, streams, lakes, and coastal waters. This equipment shall be maintained in serviceable condition as appropriate to manufacturers directions. Automatic inflation (water activation) personal flotation device will not be allowed on this contract.

(5) Personal Protective Equipment For Ground Operations

While within the safety circle of an operating helicopter, all personnel will wear the following PPE:

Shirt with long sleeves, overlapping the gloves, and long pants overlapping the boots, hard hat with chin strap, hearing protection, eye protection.

**Note:** Maintenance personnel working on running aircraft are exempt from glove and hard hat requirements

In addition, fuel service vehicle operators will wear non-static clothing and gloves.

## **C.31 FLIGHT AND GROUND OPERATIONS**

### **(1) CONTRACTOR RESPONSIBILITY**

(A) The Contractor is responsible for the security of any equipment provided.

(B) The Contractor shall keep one copy of the contract and modifications in the aircraft at all times while working for the Government.

### **(2) PILOT AUTHORITY AND RESPONSIBILITY**

(A) The Pilot-in-Command is responsible for operating the aircraft within its operating limits, responsible for safety of the aircraft, its occupants, and cargo and shall comply with the directions of the Government, except when in his/her judgment, such compliance will be a violation of applicable Federal or State regulations or contracting provisions. The pilot shall refuse any operation considered hazardous or unsafe.

(B) The pilot shall not permit any passenger to ride in the aircraft or any cargo to be loaded therein unless authorized by the Contracting Officer.

(C) Pilots are responsible for weight and balance control. The Standard Interagency Load Calculation shall be used for this purpose when passengers and/or cargo are/is being transported. Load calculation shall be computed on Form USDA-FS 5700-17 or Form OAS-67. (See Section J, LIST OF ATTACHMENTS).

### (3) SUBSTITUTION OF AIRCRAFT AND/OR PERSONNEL

(A) The Contractor may substitute or replace aircraft and personnel meeting contract requirements after receipt of written approval from the Contracting Officer.

(B) Request for substitution shall be made at least 10 (ten) days prior to the proposed exchange, except for unforeseen conditions.

(C) When pilots are exchanged or replaced, training and familiarization costs, including any required flight time up to 3 (three) hours, shall be accomplished at the Contractor's expense. The Contracting Officer will determine the necessary amount of flight time. This is not intended to affect cross-shifting of Pilots that are familiar with the operating area nor to affect approved relief pilots.

### (4) SUSPENSION OF PERSONNEL

(A) Pilot - The Contracting Officer may suspend any pilot who flies recklessly, does ineffective work, exhibits fatigue or conduct detrimental to the purpose for which contracted.

Upon classification of a mishap as an "Aircraft Accident" by the NTSB, a pilot operating under this contract will be suspended by the Contracting Officer from performing pilot duties under this contract and any other activity authorized under the Interagency pilot Qualification Cards issued to the pilot.

Upon classification of an incident as an "Incident with Potential" a pilot operating under this contract may be suspended by the Contracting Officer from performing pilot duties under this contract and any other activity authorized under the Interagency pilot Qualification Cards issued to the pilot.

Whenever the Pilot is suspended, the Interagency Pilot Qualification Cards shall be surrendered to the Contracting Officer or his/her designated representative. Suspension will continue until: Rescinded by the Contracting Officer or designated technical representative; or Revocation action is taken by the issuing Agency.

(B) Mechanic - The Contracting Officer may suspend any mechanic who is careless, does poor quality work, exhibits fatigue or conduct detrimental to the purpose for which contracted.

(C) Fuel Servicing Vehicle Driver - The Contracting Officer may suspend any fuel servicing vehicle driver who drives recklessly, exhibits fatigue or conduct detrimental to the purpose for which contracted.

### **C.32 SPECIAL SAFETY REQUIREMENTS**

(1) In order to protect life and health and to prevent damage, the Contractor will use due diligence in preventing accidents and will comply with applicable Federal and State laws.

(2) No equipment such as radios, survival gear, fire tools, etc., shall be located in or on the aircraft in such a manner as to potentially cause damage or obstruct the operation of equipment or personnel.

(3) All smoking is prohibited within 50 feet of fuel servicing vehicle or fueling equipment. Smoking in or around aircraft is also prohibited.

### **C.33 SAFETY AND ACCIDENT PREVENTION**

(1) The Contractor shall furnish a copy of all reports required to be submitted to the Federal Aviation Administration (FAA) by the Federal Aviation Regulations (FAR) that relate to Pilot and maintenance personnel performance, aircraft airworthiness or operations.

Examples of these reports are paragraphs 14 CFR part 135.415 Mechanical Reliability Reports and Part 135.417 Mechanical Interruption Summary Reports required of the FAR, 49 CFR Part 830, and FAA Form 8010-4, Malfunction or Defect Report (see Section J, LIST OF ATTACHMENTS).

(2) Following the occurrence of a mishap, the Contracting Officer will evaluate whether noncompliance or violation of provisions of the contract, the Federal Aviation Regulations applicable to the Contractor's operations, company policy, procedures, practices, programs, negligence on the part of the company officers or employees may have caused or contributed to the mishap. The occurrence of the mishap may constitute default in the performance of the contract. A finding of default under the above cited conditions shall entitle the Government to exercise the right to terminate the contract for cause as provided in the "Contract Terms and Conditions" as stated herein.

(3) The Contractor shall keep and maintain programs necessary to assure safety of ground and flight operations. The development and maintenance of these programs are a material part of the performance of the contract. When, in the sole judgement of the Contracting Officer. The programs will not adequately promote the safety of operations, the Government may terminate the contract for cause as provided in the "Contract Terms and Conditions" as stated herein.

Examples of such programs are (1) personnel activities, (2) maintenance, (3) safety, and (4) compliance with regulations.

(4) The Contractor shall fully cooperate with the Contracting Officer in the fulfillment of this clause. The Contracting Officer may suspend performance of this contract work, during the evaluation period used to determine cause as stated above.

### **C.34 MISHAP DEFINITIONS**

As used throughout this contract, the following terms shall have the meaning set forth below:

AIRCRAFT ACCIDENT - See 49 CFR Part 830.

AIRSPACE CONFLICT - A near mid-air collision, intrusion, or violation of airspace rules.

AVIATION HAZARD - Any condition, act, or set of circumstances that exposes an individual to unnecessary risk or harm during aviation operations.

FATAL INJURY - See 49 CFR Part 830.

INCIDENT - See 49 CFR Part 830

INCIDENT WITH POTENTIAL - An incident that narrowly misses being an accident and in which the circumstances indicate significant potential for substantial damage or serious injury. Classification of an incident as an "Incident with Potential" is determined by the Agency Aviation Safety Manager (ASM).

MAINTENANCE DEFICIENCY - An equipment defect or failure that affects or could affect the safety of operations, or that causes an interruption to the services being performed.

OPERATOR - See 49 CFR Part 830.

SAFECOM - An Agency Aviation Safety Communique used to report any condition, observance, act, maintenance problem, or circumstance that has potential to cause an aviation related accident (Form OAS-34 or FS 5700-14).

SERIOUS INJURY - See 49 CFR Part 830.

SUBSTANTIAL DAMAGE - See 49 CFR part 830.

### C.35 MISHAPS

(1) MISHAP REPORTING - The Contractor of an aircraft for the Government shall immediately, and by the most expeditious means available, notify the National Transportation Safety Board (NTSB) and the Agency when an "Aircraft Accident" or NTSB reportable "Incident" occurs within any company operations, whether under the contract or not. Also, the Agency shall immediately be notified when an "Incident with Potential" occurs. The toll free 24-hour Interagency Aircraft Accident Reporting Hot Line is: 1-888-4MISHAP (1-888-464-7427).

(2) FORMS SUBMISSION - Following an "Aircraft Accident" or when requested by the NTSB following the notification of a reportable "Incident," the Contractor will provide the Agency with the information necessary to complete a NTSB Form 6120.1/2. The information may be forwarded on the internet as follows: (FS-[ <http://205.173.2.4>] or OAS-[[www.oas.gov](http://www.oas.gov)])

The NTSB Form 6120.1/2 does not replace the Contractor's responsibility, within 5 days of an event, to submit to the Agency a "SAFECOM" to report any condition, observance, act, maintenance problem, or circumstance that has potential to cause an aviation-related mishap. Blank SAFECOM's can be obtained from the Agency.

(3) PRESERVATION REQUIREMENTS - The Contractor shall not permit removal or alteration of the aircraft, aircraft equipment or records following an "Aircraft Accident, Incident, or "Incident with Potential" resulting in any damage to the aircraft or injury to personnel until authorized to do so by the Contracting Officer or the designated technical representative. Exceptions are when threat to life or property exists, the aircraft is blocking an airport runway, etc. The Contracting Officer shall be immediately notified when such actions take place.

The NTSB's release of the wreckage does not constitute a release by the Contracting Officer, who shall maintain control of the wreckage and related equipment until all investigations are complete.

(4) MISHAP INVESTIGATIONS - The Contractor shall maintain an accurate record of all aircraft accidents, incidents, aviation hazards and injuries to Contractor or Government personnel arising in the course of performance under this contract. Further, the Contractor fully agrees to cooperate with the Agency during an investigation and make available personnel, personnel records, aircraft records, and any equipment, damaged or undamaged, deemed necessary by the Agency.

(5) COSTS RELATED TO INVESTIGATION - The NTSB or Agency will determine their individual Agency investigation cost responsibility. The Contractor will be fully responsible for any cost associated with the reassembly, approval for return-to-service, and return transportation of any items disassembled by the Government.

(6) RESCUE AND SALVAGE RESPONSIBILITIES - The cost of search, rescue and salvage operations made necessary due to causes other than negligent acts of a Government employee shall be the responsibility of the Contractor.

(7) SECURITY OF AIRCRAFT AND EQUIPMENT - The security of any non-Government aircraft, associated vehicles and equipment used under this contract will be the responsibility of the Contractor. When the aircraft is operated by Government Pilots, the security of the aircraft will be the Government's responsibility.

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**PART I - THE SCHEDULE**

**SECTION D - PACKAGING AND MARKING**

(For this Solicitation there are NO CLAUSES in this Section.)

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**PART I - THE SCHEDULE**

**SECTION E - INSPECTION AND ACCEPTANCE**

**E.1 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2)(JUN 1988)**

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

**I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES**

CLAUSE NUMBER	DATE	TITLE
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None by reference.

**E.2 INSPECTION OF SERVICES--FIXED PRICE (FAR 52-246-4) (FEB 1992)**

(a) Definition: "Services," as used in this clause, includes services performed, workmanship, and material furnished or utilized in the performance of services.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.

(c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all times and places during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.

(d) If the Government performs inspections or tests on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, without additional change, all reasonable facilities and assistance for the safe and convenient performance of these duties.

(e) If any of the services do not conform with contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, at no increase in contract amount. When the defects in services cannot be corrected by reperformance, the Government may?

(1) Require the Contractor to take necessary action to ensure that future performance conforms to contract requirements; and

(2) Reduce the contract price to reflect the reduced value of the services performed.

(f) If the Contractor fails to promptly perform the services again or to take the necessary action to ensure future performance in conformity with contract requirements, the Government may--

(1) By contract or otherwise, perform the services and charge to the Contractor any cost incurred by the Government that is directly related to the performance of such service; or

(2) Terminate the contract for default.

### **E.3 PRE-USE INSPECTION OF EQUIPMENT AND PERSONNEL**

(1) After award of the contract and any renewal thereof, an inspection of the Contractor's equipment and personnel will be made. The inspection will take place at a location agreed to by the Contractor and Contracting Officer.

(2) The aircraft, Pilot, relief Pilot, mechanic, fuel vehicle driver, and fuel servicing vehicle shall be made available for inspection as scheduled by the Contracting Officer.

(3) The Contractor shall provide at inspection, a list of FAA Airworthiness Directives and Manufacture's Mandatory Service Bulletins for the make, model, and series of Helicopter offered indicating whether applicable or not. If applicable, the date and airframe total time at compliance, method of compliance, next compliance due date if recurring, and authorized signature and number will be recorded. The list will be similar to that shown in Advisory Circular 43-9 as amended.

(4) A list of all items installed on the Helicopter which are required to be overhauled or replaced on a specified time basis shall be provided. The list shall include the component names, serial numbers, service life (or inspection/overhaul time), total time since major overhaul or inspection, and hours remaining before replacement, overhaul, or inspection. The list will be similar to that shown in Advisory Circular 43-9 as amended.

(5) A mechanic data sheet shall be provided for each mechanic the Contractor intends to use.

(6) The Contractor may be required to furnish a copy of the procedures manual and revisions as required by FAR 135.

(7) Each driver will be expected to demonstrate an acceptable knowledge of correct fueling procedures, and fueling and safety equipment installed on the fuel servicing vehicle, and must meet all Department of Transportation requirements for fuel vehicle drivers. Contractor should have equipment and personnel to change the filter on the fuel service vehicle.

(8) The documents described in the following clauses shall be made available at the initial yearly pre-use inspection:

Section C - Certifications

Section C - Personnel Specifications, Pilot Requirements  
General

In addition to documents mentioned in the above clauses:

- Copy of awarded Contract
- Copy of 135 Operations Specifications
- Copy of 133 External Load Operations (aircraft listing)
- Copy of 137 Agricultural Aircraft Operations

(9) CONTRACT - Pilots will be given an Agency approved Helicopter Pilot safety briefing at time of carding. Pilot is required to acknowledge receipt of the safety briefing by signature. (Copy available by request from the Contracting Officer).

#### **E.4 PRE-USE INSPECTION EXPENSES**

(1) All operating expenses incidental to the inspection shall be borne by the Contractor.

(2) Pilot check rides may require up to two (2) hours of flight time for each Pilot as deemed necessary by the Contracting Officer. All check rides shall be performed in a Helicopter of like make, model, and series as furnished for the contract.

(3) The Contractor will not be charged for the costs incurred by the Government on the initial pre-use inspection.

#### **E.5 REINSPECTION EXPENSES**

(1) When reinspection is necessary because Contractor's equipment and/or personnel did not satisfy the initial inspection, reinspection costs incurred by the Government may be charged to the Contractor.

(2) Such costs may include actual costs of transportation, per diem, and overtime of the Government Inspectors. The Contractor shall give advance notice to the Contracting Officer as to the time reinspection is desired.

## **E.6 INSPECTIONS DURING USE**

(1) At any time during the contract period, the Contracting Officer may make tests or inspections as deemed necessary to determine that the Contractor's equipment and/or personnel currently meet specifications. Government costs incurred during these inspections will not be charged to the Contractor.

(2) If the inspections or tests reveal deficiencies that require correction and subsequent reinspection, the costs incurred by the Government may be charged to the Contractor in accordance with Section E, REINSPECTION EXPENSES.

(3) When the aircraft becomes unavailable due to mechanical breakdown, the Government reserves the right to inspect the aircraft after the Contractor's mechanic has approved it for return to service. For items covered under FAR 135.415, the Contractor shall furnish the Contracting Officer with a completed FAA Form 8010-4, Malfunction or Defect Report(see Section J, List of Attachments) or Helicopter Association International Maintenance Malfunction/Information Reporting Form (see Section J, List of Attachments).

## **E.7 INSPECTION OF SUBSTITUTE EQUIPMENT AND PERSONNEL**

Inspection costs incurred by the Government when inspecting substitute personnel and/or equipment subsequent to the initial pre-use inspection may be charged to the Contractor in accordance with Section E, REINSPECTION EXPENSES

## **SECTION F - DELIVERIES OR PERFORMANCE**

### **F.1 EFFECTIVE PERIOD OF THE CONTRACT (AGAR 452.212-73) (FEB 1988)**

The effective period of this contract is from date of award through December 2004.

### **F.2 CONTRACT AND PERFORMANCE PERIODS**

On a Call-When-Needed (CWN) basis throughout the contract period.

### **F.3 CONTRACT PERIOD AND RENEWAL OPTION**

The contract period shall extend from date of the award through December 31, 2004. However, at the option of the Government, the contract may be renewed for 2 (two) additional years, provided that the Contracting Officer serves notice of intent to renew at least 60 days prior to contract expiration. The renewal will be with the same terms and conditions. Offeror shall bid availability for 3 ( three) years (see Section B, SCHEDULE OF ITEMS); however, the base portion of the Government established flight rate will be subject to the provisions of Part II, Section I, ECONOMIC PRICE ADJUSTMENT CLAUSE.

### **F.4 ORDERING SERVICES**

(1) The National Interagency Coordination Center (NICC) located at the National Interagency Fire Center (NIFC) in Boise, ID is the only office authorized by the contracting office to place orders under the contract. Contractors should not accept orders from any other source. Orders for service will be placed with the contractor from time-to-time as needs for the service become known to the Government. Orders will be filled based on performance, cost and urgency. Performance and allowable payload for each aircraft on contract will be calculated by the Government. Computed performance, allowable payload aircraft configuration, and equipment may take precedent over other factors including cost when ordering aircraft.

NOTE: Payload will be computed using best factory chart unless operator submits an FAA approved STC allowing for increased payload. Aircraft with performances enhancing STC's must be able to demonstrate increased performance under environmental conditions equal to the original performance chart.

In the interest of safety, certain additional equipment may be added to the helicopter without penalty to computed performance, as performance relates to ordering priority. When the helicopter is equipped with the following safety items, a credit will be allowed. Each credit is the equivalent to 25 pounds as follows:

## APPLIES TO TYPE II HELICOPTERS ONLY

Closed circuit refueling	-	1	credit
Wire cutters	-	2	credits
Conspicuity lighting		2	credits
Instrumentation and approval for left seat operations (Bell helicopters)	-	6	credits
Multi-Engine	-	8	credits

(2) The Government DOES NOT GUARANTEE the placement of any orders for service under this contact and the Contractor is not obligated to accept any orders. However, once the Contractor accepts an order, he/she is obligated to perform in accordance with the terms and conditions stated herein.

**F.5 BASE(S) OF OPERATION**

The Base(s) of Operation will be assigned by the Contracting Officer.

**F.6 ORDERED AVAILABILITY PERIOD(S)**

Helicopters and associated equipment and personnel shall be available as ordered by the Contracting Officer and agreed to by the Contractor. Release of the helicopter at the request of the Contractor after a period of availability has begun must be approved by the Contracting Officer.

**F.7 DAILY AVAILABILITY REQUIREMENTS**

(1) Equipment:

(A) Continental United States - Helicopters and associated equipment will be available 14 hours each day beginning at start of morning civil twilight, unless otherwise specified by the Contracting Officer. Helicopters and associated equipment will not be removed from the Base of Operation without the approval of the Contracting Officer.

(B) Alaska - For work in Alaska, see Section J.

(2) Personnel. Personnel will be in one of the following conditions of availability:

(A) Standby.

**FIRE SUPPORT** - Personnel will be on standby status each day. The length of the standby period will be set by the Contracting Officer and may be adjusted from day to day. During this time, flying is required on short notice so that no longer than ten (10) minutes elapse from the time dispatch orders are given to the pilot and the time the aircraft is airborne.

**PROJECT USE** - Personnel will be on standby status each day. The length of the standby period will be set by the Contracting Officer and may be adjusted from day to day. During this time, flight is required within the times established by the Contracting Officer.

(B) Extended Standby.

Hours of standby in excess of the first nine (9) hours may be ordered by the Contracting Officer. See Section J, DEFINITION OF CONTRACT TERMS.

(C) Return-to-Standby (Alert).

The Contractor will inform the Contracting Officer as to how appropriate personnel may be contacted. Subject to Flight and Duty Limitations, these persons will be allowed one (1) hour to return to standby status after the contact attempt is made. Failure to return-to-standby status within one hour will result in loss of availability.

If not requested to be on return-to-standby status, Contractor's personnel will be considered to be off duty and cannot be required to return to duty status that day.

(D) Authorized Breaks.

During the standby period, requirements may be modified by the Contracting Officer to allow Contractor's personnel time off away from the Base of Operation or to conduct routine maintenance. No deduction will be made for such authorized breaks.

## F.8 UNAVAILABILITY

(1) The Contractor will be considered to be unavailable whenever the equipment or personnel are not in condition to perform or fail to perform within the requirements of this contract. Also, the aircraft will be considered unavailable when the pilot, mechanic, or fuel servicing vehicle driver cannot perform because of duty limitations unless a relief crew is provided. Unavailability however, will not be assessed when the pilot has reached duty limitations when the conditions in Section C.23 (Flight and Duty Limitations) occur.

(2) Unavailability status will continue until the cause of the failure is corrected. It is the Contractor's responsibility to inform the Contracting Officer whenever the aircraft and crew are again available. Inspection by the Government after a performance failure has occurred will be made as promptly as possible after the Contractor has given notice that the failure has been corrected. When inspection reveals that the failure has been corrected, the Contractor will be deemed in "available" status from the time the Contractor gave notice to the Government of the correction of the failure. If consistent failure to respond to dispatch occur, the Contracting Officer retains the right to require check flights at Contractor's expense.

When the helicopter and flight crew has arrived at the designated base and the fuel servicing vehicle is enroute to the base the helicopter and flight crew may be considered to be available for payment purposes

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## SECTION G - CONTRACT ADMINISTRATION DATA

### G.1 PAYMENT FOR FLIGHT

(1) Flight time will be computed in hours and tenths of hours as recorded by the collective activated hour meter on the Helicopter.

(2) Payment for flight time will be made only when properly ordered by persons designated to authorize such flights.

(3) The Government does not guarantee a minimum number of flying hours.

### G.2 PAYMENT FOR AVAILABILITY

(1) Availability for the Helicopter and equipment as described in Section F, DAILY AVAILABILITY REQUIREMENTS (maximum 14 hours-single crew, 24 hours-double crew) will be ordered, measured and recorded each day. Periods of unavailability will be accumulated for the day and rounded up to the next full hour whenever the Contractor fails to comply with the requirements specified herein. Availability for the Helicopter and equipment will be reduced by 1/14 for each hour service is unavailable.

**NOTE:** The Daily Availability rate should be divisible by 14. Rates not divisible by the 14 hours will be rounded up to the next whole number divisible by 14 by the Government.

(2) Payment for availability will not commence until the aircraft and flight crew arrive at the designated base and are available for standby. On the first day, if an aircraft arrives at an incident before 1200 hours and meets the requirement of Section F, DAILY AVAILABILITY, the Contractor will be paid for a full day of availability. One-half the daily availability rate will be paid for aircraft that arrive after 1200 hours and are available for standby. On the last day of the incident, aircraft released from the incident/assignment before 1200 hours will be paid one-half (1/2) of the daily availability rate. Aircraft released after 1200 hours will be paid the full availability rate.

For purpose of this clause on the first and last day duty time will be computed based on time zone at point of departure.

(3) The daily availability rate shall include all fixed and variable costs (depreciation, salaries, overnight allowances, overhead, permanent shop facilities, etc.) incurred in providing continuous service exclusive of those costs directly attributed to actual flight.

### G.3 PAYMENT FOR PROJECT WORK

(1) Aircraft services may be ordered for short periods of time (normally 1 day or less) to do project work as noted in C.1., SCOPE OF CONTRACT. When services are ordered under the Project Rate bid in the Schedule of Items, payment will be made for actual flight performed at the Project rate. A daily availability is not applicable. If the Project Rate is used and the project extends for more than 1 day and overnight (RON) costs are incurred, they will be reimbursed in accordance with the Federal Travel Regulations (FTR's).

(2) Project work may also be ordered and paid for using the Daily Availability Rate in the Schedule of Items plus the flight rate specified on the Flight Rate Table in Section J. If this method of payment is used, a RON fee is not applicable if the project extends for more than 1 (one) day.

(3) When doing project work under the CWN contract the payment method needs to be established prior to the start of the project and that rate should be used for the duration of the project.

### G.4 REIMBURSEMENT FOR MOBILIZATION AND DEMOBILIZATION COSTS

(1) During mobilization and demobilization, on any day flight occurs and no daily availability is earned, \$400.00-per day mobilization/demobilization fee per authorized crew member plus flight time at the applicable flight rate specified on the Flight Rate Table in Section J will be paid.

**NOTE:** Maximum complement of authorized crew members for a Type II helicopter is three. The maximum complement for Type I helicopter is the actual number offered by the contractor, not to exceed **twelve (12)**.

(2) The Contractor will also be reimbursed vehicle mileage, telephone calls, truck permits at points-of-entry, landing and tie down fees. (Costs associated with preparing the aircraft for service will not be paid.)

(3) The costs shall be necessary and reasonable in amount. Claims for reimbursement shall be supported by itemized invoices if in excess of \$75.00 and shall be submitted to the designated payment office. Salary costs for Contractor employee(s) while in travel status is not a cost for which the Government will reimburse the Contractor.

(4) Failure to perform upon arrival at base of operation after mobilizing may result in non payment of all mobilization costs.

(5) When an aircraft is released from an incident, demobilization costs will be paid back to the original point of departure providing that is the immediate destination after release. Should the aircraft not immediately return to the original departure point, demobilization costs will only be paid as they actually occur.

(6) During Mobilization if cancellation occurs after flight has commenced, a cancellation fee will be paid in accordance with these provisions.

## **G.5 PAYMENT FOR EXTENDED STANDBY**

Extended standby for the crew (that period over 9 hours per day, per crew member) will be measured in hours (rounded to the next full hour and paid at rate specified in the Schedule of Items) for all extended standby ORDERED by the Government and performed by the Contractor when the crew meets the standby requirement in accordance with Section F, DAILY AVAILABILITY REQUIREMENTS. Extended Standby is not intended to compensate the Contractor on a one-to-one basis for all hours necessary to service and maintain the aircraft. Extended standby must be specifically ordered by the Government and only in unusual circumstances that should be documented on the USDA-FS 6500-122 or USDIOAS-23, will the Contractor be compensated for extended standby when the aircraft is not also available for immediate dispatch by the Government. Payment for extended standby is not applicable on days when payment for mobilization or demobilization is paid. Extended Standby is also not applicable to double flight crew.

## **G.6 PAYMENT FOR ADDITIONAL HELICOPTER AND PERSONNEL**

When additional Helicopters or personnel are required by the Government, the Contractor may furnish them, if available. All terms and conditions of this contract will apply to their use except as set forth below:

- (1) Flight or transportation from the point of dispatch and return will be paid at the applicable flight rate.
- (2) Such aircraft will be released when the Government's need ceases to exist.
- (3) The Government may order an additional Pilot or crew member on an intermittent basis to maximize usage of the Helicopter. The Pilot or crew member may be furnished at the option of the Contractor.

A lump sum payment of \$400 per day for travel days and work days as compensation for each additional crew member ordered will be paid. This does not apply to relief crews brought in by the Contractor on primary Pilot or crews mandatory days off. This compensation is only for additional crew members ordered by the Government.

## **G.7 ORDERING ADDITIONAL EQUIPMENT**

When additional equipment listed in the Schedule of Items is ordered by the Government with the original aircraft order, the Contractor will be paid the daily rate specified in the schedule for each day the item is on site and available. Additional equipment not originally ordered with the aircraft that is made available on site at the contractor's Government.

## **G.8 TRANSPORTING OF RELIEF CREW**

The reasonable cost of transporting a relief crew to and from the current Base of Operations of the Helicopter will be paid by the Government. Claims for reimbursement will be supported by itemized paid invoices and other documents necessary to verify incurred costs; i.e., itineraries supporting round trips, names of travelers, etc. This cost reimbursement is not applicable to primary crews. Salary costs for Contractor employee(s) while in travel status is not a cost for which the Government will reimburse the Contractor.

## **G.9 REIMBURSEMENT FOR AIRPORT USE COSTS**

The Government will reimburse the Contractor for any airport use costs the Contractor is required to pay when ordered to operate from an airport other than the Base of Operations such as airport landing fees, tie-down charges, or other similar type costs supported by paid itemized invoices. (Invoice not required for charges under \$75.00)

## **G.10 MEALS**

No charge will be made for meals furnished by the Government. .

## **G.11 PAYMENT FOR FUEL SERVICING VEHICLE AND MILEAGE**

(1) A fuel servicing vehicle is required for all fire support use. At the Government's option, a fuel servicing vehicle may also be ordered for project work. The price of the vehicle is included in the daily availability rate bid for both fire and project use.

(2) Mileage for the fuel servicing vehicle, when dispatched by the Government, will be paid to and from the point of use from the Contractor's home base or such alternate location that the fuel servicing vehicle is stationed, whichever is closer, and while supporting the Helicopter, as follows:

(A) \$2.40 per mile - where the carrying capacity of aircraft fuel is 1,500 gallons or more.

(B) \$ 1.90 per mile - where the carrying capacity of aircraft fuel is at least 750 gallons, but less than 1,500 gallons.

(C) \$1.35 per mile - where the carrying capacity of aircraft fuel is at least 350 gallons, but less than 750 gallons.

(D) \$ .90 per mile - where the carrying capacity of aircraft fuel is less than 350 gallons.

NOTE: Tanks must be compatible with the vehicle on which they are mounted. Tanks that will exceed the gross vehicle weight (gvw) when full will not be allowed. Truck must haul tank capacity except when inappropriate for the conditions.

## **G.12 PAYMENT FOR TRANSPORTATION OF HELICOPTER FUEL**

(1) The Government will reimburse the Contractor for costs incurred in transportation of Helicopter fuel to sustain Government operations under the following conditions:

(A) When Contractor's fuel servicing vehicle cannot travel to an assigned Base of Operation due to lack of road access.

(B) When Contractor has to arrange for fuel support at an assigned Base of Operation to provide a supply for Helicopter flights until his/her fuel servicing vehicle arrives on site.

(2) The Contracting Officer will designate the method of transportation and the gallons to be transported.

(3) When air transportation is ordered, payment will be at the contract hourly flight rate.

(4) When transportation by commercial carrier is ordered, reimbursement will be made upon submission of copies of paid commercial carrier freight bills.

(5) In the event the Government elects to furnish fuel to the Contractor, the cost of fuel (based upon commercial rates at the nearest accessible point), will be charged. Such fuel costs will be deducted from any sums otherwise due the Contractor.

### **G.13 PAYMENT FOR RETARDANT CONCENTRATE**

Payment for retardant concentrate furnished by the Contractor will be on an actual cost basis when accompanied by proper invoices.

### **G.14 MISCELLANEOUS COSTS TO THE CONTRACTOR**

Miscellaneous unforeseeable costs not recovered through the contract payment rates and are the direct result of ordered service may be reimbursed at actual cost if approved by the Contracting Officer. Examples of this are truck permits at ports-of-entry when the service truck must cross State lines in fulfillment of ordered services or State taxes imposed at the time of entry into the State.

### **G.15 PAYMENT PROCEDURES**

### **G.16 SERVICES ORDERED AND RECEIVED BY THE USDA-FOREST SERVICE**

(1) All flight time, daily availability, and other authorized expenses shall be recorded on USDA-Forest Service Form 6500-122, (Flight Use Report). At the end of each day, this form shall be completed and signed by the Government and the Contractor's Pilot. The 6500-122 may serve as the Contractor's invoice required by the Payments and Discounts for Prompt Payment Clauses.

(2) Payments will be made semi-monthly for service as shown on the approved form 6500-122 or contractor-furnished invoice (See Section I). Forms accumulated during the first half of the month will be processed for payment about the 16th day of the month and those accumulated during the last half of the month will be processed about the 1st day of the following month.

(3) All original FS-6500-122's should be submitted by the Contractor to:

USDA-FS BOISE NATIONAL FOREST  
FISCAL & ACCOUNTING  
1249 S VINNELL WAY  
BOISE, ID 83709-1659

(4) Any questions concerning payment should be addressed to the Contracting Unit at NIFC, 208/387-5669.

#### **G.17 SERVICES ORDERED AND RECEIVED BY THE DEPARTMENT OF INTERIOR**

(1) An Aircraft Use Report, OAS-23 form shall be completed and signed by both the Contractor's representative and the Government. Instructions for proper completion of the Aircraft Use Report are contained in the OAS-23 booklet. At the election of the Contractor, the completed and signed Aircraft Use Reports may be used as the Contractor's invoice.

(2) The Contractor may submit invoices not less frequently than every two weeks beginning from the first day services begin or upon conclusion of a assignment. Services provided shall be itemized and shown on a daily basis

(3) An OAS Contract Number will appear on all OAS-23 forms.

(4) All completed OAS-23 forms will be submitted to:

OFFICE OF AIRCRAFT SERVICES  
PO BOX 15428  
BOISE ID 83715-5428

(5) Any questions regarding payment by the Department of Interior should be directed to Harlan Johnson at 208/387-5891 or Edie Stansbury at 208/387-5768.

#### **G.18 FINAL PAYMENT**

Upon completion of each use period, final payment will not be made until all Government furnished equipment has been returned and a Release from Contract form has been furnished.

#### **G.19 HELICOPTER MANAGER AUTHORITIES**

A Manager will be assigned to each Helicopter furnished. In addition to directing the work of the Helicopter, the Manager has the following contract administration duties and authority:

- (1) Order aircraft services as provided in the contract.
- (2) Secure compliance with all contract provisions and specifications, and issue Work Orders/Notices of Non-Compliance as needed.
- (3) Conduct investigations and prepare Statements of Findings when requested by the Contracting Officer.
- (4) Suspend operations pending the removal or reinstatement of unsatisfactory equipment or personnel by the Contracting Officer.
- (5) Approve temporary Helicopter and Pilot substitutions.
- (6) Initiate and sign correspondence and other contract administration documents over the title "Helicopter Manager."
- (7) Maintain daily diary of contract activities.
- (8) Record and agree to availability and flight times.
- (9) Approve authorized breaks (See Section F, DAILY AVAILABILITY REQUIREMENTS).
- (10) Review aircraft data card for passenger/Manager transport authorization, rapid refueling, left-seat operations and for Type I Helicopters, the elected duty schedule

## **G.20 HELICOPTER MANAGER PRE-USE TASKS**

- (1) The Helicopter Manager will complete the Helicopter and Fuel Service Truck pre-use checklist (see Section J).

## **G.21 Helicopter Manager Post Use Tasks**

The helicopter manager will complete and submit the CWN Manager 's Assignment Closeout (See Section J).

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**SECTION H – SPECIAL CONTRACT REQUIREMENTS**

- H.1 SUPPLEMENTS FOR TYPE I AND TYPE II HELICOPTERS**
- H.2 FIXED SUPPRESSANT/TERARDANT DELIVERY TANK**
- H.3 FIXED SUPPRESSANT/RETARDANT WITH SELF-FILLING CAPABILITY**
- H.4 SUPPRESSANT/RETARDANT MIXING EQUIPMENT**
- H.5 REMOTE CARGO HOOK FOR LONG-LINE USE**
- H.6 CONTRACTOR-FURNISHED LONG-LINE**
- H.7 CONTRACTOR-FURNISHED SYNTHETIC ROPE LONG-LINE**
- H.8 LONG-LINE (VERTICAL REFERENCE) QUALIFIED PILOT**
- H.9 SUPPLEMENTS FOR TYPE II HELICOPTERS**
- H.10 RAPPEL CAPABILITY**
- H.11 RAPPEL CAPABILITY AVIONICS**
- H.12 WIRE CUTTERS**
- H.13 CLOSED CIRCUIT FUELING SYSTEM**
- H.14 IFR QUALIFIED AIRCRAFT AND PILOT**
- H.15 APPROVAL FOR OPERATION OF AIRCRAFT FROM LEFT CREW SEAT**
- H.16 PERFORMANCE BY GOVERNMENT FURNISHED PILOT**
- H.17 GPS DATA CONNECTOR**
- H.18 ADDITIONAL GPS ANTENNA**
- H.19 ALTERNATIVE VHF-FM TRANSCEIVER (FM-1) REQUIREMENTS**
- H.20 ALTERNATIVE INTERCOMMUNICATIONS SYSTEM (ICS) REQUIREMENTS**
- H.21 LOSS, DAMAGE, OR DESTRUCTION ADDED TO SECTION I**
- H.22 FUEL SERVICE VEHICLE VHF-FM REQUIREMENTS**

## SECTION H - SPECIAL CONTRACT REQUIREMENTS

### H.1 SUPPLEMENTS FOR TYPE I AND TYPE II HELICOPTERS

Specifications for additional equipment identified by an “\*” in Section B, Schedule of Items follow.

### H.2. FIXED SUPPRESSANT/RETARDANT DELIVERY TANK - SUPPLEMENT TO SECTION C

This supplement amends Section C when the Contractor provides a fixed suppressant/retardant delivery tank. All provisions of Section C apply, except as amended. For Type I aircraft, the Interagency Airtanker Board Requirements will apply.

#### SECTION C, AIRCRAFT EQUIPMENT GENERAL EQUIPMENT (STANDARD AND LIMITED USE)

Add:

(18) One externally mounted, baffled quick-disconnect (5 minutes) fixed retardant delivery tank that meets or exceeds the following specifications:

(A) Capacity commensurate with the maximum rated lifting capability of the helicopter equipped with the tank at sea level on a standard day. Further, the weight of the tank shall not exceed 12.5% of the weight of the water in the tank when it is filled to full capacity.

Each system shall be approved by the Contracting Officer prior to use.

(B) Door(s). The tank door(s) shall be designed such that:

1. The frontal area of the retardant column is minimized.
2. The door(s) does not appreciably deflect the retardant when fully opened.
3. The tank and doors shall be leakproof, i.e. ½ gallon in a 24 hour period.
4. The doors shall be closeable in flight if the aircraft is not capable of landing with the door(s) open without damaging the door(s).

(C) Venting. The tank shall be vented so that no more than 0.25 PSI negative pressure will be created in the tank head space during the fastest drop sequence.

The vents shall not leak during filling or normal flight maneuvers.

(D) Fill Port(s). The fill port shall be a 3" Kamlock® fitting (male) and shall be located on the right side of the aircraft.

The fill port must not leak or overflow during ground operations or during normal flight maneuvers.

The tank shall accept filling at a rate sufficient to allow the tank to be filled to capacity in no more than 1 minute.

(E) Controls.

1. The door open switch shall be the same switch that opens the water bucket, as described in Section C, SPECIAL PROJECT EQUIPMENT - FIRE SUPPRESSION.

2. When required, the tank close switch shall be the same switch that closes the water bucket, as described in Section C, SPECIAL PROJECT EQUIPMENT -FIRE SUPPRESSION.

3. All tanks must be equipped with an independently controlled and operated emergency dump system enabling the entire load to be dropped in less than 6 (six) seconds. This system shall use mechanical, pneumatic, or fluid pressure for operation.

Emergency systems operated by pneumatic or fluid pressure shall be isolated from the normal tank system pressure. Normal function or failure of the normal system shall not affect the emergency system pressure. Emergency systems dependent on normal operating aircraft or tank systems for initial charge shall have a pressure gauge or indicator readily visible to the crew. Emergency systems dependent on precharged bottles shall have a positive means of checking system charge during preflight.

The primary emergency dump control must be positioned within easy reach of the pilot and copilot while strapped in their respective seats. Electrically operated controls shall be wired direct to a source of power isolated from the normal aircraft electrical bus and protected by a fuse or circuit breaker of adequate capacity.

(F) Certifications. The aircraft will be certificated in the normal or transport category except when restricted operations are authorized by the Contracting Officer.

Weight and balance computations shall be made with the tank full, empty, and removed, showing the helicopter to remain within acceptable center of gravity limits at all times.

Sources of supply are:

Simplex Manufacturing  
13340 NE Whitaker Way  
Portland, OR 97320-1125

Isolar  
P.O. Box 28  
Gresham, OR 97030-0028

Sheetcraft  
447 S. Ojai Street  
Santa Paula, CA 93060-3745

Conair Aviation, Ltd.  
Box 220  
Abbotsford, BC Canada V2S 4N9

### **H.3 FIXED SUPPRESSANT/RETARDANT TANK WITH SELF-FILLING CAPABILITY - SUPPLEMENT TO SECTION C**

This supplement amends Section C when the Contractor provides a fixed suppressant/retardant tank with self-filling capability. All provisions of Section C apply, except as amended. For Type I aircraft, the Interagency Airtanker Board requirements will apply.

#### **(1) SECTION C, AIRCRAFT EQUIPMENT GENERAL EQUIPMENT (STANDARD AND LIMITED USE)**

Add:

#### **(19) Fixed Suppressant/Retardant Tank with Self-Filling Capability.**

A fixed retardant delivery tank with self-contained hover drafting system. As a minimum, each system shall meet the following requirements:

#### **(A) Fill time - 90 seconds**

(B) Built to Aviation Industry Standards

(C) Shall not adversely effect any aircraft system

(D) Capacity commensurate with the maximum rated lifting capability of the helicopter equipped with the tank and drafting system at sea level on a standard day. Further, the weight of the tank and drafting system shall not exceed 12.5 percent of the weight of the water in the tank when it is filled to full capacity.

Each system shall be approved by the Contracting Officer prior to use. A copy of approval criteria is available from the Contracting Officer.

NOTE: Contractor shall utilize retardants approved for helicopter use when ordered to do so by the Government. The following long- and short-term retardants are approved for use as indicated:

#### **H.4 SUPPRESSANT/RETARDANT MIXING EQUIPMENT - SUPPLEMENT TO SECTION C**

(1) SECTION C, AIRCRAFT EQUIPMENT  
GENERAL EQUIPMENT (STANDARD AND LIMITED USE)

Add:

(20) Suppressant/retardant mixing equipment -

(A) Design Requirements.

**1. Installation** - The unit shall be designed for ease of installation and loading and shall not require any modifications to the helicopter. Modifications are defined as any change to the integrity of the structural components of the helicopter airframe, such as drilling holes in tubing or distorting the metal.

**2. Containment** - Any unit mounted inside the helicopter (other than those that have STC's or 337's) must have a containment vessel around the pumping and concentrate storage supply. The containment vessel must be able to hold 125 percent of the concentrate supply. The discharge hose and fittings must be able to withstand 150 PSI or two times the rated maximum pressure output of the pump, whichever is greater. The discharge hose that is inside the cabin must have a containment sleeve of clear hose to check for leaks.

3. **Restraint** The foam pumping unit containment vessel and concentrates must be affixed to the helicopter in a means to prevent injury to any occupants. The design must meet the maximum inertia forces specified in FAR 23.561(b)(2).
4. **Routing of Hose** The hose used to carry the concentrate must be routed out the side of the helicopter away from the pilot. Hoses will be routed in a manner that will not interfere with flight controls.
5. **Breakaway Fittings** Any hose must have a disconnect that will pull away from the hose when the bucket is released. The disconnect must be close to the helicopter to keep the hose from beating against the helicopter. The disconnect must be able to hold the pressure of the line and be able to activate at 1/3 of the bucket empty weight.
6. **Compatibility of Materials** The materials used in construction of any foam dispensing unit shall be compatible with all foams. Materials shall be resistant to corrosion, erosion, etching, or softening. To evaluate the materials, submerge in foam concentrate for 96 hours then in a one and one-half (1½) percent solution for 96 hours. Material samples shall be measured, weighed and visually examined to insure that deterioration of the materials and the assembly does not occur with operational use. Unacceptable conditions may be, but are not limited to cracking, crazing, softening, joint separation, bulging, diminished wall thickness, glue or mastic breakdown, or defective fasteners, gaskets or fittings.
7. **Foam Quantity** Unit is to be of the optimum size compatible with the make and model helicopter. However, the unit shall carry a minimum of 5 (five) gallons of concentrate for each 100 gallons of bucket capacity. Downloading may be accomplished when desirable during operations.
8. **Power to Operate** Power source for the dispenser shall be obtained from the helicopter by installing a MS 3116F-12-3P, 3 pin connector on the cord to the unit pin A shall be +28 VDC and pin B for ground (this is the same plug used for the infrared imaging system). Electrical power required to operate the concentrate pump shall not be in excess of that normally available from the plug used as the source of power.
9. **Vibration** The unit must not cause undue vibration in the helicopter during operation or in flight. The unit shall be padded to keep from causing any single stress points on any parts not designed for such.

**(B) Operation Requirements**

1. Operation - The pilot must be able to operate the unit with a minimal level of attention. The system shall be automated to the point where the pilot has one control to operate. Once the control is set for flow rate there should be no further adjustment necessary to the unit.
2. Flow Rate - The system shall be capable of dispensing a variable amount of concentrate, in flight, to achieve a mixture ratio ranging from 0.1 to 1.0 percent by volume in 0.1 percent increments.
3. Concentrate Loading - Loading using (5) gallon containers is preferred. Bulk loading must be performed so such loading will avoid any spillage on the helicopter or come in contact with the helicopter. Servicing must be accomplished during normal refueling time for the helicopter and take no longer than the refueling operation. Loading operations are to be performed by Contractor personnel.

The following foam products are approved for use as indicated:

<b>Ansul Silv-Ex .</b>	<b>.1-1 percent</b>	<b>Approved for ground tanker and helicopter bucket- Admin. Approved.</b>
<b>Fire-Trol FireFoam 103, and 104</b>	<b>.1-1 percent</b>	<b>Approved for ground tanker and helicopter bucket-Admin. Approved.</b>
<b>Fire-Trol FireFoam 103B Phos-Check WD 881</b>	<b>.1-1 percent</b>	<b>Approved for ground tanker and helicopter bucket and fixed tank helicopter. conditional Approval and Temporary Admin. Approval)</b>
<b>Angus for Expan S</b>	<b>.1-1 percent</b>	<b>Approved for ground tanker and helicopter bucket-Admin Approved.</b>
<b>Pyrocap B-136</b>	<b>.1-1 percent</b>	<b>Approved for ground tanker and helicopter bucket- Admin. Approved.</b>
<b>Fire Quench</b>	<b>.1-1 percent</b>	<b>Approved for ground tanker, helicopter bucket, and fixed tank helicopter-Admin. Approved.</b>

**NOTE:** When transporting retardant or equipment containing retardant residue, Contractor shall take precautions to prevent retardant from coming in contact with the aircraft structure.

### C. Potential commercial sources of foam dispensing equipment

1. Fire Trol, LLC  
P. O. Box 21568  
734 E Southern Pacific  
Phoenix, AZ 85036-1568
2. Solutia, Inc.  
810 E Main St  
Ontario, CA 91761-1895
- 3 SEI Industries  
406-5940 No. 6 Rd  
Richmond, BC Canada V6V 1Z1
- 4 Field Support Services  
2001 Flightway Dr  
Chamblee, GA 30341-3336

Proposed equipment is to be approved by the Contracting Officer prior to any use under the contract. The listing of potential vendors above does not constitute Contracting Officer approval of any equipment they may furnish.

### **H.5 REMOTE CARGO HOOK FOR LONG-LINE USE-SUPPLEMENT TO SECTION C**

This supplement amends Section C when the Contractor provides a remote cargo hook for long-line use.

(1) SECTION C, AIRCRAFT EQUIPMENT  
GENERAL EQUIPMENT (STANDARD AND LIMITED)

Add:

(21) One remote cargo hook with release system complying with the following requirements:

(A) Remote hook with brush guard or cage and rated at no less than the primary hook capacity.

(B) The cargo hook and associated systems shall be completely disassembled, inspected, lubricated, if required, and subjected to a full-load operational check in all operating modes within six months prior to the first year of contract performance and again at a two year interval from the date of initial inspection.

The inspection and maintenance shall be accomplished in accordance with the hook manufacturers operating and maintenance instructions as supplemented by this requirement.

(C) The hook release shall be activated electrically by the bucket gate open/close switch.

## **H.6 CONTRACTOR-FURNISHED LONG-LINE SUPPLEMENT TO SECTION C**

### **(1) SECTION C, AIRCRAFT EQUIPMENT GENERAL EQUIPMENT (STANDARD AND LIMITED USE)**

Add:

(18) Contractor-furnished long-line must meet the following requirements:

(A) Rotation resistant wire rope with swaged fittings shall be rated to the safe working load in accordance with (one of the standards) applicable ANSI, ASME or OSHA Standards, FS-5100-500E.

(B) For Type II helicopters, the lengths of wire rope shall be readily adjustable from 50 to 150 feet. For Type I helicopters, the lengths of wire rope shall be a minimum of 100 feet.

(C) Fabrication and installation methods shall be in accordance with aircraft and ANSI Standards.

## **H.7. CONTRACTOR-FURNISHED SYNTHETIC ROPE LONG-LINE -- SUPPLEMENT TO SECTION C**

### **SECTION C, AIRCRAFT EQUIPMENT GENERAL EQUIPMENT (STANDARD AND LIMITED USE)**

Add:

Contractor-furnished synthetic rope long-line must meet the following requirements:

A factor of safety of seven shall be used for synthetic rope long-lines. Minimum rope diameter shall be ½-inch.

Synthetic rope long-line care, inspection and retirement standards can be found in Section J

Thimbles shall be rated to the safe working load and be heavy duty with a minimum factor of safety of 5. All other hardware shall be rated to the safe working load with an ultimate strength of seven times the working load in accordance with applicable ANSI, ASME or OSHA Standards.

For Type II helicopters, the lengths of rope shall be readily adjustable from 50 to 150 feet. For Type I helicopters, the lengths of rope shall be a minimum of 100 feet.

Thimble selection and splicing methods in the long-line assembly shall be in accordance with the rope manufacturer's recommendations. Fabrication methods shall be in accordance with aircraft and applicable ANSI, ASME, Cordage Institute, or OSHA standards.

The Contractor shall provide the synthetic rope long-line manufacturer's certification, which includes any applicable standards and test methods used, who did the splicing and statement that splice was in accordance with rope supplier's instructions as well as the material certification stating material type and lot number from the rope supplier. In addition, the contractor shall provide the Rope long-line manufacturer's inspection criteria.

NOTE: Aircraft external loads  $V_{NE}$  shall be observed when flying with long-lines. Synthetic long-lines shall be flown with sufficient weight to prevent adverse streamback.

## **H.8 LONG-LINE (VERTICAL REFERENCE) QUALIFIED PILOT - SUPPLEMENT TO SECTION C**

### **(1) SECTION C, PERSONNEL SPECIFICATIONS PILOT EXPERIENCE REQUIREMENTS**

Add:

(3) If the Contractor provides a long-line (vertical reference) qualified pilot, the pilot shall display evidence of experience in precision placement of external loads using long line equipment and vertical reference techniques. Pilots may be required to demonstrate this capability during an agency evaluation.

(4) Contractors seeking external load or vertical reference approval for aircraft and pilots shall be required to develop and maintain an Agency approved training program for External Load operations, with special emphasis on vertical reference maneuvers. See Attachment Sec. J

(5) Pilot having completed initial or recurrent company external load training shall be endorsed by their chief pilot prior to use, thereby certifying that pilot is current and proficient in external load and vertical reference operations and meets interagency standards.

(6) Vertical reference qualified pilots shall maintain proficiency in vertical reference or external load operations. If under contract for a period of 30 consecutive days and no vertical reference activity occurs the pilot shall be provided at agency expense a one hour proficiency flight.

(7) Aircraft active under this contract for less than a 30-day period shall maintain currency through the company program as outlined in (1) and (2) of this paragraph.

(8) Aircraft may be made unavailable for failure to maintain vertical reference proficiency.

## **H.9 SUPPLEMENTS FOR TYPE II HELICOPTERS ONLY**

## **H.10 RAPPEL CAPABILITY - SUPPLEMENT TO SECTION C**

This supplement amends the sections as listed when the Contractor provides rappel capability. All provisions of the contract apply except as amended.

### **(1) SECTION C, CERTIFICATION AND OPERATIONS- GENERAL (STANDARD AND LIMITED USE)**

Replace paragraph (2) with:

(2) Helicopters must be certified in normal or transport category. The Contracting Officer may authorize rappelling or cargo letdown operations. The Agency will consider the aircraft to be wholly governmental when performing such missions as rappelling or cargo letdown.

### **SECTION C, AIRCRAFT EQUIPMENT SPECIAL PROJECT EQUIPMENT - RAPPELLING**

Add the following sub-section:

(1) When rappel operations are required, a Forest Service, Washington Office approved rappelling anchor will be furnished by the Contractor at no cost. Anchor will be installed in accordance with instructions. Documents required to be furnished by the Contractor:

Advisory Circular 43.13-1a and 2a

Installation Instructions

NOTE: The Forest Service anchor approval process is currently in transition. Previously approved designs will have to come up to new standards. Contact MTDC (Keith Windell) at 406/329-3956 for up-to-date information. (See Section J, LIST OF ATTACHMENTS, APPROVAL FOR RAPPELLING ANCHORS USED IN USDA-FOREST SERVICE OPERATIONS).

- (2) FAA-approved extended height landing gear.
- (3) Single passenger steps at cabin exits. (Cross-tube mounted passenger steps are not acceptable).
- (4) Rear seat cushions must be firmly attached to mountings (velcro-type attachment is not acceptable).

(1) SECTION C, PERSONNEL SPECIFICATIONS  
PILOT EXPERIENCE REQUIREMENTS

Add:

(9) Rappelling Activities. Must meet the following requirements:

(A) Must be qualified and agency approved to perform long-line activities.

(B) Final approval for rappel operations will be based upon:

- 1. Demonstrated ability to pilot the helicopter during a series of training rappels/cargo letdown.
- 2. Demonstrated ability to coordinate with the rappel spotter.

(C) Attend rappel training (optional to participate on rappel or simulator). This training shall be conducted and documented by qualified spotter and include the following:

- 1. Briefing and familiarization on rappel anchor and hard points for the specific model.
- 2. Seating arrangement for rappellers and spotters.
- 3. Rappel cargo placement/location and deployment sequence and method.
- 4. Exit procedures, sequences, and emergency procedures.
- 5. Briefing on model specific procedures.

(D) Upon meeting the above requirements, the pilot will be approved for helicopter rappel or cargo letdown as appropriate, by a qualified agency Helicopter pilot Inspector

## **H.11 RAPPEL CAPABILITY - SUPPLEMENT TO SECTION C**

### **(1) SECTION C, AIRCRAFT AVIONICS**

#### (4) Audio Control System

Replace paragraph (A) 2 with the following.

2. STANDARD CATEGORY. Three separate audio systems shall be provided for the pilot, observer/co-pilot, and spotter. Each system shall provide separate controls for selection of multiple receiver audio outputs and transmitter microphone/PTT audio inputs. Each system shall also provide separate controls for adjustment for both ICS and receiver audio output levels.

Replace paragraph (B) 2 with the following:

2. STANDARD CATEGORY. Three audio control systems shall be installed providing the pilot, observer/co-pilot, and spotter separate systems. The system shall be configured so that the pilot, observer/co-pilot, and spotter may each simultaneously select and utilize a different transmitter (or PA system when installed) via their respective microphone/PTT. Whenever a transmitter is selected, the companion receiver audio shall automatically be selected for the corresponding earphone. Transmitter sidetone audio shall be provided for the user as well as for cross monitoring via the corresponding receiver selection switch on the other control system.

Replace paragraph (C) 2 with the following.

2. STANDARD CATEGORY. Separate controls shall be provided for pilot, observer/co-pilot, and spotter to select audio from one or any combination of available receivers. The aft exit passenger positions shall monitor the receiver(s) as selected by the observer/co-pilot.

Replace paragraph (F) 2 with the following.

2. STANDARD CATEGORY. Separate PTT switches shall be provided for radio transmitter and ICS microphone operations at the pilot/co-pilot, and spotter positions. The pilot's PTT switches shall be mounted on the cyclic control. The observer/co-pilot PTT switches shall be mounted on the cord to the earphone/microphone connector or utilize a foot switch-operated PTT system. In aircraft requiring two pilots the observer/co-pilot's PTT system may be on the cyclic control. The spotter's PTT switches shall be mounted on the cord to the earphone/microphone connector with the cord being sufficiently long enough to allow the spotter to reach aft cabin doors. The aft



(24) Hydraulic Research receiver.

(1) SECTION C, FUEL SERVICING VEHICLE SPECIFICATIONS  
FUEL SERVICING VEHICLE EQUIPMENT

Add to paragraph (3):

The hose shall be at least 50 feet in length.

Delete from paragraph (4):

- "a 100 mesh or finer screen"

Add to paragraph (4):

Wiggins fuel nozzle, compatible with the Hydraulic Research receiver. An adapter shall be provided to allow fueling of aircraft with standard fueling port. Tube-Alloy fuel nozzle and Carter 64018 Commercial Closed Circuit nozzles also approved. The specified equipment is available from:

Tube-Alloy Corp  
PO Drawer 3016  
Houma LA 70361-3016  
504/876-2886

HR Textron  
25200 W Rye Canyon Rd  
Valencia CA 91355  
805/259-4030

Wiggins Corp  
5000 Triggs St  
Los Angeles CA 90022  
213/269-9181

Aeronautical Accessories Inc.  
PO Box 3689  
Bristol TN 37625-3689  
615/538-5151

Carter Ground Fueling Co.  
671 W. 17th St.  
Costa Mesa, CA 92627

**H.14 IFR QUALIFIED AIRCRAFT AND PILOT -SUPPLEMENT TO SECTION C**

This supplement amends the sections as listed to provide IFR qualified aircraft and IFR qualified pilots. All provisions of the contract apply, except as amended.

In addition to the equipment herein specified, the aircraft will be equipped and certified for IFR flights.

(1) SECTION C, AIRCRAFT AVIONICS

(2) Communicaton systems:

Replace paragraph (B) with the following:

Two panel-mounted VHF-AM (VHF-1) aeronautical transceivers (VHF-1 & VHF-2),, operating in the frequency band of 118.000 to 135.975 MHz, with a minimum of 720 channels in no greater than 25 kHz increments, and a minimum of 5 watts carrier output power.

NOTE: One (minimum) 760 channel VHF -AM aeronautical transceiver shall be required on January 1,2005

### SECTION C, AIRCRAFT AVIONICS

#### Navigation systems:

Add:

Two VOR receivers with indicators.

Note: Each VOR system must be maintained, checked, and inspected under an FAA approved procedure, or operationally checked within the past 30 days and recorded in logbook. See 14 CFR 91.171 for precise requirements.

One localizer (LOC) receiver interfaced to the #1 VOR system.

One glideslope receiver interfaced to the #1 VOR system.

One marker beacon receiver with indicator

One DME system with indicator

One ADF receiver with indicator

A magnetic compass. The magnetic compass(s) must be placarded per 14 CFR 23.1547

### **H.15 APPROVAL FOR OPERATION OF AIRCRAFT FROM LEFT CREW SEAT (BELL HELICOPTERS)**

The left crew seat may be used for vertical reference external load operations provided the following requirements are met:

- (1) Federal Aviation Administration (FAA) approval to operate single pilot from left seat.
- (2) Required controls and instruments are installed during approved left seat operations.
- (3) Aircraft and pilot are within conformity with appropriate certificates.
- (4) Have an endorsement on Helicopter Data Card by Agency Inspector.

## **H.16 PERFORMANCE BY GOVERNMENT FURNISHED PILOT**

(1) The following provisions shall apply to the performance of work under the contract, on an intermittent and short term basis, when the utilization of a qualified Government pilot is authorized by the Contractor. All other provisions not expressly changed herein continue to apply.

Qualified Government Pilots can operate Contractor aircraft on a case by case basis.

Government pilot operations will be in compliance with the U.S.D.A Forest Service FSM 5700 or Department of the Interior, Departmental Manual (DM), Parts 350-354 Aviation Management and Title 14, Part 91 of the CFR, including those portions that apply to civil aircraft except as noted in the agency manuals. It is not intended that Government pilots meet all requirements of C.22.

(2) Appropriate records to establish the qualifications and experience of the Government pilot will be furnished to the Contractor upon request.

(3) The Contractor may conduct check rides and/or training of Government pilots for familiarization in the Contractor's helicopters. The cost of check rides and flight training, if required, will be borne by the Government.

(4) Approval of a Government pilot to perform work under the contract rests solely with the Contractor.

(5) Add to Section I: LOSS, DAMAGE, OR DESTRUCTION. This clause is applicable to this contract when the Contractor authorizes performance by a Government pilot.

(6) The payment provisions of the contract remain unchanged.

## **H.17 GPS DATA CONNECTOR - SUPPLEMENT TO SECTION C**

This Supplement amends Section C when the Contractor is required/provides a GPS data connector.

- (1) SECTION C, AIRCRAFT AVIONICS
- (3) NAVIGATIONAL SYSTEMS

Add

(D) One GPS data port connector. A GPS data port connector shall be installed for the purposes of external data retrieval by a GIS laptop computer. The connector shall be a DB-9F type D sub-connector, shall be wired for RS-232C serial format for laptop computers (pin 2-transmit data, pin 3-receive data, if

applicable, and pin 5-ground) and shall be mounted in a location convenient to the observer.

#### **H.18 ADDITIONAL GPS ANTENNA - SUPPLEMENT TO SECTION C**

This Supplement amends Section C when the Contractor provides and additional GPS antenna.

##### **SECTION C, ALL AIRCRAFT – NAVIGATIONAL SYSTEMS**

Add:

(E) The Contractor shall allow the Government to utilize a portable Trimble Pathfinder Professional XL GPS in the aircraft. In order to facilitate this requirement, the Contractor shall provide a low-profile GPS aviation antenna (Trimble p/n 16248-20, or equivalent) mounted atop the aircraft per the manufacturer's installation manual, with associated cable and type "N" female connector, terminated within the aircraft in a location convenient to the observer.

#### **H.19 ALTERNATIVE VHF-FM TRANSCEIVER (FM-1) SPECIFICATIONS - SUPPLEMENT TO SECTION C**

Obsolete

#### **H20 ALTERNATIVE INTERCOMMUNICATIONS SYSTEM (ICS) REQUIREMENTS (ALL PASSENGER POSITIONS) - SUPPLEMENT TO SECTION C**

This Supplement amends Section C when the Contractor is required/provides an alternative InterCommunications System.

##### **SECTION C, ALL AIRCRAFT AVIONICS - (5) Intercommunication System**

Replace paragraph (B) with the following:

**STANDARD CATEGORY** An ICS system shall be provided for the pilot, observer/co-pilot, and all passenger positions. ICS audio shall mix with, but not mute, selected receiver audio. An ICS audio level control shall be provided for each position above. Adjustment of the ICS audio level at any position shall not effect the level at any other position. A "hot mic" capability, controlled via an activation switch or voice activation (VOX), shall be provided for the pilot and observer/co-pilot. ICS sidetone audio shall be provided for the earphone corresponding with the microphone in use.

## H.21 LOSS, DAMAGE, OR DESTRUCTION ADDED TO SECTION I

### I.25 LOSS, DAMAGE, OR DESTRUCTION

(a) [Applicable only with Government furnished pilot(s).] The Contractor shall indemnify and hold the Government harmless from any and all losses or damage to the aircraft furnished under this contract except as provided in (d) below. For the purpose of fulfilling his obligation under this clause, the Contractor shall procure and maintain during the term of this contract, and any extension thereof, hull insurance acceptable to the Contracting Officer. The Contractor's insurance coverage shall apply to pilots furnished by the Government to operate the aircraft. The parties named insured under the policies shall be the Contractor and the United States of America. The Contractor may request a list of Government pilots by name and qualification who are potential pilots.

(b) Prior to the commencement of work hereunder, the Contractor shall furnish the Contracting Officer a copy of the insurance policy or policies or a certificate of insurance issued by the underwriter(s) showing that the coverage required by this clause has been obtained.

(c) Each policy or certificate evidencing the insurance shall contain an endorsement that provides that the insurance company will notify the Contracting Officer 30 days prior to the effective date of any cancellation or termination of any policy or certificate or any modification of a policy or certificate that adversely affects the interest of the Government in such insurance. The notice shall be sent by registered mail and shall identify this contract, the name and address of the Contracting Office, the policy, and the insured.

(d) If the aircraft is damaged or destroyed while in the custody and control of the Government, the Government will reimburse the Contractor for the deductible (if any) stipulated in the insurance coverage as follows:

(1) In-Motion Accidents - Up to 5 percent of the current insured value of the aircraft stated in the policy.

(2) Not In-Motion Accidents - Up to \$250.00 per accident.

Such reimbursement shall not be made, however, for loss or damage to the aircraft resulting from (1) normal wear and tear, (2) negligence or fault in maintenance of the aircraft by the Contractor, or (3) defect in construction of the aircraft or a component thereof.

(e) If damage to the aircraft is established to be the fault of the Government, rental payments to the Contractor during the repair period will be made as set forth elsewhere in the contract. The Government may, at its option, make necessary repairs or return the aircraft to the Contractor for repair. In the event the aircraft is lost,

destroyed, or damaged so extensively as to be beyond repair, no rental payment will be made to the Contractor thereafter.

(f) Any failure to agree as to the responsibility of the Contractor under this clause shall, after a final finding and determination by the Contracting Officer, be considered a dispute within the meaning of the "Disputes" clause of this contract.

## **H.22 FUEL SERVICE VEHICLE VHF-FM REQUIREMENTS SUPPLEMENT TO SECTION C**

This supplement amends section C when the Contractor is required/provides a land mobile VHF-FM radio in the fuel/service vehicle

### **SECTION C, FUEL SERVICING VEHICLE GENERAL**

Add:

(10) One VHF-FM two-way land mobile radio, with a matched, broadband, externally-mounted antenna (Antenna Specialists ASP-7495, Maxrad MWB-5803, or equivalent), shall be installed in the fuel/service vehicle. The radio's operational frequency range shall include the band of 150 to 174 MHz. Wide-band (25 kHz bandwidth/5 kHz modulation) and narrow-band (12.5 kHz bandwidth/2.5 kHz modulation) channel spacing shall be selectable on each channel, with user-programmable (in the field) channels. The radio shall be frequency synthesized, selectable CTCSS 32 sub-audible tone capability, and shall develop a minimum of 30 watts carrier output power (boosting output power of portable units is permissible). Known acceptable land mobile radios: BK Radio EMH/GMH series with Smartmic; RELM APCO 25; Kenwood TK-760H\*, and ICOM IC-F320\* (dealer modifications required). Known acceptable portable radios: BK EPH/GPH series, Recal P25.

**PART II - CONTRACT CLAUSES**

**SECTION I - CONTRACT CLAUSES**

**I.1 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2) (FEB 1988)**

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

**I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES**

<u>CLAUSE NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
52.202-1	DEC 2001	DEFINITIONS
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	JUL 1995	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR IMPROPER OR ILLEGAL ACTIVITY
52.204-4	AUG 2000	PRINTING/COPYING DOUBLE SIDED ON RECYCLED PAPER
52.209-6	JUL 1995	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED OR PROPOSED FOR DEBARMENT
52.214-26	OCT 1997	AUDIT AND RECORDS--SEALED BIDDING
52.214-27	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA--MODIFICATIONS—SEALED BIDDING
52.214-28	OCT 1997	SUBCONTRACTOR COST OR PRICING DATA- MODIFICATIONS-SEALED BIDDING
52.222-3	AUG 1996	CONVICT LABOR
52.222-26	FEB 1999	EQUAL OPPORTUNITY
52.222-35	APR 1984	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS AND VIETNAM ERA VETERANS
52.222-36	JUN1998	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES
52.222-37	DEC 2001	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.223-14	OCT 2000	TOXIC CHEMICAL RELEASE REPORTING

52.227-1	JUL 1995	AUTHORIZATION AND CONSENT
52.228-5	JAN 1997	INSURANCE--WORK ON A GOVERNMENT I NSTALLATION
52.228-7	MAR 1996	INSURANCE--LIABILITY TO THIRD PERSONS
52.229-3	JAN 1991	FEDERAL, STATE, AND LOCAL TAXES
52.229-5-	APR 1984	TAXES--CONTRACTS PERFORMED IN U.S. POSSESSIONS OR PUERTO RICO
52.232-17	JUN 1996	INTEREST
52.232-18	APR 1984	AVAILABILITY OF FUNDS
52.232-19	APR 1984	AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR
52.232-33	MAY 1999	PAYMENT BY ELECTRONIC FUNDS TRANSFER CENTRAL CONTRACOR REGISTRATION
52.233-3	AUG 1996	PROTEST AFTER AWARD
52.242-13	JUL 1995	BANKRUPTCY
52.246-25	FEB 1997	LIMITATION OF LIABILITY--SERVICES
52.253-1	JAN 1991	COMPUTER GENERATED FORMS

## **I.2 ANTI-KICKBACK PROCEDURES (FAR 52.203-7) (JUL 1995)**

### **(a) Definitions.**

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor" as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause,

(1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and

(2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from--

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a Prime Contractor to the United States or in the contract price charged by a subcontractor to a Prime Contractor or higher tier subcontractor.

(c) (1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the Inspector General of the Contracting Agency, the Head of the Contracting Agency if the Agency does not have an inspector general, or the Department of Justice.

(3) The Contractor shall cooperate fully with any Federal Agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold from sums owed a subcontractor under the prime contract the amount of the kickback. The Contracting Officer may order that monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case,

the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed \$100,000.

### **I.3 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (FAR 52.203-8)(JAN 1997)**

(a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of section 27 of the Office of Federal Procurement Policy Act (41 U.S.C.423) (the Act), as amended by section 4304 of the National Defense Authorization Act for Fiscal Year 1996 (Pub.L.104-106), the Government may

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which --

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27(a) or (b) of the Act for the purpose of either --

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting a n offense punishable under subsection 27(e)(1) of the Act.

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

#### **I.4..LIMITATIONS ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (FAR 52.203-12) (JUN 1997)**

(a) Definitions.

"Agency," as used in this clause, means executive Agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

- (1) The awarding of any Federal contract.
- (2) The making of any Federal grant.
- (3) The making of any Federal loan.
- (4) The entering into of any cooperative agreement.
- (5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in Section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before an officer or employee of any Agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an Agency," as used in this clause, includes the following individuals who are employed by an Agency:

- (1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.
- (2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.

(3) A special Government employee, as defined in section 202, Title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law. "Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates Agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates Agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State," as used in this clause, means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an Agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of Title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any Agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any Agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for Agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an Agency or Congress is permitted at any time.

(C) The following Agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an Agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an Agency's use.

(D) The following Agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action? --

(1) Providing any information not specifically requested but necessary for an Agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an Agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of:

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(c) Disclosure.

(1) The Contractor who requests or receives from an Agency a Federal contract shall file with that Agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to *include* profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(2) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes--

(i) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(ii) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(iii) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(3) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding \$100,000 under the Federal contract.

(4) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(d) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(e) Penalties.

(1) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

### **I.5 OPTION TO EXTEND THE TERM OF THE CONTRACT (FAR 52.217-9) (MAR 2000)**

(a) The Government may extend the term of this contract by written notice to the Contractor within 60 days DAYS; provided, that the Government shall give the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option provision.

(c) The total duration of this contract, including the exercise of any option under this clause, shall not exceed 3 years.

### **I.6 UTILIZATION OF SMALL BUSINESS CONCERNS (FAR 52.219-8) (OCT 2000)**

(a) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

(c) *Definitions.* As used in this contract-  
"HUBZone small business concern" means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

"Service-disabled veteran-owned small business concern"-

(1) Means a small business concern-

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

"Small disadvantaged business concern" means a small business concern that represents, as part of its offer that-

(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, Subpart B;

(2) No material change in disadvantaged ownership and control has occurred since its certification;

(3) Where the concern is owned by one or more individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).

"Veteran-owned small business concern" means a small business concern-

- (1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and
- (2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern-

- (1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
- (2) Whose management and daily business operations are controlled by one or more women.

(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.

## **I.7 SMALL BUSINESS SUBCONTRACTING PLAN (FAR 52.219-9) (JAN 2002)**

- (a) This clause does not apply to small business concerns.
- (b) *Definitions.* As used in this clause-

"Commercial item" means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

"Commercial plan" means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line).

"Individual contract plan" means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

"Master plan" means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

"Subcontract" means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) The offeror, upon request by the Contracting Officer, shall submit and negotiate a subcontracting plan, where applicable, that separately addresses subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business concerns, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate the subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.

(2) A statement of-

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

concerns;

(ii) Total dollars planned to be subcontracted to small business

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to service-disabled veteran-owned small business;

(v) Total dollars planned to be subcontracted to HUBZone small business concerns;

(vi) Total dollars planned to be subcontracted to small disadvantaged business concerns; and

(vii) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to-

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iv) HUBZone small business concerns;

(v) Small disadvantaged business concerns; and

(vi) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the Procurement Marketing and Access Network (PRO-Net) of the Small Business Administration (SBA), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in PRO-Net as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of PRO-Net as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with-

- (i) Small business concerns;
- (ii) Veteran-owned small business concerns;
- (iii) Service-disabled veteran-owned small business concerns;
- (iv) HUBZone small business concerns;
- (v) Small disadvantaged business concerns; and
- (vi) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled "Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$500,000 (\$1,000,000 for construction of any public facility) to adopt a subcontracting plan that complies with the requirements of this clause.

(10) Assurances that the offeror will-

- (i) Cooperate in any studies or surveys as may be required;
- (ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;
- (iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with paragraph (j) of this clause. The reports shall provide information on subcontract awards to small business concerns, veteran-

owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with the instructions on the forms or as provided in agency regulations.

(iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):

(i) Source lists (*e.g.*, PRO-Net), guides, and other data that identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than \$100,000, indicating-

(A) Whether small business concerns were solicited and, if not, why

not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;

(D) Whether HUBZone small business concerns were solicited and, if not, why not;

(E) Whether small disadvantaged business concerns were solicited and, if not, why not;

(F) Whether women-owned small business concerns were solicited and, if not, why not; and

(G) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact-

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through-

(A) Workshops, seminars, training, etc.; and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long,

reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owned small business, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided-

(1) The master plan has been approved;

(2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer; and

(3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for subcontractors that provide commercial items under a prime contract, whether or not the prime contractor is supplying a commercial item.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) The failure of the Contractor or subcontractor to comply in good faith with-

(1) The clause of this contract entitled "Utilization Of Small Business Concerns;" or

(2) An approved plan required by this clause, shall be a material breach of the contract.

(j) The Contractor shall submit the following reports:

(1) *Standard Form 294, Subcontracting Report for Individual Contracts.* This report shall be submitted to the Contracting Officer semiannually and at contract completion. The report covers subcontract award data related to this contract. This report is not required for commercial plans.

(2) *Standard Form 295, Summary Subcontract Report.* This report encompasses all of the contracts with the awarding agency. It must be submitted semi-annually for contracts with the Department of Defense and annually for contracts with civilian agencies. If the reporting activity is covered by a commercial plan, the reporting activity must report annually all subcontract awards under that plan. All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a breakout, in the Contractor's format, of subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

#### **I.8 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT--OVERTIME (FAR 52.222-4) (SEP 2000)**

(a) *Overtime requirements.* No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.

(b) *Violation; liability for unpaid wages; liquidated damages.* The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of \$10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards Act.

(c) *Withholding for unpaid wages and liquidated damages.* The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards Act.

(d) *Payrolls and basic records.*

(1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.

(2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) *Subcontracts.* The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts exceeding \$100,000 and require subcontractors to include these provisions in any lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

## **I.9 SERVICE CONTRACT ACT OF 1965, AS AMENDED**

### **(FAR 52.222-41) (MAY 1989)**

(a) Definitions. "Act," as used in this clause, means the Service Contract Act of 1965, as amended (41 U.S.C. 351, *et seq.*).

"Contractor," as used in this clause or in any subcontract, shall be deemed to refer to the subcontractor, except in the term "Government Prime Contractor."

"Service employee," as used in this clause, means any person engaged in the performance of this contract other than any person employed in a bona fide executive, administrative, or professional capacity, as these terms are defined in Part 541 of Title 29, Code of Federal Regulations, as revised. It includes all such persons regardless of any contractual relationship that may be alleged to exist between a Contractor or subcontractor and such persons.

(b) Applicability. This contract is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor (29 CFR Part 4). This clause does not apply to contracts or subcontracts administratively exempted by the Secretary of Labor or exempted by 41 U.S.C. 356, as interpreted in Subpart C of 29 CFR Part 4.

(c) Compensation.

(1) Each service employee employed in the performance of this contract by the Contractor or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor, or authorized representative, as specified in any wage determination attached to this contract.

(2) (i) If a wage determination is attached to this contract, the Contractor shall classify any class of service employee which is not listed therein and which is to be employed under the contract (*i.e.*, the work to be performed is not performed by any classification listed in the wage determination) so as to provide a reasonable relationship (*i.e.*, appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined pursuant to the procedures in this paragraph (c).

(ii) This conforming procedure shall be initiated by the Contractor prior to the performance of contract work by the unlisted class of employee. The Contractor shall submit Standard Form (SF) 1444, Request For Authorization of Additional Classification and Rate, to the Contracting Officer no later than 30 days after the unlisted class of employee performs any contract work. The Contracting Officer shall review the proposed classification and rate and promptly submit the completed SF 1444 (which must include information regarding the agreement or disagreement of the employees' authorized representatives or the employees themselves together with the Agency recommendation), and all pertinent information to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the Contracting Officer within 30 days of receipt that additional time is necessary.

(iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Contractor of the action taken. Each affected employee shall be furnished by the Contractor with a written copy of such determination or it shall be posted as a part of the wage determination.

(iv) (A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination depending on the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point schemes or other job factors may, for example, be relied upon.

Guidance may also be obtained from the way different jobs are rated under Federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.

(B) In the case of a contract modification, an exercise of an option, or extension of an existing contract, or in any other case where a Contractor succeeds a contract under which the classification in question was previously conformed pursuant to paragraph (c) of this clause, a new conformed wage rate and fringe benefits may be assigned to the conformed classification by indexing (*i.e.*, adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the contract which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of contract work by the unlisted class of employees, the Contractor shall advise the Contracting Officer of the action taken but the other procedures in subdivision (c)(2)(ii) of this clause need not be followed.

(C) No employee engaged in performing work on this contract shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.

(v) The wage rate and fringe benefits finally determined under this subparagraph (c)(2) of this clause shall be paid to all employees performing in the classification from the first day on which contract work is performed by them in the classification. Failure to pay the unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract.

(vi) Upon discovery of failure to comply with subparagraph (c)(2) of this clause, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the date such class or classes of employees commenced contract work.

(3) Adjustment of compensation. If the term of this contract is more than 1 year, the minimum monetary wages and fringe benefits required to be paid or furnished thereunder to service employees under this contract shall be subject to adjustment after 1 year and not less often than once every 2 years, under wage determinations issued by the Wage and Hour Division.

(d) Obligation to furnish fringe benefits. The Contractor or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined under subparagraph (c)(2) of this clause by furnishing equivalent combinations of bona fide fringe benefits, or by making equivalent or differential cash payments, only in accordance with Subpart D of 29 CFR Part 4.

(e) Minimum wage. In the absence of a minimum wage attachment for this contract, neither the Contractor nor any subcontractor under this contract shall pay any person performing work under this contract (regardless of whether the person is a service employee) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this clause shall relieve the Contractor or any subcontractor of any other obligation under law or contract for payment of a higher wage to any employee.

(f) Successor contracts. If this contract succeeds a contract subject to the Act under which substantially the same services were furnished in the same locality and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the minimum wage attachment for this contract setting forth such collectively bargained wage rates and fringe benefits, neither the Contractor nor any subcontractor under this contract shall pay any service employee performing any of the contract work (regardless of whether or not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreement, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No Contractor or subcontractor under this contract may be relieved of the foregoing obligation unless the limitations of 29 CFR 4.1b(b)

apply or unless the Secretary of Labor or the Secretary's authorized representative finds, after a hearing as provided in 29 CFR 4.10 that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 29 CFR 4.11, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor Contractor's collective bargaining agreement are substantially at variance with those which prevail for services of a character similar in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the contract or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Board of Service Contract Appeals, as the case may be, irrespective of whether such issuance occurs prior to or after the award of a contract or subcontract (53 Comp. Gen. 401 (1973)). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision

(g) Notification to employees. The Contractor and any subcontractor under this contract shall notify each service employee commencing work on this contract of the minimum monetary wage and any fringe benefits required to be paid pursuant to this contract, or shall post the wage determination attached to this contract. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of section 2(a)(4) of the Act and of this contract.

(h) Safe and sanitary working conditions. The Contractor or subcontractor shall not permit any part of the services called for by this contract to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Contractor or subcontractor which are unsanitary, hazardous, or dangerous to the health or safety of the service employees. The Contractor or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.

(i) Records.

(1) The Contractor and each subcontractor performing work subject to the Act shall make and maintain for 3 years from the completion of the work, and make them available for inspection and transcription by authorized representatives of the Wage and Hour Division, Employment Standards Administration, a record of the following:

(i) For each employee subject to the Act--

(A) Name and address and social security number;

(B) Correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided, rate or rates of payments in lieu of fringe benefits, and total daily and weekly compensation;

(C) Daily and weekly hours worked by each employee; and

(D) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.

(ii) For those classes of service employees not included in any wage determination attached to this contract, wage rates or fringe benefits determined by the interested parties or by the Administrator or authorized representative under the terms of paragraph (c) of this clause. A copy of the report required by subdivision (c)(2)(ii) of this clause will fulfill this requirement.

(iii) Any list of the predecessor Contractor's employees which had been furnished to the Contractor as prescribed by paragraph (n) of this clause.

(2) The Contractor shall also make available a copy of this contract for inspection or transcription by authorized representatives of the Wage and Hour Division.

(3) Failure to make and maintain or to make available these records for inspection and transcription shall be a violation of the regulations and this contract, and in the case of failure to produce these records, the Contracting Officer, upon direction of the Department of Labor and notification to the Contractor, shall take action to cause suspension of any further payment or advance of funds until the violation ceases.

(4) The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.

(j) Pay periods. The Contractor shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or regulations, 29 CFR Part 4), rebate, or kickback on any account. These payments shall be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period under this Act may not be of any duration longer than semi-monthly.

(k) Withholding of payments and termination of contract. The Contracting Officer shall withhold or cause to be withheld from the Government Prime Contractor under this or any other Government contract with the Prime Contractor such sums as an appropriate official of the Department of Labor requests or such sums as the Contracting Officer decides may be necessary to pay underpaid employees employed by the Contractor or subcontractor. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the Contracting Officer may, after authorization or by direction of the Department of Labor and written notification to the Contractor, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of this clause may be grounds for termination of the right to proceed with the contract work. In such event, the Government may enter into other contracts or arrangements for completion of the work, charging the Contractor in default with any additional cost.

(l) Subcontracts. The Contractor agrees to insert this clause in all subcontracts subject to the Act.

(m) Collective bargaining agreements applicable to service employees. If wages to be paid or fringe benefits to be furnished any service employees employed by the Government Prime Contractor or any subcontractor under the contract are provided for in a collective bargaining agreement which is or will be effective during any period in which the contract is being performed, the Government Prime Contractor shall report such fact to the Contracting Officer, together with full information as to the application and accrual of such wages and fringe benefits, including any prospective increases, to service employees engaged in work on the contract, and a copy of the collective bargaining agreement. Such report shall be made upon commencing performance of the contract, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of contract performance such agreements shall be reported promptly after negotiation thereof.

(n) Seniority list. Not less than 10 days prior to completion of any contract being performed at a Federal facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a Contractor (predecessor) or successor (29 CFR 4.173), the incumbent Prime Contractor shall furnish the Contracting Officer a certified list of the names of all service employees on the Contractor's or subcontractor's payroll during the last month of contract performance. Such list shall also contain anniversary dates of employment on the contract either with the current or predecessor Contractors of each such service employee. The Contracting Officer shall turn over such list to the successor Contractor at the commencement of the succeeding contract.

(o) Rulings and interpretations. Rulings and interpretations of the Act are contained in Regulations, 29 CFR Part 4.

(p) Contractor's certification.

(1) By entering into this contract, the Contractor (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of the sanctions imposed under section 5 of the Act.

(2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract under section 5 of the Act.

(3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(q) Variations, tolerances, and exemptions involving employment.

Notwithstanding any of the provisions in paragraphs (b) through (o) of this clause, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Pub. L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business:

(1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical or mental deficiency, or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of the Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).

(2) The Administrator will issue certificates under the Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).

(3) The Administrator will also withdraw, annul, or cancel such certificates in accordance with the regulations in 29 CFR Parts 525 and 528.

(r) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency which is recognized by the U.S. Department of Labor, or if no such recognized Agency exists in a State, under a program registered with the Bureau of Apprenticeship and Training, Employment and Training Administration, U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the contract work in any craft classification shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program.

(s) Tips. An employee engaged in an occupation in which the employee customarily and regularly receives more than \$30 a month in tips may have the amount of these tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act, in accordance with section 3(m) of the Fair Labor Standards Act and Regulations, 29 CFR Part 531. However, the amount of credit shall not exceed \$1.34 per hour beginning January 1, 1981. To use this provision--

- (1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized;
- (2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received);
- (3) The employer must be able to show by records that the employee receives at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; and
- (4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of section 4(c) of the Act.

(t) Disputes concerning labor standards. The U.S. Department of Labor has set forth in 29 CFR Parts 4, 6, and 8 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and

the contracting Agency, the U.S. Department of Labor, or the employees or their representatives.

**I. 10 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES  
(FAR 52.222-42) (MAY 1989)**

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting Agency subject to the provisions of 5 U.S.C. 5341 or 5332.

This Statement is for Information Only:  
It is not a Wage Determination

<b>Employee</b>	<b>Class</b>	<b>Monetary Wage-- Fringe Benefits</b>
Aircraft Pilot,	GS-12	\$24.02
Aircraft Co-pilot	GS-11	\$20.05
Aircraft Mechanic-Journeyman	GS-11	\$20.25
Aircraft Mechanic-Junior	GS-9	\$16.57
Aircraft Mechanic Helper,	GS-6	\$12.19
Aircraft Servicer,	GS-6	\$12.19
Aircraft Laborer,	GS-4	\$12.19

**I.11 FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT ACT--PRICE  
ADJUSTMENT (MULTIPLE YEAR AND OPTION CONTRACTS)  
(FAR 52.222-43) (MAY 1989)**

(a) This clause applies to both contracts subject to area prevailing wage determinations and contracts subject to collective bargaining agreements.

(b) The Contractor warrants that the prices in this contract do not include any allowance for any contingency to cover increased costs for which adjustment is provided under this clause.

(c) The wage determination, issued under the Service Contract Act of 1965, as amended, (41 U.S.C.351, et seq.), by the Administrator, Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, current on the anniversary date of a multiple year contract or the beginning of each renewal option period, shall apply to this contract. If no such determination has been made applicable to this contract, then the Federal minimum wage as established by section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended, (29 U.S.C.206) current on the anniversary date of a multiple year contract or the beginning of each renewal option period, shall apply to this contract.

(d) The contract price or contract unit price labor rates will be adjusted to reflect the Contractor's actual increase or decrease in applicable wages and fringe benefits to the extent that the increase is made to comply with or the decrease is voluntarily made by the Contractor as a result of:

- (1) The Department of Labor wage determination applicable on the anniversary date of the multiple year contract, or at the beginning of the renewal option period. For example, the prior year wage determination required a minimum wage rate of \$4.00 per hour. The Contractor chose to pay \$4.10. The new wage determination increases the minimum rate to \$4.50 per hour. Even if the Contractor voluntarily increases the rate to \$4.75 per hour, the allowable price adjustment is \$.40 per hour;
- (2) An increased or decreased wage determination otherwise applied to the contract by operation of law; or
- (3) An amendment to the Fair Labor Standards Act of 1938 that is enacted after award of this contract, affects the minimum wage, and becomes applicable to this contract under law.

(e) Any adjustment will be limited to increases or decreases in wages and fringe benefits as described in paragraph (c) of this clause, and the accompanying increases or decreases in social security and unemployment taxes and workers' compensation insurance, but shall not otherwise include any amount for general and administrative costs, overhead, or profit.

(f) The Contractor shall notify the Contracting Officer of any increase claimed under this clause within 30 days after receiving a new wage determination unless this notification period is extended in writing by the Contracting Officer. The Contractor shall promptly notify the Contracting Officer of any decrease under this clause, but nothing in the clause shall preclude the Government from asserting a claim within the period permitted by law. The notice shall contain a statement of the amount claimed and any relevant supporting data, including payroll records, that the Contracting Officer may reasonably require. Upon agreement of the parties, the contract price or contract unit price labor rates shall be modified in writing. The Contractor shall continue performance pending agreement on or determination of any such adjustment and its effective date.

(g) The Contracting Officer or an authorized representative shall have access to and the right to examine any directly pertinent books, documents, papers and records of the Contractor until the expiration of 3 years after final payment under the contract.

**I.12 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA  
(FAR 52.223-3) (JAN 1997)**

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The Offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

**Material**  
**(If none, insert "None")**

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**Identification No.**

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(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful Offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful Offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful Offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to --

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

### **I.13 POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (FAR 52.223-5) (APR 1998)**

(a) Executive Order 12856 of August 3, 1993, requires Federal facilities to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11001-11050) and the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13101-13109).

(b) The Contractor shall provide all information needed by the Federal facility to comply with the emergency planning reporting requirements of Section 302 of EPCRA; the emergency notice requirements of Section 304 of EPCRA; the list of Material Safety Data Sheets required by Section 311 of EPCRA; the emergency and hazardous chemical inventory forms of Section 312 of EPCRA; the toxic chemical release inventory of Section 313 of EPCRA, which includes the reduction and recycling information required by Section 6607 of PPA; and the toxic chemical reduction goals requirements of Section 3-302 of Executive Order 12856.

**I.14 DRUG-FREE WORKPLACE (FAR 52.223-6) MAY 2001)**

(a) *Definitions.* As used in this clause-

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of *nolo contendere*) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract where employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall- within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration-

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about-

- (i) The dangers of drug abuse in the workplace;
  - (ii) The Contractor's policy of maintaining a drug-free workplace;
  - (iii) Any available drug counseling, rehabilitation, and employee assistance programs; and
  - (iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (3) Provide all employees engaged in performance of the contract with a copy of the statement required by paragraph (b)(1) of this clause;
- (4) Notify such employees in writing in the statement required by paragraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will-
- (i) Abide by the terms of the statement; and
  - (ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction;
- (5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;
- (6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:
- (i) Taking appropriate personnel action against such employee, up to and including termination; or
  - (ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and
- (7) Make a good faith effort to maintain a drug-free workplace through implementation of paragraphs (b)(1) through (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract or default, and suspension or debarment.

#### **I.15 PAYMENTS (FAR 52.232-1) (APR 1984)**

The Government shall pay the Contractor, upon the submission of proper invoices or vouchers, the prices stipulated in this contract for supplies delivered and accepted or services rendered and accepted, less any deductions provided in this contract. Unless otherwise specified in this contract, payment shall be made on partial deliveries accepted by the Government if --

(a) The amount due on the deliveries warrants it; or

(b) The Contractor requests it and the amount due on the deliveries is at least \$1,000 or 50 percent of the total contract price.

#### **I.16 DISCOUNTS FOR PROMPT PAYMENT (FAR 52.232-8) (FEB 2002)**

(a) Discounts for prompt payment will not be considered in the evaluation of offers. However, any offered discount will form a part of the award, and will be taken if payment is made within the discount period indicated in the offer by the offeror. As an alternative to offering a discount for prompt payment in conjunction with the offer, offerors awarded contracts may include discounts for prompt payment on individual invoices.

(b) In connection with any discount offered for prompt payment, time shall be computed from the date of the invoice. If the Contractor has not placed a date on the invoice, the due date shall be calculated from the date the designated billing office receives a proper invoice, provided the agency annotates such invoice with the date of receipt at the time of receipt. For the purpose of computing the discount earned, payment shall be considered to have been made on the date that appears on the payment check or, for an electronic funds transfer, the specified payment date. When the discount date falls on a Saturday, Sunday, or legal holiday when Federal Government offices are closed and Government business is not expected to be conducted, payment may be made on the following business day.

#### **I.17 EXTRAS (FAR 52.232-11) (APR 1984)**

Except as otherwise provided in this contract, no payment for extras shall be made unless such extras and the price therefor have been authorized in writing by the Contracting Officer.

**I.18 AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR  
(FAR 52.232-19) (APR 1984)**

Funds are not presently available for performance under this contract beyond October 1, 1998. The Government's obligation for performance of this contract beyond that date is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise for performance under this contract beyond October 1, 1998, until funds are made available to the Contracting Officer for performance and until the Contractor receives notice of availability, to be confirmed in writing by the Contracting Officer.

**I.19 ASSIGNMENT OF CLAIMS (FAR 52.232-23) (JAN 1986)**

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending Agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

**I.20 PROMPT PAYMENT (FAR 52.232-25) (FEB 2002)**

Notwithstanding any other payment clause in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer (EFT). Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation.

All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(4) of this clause concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) *Invoice payments-*

(1) *Due date.*

(i) Except as indicated in paragraphs (a)(2) and (c) of this clause, the due date for making invoice payments by the designated payment office is the later of the following two events:

(A) The 30th day after the designated billing office receives a proper invoice from the Contractor (except as provided in paragraph (a)(1)(ii) of this clause).

(B) The 30th day after Government acceptance of supplies delivered or services performed. For a final invoice, when the payment amount is subject to contract settlement actions, acceptance is deemed to occur on the effective date of the contract settlement.

(ii) If the designated billing office fails to annotate the invoice with the actual date of receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) *Certain food products and other payments.*

(i) Due dates on Contractor invoices for meat, meat food products, or fish; perishable agricultural commodities; and dairy products, edible fats or oils, and food products prepared from edible fats or oils are-

(A) For meat or meat food products, as defined in section 2(a)(3) of the Packers and Stockyard Act of 1921 (7 U.S.C. 182(3)), and as further defined in Pub. L. 98-181, including any edible fresh or frozen poultry meat, any perishable poultry meat food product, fresh eggs, and any perishable egg product, as close as possible to, but not later than, the 7th day after product delivery.

(B) For fresh or frozen fish, as defined in section 204(3) of the Fish and Seafood Promotion Act of 1986 (16 U.S.C. 4003(3)), as close as possible to, but not later than, the 7th day after product delivery.

(C) For perishable agricultural commodities, as defined in section 1(4) of the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(4)), as close as possible to, but not later than, the 10th day after product delivery, unless another date is specified in the contract.

(D) For dairy products, as defined in section 111(e) of the Dairy Production Stabilization Act of 1983 (7 U.S.C. 4502(e)), edible fats or oils, and food products prepared from edible fats or oils, as close as possible to, but not later than, the 10th day after the date on which a proper invoice has been received. Liquid milk, cheese, certain processed cheese products, butter, yogurt, ice cream, mayonnaise, salad dressings, and other similar products, fall within this classification. Nothing in the Act limits this classification to refrigerated products. When questions arise regarding the proper classification of a specific product, prevailing industry practices will be followed in specifying a contract payment due date. The burden of proof that a classification of a specific product is, in fact, prevailing industry practice is upon the Contractor making the representation.

(ii) If the contract does not require submission of an invoice for payment (e.g., periodic lease payments), the due date will be as specified in the contract.

(3) *Contractor's invoice.* The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(3)(i) through (a)(3)(x) of this clause. If the invoice does not comply with these requirements, the designated billing office will return it within 7 days after receipt (3 days for meat, meat food products, or fish; 5 days for perishable agricultural commodities, dairy products, edible fats or oils, and food products prepared from edible fats or oils), with the reasons why it is not a proper invoice. The Government will take into account untimely notification when computing any interest penalty owed the Contractor.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of the mailing or transmission.)

(iii) Contract number or other authorization for supplies delivered or services performed (including order number and contract line item number).

(iv) Description, quantity, unit of measure, unit price, and extended price of supplies delivered or services performed.

(v) Shipping and payment terms (e.g., shipment number and date of shipment, discount for prompt payment terms). Bill of lading number and weight of shipment will be shown for shipments on Government bills of lading.

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(ix) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer-Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer-Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(x) Any other information or documentation required by the contract (e.g., evidence of shipment).

(4) *Interest penalty.* The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(4)(i) through (a)(4)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

authorizing payment, and there was no disagreement over quantity, quality, or Contractor compliance with any contract term or condition.

(iii) In the case of a final invoice for any balance of funds due the Contractor for supplies delivered or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(5) *Computing penalty amount.* The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance is deemed to occur constructively on the 7th day (unless otherwise specified in this contract) after the Contractor delivers the supplies or performs the services in accordance with the terms and conditions of the contract, unless there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. If actual acceptance occurs within the constructive acceptance period, the Government will base the determination of an interest penalty on the actual date of acceptance. The constructive acceptance requirement does not, however, compel Government officials to accept supplies or services, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(6) *Discounts for prompt payment.* The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(7) *Additional interest penalty.*

(i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if-

(A) The Government owes an interest penalty of \$1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(7)(ii) of this clause, postmarked not later than 40 days after the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall-

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest is due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible-

(1) The designated payment office that receives the demand will annotate it with the date of receipt, provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(iii) The additional penalty does not apply to payments regulated by other Government regulations (e.g., payments under utility contracts subject to tariffs and regulation).

(b) *Contract financing payment.* If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) *Fast payment procedure due dates.* If this contract contains the clause at 52.213-1, Fast Payment Procedure, payments will be made within 15 days after the date of receipt of the invoice.

(d) *Overpayments.* If the Contractor becomes aware of a duplicate payment or that the Government has otherwise overpaid on an invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

#### **I.21 PROMPT PAYMENT (FAR 52.232-25) (FEB 2002)**

(a) Method of payment.

(1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either-

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) *Contractor's EFT information.* The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) *Mechanisms for EFT payment.* The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) *Suspension of payment.* If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) *Contractor EFT arrangements.* If the Contractor has identified multiple payment receiving points (*i.e.*, more than one remittance address and/or EFT information set) in the CCR database, and the Contractor has not notified the Government of the payment receiving point applicable to this contract, the Government shall make payment to the first payment receiving point (EFT information set or remittance address as applicable) listed in the CCR database.

(f) *Liability for uncompleted or erroneous transfers.*

(1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for-

- (i) Making a correct payment;
- (ii) Paying any prompt payment penalty due; and
- (iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and-

- (i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or
- (ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(g) *EFT and prompt payment.* A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(h) *EFT and assignment of claims.* If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register in the CCR database and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(i) *Liability for change of EFT information by financial agent.* The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(j) *Payment information.* The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.

## **I.22 DISPUTES (FAR 52.233-1) (DEC 1998)**

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. A claim arising under a contract, unlike a claim relating to that contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified as required by paragraph (d)(2) of this clause. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)(i) The Contractor shall provide the certification specified in paragraph (d)(2)(iii) of this clause when submitting any claim exceeding \$100,000.

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor."

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the offer.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date that the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in FAR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

### **I.23 PERMITS AND RESPONSIBILITIES (FAR 52.236-7)(NOV 1991)**

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

### **I.24 CHANGES--FIXED-PRICE (FAR 52.243-1) (AUG 1987) ALTERNATE I (APR 1984)**

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

- (1) Description of services to be performed.
- (2) Time of performance (*i.e.*, hours of the day, days of the week, etc.).
- (3) Place of performance of the services.

(b) If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, the Contracting Officer shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract.

(c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.

(d) If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

(e) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

## I.25 SUBCONTRACTS (FAR 52.244-2) (AUG 1998)

(a) *Definitions.* As used in this clause-  
 "Approved purchasing system" means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR)

"Consent to subcontract" means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

"Subcontract" means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) This clause does not apply to subcontracts for special test equipment when the contract contains the clause at FAR 52.245-18, Special Test Equipment.

(c) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (d)( or (e) or this clause.

(d) If the contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that-

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds-

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the national Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For contracts awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(e) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts:

(f)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (c), (d), or (e) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

- (v) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.
- (vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting --

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (c), (d), or (e) or this clause.

(g) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination --

- (1) Of the acceptability of any subcontract terms or conditions;
- (2) Of the allowability of any cost under this contract; or
- (3) To relieve the Contractor of any responsibility for performing this contract.

(h) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(i) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(j) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(k) Paragraphs (d) and (f) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

**I.26 GOVERNMENT-FURNISHED PROPERTY (SHORT FORM)  
(FAR 52.245-4)(APR 1984)**

(a) The Government shall deliver to the Contractor, at the time and locations stated in this contract, the Government-furnished property described in the Schedule or specifications. If that property, suitable for its intended use, is not delivered to the Contractor, the Contracting Officer shall equitably adjust affected provisions of this contract in accordance with the Changes clause when --

- (1) The Contractor submits a timely written request for an equitable adjustment; and
- (2) The facts warrant an equitable adjustment.

(b) Title to Government-furnished property shall remain in the Government. The Contractor shall use the Government-furnished property only in connection with this contract. The Contractor shall maintain adequate property control records in accordance with sound industrial practice and will make such records available for Government inspection at all reasonable times, unless the clause at Federal Acquisition Regulation 52.245-1, Property Records, is included in this contract.

(c) Upon delivery of Government-furnished property to the Contractor, the Contractor assumes the risk and responsibility for its loss or damage, except --

- (1) For reasonable wear and tear;
- (2) To the extent property is consumed in performing this contract; or
- (3) As otherwise provided for by the provisions of this contract.

(d) Upon completing this contract, the Contractor shall follow the instructions of the Contracting Officer regarding the disposition of all Government-furnished property not consumed in performing this contract or previously delivered to the Government. The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property, as may be directed or authorized by the Contracting Officer. The net proceeds of any such disposal shall be credited to the contract price or shall be paid to the Government as directed by the Contracting Officer.

(e) If this contract is to be performed outside the United States of America, its territories, or possessions, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

#### **I.27 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (FAR 52.249-2) (SEPT 1996)**

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

- (1) Stop work as specified in the notice.
- (2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.
- (3) Terminate all subcontracts to the extent they relate to the work terminated.
- (4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Contracting Officer, transfer title and deliver to the Government --

(i) The fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated; and

(ii) The completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list

upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (f) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and the Contracting Officer fail to agree on the whole amount to be paid because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined by the Contracting Officer as follows, but without duplication of any amounts agreed on under paragraph (f) of this clause:

- (1) The contract price for completed supplies or services accepted by the Government (or sold or acquired under subparagraph (b)(9) of this clause) not previously paid for, adjusted for any saving of freight and other charges.
- (2) The total of --
  - (i) The costs incurred in the performance of the work terminated, including initial costs and preparatory expense allocable thereto, but excluding any costs attributable to supplies or services paid or to be paid under subparagraph (g)(1) of this clause;
  - (ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(2)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(2)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (g)(2)(iii) and shall reduce the settlement to reflect the indicated rate of loss.

(3) The reasonable costs of settlement of the work terminated, including --

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted --

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m) (1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C.App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

#### **I.28 DEFAULT (FIXED-PRICE SUPPLY AND SERVICE) (FAR 52.249-8 ) (APR 1984)**

(a) (1) The Government may, subject to paragraphs (c) and (d) of this clause, by written notice of default to the Contractor, terminate this contract in whole or in part if the Contractor fails to--

(i) Deliver the supplies or to perform the services within the time specified in this contract or any extension;

(ii) Make progress, so as to endanger performance of this contract (but see subparagraph (a)(2) of this clause); or

(iii) Perform any of the other provisions of this contract (but see subparagraph (a)(2) of this clause).

(2) The Government's right to terminate this contract under subdivisions (a)(1)(ii) and (1)(iii) of this clause, may be exercised if the Contractor does not cure such failure within 10 days (or more if authorized in writing by the Contracting Officer) after receipt of the notice from the Contracting Officer specifying the failure.

(b) If the Government terminates this contract in whole or in part, it may acquire, under the terms and in the manner the Contracting Officer considers appropriate, supplies or services similar to those terminated, and the Contractor will be liable to the Government for any excess costs for those supplies or services. However, the Contractor shall continue the work not terminated.

(c) Except for defaults of subcontractors at any tier, the Contractor shall not be liable for any excess costs if the failure to perform the contract arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include

- (1) acts of God or of the public enemy,
- (2) acts of the Government in either its sovereign or contractual capacity,
- (3) fires,
- (4) floods,
- (5) epidemics,
- (6) quarantine restrictions,
- (7) strikes,
- (8) freight embargoes, and
- (9) unusually severe weather.

In each instance the failure to perform must be beyond the control and without the fault or negligence of the Contractor.

(d) If the failure to perform is caused by the default of a subcontractor at any tier, and if the cause of the default is beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be liable for any excess costs for failure to perform, unless the subcontracted supplies or

services were obtainable from other sources in sufficient time for the Contractor to meet the required delivery schedule.

(e) If this contract is terminated for default, the Government may require the Contractor to transfer title and deliver to the Government, as directed by the Contracting Officer, any

(1) completed supplies, and

(2) partially completed supplies and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (collectively referred to a "manufacturing materials" in this clause) that the Contractor has specifically produced or acquired for the terminated portion of this contract. Upon direction of the Contracting Officer, the Contractor shall also protect and preserve property in its possession in which the Government has an interest.

(f) The Government shall pay contract price for completed supplies delivered and accepted. The Contractor and Contracting Officer shall agree on the amount of payment for manufacturing materials delivered and accepted and for the protection and preservation of the property. Failure to agree will be a dispute under the Disputes clause. The Government may withhold from these amounts any sum the Contracting Officer determines to be necessary to protect the Government against loss because of outstanding liens or claims of former lien holders.

(g) If, after termination, it is determined that the Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Government.

(h) The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

### **I.29 AUTHORIZED DEVIATIONS IN CLAUSES (FAR 52.252-6) (APR 1984)**

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any Department of Agriculture (48 CFR 4) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

### **I.30 ECONOMIC PRICE ADJUSTMENT-DAILY AVAILABILITY /SPECIFIED FLIGHT RATE CONTRACTS**

(1) SPECIFIED AND OPTIONAL FLIGHT RATES (NON-FUEL PORTION),

## MANDATORY AVAILABILITY AND EXTENDED STANDBY RATES

Contract rates will be established in accordance with the following to reflect increases or decreases in the cost of Performance of the contract work. The increases or decreases used in establishing the rates will be those indicated by the changes in the following price indexes:

(A) The Non-Fuel Portion of the Specified Flight and Optional Flight Rates will be affected by:

<b>TABLE 6 - PRODUCER PRICE INDEXES</b>
1. Commodity Group 1423 -- Aircraft Engines and Engine Parts
2. Commodity Group 1425 -- Aircraft Parts and Auxiliary Equipment



<b>AVERAGE OF PERCENTAGE CHANGES x 100 PERCENT OF LAST ADJUSTED RATE</b>
The new rate will be derived by multiplying the average of the percentage changes of (1) and (2) times the rate in effect for the year immediately prior to the year in which the renewal is effective. The result will be added to or subtracted from the existing rate to become the newly adjusted rate (rounded to the next dollar).

(B) Extended Standby Rate will be affected by:

The Extended Standby Rate will be reviewed periodically to insure compliance with the Service Contract Act and an adjustment will be made if necessary. In the event a substantial revision to the method of calculating an Index is used by the Bureau of Labor Statistics. US Department of Labor, or the index is discontinued, the Contracting Officer will select a comparable Index for use under the contract. The Index chosen will be either a current Index in use or a comparable Index prepared by the Bureau of Labor Statistics. US Department of Labor, prepared at the request of the Contracting Officer. Also, at any time the Bureau of Labor Statistics adds an index that is more appropriate or applicable to the contract, the Contracting Officer may elect to make substitution for an already existing Index.

(C) Daily Availability Rate:

No Economic Price Adjustment is applicable to the Daily Availability Rates Bid by the Contractor in the Schedule of Items.

The newly adjusted rates will become effective annually on FEBRUARY 16 of each year. The basis for establishing the new rates will be the changes in the Index over the calendar year immediately prior to the year of the annual adjustment.

The change to the Index will be determined by computing the percent change from the last Index for the calendar year using the January thru December annual average Index unadjusted Index figures as they appear in the publication "Producer Price Indexes" Bureau of Labor Statistics, US Department of Labor.

Any increase will not exceed 15 % of the rate being adjusted and the aggregate change over the life of the contract including renewals, shall not exceed 30% of the initial contract rates.

(2) SPECIFIED "FLIGHT" AND "OPTIONAL RATES PORTION"

During the contract periods, including renewals, flight rates will be adjusted to reflect increases and decreases in the prices of aviation fuel.

The price of turbine fuel is established at \$2.32 per gallon. The price of 100 Octane fuel is established at \$2.49 per gallon. The unit prices are an average of the lowest unit price for aviation fuel Nationwide. Variations in unit prices used in determining flight rate adjustment amounts will be established by using the average of the lowest unit price for aviation fuel or 100 Octane, whichever is applicable, at the following locations:

- (i) WAFFORD FLYING SERVICE, Fresno, CA
- (ii) CUTTER FLYING SERVICE, Albuquerque, NM
- (iii) CITY OF PHOENIX, Phoenix, AZ
- (iv) FLIGHTCRAFT, Portland, OR
- (v) MILLIONAIRE, Salt Lake City, UT (Interwest Jet)
- (vi) WESTERN AIRCRAFT MAINTENANCE, Boise, ID
- (vii) MINUTEMAN AVIATION, Missoula, MT
- (viii) WEST STAR AVIATION, Grand Junction, CO
- (ix) MERCURY AVIATION, Reno, NV
- (x) EXECUTIVE FLIGHT, Wenatchee, WA
- (xi) EPPS AVIATION, Atlanta, GA
- (xii) KNOXAIR, Alcoa, TN
- (xiii) TAC-AIR AVIATION, Ft. Smith, AR

The adjustment to the fuel portion of the flight rate will be the determined variation amount multiplied by the fuel consumption rates found in Section J, LIST OF ATTACHMENTS, for the applicable aircraft type.

An initial adjustment to the fixed flight rate will be made on **FEBRUARY 16** of each contract period. Subsequent adjustments will be made on **APRIL 16, JULY 16,** and **OCTOBER 16** of each contract period provided variations in the average unit price, determined as stated above, is \$.10 per gallon or more from the unit price established in the last previous adjustment made.

### **I.31 PROPERTY AND PERSONAL DAMAGE**

(1) The Contractor shall use every precaution necessary to prevent damage to public and private property.

(2) The Contractor shall be responsible for all damage to property and to persons, including third parties, that occur as a result of his or his agent's or employee's fault or negligence. The term "third parties" is construed to include employees of the Government.

(3) The Contractor shall procure and maintain during the term of this contract, and any extension thereof, aircraft and general public liability insurance. In accordance with 14 CFR 298. The parties named insured under the policy or policies shall be the **CONTRACTOR** and **THE UNITED STATES OF AMERICA**.

(4) The Contractor may be otherwise insured by a combination of primary and excess policies. Such policies must have combined coverage equal to or greater than the combined minimums required.

(5) Policies containing exclusions for chemical damage or damage incidental to the use of equipment and supplies furnished under this contract, or growing out of direct performance of the contract, will not be acceptable. The chemical damage coverage may be limited to chemicals dispensed while performing firefighting activities.

(6) The Contractor, prior to the commencement of work, shall submit to the Contracting Officer one copy of the insurance policy, or confirmation from the insurance company, certifying that the coverage described in this clause has been obtained.

**PART III - LIST OF DOCUMENTS, EXHIBITS,  
AND OTHER ATTACHMENTS**

**SECTION J - LIST OF ATTACHMENTS**

**J.1 LIST OF ATTACHMENTS (AGAR 452.252-70) (FEB 1988)**

- J.2 Definitions of Contract Terms
- J.3 First Aid Kit
- J.4 Survival Kit
- J.5 Flight Use Report Instructions
- J.6 Flight Use Report (FS 6500-122)
- J.7 Aircraft Use Report (OAS-23)
- J.8 Helicopter Flight Rates, Fuel Consumption, and Weight Reduction Chart
- J.9 Wage Determination (lower 48 States)
- J.10 Wage Determination (Alaska)
- J.11 Agency Guidelines for Vertical Reference Training
- J.12 Standard Interagency Load Calculation Instructions
- J.13 Standard Interagency Load Calculation Forms
- J.14 AUX-FM Radio
- J.15 9 Pin Helicopter Connector Variations
- J.16 Acceptable Paint Schemes
- J.17 Quality Control Procedures for Fueling
- J.18 Malfunction or Defect Report, FAA Form 8010-4
- J.19 Maintenance, Malfunction/Information Report
- J.20 Forest Service Grants of Exemption
- J.21 Avionics Operational Test STANDARDS (FS/OAS-24)
- J.22 Approval for Rappelling Anchors Used in Forest Service
- J.23 Alaska Supplement
- J.24 Aeronautical VFH-FM Radio Transceiver Specifications for USFS/USDOJ  
As Helicopter Contract Use
- J.25 Aircraft Performance Questionnaire
- J.26 CWN Manager Assignment Close-Out
- J.27 Helicopter and Fuel Service Vehicle Pre-Use Checklist
- J.28 Helicopter Synthetic Long Line Guidelines
- J.29 Helicopter Make/Model/Series List

**J.2 DEFINITIONS OF CONTRACT TERMS**

As used throughout this contract, the following terms shall have the meaning set forth below:

- (1) ADD NOTE: Airworthiness directive.

(2) **ADDITIONAL CREW:** An additional crew member is a crew member specifically ordered by the Government where it is to the Government's advantage to have additional availability of the aircraft (not to be confused with a relief crew furnished by Contractor to replace primary crew).

(3) **AIRCRAFT MAKE AND MODEL:** A specific make and basic model of aircraft, including modification; e.g., a Bell 206 "A" is the same model as the Bell 206 "B."

(4) **AIRCRAFT MAKE, MODEL, AND SERIES:** A specific make, model, and series of aircraft including modification (e.g., a Bell 206A is not the same make, model, and series as a Bell 206B).

(5) **AIRCRAFT TYPE:**

(A) **Limited Use Helicopter** - A Helicopter Certificated in the restricted category or a Helicopter certificated in transport or normal category utilizing a reciprocating engine and any other Helicopter not operated and maintained in accordance with 14 CFR 135. These Helicopters may be used for limited operations such as tank and bucket operations and cargo.

(B) **Standard Use Helicopter** - A Turbine Powered Helicopter which is certificated in the normal or transport category, operated and maintained in accordance with 14 CFR 135 by an operator holding an Air Carrier Certificate. These Helicopters may be used for all types of operations such as passengers, reconnaissance, tank or bucket operations, and cargo.

(C) **Type I Helicopter** - No less than 16 seats (including pilot) or 5,000 lb card weight capacity, and 700 gallons retardant capacity.

(D) **Type II Helicopter** - 9 to 15 seats or 2,500 to 4,999 lbs card weight capacity and 300 to 699 gallons retardant capacity.

(E) **Type III Helicopter** - 5 to 8 seats or 1,200 to 2,499 lbs card weight capacity and 100 to 299 gallons retardant capacity.

(F) **Type IV Helicopter**- 3 to 4 seats or 600 to 1,199 lbs card weight capacity and 75 to 99 gallons retardant capacity.

(6) **ALTERNATE BASE:** A base, other than the designated base, established to permit operation from immediate vicinity of a project area.

(7) **ALERT STATUS:** a nonpaid status (after standby) subject to flight and duty limitations, in which the Contractor has 1 hour to return to standby if ordered by the Government to do so.

(8) **ANCHOR:** Means of attaching the rope to an object. For heli-rappelling, the anchor would be the rappel plate or bracket. This would be the "fail-safe" attachment point for the rappel ropes.

- (9) ATCO: Air taxi/commercial operators holding a certificate issued by the Federal Aviation Administration.
- (10) AUTHORIZED CREW MEMBER: Those individuals specified in the SCHEDULE OF ITEMS unless designated otherwise by the Contracting Officer.
- (11) AUTHORIZED FLIGHT OR FLYING TIME: The actual time that a helicopter is off the ground for the purpose of the task or tasks to which assigned under a trip order when such time is recorded by the pilot and approved by a designated forest officer as having been properly performed.
- (12) BASE OF OPERATIONS: The location designated by the Contracting Officer from which ordered flight will originate.
- (13) CARD WEIGHT: The difference between the maximum certificated normal (internal) gross weight and the equipped weight of the aircraft (sea level, standard day).
- (14) EQUIPPED WEIGHT: Empty weight of the aircraft plus the weight of accessories required for the mission plus weight of oil.
- (15) EXTENDED STANDBY: Hours of standby ordered by the Government beyond the first 9 hours of standby required for which the Contractor is compensated at the specified rate found in the Schedule of Items. Extended standby is not intended to compensate the Contractor on a one-to-one basis for all hours necessary to service and maintain the aircraft nor is it paid while flight crew is in travel status to and from place of lodging.. Extended standby must be specifically ordered by the Government and only in unusual circumstances that should be documented on the USDA-FS 6500-122 or USDFOAS-23, will the Contractor be compensated for extended standby when the aircraft is not also available for immediate dispatch by the Government.
- (16) EXTERNAL LOAD: A load that is carried or extends outside of the aircraft fuselage.
- (17) FERRY FLIGHT: Movement of helicopter under its own power from point-to-point.
- (18) FLIGHT CREW: Those Contractor personnel required by the Federal Aviation Administration to operate the aircraft safely while performing under contract to the Government.
- (19) FLIGHT RATE: The contract unit price per hour of flight time as found in the Table of Flight Rates or Schedule of Items. (Includes base cost plus fuel costs.)
- (A) Base Cost: The portion of the flight rate that is constant throughout the contract period and not affected by changes in fuel prices. Adjustments to the base cost will be made annually by the Contracting Officer.
  - (B) Fuel Cost: The variable portion of the flight rate that is subject to change due to fuel price change.
- (20) FUEL ENDURANCE: Fuel required including a 30-minute reserve.
- (21) FULLY OPERATIONAL: Helicopter, Pilots, other personnel, repairs, operating supplies, service facilities, and incidentals necessary to the operation of the helicopter both on the ground and in the air.

(22) FULLY RATED CAPACITY: The number of passenger seats or pounds of cargo load authorized in the applicable Type Certificate Data Sheet.

(23) HELITANKER: An aerial delivery system that is a helicopter configured for the dispensing of fire retardant or fire suppressant material. Airtanker Board criteria shall apply to helicopters with a minimum capacity of 700 gallons or more.

(24) HOVER CEILING:

(A) Hover-in-ground-effect (HIGE) - Maximum density altitude at which a helicopter can hover (at maximum gross weight) using the effects of ground cushion.

(B) Hover-out-of-ground Effect (HOGE) - Maximum density altitude at which a helicopter can hover (at maximum gross weight) without the effects of ground cushion.

(25) INTERNAL CARGO COMPARTMENTS: An area specifically designed to carry cargo and normally excludes tail boom, electrical compartments, etc.

(26) Standby: Personnel will be on standby during the hours stipulated each day by the Contracting Officer. The length of the standby period will be set by the Contracting Officer and may be adjusted from day to day. Standby requirements may be adjusted for project use. The first nine hours of standby will be considered the base or normal standby hours. During this time, the aircraft will be immediately available and able to be airborne within 10 minutes

(27) LAW ENFORCEMENT: Those duties carried out by USDA Forest Service personnel together with personnel from cooperating agencies, to enforce various Federal laws applicable to trespass (those activities relating to timber, grazing, fire, occupancy and others). Other activities can include those that are illegal under the antiquities acts and the manufacturing, production, and trafficking of substances in violation of the Controlled Substances Act (16 U.S.C. 559b-f)) and other illegal activities occurring on USDA-National Forest Jurisdictional lands. Specific law enforcement activities can include surveillance (visual, infrared, or photographic), transportation of law enforcement personnel and persons in custody and transportation of property (both internally and externally). All helicopter activities including landings will occur at locations that are secured by law enforcement personnel or are locations removed from law enforcement actions.

(28) NVG: Term used to identify night vision goggles and the operation associated with night vision goggles. (NVG equipped) (NVG qualified)

(29) PAYLOAD: The maximum allowable weight (passengers and/or cargo) that can be carried in any one mission.

(30) PASSENGER SEATING CAPACITY: Number of passenger seats excluding Pilot(s).

(31) RAPPELLER: A person who has been trained and certified to rappel from a helicopter, in accordance with Agency specified policy and direction contained in the Interagency Helicopter Rappelling Guide.

(32) **RAPPEL SPOTTER:** A person who has been trained and certified, in accordance with Agency-specified policy and direction contained in the Interagency Helicopter Rappel guide, to direct and manage a rappel operation.

(33) **RELIEF CREW:** A relief crew is not required; however, aircraft will be considered unavailable for payment purposes if a relief crew is not provided. The Government will pay the reasonable cost of transporting a relief crew to and from the base of operation.

(34) **SLING LOAD:** Jettisonable external load that is lifted free of land or water during the rotorcraft operation.

(35) **STC:** Supplemental Type Certificate.

(36) **VNE:** Velocity never exceed.

(37) **DUTY -** That period that includes flight time, ground duty (pre- and post- flight inspections) of any kind, and standby or alert status at any location.

### **J.3 FIRST AID KIT - AERONAUTICAL**

(1) Each first aid kit must be in a dust-proof and moisture-proof metal or heavy plastic container.

(2) The kit must be readily accessible to the Pilot and passengers.

(3) The contents will include the following minimum items: (kits may be commercially available types which are FAA approved for the appropriate numbers of crew and passengers carried).

ITEM	Passenger Seats	
	0 - 9	10 - 50
Adhesive bandage strips, 3" long	8	16
Antiseptic or alcohol wipes (pkts)	10	20
Bandage compresses, 4"	2	4
Triangular bandage, 40" (sling)	2	4
Roller bandage, 4" x 5 yds (gauze)	2	4
Adhesive tape, 1"x 5 yds (std roll)	1	2
Bandage scissors	1	1
Body Fluids Barrier Kit:		
2 - pair latex gloves		
1- face shield		
1 - mouth-to-mouth barrier		
1 - protective gown		
2 - antiseptic towelettes		
1 - biohazard disposable bag	1	1

**NOTE: Splints are recommended if space permits.**

#### J.4 SURVIVAL KIT

All aircraft will carry survival equipment. Survival Kits will contain at least the following items and additional items required by local regulation and as appropriate for local climate and terrain conditions.

##### ITEMS

---

Knife

Signal Mirror

Signal Flares (6 each)

Matches (two small boxes in waterproof containers)

"Space" Blanket (1 each per occupant)

Water (one quart per occupant [not required when operating over areas with adequate drinking water])

Food (Two [2] days emergency rations per occupant)

Candles

Water purification tablets

Collapsible Water Bag

Whistle

Magnesium Fire Starter

Nylon rope or parachute cord (50 feet)

## J.5 FLIGHT USE REPORT INSTRUCTIONS

The following instructions are to be adhered to in making distribution of Flight Use Report Forms (FS 6500-122 and OAS-23)

(1) ORIGINAL AND ONE COPY - give to Helicopter Pilot. Contractors are responsible for submitting originals to the following paying offices:

FS-6500-122

OAS-23

-----  
 USDA, Boise National Forest  
 Attn: F&A  
 1249 S Vinnell Way  
 Boise, ID 83709-1684

-----  
 USDI, Office of Aircraft Services  
 PO Box 15428  
 Boise, ID 83715-9998

(2) ONE COPY - for the Helicopter Manager.

(3) Xerox copies for fire records maintained by Planning Section Chief Unit.

When the helicopter is released to ferry to another fire, and there will be a change in Helicopter Manager, the receiving fire will document the ferry time between fires. Coordination between fires shall be accomplished to prevent duplicate entries. Coordination can be accomplished by an appropriate note in the "Remarks" block of the Flight Use Report Form.

When the helicopter is released to ferry home, agree to an estimated ferry time with the Pilot and document the agreement in the "Remarks" block of the Flight Use Report Form. The Pilot can then show actual times when the ferry flight is completed. The paying office will verify the reasonableness of the time claimed.

Your assistance in legibly completing the Flight Use Report Forms with all required information is requested. As a part of the information to be supplied, the person signing the form on behalf of the Government, is to show the following information in the "Remarks" blocks of each form.

1. Printed name
2. Home Unit
3. Home Office telephone number (with area code)

**BEFORE USING ANY HELICOPTER, THE HELICOPTER MANAGER SHALL DETERMINE THAT THE PILOTS AND AT LEAST ONE MECHANIC HAVE BEEN INSPECTED AND APPROVED AS EVIDENCED BY THE APPROVAL CARDS ISSUED FOR THIS PURPOSE.**

J.6 FLIGHT USE REPORT (FS 6500-122)

1. INVOICE NUMBER <b>1607554</b>		2. DATE OF FLIGHT / /		3. CONTRACT NUMBER - ITEM NO.				4. A/C REGISTRATION #				5. VENDOR NAME							
6. LEG NUMBER	7. USER UNIT	8. USER CODE	9. PROJECT, FIRE, FLIGHT, OR RESOURCE ORDER NAME OR NUMBER	10. FAA IDENTIFIER		11. MISSION CODE	12. PAY CODE	13. PILOT NAME(S)	14. PASSENGERS AND OTHER CREWMEMBERS	15. CARGO TYPE R, S, C, OR L	16. CARGO LBS.	17. RETARDANT F, W, S, OR L	18. RETARDANT GALLONS	19. METER TYPE	20. TIME OR METER READING		21. ELAPSED TIME, HOURS AND HUNDRETHS	22. RATE	23. LEG TOTAL
				START	STOP														
1.																			
2.																			
3.																			
4.																			
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			

24. ACCOUNTING SUMMARY		25. REMARKS			
MFC FUND CODE	UNIT	MANAGEMENT CODE	FY	BUDGET OBJECT	AMOUNT
				2541	
				2541	
				2541	
				2541	
				2541	
				2541	

26. OVERNIGHT CHARGES	USER UNIT	MISSION CODE	PAY CODE	NO. OF PEOPLE
27. SERVICE TRUCK CHARGES				
28. OTHER CHARGES +				
29. OTHER CREDITS -				
30. EXCISE TAX				
SUBTOTAL				
TOTAL OF ALL CHARGES				

33. NAME OF GOVERNMENT OFFICIAL (PLEASE PRINT)	
PHONE NUMBER	

35. I CERTIFY THAT THE SERVICES LISTED ABOVE HAVE BEEN RECEIVED—SIGNATURE AND TITLE OF FOREST SERVICE OFFICIAL	
--	--

USDA-FOREST SERVICE FLIGHT REPORT FS-6500-122 (04/85) PREVIOUS EDITION OF THIS FORM IS OBSOLETE

# J.7 AIRCRAFT USE REPORT (OAS-23)

**AIRCRAFT USE REPORT**

U.S. DEPARTMENT OF THE INTERIOR  
OFFICE OF AIRCRAFT SERVICES  
PO BOX 35000 BOISE, ID 83725-0000  
BOISE, ID 83725-0000  
2025-06-15 10:00:00 AM  
2025-06-15 10:00:00 AM  
2025-06-15 10:00:00 AM

RED IS FOR OAS USE ONLY  
RECEIVED DATE  
**492282**

PLEASE PRINT CLEARLY AS THIS FORM IS USED AS  
AN INPUT DOCUMENT TO AN AUTOMATED SYSTEM

COMPANY NAME & ADDRESS

CONTRACTOR NO.

ITEM NO.

AIRCRAFT MAKE & MODEL

AIRCRAFT REGISTRATION NO.

PILOT NAME (PIC) (Print)

AGMT. NO.

AC CONTROL NO.

AGENCY ORIGIN NO.

RELEASED (Date & Time)

OTHER CREW MEMBER

TELEPHONE NO.	DATE		START	STOP	ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD	PILOT	BLLEE CODE	USE CODE	USER ORGANIZATION AND CHARGE CODES	TAX CODE
	M	D										
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

Other Charges/Credits (Add attachments if necessary):

AGENCY TELEPHONE NO. | FTS | COMM

AGENCY ADDRESS

NAME (Print) | DATE

NAME (Print) | DATE

ORIGINAL-OAS COPY

Signature of Contractor/Agent/LOT

Signature of Authorized Government Representative

Agency Address

Agency Telephone No. | FTS | COMM

Agency Address

Page155  
 HELICOPTER SERVICES  
 HOURLY FLIGHT RATES, FUEL CONSUMPTION, AND WEIGHT REDUCTION CHART  
 JANUARY 15, 2002 FUEL SURVEY  
 EFFECTIVE FEBRUARY 16, 2002

Section J  
 Revision 4  
 04/23/2002

(Applicable for Initial Contracts Awarded in 2002 – CWN/Exclusive Use)

COMPANY	AIRCRAFT TYPE	FUEL CONSUMPTION (gal/hr)	HOURLY FLIGHT RATE	LOAD CALCULATION Weight Reduction (lbs)
AEROSPATIALE	SA-315B	58	\$1,052	180
	SA-316B	58	\$1,052	170
	SA-318C	56	\$995	80
	SA-319B	55	\$1,009	NOT ESTABLISHED
	AS-330J	179	\$2,540	N/A
	SA-332L-1	160	\$2,770	N/A
	SA-341G	56	\$978	170
	AS-350B	45	\$647	130
	AS-350B-1	46	\$647	160
	AS-350B-2	48	\$653	160
	AS-350B-3	50	\$687	175
	AS-350D	38	\$651	130
	AS-355F-1	58	\$807	140
	AS-355F-2	58	\$807	140
	AS-365N-1	87	\$1,338	275
	EC-135	64	\$841	220
BELL:	47/SOLOY	23	\$390	120
	204B (UH1 Series)	88	\$951	200
	205A-1	89	\$992	260
	UH-1B	88	\$951	N/A
	UH-1F	85	\$965	N/A
	TH-1L	88	\$972	N/A
	UH-1H	89	\$975	N/A
	206B-II	25	\$482	100
	206B-III	27	\$489	130
	206L-1	32	\$590	150
	206L-3	38	\$608	180
	206L-4	38	\$605	180
	212	100	\$1,127	390
	214B	160	\$1,540	380
	214ST	133	\$1,993	NOT ESTABLISHED
	222A	70	\$1,201	NOT ESTABLISHED
	222B	83	\$1,242	NOT ESTABLISHED
	222UT	83	\$1,218	NOT ESTABLISHED
	407	45	\$670	155
	412	110	\$1,290	OGE 390
412HP	110	\$1,290	OGE 390	
BOEING:	BV-107	180	\$2,539	N/A
	BV-234	405	\$4,507	N/A
HILLER:	*SL-3/4	21	\$395	90
	H-1100B	22	\$516	130
	UH-12/SOLO	23	\$447	100
KAMEN:	H43-F	85	\$1,045	N/A
	K-MAX	85	\$1,023	N/A
MBB:	BO105CBS	55	\$784	180
	BK-117	77	\$1,109	160
McDONNELL-DOUGLAS:	500C	23	\$514	110
	500D/E	28	\$516	120
	520N	32	\$540	100
	530F	34	\$585	120
	600N	41	\$640	155
	900/902	69	\$858	210
SIKORSKY:	S-55T	47	\$727	170
	S-58D/E	83	\$1,107	N/A
	S-58T/PT6T-3	115	\$1,383	OGE 000
	S-58T/PT6T-6	115	\$1,383	OGE 000
	CH 54/S 64	525	\$4,634	N/A
	S-61N	170	\$2,415	N/A
	S-62A	70	\$831	300
	S-70	160	\$2,186	N/A
<b>AVERAGE GALLON PRICE:</b>		<b>JET FUEL</b>	<b>\$2.57</b>	

**J. 9 WAGE DETERMINATION LOWER 48**

WAGE DETERMINATION FOR ADDITIONAL OCCUPATIONS WILL BE INCORPORATED BY REFERENCE AND WILL BE FURNISHED UNDER SEPARATE COVER BY REQUEST PENDING DEPARTMENT OF LABOR APPROVAL

REGISTER OF WAGE DETERMINATIONS UNDER  
THE SERVICE CONTRACT ACT  
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR  
EMPLOYMENT STANDARDS ADMINISTRATION  
WAGE AND HOUR DIVISION  
WASHINGTON, D.C. 20210



William W. Gross  
Director

Division of  
Wage Determinations

Wage Determination No.: 1995-0222  
Revision No.: 12  
Date of Last Revision: 09/04/2001

Nationwide: Applicable in the continental U.S. Alaska and Hawaii.

**\*\* Fringe Benefits Required Follow the Occupational Listing \*\***

Employed on U.S. Government contracts for aerial photographer, aerial seeding, aerial spraying, transportation of personnel and cargo, fire reconnaissance, administrative flying, fire detection, air taxi mail service, and other flying services.

OCCUPATION TITLE	MINIMUM WAGE RATE
Aerial Photographer	10.70
Airplane Pilot	21.45
First Officer (Co-Pilot)	19.52

EXCEPT SCHEDULED AIRLINE TRANSPORTATION AND LARGE MULTI-ENGINE AIRCRAFT SUCH AS THE B-727, DC-8, AND THE DC-9.

**ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:**

**HEALTH & WELFARE:** \$2.02 an hour or \$80.80 a week or \$350.13 a month.

**VACATION:** 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

**HOLIDAYS:** A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

**VACATION (Hawaii):** 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 10 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

**HEALTH & WELFARE (Hawaii):** \$0.93 an hour for all employees on whose behalf the contractor provides health care benefits pursuant to the Hawaii prepaid Health Care Act. For those employees who are not receiving health care benefits mandated by the Hawaii prepaid Health Care Act, the new health and welfare benefit rate will be \$2.02. For information regarding the Hawaii prepaid Health Care Act, please contact the Hawaii Employers Council.

**HAZARDOUS PAY DIFFERENTIAL:** An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, drying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**\*\* UNIFORM ALLOWANCE \*\***

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

**\*\* NOTES APPLYING TO THIS WAGE DETERMINATION \*\***

**Source of Occupational Title and Descriptions:**

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

**REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE (Standard Form 1444 (SF 1444))**

**Conformance Process:**

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).
- 2) After contract award, the contractor prepares a written report listing in order proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees

themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

**\*\* OCCUPATIONS NOT INCLUDED IN THE SCA DIRECTORY OF OCCUPATIONS \*\***

**Aerial Photographer**

The aerial photographer must be skilled in reading flight maps, capable of assisting the pilot to adhere to flight lines, be able to level and operate a cartographic camera and its auxiliary equipment mounted in the aircraft so that the photographs that are taken will have the required forward lap and side lap for use in photogrammetric mapping equipment, and possess a working knowledge of aerial films and camera filters to insure proper exposure of the films.

**First Officer (Co-Pilot)**

Is second in command of commercial airplane and its crew while transporting passengers, mail, or other cargo on scheduled or nonscheduled flights. Assists or relieves an airline captain in operating the controls of an airplane; monitoring flight and engine instruments; and maintaining air-to-ground communications.

**J.10 WAGE DETERMINATION - ALASKA**

WAGE DETERMINATION FOR ADDITIONAL OCCUPATIONS WILL BE INCORPORATED BY REFERENCE AND WILL BE FURNISHED UNDER SEPARATE COVER BY REQUEST PENDING DEPARTMENT OF LABOR APPROVAL

## J.11 AGENCY GUIDELINES FOR VERTICAL REFERENCE TRAINING STANDARDS

The National Interagency Helicopter standards require that contractors develop a Vertical Reference/ External Load training syllabus and that contract pilots receive this training before applying for Agency Special use approval. The applicant must have a minimum of 10 hours Vertical Reference flight training during initial qualification, and a minimum of 2 hours annual recurrent training prior to use under the contract. The contract pilot must have a current proficiency endorsement from the company's chief pilot in order to qualify for an flight evaluation check by a Interagency Helicopter Inspector Pilot. The applicant must be able to:

- \_\_\_ a. Exhibit knowledge by explaining the elements of external load operations.
- \_\_\_ b. Perform a thorough preflight briefing of ground personnel to include hookup procedures, signals, Pilot and ground personnel actions in the event of an emergency or hook malfunction.
- \_\_\_ c. Visually determine that the cargo hook(s) and cables are installed properly and that electrical and manual releases are functioning properly.
- \_\_\_ d. Ascend vertically using vertical reference techniques while centered over the load until the load clears the ground, then maintain a stable hover with a load 10 feet (+ or - 5 feet) above the ground for 30 seconds.
- \_\_\_ e. Control the hook movement and stop load oscillations while in a hover.
- \_\_\_ f. Maintain positive control of the load throughout the flight while maintaining specified altitude within 50 feet, airspeed within 10 knots and heading within 10 degrees.
- \_\_\_ g. Maintains the proper approach angle and rate of closure to establish an out-of-ground effect hover with the load 10 feet above the ground (+ or - 5 feet) for 30 seconds. The load will then be placed within a 10- foot radius of the specified release/touchdown point.
- \_\_\_ h . Maintains the proper approach angle and rate of closure to establish an out-of-ground effect hover **within a confined area** with the load 10 feet above the ground (+ or - 5 feet) for 30 seconds. The load will then be placed within a 10 foot radius of the specified release/touchdown point.

---

### PLEASE PRINT

I certify that \_\_\_\_\_ meets the currency and performance  
(Applicant's Name)

requirements of \_\_\_\_\_ Vertical Reference/External Load  
(Company Name)

Training Manual and recommend Him/Her for flight evaluation.

\_\_\_\_\_  
Chief Pilot

\_\_\_\_\_  
(Signature of Chief Pilot)

\_\_\_\_\_  
(Date)

## **J.12 STANDARD INTERAGENCY LOAD CALCULATION INSTRUCTIONS**

(1) **PURPOSE.** The purpose is to ensure that the aircraft is capable of carrying a specified load to an identified elevation at a given density altitude.

(2) **APPLICABILITY.** This form is required to be completed daily for all helicopter flights prior to the start of operations. A minimum of one calculation must be made, with subsequent loads manifested. Additional calculations may be required as conditions change.

Form HCM-11, Single Helicopter Load Capability Planning Summary-Multiple Helispot and Fuel Loads, may be used to summarize load calculation information and plan flights. However, data for altitudes, temperatures, and fuel weights indicated on form HCM-11 must be supported by load calculations completed off the appropriate chart(s).

### **(3) RESPONSIBILITY AND INSTRUCTIONS FOR COMPLETION.**

For USDI agencies, the Pilot is required to complete Blocks 1-13. For USDA-FS, the Pilot is required to complete Blocks 1-11.

The Pilot must utilize the applicable charts in the aircraft flight manual, referencing them each time a load calculation is initiated. The Helicopter Manager is responsible for ensuring that the Pilot does this.

The Pilot signs after the Helicopter Manager has completed the remainder of the form.

One copy is always left on the ground at takeoff site, or, if no one is at the takeoff site, the flight following facility must be informed of personnel on board (the form must still be completed).

Starting and ending Hobbs Meter readings should be entered on the form for later completion of the Agency flight payment document, as well as other reports.

**J 13 STANDARD INTERAGENCY LOAD CALCULATION FORMS**

**GENERAL INSTRUCTIONS**

Complete a load calculation for all flights--contracts, "offers," or military. For repetitive flights, one calculation is valid between like points of similar elevation as long as loads do not exceed that authorized by the calculation for the initial flight, and weather conditions do not change.

**SPECIFIC INSTRUCTIONS**

**Item**

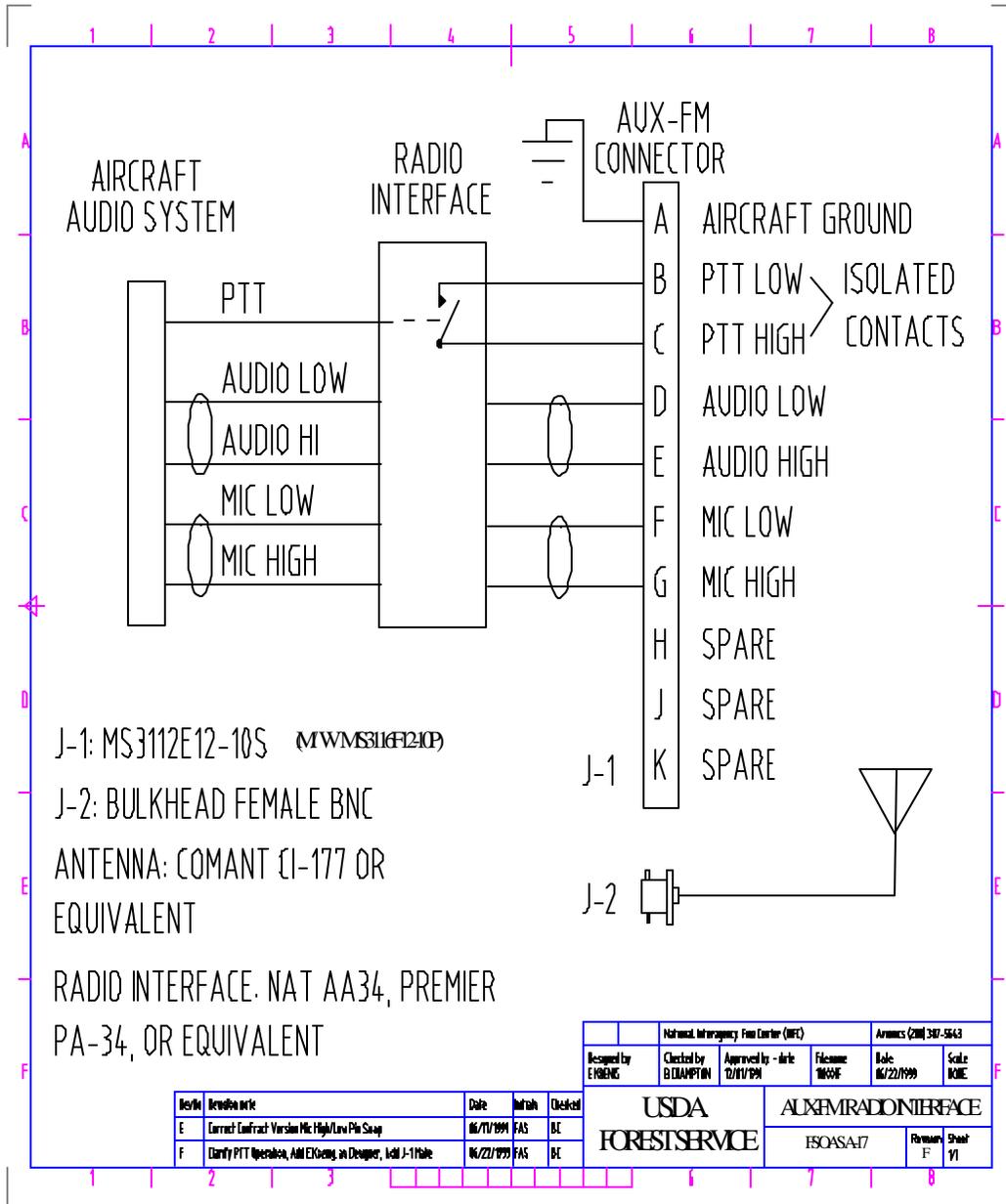
- 1-11. Pilot completes Item 1 through 11; Helicopter Foreman or Officer in charge completes the balance of the form.
- 1. PRESSURE ALTITUDE--Read altimeter when set to 29.92.
- 2. PRESSURE ALTITUDE--Use MSL/Elevation until available.
- 3. HELICOPTER EQUIPPED WEIGHT--Empty weight of A/C (Obtained from pilot) + weight of accessories required for mission + weight of oil.
- 4. FLIGHT CREW WEIGHT--Weight of pilot (and any additional crew members) + his/her (their) personal gear.
- 5. FUEL--AvgGas = 6.0 lbs./gal. Jet Fuel (JP) - 7 lbs./gal.
- 7. COMPUTED GROSS WEIGHT--Obtain weight from A/C Hover in Ground Effect (HIGE) Chart using pressure altitude and temperature. Sling load missions and adverse terrain or adverse weather, etc. flights will be computed from A/C Hover Out of Ground Effect (HOGE) Charts. (Use external load charts and/or external load limits.)
- 8. WEIGHT REDUCTION--Enter applicable weight reduction for helicopter model as shown on Weight Reduction Chart.
- 10. TAKE-OFF AND LANDING LIMITS--Enter applicable Take-Off and Landing Weight Limit as found in LIMITATIONS section of Handbook.
- 11. SELECTED WEIGHT--If line 9 is greater than line 10, line 9 may be used for JETTISONABLE loads. However, the lowest weight, line 9 or 10, will be used for NON-JETTISONABLE loads.
- 13. ALLOWABLE LOAD--The maximum allowable weight (passenger and/or cargo) that can be carried for the mission.
- 14. PASSENGERS AND/OR CARGO--Enter passenger weights and/or type and weights of cargo. Manifest all passengers by name for each flight.
- 15. ACTUAL PAYLOAD--Total of all weights listed in Item 14.
- 16. ACTUAL GROSS WEIGHT--The total of weights in Items 12 and 15.

**WEIGHT REDUCTION CHART**

Model	Weight	Model	Weight	Model	Weight
AS-350B	130	206B-II	100	S-55T	170
AS-350D	130	206B-III	130	S-58T	
SA-315B	180	206L-1	150	W/PT6T-3	400
SA-316B	170	212	390	W/PT6T-6	460
SA-318C	80	214B-1	380	UH-1B	200
SA-319B	210	UH-12E	90	UH-1C	200
47G-3B	90	UH-12J3	100	UH-1E	200
47G-3B-1	90	FH-1100	100	UH-1F	200
47G-3B-2	90	H-500C	110	UH-1H	260
47G-Turbine	120	H-500D	120	UH-1M	200
204B	200	BO-105C		OH-58A	100
205A-1	260	W/250-C20	150	OH-58C	130
		W/250-C20B	180	OH-58C	

USDA-FOREST SERVICE HELICOPTER LOAD CALCULATION (Ref. FSH 5709.12)			HELICOPTER NO. & MODEL	
PILOT			DATE	
PROJECT			TIME	
1a. DEPARTURE BASE	1b. PRESSURE ALT.	1c. TEMPERATURE		
2a. DESTINATION	2b. PRESSURE ALT.	2c. TEMPERATURE		
3. HELICOPTER EQUIPPED WEIGHT				
4. FLIGHT CREW WEIGHT				
5. FUEL (Gal. _____ x _____ /bs.)				
6. OPERATING WEIGHT (3 + 4 + 5)				
		HIGE	HOGE	
7. COMPUTED GROSS WEIGHT				
8. WEIGHT REDUCTION				
9. ADJUSTED WEIGHT (7 minus 8)				
10. TAKEOFF AND LANDING LIMITS (Handbook, Limitation Section)				
NOTE: USE LOWEST WEIGHT (9 or 10) FOR NONJETTISONABLE LOADS.				
11. SELECTED WEIGHT (From 9 or 10)				
12. OPERATING WEIGHT (Line 6)				
13. ALLOWABLE PAYLOAD (11 minus 12)				
14. PASSENGERS AND/OR CARGO:				
15. ACTUAL PAYLOAD				
16. ACTUAL GROSS WEIGHT (12 plus 15) (Must not exceed 11)				
HELICOPTER FOREMAN (Signature)				
PILOT (Signature)				

J.14 AVIONICS DRAWING (Auxiliary FM Radio Interface)



**J.15 9 PIN HELICOPTER VARIATIONS**

<p><b>9 PIN HELICOPTER VARIATIONS</b></p> <p><b>#1. For Remote Hook, Bambi Bucket, Simplex Helitorch, and Seeders (2wire Type). For additional information see FS/OASE-2</b></p> <table border="0"> <tr> <td>Pin</td> <td>Function</td> </tr> <tr> <td>D</td> <td>Aircraft Ground</td> </tr> <tr> <td>E</td> <td>+28 VDC (Bucket/Hook Open &amp; Torch/Seeder On)</td> </tr> </table> <p><b>#2 For Griffith Bucket (7 Wire Type). For additional information see FS/OASE-7</b></p> <table border="0"> <tr> <td>Pin</td> <td>Function</td> <td>Bucket Wire Color</td> </tr> <tr> <td>A</td> <td>Up Limit Relay Coil</td> <td>Green #16</td> </tr> <tr> <td>B</td> <td>Up Switch</td> <td>White #16</td> </tr> <tr> <td>F</td> <td>+28 VDC/ Ground (Up)</td> <td>White #12</td> </tr> <tr> <td>G</td> <td>Down Limit Relay Coil</td> <td>Red #16</td> </tr> <tr> <td>H</td> <td>Ground +28 VDC (Down)</td> <td>Black #12</td> </tr> <tr> <td>I</td> <td>Down Switch</td> <td>Black #16</td> </tr> </table> <p><b>#3. For SIMS Bucket (3 Wire Type) For additional information see FS/OASE-5</b></p> <table border="0"> <tr> <td>Color</td> <td>Pin</td> <td>Function</td> <td>Bucket Wire</td> </tr> <tr> <td></td> <td>B</td> <td>+28 VDC/Ground</td> <td>Green</td> </tr> <tr> <td></td> <td>G</td> <td>Ground (Close)</td> <td>White</td> </tr> <tr> <td></td> <td>I</td> <td>+28 VDC (Open)</td> <td>Black</td> </tr> </table> <p><b>#4 For SIMS Bucket (8 Wire Type) For additional information see FS/OASE-6</b></p> <table border="0"> <tr> <td>Color</td> <td>Pin</td> <td>Function</td> <td>Bucket Wire</td> </tr> <tr> <td></td> <td>A</td> <td>+28VDC (Open)</td> <td>White/Black</td> </tr> <tr> <td></td> <td>D</td> <td>Aircraft Ground</td> <td>Blue &amp; Green</td> </tr> <tr> <td></td> <td>F</td> <td>+28 VDC System Power</td> <td>White, Red &amp;</td> </tr> <tr> <td>Black</td> <td>H</td> <td>Indicator Light</td> <td>Red/Black</td> </tr> <tr> <td></td> <td>I</td> <td>+28 VDC (Close)</td> <td>Orange</td> </tr> </table> <p><b>#5 For Chadwick Bucket (2 Wire Type) For additional information see FS/OASE-4</b></p> <table border="0"> <tr> <td>Pin</td> <td>Function</td> </tr> <tr> <td>B</td> <td>+28 VDC/ Ground (Open)</td> </tr> <tr> <td>H</td> <td>Ground/ +28 VDC (Close)</td> </tr> </table>	Pin	Function	D	Aircraft Ground	E	+28 VDC (Bucket/Hook Open & Torch/Seeder On)	Pin	Function	Bucket Wire Color	A	Up Limit Relay Coil	Green #16	B	Up Switch	White #16	F	+28 VDC/ Ground (Up)	White #12	G	Down Limit Relay Coil	Red #16	H	Ground +28 VDC (Down)	Black #12	I	Down Switch	Black #16	Color	Pin	Function	Bucket Wire		B	+28 VDC/Ground	Green		G	Ground (Close)	White		I	+28 VDC (Open)	Black	Color	Pin	Function	Bucket Wire		A	+28VDC (Open)	White/Black		D	Aircraft Ground	Blue & Green		F	+28 VDC System Power	White, Red &	Black	H	Indicator Light	Red/Black		I	+28 VDC (Close)	Orange	Pin	Function	B	+28 VDC/ Ground (Open)	H	Ground/ +28 VDC (Close)	<p><b>#6. For Brackett Carousel &amp; Chadwick Bucket (3 Wire Type). For additional information see FS/OASE-3</b></p> <table border="0"> <tr> <td>Pin</td> <td>Function</td> </tr> <tr> <td>C</td> <td>+28 VDC Reset/Bucket Close</td> </tr> <tr> <td>D</td> <td>Aircraft Ground</td> </tr> <tr> <td>E</td> <td>+28 VDC Hook/Bucket (Open)</td> </tr> </table> <p><b>PARTS FOR CONNECTORS 1 THROUGH 6</b></p> <table border="0"> <tr> <td>Connector on Helicopter (In-Line)</td> <td>MS3101E24-11S</td> </tr> <tr> <td>Or (Bulkhead)</td> <td>MS3102E24-11S</td> </tr> <tr> <td>Mating Connector</td> <td>MS3107B24-11P</td> </tr> <tr> <td>Dust Cap for Helo Connector (Optional)</td> <td>MS25043-24D</td> </tr> <tr> <td>Dust Cap for Mating Connector (Optional)</td> <td>MS25042-24D</td> </tr> </table> <p>Connector on Helicopter secured to airframe by wire lanyard or other acceptable method. Any method must ensure the electrical wiring shall not carry any load when the connector is disconnected.</p> <p>Mating Connector on Bucket, Hook, etc, must have the threaded locking ring removed.</p> <p><b>3 PIN ACCESSORY POWER SOURCE (APS) CONNECTOR</b></p> <p>For. Supplemental Slip-in Radio Equipment, IR Equipment, Sphere Dispensers, and Miscellaneous Equipment.</p> <table border="0"> <tr> <td>Pin</td> <td>Function</td> </tr> <tr> <td>A</td> <td>+28 VDC (On 28 Volt Aircraft Only)</td> </tr> <tr> <td>B</td> <td>Aircraft Ground</td> </tr> <tr> <td>C</td> <td>+14 VDC (On 14 Volt Aircraft Only)</td> </tr> </table> <p><b>PARTS FOR APS CONNECTOR</b></p> <table border="0"> <tr> <td>APS Connector</td> <td>MS3112E12-3S</td> </tr> <tr> <td>Mating Connector</td> <td>MS3116F12-3P</td> </tr> <tr> <td>Dust Cap for APS Connector (Optional)</td> <td>MS3181-12C</td> </tr> </table>	Pin	Function	C	+28 VDC Reset/Bucket Close	D	Aircraft Ground	E	+28 VDC Hook/Bucket (Open)	Connector on Helicopter (In-Line)	MS3101E24-11S	Or (Bulkhead)	MS3102E24-11S	Mating Connector	MS3107B24-11P	Dust Cap for Helo Connector (Optional)	MS25043-24D	Dust Cap for Mating Connector (Optional)	MS25042-24D	Pin	Function	A	+28 VDC (On 28 Volt Aircraft Only)	B	Aircraft Ground	C	+14 VDC (On 14 Volt Aircraft Only)	APS Connector	MS3112E12-3S	Mating Connector	MS3116F12-3P	Dust Cap for APS Connector (Optional)	MS3181-12C
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### J.16 ACCEPTABLE PAINT SCHEMES

(1) Starting at blade tip, paint first 1/6th of blade length with gloss white. Paint second 1/6th of blade length with orange. Paint third 1/6th of blade length with gloss white. Paint next 1/3rd of blade length with orange. Paint remaining 1/6th of blade length with gloss white.

#### HUB

W	O	W	O	W	W	O	W	O	W
1/6	1/6	1/6	1/3	1/6	1/6	1/3	1/6	1/6	1/6

---

(2) One black and one white blade.

(3) Paint schemes previously approved under a Forest Service contract.

(4) Paint schemes and color variations specified by manufacturer in a service bulletin, instructions, or other manufacturer published document or text.

### J.17 QUALITY CONTROL PROCEDURES FOR FUELING

Fueling operation shall conform with NFPA 407, Standard for Aircraft Fuel Servicing.

#### (1) DAILY

(A) Check for and remove any water from fueller tanks. A water check will be performed each morning before the vehicle is moved, after every reloading of fuel, washing of equipment, and after a heavy rain or snow storm.

(B) Drain all filter/separator drain valves and check for water and other contaminants. Draw off any accumulation of water.

(C) Draw off a sample from the fuel nozzle. Sample shall be collected in a clean, clear glass jar and examined visually. Any visual water, dirt, or filter fibers are not acceptable.

#### (2) DURING HELICOPTER FUELING PROCESS

(A) Check sight gauge for water, if equipped.

(B) Visually inspect fueller for leaks. Repair as necessary.

(3) WEEKLY

(A) With pump operating, pressure flush filter assembly. Continue flush operation until sample is clear, clean, and bright.

(B) Time flow rate with full open flow from nozzle. Record gpm to nearest 1/10 gallon.

(C) Check condition of covers, gaskets, and vents.

(D) Inspect all fire extinguishers for broken seals, proper pressure, and recharge date. Recharge as necessary.

(E) Inspect hoses for abrasions, separations, or soft spots. Weak hoses will be replaced.

(4) RECORD KEEPING

The fuel handler will keep a record containing the following information:

(A) Condition of: (clean, clear, bright, etc.)

1. Nozzle Sample
2. Filter Sump Sample
3. Tank Sump Sample

(B) Flow rate in gallons per minute to the nearest 1/10 gallon.

(C) Filter change

1. Reason
2. Date

(D) Record of source, location, when and quantity of fuel loaded into servicing vehicle.

The procedural tasks stated are not intended to be all inclusive, although they may be. Ensuring that uncontaminated fuel is used is the sole responsibility of the Contractor.

**J 18 MALFUNCTION OR DEFECT REPORT, FAA FORM 8010-4 (5/81)**

1. REGISTRATION NO.		DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION MALFUNCTION OR DEFECT REPORT			OMB No. 7120-003 USE EXPIRES 3/31/84	
N-		A. MAKE	B. MODEL	C. SERIAL NO.	SUBMITTED BY	
2. AIRCRAFT						
3. POWERPLANT						
4. PROPELLER						
5. APPLIANCE/COMPONENT (spec. that includes part)		A. NAME	B. MAKE	C. MODEL	D. SERIAL NO.	
6. SPECIFIC PART (of component) CAUSING TROUBLE		A. NAME	B. NUMBER	C. PART/DEFECT LOCATION		
D. PART TT	E. PART TSO	F. PART CONDITION	7. DATE SUB.			
<p>8A. COMMENTS (Describe the malfunction or defect and the circumstances under which it occurred. State probable cause and recommendations to prevent recurrence.)</p>						
<p>NON-VOLATILE DATA CONTROL NO. AIRCRAFT</p>						
<p>REP. STA. B. OPER. C. MECH. D. AIR TAXI E. MFG. F. FAA OTHER</p>						

### J.19 MAINTENANCE, MALFUNCTION/INFORMATION REPORT

**SUBMITTED TO:** COMPANY NAME, ADDRESS, & PHONE NO. **CONTROL NUMBER** DO NOT WRITE IN SHADED AREAS

\_\_\_\_\_ MFG NO .....  
 \_\_\_\_\_ CUST NO .....  
 \_\_\_\_\_ MO DAY YR  
 \_\_\_\_\_ REPORT DATE .. .. .  
 \_\_\_\_\_ OCCUR DATE .. .. .

CONTACT: NAME \_\_\_\_\_  
**SUBMITTED BY:** COMPANY NAME, ADDRESS, & PHONE NO. **SUBMITTED FOR:** COMPANY NAME, ADDRESS, & PHONE NO.  
 \_\_\_\_\_  
 \_\_\_\_\_

PHONE NUMBER SIGNATURE PHONE NUMBER CONTACT: NAME  
**CUSTOMER ORDER:** COMPLETE FOR NONWARRANTY PARTS RETURNED FOR REASON CHECKED  
 P. O. \_\_\_\_\_ COST EST REQUIRED REPAIR OVERHAUL EVALUATION EXCHANGE RETURN FOR CREDIT  
 OTHER (SPECIFY)

**WARRANTY CLAIM:** COMPLETE IF YOU ARE REQUESTING WARRANTY ADJUSTMENT  
 CREDIT FOR REPLACEMENT PART CREDIT FOR LOCAL REPAIR MFG WARRANTY REPAIR  
 OTHER (SPECIFY)

**REPAIR INFORMATION:** COMPLETE WHEN WARRANTY ADJUSTMENT IF FOR LOCAL REPAIR; (OTHER IF APPLICABLE). at TACH COPY OF REPAIR INVOICE OR WORK ORDER  
 PARTS COST \_\_\_\_\_ LABOR \_\_\_\_\_ HRS @ US\$ PER HR \_\_\_\_\_ TOTAL REPAIR COST \_\_\_\_\_

**AIRCRAFT DATA:** COMPLETE ALL SECTIONS IF REPORTED PART HAS BEEN INSTALLED OR REPORTED PART IS A SPARE  
 NOT INSTALLED, COMPLETE ONLY MFG/MODEL AND ENTER ?SPARE? IN N# BLOCK

MANF/MODEL	N#	SERIAL NUMBER	DELIVERY DATE	HRS AT DELIVERY	HRS AT OCCUR

**REPORTED PART DATA:** REQUIRED FOR ALL SUBMITTALS NOTE THE COMPLETED HISTORICAL RECORD MUST ACCOMPANY THIS SUBMITTAL IF PART HAS A SCHEDULED RETIRED OR O/H INTERVAL

QUANTITY	ATA CODE	PART NUMBER	PART NAME	SERIAL NUMBER	HRS AT OCCUR
ORIGINAL EQUIPMENT COMPLETE	IF NO, a YES NO	PURCHASE ORDER OR INVOICE NO.	INVOICE DATE	A/C HRS AT INSTALL	INSTALL DATE
<b>SHIPPING DATA</b> a COMPLETE ONLY IF REPORTED PART HAS BEEN SHIPPED	QUANTITY	WAY BILL NUMBER	CARRIER	DATE SHIPPED	

**REPLACEMENT PART DATA:** COMPLETE RELEVANT INFORMATION FOR PART INSTALLED

QUANTITY	PART NUMBER	SERIAL NUMBER	INVOICE OR PO NO.	INVOICE COST	RECONDITIONED PART TIME	NEW PART TIME
<b>SHIPPING DATA</b> a COMPLETE ONLY IF REPORTED PART HAS BEEN SHIPPED	QUANTITY	WAY BILL NUMBER	CARRIER	DATE SHIPPED		

**REASON FOR REPORT: CODE (IF APPLICABLE):**

**ACTION: CODE (IF APPLICABLE):** .....

**J.20 FOREST SERVICE GRANTS OF EXEMPTION**

DOT E-7700 and DOT E-8016 (5700 Manual)

## J.21 AVIATION OPERATIONAL TEST STANDARDS

The following operational test standards apply to all contractually required/offered avionics equipment under Forest Service contract and OAS Interagency Fire contracts.

### ITEM STANDARD

#### 1. INSTALLATIONS, MAINTENANCE AND OTHER ITEMS:

- A. Visual Inspection: Inspect for obvious damage, inoperative displays, missing or incorrect parts, and proper labeling, documentation.
- B. Antennas, Mounting & Installation: Forward:reverse ratio of 2.5:1 or better, broadband, aircraft type, rigidity, doubling plates, proper bonding, proper RF cable, security, proper wire size.
- C. Schematics/wiring Diagrams: Presence, coverage or all contractually required systems.
- D. Accessory Power Source:
- 1. Connector: MS3112E12-3S installed, proper location, polarity, voltage at correct pins.
  - 2. Circuit Breaker :Amperage value, operation.
- E. Remote Cargo Hook Connector:
- 1. Connector: MS3101A24-11S installed, polarity, switched voltage, within 6" from cargo hook, securing lanyard.
  - 2 Circuit Breaker :50 Amp, operation.
- F. Primary Radio Power Switch: Proper operation, labeling.
- G. Cargo Bell and Light System (Smokejumper):
- 1. Cargo Bell: Location, activation, sound level.
  - 2. Light System: Activation, location, indicators.

2. COMMUNICATIONS SYSTEMS:

A. ELT:

1. Type: TSO-C91, TSO-C91a or TSO-126C.
2. Mounting: Per TSO (i.e. if TSO-C91a/C126C to structure, per Manufacturer instructions).
3. Antenna: External, proper mounting, correct location, portable antenna available (AP type).
4. G-Switch: Subject ELT to a quick jerking motion (if easily removable).
5. Battery Date: ELT date not expired, matching dates on ELT and in logbook.
6. Operation: Manually operates, PRF acceptable, remote function and indication.
7. Remote Location: Visible & accessible to pilot.
8. Logbook. Annual FAR 91.207(d) test completed, battery date.

B. VHF-AM Transceiver:

1. Type: Selectable frequencies in 25 kHz increments, 720 channel minimum.
2. Operation: To & from service monitor.
  - a. Receiver: Squelch breaks at an acceptable level.
  - b. Transmitter: Modulation from 15% to 85%, frequency within 30 PPM  
(± 3.69 kHz using 122.9250 MHz).

C. VHF-FM Transceiver:

1. Type: Meets FS/OAS A-19: AERONAUTICAL VHF-FM RADIO TRANSCEIVER SPECIFICATIONS.
2. Power Output: 10 watts nominal value.
3. VSWR: Forward:reverse ratio of 2.5:1 or better @ 150, 160 & 170 MHz.

4. Antenna: Comant CI-177 or equivalent, installation & mounting.
5. CTCSS Tone Encoder:  
32 TIA/EIA-603 standard tones, 600 to 700 Hz level, frequency within 1.5 Hz.
6. Guard Receiver: Squelch breaks @ 1 to 2 uV with direct connection at 168.625 MHz, audio output of at least 100 mV with wideband (3 to 5 kHz modulation) and narrowband (1.5 to 2.5 kHz modulation) inputs, less than 10% distortion.
7. Guard Transmitter: Quickly selectable, operates @ 168.625 MHz, wideband deviation 3 to 5 kHz, narrowband deviation 1.5 to 2.5 kHz.
8. Main Receiver :Squelch breaks @ 1 to 2 uV with direct connection at 150, 160 and 170 MHz, audio output of at least 100 mV with wideband (3 to 5 kHz modulation) and narrowband (1.5 to 2.5 kHz modulation) inputs, less than 10% distortion.
9. Main Transmitter: Wideband deviation 3 to 5 kHz, narrowband deviation 1.5 to 2.5 kHz, wideband frequency within 5 PPM ( $\pm$  842 Hz using 168.3500 MHz), narrowband frequency within 2.5 PPM ( $\pm$  421 Hz using 168.3500 MHz).
10. Mounting: Meeting AC 43.13-2A, controls equally convenient to pilot and observer/co-pilot.

D. AUX-FM Provisions:

1. Operation: Check RX & TX functions through audio system(s), sidetone available, transmitter deviation output matches handheld's stand alone output.
2. VSWR: Forward:reverse ratio of 2.5:1 or better @ 150, 160 & 170 MHz.
3. Antenna: Comant CI-177 or equivalent, installation & mounting.
4. Mounting Facilities:  
Available meeting AC 43.13-2A, within 18" of AUX-FM connectors, controls convenient to observer/co-pilot.
5. Connectors: MS3112E12-10S and female BNC bulkhead

mounted.

E. Public Address System: Acceptable operation.

F. Fuel Service Vehicle VHF-FM Mobile Radio:

1. Operational Check:

Proper RX & TX operation.

2. Power Output: 30 watts minimum.

3. VSWR: Forward:reverse ratio of 2.5:1 or better @ 150, 160 & 170 MHz.

4. Antenna: Antenna Specialists ASP-1495; Maxrad MWB-5803, or equivalent, installation & mounting.

5. CTCSS Tone Encoder:

32 TIA/EIA-603 standard tones, 600 to 700 Hz level, frequency within 1.5 Hz.

6. Receiver: Squelch breaks @ .25 to .5 uV with direct connection at 150, 160 and 170 MHz, audio output of at least 100 mV, less than 10% distortion.

7. Transmitter: Frequency within 750 Hz, wideband deviation 3 to 5 kHz, narrowband deviation 1.5 to 2.5 kHz.

8. Field Programmability:

Contractor demonstration.

G. Ground Proximity Warning System:

Installed.

H. Cockpit Voice Recorder: Installed, proper mic & audio system operation

I. Flight Data Recorder: Installed.

### 3. NAVIGATION SYSTEMS:

A. Panel Mounted GPS:

1. Type: Panel mounted, aviation type.

2. Installation: Convenient to both pilot and observer/co-pilot.

3. Operation: Correct present position or lock-on. Database age does not exceed contract limit.

B. Handheld GPS (Light Fixed Wing):

1. Type: Handheld type.

2. Installation: Convenient to pilot. Install meets AC 43.13-2A. Uses aircraft power.

3. Antenna: External antenna with clear path to satellite signals.

4. Operation: Correct present position or lock-on.

C. LORAN (Air Tanker):

1. Type: Panel mounted, aviation type.

2. Installation: Convenient to both pilot and observer/co-pilot.

3. Operation: Correct present position or lock-on. Database age does not exceed contract limit.

D. VOR: Maximum bearing error of plus or minus 4 degrees, maximum variation between dual systems of 4 degrees Flag pull. Logbook entry for IFR 30 day check (IFR aircraft).

E. LOC: Maximum error of plus or minus 4 degrees. Flag pull.

F. Glideslope: Maximum error of plus or minus 2 degrees. Flag pull.

G. Marker Beacon: Indicator operation, acceptable sensitivity.

H. DME: Proper heading to station, proper distance to station.

I. TACAN (Air Tanker): Proper heading to station, proper distance to station.

J. ADF: Points to station, 360 degree operation, acceptable audio.

K. Weather Radar: Acceptable operation.

L. Radar Altimeter: Acceptable operation.

M. Transponder, Altitude Encoder, and Pitot-Static Systems:  
14 CFR 91.411 & 91.413 logbook entries not expired.

N. GPS Data Connector: Proper installation of 9 pin "D" connector.

O. GPS Additional Antenna: Proper install

4. AUDIO SYSTEMS:

A. Audio Control System - General Requirements:

1. Location: Convenient to specified operator(s).
2. Labeling: Legible, understandable, permanent.
3. Specifications:
  - a. Hum, Noise and Crosstalk:  
40 db below specified audio output.
  - b. Specified Audio Output:  
100 mW with an input of 250 mV, both @ 600 ohms.
  - c. Distortion: Less than 10%.

B. Audio Control System (Helicopter):

1. General Requirements:  
See above.
2. Required controls: TX selectors, individual RX select switches, separate RX & ICS audio level controls.
3. Operation:
  - a. TX Select: Selects proper radio & companion receiver.
  - b. RX Select: Selects proper radio.
  - c. ICS and RX Volume:  
Proper operation.
  - d. Sidetone: Present for each transmitter.
4. Rappel/Shorthaul (when required):  
Additional Audio Control System at Spotter station/long cord, Hot Mic capability.

C. Audio Control System (Light Fixed Wing):

1. General Requirements:

See above.

2. Required controls: TX selectors, individual RX select switches.

3. Operation:

a. TX Select: Selects proper radio & companion receiver. ATGS trainee operates TX from observer/co-pilot's audio control (when required).

b. RX Select: Selects proper radio.

c. RX Volume: Proper operation.

d. Sidetone: Present for each transmitter.

D. Audio Control System (Air Tanker):

1. General Requirements:

See above.

2. Required controls: TX selectors, individual RX select switches.

3. Operation:

a. TX Select: Selects proper radio & companion receiver.

b. RX Select: Selects proper radio.

c. RX Volume: Proper operation.

d. Sidetone: Present for each transmitter.

E. Audio Control System (Smokejumper):

1. General Requirements:

See above.

2. Required controls - Pilot/co-pilot:

TX selectors, individual RX select switches.

3. Required controls - Spotter:

TX selector, individual RX audio level controls, TX indication, separate RX master and ICS audio level controls.

4. Operation:

- a. TX Select: Selects proper radio & companion receiver.
- b. RX Select: Selects proper radio.
- c. RX Volume: Proper operation.
- d. Sidetone: Present for each transmitter.

5. INTERCOMMUNICATIONS SYSTEM (ICS)

A. Available at required positions:

Per contractually required locations.

B. Operation:

Proper audio & mic operation at each required position.

C. Hot Mic/Vox:

Presence per contract requirements, and proper operation.

D. PTT and Volume controls:

Presence per contract requirements, and proper operation.

E. Specifications:

1. Hum, Noise and Crosstalk:

40 db below specified audio output.

2. Specified Audio Output:

100 mW with an input of 250 mV, both @ 600 ohms.

3. Distortion:

Less than 10%.

F. Turbine Air Tankers:

ICS capability to exterior of aircraft.

**J.22 APPROVAL FOR RAPPELLING ANCHORS USED IN USDA-FOREST SERVICE OPERATIONS**

There are two options for approval:

1. FAA Approval (STC) - Design must be comparable with standardization efforts in the FS rappel program. Contact NIFC (Jon Rollens: 208-387-5634) or MTDC (Keith Windell: 406-329-3956) before installing commercially available designs or initiating a new design.

2. USDA-Forest Service Approval.

The USDA-Forest Service currently owns FAA STC'D rappelling anchor designs for the following aircraft:

- 1 Bell 206 L-1, L-3, L-4 / 407\*
2. Bell 212

\* The FS is in the process of testing the 407 overhead design by Aeronautical Accessories. Do not purchase the FS's 407 design until you have spoken to Keith Windell (MTDC).

These anchors are manufactured through PMA licensing agreements and may be purchased from:

Heli-Tech 4681 Isabelle St.  
Eugene, OR 97402  
Phone: (541) 344-2304

The USDA-Forest Service has approved three non-STC'd anchors for use in Forest Service operations. (The FS has no control over the availability of these designs):

1. Lama (Heli-Support design)
2. AS 350 (Heli-Support design)
3. Sikorsky S58T (Aris Helicopters)
4. Bell 205 (Heli-Jet)

#### **RAPPEL ANCHOR INSPECTION:**

The owner shall assure that the rappel anchor is in condition to perform. STC'D rappel anchor kits will have Instructions for Continued Airworthiness.

All non-STC'd rappel anchors shall be fabricated in accordance with the materials specified in the engineering drawings supplied to and approved by the Forest Service (FS). These anchors shall be installed with an FAA field approval. The 337 will include installation instructions and type of hardware. Development of an inspection routine for a non-STC'd rappel anchor is up to the anchor's designer (a copy of the inspections) and interval shall be sent to the Missoula Technology & Development Center MTDC). If there are any special inspections that are needed to assure continued airworthiness they will have to be complied with at time of rappel anchor installation and any subsequent inspection periods. The anchor will be inspected as part of the helicopter during the normal inspection cycle if it is permanently installed. If the anchor is not a permanent installation it will have to have an entry in the maintenance log at the time of installation. All of the anchors will have a serial number and a log of some type to document these inspections. The owner must supply Government Inspectors with a document at the start of each new contract period containing the following information:

1.A signed statement attesting to the fact that the rappel anchor offered in the contract has been recently inspected and found airworthy. It shall reference the serial number of the anchor, date of inspection, and what type of inspection was performed. This statement shall be signed by the inspector and include their FAA authorization (i.e., A&P number).

2.NON-STC9D DESIGNS ONLY: A signed statement attesting to the fact that the anchor (referenced by serial number) has been fabricated and installed in accordance with the engineering drawings approved by the FS (state drawing number).

### **USDA-FOREST SERVICE RAPPEL ANCHOR APPROVAL PROCESS:**

The Forest Service anchor approval process is currently in transition. Previously approved designs will have to come up to any new standards. Contact MTDC (Keith Windell) for up-to- date information.

### **J.23 ALASKA SUPPLEMENT**

The following provisions shall apply when flying in Alaska. All other provisions not expressly changed herein continue to apply.

NOTE: Contractors from the lower 48 dispatched to Alaska need to have insurance coverage for Alaska, in addition to having Operations Specifications that permit Alaska operations.

#### **(1) SECTION C, AIRCRAFT EQUIPMENT -**

Add:

Tundra Boards or Snow Pads

Survival Kit - Aeronautical - Alaska

Portable fuel servicing equipment

The Contractor is responsible for providing navigation publications to include the Alaska Supplement.

#### **(2) SECTION C, CONTRACTOR FURNISHED AVIONICS SYSTEMS -**

Add to paragraph (1) (A):

1. For helicopter operations in Alaska only. If an automatic fixed ELT (ELT/AF) is installed in the aircraft, the vendor shall furnish a hand-held portable ELT/EPIRB. The ELT/EPIRB shall be compact and easily carried by the PIC (Emergency Products Corp. Model EBC-102, Emergency Locator Products Corp. Model ELP-1000 or equal).

(3) SECTION C, FUEL SERVICING VEHICLE SPECIFICATIONS -

Delete:

Entire section addressing fuel servicing vehicle specifications. A fuel servicing vehicle is not required for dispatch or work in Alaska.

(4) SECTION C, FUEL SERVICING VEHICLE DRIVER QUALIFICATIONS AND FUEL SERVICING VEHICLE DRIVER DUTY LIMITATIONS -

Delete:

Entire section addressing fuel servicing vehicle driver qualifications and duty limitations. A fuel servicing vehicle driver is not required for dispatch or work in Alaska.

(5) SECTION C, FUELING -

Delete as written and add: The Government will furnish, transport, and store all aircraft fuel required at no expense to the Contractor.

Grades of Government-furnished fuel vary from location to location, and the Contractor shall use the grade available. The appropriate type of fuel (Avgas or Jet fuel), in one of the following grades, will be available at each location:

AVGAS	JET FUEL
100	Jet A
100LL	Jet A-50
	Jet B
	Jet-4 or JP-5 or JP-8

Add:

All lubricating oil, parts, and supplies shall be furnished and transported by the Contractor to the Base(s) of Operation or any alternate Base(s).

The Contractor shall furnish for each aircraft a portable fuel pump, barrel stem, hoses, and filtration system for refueling in remote areas.

The filtration system shall include a unit which accomplishes water separation with positive shut-off. The size of the filtration system unit shall be compatible with pump size. One acceptable three-stage unit is FACET part number 050971. If this model FACET is used, the third stage monitor should be a Velcon part number CDF-210K which is rated to 10 GPM. Also acceptable are Velcon filter spin on 5 micron cartridges, part number 40505SP, rated to 13 GPM; or Velcon VF-31 with 1 micron cartridge element, part number ACO-21005B, rated to 15 GPM. All filtering components, shall be changed annually, or sooner if needed, and the date of the change shall be placarded on the canister.

1. Two complete filter changes shall be furnished by the Contractor.
2. The pump shall be hand operated.

(6) SECTION C, AVAILABILITY OF MECHANICS -

Delete as written and add:

The mechanic shall be present for all operations in Alaska. The mechanic shall accompany the helicopter to alternate bases of operations. The mechanic shall be present to service, inspect, and repair the helicopter as needed. The cost of the mechanic shall be included in the Daily Availability Rate.

(7) SECTION F, EXTENDED STANDBY -

Delete as written and add:

Crew availability for Alaskan operations shall be the same as that for the helicopter and associated equipment. Extended Standby does not apply.

(8) SECTION G, PAYMENT FOR AVAILABILITY -

Delete as written and add:

Operations in Alaska within the exclusive use period will be scheduled by the Government in accordance with flight time/duty time limitations. The schedule will not exceed:

SINGLE CREW: Maximum 14 hour per day PIC, or PIC and SIC.

DOUBLE CREW: Maximum 24 hours per day.

Measurement of availability will be reduced, as specified below, for each hour or portion thereof service is listed as unavailable to the Government.

SINGLE CREW: 1/14 per hour NTE 14/14 per day.  
DOUBLE CREW: 1/24 per hour NTE 24/24 per day.

Availability, as measured above, will be paid at the applicable rate appearing in the Schedule of Items.

(9) SECTION G, TRANSPORTING OF RELIEF CREW -

Delete as written and add:

If ordered by the Government, the Contractor shall be reimbursed for the cost incurred in delivering personnel to the reporting base NOT TO EXCEED the round trip coach fare from Seattle-Tacoma International Airport. The ordering of additional personnel shall be annotated, (including date and time ordered) on the Flight Use Report and signed by the Government Representative placing the order. The Contractor agrees to deliver additional crew to the designated base within 48 hours after notification. Reimbursement shall be supported by paid receipts and the passenger coupon or certified true copies that are legible.

(10) SECTION G, PAYMENT FOR OVERNIGHT ALLOWANCE -

Included in daily availability rate.

(11) SECTION G, PAYMENT FOR FUEL SERVICING VEHICLE AND MILEAGE -

Delete as written and add:

CONTRACTOR FURNISHED FUEL. The cost of fuel furnished by the Contractor in lieu of Government Furnished fuel will be reimbursed to the Contractor as provided below:

GENERAL. The Contractor shall not charge any fuel acquired under this contract directly to the Government. All fuel not otherwise furnished by the Government must be paid by or charged to the Contractor. The purchase must be approved by the Contracting Officer's Administrative Representative. Fuel related costs shall be recorded as a line entry (i.e., date, fuel charge, dollar amount, and use-item code FC), shall be summarized under "Other Charges/Credits" on the Aircraft Use Report (OAS-23), or Flight Use Report 6500-122, and shall be supported by paid legible, itemized invoices from the supplier. Certified true copies may be submitted in lieu of the original invoice.

Government furnished fuel used by the Contractor for maintenance flights, repositioning aircraft, crew transportation, or any other flight for the convenience of the Contractor, will be deducted from amounts due the Contractor at the rate of \$2.50 per gallon. Total credits shall be computed using published fuel consumption data chart for the type, make, and model of aircraft operated.

FERRY FLIGHTS THROUGH CANADA AND OPERATIONS WITHIN CANADA AND ALASKA. When dispatched to Alaska, upon crossing the 48 Conterminous United States and Canadian Border, the Contractor shall be reimbursed for fuel purchased in accordance with above. On the return (southbound) trip, fuel will either be Government furnished (at the Government's option), or be reimbursed until such time as the Contractor crossed the 48 conterminous United States and Canadian borders. Ferry flights must be the most direct route and all weather related delays or alternative route decisions must be clearly documented on the Flight Use Report or attached thereto.

Fuel for flight within the 48 conterminous States, incidental to a dispatch to or from Alaska, will not be reimbursed separately. The cost of such flights will be paid at the rate applicable to work performed in the 48 conterminous States.

(12) SECTION G, PAYMENT FOR TRANSPORTATION OF HELICOPTER FUEL -

Delete entire section.

(13) SECTION J -

Add:

SURVIVAL KIT - AERONAUTICAL - ALASKA

All aircraft will carry survival equipment. Survival kits will contain at least the following items and additional items required by local regulation as is appropriate for local climate and terrain conditions.

1. The minimum equipment to be carried during the summer months:
  - a. Food for each occupant sufficient to sustain life for 1 (one) week.
  - b. One ax or hatchet, and one knife.
  - c. One small gill net and an assortment of tackle such as hooks, flies, lines, sinkers, etc.
  - d. Two small boxes/containers of matches (waterproof).
  - e. Mosquito repellent.
  - f. One mosquito head net for each occupant.
  - g. One space blanket for each occupant.

h. Signal equipment:           6 - flares  
  1 - signal mirror

i. 50' nylon cord.

j. Candles (5 each).

2. In addition to the above, the following must be carried as minimum equipment from October 15 to April 1 of each year:

a. One pair of snowshoes.

b. One sleeping bag per two occupants.

(14) SECTION I -

Add the following:

Aircraft and General Public Liability Insurance - Department of the Interior (48 CFR 1452.227-71, May 1989)

a. The Contractor, at the Contractor's expense, agrees to maintain, during the continuance of this contract, aircraft liability and general public liability insurance with limits of liability for (1) bodily injury to or death of aircraft passengers of not less than \$75,000 for any one passenger and a limit for each occurrence in any one aircraft of at least an amount equal to the sum produced by multiplying \$75,000 by 75 percent of the total number of passenger seats installed in the aircraft, (2) bodily injury to or death of persons (excluding passenger) of not less than \$75,000 for any one person in any one occurrence and \$300,000 for each occurrence, and (3) property damage of not less than \$100,000 for each occurrence, or (4) a single limit of liability for each occurrence equal to or greater than the combined required minimum set forth in (1) through (3) above.

b. The Contractor also agrees to maintain workers' compensation and other legally required insurance with respect to the Contractor's own employees and agents.

**J. 24 AERONAUTICAL VHF-FM RADIO TRANSCEIVER SPECIFICATIONS FOR USFS/USDOI AS HELICOPTER CONTRACT USE**

**Aeronautical VHF-FM Radio Technical Performance Specifications:**

This document specifies the minimum performance specifications for all aeronautical VHF-FM Radio Transceiver's used in conjunction with USFS/USDOI Helicopters contracts..

## 1.0 Specification Tables:

Minimum standards for the specifications listed below are applicable to 5.0 Aeronautical Specification Table. Unless otherwise specified, the definition and method of measurement will be determined by RTCA DO-160\* "Environmental Conditions and Test Procedures for Airborne Equipment", NTIA "Manual of Regulations & Procedures for Federal Radio Frequency Management" and applicable portions of the technical standards for aeronautical mobile radios, and TIA/EIA-603 "Land Mobile FM or PM Communications Equipment Measurement and Performance Standards". If DO-160\* and TIA/EIA-603 conflict, then DO-160\* shall apply. If the NTIA manual and TIA/EIA-603 conflict, then the NTIA manual shall apply (see 4.0 for additional information). Each specification listed below is further identified in parenthesis for correlation:

- A. Useable Sensitivity (Reference Sensitivity).
- B. Selectivity (Adjacent Channel Selectivity and Desensitization).
- C. Spurious Attenuation (Spurious Response Immunity).
- D. Intermodulation (Intermodulation Immunity).
- E. Audio Power (Audio Power Output).
- F. Audio Distortion (Harmonic Distortion Factor).
- G. FM Hum & Noise (Signal-to-Residual Output Power Ratio).
- H. Frequency Stability: The design center frequency shall be maintained within the frequency stability specified in parts per million (ppm).
- I. Multi-channel Frequency Spread: A channel selector shall be provided to allow the operator to select the assigned operating frequency. All radio performance specifications shall be met when operated over the specified frequency spread.
- J. Conducted Spurious Emissions (Receiver).
- K. Carrier Power Output: All transmitters shall operate at the rated power and meet specifications after operation for a 30 second interval of transmitting into both a short circuit and an open circuit load connected to the antenna via a proper coaxial cable varied uniformly over a half-wave length. Normal antenna termination shall be a nominal 50 ohm load.
- L. Conducted Spurious Emissions (Transmitter).

M. Audio Frequency Harmonic Distortion (Transmitter).

N. Maximum Deviation: In a transmitter, the maximum deviation limited bandwidth expressed in kHz.

## 2.0 General Requirements:

**A. Channel Capacity:** The main radio shall be frequency synthesized. The guard receiver may be synthesized or crystal controlled. The main receiver and transmitter shall be able to operate on any channel in the National Telecommunications and Information Administration (NTIA) and Federal Communications Commission (FCC) basic channeling plans in the VHF -FM frequency band. Bandwidth (wide/narrow) shall be operator selectable by channel.

**B. Channel Presets:** The minimum number of operator selectable preset channels for the main radio shall be fifteen. The minimum and maximum number of selectable preset channels for the guard radio shall be two. Preset channels shall contain receive and transmit frequencies. Preset channels should also contain CTCSS tone and alpha numeric channel information.

### C. Programming:

**1. Configuration:** The radio shall be capable of configuration programming and editing. This shall enable the operator to customize the desired features of the radio. The purpose of this requirement is to minimize the necessary steps during normal programming operations and to avoid scrolling through menu items that are not needed.

**2. Presets:** All preset channels shall be operator programmable while in flight, utilizing the front panel controls. The main and guard receivers shall not be disabled during programming. Programming shall not require that the radio be turned off to enable.

**3. Guard Frequency:** The guard frequency programming and edit functions shall be disabled during normal programming operations to ensure that the guard preset frequency assignment remains undisturbed during main frequency programming operations.

**D. Guard Transmit:** A means of quickly selecting the guard transmitter frequency shall be provided.

**E. Guard Receiver:** One guard frequency of 168.6250 MHz shall be simultaneously monitored with the main frequency.

#### **F. Audio Input Sensitivity:**

1. The audio required to fully modulate the transmitter shall not exceed that normally produced by the aircraft's audio system and/or microphone. Standards which govern aircraft audio systems, headsets and microphones can be referenced from applicable TSO's governed by 14 CFR Part 21 and indexed in Advisory Circular 21-110(\*), RTCA DO-214 "Audio Systems Characteristics and Minimum Operational Performance Standards for Aircraft Audio Systems and Equipment", and RTCA DO-160\* above.
2. The radio shall have microphone audio, PTT, and receive (600 ohm impedance) audio available at the receptacle on the rear of the panel mounted unit (either the radio or the control head) for interface with aircraft audio panel. The microphone will normally be a noise canceling, single button carbon or amplified dynamic microphone commonly used in aircraft communications (typically 100 ohm impedance, 250 millivolts). PTT operation shall be provided by contact closure to the airframe ground.

#### **G. Transmit Sidetone Audio:**

1. Sidetone audio will be provided to permit the operator to monitor audio input to the transmitter and to assist the operator with word annunciation during high ambient noise conditions.
2. Sidetone output shall be 3 to 10 dB below the adjusted receiver output level. The distortion shall not exceed 5%. The sidetone level below the receive audio output shall be internally adjustable.

#### **H. Deviation Symmetry:**

1. **Definition:** Deviation symmetry is a measure of the modulator's ability to produce symmetrical positive and negative deviation of the carrier frequency.
2. **Minimum Standard:** The deviation symmetry shall be within 0.5 Hertz.

#### **I. Display:**

1. **Format:** The radio shall simultaneously display the channel number in use and frequency in use, or channel number in use and a minimum nine character, operator programmable alpha numeric channel designator. The display of the frequency and the alpha numeric channel designator need not be simultaneously displayed, but shall be operator selectable if it is not simultaneously displayed.

**2. Types:** The type of displays acceptable for avionics systems are: CRT, LED, EL (electroluminescent gas discharge type), and LCD (active matrix and dichroic types). Displays shall be avionics quality, shall meet human factors requirements for aviation, shall operate over the temperature range of -20 degrees C to +70 degrees C, and shall have a minimum acceptable viewing angle of +/- 80 degrees.

**J. Channel/Frequency Selection:** Channel and frequency selection shall be provided to permit the operator to select any preset channel, frequency, frequency pair, or CTCSS tones while in flight.

**K. Volume Controls:** Separate volume controls will be provided for the main and guard receive audio outputs. The audio outputs will be combined as a single output. The adjustable audio output range of the guard receiver shall not be less than 1 milliwatt.

**L. Primary Power:** A primary power on/off switch shall be provided.

**M. Indicators:** Indicators shall be provided to indicate transmitter activation, signal reception for the main receiver and signal reception for the guard receiver.

**N. Squelch Override:** A squelch override switch shall be provided to the operator for receiver testing and volume setting.

**O. CTCSS Encoder:** A Continuous Tone Controlled Squelch System (CTCSS) encoder complying with TIA/EIA-603 shall be provided. The encoder will provide all standard 39 tones. The tone selections shall be operator selectable by channel.

**P. Encryption:** If applicable, voice and data encryption shall be APCO 25 compatible (see 4.0).

**Q. Digital Operation:** Any radio capable of digital operation shall be APCO 25 compliant.

**R. Operating Standards:** The radio shall meet all required items in 6.0, RTCA DO-160\*, and conform to 14 CFR Part 23.1309.

### **3.0 Leading Particulars:**

**A. Finish:** The front panel shall be standard avionics non-reflective flat black or grey in color. The metal housing shall be anodized aluminum or similar avionics grade material.

**B. Front Panel:** The front panel shall be a backlit panel operable from the avionics dimming bus.

**C. Power Supply Voltage Range:** Radio performance shall meet RTCA DO-160\*, Section 16.0, category B standard for a nominal 14 VDC or 27.5 VDC primary power input voltage.

**D. Temperature Range:** Radio shall operate over the temperature range of -30 degrees C to +60 degrees C and shall meet RTCA DO-160\* categories BIZB minimum for temperature and altitude, in-flight loss of cooling, and temperature variation tests respectively.

**E. Identification Tag:** An identification tag will be permanently affixed to the exterior of each unit for quick identification. The equipment manufacturer, model number, part number, serial number, revision status, FCC compliances, and RTCA DO-160\* (see 6.0) environmental categories shall be identified.

**F. Labeling:** All controls shall be clearly and permanently labeled and shall be easily discernible whenever the backlit panel is illuminated.

#### 4.0 Glossary:

ARINC: Aeronautical Radio, Inc  
2551 Riva Road  
Annapolis, MD 21401  
(410) 266-4000

DO-160\* References to DO-160\* indicate the most current version of RTCA DO-160 when the radio is tested

RTCA: Radio Technical Commission for Aeronautics  
1140 Connecticut Ave., N.W., Suite 1020  
Washington, D.C. 20026  
(202) 833-9339

TIA/EIA: Telecommunications Industry Association/ Electronic Industries Association

TIA/EIA documents can be obtained from:

Alliance	Telecommunications Industry Association	Electronic Industries
	2500 Wilson Blvd. Arlington, VA 22201 (703)907-7700	2500 Wilson Blvd. Arlington, VA 22201 (703)907-7500

ARINC, Project 25, RTCA and TIA/EIA documents can be obtained from:

Global Engineering Documents  
15 Inverness Way East  
Englewood, CO 80112  
USA Tel (800) 854-7179    CANADA TEL (613) 237-4250

<http://global.ihs.com>

NTIA: National Telecommunications and Information Administration of the United States Department of Commerce

Manual of Regulations and Procedures for Federal Radio Frequency Manuals available from:

U.S. Government Printing Office  
Superintendent of Documents  
Mail Stop: SSOP  
Washington, DC 20402-9328

14 CFR Code of Federal Regulations for aviation and aerospace.

Federal Aviation Regulations available from:

Jeppesen Sanderson  
55 Inverness Drive East  
Englewood, CO 80112  
(303) 799-9090  
[www.jeppesen.com](http://www.jeppesen.com)

ATR: Air Transport Racking. A basic unit of width for a LRU per ARINC 404A.

LRU: Line Replaceable Unit. Formal term for the basic avionics "black box".

MCU: Modular Concept Unit. A basic unit of width for an LRU per ARINC 600.

## 5.0 Synthesized Aeronautical VHF-FM Radio Transceiver Specification Table

Specification		VHF-FM
A. Useable Sensitivity (uV)	RX	1.0
B. Selectivity (dB)	RX (25 kHz)	-70
	RX (12.5 kHz)	-60
C. Spurious Attenuation (dB)	RX	-70

D.	Intermodulation (dB)	RX	-70
E.	Audio Power(milliwatts)	RX	100
F.	Audio Distortion (%)	RX	5
G.	FM Hum & Noise (dB)	RX & TX	40
H.	Frequency Stability (ppm)	RX & TX (25 kHz)	5
		RX & TX (12.5 kHz)	2.5
I.	Multichannel Frequency Spread (MHz)	RX & TX	24
J.	Conducted Spurious Emissions (dBW)	RX	-80
K.	Carrier Power Output (Watts, nominal)	TX Low	1
		TX High	10
L.	Conducted Spurious Emissions	TX(10 watt)	56
	$dB = 43 + 10 \log (10) P_o$	TX (1 watt)	43
M.	Audio Frequency Distortion (%)	TX	4
N.	Maximum Deviation (+/- kHz)	TX (25 kHz)	5
		TX (12.5 kHz)	2.5

## 6.0 RTCA DO-160\* "Environmental Conditions and Test Procedures for Airborne Equipment"

All equipment shall comply with DO-160\* as a minimum acceptable aviation and avionics standard. The environmental categories with minimum acceptable tests and the minimum required categories are as follows:

Section:	Cat:	Test:
4.0 R	B1	Temperature and Altitude
4.5.4R	Z	In-Flight Loss of Cooling
5.0 R	B	Temperature Variation
6.0 R	A	Humidity
7.0 R	A11	Operational Shocks and Crash Safety
8.0 R	N	Vibration
9.0 X		Explosion Proofness

10.0	R1	W	Waterproofness
11.0	X		Fluids Susceptibility
12.0	X		Sand and Dust
13.0	X		Fungus Resistance
14.0	X		Salt Spray
15.0	R2	A	Magnetic Effect
16.0	R	B	Power Input
17.0	R	B	Voltage Spike
18.0	R	B	Audio Frequency Conducted Susceptibility
19.0	R	A	Induced Signal Susceptibility
20.0	R	U	Radio Frequency Susceptibility
21.0	R	A	Emission of Radio Frequency Energy
22.0	X		Lightning Induced Transient Susceptibility
23.0	X		Lightning Direct Effects
24.0	X		Icing

X = Not Applicable.

R = Required Test.

R1 = Required for remote mounted equipment only.

R2 = If equipment is a remote mounted transceiver, it shall meet category B or better, whereas the control head shall meet category A or better. Panel mounted radios shall meet category A or better.

**J.25 Aircraft Performance Questionnaire:**

Company: \_\_\_\_\_ Date: \_\_\_\_\_

Aircraft Make, Model, and Variant: \_\_\_\_\_ N# \_\_\_\_\_

**Instructions:** For each aircraft offered please fill out the following table, using FAA approved data for each altitude and temperature. Use the standard interagency Load Calculation Form (see Section J.12) as a matrix for performance calculations.

HIGE <u>2500@35°C</u>	HOGE <u>2500@35°C</u>	HIGE <u>5000@30°C</u>	HOGE <u>5000@30°C</u>	HIGE <u>8000@25°C</u>	HOGE <u>8000@25°C</u>	HIGE <u>10000@20°C</u>	HOGE <u>10000@20°C</u>	HIGE <u>12000@15°C</u>	HOGE <u>12000@15°C</u>

- **Please enclose:** Copy of Type Certificate, or supplemental certification applicable for the aircraft offered.
- Clear and legible copy of the standard interagency Load Calculation Form (see Section J.12) form used in payload calculations.
- Clear and legible copy of FAA approved performance charts used to calculate aircraft performance.
- Failure to submit supporting data used in payload calculations may result in the aircraft not being considered for contract award.
- The Government will confirm aircraft weights at time of inspection.

NOTE: The minimum performance requirement is based on hovering-out-of-ground (HOGE) at 5000 feet MSL, 30°C, and 8000 feet MSL and 25°C. The Government will factor in a weight of 200 pounds per required crewmember, and 1.5 hours of fuel (@ contract burn rate).

I certify that I have examined the data submitted and to the best of my knowledge, it is true and correct.

Signed: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

J.26 CWN MANAGERS ASSIGNMENT CLOSE-OUT		
To be completed at the end of your tour.		
This form is to improve the quality level of Call-When-Needed Helicopter Contracts. Your remarks will assist us in improving our interagency standards for CWN Helicopter Contracts and Contractors.		
CONTRACTOR'S NAME:	CONTRACT # :	A/C N-#
YOUR NAME:	EMAIL:	AGENCY:
YOUR ASSIGNMENT DATE:	RELEASE DATE:	PHONE # :
1. Was the helicopter kept clean and neat?		
DOES NOT MEET REQUIREMENTS	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	EXCEEDS ALL REQUIREMENTS
QUALITY COMMENTS:		
2. Did the fuel truck provide reliable service?		
DOES NOT MEET REQUIREMENTS	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	EXCEEDS ALL REQUIREMENTS
QUALITY COMMENTS:		
3. Did the company keep you fully informed on the condition of the crew, helicopter, and fuel truck? Yes <input type="checkbox"/> No <input type="checkbox"/>		
DOES NOT MEET REQUIREMENTS	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	EXCEEDS ALL REQUIREMENTS
QUALITY COMMENTS:		
4. Did the contractor abide by all provisions of the contract? Yes <input type="checkbox"/> No <input type="checkbox"/>		
DOES NOT MEET REQUIREMENTS	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	EXCEEDS ALL REQUIREMENTS
COST CONTROL COMMENTS:		
5. Would you take your next assignment with this contractor? Yes <input type="checkbox"/> No <input type="checkbox"/>		
DOES NOT MEET REQUIREMENTS	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	EXCEEDS ALL REQUIREMENTS
COST CONTROL COMMENTS:		
6. Was the crew and helicopter supported by the company in a timely manner? Yes <input type="checkbox"/> No <input type="checkbox"/>		
TIMELINESS OF PERFORMANCE COMMENTS:		
7. During any mechanical problems, were you informed of the problem and the progress of the work being done to fix the aircraft? Yes <input type="checkbox"/> No <input type="checkbox"/>		
DOES NOT MEET REQUIREMENTS	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	EXCEEDS ALL REQUIREMENTS
TIMELINESS OF PERFORMANCE COMMENTS:		
8. Did the flight crew/fuel truck/mechanic arrive on time each day? Yes <input type="checkbox"/> No <input type="checkbox"/>		
DOES NOT MEET REQUIREMENTS	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	EXCEEDS ALL REQUIREMENTS
TIMELINESS PERFORMANCE COMMENTS:		
9. Were crew changes handled with little or no confusion, and, was there a briefing between crew members being exchanged? Yes <input type="checkbox"/> No <input type="checkbox"/>		
DOES NOT MEET REQUIREMENTS	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	EXCEEDS ALL REQUIREMENTS
BUSINESS RELATIONS COMMENTS:		
10. Were you treated like a preferred customer? Yes <input type="checkbox"/> No <input type="checkbox"/>		
DOES NOT MEET REQUIREMENTS	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/>	EXCEEDS ALL REQUIREMENTS
BUSINESS RELATIONS COMMENTS:		
Would you like someone to contact you about this contractor? Yes <input type="checkbox"/> No <input type="checkbox"/>		
Complete at the end of your assignment and FAX to contracting @ 208-387-5384		

**J.27 HELICOPTER AND FUEL SERVICE VEHICLE PRE-USE CHECKLIST**

**HELICOPTER & SERVICE TRUCK PRE-USE CHECKLIST**

GENERAL		HOBBS READING:
DATE:	AIRCRAFT MAKE/MODEL:	FAA REGISTRATION #:
VENDOR:		
PILOT(S) NAME(S):		
CARD EXPIRATION DATE(S):		
PILOT(S) CARDED FOR INTENDED MISSION(S)?: ( ) YES ( ) NO		
A/C CARD EXPIRATION DATE:		A/C CARDED FOR INTENDED MISSION(S)?:
DEPT. BASE:	DEPARTURE HOBBS READING:	ARRIVAL HOBBS READING:

LOGBOOK REVIEW		
50/100-HR, PROGRESSIVE, OR OTHER INSPECTION PROGRAM UP-TO-DATE?	( ) YES	( ) NO
ENTRIES INDICATING DAMAGE TO AIRCRAFT?	( ) YES	( ) NO
POWER CHECK COMPLETED/RESULTS SATISFACTORY?	( ) YES	( ) NO
COMMENTS ON LOGBOOK:		

CONDITION OF HELICOPTER		
ITEM	OK	DOCUMENT INOPERABLE OR DAMAGED EQUIPMENT (DENTS, TEARS, LEAKS, ETC.)
Skin and Exterior		
Windows		
Doors		
Upholstery		
Cargo Compartment		
Skids/Wheels		
Fixed Tank		
Bucket		
COMMENTS:		

REQUIRED HELICOPTER EQUIPMENT INSTALLED AND OPERATIVE (CONSULT CONTRACT)					
ITEM	YES	NO	ITEM	YES	NO
Seat Belts and Harnesses			Strobe Light(s)		
Hi-Visibility Paint On Main Rotor Blades			Survival Kit		
9600-Channel Radio			First Aid Kit		
VHF-AM 720-Channel			Fire Extinguisher(s)		
Auxiliary Radio Adapter			Cargo Hook		
Loran/GPS			Convex Mirror		
High Skid Gear			Bucket		
Nine-Pin Plug (Type 3 helicopters only)			Other:		
COMMENTS:					

REQUIRED SERVICE TRUCK EQUIPMENT INSTALLED AND OPERATIVE (CONSULT CONTRACT)					
ITEM	YES	NO	ITEM	YES	NO
Spare Set Of Filters			Filter Change Date Placarded		
Fire Extinguisher(s) Current			Ground Cables		
Hazmat Marking and Placards			Fuel Quality Control Log		
Inspection Sticker			Absorbent Materials For Spills		
COMMENTS:					
Beginning Odometer Mileage:					

SIGNATURE OF INSPECTING GOVT. REPRESENTATIVE:	PRINT NAME	DATE
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WHITE: CO    YELLOW: AGENCY MAINT. INSPECTOR    BLUE: CONTRACTOR    GREEN: HELIC MGR  
 HCM-2 (Test)  
 (May, 1994)

## **J.28 HELICOPTER SYNTHETIC LONG LINE GUIDELINES**

### 1. Rope Requirements

#### a. Material Type

Helicopter synthetic long-lines shall be constructed from the HMWPE or HMPE (High Molecular Weight Polyethylene) family of rope fibers including brand names such as Spectra® by Allied Signal or fibers with similar properties. Spectra® has very high strength, high flex fatigue life, very low stretch (less than 1% elongation at 30% of break strength), excellent chemical resistance, and less than 1% water absorption. Another high strength, high performance rope fiber is Vectran® produced by Hoechst-Celanese. Rope brand names made from these types of fibers include Plasma 12, Spectron II, and Spectron 12 or AmSteel. Ropes from these fibers are usually twelve-strand or double braid construction.

#### b. Rope Diameter

Minimum rope diameter shall be ½-inch.

#### c. Working or Rated Load

The working or rated load of a rope is the maximum static load that will be lifted by the rope. Working loads are based on a percentage of the approximate breaking or ultimate strength of the rope when new and unused. The working load shall be appropriate to the lifting capability of the helicopter.

For reference, lifting capability for each category of helicopter is as follows:

Type 1 8000 to 30000 lbs. or greater.

Type 2 1600 lbs. to 4500 lbs.

Type 3 750 to 1600 lbs

#### d. Factor of Safety

A factor of safety of 7 shall be used for helicopter synthetic long-lines. Therefore, all ropes shall have an ultimate strength of seven times the rated or working load. For example, if a Type II helicopter line will have a working load of 4,500 pounds, the rope must have a strength when new of at least 31,500 pounds. Rope diameters will vary depending on strength and type of rope.

#### e. Knots and Splices

No knots are permitted in the synthetic long-line. Knots can decrease rope strength by as much as 50%. Splices may be used in the assembly of the long-line, but no additional splicing may be done once the line is put into service. Splices should always follow the manufacturer's recommended splicing practices.

f. Protective Coatings and Covers

Rope manufacturers offer protective coatings such as aromatic urethane coatings, which help with abrasion resistance and provide some UV protection. The coating just appears as a dye on the rope and does not change the rope dimension. Heavy plastic coatings are not recommended because the inside of the rope cannot be inspected. Some companies also sell “sleeve” covers that attach with Velcro. These are easily removable for rope inspection and provide the greatest UV and debris protection. It is recommended but not required that synthetic long-lines have the UV coating and/or the removable covers to help protect the lines.

2..Rope Care and Usage

a. Heat

Rope strength can be seriously decreased by heat exposure. The critical temperature of rope is the temperature at which 50% strength loss can occur. The critical temperature of HMWPE type ropes is only 150° F, and melting temperature is 297° F. Critical temperatures for other types of rope are: Polypropylene 250°, Kevlar 400° F, Nylon 350° F, Polyester 350° F.

b. Chemicals and Dirt

Chemicals can cause damage to rope. Keep ropes away from acids, bleach and solvents.

Laundry detergents can also weaken rope, and ropes should only be rinsed if cleaning is needed.

Grit from mud, dirt and sand can work into the rope fibers and cause deterioration. It is difficult to inspect for any debris that has worked its way inside the rope fibers. It is important to keep ropes clean.

c. Ultraviolet

Ultraviolet (UV) exposure causes degradation in rope strength. According to the American Group, a rope manufacturer, the AmSteel® fibers lose approximately 30% of their strength after five or six months of sun exposure.

d. Storage

In addition to keeping the rope away from heat, ropes should be stored clean, dry, and out of direct sunlight. Helicopter synthetic long-lines should be stored in a rope bag away from batteries and chemicals. If ropes are wet, ideal storage is off the floor on racks to provide ventilation. Never store rope on concrete or dirt floors. Grit from dirt can abrade and weaken rope fibers. Acid is often used in concrete work and can remain on the surface. Abrasive surfaces should also be avoided.

Never step on rope, drive over rope or allow the helicopter to land on the rope. If any of these occur, inspect the line for damage and enter the event in the rope log.

e. Shock Loads

A line is shock or impact loaded when it suddenly changes from no load or low load to high load. The further the load falls, the greater the impact. Since synthetic fibers have a memory, the effects of shock loading remain with time and can result in failure even when loaded within the normal range. Any shock loading noticed by the pilot or crew should be recorded in the log.

2. Rope Documentation

All synthetic long-lines will be assigned a unique identification number that will be retired with the long-line. Synthetic long-lines shall be permanently and legibly marked with a unique identification number, the rated load of the line, and manufacture date.

A documented history of each synthetic long-line must be maintained from the date of purchase until its retirement from service. A rope log will be assigned to each synthetic long-line to record the rope history.

The following minimum items shall be recorded in the rope log:

- Manufacture Date
- Date Put Into Service
- Rope ID Number
- Date of External Load and/or Inspection
- Approximate Weight of Load Lifted
- Number of Lifts per day at each weight
- Remarks/Problems
- Inspector Signature/Initial

Examples of items to note in the remarks/problems section could include any unusual shock loading noticed by the pilot or crew, exposure to chemicals or excessive dirt, problems such as the rope landed on by the helicopter skid, or any irregularities found during inspection.

### 3. Rope Retirement and Inspection

No visual inspection can accurately determine residual strength. Avoid using rope that shows sign of aging and wear. If in doubt, destroy the used rope. Rope should be inspected after each day of use.

a. Abrasion

All rope fibers contribute to rope strength. When either the outer or inner fibers are worn, rope strength is reduced. Check the line regularly for frayed and broken strands. Rethread pulled strands into the rope if possible. Open the rope strands to look for powdered fiber that is a sign of internal wear.

b. Compacted Rope

Ropes can become hard or compacted when heavily used. Any rope that has become hard or compacted indicates reduced strength and should be discarded.

c. Heat Damage

Glazed or glossy areas indicate heat damage and decreased strength. Even normal looking fibers adjacent to the visibly heat damaged areas have been damaged.

d. Inconsistent Diameter

Flat areas, lumps or bumps can indicate internal damage from overloading and usually indicates reason to replace the rope.

e. Discoloration

All ropes will get dirty. Check for unusual discolorations that could indicate chemical contamination. Determine source of contamination, and replace the rope if it is brittle or stiff.

f. Rope Inspection Check List

The following inspection checklist is taken from the American Group rope catalog. If any of these conditions are met, discard the rope.

#### **Condition**

1. Original rope bulk reduced by abrasion:

- Double braid cover by 50%
- Twelve-strand braid by 25%
- Eight-strand plait by 25%

2. Fiber strands cut:

- Double braid by three or more adjacent strands cut
- Twelve-strand braid by two or more adjacent strands cut
- Eight-strand plait by one or more adjacent strands cut

3. Diameter inconsistency:
  - Localized diameter reduction
  - Flat areas
  - Lumps and bumps in rope
4. Glossy or glazed fiber:
  - Localized or extended areas
5. Inconsistency of texture:
  - Localized or extended areas or stiffness
6. Discoloration:
  - Localized or extended areas caused by chemical contamination

*g. Retirement*

No rope shall be used more than five years after its manufacture date and no more than three years after its put in service date.

NOTE:

Proposed test program

To better evaluate the performance and appropriate service life of synthetic long-lines, a test lot of at least ten lines could be purchased and distributed for use in the field. A sample of rope from each rope lot purchased would be pull tested to failure to determine a rope strength baseline. During the initial evaluation period, at least two ropes would be removed from service after one year of service and pulled to failure to test residual strength. After two years of service, at least two ropes would be pulled to failure to test residual strength.

**J.29 HELICOPTERS MAKE/MODEL/SERIES LISTS**ATTACHMENT


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 Helicopter Like Makes and Models
 

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<i><b>Make</b></i>	<i><b>Model</b></i>
Bell	47 series (all Recips)
Bell	47 series Soloy
Bell	206A, 206B, series
Bell	206L series
Bell	212, 412,
MD	369 (500) series
MD	520N, 600
MD	MD-900, 902
Enstrom	28, 280 series
Eurocopter	SA 315, SA 316, SA 319
Eurocopter	AS 350/355 series
Hiller	12 series (Recips)
Hiller	12 series (Soloy)
Schweizer	269, 300 series (Recips)

This list does not specifically follow the FAA guidelines as it relates to 14 CFR 135.293 competency.

Similar military aircraft are not acceptable for grouping.

Grouping of like makes and models of aircraft allows determination of pilot authority. Differences training must be completed for each of the makes/models in a grouping. Make/model qualification and currency are met with time flown in any aircraft in grouping.