APPENDIX A: HELICOPTER MANAGEMENT FORMS AND CHECKLISTS

I. Introduction.

This appendix provides standardized forms for the management and operation of a single helicopter. Such standardization helps to implement common procedures among participating agencies to meet mutual safety, efficiency, fiscal management, and contract administration objectives. The forms also provide a basis for training development and presentation.

II. Applicability.

The forms in this appendix are to be utilized by Helicopter Managers, whereas those in Appendix B and Appendix C are to be utilized in the management of helibases.

However, several of the Helicopter Management (HCM-series) forms contribute to the informational requirements of the Helibase Management (HBM-series) forms. It is therefore essential that Helicopter Managers use these forms as appropriate or required when operating as part of a helibase organization.

Some of the forms are required for all helicopter operations, some are required only for incident operations. Others are optional and may be used at the discretion of the Helicopter Manager or local aviation management staff as part of the unit's helicopter operation. Certain optional forms may be required by the air operations staff at an incident or project due to a specific management informational need.

The use and applicability of other contracting forms such as Contract Instruction, Notice to Proceed, etc., are discussed in agency contract administration guides.

Chart A-1 on the following pages is a summary listing of the HCM-series forms, including information concerning the purpose of the form, the HCM test form number, whether a form is optional or required for all or only certain situations, responsibility for completion, and frequency of completion. The Helicopter Manager may use this chart as a quick-reference guide to form requirements. The pages following the chart contain a comprehensive discussion of each form.

Helicopter Managers, both exclusive use and Call-When-Needed (CWN), should obtain sets of all forms so that they may respond to different management requirements encountered. Recognizing that at most incidents, or prior to a project's start that copies may be reproduced, Chapter 9 provides recommendations concerning the number of forms to carry in the Helicopter Manager's Kit.

➔ The HCM forms are available as part of the IHOG forms supplement package from the geographic area caches (NFES# 1878) and electronically at http://www.nifc.gov/ihog/.

Chart A-1 Requirements for Completion and Submission of Helicopter Management (HCM) Forms

Form Name	Purpose	IHOG Form # Required or Optional	Individual Responsible for Completion	Frequency	Remarks
Aircraft Contract Daily Diary	To provide daily documentation of contract activities, significant occurrences, deficiencies, actions by the contractor or government, etc.	HCM-1 Required for all contracts	Helicopter Manager	Daily	Actions, discrepancies, etc. Should be documented as they occur
Call When Needed (CWN) Pre-use Checklist	To ensure the helicopter and service truck meet requirements and specifications contained in the procurement document.	HCM-2 Required for CWN or ARA aircraft	Helicopter Manager	Once prior to use of aircraft	Discrepancies should be reported to the Contracting Officer and appropriate Aviation Manager. Do not use the aircraft or service truck until discrepancies are corrected and approval is received.
Aircraft Fuel Facility Inspection Log	To provide an inspection format for aircraft fuel facilities.	HCM-3 Required for government fuel facilities	Helicopter Manager or local Aviation Manager	According to local or agency policy	All government owned facilities and contractor owned facilities as specified in the procurement document.
Helicopter Turbine Engine Power Check	To gather engine performance data which when graphed, may indicate power fluctuations that may lead to engine failure.	HCM-4 Optional - see remarks	Pilot or Helicopter Manager	According to procurement	Data may be graphed on HCM-5. Information must be recorded. Other formats are acceptable.
Helicopter Engine Performance Trend Analysis	To graph information recorded from HCM-4.	HCM-5 Optional - see remarks	Pilot or Helicopter Manager	According to procurement	This information must be trended in some manner. This form is not the only method to accomplish this.
Helicopter Information Sheet	To provide air operations personnel with information regarding the pilot, ground crew and aircraft.	HCM-6 Required for large fire, may be optional for project	Helicopter Manager	Immediately after arrival at incident or project helibase	Form should be completed before leaving home unit for Exclusive Use Aircraft or at the beginning of CWN use, and presented to Helibase Manager on arrival at incident.
Helicopter Crew Information Sheet	To provide air operations personnel with information regarding assigned crew and qualifications.	HCM-7 Required	Helicopter Manager	Immediately after arrival at incident or project helibase	Form should be completed before leaving home unit for Exclusive Use aircraft or at the beginning of CWN use, and presented to Helibase Manager on arrival at incident.

Chart A-1 Requirements for Completion and Submission of Helicopter Management (HCM) Forms

Form Name	Purpose	IHOG Form # Required or Optional	Individual Responsible for Completion	Frequency	Remarks
Interagency Helicopter Load Calculation	To ensure helicopter is capable of carrying a specified load to an identified elevation at a given density altitude.	HCM-8 OAS-67 FS 5700-17 911-03) or state or local agency format	Pilot and Helicopter Manager	Prior to flight	Complete a new calculation with changes in temperature, altitude, etc. Post appropriately.
Interagency Helicopter Passenger/Cargo Manifest	To allow the helicopter manager to track passengers and weights.	HCM-9 *Optional	Helicopter Manager	Prior to each flight	A manifest must be completed for each flight. Other formats are acceptable.
Helicopter Load Capability Summary	To allow the Helicopter manager to plan missions safely and efficiently to different elevations and temperatures at varying fuel loads.	HCM-10 Optional	Helicopter Manager	At beginning of contract period	Must be based on completed load calculations for all temperatures and elevations shown.
Aircraft Dispatch Form	To provide Helicopter Manager and Pilot with information that may be critical to flight safety.	HCM-11 NIFC 9400-31 NFES 2657 Optional	Helicopter Manager or Aircraft Dispatcher	Prior to dispatch of aircraft	Used upon dispatch to an incident.
Pilot Flight Time/Duty Day Cumulative Log	To track pilot duty and flight time to ensure specification are not exceeded	HCM-12 Required	Helicopter Manager	Daily	Required for all pilots.
Fuel Servicing Driver Duty Day Cumulative Log	To track driver duty time and days off to ensure specifications are not exceeded.	HCM-13 Optional	Helicopter Manager	Daily	This form is used to keep track of extended standby time and days off only. The driver is responsible for tracking DOT duty time.
Mechanic Duty Day Cumulative Log	To track mechanic duty time and days off to ensure specifications are not exceeded.	HCM-14 Required	Helicopter Manager	Daily	This form is used to keep track of extended standby time and days off only.
Helicopter Daily Use and Cost Summary	Summarizes helicopter use and costs for each helicopter on an incident or project.	HCM-15 Required for Type 1 and 2 incidents	Helicopter Manager	Daily	Must be completed a the end of the operational period.
CWN Helicopter Contractor Performance Evaluation	To enable Helicopter Manager to evaluate the contractor on performance.	HCM-16 Required	Helicopter Manager	At the end of each assignment	Send a copy is to the Contracting Officer at the end of each assignment.

*Optional information must be documented, other formats are acceptable.

III. Helicopter Management (HCM) Forms.

A. Aircraft Contract Daily Diary (HCM-1). (See Exhibit A-1.)

1. Purpose. The purpose is to provide daily documentation of contract activities.

2. Applicability. The form is required for all exclusive-use contract helicopters, both fire and project, as well as fire CWN. Its use is also encouraged for rental helicopters utilized for more than one day.

3. Responsibility and Instructions for Completion. See Exhibit A-1. It is the responsibility of the Helicopter Manager to complete the form on a daily basis. The Helicopter Manager should document significant occurrences, deficiencies, actions by the contractor or government, etc.

   If nothing of significance occurred, an entry indicating such should be made. Higher levels in the contract administration structure (for example, the Contracting Officer's Representative) are encouraged to utilize a continuous documentation log rather than the single-sheet format shown here.

   Completion is self-explanatory. Refer to Appendix D, Contract Administration and Agency Flight Payment Documents, for further information.

4. Routing and Filing. Routing and filing is indicated at the bottom of the form and is as follows:

   - White - Project Inspector (PI in USDI) or Contracting Officer's Representative (COR in USDA-FS)
   - Yellow - Contracting Officer
   - Pink - Local Air Officer (USDA-FS), State/Regional/Area Air Officer (USDI), or as identified by state/local agencies

   Copies should be routed to appropriate personnel concurrently with copies of agency flight payment documents.

5. Posting. None.

6. ➔ Related Forms. Form HCM-2, Call When Needed Pre-Use Checklist, is the start of contract documentation for CWN helicopters.

   Certain occurrences that are documented on the Aircraft Contract Daily Diary may require submission of an agency incident/hazard report.

Exhibit A-1: ➔ Form HCM-1 Aircraft Contract Daily Diary

AMD-137 (11/08)

AIRCRAFT CONTRACT DAILY DIARY

Contract #:	Item:	Page		Of		Date:
1. Contractor:		7. Designated Base:				
2. A/C Make/Model & FAA #:		8. Current Aircraft Location:				
3. Pilot(s) On Duty:		9. Activity: Ferry		Training		Project
		Large Fire Support		Standby		IA
4. Mechanic(s) On Duty:		10. Other Aircraft On Base:				
5. Driver(s) On Duty:		11. Weather:				
6. Total # Of Contractor Personnel:		12. Local Fuel Price:				

13. Pay Items	Begin	End	Total	EXT.	14. Special Equipment	HR/Days	Cost
Availability							
Flight Time							
Service Miles							
Pilot Duty							
Driver Duty							
Mechanic Duty							

15. Aircraft Status: (Maintenance performed, power trend analysis completed, reasons for any unavailability, etc.)

16. Narrative Report: (Include problems encountered, official visits or inspections, safety issues encountered, etc.)

17. Miscellaneous Costs: (Contractor purchased permits, fees, travel, etc; to be reimbursed by Govt.)

18. Govt. Representative Name/Title (Print):	Govt. Representative Signature:	Date:

NFES #1088 HCM-1 (11/2008) REQUIRED

B. Helicopter and Service Truck Pre-Use Checklist (HCM-2). (See Exhibit A-2.)

1. Purpose. The purpose is to ensure fire CWN or fire rental helicopters meet requirements and specifications as contained in the procurement document.

2. Applicability. The form is required to be completed for all fire CWN or fire rental helicopters prior to use. It may also be utilized for project rental helicopters as a checklist to document the condition of the helicopter. However, not all of the items indicated as required for fire are required for projects.

3. Responsibility and Instructions For Completion. See Exhibit A-2. Pre-use inspections should be accomplished prior to arrival of the helicopter at the incident by either the Helicopter Manager, an agency aircraft inspector, or other authorized aviation management personnel.

   The Helicopter Manager is responsible for either ensuring the inspection has been completed (ask for signed copy from vendor), or completing the checklist prior to the utilization of the helicopter.

   Discrepancies must be reported immediately to the aircraft contracting organization, as well as to the State, Area, or Regional Aviation Officer or his/her representative. Do not use the aircraft until discrepancies have been rectified and/or permission is given to utilize the aircraft.

   Completion is self-explanatory.

4. ➔ Routing And Filing. The Helicopter Manager should keep the completed form unless requested to route it differently

5. Posting. None.

6. ➔ Related Forms. Form HCM-1, Aircraft Contract Daily Diary, should be initiated simultaneously with the Call When Needed Pre-Use Checklist.

   Discrepancies should be noted on the Daily Diary.

Exhibit A-2: ➔ Form HCM-2 Helicopter and Service Truck Pre-Use Checklist

CALL WHEN NEEDED PRE-USE CHECKLIST

General										
Date:	Aircraft Make/Model:						N#:			
Vendor:							Equipped Weight:			
Pilot(s) Name(s):						Mechanics Name:				
Card Expiration Date(s):						Card Expiration Date:				
Pilot(s) Carded for Intended Mission(s):	Yes:		No:				Yes:		No:	
A/C Card Expiration Date:				A/C Carded For Intended Mission(s):			Yes:		No:	
Departure Base:				Departure HOBBS:			Arrival HOBBS:			
Copy Of Contract Onboard A/C:	Yes:		No:		HazMat HB/Exemption/ERG:		Yes:		No:	

Logbook Review				
50/100-Hour, Progressive, Or Other Inspection Program Up-To-Date:	Yes:		No:	
Entries Indicating Damage to Aircraft:	Yes:		No:	
Form HCM-5 "Turbine Engine Performance Trend Analysis" Onboard Aircraft:	Yes:		No:	
Power Check Completed/Results Satisfactory:	Yes:		No:	
Comments:				

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		
Other		
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		
Required FM Radio(s)			First Aid Kit		
Required AM Radio(s)			Fire Extinguisher(s)		
Auxiliary Radio Adapter			Cargo Hook		
GPS			Convex Mirror		
High Skid Gear			Buckets (Appropriate Sizes)		
Nine-Pin Plug (Type III Helicopters Only)			Anti-Theft Security Measures in Place		
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 Inspection			Bonding Cables		
HazMat Marking And Placards			Fuel Quality Control Log		
Inspection Sticker			Absorbent Materials For Spills		
Beginning Odometer Reading:					
Comments:					

Signatures of: Inspecting Govt. Representative & Pilot	Print Name	Date

HCM-2 (11/2008) REQUIRED

C. Aircraft Fuel Facility Inspection Log (HCM-3). (See Exhibit A-3.)

1. Purpose. The purpose is to provide an inspection format for aircraft fuel facilities to ensure that fuel quality is maintained and fuel spills do not occur.

2. Applicability. The form is required to be completed for all fixed or mobile helicopter fueling facilities operated by the government, or for fixed facilities operated by a vendor and that are located on government land.

3. Responsibility and Instructions For Completion. See Exhibit A-3. The vendor is responsible for inspecting vendor-owned facilities located on government land, or government-owned facilities for which the vendor is contractually responsible (for example, the vendor is required to maintain and fill a remote fuel cache).

   The government shall ensure that inspections are performed with the frequency indicated.

   A government representative (for example, the Helicopter Manager or local unit Aviation Manager) is responsible for inspecting Government-owned facilities.

   Items are checked according to the frequency indicated. Refer to Chapter 13, Fueling Operations, for further information.

   Remote facilities for which the required frequency of inspection (for example, daily or weekly checklist items) is not feasible must be fully inspected prior to the use of fuel in the facility.

4. Routing and Filing. For facilities for which the vendor is responsible, the vendor shall provide the government representative (for example, the Helicopter Manager or Project Inspector) with a copy of each monthly inspection. A copy shall be furnished to the Contracting Officer's Representative (COR) in USDA-FS, the Contracting Officer's Administrative Representative (COAR) in USDI, and to an appropriate individual as identified by state and local agencies.

   For facilities for which the government is responsible, the contract Project Inspector shall furnish a copy of each monthly inspection to aviation management personnel as identified by the agency.

5. Posting. None.

6. Related Forms. Any discrepancies regarding facilities for which the vendor is responsible should be noted on Form HCM-1, Aircraft Contract Daily Diary. The Helicopter Manager should file an agency incident/hazard report concerning any fuel cache discrepancies, regardless of who has the responsibility for maintaining the site. For fuel spills at the site, other local, state, and federal reporting regulations apply.

Exhibit A-3: Form HCM-3 Aircraft Fuel Facility Inspection Log

AIRCRAFT FUEL FACILITY INSPECTION LOG

Facility: _____ **Grade Fuel:** _____ **Month:** _____

Use only for government operated sites, or vendor sites located on government lands. The inspector must note in each block either PASS or FAIL. For remote sites which are not used or cannot be inspected with the frequency indicated, perform a complete inspection at least monthly or at the time the facility is next utilized, whichever is sooner. Document and report discrepancies on an agency incident/hazard report.

Date	Contamination (water, particles)	Diff. Pressure	Leaks	Hoses Nozzles Screens	Strainers	Fire Extinguishers	Fuel Flow Rate	Pumps Motors Valves	Bond/ Ground	Inspector Initials
	DAILY	DAILY	DAILY	DAILY	DAILY	WEEKLY	WEEKLY	MONTHLY	MONTHLY	
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HCM-3 (01/05) REQUIRED

D. Helicopter Turbine Engine Power Check (HCM-4). (See Exhibit A-4.)

1. Purpose. The purpose is to gather engine performance data which, when graphed with subsequent power checks, may indicate power fluctuations that potentially could lead to engine failure.

2. ➔ Applicability. This form is optional. The vendor or agency Pilot is required to complete the power assurance check every 10 hours of flight for all fire exclusive-use and fire CWN helicopters and for project exclusive-use contracts. A power assurance check shall be accomplished on the first day of operation, and thereafter within each 10-hour interval of contracted flight operation unless prohibited by environmental conditions (i.e. weather, smoke). The power assurance check shall be accomplished by the contractor in accordance with the Rotorcraft Flight Manual or approved company performance monitoring program. The results shall be recorded and kept in the helicopter or at the Assigned Work Location. A current record of the power assurance checks will be maintained with the aircraft. Helicopters with power output below the minimum published performance charts shall be removed from service. The below-minimum power condition shall be corrected before return to service and contract availability."

3. Responsibility and Instructions For Completion. See Exhibit A-4. The Pilot is responsible for completing the form and furnishing a copy to the Helicopter Manager.

   Record outside air temperature (O.A.T.) and pressure altitude. Since power check procedures differ according to make and model of aircraft, refer to the Flight Manual and record appropriate readings according to procedures specified.

   Chart definitions are as follows:

   - O.A.T = Outside Air Temperature
   - N1 = Gas Producer Speed
   - N2 = Engine RPM
   - T.O.T. = Turbine Outlet Temperature
   - T.P.T. = Tail Pipe Temperature
   - I.T.T. = Inter Turbine Temperature
   - Type of Check = Hover
   - Performance Reading = TOT/ITT values and/or % of RPM from aircraft instruments
   - Chart Reading = TOT/ITT values and/or % of RPM from performance chart
   - Margin Difference = The difference between the aircraft performance and chart values

   ➔ Results of the chart reading will be recorded and retained according to the contract requirements.

4. Routing and Filing. The Pilot furnishes the Helicopter Manager with a copy of the Power Trend Analysis; it becomes part of the Contract File.

5. Posting. None.

6. ➔ Related Forms. Information may be transferred to Form HCM-5, Helicopter Turbine Engine Performance Analysis Chart. The Helicopter Manager should document discrepancies on the agency incident/hazard report and on Form HCM-1, Aircraft Contract Daily Diary.

Exhibit A-4: Form HCM-4 Helicopter Turbine Engine Power Check

HELICOPTER TURBINE ENGINE POWER CHECK

Date:	Aircraft Make/Model:	N#:
Pilot:	Vendor:	
Engine Number:	HOBBS Meter:	

*Item	Value	Type of Check:
OAT:		
PA:		
Torque:		Performance Reading:
Temp:		
N1/NG:		
N2:		Chart Reading:
		Margin Difference:
Correction Factor:		

*Use only items applicable to type of helicopter HCM-4 (01/05) *OPTIONAL

E. Helicopter Turbine Engine Power Trend Analysis Chart (HCM-5). (See Exhibit A-5.)

1. Purpose. The purpose is to graph the data collected every 10 hours from Form HCM-4, Helicopter Turbine Engine Power Check. When graphed with subsequent power checks, power fluctuations that might lead to engine failure may be indicated.

2. Applicability. This form is optional. The Information on this form is required to be maintained in accordance with the procurement document.

3. Responsibility and Instructions for Completion. See Exhibit A-5. The Pilot is responsible for graphing the data.

4. Routing and Filing. None.

5. Posting. The graph should be posted at the permanent helibase and taken with the service truck (not the helicopter) on off-unit incidents or projects.

6. ➔ Related Forms. Form HCM-4, Helicopter Turbine Engine Power Assurance Check, is utilized to record values for input to the Trend Analysis.

   The Helicopter Manager should document discrepancies on the agency incident/ hazard report and note them on Form HCM-1, Aircraft Contract Daily Diary.

Exhibit A-5: Form HCM-5 Turbine Engine Performance Analysis Chart

TURBINE ENGINE PERFORMANCE TREND ANALYSIS

Helicopter FAA # :

Make/Model:

Engine # :

Min Spec

Date:																					
HOBBS:																					
OAT:																					
PA:																					
Torque:																					
Temp:																					
N1/NG:																					
N2:																					
Pilot Initials:																					

HCM-5 (01/05) *OPTIONAL

F. Helicopter Information Sheet (HCM-6). (See Exhibit A-6.)

1. Purpose. The purpose is to provide the Helibase Manager and other air operations branch personnel with information concerning the helicopter, the Pilot, and the vendor's ground crew (driver/mechanic) assigned to multiple-aircraft helibases.

   It summarizes most, if not all information relating to each individual helicopter operation at a helibase, thus relieving the Helibase Manager from having to obtain this information at various times over the course of the incident or project.

2. ➔ Applicability. This form is required for large fire operations and optional for projects until requested.

3. Responsibility and Instructions For Completion. See Exhibit A-6. Individual blocks on the form are self-explanatory.

   The Helicopter Manager for both exclusive-use contracts and CWN is responsible for completing the form prior to or immediately after arrival at an incident or project helibase.

   The Helibase Manager is responsible for obtaining the Information Sheet immediately upon arrival of a helicopter at an incident or project.

   a. Exclusive-Use Helicopters. All information available at the start of the season should be entered, and multiple copies made for distribution upon arrival at an incident or project. Information concerning Incident/Project Order Number, Aircraft Request Number, and Maintenance And Vendor Crew Information should be completed upon arrival at an incident or project.

   b. Call-When-Needed Helicopters. All information should be completed when the CWN crew assembles and joins up with the helicopter.

4. Routing and Filing. The form is submitted to the Helibase Manager upon arrival at an incident or project. The Air Support Group Supervisor or Air Operations Branch Director is responsible for routing an informational copy to the Resources Unit Leader.

5. Posting. None.

6. Related Forms. Form HCM-7, Helicopter Crew Information Sheet, should be submitted concurrently. Information from the Helicopter Information Sheet is used to complete Form HBM-3, Helibase Aircraft Information Summary (see Appendix B).

Exhibit A-6: Form HCM-6 Helicopter Information Sheet

HELICOPTER INFORMATION SHEET

Date:	Incident/Project Order #:	Request #:	Make/Model:	N #:
		A-		

Check One:		Check One:				
Exclusive-Use Contract	☐	Type 1 Helicopter	☐			Color of A/C:
Call-When-Needed	☐	Type 2 Helicopter	☐			
Agency-Owned	☐	Type 3 Helicopter	☐			Insured PAX
Other (List)	☐	Limited/Restricted:	YES ☐	NO ☐		Seats:

Agency and Home Unit:	Phone # :
COR Name:	Phone # :
CO Name:	Phone # :
Vendor Name/Contact:	Phone # :

Type Bucket/Fixed Tank	Capacity	Foam Injection	Specific Capabilities		
		YES ☐ NO ☐	Longline/Remote Hook?	YES ☐	NO ☐
		YES ☐ NO ☐	Carousel?	YES ☐	NO ☐
Other Capabilities, Avionics, ETC:			Cargo Letdown?	YES ☐	NO ☐
			Rappel?	YES ☐	NO ☐
			Short-Haul Rescue?	YES ☐	NO ☐
			Internal Litter Capable?	YES ☐	NO ☐
			Aerial Ignition - PSD?	YES ☐	NO ☐
			Aerial Ignition - Helitorch?	YES ☐	NO ☐

Vendor Fuel Servicing Vehicle	Government Helitender (Crew Chase Truck)				
Make/Model:	Make/Model:	4X4?	YES ☐	NO ☐	
License # and State:	License # and State:	Trailer?	YES ☐	NO ☐	
Tank Capacity:	Number of Seats:	Other:			

Hourly Flight Rate:	Daily Availability Rate:	Daily Flight Hours Guarantee:	# of Vendor Personnel:

Maintenance and Vendor Crew Information

Current HOBBS:	Next Scheduled Maintenance Due at:		
Name	Position (Pilot/Mechanic/Driver)	Next Day Off	Date Relief Due In
Vendor Personnel Lodging Site:		Phone Number:	
Vendor Personnel Contact Name:		Phone Number:	
GOV Helicopter Manager Name:		Phone Number:	

Remarks

HCM-6 (01/05) REQUIRED

G. Helicopter Crew Information Sheet (HCM-7). (See Exhibit A-7.)

1. Purpose. The purpose is to provide the Helibase Manager and other air operations branch personnel with information concerning helicopter crews assigned to helicopters at incident or project helibases. It identifies order numbers for CWN crews, qualifications, training needs, days off, etc.

   It relieves the Helibase Manager from having to obtain this information at various times over the course of the incident or project. It is especially valuable for filling helibase positions and training assignments.

2. ➔ Applicability. Applicability. This form is required for large fire operations and optional for projects until requested.

3. Responsibility and Instructions For Completion. See Exhibit A-7. Individual blocks on the form are self-explanatory.

   The Helicopter Manager for both exclusive-use contracts and CWN is responsible for completing the form prior to or immediately after arrival at an incident or project helibase.

   The Helibase Manager is responsible for obtaining the Information Sheet immediately upon arrival of a helicopter at an incident or project.

   a. Exclusive-Use Helicopters. All information available at the start of the season should be entered, and multiple copies made for distribution upon arrival at an incident or project. Information concerning Incident/Project Order Number, Aircraft Request Number and Last Day(s) Off is to be completed upon arrival at an incident or project.

   b. Call-When-Needed Helicopters. All information should be completed when the CWN crew assembles and joins up with the helicopter.

4. Routing and Filing. The form is submitted to the Helibase Manager upon arrival at an incident or project. The Air Support Group Supervisor or Air Operations Branch Director is responsible for routing an informational copy to the Resources Unit Leader.

5. Posting. None.

6. Related Forms. Form HCM-6, Helicopter Information Sheet, should be submitted concurrently. Information from the Helicopter Crew Information Sheet is used to complete Form HBM-1, Helibase Organization Chart, ensuring that only qualified individuals fill helibase positions.

Exhibit A-7: Form HCM-7 Helicopter Crew Information Sheet

HELICOPTER CREW INFORMATION SHEET

AIRCRAFT INCIDENT/PROJECT ORDER # : _____ **AIRCRAFT REQUEST # :** _____

CREW NAME or RESOURCE ID # : _____

TYPE of CREW:
- ☐ ATTACHED TO CONTRACT HELICOPTER (Enter Aircraft "A" Order/Request and Personnel Subordinate/Roster # (i.e. A-1.1) in the column next to each individual's name
- ☐ ATTACHED TO CWN HELICOPTER (Enter Overhead "O" Order/Request # in the column next to each Individual's name

Name	Order/ Request #	Travel Method	Return to (City)	Last Day Off	1st Day On Assignment	Qualifications/Special Skills	Training Needs
Helicopter Manager							
Assistant Manager							
Lead Crewperson							
Crewperson							
Crewperson							
Crewperson							
Crewperson							
Crewperson							

HCM-7 (01/05) REQUIRED

H. Helicopter Load Calculation (HCM-8). (See Exhibits A-8)

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-10, helicopter Load Capability Summary Multiple helispots and fuel loads may be used to summarize load calculation information and plan flights. However, data for altitudes, temperatures, and fuel weights indicated must be supported by load calculations completed from the appropriate chart(s).

3. Responsibility and Instructions For Completion. See Exhibits A-7 and A-8. Refer to Chapter 7 for further information.

   - For USDI agencies, the Pilot is required to complete Blocks 1-15. For USDA-FS, the Pilot is required to complete Blocks 1-15.

   - 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).

   Specific instructions for completion of the USDI and USDA-FS versions of the load calculation follow. Instructions for completion of the CDF load calculation are included on Exhibit A-9. Other state and local agencies should reference agency guidance.

4. Routing and Filing.

   - Fire. At the termination of fire assignments, the Helicopter Manager is responsible for submitting copies of all load calculations, with copies of manifests attached, to the Helibase Manager. These copies become part of the incident file.

   - Project. At the termination of project missions, the Helicopter Manager is responsible for submitting all load calculations, with manifests attached, to the predetermined agency Aviation Manager or designee (for example, the Dispatcher). That individual includes the load calculation(s) as part of the flight file.

5. Posting. At incident helibases, load calculations for each helicopter for a variety of altitudes and temperatures shall be posted on the display board. A standard fuel load for similar makes/models helicopters should be utilized.

6. ➔ Related Forms. Form HCM-9, Interagency Helicopter Passenger/Cargo Manifest, is used to document manifest information under one "umbrella" load calculation. Form HCM-10, Helicopter Load Capability Summary Multiple Helispots and Multiple Fuel Loads, may be used to summarize load calculation information. Form HBM-4, Allowable Payload Chart, and HBM-5, Load Capability Planning Summary (By Single Helispot), are completed from individual load calculations. Load calculation, manifest, and flight time information is summarized on Form HCM-15, Helicopter Daily Use And Cost Summary, and is utilized to complete the agency flight payment document.

INSTRUCTIONS
A load calculation must be completed for all flights. A new calculation is required when operating conditions change (± 1000' in elevation or ± 5°C in temperature) or when the Helicopter Operating Weight changes (such as changes to the Equipped Weight, changes in flight crew weight or a change in fuel load).

All blocks must be completed. Pilot must complete all header information and Items 1-13. Helicopter Manager completes Items 14 & 15.

1. DEPARTURE – Name of departure location and current Pressure Altitude (PA, read altimeter when set to 29.92) and Outside Air Temperature (OAT, in Celsius) at departure location.

2. DESTINATION – Name of destination location and PA & OAT at destination. If destination conditions are unknown, use MSL elevation from a map and Standard Lapse Rate of 2° C/1000' to estimate OAT.

3. HELICOPTER EQUIPPED WEIGHT – Equipped Weight equals the Empty Weight (as listed in the Weight and Balance Data) plus the weight of lubricants and onboard equipment required by contract (i.e. survival kit, rappel bracket).

4. FLIGHT CREW WEIGHT – Weight of the Pilot and any other assigned flight crew members on board (i.e. Co-pilot, flight engineer, navigator) plus the weight of their personal gear.

5. FUEL WEIGHT – Number of gallons onboard X the weight per gallon (Jet Fuel = 7.0 lbs/gal; AvGas = 6.0 lbs/gal).

6. OPERATING WEIGHT – Add items 3, 4 and 5.

7a. PERFORMANCE REFERENCES – List the specific Flight Manual supplement and hover performance charts used to derive Computed Gross Weight for Line 7b. Separate charts may be required to derive HIGE, HOGE and HOGE-J. HIGE: use Hover-In-Ground-Effect, External/Cargo Hook Chart (if available). HOGE & HOGE-J: use Hover-Out-Ground-Effect charts for all HOGE operations.

7b. COMPUTED GROSS WEIGHT - Compute gross weights for HIGE, HOGE and HOGE-J from appropriate Flight Manual hover performance charts using the Pressure Altitude (PA) and temperature (OAT) from the most restrictive location, either Departure or Destination. Check the box in Line 1 (Departure) or Line 2 (Destination) to indicate which values were used to obtain Computed Gross Weight.

8. WEIGHT REDUCTION – The Government Weight Reduction is required for all “non-jettisonable” loads. The Weight Reduction is optional (mutual agreement between Pilot and Helicopter Manager) when carrying jettisonable loads (HOGE-J) where the pilot has total jettison control. The appropriate Weight Reduction value, for make & model, can be found in the current helicopter procurement document (contract).

9. ADJUSTED WEIGHT – Line 7b minus Line 8.

10. GROSS WEIGHT LIMITATION – Enter applicable gross weight limit from Limitations section of the basic Flight Manual or the appropriate Flight Manual Supplement. This may be Maximum Gross Weight Limit for Take-Off and Landing, a Weight/Altitude/Temperature (WAT) limitation or a Maximum Gross Weight Limit for External Load (jettisonable). Limitations may vary for HIGE, HOGE and HOGE-J.

11. SELECTED WEIGHT – The lowest weight, either line 9 or 10, will be entered for all loads. Applicable limitations in the Flight Manual must not be exceeded.

12. OPERATING WEIGHT – Use the value entered in Line 6.

13. ALLOWABLE PAYLOAD – Line 11 minus Line 12. The maximum allowable weight (passengers and/or cargo) that can be carried for the mission. Allowable Payload may differ for HIGE, HOGE and HOGE-J.

14. PASSENGERS AND/OR CARGO – Enter passenger names and weights and/or type and weights of cargo to be transported. Include mission accessories, tools, gear, baggage, etc. A separate manifest may be used.

15. ACTUAL PAYLOAD – Total of all weights listed in Item 14. Actual payload must not exceed Allowable Payload for the intended mission profile, i.e. HIGE, HOGE or HOGE-J.

Both Pilot and Helicopter Manager must review and sign the form. Check if HazMat is being transported. Manager must inform the pilot of type, quantity and location of HazMat onboard.

INTERAGENCY HELICOPTER LOAD CALCULATION Electronic Version 1.0 (3/04)	**MODEL**
	N#
PILOT(S)	**DATE**
MISSION	**TIME**

1	**DEPARTURE**	**PA**	**OAT**	
2	**DESTINATION**	**PA**	**OAT**	
3	**HELICOPTER EQUIPPED WEIGHT**			
4	**FLIGHT CREW WEIGHT**			
5	**FUEL WEIGHT** **gals X lbs/gal**			
6	**OPERATING WEIGHT** (3 + 4 + 5)			

		Non-Jettisonable		**Jettisonable**
		HIGE	**HOGE**	**HOGE- J**
7a	**PERFORMANCE REFERENCE** (List chart/supplement from Flight Manual)			
7b	**COMPUTED GROSS WEIGHT** (From Flight Manual **Performance** Section)			
8	**WEIGHT REDUCTION** (Required for all Non-Jettisonable loads)			
9	**ADJUSTED WEIGHT** (7b minus 8)			
10	**GROSS WEIGHT LIMITATION** (From Flight Manual **Limitations** Section)			
11	**SELECTED WEIGHT** (**Lowest** of 9 or 10)			
12	**OPERATING WEIGHT** (From Line 6)			
13	**ALLOWABLE PAYLOAD** (11 minus 12) ***Exceeds = Allowable Exceeded***			

14	**PASSENGERS/CARGO**	
15	**ACTUAL PAYLOAD** (Total of all weights listed in Item 14) **Line 15 must not exceed Line 13 for the intended mission (HIGE, HOGE or HOGE-J)**	

PILOT SIGNATURE	**HazMat Onboard**
MANAGER SIGNATURE	**YES** **NO**

HCM-8 (01/05)

Electronic Load Calculation Guidelines

The electronic load calculation is available as a training tool or may be used in lieu of the booklet form. The form is an Excel worksheet and makes automatic computations as data is entered by the pilot or government representative. It is really no different than the paper version; ***Equipped Weight, Computed Gross Weight and Gross Weight Limitations must be derived by flight manual reference and entered by the pilot.***
Please be aware of the following important notes:

1) If you receive this as an E-mail attachment, save to hard drive prior to using.
2) The entire worksheet is protected. The format and function cannot be altered.
3) Worksheets can be completed, named and saved individually.
4) As the cursor is moved over a field, a Comment Box will appear offering explanation or instruction for that field.
5) Information is entered into the yellow fields by the user.
6) The blue cells are locked and data cannot be entered by the user. They perform automatic functions.
7) If the electronic format is used for actual helicopter operations, the form must be printed out in black & white, signed by the Pilot and Helicopter Manager and retained.

Exhibit A-9: Form CDF 7540-130-0262
Helicopter Load Calculation

INSTRUCTIONS

ITEM 1-15 Pilot complete 1-15. Helitack Captain or Officer completes the balance of the form. Pilot and Captain shall sign.

1. **PRESSURE ALTITUDE. Read altimeter when set to 29.92. TEMPERATURE. Record in degrees Celsius from aircraft Outside Air Temperature Gauge.**
2. **PRESSURE ALTITUDE. Use MSL/Elevation from Aeronautical Chart until field elevation is available. TEMPERATURE. Record in degrees Celsius using standard lapse rate.**
3. **HELICOPTER EQUIPPED WEIGHT. Empty weight of A/C obtained from A/C weight and balance record. Include weight of accessories and oil.**
4. **FLIGHT CREW WEIGHT. Weight of Pilot(s) and additional crew member (s) plus flight and personal gear.**
5. **DEPARTURE FUEL. AvGas = 6.0 lbs/gal. Jet Fuel = 6.8 lbs/gal.**
6. **FOAM. Foam concentrate = 8.7 lbs/gal.**
7. **ENROUTE FUEL. Subtract enroute fuel weight from destination operating weight (line 14).**
8. **COMPUTED MAXIMUM GROSS WEIGHT. Obtain departure and destination gross weights from appropriate HIGE/HOGE performance charts contained in A/C flight manual. Non-jettisonable load flights landing in adverse terrain and external load missions will be computed from HOGE performance charts.**
9. **WEIGHT REDUCTION. Enter applicable weight reduction for helicopter model as shown on Weight Reduction Chart. External water/retardant loads that can be safely released do not require downloading at Pilot's discretion.**
10. **TAKEOFF AND LANDING LIMITS. Enter applicable Takeoff and Landing Weight Limit as found in the LIMITATIONS section of Handbook.**
11. **SELECTED WEIGHT. If line 11 is greater than line 12, line 11 may be used for JETTISONABLE loads. However, the lowest weight, line 11 or 12, will be used for NON-JETTISONABLE loads.**
12. **OPERATING WEIGHT. Departure operating weight from line 7. Destination operating weight is reduced by enroute fuel, line 8.**
13. **ALLOWABLE PAYLOAD. The maximum allowable passenger and/or cargo weight that can be carried for the mission.**
14. **PASSENGER AND/OR CARGO MANIFEST. Manifest departure passengers by name and/or cargo, by type, for each flight. List weights, including personal gear, in appropriate internal or external load column. Departure passengers and cargo shall be determined by destination capabilities.**
15. **WATER/RETARDANT. List gallons that bucket has been adjusted for or tank will be filled to. Weight = 8.3 pounds per gallon.**
16. **ACTUAL PAYLOAD. Total of all weights in Item 16. Shall not exceed the allowable payload (line 15).**

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION **CDF** HELICOPTER LOAD CALCULATION		COPTER NO. AND MODEL		
PILOT		CAPTAIN		
MISSION		DATE	TIME	
1. DEPARTURE		PRESS ALT	TEMP	
2. DESTINATION		PRESS ALT	TEMP	
3. HELICOPTER EQUIPPED WEIGHT				
4. FLIGHT CREW WEIGHT				
5. DEPARTURE FUEL (GALS X LBS)				
6. FOAM (GALS X LBS)				
7. OPERATING WEIGHT (3+4+5+6)				
8. ENROUTE FUEL_____LBS Reduce Destination Operating Weight by this amount	DEPARTURE	DESTINATION		
	HIGE	HIGE	HOGE	
	INTERNAL	INTERNAL	INTERNAL	EXTERNAL
9. COMPUTED MAX GROSS WT				
10. WEIGHT REDUCTION				
11. ADJ MAX GROSS WT (9 minus 10)				
12. TAKEOFF/LANDING LIMITS				
13. SELECTED WEIGHT (9, 11 OR 12)				
14. OPERATING WEIGHT (line 7)				
15. ALLOW PAYLOAD (13 minus 14)				
16. PASSENGER/CARGO MANIFEST	PASSENGER/CARGO WEIGHT			
17. INITIAL ATTACK TOOLS				
18. WATER BUCKET				
19. WATER/RETARDANT (gals)				
20. ACTUAL PAYLOAD (15 or less)				
HELITACK CAPTAIN (Signature)	PILOT (Signature)			

I. ➔ Interagency Helicopter Passenger/Cargo Manifest. (See Exhibit A-10.)

1. ➔ Purpose. The purpose is to enable the Helicopter Manager to manifest successive trips using the allowable payload (or a current allowable, given fuel consumption) on the applicable Helicopter Load Calculation.

> NOTE: A new Load Calculation does not have to be completed each time the helicopter takes off, provided that the operating weight of the helicopter, temperature, and pressure altitude in the area of operations have not increased beyond those specified from the calculation. The Passenger/Cargo Manifest may be used instead.

2. ➔ Applicability. If successive trips are made under one load calculation, then a manifest is required for documentation and to ensure the allowable is not exceeded. Each manifested trip's actual payload must not exceed the allowable payload in Block 13 of the load calculation. Once there is an increase in either operating weight (for example, more fuel added), in the temperature, and/or in the pressure altitude used to compute the original maximum allowable payload, then a new load calculation must be completed.

3. Responsibility and Instructions For Completion. See Exhibit A-10. Refer to Chapter 7 for further information.

   It is the responsibility of the Helicopter Manager or other authorized individual (for example, a Loadmaster) to complete the manifest prior to each flight leg flown. It is the responsibility of the Pilot to ensure the actual payload on a manifest does not exceed the allowable payload on the load calculation.

> ➔ NOTE: Handcrews may provide a pre-completed crew manifest utilizing their own format. This practice is acceptable as long as the information on the form is accurate and verified.

Specific instructions for completion of the manifest are as follows:

ITEM	INSTRUCTIONS
Helicopter #	Enter the FAA registration number of the helicopter.
Pilot	Enter the name of the Pilot In Command of the mission being manifested.
Time	Enter the time that the manifest was prepared.
Date	Enter today's date.
Departure	Enter the name of the location for the departure point.
Destination	Enter the name of the location for the destination point.
Allowable Payload At: (1)	Utilize the first set of "LBS. Fuel, PA, OAT, and HIGE/HOGE/HOGE-J" to record load calculation values
LBS. Fuel	Enter the weight of fuel as indicated on the load calculation form (line 5) calculated for this trip.

PA	Enter the Pressure Altitude that was utilized to obtain Computed Gross Weight as indicated on the load calculation form (line 1 or 2) calculated for this trip.
OAT	Enter the Outside Air Temperature that was utilized to obtain Computed Gross Weight as indicated on the load calculation form (line 1 or 2) calculated for this trip.
HIGE/HOGE/ HOGE-J	Enter the Allowable Payloads as indicated on the load calculation form (line 13) calculated for this trip.
Allowable Payload At: (2)	Utilize the second set of "LBS. Fuel, PA, OAT, and HIGE/HOGE/HOGE-J" as a means to utilize fuel burn, or for performance planning for an alternate landing area.
	The weight of fuel consumed during a flight can be "added" to the allowable payload. Pilots and managers must ensure that any estimate of fuel burned off is accurate prior to landing at the destination.
#	Enter the trip or passenger number (optional).
Name/Cargo	Enter individual's name or type/kind of cargo. For external load operations enter the rigging required for the operation (i.e. net, swivel, longline, bucket, etc). For water, foam, or retardant drops, enter the bucket or tank capacity.
Weight	Enter passenger's or cargo's weight. Do not estimate. For water, foam, or retardant drops, enter the weight of the load in the bucket for one dip, not the number of gallons.
Actual Payload	The actual payload for a trip should be entered in the right-hand column (note that more than one trip may be documented on the manifest).
Hazardous Materials /Location	Enter Hazardous Materials information per the Interagency Aviation Transport of Hazardous Materials Handbook
Manifest Preparer	Individual preparing the manifest signs (Helicopter Manager or designee).

4. Routing and Filing.

   - Fire. At the termination of fire assignments, the Helicopter Manager is responsible for submitting copies of all load calculations, with manifests attached, to the Helibase Manager. These copies become part of the incident file.

   - Project. At the termination of a project helicopter flight, the Helicopter Manager is responsible for attaching all manifests to their appropriate load calculation and submitting them to the predetermined agency Aviation Manager or designee (for example, the Dispatcher). That individual includes the manifests as part of the flight file.

5. Posting. None.

6. ➔ Related Forms. Form HCM-8, Helicopter Load Calculation, is used to document manifest information under one "umbrella" load calculation. Load calculation and manifest totals are collated on Form HCM-15, Helicopter Daily Use and Cost Summary. Manifests are utilized to complete the agency flight payment document.

Exhibit A-10: Form HCM-9 Interagency Helicopter Passenger/Cargo Manifest

INTERAGENCY HELICOPTER PASSENGER/CARGO MANIFEST

Helicopter # : _____ **Pilot:** _____ **Time:** _____ **Date:** _____

Departure: _____ **Destination:** _____

Allowable Payload At: **LBS. FUEL:** _____ **PA:** _____ **OAT:** _____

HIGE: _____ **HOGE:** _____ **HOGE-J:** _____

Allowable Payload At: **LBS. FUEL:** _____ **PA:** _____ **OAT:** _____

HIGE: _____ **HOGE:** _____ **HOGE-J:** _____

#	NAME/CARGO	WEIGHT

HAZARDOUS MATERIALS	LOCATION	
	ACTUAL PAYLOAD	

MANIFEST PREPARER: _____

HCM-9 (01/05) *Optional

J. Helicopter Load Capability Summary- Multiple Helispots (HCM-10). (See Exhibit A-11.)

1. Purpose. The purpose is to enable the Helicopter Manager to plan mission loads safely and efficiently to different elevations or helispots at different temperatures with different fuel loads.

2. Applicability. The form is optional, but should be used on incidents or projects where multiple helispots have been established. It may be required by the incident air operations staff.

3. Responsibility and Instructions For Completion. See Exhibit A-11. The Helicopter Manager is responsible for ensuring the form is completed and updated as new helispots are established.

   - Block 1: Aircraft Information. Enter information as indicated.

   - Block 2: Allowable Payloads. Complete the matrix by calculating allowable payloads, both HIGE and HOGE, with full or working fuel load, to different helispots or elevations for temperatures appropriate to the area.

   It is essential that the load calculation form and appropriate flight manual performance charts be utilized to determine allowable payloads. A load calculation form must be completed for every temperature, elevation, and fuel load indicated on the form. However, once a load calculation is completed, the information on Form CHM-10 may be utilized in conjunction with the Helicopter Passenger/Cargo Manifest.

   - Block 3: Payload Adjustments. Depending on the size helicopter and fuel capacity, enter increased payload capability in pounds as fuel weight is reduced.

   Utilizing the load calculation form, Form HCM-10 should be updated as additional helispots are established.

4. Routing and Filing. At multiple-aircraft helibases, the Helicopter Manager should submit the form to the Helibase Manager.

5. Posting. The form should be posted on the helibase display board.

6. Related Forms. Form HCM-8, Helicopter Load Calculation, is used to calculate information. Loads are documented on HCM-9, Helicopter Passenger/Cargo Manifest. Form HBM-4, Allowable Payload Chart, Form HBM-5, Flight Following Log, and Form HBM-5, Resource Capability Planning Chart may be completed from information supplied by Form CHM-10.

HELICOPTER LOAD CAPABILITY SUMMARY - MULTIPLE HELISPOTS AND FUEL LOADS

DATE: _____

N # : _____ MAKE/MODEL: _____ A/C EQUIPPED WT: _____

PILOT(s): _____ _____ FLIGHT CREW WT: _____

Location:						
Pressure Altitude:						

ALLOWABLE PAYLOAD FOR FOLLOWING FUEL LOAD: _____ Gallons = _____ LBS. Fuel

Outside Air Temperature	HIGE / HOGE	HIGE / HOGE	HIGE / HOGE	HIGE / HOGE	HIGE / HOGE	HIGE / HOGE
15C	/	/	/	/	/	/
20C	/	/	/	/	/	/
25C	/	/	/	/	/	/
30C	/	/	/	/	/	/
35C	/	/	/	/	/	/
40C	/	/	/	/	/	/
45C	/	/	/	/	/	/
	/	/	/	/	/	/
	/	/	/	/	/	/

ALLOWABLE PAYLOAD ADJUSTMENTS: Add This Weight to Allowable Payload **ONLY** if On-Board Fuel is **Less Than** the Fuel Load Indicated Above!

IF _____ Gals Fuel, Add _____ LBS IF _____ Gals Fuel, Add _____ LBS IF _____ Gals Fuel, Add _____ LBS

IF _____ Gals Fuel, Add _____ LBS IF _____ Gals Fuel, Add _____ LBS IF _____ Gals Fuel, Add _____ LBS

Pilot Signature: _____ Helicopter Manager Signature: _____

HCM-10 (01/05) OPTIONAL

K. Aircraft Dispatch Form HCM-11 (NFES-2657) (See Exhibit A-12)

1. Purpose. The purposes of the form are to:

   - Provide the Helicopter Manager and Pilot with dispatch information critical to flight safety and efficiency (note that block numbers correspond exactly to those on the dispatcher's Resource Order);

   - Provide accurate information concerning individual incidents during multiple-fire situations;

   - Provide information (for example, incident number and Hobbs Meter start/end readings) essential for accurate completion of agency payment documents.

2. Applicability. This form is optional. If utilized, it should be completed for all fire helicopter initial attack missions, both exclusive-use contract and CWN. It is not intended to be used for mission dispatch, other than initial attack, at incident helibases.

3. Responsibility and Instructions For Completion. See Exhibit A-12. The Helicopter Manager completes the form. The Dispatcher provides the information to the Helicopter Manager prior to or immediately after dispatch by phone or by radio.

4. Routing and Filing. Copies are kept as part of the helicopter crew file.

5. Posting. None.

6. Related Forms. Agency flight payment document can be completed from information entered (for example, billing numbers).

Exhibit A-12: Form HCM-11 Aircraft Dispatch

AIRCRAFT DISPATCH

DATE:	TIME:	SUNSET + 30:
INCIDENT NAME:		INCIDENT # :
DESCRIPTIVE LOCATION: T: R: S: 1/4:		ELEVATION
LAT:	LONG:	
BEARING (DEG):	DISTANCE (SM/NM):	FROM:
FLIGHT FOLLOWING:	F/F FREQUENCY:	TONE:
AIR CONTACT:	A/A FREQUENCY:	TONE:
GROUND CONTACT:	A/G FREQUENCY:	TONE:
OTHER AIRCRAFT:		
HAZARDS:		
MTR/SUA: ☐ YES ☐ NO	TFR: ☐ YES ☐ NO	
COMMENTS:		RELOAD BASE:

NFES #2657 NIFC 9400-31 (5/02) **HCM-11 (01/05) OPTIONAL**

L. Pilot Flight Time/Duty Day Cumulative Log (HCM-12), Driver (Helicopter Attendant) Driving Time/Duty Day Cumulative Log (HCM-13), and Mechanic Duty Day Cumulative Log (HCM-14). (See Exhibits A-13, A-14, and A-15.)

1. Purpose. The purpose of these forms is to enable the Helicopter Manager to track contract or CWN Pilot, Driver, and Mechanic flight time or driving time (as applicable), as well as each's duty day, so that limitations are not exceeded.

2. Applicability. HCM-12 and HCM-14 are required for all contract aircraft. It is also mandatory for CWN and rental aircraft utilized for more than four continuous days. It is advisable to initiate these forms immediately at the start of any incident CWN or rental use.

3. Responsibility and Instructions For Completion. See Exhibits A-13, A-14, and A-15. Completion is self-explanatory. Helicopter Managers are responsible for making entries to the form on a daily basis for the period of the contract, or, for CWN, for the period of use. If user is filling out the electronic version, refer to electronic help text for correct procedure on entering Pilot day off to assure cumulative flight time feature works.

   It is the responsibility of Helicopter Managers to inform the Helibase Manager of flight time, driving time, or duty day limitations that may interfere with planned operations.

4. Posting. None at incident helibases. It may be posted at the permanent helibase for exclusive-use contracts crews, but must be taken on off-unit dispatches.

5. Routing and Filing. No routing is necessary. Completed logs become part of the contract file.

6. Related Forms. Form HCM-1, Aircraft Contract Daily Diary. An agency incident/hazard report is submitted if limitations are exceeded.

Exhibit A-13: Form HCM-12 Pilot Flight Time/Duty Day Cumulative Log

PILOT FLIGHT TIME/DUTY DAY CUMULATIVE LOG

Pilot Name: _____ **Last Date(s) Off-Duty:** _____

Flight Time or, Off, for the Last 5 Consecutive Days:	Day 5	Day 4	Day 3	Day 2	Day 1

Insert Dates of Next 7 Days:							
Earliest Pilot Can Be On-Duty:							
Actual On-Duty Time (Including Preflight)							
Add 14 Hours For Maximum Duty Day	***+ 14:00***	***+ 14:00***	***+ 14:00***	***+ 14:00***	***+ 14:00***	***+ 14:00***	***+ 14:00***
Must Be Off-Duty At:							
Actual Off-Duty Time:							
Cumulative Flight Time Previous 5 Days:							
Total Flight Time Today:	+	+	+	+	+	+	+
Total Flight Time This 6-Day Period:							

Insert Dates of Next 7 Days:							
Earliest Pilot Can Be On-Duty:							
Actual On-Duty Time (Including Preflight)							
Add 14 Hours For Maximum Duty Day	***+ 14:00***	***+ 14:00***	***+ 14:00***	***+ 14:00***	***+ 14:00***	***+ 14:00***	***+ 14:00***
Must Be Off-Duty At:							
Actual Off-Duty Time:							
Cumulative Flight Time Previous 5 Days:							
Total Flight Time Today:	+	+	+	+	+	+	+
Total Flight Time This 6-Day Period:							

Max Flight Time: 8:00 *Hours **Max Duty Day: 14:00 *Hours** **Min Rest Period: 10:00 *Hours** **Required Days Off: 2 Days in 14***

A Maximum of 42* hours flight time may be flown during any consecutive six-day period. When a pilot accrues 36* or more flight hours in a consecutive six-day period, the pilot will be given the following full calendar day off-duty. Following any day-off, a new six-day cycle begins with 0 cumulative flight time.

*DOI and USFS Standards. Other Agency Standards may vary.

HCM-12 (01/05) REQUIRED

Exhibit A-14: Form HCM 13 Driver (Helicopter Attendant) Driving Time/Duty Day Cumulative Log

FUEL SERVICING DRIVER DUTY DAY CUMULATIVE LOG

Driver Name: ______________________ **Last Date(s) Off-Duty:** ______________

Insert Dates of Next 7 Days:							
Actual On-Duty Time							
Actual Off-Duty Time:							

Insert Dates of Next 7 Days:							
Actual On-Duty Time							
Actual Off-Duty Time:							

Insert Dates of Next 7 Days:							
Actual On-Duty Time							
Actual Off-Duty Time:							

Max Duty Day: Per DOT **Min Rest Period: Per DOT** **Required Days Off: 2 Days in 14***

It is the Contractors’ responsibility to insure that employees comply with DOT Safety Regulation 49 CFR Part 390-399, including duty limitations. 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. The fuel servicing vehicle driver will be responsible to keep the Government apprised of their ground duty limitation status. Notwithstanding DOT Safety Regulation 49 CFR 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.

*DOI and USFS Standards. Other Agency Standards may vary.

HCM-13 (01/05) OPTIONAL

Exhibit A-15: Form HCM-14 Mechanic Duty Day Cumulative Log

MECHANIC DUTY DAY CUMULATIVE LOG

Mechanic Name: ______________________ **Last Date(s) Off-Duty:** ______________

Insert Dates of Next 7 Days:							
Earliest Mechanic Can Be On-Duty:							
Actual On-Duty Time (Including Preflight)							
Add 16 Hours For Maximum Duty Day	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***
Must Be Off-Duty At:							
Actual Off-Duty Time:							

Insert Dates of Next 7 Days:							
Earliest Mechanic Can Be On-Duty:							
Actual On-Duty Time (Including Preflight)							
Add 16 Hours For Maximum Duty Day	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***
Must Be Off-Duty At:							
Actual Off-Duty Time:							

Insert Dates of Next 7 Days:							
Earliest Mechanic Can Be On-Duty:							
Actual On-Duty Time (Including Preflight)							
Add 16 Hours For Maximum Duty Day	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***	**+ *16:00***
Must Be Off-Duty At:							
Actual Off-Duty Time:							

Max Duty Day: 16:00 *Hours **Min Rest Period: 8:00 *Hours** **Required Days Off: 2 Days in 14***

*DOI and USFS Standards. Other Agency Standards may vary.

HCM-14 (01/05) REQUIRED

M. Helicopter Daily Use and Cost Summary (HCM-17). (See Exhibit A-16.)

1. Purpose. The purpose is to enable the Helicopter Manager to summarize daily use and costs for the helicopter.

2. Applicability. The form is required on incidents to which a Type I or II Incident Management Team (IMT) is assigned.

   However, the air operations staff on a Type I or II Team will usually require that the Helibase Manager(s) submit summaries from the day of initial attack. Helicopter and Helibase Managers should therefore be prepared to furnish this information once an IMT is assigned.

   It may also be required on projects at the Project Aviation Manager's option.

3. Responsibility and Instructions For Completion. See Exhibit A-16. See Chapter 15 and Appendix B for further information.

   Each Helicopter Manager is responsible for completing the Helicopter Daily Use and Cost Summary at the end of each day's operational period. The Helicopter Manager submits it to the Helibase Manager.

   Use totals are gathered from load calculations and manifest forms. The Helicopter Manager should ensure:

   - If daily flight guarantees are not met for CWN or rental helicopters, that these costs are included on the summary.

   - If daily/hourly availability or guarantee costs on exclusive-use contract helicopters are already paid from presuppression funding, that these costs are not included on the summary.

   Mobilization costs (for example, ferry time to the incident, service truck miles, etc.) must be included on the first Summary submitted. Demobilization costs should be estimated and a final Summary submitted to the Helibase Manager prior to the departure of the helicopter from the incident or project.

4. Posting. None.

5. Routing and Filing. The Helicopter Manager gives the summary to the Helibase Manager. A copy of each helicopter's cost summary should be made part of the helibase file.

6. Related Forms. Helicopter load calculations and manifests forms are used to complete the Summary. The Helibase Manager completes Form HBM-11, Helibase Daily Use and Cost Summary, from helicopter summaries.

Exhibit A-16: Aircraft Daily Use And Cost Summary HCM-15

HELICOPTER DAILY USE and COST SUMMARY

Activity/Mission: __ **Large Fire** __ **Initial Attack** __ **Project** **Date:** _____

Helibase: _____ **Incident:** _____ **Agency:** _____

N #: _____ **Make/Model:** _____ **Manager's Name:** _____

Type: __ **1** __ **2** __ **3** __ **CWN** __ **Exclusive Use** __ **Other (Specify):** _____

Flight Invoice Reference Number(s): _____

	Quantity	Rate	Cost:
Revenue Flight Hours:			
*Availability (Hours or Day):			
Pilot Extended Standby:			
Driver Extended Standby:			
Mechanic Extended Standby:			
Per Diem # of Persons:			
Service Truck Miles:			
Additional Cost:			
Additional Cost:			
Additional Cost:			
Additional Cost:			
		Daily Grand Total Cost:	

* Do Not calculate for exclusive use contracts where availability is paid from pre-suppression funds

Use Summary:

Total PAX Transported	Total Pounds Cargo	Total Gallons Water	Total Gallons Retardant	Total Gallons Foam

Aerial Ignition

Acres Treated	PSD Spheres Used	Gallons Helitorch Gel Used

Cost Apportionment (If Applicable)

Agency	Percent	Cost

HCM-15 (01/05) REQUIRED