

## Chapter 70 Equipment and Supplies

### Equipment and Supplies - General

Each unit should maintain tools and supplies at a level to handle normal operations for initial attack and minor support, such as outfitting available forces on the unit, regular fire replacement, and normal fire activity. Local cache inventory lists are due to RMK by April 1, annually.

### National Interagency Radio Support Cache (NIRSC)

(Refer to NMG 70)

### National ICS Starter Radio Systems

Rocky Mountain Area Coordination Center will preposition 2 National ICS Starter Radio Systems (NFES #4390), with the ability to preposition up to 4 as the need arises, at RMK from May 15 - October 15 annually.

A replacement Starter System may be requested after commitment of a prepositioned Starter System. Replacement Starter Systems may not be filled where congestion of spectrum is an issue. In these instances, special frequency Starter Systems will be built on an as needed basis and shipped to the incident.

For information on Starter Systems, refer to the National Incident Radio Support Cache User's Guide, NFES #0968, or the NWCG Fire Supplies and Equipment Catalog Part 1, NFES #0362.

A Communications Unit Leader will be required for all dispatches of this system.

All NFES 4000 Series Radio Kits are ordered as **Supply**.

All radio supply orders are sent direct to RMC.

### National Contract Mobile Food Services and National Contract Mobile Shower Facilities

For a complete listing of the Schedule of Items and contract specifications for the National Mobile Food Service Contract and National Mobile Shower Facilities Contract, refer to the publications NFES #1276 and NFES #2729. This information can also be found at: <http://www.fs.fed.us/fire/contracting/index.htm>. (Refer to NMG 70)

### Incident/Project Remote Automatic Weather Stations

(IRAWS -NFES #5869 / PRAWS – NFES #5870)

(Refer to NMG 70)

## Engines and Water Tenders

Although the national standard staffing for most engines is two personnel, all engines and tender orders shall specify the staffing deemed appropriate to ensure firefighter safety. In most instances, it will be necessary to specify 3 personnel on Type 4-7 engines to ensure that the principles of LCES (Lookouts, Communication, Escape Routes and Safety Zones) are adequately met.

When ordering engines, RMA centers must specify on the Resource Order the staffing requested. Engine orders without staffing specification will have the staffing requirement clarified with the ordering entity prior to processing the resource order.

## Engine Staffing

Rocky Mountain Area Engines ordered for incidents within the RMA will be staffed with a minimum of three personnel. Engines responding to their respective jurisdictions within the RMA may be staffed to their agency/local minimum standards. Any national orders will meet national standards.

Water tenders shall be ordered with staffing appropriate to task assigned. Staffing for support purposes such as engine refill or dust abatement should be single operator. Water tenders used for tactical purposes where water delivery will be directly to suppression such as hose lays, live reels, or spray bars should be staffed with two personnel. Staffing needs shall be stated on the Resource Order at the time of order.

## Engine Types Matrix

Engine Type							
	Structure Engines		Wildland Engines				
Requirements	1	2	3	4	5	6	7
Tank Minimum Capacity (gallons)	300	300	500	750	400	150	50
Pump Minimum Flow (gpm)	1000	500	150	50	50	50	10
@ rated pressure (psi)	150	150	250	100	100	100	100
<u>Hose (feet)</u>							
2 ½ inch	1200	1000	-	-	-	-	-
1 ½ inch	500	500	1000	300	300	300	-
1 inch	-	-	500	300	300	300	200
Ladder <b>per NFPA 1901</b>	Yes	Yes	-	-	-	-	-
Master Stream 500 gpm min.	Yes	-	-	-	-	-	-
Pump and Roll	-	-	Yes	Yes	Yes	Yes	Yes
Maximum GVWR (lbs)	-	-	-	-	26,000	19,500	14,000
Personnel (minimum)	4	3	3	2	2	2	2

1 **Water Tender Types Matrix**  
2

Requirements	Water Tender Types				
	Support			Tactical	
	S1	S2	S3	T1	T2
Tank Capacity (gallons)	4000	2500	1000	2000	1000
Pump Minimum Flow (gpm)	300	200	200	250	250
@ rated pressure (psi)	50	50	50	150	150
Max Refill time (minutes)	30	20	15	-	-
Pump and Roll	-	-	-	Yes	Yes
Personnel (minimum)	1	1	1	2	2

3  
4 All types shall meet federal, state, and agency requirements for motor vehicle safety  
5 standards, including all gross vehicle weight ratings when fully loaded.

6 Type 3 engines and tactical water tenders shall be equipped with a foam proportioner  
7 system.

8 All water tenders and engine types 3 through 6 shall be able to prime and pump water  
9 from a 10 foot lift.

10 Personnel shall meet the qualification requirements of NWCG Wildland Fire  
11 Qualification System Guide May 2009, PMS 310-1.

12  
13 **Ordering Considerations for Water Tenders - Items to note in Special Needs:**

14 All-Wheel Drive (includes four wheel drive)

15 High Pressure Pump (250 psi at one half flow of Type)

16 Foam Proportioner

17 Compressed Air Foam System (CAFS) with minimum 40 cfm Compressor

18 Additional Personnel

19 Gel-Capable

1 **Area Engine Listing (By Dispatch Center)**

2  
3 **Available for In-Area or National Assignments**  
4 **(Resources that can be mobilized from their home unit)**

5  
6 **Federal**

Center	Ty 1	Ty 2	Ty 3	Ty 4	Ty 5	Ty 6	Ty 7	Total
CO-CRC	-	-	-	1X	-	9X	-	10
CO-DRC	-	-	-	3X	-	14X	-	17
CO-FTC	-	-	-	-	-	4X	-	4
CO-GJC	-	-	-	2X	-	9X	-	11
CO-MTC	-	-	-	2X	-	5X	-	7
CO-PBC	-	-	1	-	-	4X	2	7
SD-GPC	-	-	4	11	-	81	8	104
WY-CDC	-	-	-	4	-	14X	0	18
WY-CPC	-	-	-	*3X	-	10	-	13
WY-RWC	-	-	-	1X	-	6X	0	7

7  
8 **Cooperators**

Center	Ty 1	Ty 2	Ty 3	Ty 4	Ty 5	Ty 6	Ty 7	Total
CO-CRC	-	-	-	-	-	2X	-	2
CO-DRC	0	0	2	4	-	30X	0	36
CO-FTC	5	3	4	0	0	10X	-	22
CO-GJC	59	4	5	10	5	42	5	130
CO-MTC	2	-	-	-	-	2X	-	4
CO-PBC	10	34	45	29	-	157X	7X	282
SD-GPC	97	30	31	34	12	179	37	420
WY-CDC	3	1	0	5	-	6X	0	15
WY-CPC	9	0	2	19	2	43	-	75
WY-RWC	5	3	5	30*	-	32	-	75

9  
10 **Contractors\*\***

Center	Ty 1	Ty 2	Ty 3	Ty 4	Ty 5	Ty 6	Ty 7	Total
CO-CRC	-	-	-	-	-	-	-	0
CO-DRC	-	-	-	2	-	5	-	7
CO-FTC	-	-	-	-	-	3X	-	3
CO-GJC	-	-	-	-	-	-	-	0
CO-MTC	-	-	-	-	-	1X	-	1
CO-PBC	-	-	-	-	-	5X	-	5
SD-GPC	-	-	-	3	1	10	-	14
WY-CDC	-	-	-	-	-	2X	-	2
WY-CPC	-	-	-	1	-	3	-	4
WY-RWC	-	-	-	-	-	-	-	0

11 An "X" after the type number denotes 4-wheel drive.

12 \*Some CPC & RWC Type 4 Engines are 6 wheel drive, 2 ½ TON, military vehicles.

13 \*\*Contractor Engines will be staffed with 3 personnel or according to contract  
14 specifications. (Refer to RMG 20)

**Retardant Plants****Portable/Mobile Retardant Bases**

Portable/mobile retardant bases are available through EERAs established in the National Long-Term Fire Retardant Requirement Contract. Units may order these items directly, utilizing the provisions in the contract. The National Long-Term Fire Retardant Requirement Contract can be accessed on the web at:

<http://www.fs.fed.us/fire/contracting/index.htm>.

**Agency/Unit****Location**

Wind River/Bighorn Basin District

Worland, WY

(\*Can be set up at any airport with a runway length greater than 5000 ft. and single weight axle threshold of over 17,500 lbs.)

**Specialized Equipment****Helitorches (Aerial Drip Torch)****Agency/Unit****Location**

High Desert District BLM

Rawlins, Wyoming

Shoshone National Forest

Cody, Wyoming

\*Montrose Interagency Fire Mgmt. Unit

Montrose, Colorado

Upper Colorado River Management Unit

Rifle, Colorado

**Aerial Ignition Devices (Plastic Sphere Dispensers)****Agency/Unit****Location**

\*Black Hills National Forest

Custer, South Dakota

\*Grand Junction BLM

Rifle, Colorado

Montrose Interagency Fire Mgmt. Unit

Montrose, Colorado

\*Mesa Verde National Park

Mesa Verde, Colorado

\*Pike National Forest

Monument, Colorado

+High Desert District BLM

Rawlins, Wyoming

\*San Juan National Forest

Durango, Colorado

Shoshone National Forest

Cody, Wyoming

\*Northwest Colorado Fire Mgmt.

Craig, Colorado

Ute Mountain Ute Agency

Towaoc, Colorado

RM Interagency Support Cache (2)

Lakewood, Colorado

**Terra Torches****Agency/Unit****Location**

Colorado State Forest Service

Ft. Collins, Colorado

\*High Desert District BLM

Rawlins, Wyoming

\*High Desert District BLM

Rock Springs, Wyoming

\*Southern Ute Agency

Ignacio, Colorado

\* Northwest Colorado Fire Mgmt.

Craig, Colorado

\* Montrose Interagency Fire Mgmt. Unit

Montrose, Colorado

\* Must be accompanied by a qualified operator from the home unit.

+Must be accompanied by a qualified Operator and Module from the home unit.

**Batch Mixer**

A Batch Mixer is a large tank used for mixing large quantities of Helitorch Fuel. Once mixed, the fuel is then put into 55-gallon drums.

**Agency/Unit****Location**

*Montrose Interagency Fire Mgmt. Unit	Montrose, Colorado
*High Desert District BLM (2)	Rawlins, Wyoming
Shoshone National Forest	Cody, Wyoming
Rock Springs BLM	Rock Springs, Wyoming

\*Must be accompanied by a qualified operator from the home unit.

**Probeyes**

None are available in the RMA.

**Seed Buckets**

RMA has one seed bucket available at the Jeffco Tanker Base in Broomfield, Colorado. An operator must accompany the seed bucket to any incident. Call RMC for availability of operator.

The seed bucket characteristics are:

Weight:	225 lbs.
Volume:	37 cubic feet or 280 gallons
Capacity:	900 - 1000 lbs. grass seed and/or fertilizer

**Potable Water Tender**

Potable water tenders are available from contractors, State Forestry Divisions, National Guard Units, and Military units.

**Area 250 Person Cache Vans NFES #2069**

(Refer to RMG 20 for ordering procedures)

The Rocky Mountain Interagency Support Cache has six mobile cache vans available for use in the RMA. Four of them will be pre-positioned at the following locations:

<b>Dispatch Center/Cache</b>	<b>Location</b>	<b>City/State</b>
GPC	Black Hills National Forest	Custer, SD
CDC	Wind River Agency	Ft. Washakie, WY
GJC	Grand Junction Air Center	Grand Junction, CO
DRC	Trimble Work Center	Durango, CO

Van contents can be found in the National Fire Equipment Catalog under NFES #2069.

**The RMA cache vans contain the following additional sub-kit items:**

1 EA	Kit, Chain Saw	(#000340)
1 EA	Kit, Helicopter Support	(#000520)
5 EA	Shirt, Fire, XX-Large	(#000570)
2 EA	Kit – Pump, Portable, High Pressure	(#000870)
100 LG	Hose, Synthetic, Lined, 1” NPSH X 100	(#001238)
100 LG	Hose, Synthetic, Lined, 1 ½” NH X 100	(#001239)
60 EA	Valve – Wye, Gated, 1 ½” NH-F X 1 ½” NH-M X 1 ½” TPI	(#000231)
60 EA	Reducer – 1 ½” NH-F (9TPI) to 1” NPSH-M (11 ½ TPI)	(#000010)
60 EA	Nozzle – Twin Tip, combination, 1” NPSH-F	(#000024)
1 EA	Pallet Jack – Truck	(#007233)

These items will be automatically included with the order for a van and do not need to be ordered separately but should be ordered as a support request. (Local RMK cache item #008602)

Items to consider when ordering a Mobile Cache Van:

- Reminder to order the sub-kit as a support request.
- Transportation: A support equipment order may be required.

**Heavy Truck Transportation**

The RMC has a general listing of available Government contract lowboys and tractors. However, government owned and local vendors should be utilized whenever they are more cost and time efficient. The following is a partial listing of available agencies to contact to haul cache vans.

<b><u>Federal</u></b>	<b><u>Location</u></b>
Rock Springs BLM (1)	Rock Springs, WY
Medicine Bow NF (1)	Laramie, WY
San Juan National Forest (2)	Durango, CO
Ft. Washakie BIA	Ft. Washakie, WY

**Cooperators**

<b><u>Cooperators</u></b>	<b><u>Location</u></b>
CO Division of Fire Prevention & Control (1)	Ft. Collins, CO
Colorado State Forestry Service (1)	Ft. Collins, CO
PBC – Rye FPD (1)	Colorado City, CO

There may be Best Value contractors available. See DPL listings.